

MonitorWare Configuration Documentation

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About MonitorWare Agent

MonitorWare Agent is Adiscon's full Windows monitoring and log-processing product. It combines Windows Event Log collection, syslog and SETP reception, file and service monitoring, active probes, local filtering, and flexible forwarding and storage actions in one background service.

Inside the product, collected or received data enters through configured **services**. In plain language, you can read those services as the configured inputs and generators that feed events into rulesets and actions.

For a neutral summary of how MonitorWare Agent and the other Adiscon Windows products can deliver data into ROSI-oriented deployments, see `shared/how-to-integrate-adiscon-windows-products-into-rosi`.

Use this manual to understand the product components, build a first working configuration, collect and process monitoring data, and operate MonitorWare Agent in production.

Manual

Getting Started

Start here to understand what MonitorWare Agent is, which components it includes, how monitoring data flows through it, and how to build a first working configuration.

Introduction

MonitorWare Agent is a Windows monitoring and log-processing platform for collecting local and remote data, evaluating it with rules, and then storing, forwarding, or acting on the result.

It is the most feature-complete member of Adiscon's Windows monitoring product line. In one deployment, it can combine Windows Event Log collection, syslog and SETP reception, file and service monitoring, active probes, filtering, and alerting.

Use Understand the Components and the rest of Getting Started for the active getting-started path.

Understand the Components

MonitorWare Agent is easiest to understand when you separate its runtime, configuration, live-viewing, and stored-data analysis roles.

MonitorWare Agent Service

The **MonitorWare Agent Service** is the core runtime component. It runs in the background and performs the actual work:

- receives data from configured input services such as Event Log Monitor, Syslog Server, SETP Server, File Monitor, and probes
- evaluates rules and filter conditions
- executes actions such as writing to file or database, forwarding via syslog or SETP, or sending notifications

Configuration Client

The **MonitorWare Agent Configuration Client** is the administrative user interface. Use it to create input services, rulesets, rules, filters, and actions.

Changes made in the Configuration Client do not affect the running service until you save and apply the configuration. In operational terms, the client is where you prepare and update configuration, while the service is what runs it.

Interactive Syslog Viewer

Interactive Syslog Viewer is a separate live-viewing tool. It is useful when you want to inspect incoming events interactively during setup, troubleshooting, or demonstrations.

To see data there, create a forwarding rule that sends matching events from MonitorWare Agent to the viewer.

Adiscon LogAnalyzer

Adiscon LogAnalyzer works with stored log data, typically in files or a supported database. Use it when you need browser-based review and analysis of historical events instead of live event viewing.

Users who prefer a simpler standalone tool for direct log file review may also consider the third-party log viewer Retrospective by centeractive.

How They Work Together

A typical setup looks like this:

1. The Configuration Client defines input services, rulesets, and actions.
2. The MonitorWare Agent Service runs that configuration in the background.
3. Events can be forwarded live to Interactive Syslog Viewer.
4. Events can be stored in files or a database for later analysis in Adiscon LogAnalyzer.

For the current split between remote administration and browser-based review, see How Do Remote Administration and Browser-Based Log Review Fit Together?.

Collect and Monitor Data

MonitorWare Agent can collect both event data and operational monitoring data. That breadth is one of the main differences between MonitorWare Agent and the more specialized manuals in this doc set.

Typical input sources

MonitorWare Agent commonly starts with one or more of these input service types:

- Event Log Monitor V2 for Windows Event Log channels
- Syslog Server for network devices and applications that send syslog
- SETP Server for reliable structured forwarding between Adiscon products
- File Monitor for text-based application logs
- probe and monitor services such as Ping Probe, Port Probe, Diskspace Monitor, CPU/Memory Monitor, and NT Service Monitor

If you run multiple input services, see How Do Port, Address, and Transport Conflicts Work for Input Services? before reusing a transport, IP address, and port combination.

A practical first design

For a first working deployment, keep the design small:

1. Choose one input service that collects the data you care about first.
2. Attach that input service to a dedicated ruleset.
3. Add one simple action, such as write to file or forward via syslog.
4. Verify that the expected events arrive.

This produces a baseline that is easy to test before you add more services, filters, and destinations.

Creating an Initial Configuration

Goal

Create a first working MonitorWare Agent configuration that collects Windows Event Log records and writes matching events to a local file.

In this manual, **input** is the plain-language concept, while the configured object is a **service**.

Prerequisites

- MonitorWare Agent is installed.
- The **MonitorWare Agent Configuration Client** starts successfully.
- You have local administrative rights on the system.

Steps

1. Open the MonitorWare Agent Configuration Client.
2. Under **Running Services**, add an Event Log Monitor V2 service.
3. Assign that input service to a new ruleset, for example *Initial Windows Events*.
4. In the ruleset, create one rule.
5. Leave the filter condition broad for the first test, or add one simple filter such as an event source or event ID condition.
6. Add a Write to File action to the rule.
7. Configure a local test path and filename.
8. Save and apply the configuration in the Configuration Client so the running input service uses the new settings.
9. Restart the MonitorWare Agent service if your environment or change-control process requires it.

How to verify

1. Trigger an event that should match the Event Log Monitor service and rule.
2. Confirm that the configured output file is created or updated.
3. If no output appears, check:

    - whether the input service is enabled
    - whether the ruleset is assigned to that service
    - whether the filter condition is too restrictive
    - whether the output path is writable by the service account

Expected result

MonitorWare Agent collects matching Windows events and writes them to the local file you configured.

Next step

Continue with:

- Process and Filter
- Store and Forward

Process and Filter

MonitorWare Agent processes incoming monitoring data in a consistent sequence:

1. an input service produces an information unit
2. the information unit enters the assigned ruleset
3. each rule evaluates its filter conditions
4. matching rules execute their actions in order

Use broad rules first, then narrow them with filters once the data flow is verified.

What to filter on

The available filter fields depend on the input service type. Typical examples are:

- event ID, source, level, and channel for Event Log Monitor services
- sender, facility, and severity for syslog input
- response status or measured values for probe services

- filename, content, or custom properties for file-based monitoring

Start simple

For a new deployment, prefer one of these first:

- one broad collection rule with one output action
- one broad collection rule plus one targeted alert rule

This avoids hiding configuration errors behind overly complex filters.

Related configuration topics

- Filter Conditions
- Complex Filter Conditions
- Rules

Store and Forward

After MonitorWare Agent collects and filters data through its input services, actions determine what happens next.

Common destinations

MonitorWare Agent commonly uses these actions:

- Write to File for local archival or troubleshooting
- Database logging for structured storage and later analysis
- Forward Syslog for downstream syslog infrastructure
- Forward SETP for reliable transfer to Adiscon systems
- Mail or Start Program for alerting and operational response

Related analysis component

- For reviewing stored logs later, Adiscon LogAnalyzer works with file- and database-based storage.
- Users who prefer a simpler standalone tool for direct log file review may also consider the third-party log viewer Retrospective by centeractive.

Database setup paths

- Default supported schema: Tutorial: Store Data in the Default Database Schema
- Custom schema integration: Tutorial: Integrate MonitorWare Agent with a Custom Database Schema

Choosing the first destination

For first-time setup, writing to a file is usually the easiest verification path. For production deployments, forwarding or database storage is often more useful.

If reliable delivery across temporary outages matters, configure disk-backed queues where the action supports them.

For browser-based review of stored data, use Adiscon LogAnalyzer as a separate component. For the current split between service administration and browser-based review, see How Do Remote Administration and Browser-Based Log Review Fit Together?.

Operate and Troubleshoot

Once the first configuration works, operating MonitorWare Agent becomes a repeatable cycle of checking service health, confirming event flow, and reviewing action results.

Operational checks

Use these checks first:

- confirm the MonitorWare Agent service is running
- confirm the expected service instances are enabled
- confirm the correct ruleset is assigned to each service
- confirm actions can reach their target path, server, or database

When something does not work

Work from input to output:

1. verify that the service can collect or receive the data
2. verify that the ruleset assignment is correct
3. verify that the filter condition is not excluding the event
4. verify that the action target is reachable and correctly configured

Support-oriented tasks

For escalation or support transfer, the most useful artifacts are usually:

- exported configuration
- debug log output
- a short description of the expected and actual result

See also:

- Tutorials
- How Do I Export Settings and Debug Data for a Support Case?

Tutorials

Use these tutorials for common MonitorWare Agent tasks. Each page is self-contained and focused on one practical outcome.

Tutorial: Enter License Information

Goal

Apply the delivered license file in MonitorWare Agent and activate it for the running service.

Prerequisites

- You received `license.alic` from Adiscon.
- The MonitorWare Agent Configuration Client is installed.

Steps

1. Open the MonitorWare Agent Configuration Client.
2. Select **General** -> **License**.
3. Browse for `license.alic`, drag-and-drop the file, or paste the file path.
4. Save and apply the configuration.
5. Restart the MonitorWare Agent service if required in your environment.

Verification

Confirm that the license page shows a valid license status.

Next step

Continue with Creating an Initial Configuration.

Tutorial: Prepare MonitorWare Agent Data for Adiscon LogAnalyzer

Use this tutorial when MonitorWare Agent should write data that you want to review later in Adiscon LogAnalyzer.

Goal

At the end of this procedure, MonitorWare Agent will write events or messages into a database that LogAnalyzer can open.

Recommended path

For MonitorWare Agent, the recommended LogAnalyzer path is database-backed storage. This avoids file-parser dependencies and is the most stable integration path in the current manual.

LogAnalyzer is the browser-based review component for stored data. It is not the MonitorWare Agent service administration interface. For that distinction, see How Do Remote Administration and Browser-Based Log Review Fit Together?.

Prerequisites

- A reachable database server
- A configured ODBC or OLE DB path appropriate for the chosen database action
- A MonitorWare Agent ruleset that receives the events or messages you want to review later
- A LogAnalyzer deployment that is ready to connect to the same database

Steps

1. Complete Tutorial: Store Data in the Default Database Schema so MonitorWare Agent writes matching events or messages into the database.
2. Open **`../shared/tutorials/loganalyzer-setup-and-use`**.
3. Configure LogAnalyzer to use the same database as its data source.
4. Trigger one or more matching events or messages.

Verification

1. Confirm that MonitorWare Agent writes rows into the target table.
2. Open the configured source in LogAnalyzer.
3. Verify that the stored data appears there.

Next step

If you need to refine which data is stored before it appears in LogAnalyzer, continue with:

- Process and Filter
- Tutorial: Store Data in the Default Database Schema

Complementary Tool: Retrospective

If you need a simpler way to search and analyze log files directly instead of using a web-based database setup, another available option is the third-party log viewer Retrospective by centeractive. It is suited for direct log file review without requiring a central database setup.

Tutorial: Export Configuration and Create a Debug Log

Goal

Export the current MonitorWare Agent configuration and capture debug logging for troubleshooting or support.

Prerequisites

- The MonitorWare Agent Configuration Client is available.
- You know where to store the exported files.

Steps

1. Open the MonitorWare Agent Configuration Client.
2. Export the current configuration to a file.
3. Open the debug options and enable debug logging.
4. Reproduce the issue you want to investigate.
5. Disable debug logging again once you have captured enough data.
6. Collect both the exported configuration and the debug log.

Verification

Confirm that the exported configuration file and the debug log file both exist and contain current data.

Next step

Use these files in How Do I Export Settings and Debug Data for a Support Case?.

Tutorial: Forward Events via Syslog

Goal

Forward events collected by MonitorWare Agent to a downstream syslog receiver.

Prerequisites

- A ruleset that receives events from a MonitorWare Agent service
- The target syslog server host name or IP address
- The target port and framing mode

Steps

1. Create or choose the ruleset whose events should be forwarded.
2. Add a Forward Syslog action to that ruleset.
3. Configure the target host and port.
4. Choose the TCP or UDP transport mode required by the receiver.
5. Save and apply the configuration.
6. Restart the service if required in your environment.

Verification

Trigger a matching event and confirm that the downstream syslog receiver gets it.

Next step

If encryption is required, continue with Tutorial: Forward Events via TLS to rsyslog.

Tutorial: Forward Events via SETP

Goal

Forward events from MonitorWare Agent to a downstream SETP receiver.

Prerequisites

- A ruleset that receives events from a MonitorWare Agent service
- The destination SETP server host name or IP address
- The destination port and authentication details if required

Steps

1. Create or choose the ruleset whose events should be forwarded.
2. Add a Forward SETP action to that ruleset.
3. Configure the destination server and port.
4. Configure any required sender identity or security settings.
5. Save and apply the configuration.
6. Restart the service if required in your environment.

Verification

Trigger a matching event and confirm that the destination SETP server receives it.

Tutorial: Forward Events via TLS to rsyslog

Use this tutorial when MonitorWare Agent should forward selected events to an rsyslog receiver over encrypted syslog transport.

Goal

At the end of this procedure, MonitorWare Agent will forward matching events to an rsyslog server over TCP with TLS enabled.

Prerequisites

- The rsyslog receiver host name or IP address
- The TCP port used by the rsyslog TLS listener
- The framing mode expected by the receiver
- The CA certificate or client certificate files required by the receiver
- A ruleset that receives events from a MonitorWare Agent service

Configure the rsyslog receiver

Configure the rsyslog server first so that it accepts TLS-protected syslog over TCP. The examples below use RainerScript syntax and follow the local rsyslog documentation under *../rsyslog2/doc/source/*.

Minimal TLS listener with anonymous authentication:

```
global(
  defaultNetstreamDriver="gtls"
  defaultNetstreamDriverCAFile="/etc/rsyslog.d/certs/ca.pem"
  defaultNetstreamDriverCertFile="/etc/rsyslog.d/certs/server-cert.pem"
  defaultNetstreamDriverKeyFile="/etc/rsyslog.d/certs/server-key.pem"
)

module(
```

```
  load="imtcp"
  streamDriver.name="gtls"
  streamDriver.mode="1"
  streamDriver.authMode="anon"
)

input(
  type="imtcp"
  port="6514"
)
```

Stricter listener with certificate validation and client name matching:

```
global(
  defaultNetstreamDriver="gtls"
  defaultNetstreamDriverCAFile="/etc/rsyslog.d/certs/ca.pem"
  defaultNetstreamDriverCertFile="/etc/rsyslog.d/certs/server-cert.pem"
  defaultNetstreamDriverKeyFile="/etc/rsyslog.d/certs/server-key.pem"
)

module(
  load="imtcp"
  streamDriver.name="gtls"
  streamDriver.mode="1"
  streamDriver.authMode="x509/name"
)

input(
  type="imtcp"
  port="6514"
  permittedPeer=["mwagent01.example.net"]
)
```

Use *x509/name* when the receiver should validate the client certificate and restrict accepted senders to the permitted certificate names. Use *anon* only when that weaker trust model is acceptable in your environment. In both cases, restart rsyslog after changing the listener configuration.

Steps

1. Create or choose the ruleset whose events should be forwarded.
2. Add a Forward Syslog action to that ruleset.
3. Configure the target host and port.
4. Select a TCP-based syslog transport mode.
5. Open the TLS settings for the action and enable **SSL / TLS Encryption**.
6. Select the TLS mode that matches the receiver configuration.
7. Provide the matching CA, certificate, and key files when certificate-based trust is required.
8. Save and apply the configuration.
9. Restart the MonitorWare Agent service if required in your environment.

Verification

1. Trigger an event that matches the ruleset.
2. Confirm that the rsyslog receiver accepts the TLS connection and receives the forwarded event.
3. If forwarding fails, check:

    - target host and port
    - rsyslog *imtcp* listener configuration
    - TCP framing mode
    - CA, certificate, and key files
    - TLS version compatibility

- *permittedPeer* entries on the rsyslog side when *x509/name* is used
- firewall rules between MonitorWare Agent and rsyslog

Tutorial: Write Events to a File

Goal

Write events collected by MonitorWare Agent to a local file.

Prerequisites

- A ruleset that receives events from a MonitorWare Agent service
- A writable local output path

Steps

1. Create or choose the ruleset whose events should be written.
2. Add a Write to File action to that ruleset.
3. Configure the target directory and filename.
4. Save and apply the configuration.
5. Restart the service if required in your environment.

Verification

Trigger a matching event and confirm that the output file is created or updated.

Tutorial: Store Data in the Default Database Schema

Goal

Store events or messages from MonitorWare Agent in the built-in default database schema.

Why this tutorial uses the default schema

This is the fastest supported path for a first production deployment. It keeps the built-in field mapping, works with the **Create Database** button, and is the safest choice if you later want Adiscon-compatible tooling or predictable support behavior.

Prerequisites

- A reachable target database
- A configured ODBC or OLE DB path appropriate for the chosen database action
- A ruleset that receives events from a MonitorWare Agent service

Steps

1. Create and test the database connection outside MonitorWare Agent.
   - For ODBC, create and test an ODBC **System DSN**.
   - For OLE DB, configure and test the provider path required by your target database.
2. Create or choose the ruleset whose events or messages should be stored.
3. Add the database action that matches your connection path.
   - Use ODBC Database Options for ODBC.
   - Use OLEDB Database Action for OLE DB.

4. Configure the database action.
    - Select the tested connection path.
    - Keep the default table name `SystemEvents`.
    - Keep the default field list unless you intentionally need a custom schema.
5. Use **Verify Database** to test the action configuration.
6. If the connection test succeeds, use **Create Database** to create the default tables.
7. Save and apply the configuration.
8. Restart the service if required in your environment.
9. Trigger matching data and confirm that rows are written.

Verification

1. The database connection test succeeds.
2. The **Create Database** button creates the default tables.
3. Matching events or messages produce rows in `SystemEvents`.

Common issues

- Using a user DSN instead of a **System DSN** for the ODBC path
- Changing the table name or field list even though the goal is the default supported schema
- Selecting the wrong action type for the available driver path
- Another tutorial path is actually needed because the destination must be an existing custom table

Next step

If the default schema path works and you want to keep it, continue with:

- ODBC Database Options
- Tutorial: Integrate MonitorWare Agent with a Custom Database Schema
- Store and Forward
- Which Database Format Should I Use with MonitorWare Agent?

Tutorial: Integrate MonitorWare Agent with a Custom Database Schema

Use this tutorial when MonitorWare Agent should write into an existing database schema instead of the built-in `SystemEvents` layout.

Goal

At the end of this procedure, MonitorWare Agent will write matching events or messages into your own destination table.

When to choose this tutorial

Use this path when:

- your organization already has a fixed database schema
- another application expects specific column names or data types
- you want MonitorWare Agent to feed an existing integration or reporting database

Do not use this path just because database logging exists. If you want the fastest supported setup or Adiscon-compatible default tables, use Tutorial: Store Data in the Default Database Schema instead.

What this tutorial does not do

This tutorial does not design your schema for you. MonitorWare Agent can write to your table, but you must decide the table design, column definitions, indexes, retention strategy, and downstream reporting logic.

Prerequisites

- A reachable target database
- A working ODBC or OLE DB connection path appropriate for the chosen database action
- A destination table that already exists
- Database credentials with permission to insert rows into that table
- A clear mapping from MonitorWare Agent properties to the destination columns

Example target table

The exact schema is up to you. For a SQL-based example, a custom table could look like this:

```
CREATE TABLE IncomingMonitorWareData (
    recorded_at datetime NOT NULL,
    source_host varchar(255) NOT NULL,
    info_unit_type int NOT NULL,
    message_text text NOT NULL
);
```

Steps

1. Review the destination schema before opening MonitorWare Agent.
   - Confirm the exact table name.
   - Confirm each destination column name and data type.
   - Decide which MonitorWare Agent property belongs in each column.
2. Create and test the database connection outside MonitorWare Agent.
   - For ODBC, create and test an ODBC **System DSN**.
   - For OLE DB, configure and test the provider path required by your target database.
3. Create or choose the ruleset whose events or messages should be stored.
4. Add the database action that matches your connection path.
   - Use ODBC Database Options for ODBC.
   - Use OLEDB Database Action for OLE DB.
5. Configure the connection settings and use **Verify Database** to confirm connectivity.
6. Point the action to the existing destination table.
   - Enter the custom table name.
   - Do **not** use **Create Database** for this path unless you intentionally want the built-in default schema instead of your own table.
7. Replace the default field list with mappings that match your schema.

   For the example table above, a practical starting point is:

   - `recorded_at` -> `DateTime` -> `timegenerated`
   - `source_host` -> `varchar` -> `source`
   - `info_unit_type` -> `int` -> `iut`
   - `message_text` -> `text` -> `msg`

   Depending on the data source, you can add more specific columns. For example, Windows Event Log data often benefits from an `id` column, while syslog data may benefit from `syslogpriority` or `syslogtag`.

   If a string column is shorter than the source property, use the property replacer to truncate or transform the value deliberately. For example, `%msg:1:200%` stores only the first 200 characters of the message.
8. Save and apply the configuration.
9. Restart the service if required in your environment.
10. Trigger matching data and query the destination table to verify the inserted rows.

.

Verification

1. The database connection test succeeds.
2. Matching data inserts rows into the existing custom table.
3. Each value appears in the expected destination column with the expected data type and length.

Common issues

- Leaving the default field list unchanged while targeting a custom table
- Using the wrong field type for a destination column
- Forgetting that long text may not fit into a short `varchar` column
- Clicking **Create Database** even though the goal is an existing custom schema
- Assuming Adiscon tools that expect the default schema will continue to work unchanged against the custom table

Next step

If the custom integration path works, continue with:

- ODBC Database Options
- OLEDB Database Action
- Which Database Format Should I Use with MonitorWare Agent?

If you later decide that you need the built-in Adiscon table layout instead of your own schema, switch to Tutorial: Store Data in the Default Database Schema.

Tutorial: Configure Event Log Monitor V2

Goal

Configure Event Log Monitor V2 to collect Windows Event Log channels and feed them into a ruleset.

Prerequisites

- The MonitorWare Agent Configuration Client is available.
- You know which event channels should be monitored.

Steps

1. Under **Running Services**, add an Event Log Monitor V2 service.
2. Select the required Windows Event Log channels.
3. Assign the service to the ruleset that should process those events.
4. Save and apply the configuration.
5. Restart the service if required in your environment.

Verification

Trigger a test event in one of the selected channels and confirm that the assigned ruleset processes it.

Tutorial: Configure a Syslog Server Service

Goal

Configure MonitorWare Agent to receive incoming syslog messages.

Prerequisites

- The MonitorWare Agent Configuration Client is available.
- You know which protocol and port should be used.

Steps

1. Under **Running Services**, add a Syslog Server service.
2. Select the protocol and port.
3. Assign the service to the ruleset that should process received messages.
4. Save and apply the configuration.
5. Restart the service if required in your environment.

Verification

Send a test syslog message to the configured port and confirm that the assigned ruleset processes it.

Microsoft 365 OAuth for email alerts

Use this guide to configure a **Send Email** action in MonitorWare Agent, WinSyslog, or EventReporter with Microsoft 365 OAuth application permissions. Follow it only when the installed classic Adiscon WinForms UI offers **Microsoft 365 OAuth (application)** and the installed product service also supports application OAuth. Check both components and their release information; this guide assigns no product version or general availability. It does not cover WinSyslog-ng or another client interface.

This customer procedure uses the Exchange Online application-permission method: the Entra app gets Office 365 Exchange Online `SMTP.SendAsApp`, and Exchange grants its service principal access to one mailbox. It uses an app-only SMTP token, not Microsoft Graph mail permissions or delegated `SMTP.Send`, and has no username/password fallback. You do not need an Adiscon developer environment, development scripts, or a sample VBS file.

1. Confirm prerequisites

Choose an existing licensed user mailbox or ask the Microsoft 365 administrator to create one for alerts. In the Microsoft 365 admin center, open **Users** > **Active users** and select **Add a user**, or open the existing user. Assign a license that includes Exchange Online and confirm its primary SMTP address. This guide uses `alerts@example.com`. The SMTP username and sender must both be that mailbox's primary address; choose a separate destination such as `operations@example.com`.

Confirm these administrators and access before starting:

- An Entra administrator authorized to register/manage an app, add an Exchange Online application permission, and grant tenant-wide admin consent.
- An Exchange Online administrator authorized to register the service principal and grant the mailbox permissions below. This is often a member of **Organization Management** or a delegated role group.
- The recipient address, which may be another mailbox or a distribution list.
- Network access from the service machine to the Microsoft identity token endpoint over HTTPS (typically TCP 443) and Exchange Online SMTP submission over TCP 587.

If the authentication selector is absent, stop and check the installed client and service release information or contact Adiscon support. Do not infer availability from an unreleased runtime change.

2. Register or select an Entra app

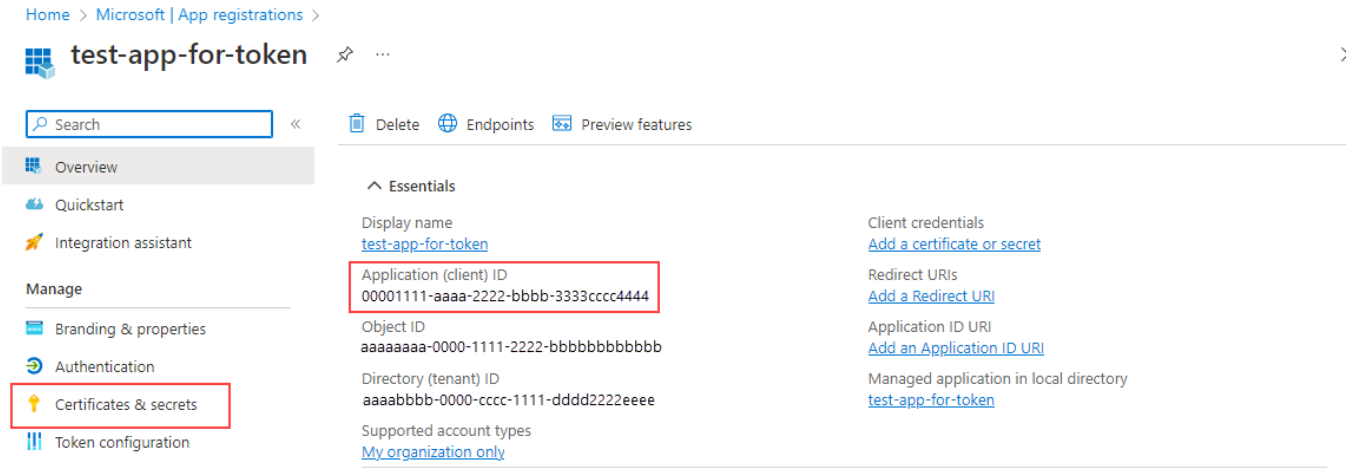
In the Microsoft Entra admin center, open **Entra ID** > **App registrations**. Select **New registration**, enter a name, choose **Accounts in this organizational directory only**, and select **Register**. This app-only setup needs no redirect URI. You may instead use an app already registered in your own tenant.

Record the IDs and secret as follows:

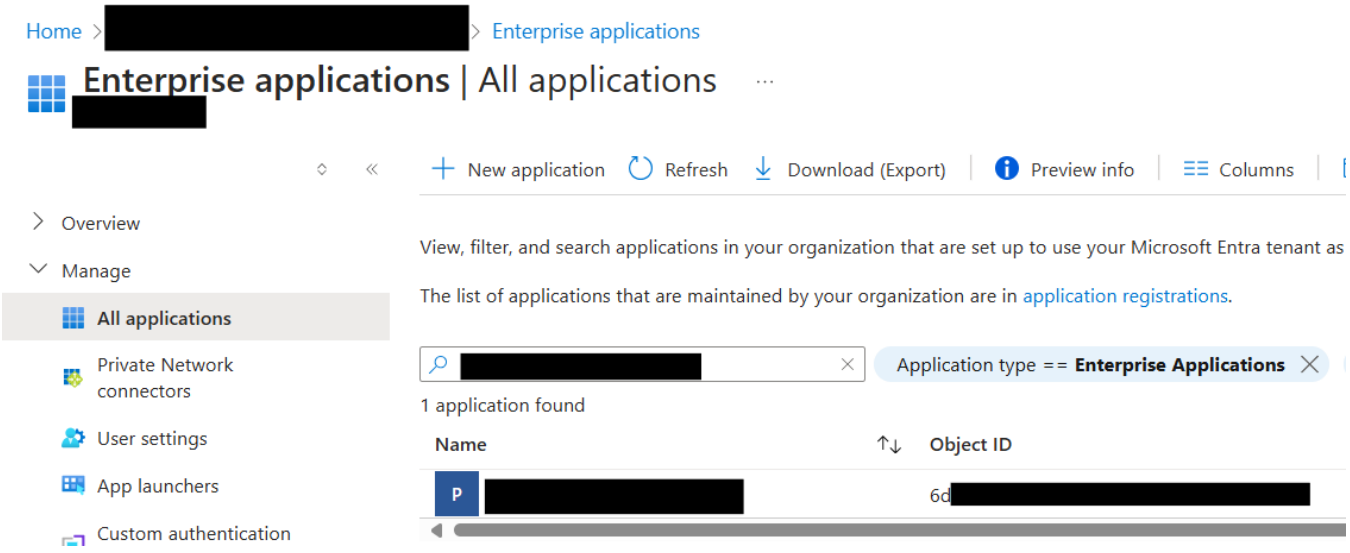
Value	Where to find it and how to use it
Directory (tenant) ID	App registration **Overview**. Enter this GUID in the Adiscon client; it is not used by the Exchange commands below.

Application (client) ID	App registration **Overview**. Enter this GUID in the client and use it to find the Exchange service principal.
Enterprise application Object ID	Open **Enterprise applications**, search by the Application (client) ID, and record **Object ID** from that app's **Overview**. Use it for Exchange registration. It is different from the App registrations Object ID.
Client secret Value	In the app registration, open **Certificates & secrets** > **Client secrets** > **New client secret**. Add a description, choose an expiry that follows your organization's policy, and select **Add**. Copy **Value** while visible; **ID** cannot be used as the secret. Record expiry and schedule rotation before then. Enter the Value only in the Adiscon password field. Never put it in a command, script, command-line argument, or support log.

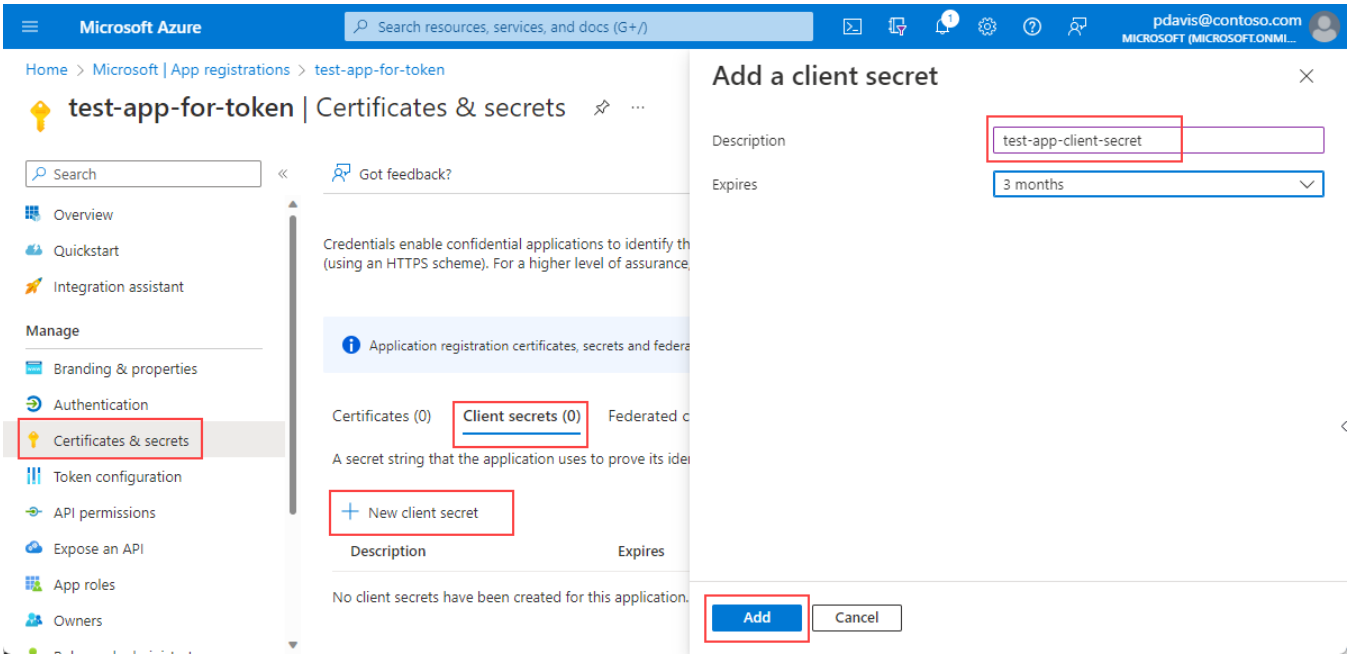
The following four Microsoft Learn screenshots are reference examples; labels can differ, and they do not show this tenant's current settings.



Microsoft Learn reference example (cropped): record your own Directory and Application IDs from these fields; shown values are illustrative. The App registrations Object ID is not the Enterprise application Object ID required by Exchange.



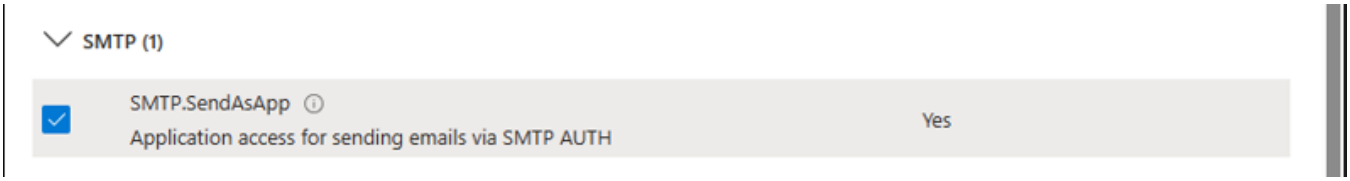
Microsoft Learn reference example (cropped): use the Enterprise application Object ID when registering the Exchange service principal.



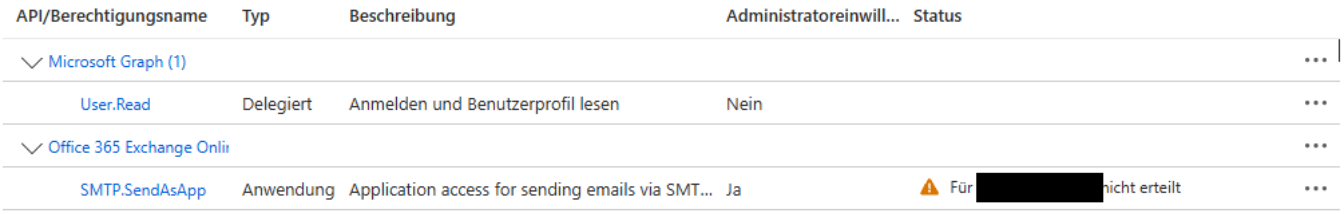
Microsoft Learn reference example: the expiry shown is illustrative. The dialog does not show the secret Value; copy it once when creating the secret.

3. Add permission and grant admin consent

In the app registration, open **API permissions** > **Add a permission** > **APIs my organization uses**. Select **Office 365 Exchange Online** > **Application permissions**, select `SMTP.SendAsApp`, and add it. Do not choose Microsoft Graph or delegated `SMTP.Send` for this setup.



Microsoft Learn reference example (cropped): select only `SMTP.SendAsApp` *for this guide.* ***Yes*** *in* ***Admin consent required*** *means the permission requires admin consent; it does not show consent status. Verify* ***Granted*** *in API permissions.*



Before administrator consent, adding `SMTP.SendAsApp` *is insufficient. This German-language example shows* ***Not granted****. Microsoft Graph* `User.Read` *is visible but unrelated and not required.*

Select **Grant admin consent for <your tenant>** and confirm. Before continuing, verify the permission status is **Granted for <your tenant>** in API permissions. A pending or not-granted permission is not ready for Exchange configuration.

4. Register the Exchange service principal and grant mailbox access

Use Exchange Online PowerShell from an administrator workstation. The commands are examples for the Exchange administrator to review and run; they do not run from this guide. Run all four blocks in the same authenticated PowerShell session. The tenant ID and client secret are not used in these commands.

Prepare the session. Replace the placeholders with the Application (client) ID and the Object ID from **Enterprise applications**. Connect interactively as an authorized administrator:

```
$AppId = '<application (client) ID GUID>'
$EnterpriseAppObjectId = '<Enterprise application Object ID GUID>'
$Mailbox = 'alerts@example.com'

if (-not (Get-Module -ListAvailable -Name ExchangeOnlineManagement)) {
    Install-Module -Name ExchangeOnlineManagement -Scope CurrentUser -ErrorAction Stop
}
Import-Module ExchangeOnlineManagement -ErrorAction Stop
Connect-ExchangeOnline -UserPrincipalName '<administrator UPN>' `
    -ErrorAction Stop
```

Register or reuse one service principal. Zero matches creates it, one match reuses it, and more than one stops for administrator review. The registered Object ID must match the Enterprise application Object ID:

```
$servicePrincipals = @(Get-ServicePrincipal -ErrorAction Stop |
    Where-Object { $_.AppId -eq $AppId })
if ($servicePrincipals.Count -gt 1) {
    throw 'More than one Exchange service principal has this application ID. ' +
        'Stop and resolve the duplicate.'
}
if ($servicePrincipals.Count -eq 0) {
    New-ServicePrincipal -AppId $AppId -ObjectId $EnterpriseAppObjectId -ErrorAction Stop
    $servicePrincipals = @(Get-ServicePrincipal -ErrorAction Stop |
        Where-Object { $_.AppId -eq $AppId })
}
if ($servicePrincipals.Count -ne 1) {
    throw 'The Exchange service principal was not created or cannot be ' +
        'uniquely identified.'
}
$exoServicePrincipal = $servicePrincipals[0]
if ($exoServicePrincipal.ObjectId -ne $EnterpriseAppObjectId) {
    throw 'The Exchange service principal Object ID does not match the ' +
        'Enterprise application Object ID.'
}
```

Grant access to this mailbox only. The checks stop for explicit Deny permissions and add an Allow only when it is missing. Use the Exchange service principal's `Identity` for both grants, never its App ID or Entra Object ID:

```
$mailboxPermissions = @(Get-MailboxPermission -Identity $Mailbox `
    -User $exoServicePrincipal.Identity -ErrorAction Stop)
if (@($mailboxPermissions | Where-Object {
    $_.AccessRights -contains 'FullAccess' -and $_.Deny
}).Count -gt 0) {
    throw 'A FullAccess deny permission exists for this mailbox. ' +
        'Stop for administrator review.'
}
$fullAccessPermission = @($mailboxPermissions | Where-Object {
    $_.AccessRights -contains 'FullAccess' -and -not $_.Deny
})
if ($fullAccessPermission.Count -eq 0) {
    Add-MailboxPermission -Identity $Mailbox `
        -User $exoServicePrincipal.Identity `
        -AccessRights FullAccess -ErrorAction Stop
}

$recipientPermissions = @(Get-RecipientPermission -Identity $Mailbox `
    -Trustee $exoServicePrincipal.Identity -ErrorAction Stop | Where-Object {
    $_.AccessRights -contains 'SendAs'
})
if (@($recipientPermissions | Where-Object {
    $_.AccessControlType -eq 'Deny'
```

```
}).Count -gt 0) {
    throw 'A SendAs deny permission exists for this mailbox. ' +
        'Resolve it before continuing.'
}
$sendAsPermission = @($recipientPermissions | Where-Object {
    $_.AccessControlType -eq 'Allow'
})
if ($sendAsPermission.Count -eq 0) {
    Add-RecipientPermission -Identity $Mailbox `
        -Trustee $exoServicePrincipal.Identity `
        -AccessRights SendAs -ErrorAction Stop
}
```

Verify the result. Stop and recheck with the administrator if any check fails or expected permission is missing. Expected results: exactly one Exchange service principal with the expected App ID and matching Enterprise application Object ID, `FullAccess` with `Deny` set to `False`, and `SendAs` with `AccessControlType` set to `Allow`.

```
$servicePrincipalCheck = @(Get-ServicePrincipal -ErrorAction Stop |
    Where-Object { $_.AppId -eq $AppId })
if ($servicePrincipalCheck.Count -ne 1 -or
    $servicePrincipalCheck[0].ObjectId -ne $EnterpriseAppObjectId) {
    throw 'Expected exactly one matching Exchange service principal. ' +
        'Stop and recheck.'
}
$verifiedFullAccess = @(Get-MailboxPermission -Identity $Mailbox `
    -User $exoServicePrincipal.Identity -ErrorAction Stop | Where-Object {
    $_.AccessRights -contains 'FullAccess' -and -not $_.Deny
})
if ($verifiedFullAccess.Count -eq 0) {
    throw 'FullAccess with Deny=False is missing. Stop and recheck.'
}
$verifiedSendAs = @(Get-RecipientPermission -Identity $Mailbox `
    -Trustee $exoServicePrincipal.Identity -ErrorAction Stop | Where-Object {
    $_.AccessRights -contains 'SendAs' -and $_.AccessControlType -eq 'Allow'
})
if ($verifiedSendAs.Count -eq 0) {
    throw 'SendAs Allow is missing. Stop and recheck.'
}

$servicePrincipalCheck |
    Format-List AppId,ObjectId,Identity,DisplayName
$verifiedFullAccess | Format-Table User,AccessRights,Deny
$verifiedSendAs | Format-List Trustee,AccessRights,AccessControlType,IsInherited
```

5. Check SMTP AUTH for the mailbox

Check both mailbox and organization policy:

```
Get-CASMailbox -Identity 'alerts@example.com' -ErrorAction Stop |
    Format-List SmtpClientAuthenticationDisabled
Get-TransportConfig -ErrorAction Stop |
    Format-List SmtpClientAuthenticationDisabled
```

The mailbox value determines whether SMTP AUTH is disabled for this mailbox:

Mailbox value	Meaning
`False`	SMTP AUTH is enabled for this mailbox, including when the organization setting disables it.
`True`	SMTP AUTH is disabled for this mailbox.
Blank	The mailbox inherits the organization setting.

If an administrator approves enabling SMTP AUTH for this mailbox, set it per mailbox, then verify the result is `False`:

```
Set-CASMailbox -Identity 'alerts@example.com' `
    -SmtpClientAuthenticationDisabled $false -ErrorAction Stop
Get-CASMailbox -Identity 'alerts@example.com' -ErrorAction Stop |
    Format-List SmtpClientAuthenticationDisabled
```

If the query result is `True` or blank, stop and ask the administrator to check the setting and applicable policies. Do not enable SMTP AUTH organization wide as a shortcut. If Security Defaults or another policy blocks SMTP AUTH, ask an administrator to decide whether a policy change is appropriate; do not disable Security Defaults automatically. See Microsoft's authenticated client SMTP submission guidance.

6. Prepare a trusted SMTP CA bundle

SMTP validates the Exchange server certificate against a PEM CA file. Microsoft identity token requests use Windows HTTPS certificate validation separately and do not use this SMTP file.

On the Windows service machine, download the current PEM from the curl CA Extract page over HTTPS. The page links to `https://curl.se/ca/cacert.pem` and publishes the current SHA-256 checksum. Download to a temporary location and compare:

```
Get-FileHash '<downloaded cacert.pem path>' -Algorithm SHA256
```

After the hash matches, create `C:\ProgramData\Adiscon\certs` on the service machine and save the bundle there as `cacert.pem`. If editing remotely, this path still resolves on the service host. To identify the service account without changing or stopping the service, open `services.msc`, find the Adiscon product service, and view **Properties** > **Log On**. In the folder's **Properties** > **Security** > **Advanced**, 1. preserve existing inherited entries, including **SYSTEM**; 2. add **Read & execute** for the service account; and 3. ensure Administrators retain **Modify** access. Do not remove or reduce existing SYSTEM permissions. The bundle contains trusted certificate authorities, not the Exchange leaf certificate. Do not disable certificate or hostname verification to work around a trust error.

7. Configure the Send Email action

In the classic Adiscon WinForms client, open **Rules/Rule Sets** > select the rule > **Actions** > **Add Action** > **Send Email**. Add or edit the action, then set **Mail Server Options**:

Field	Value
Mailserver	`smtp.office365.com`
Mailserver port	587
SMTP authentication	**Microsoft 365 OAuth (application)**
SMTP Username	The licensed mailbox's primary SMTP address, such as `alerts@example.com`.
Tenant ID (GUID)	The Entra Directory (tenant) ID.
Application ID (GUID)	The Entra Application (client) ID.
Application client secret	The secret **Value**, not its ID.
SMTP trusted CA file (PEM)	Verified CA bundle path on the service machine.
Use a secure connection (SSL) to the mail server	Enabled.
Use STARTTLS SMTP Extension	Enabled.

In **Mail Format Options**, set **Sender Emailaddress** to the same primary mailbox as the SMTP username. Set **Recipient Emailaddress** to the separate destination, for example `operations@example.com`.

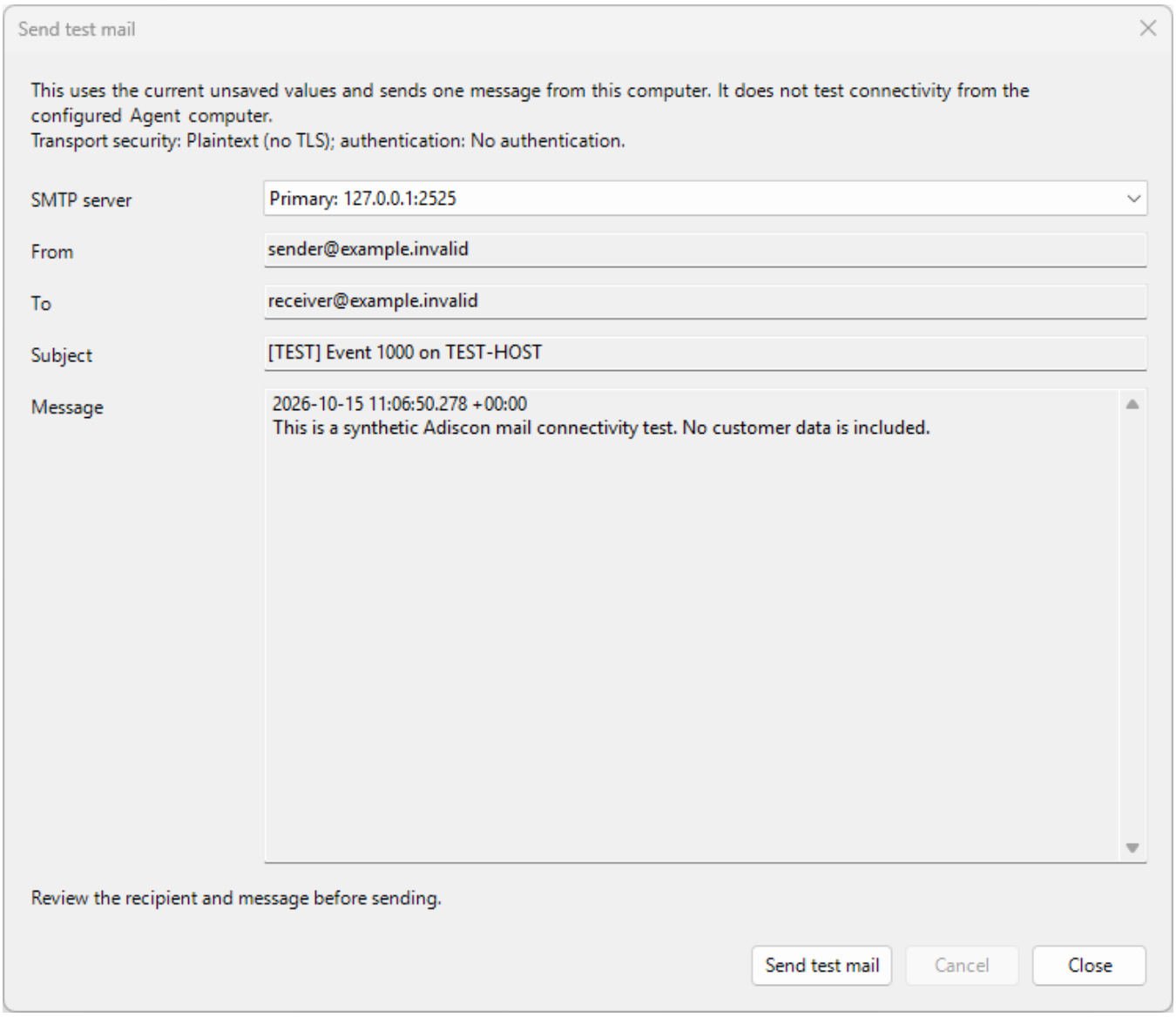
The client masks the secret but stores it with existing reversible credential encoding; this is not strong encryption. Restrict configuration, registry data, exported settings, and backups to administrators and the service account. Rotate the secret before expiry and update the action. Never include the secret or access tokens in support evidence.

Test the mail settings from the client

In the **Send Mail** action, open **Mail Format Options** and select **Send test mail…**. Review the current values in the dialog before sending. The test uses the current unsaved mail values and the SMTP settings for the one selected mail-server entry. It sends one message directly from the computer running the client; it does not test connectivity from the configured service computer or send through the service.

The configured trusted CA file must also be readable by the client on the computer running this test. When the configured service later sends mail, its service account must be able to read the CA file on the service computer.

Enter a recipient you can check, review the sender, subject, and message, and select **Send test mail** once. The result reports whether the SMTP server accepted the message for processing. Acceptance does not confirm inbox delivery; check the recipient mailbox and, if needed, message trace, quarantine, or non-delivery reports before trying again.



This preview illustrates the dialog only. Its plaintext, no-auth loopback settings are not for Microsoft 365; use required STARTTLS and Microsoft 365 application OAuth, shown in the transport summary below. The `example.invalid` *addresses are placeholders.*

```
This uses the current unsaved values and sends one message from this computer. It does not test connectivity from the configured Agent computer.
Transport security: Required STARTTLS; authentication: Microsoft 365 application OAuth.
```

Transport summary from a Classic client test using Microsoft 365 application OAuth and required STARTTLS.



The SMTP server accepted the test message. This status does not confirm delivery to the recipient's inbox.

The **Send test mail…** command is available only in client builds that include this feature. If it is absent, check the installed client release information or contact Adiscon support.

8. Save, apply, and test one event

Add the action to a rule matching one deliberate test event. Save and apply configuration through the product's normal operator workflow. If your deployment requires a service restart, follow its normal change process before testing.

For a controlled syslog example, send one warning-priority event from `test-host.example.com` with this message:

```
[TEST] Backup job DailyBackup finished with warnings: simulated file skipped.
```

Use event properties in the action's subject and body:

```
Subject: [TEST] %source%: %msg%
Body:
Source: %source%
Message: %msg%
Priority: %syslogpriority%
```

Use **Insert Property** to confirm properties are available for the event type. `%syslogpriority%` applies to syslog; use available Windows event properties and omit the priority line if it is unavailable. EventReporter must use an actual Windows event. Save and apply using the normal operator workflow, trigger the rule once, and check the intended recipient mailbox.

SMTP `235` confirms authentication only. SMTP `250` after `DATA` means the server accepted the message for processing, not that it reached the inbox. Check message trace, quarantine, and non-delivery reports before repeating a test to avoid duplicate messages.

Troubleshooting

Symptom or phase	Checks
Entra application or missing token / `535`	Check service OAuth support, tenant ID, application ID, secret **Value**, and expiry. Never use the secret ID.
Consent or Exchange identity	Confirm `SMTP.SendAsApp` has admin consent. Verify exactly one Exchange service principal matches the App ID and its Object ID matches the Enterprise application Object ID. Stop for administrator review on duplicates or mismatches.
Mailbox authorization or SMTP AUTH rejected	On the SMTP username/sender mailbox, confirm `FullAccess` and `SendAs` Allow permissions and no explicit Deny. Check `SmtpClientAuthenticationDisabled`: `True` disables SMTP AUTH, `False` enables it for the mailbox, and blank inherits tenant policy. Ask an administrator to review Security Defaults and other policies; do not enable SMTP AUTH tenant wide as a shortcut.
Connection fails before OAuth	Check outbound TCP 587, STARTTLS, the PEM path and service-account read access, plus certificate chain and hostname validation. Token requests use separate Windows HTTPS trust. A connection or startup failure before an event is processed does not prove OAuth failed.
Service starts but no delivered message	Check the installed service supports OAuth, startup/configuration logs, and whether the rule matched the event. SMTP `235` is authentication only; `250` after `DATA` means accepted for processing, not inbox delivery. Check trace, quarantine, and non-delivery reports before retrying to avoid duplicate messages.

Microsoft also documents Exchange Online **application RBAC** for SMTP. That separate model uses the Exchange role `Application SMTP.SendAsApp` and a scoped role assignment, without the Entra `SMTP.SendAsApp` permission or the mailbox `FullAccess` and `SendAs` grants above. Do not combine the models. See Microsoft's SMTP onboarding to app RBAC for the alternative.

Microsoft's shared mailbox OAuth guidance describes a different flow that gets a token on behalf of a user. Adiscon has not tested it with this app-only setup; this guide uses a licensed user mailbox.

Screenshot credits

The four Microsoft Learn reference screenshots are cropped or reproduced from Register an application for token-based authentication and Authenticate an IMAP, POP or SMTP application by using OAuth. They are used under CC BY 4.0; see the Azure Monitor documentation license and Exchange documentation license. UI labels and tenant settings may differ.

Related information

- Microsoft: Authenticate SMTP using OAuth
- Microsoft: Authenticated client SMTP submission
- Microsoft: Connect-ExchangeOnline
- curl: CA Extract

InterActive SyslogViewer

InterActive SyslogViewer is a tool that lets you review your syslog data very easy. It is a separate syslog server, that simply displays all incoming data. By this you can see directly what is happening.

InterActive SyslogViewer

Features

Fast and Easy syslog Viewing

The SyslogViewer allows you to directly view and review syslog messages. Therefore you can react much better on occurring problems or check if everything is OK.

Review stored logs from a database

You can as well directly review log entries in a database. Simply enter the login details and that's it. You can then review your logs and even filter the view. That helps you to find the important data in an easy way.

Export selected data

You can export selected data for further manual processing, like sending an email to your colleague for informing them about what is happening.

Requirements

Windows 10, Windows 11, and Windows Server 2016/2019/2022/2025 (and newer versions).

SyslogViewer requires Microsoft .NET Framework. The installer will guide you through required prerequisites.

Hardware requirements: - 256 MB RAM or more (depending on workload and database connectivity)

Options & Configuration

InterActive SyslogViewer is an add-on to the MonitorWare Agent and WinSyslog. **Please note that it is a utility program, with a primary focus on real-time** troubleshooting.**

InterActive SyslogViewer is **not** meant to continuously monitor a system. This is what the service is designed for. While InterActive SyslogViewer allows to view current syslog traffic, the service should be used for all other purposes, like creating log files.

Launching InterActive SyslogViewer

To run the InterActive SyslogViewer, click the “SyslogViewer” icon present in the Programs Folder -> MonitorWare Agent/WinSyslog located in the Start menu.

It can also be launched from the command prompt:

- Open a Command Prompt window
- Change to the drive and directory where the MonitorWare Agent is installed
- Type “InterActive SyslogViewer.exe” and hit enter

Available Command Line parameters are:

```
/? => Show Options
/autolisten => Start Syslog server automatically
/port=10514 => Overwrites the configured port
/windowpos 0,0,512,800 => Sets default window positions
```

Using InterActive SyslogViewer

InterActive SyslogViewer is an add-on to MonitorWare Agent and WinSyslog.

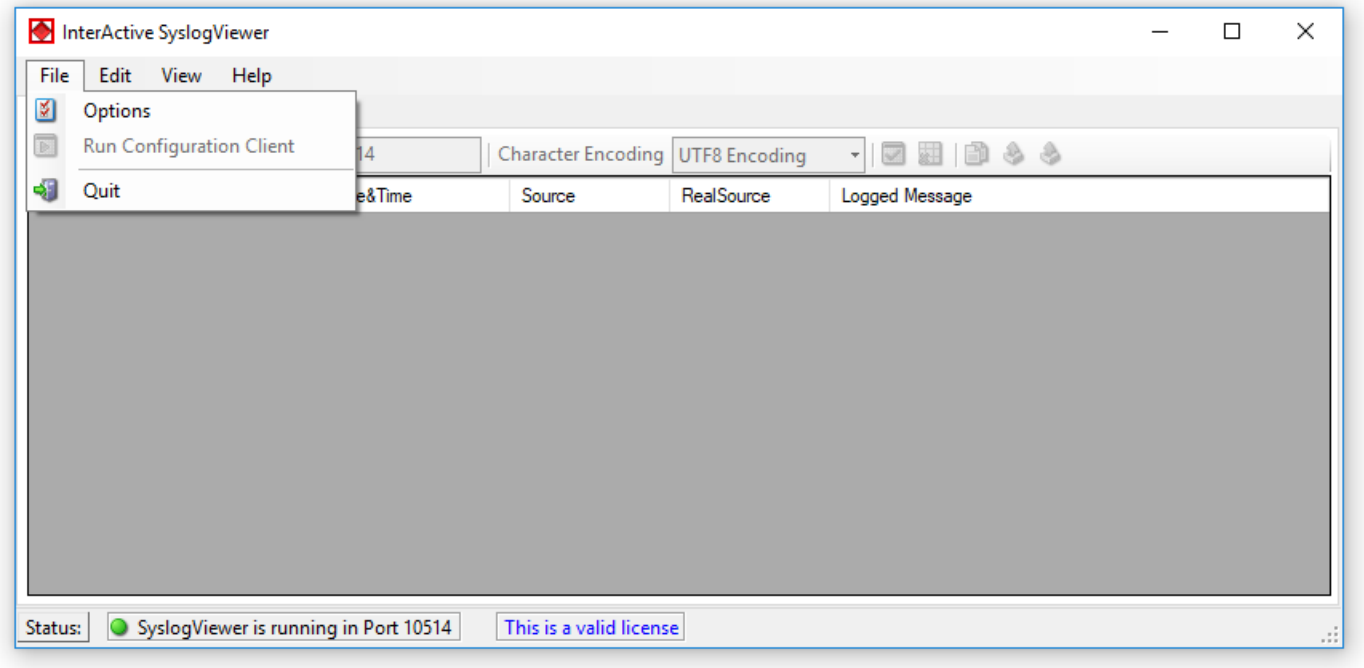
Please note that it is a utility program with a primary focus on real-time troubleshooting.

Interactive Syslog server is not meant to continuously monitor a system. This is what the service is designed for. While Interactive Server allows to view current Syslog traffic, the service should be used for all other purposes, like creating log files.

Options & Menus

Please find more information about the different menus and options in the respective sub-category.

File Menu

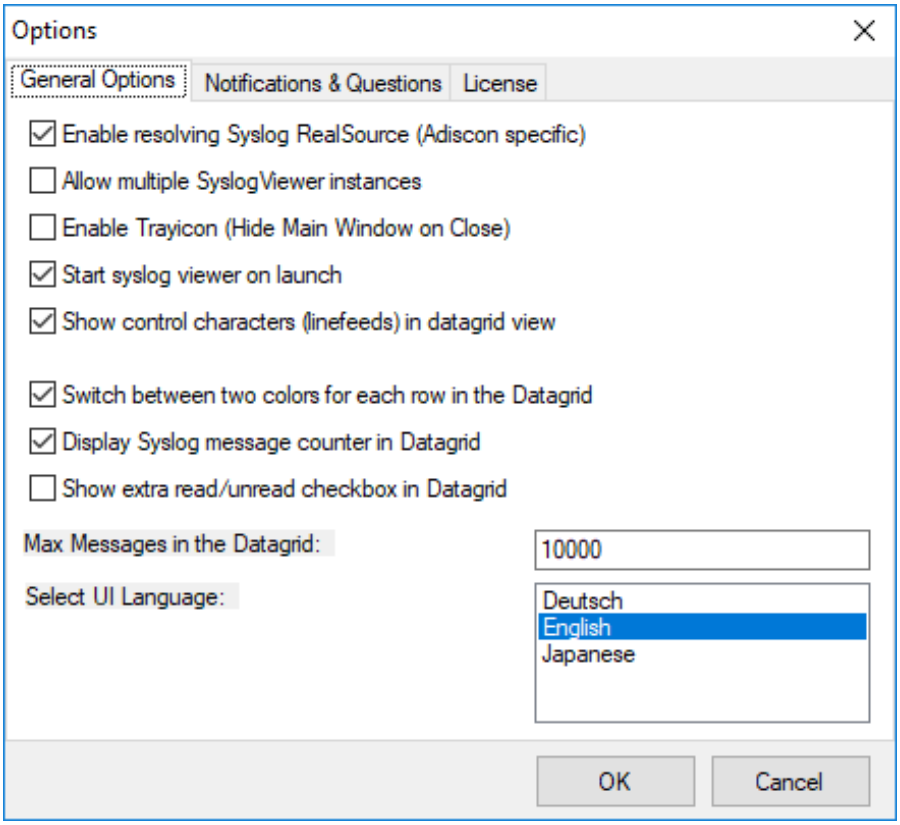


- InterActive SyslogViewer - File Menu*

Options

This will open the Options dialog. Please see the sub-chapters for more details on this.

General Options



- InterActive SyslogViewer - General Options Tab*

Enable Resolving Syslog RealSource (Adiscon specific)

With this option enabled, you can see the real source in multiply forwarded messages. That means, you can see the system that forwarded the message and the system where the message originates from.

Allow multiple SyslogViewer instances

You can have multiple instances of the InterActive SyslogViewer by activating this option. This allows you to have multiple forwarding servers sending on different ports and receive their messages separately.

Enable Trayicon (Hide Main Windows on Close)

Enable this to have a tray icon. This enables a soft-close. InterActive SyslogViewer will stay active, but the window will be completely hidden except the tray icon. By double-clicking on the icon, the window will show again.

Start SyslogViewer on launch

Enable this to start the Syslog server directly when starting InterActive SyslogViewer.

Show control characters (line feeds) in data grid view

When enabled, you will see control characters like line feeds in the data grid as well.

Switch between two colors for each row in the data grid

To have a better overview over the syslog data, activate this option.

Display Syslog message counter in the data grid

You can enable a counter by checking the box here. It will count further, even if the maximum of messages is already exceeded.

Show extra read/unread checkbox in the data grid

If enabled, an additional checkbox is added for each record in the data grid that can be marked as checked.

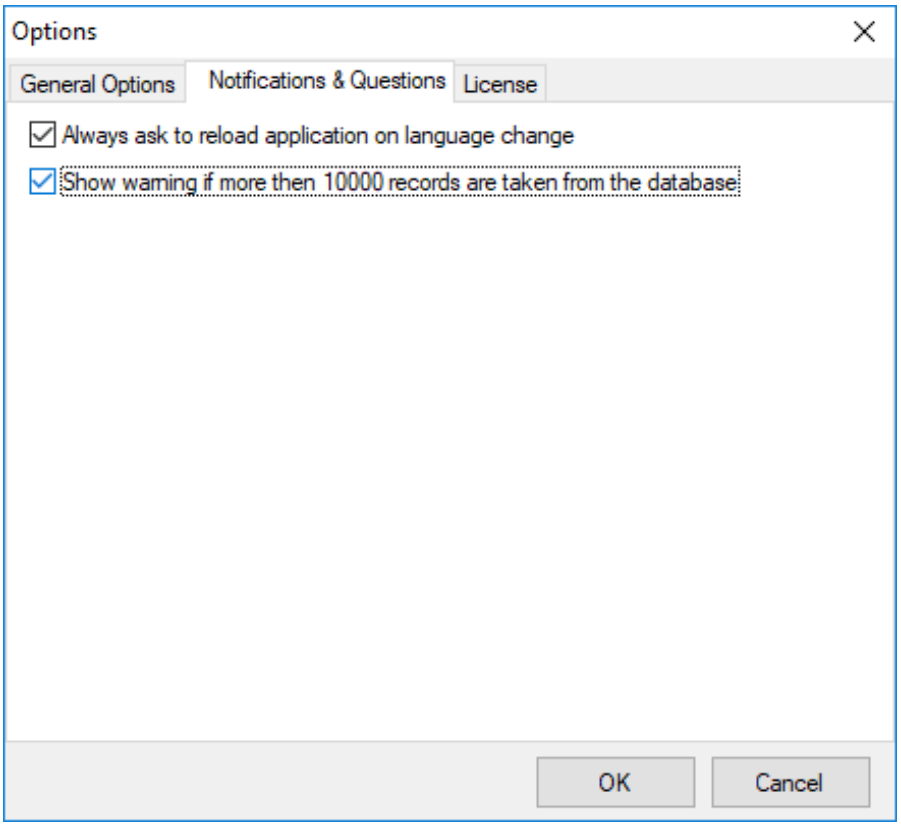
Max Messages in the data grid

Here you can adjust the maximum messages that will be available in the data grid. By increasing this value, you can store more messages for direct review. Please note, that increasing the maximum number of messages will have a severe impact on your memory.

Select UI Language

Here you can choose your favorite language for the InterActive SyslogViewer. By default it is English. You can choose German or Japanese as well.

Notifications & Questions Tab



- InterActive SyslogViewer - Notifications & Questions Tab*

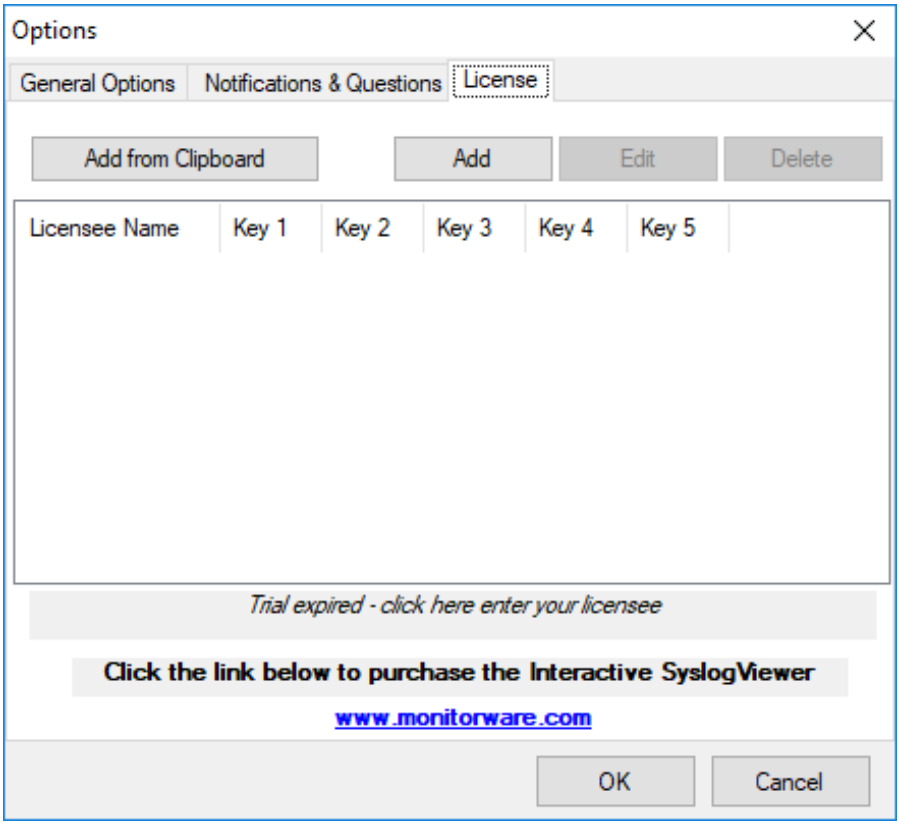
Always ask to reload application on language change

While the box is checked, InterActive SyslogViewer will ask to reload the application on a language change. This is, because the language file can only be loaded while starting the application and not while it is running.

Show warning if more than 10000 records are taken from the database

By activating this option, you will be warned, if the records in the database are just too much. This is to prevent the machine from receiving too much load. Polling lots of messages from a database can have a severe impact on the performance of the machine.

License Tab



- InterActive SyslogViewer - License Tab*

Here you can insert the license. You have several options:

Add from Clipboard

This will insert the license you have currently on your clipboard.

Add

This button is to manually add a license manually. A new window will open, which shows you the form for entering the license information. This consists of a license name and five blocks of numbers.

Edit

Once a license is entered, it can be changed afterwards. This is done with this button. Mark the license you want to edit and click the button. A window will open which looks just like when adding a license, but the marked license details are inserted already. You can edit every field separately.

Delete

If a license is not needed anymore, you can delete it from the license screen. Mark the license and hit the button. The license will be deleted directly.

Please note, that the screen will give you additional information. You have

an overview of the licenses used and if not entered correctly it will show how long your trial period still is.

run configuration client

this option will open the configuration client of MonitorWare Agent/WinSyslog. here you can do detail configuration of the service.

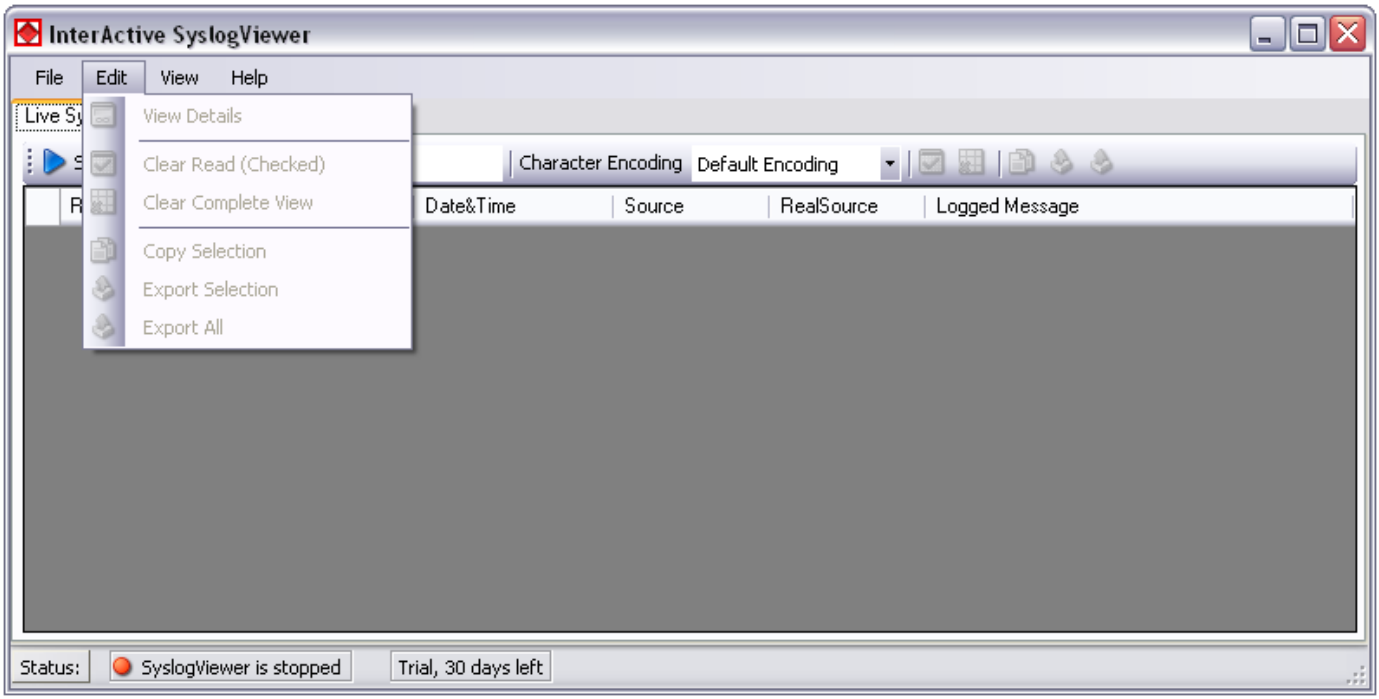
minimize to tray

this will minimize the interactive syslogviewer window and remove it from the taskbar. you can open it again by double-clicking on the icon in the system tray.

quit

by clicking here, interactive syslogviewer stops receiving data and it will close the application.

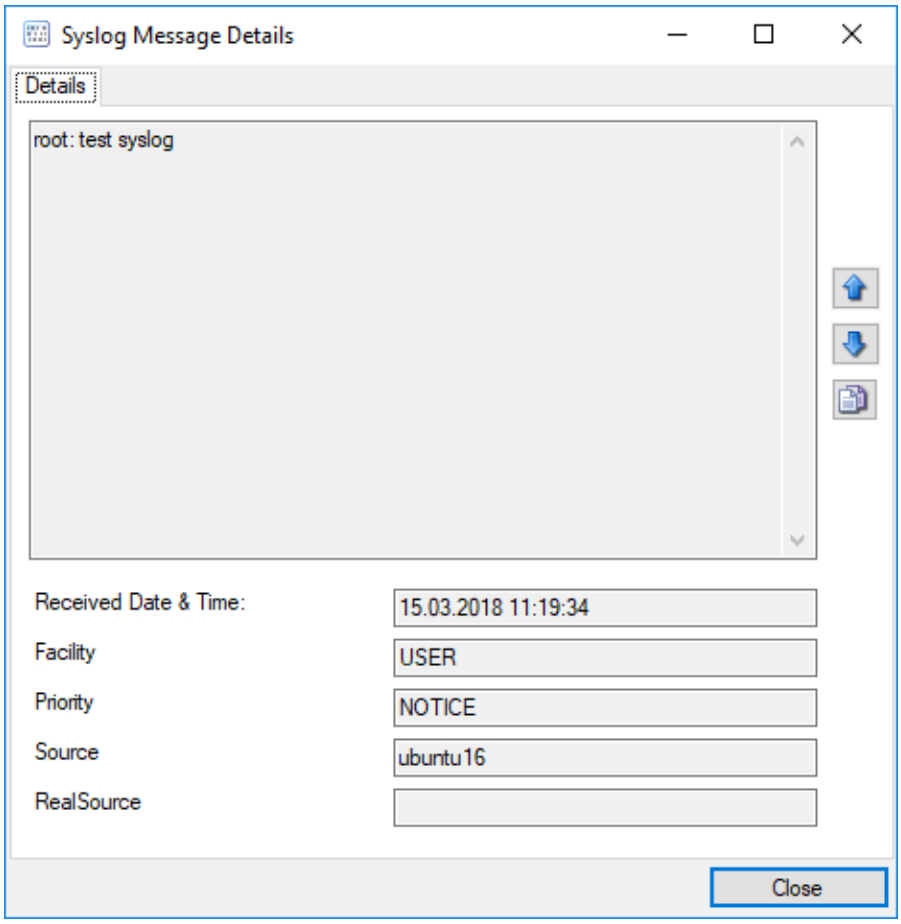
Edit Menu



- InterActive SyslogViewer - Edit Menu*

View Details

When using this option, another window will open up, which shows the details of this event in a more readable view. This could look like this:



- InterActive SyslogViewer Syslog - Message Details*

Clear Read (Checked)

By activating this, you can clear the checkboxes of the items your marked as read.

Clear Complete View

This option will clear the screen and remove all received data from the view.

Copy Selection

Having selected one or multiple entries, you can copy them using this function.

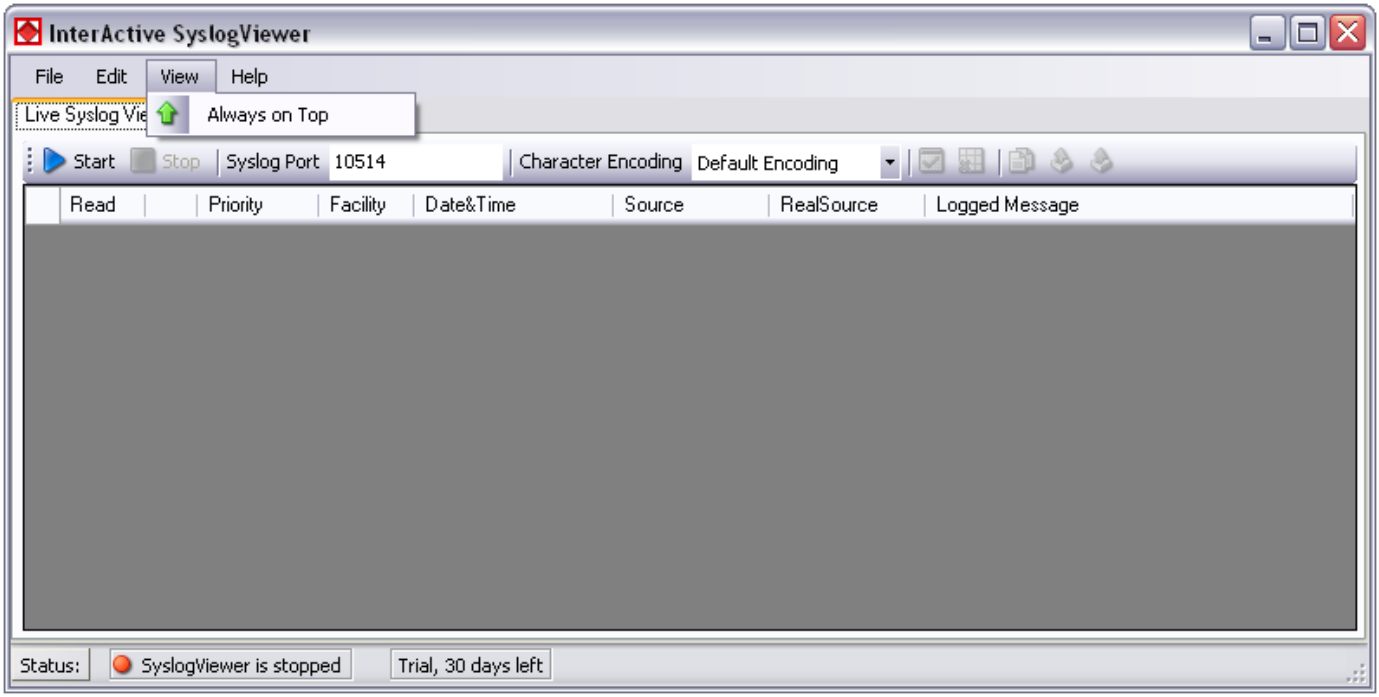
Export Selection

Instead of copying you can extract the selected data into a text file.

Export All

Or you directly export all the data that is currently in the list.

View Menu

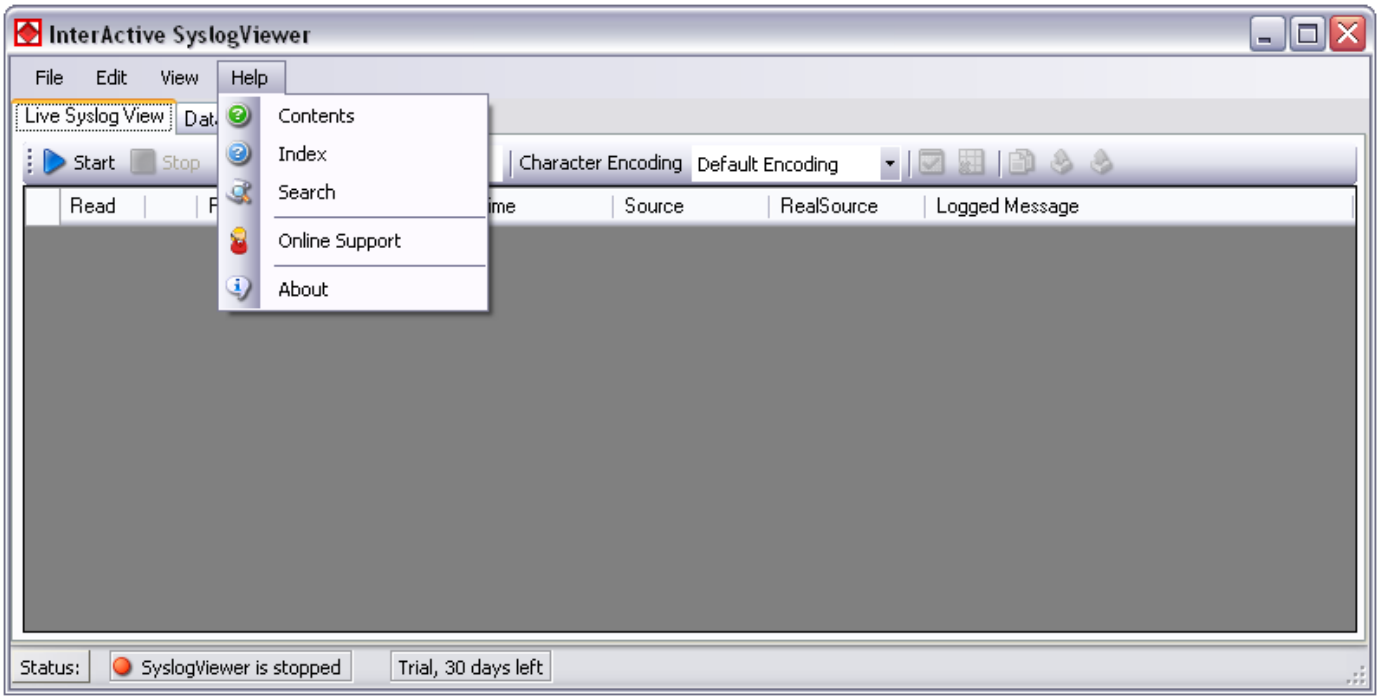


- InterActive SyslogViewer Syslog - View Menu*

Always on Top

This option is very self-explanatory. While activated, the InterActive SyslogViewer window will stay on top of all other applications, so you will have all incoming log data directly in your point of view.

Help Menu



- InterActive SyslogViewer Syslog - Help Menu*

Contents

Show the manual.

Index

Show the manual index.

Search

Search the manual.

Online Support

By clicking here, a browser window will open and you will be directed to our support website.

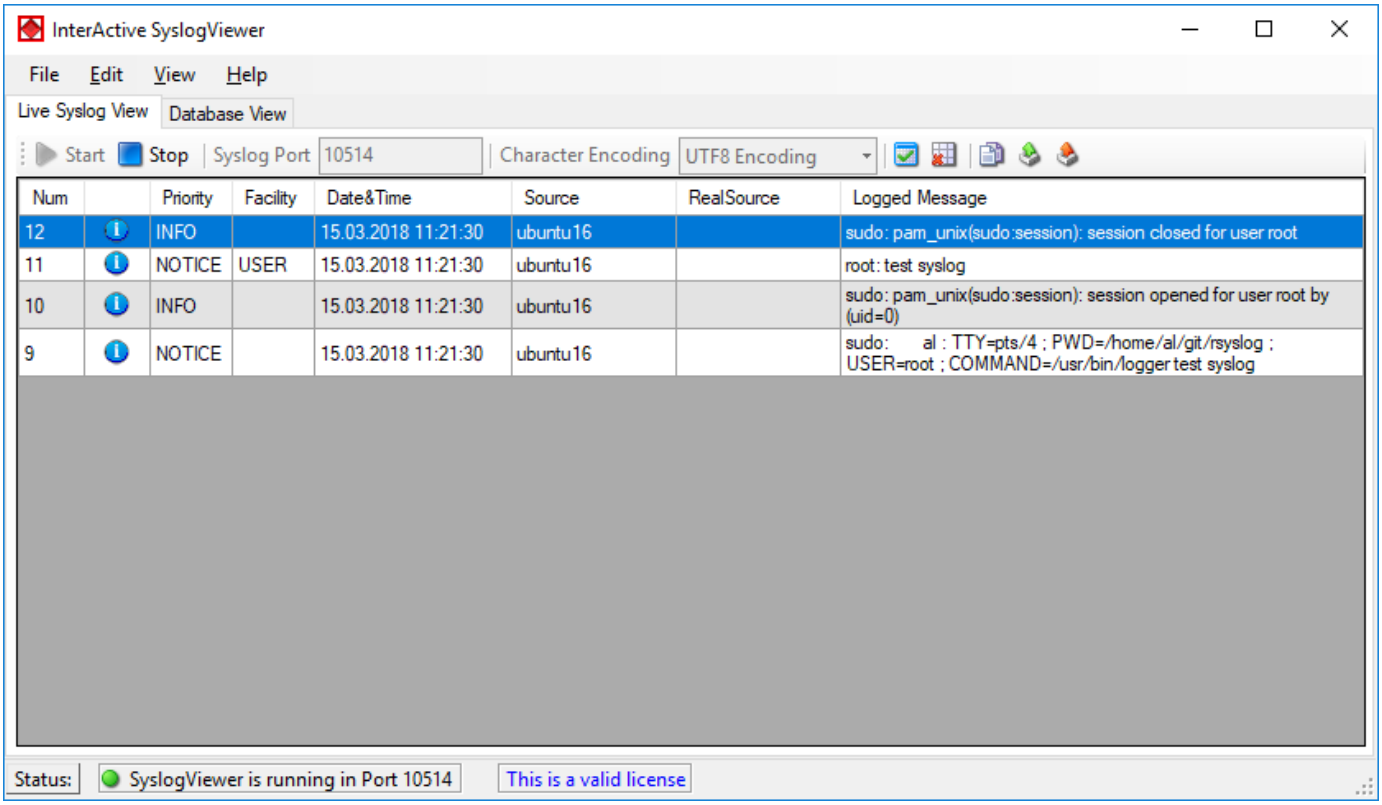
About

The About-window will give you additional information to the tool, like the program version.

Live Syslog View

Primarily, the InterActive SyslogViewer is used for viewing current syslog traffic. All messages are shown in a list with the most important information. These are the Priority, Facility, Date&Time, Source, RealSource and the Message. At the beginning of each line you can see the number of the logged event and a checkbox, for you to track if a message has been read.

The status bar at the bottom of the screen shows you, if the SyslogViewer is running or stopped and how much time you have left for the trial or your licensing status.



- InterActive SyslogViewer Syslog - Live Syslog View*

The toolbar provides you with direct access to the most important functions. These are described here:

Start

With the start button, you start the receiving service. Now the InterActive SyslogViewer will receive and display all incoming messages. If messages were sent before starting the service, they will be dropped.

Stop

Here you can stop the receiving server.

Syslog Port

Here you can define the syslog port where the Viewer should receive the syslog messages.

Character Encoding

Here you can define how characters will be decoded. You can choose from Default Encoding (depending on OS), ASCII, Unicode, UTF8, or UTF32.

Clear checked

With this button, you can clear all the checkboxes in front of the messages.

Clear View

By clicking on this button, all data will be deleted from your data grid.

Copy Selection

This helps you copying the selected messages.

Export Selection

You can export the selected data directly by using this button.

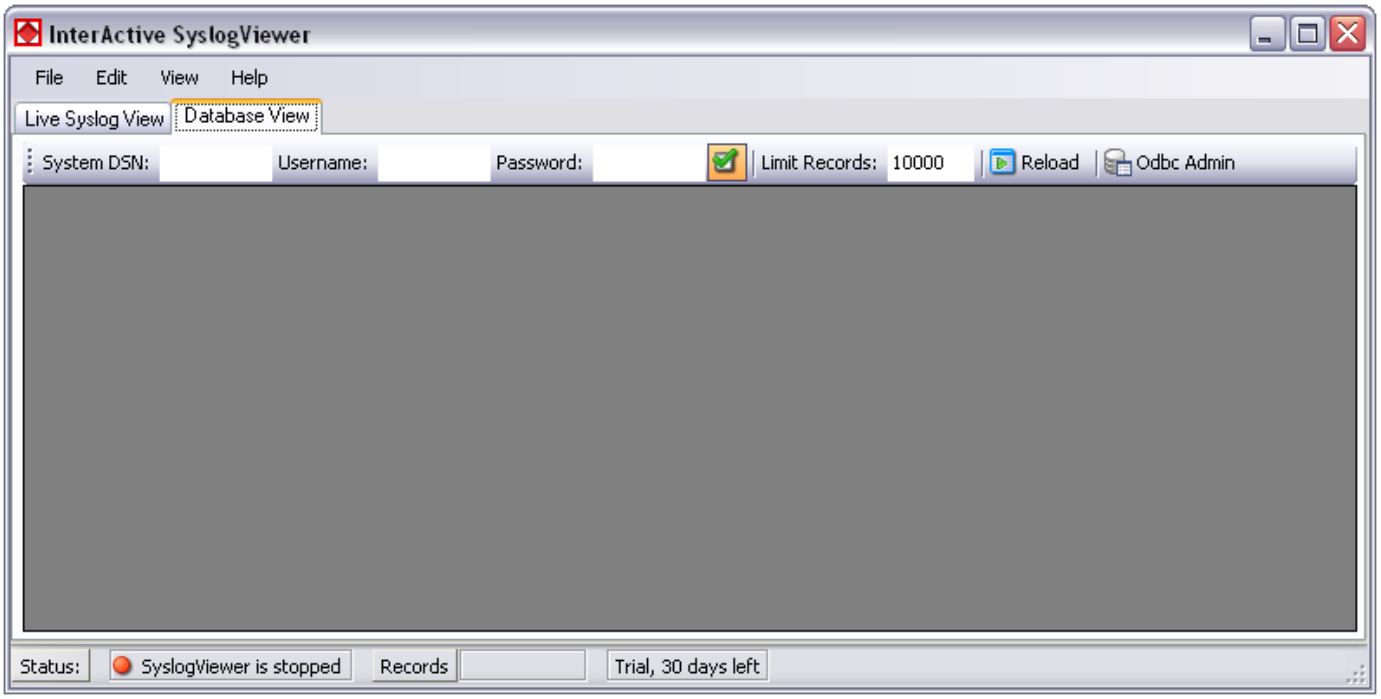
Export All

Export the complete data that is in the data grid.

Database View

Another feature is the possibility to review log messages which are stored in a database.

The status bar at the bottom of the screen shows you, if the SyslogViewer is running or stopped, how many records are currently shown and how much time you have left for the trial or your licensing status.



- InterActive SyslogViewer Syslog - Database View*

The toolbar in this case is for entering the login information for the database.

System DSN

Specify the System DSN of your database here.

Username

The username for the database.

Password

The appropriate password for the database.

Store Username and Password

With the checkbox you can tell the InterActive SyslogViewer to keep the username and password or not. This is to make usage easier for you.

Limit Records

This limits the maximum of the shown records. The default value is 10000. If changed, this can have a enormous impact on your machine.

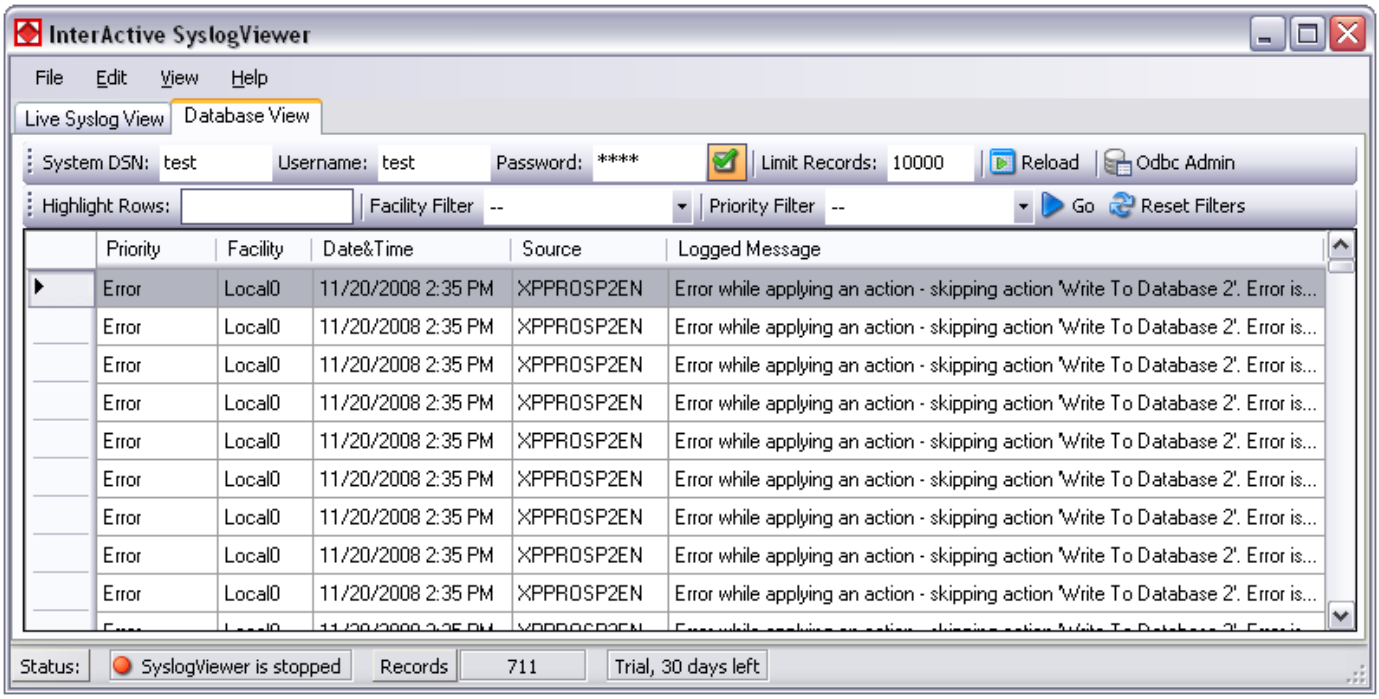
Reload

This button is to reload the database. This is needed to view if there are new log messages in the database.

Odbc Admin

This button opens the Administration Panel for ODBC Data Source connections

Once a database connection is successfully established, you can see another toolbar with the filter options:



- InterActive SyslogViewer Syslog - Active Database View*

Highlight Rows

You can enter a keyword into the field, the rows containing this keyword will be highlighted. You can then find the messages much easier,

Facility Filter

Allows you to only show messages with a certain facility. You can use the drop-down menu to specify the facility.

Priority Filter

Allows you to only show messages with a certain priority. You can use the drop-down menu to specify the priority.

Go

With this button, you apply the filter settings to the current view. Depending on the filter settings you chose you will see either colored lines and/or only the lines from the category you wish to see.

Reset Filters

Resets the filter settings and returns you to the default view of your database.

FAQ

Here you find FAQ about Interactive Syslog Viewer:

How to Autostart Interactive Syslog Viewer

Overview

This FAQ explains how to configure Interactive Syslog Viewer to start automatically when Windows boots, ensuring continuous syslog monitoring without manual intervention.

Background

Interactive Syslog Viewer is a Windows application designed for real-time syslog message monitoring and analysis. By default, it must be launched manually after each system startup. For production environments or dedicated monitoring systems, automatic startup provides continuous availability.

The application supports command-line parameters that enable auto-listening mode, making it suitable for unattended operation.

Methods for Autostarting Interactive Syslog Viewer

There are two primary methods to configure Interactive Syslog Viewer to start automatically on Windows:

Method 1: Using Windows Startup Folder (Recommended for Current User)

This method starts the application automatically when the current user logs in.

Steps:

1. **Locate the Startup folder**
   - Press `Win + R` to open the Run dialog
   - Type `shell:startup` and press Enter
   - This opens the Startup folder for the current user
2. **Create a shortcut to Interactive Syslog Viewer**
   - Navigate to the Interactive Syslog Viewer installation directory (typically `C:\Program Files (x86)\MonitorWare Agent\` or `C:\Program Files (x86)\WinSyslog\`)
   - Right-click on `InterActive SyslogViewer.exe`
   - Select “Create shortcut”
   - A shortcut will be created in the same directory
3. **Configure the shortcut with command-line parameters**
   - Right-click the newly created shortcut and select “Properties”
   - In the “Target” field, add the `/autolisten` parameter after the executable path
   - Example:
     `"C:\Program Files (x86)\MonitorWare Agent\InterActive SyslogViewer.exe" /autolisten`
   - Optionally, add other parameters such as `/port=10514` to customize the listening port
   - Click “OK” to save changes
4. **Move the shortcut to the Startup folder**
   - Cut the configured shortcut from the installation directory
   - Paste it into the Startup folder opened in step 1
5. **Verify the configuration**
   - Restart your computer or log off and log back in
   - Interactive Syslog Viewer should start automatically and begin listening for syslog messages

Method 2: Using Windows Task Scheduler (Recommended for System-Wide Startup)

This method starts the application at system boot, regardless of user login, making it suitable for dedicated monitoring servers.

Steps:

1. **Open Task Scheduler**

- Press `Win + R` to open the Run dialog
- Type `taskschd.msc` and press Enter
- Task Scheduler opens

2. **Create a new task**
   - In the right pane, click “Create Task…” (not “Create Basic Task”)
   - This opens the Create Task dialog
3. **Configure General settings**
   - **Name:** Enter a descriptive name, such as “Interactive Syslog Viewer Autostart”
   - **Description:** Optional description, e.g., “Automatically starts Interactive Syslog Viewer at system boot”
   - **Security options:**
     - Select “Run whether user is logged on or not”
     - Check “Run with highest privileges” if the application requires elevated permissions
     - Choose the user account under which the task should run
   - **Configure for:** Select your Windows version from the dropdown
4. **Configure Triggers**
   - Switch to the “Triggers” tab
   - Click “New…” to create a new trigger
   - In “Begin the task:” dropdown, select “At startup”
   - Optionally, set a delay (e.g., 30 seconds) to allow other services to start first
   - Click “OK” to save the trigger
5. **Configure Actions**
   - Switch to the “Actions” tab
   - Click “New…” to create a new action
   - **Action:** Ensure “Start a program” is selected
   - **Program/script:** Enter the full path to Interactive Syslog Viewer executable

     Example: `C:\Program Files (x86)\MonitorWare Agent\InterActive SyslogViewer.exe`
   - **Add arguments (optional):** Enter command-line parameters

     Example: `/autolisten /port=10514`
   - Click “OK” to save the action
6. **Configure Conditions (Optional)**
   - Switch to the “Conditions” tab
   - Review power and network conditions as needed
   - For dedicated monitoring servers, consider unchecking “Start the task only if the computer is on AC power”
7. **Configure Settings**
   - Switch to the “Settings” tab
   - Recommended settings:
     - Check “Allow task to be run on demand”
     - Check “Run task as soon as possible after a scheduled start is missed”
     - Uncheck “Stop the task if it runs longer than” (to allow continuous operation)
   - Click “OK” to create the task
8. **Test the configuration**
   - In Task Scheduler, find your newly created task
   - Right-click the task and select “Run”
   - Verify that Interactive Syslog Viewer starts correctly
   - Restart your computer to confirm automatic startup

Available Command-Line Parameters

Interactive Syslog Viewer supports the following command-line parameters for customization:

- `/autolisten` - Automatically start the syslog server upon launch
- `/port=<port_number>` - Override the configured listening port (e.g., `/port=10514`)

- `/windowpos <x>,<y>,<width>,<height>` - Set the default window position and size (e.g., `/windowpos 0,0,512,800`)
- `/?` - Display available command-line options

Example combined usage:

```
"C:\Program Files (x86)\MonitorWare Agent\InterActive SyslogViewer.exe" /autolisten /port=514 /windowpos 0,0,1024,768
```

Summary

Interactive Syslog Viewer can be configured to start automatically on Windows using either the Startup folder (for user-based startup) or Task Scheduler (for system-wide startup). The `/autolisten` command-line parameter enables automatic syslog listening, making the application suitable for unattended monitoring scenarios.

For production environments requiring robust syslog collection, logging, and processing capabilities, consider using WinSyslog or MonitorWare Agent, which are designed specifically for server-side syslog operations.

further FAQ you find on adiscon.com :

- FAQ

Configuration

Use this section to configure how MonitorWare Agent collects data, evaluates rules, and stores or forwards the result.

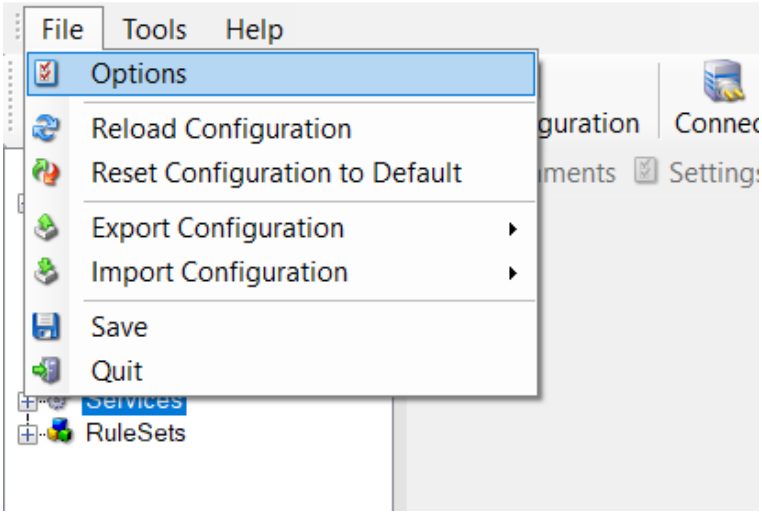
Configuration is created in the **MonitorWare Agent Configuration Client** and then applied to the **MonitorWare Agent Service**. Save and apply changes after editing so the running service uses the updated configuration.

For User Interface changes introduced with **26.07** (license file UI, YAML, service toolbar, and the MonitorWare Agent User Interface), see User Interface changes.

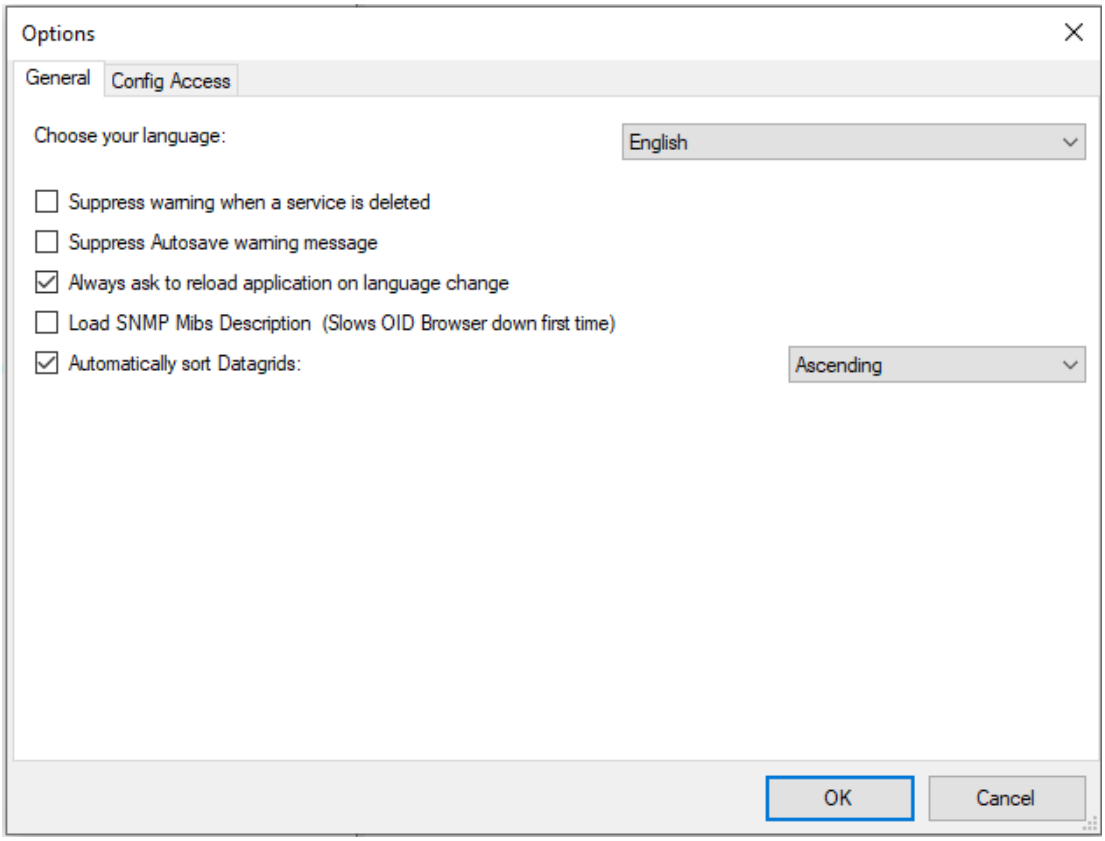
In this manual, **input** is the clearest plain-language concept for anything that collects or receives data, while **service** remains the operational term for the configured MonitorWare Agent object.

Client Options

There are several options, that refer to the configuration client and not to the service. These can be found under File -> Options



- Client Options*



- General Tab*

Choose your language

You can choose a language pack. “English” is the default and suggested language.

Suppress warning when a service is deleted

If this option is checked you will not get a warning when you try to delete a service and there is no other service that uses the connected ruleset.

Suppress autosave warning message

If you make changes in the configuration and switch to another component, a warning will occur if you haven’t saved the changes. This warning will also allow you to directly enable auto-saving the configuration.

Always ask to reload application after language change

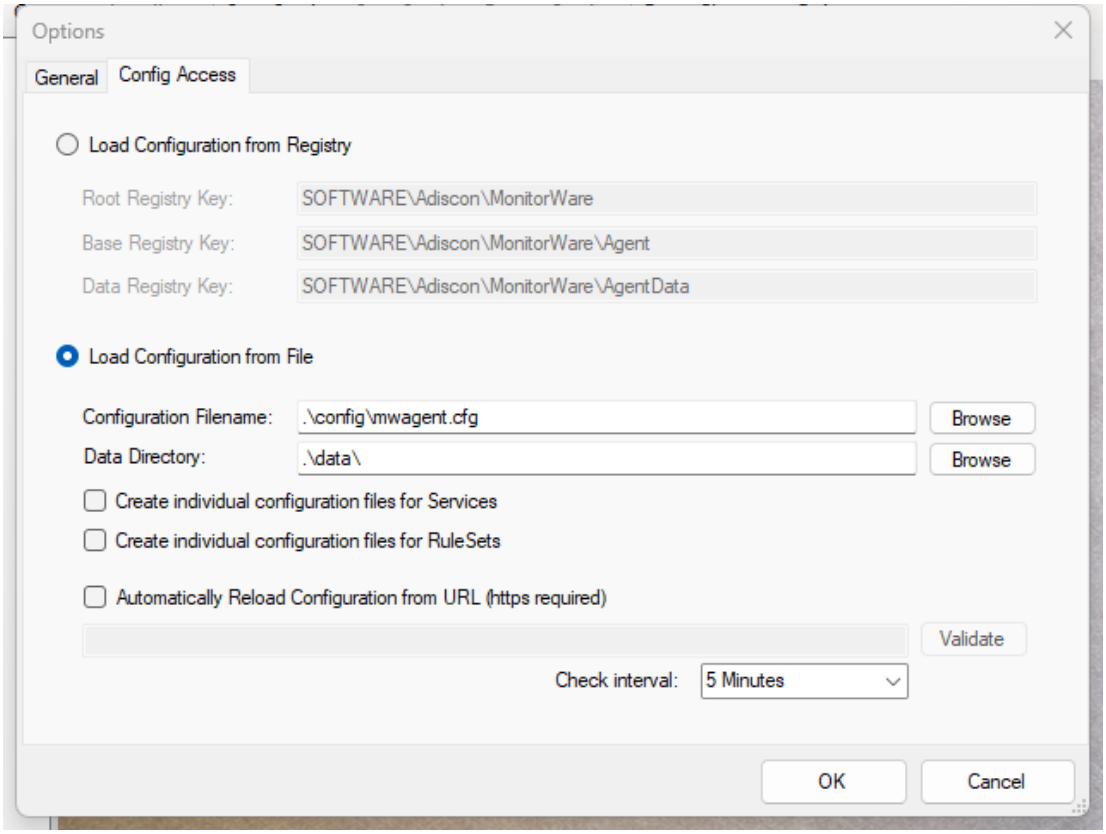
When you change the language, a popup will ask you to reload the configuration client to properly apply the changes and load with the set language.

Load SNMP Mibs Description (Slows OID Browser down first time)

If enabled, load SNMP Descriptions from MIB files (Client starts a little slower on startup).

Automatically sort Datagrids

Datagrids are used in certain areas within the configuration objects. You can change the default sorting behavior from ascending to descending here.



MonitorWare Agent Config Access tab

Load Configuration from Registry

The Configuration Client can be switched to a different registry path for configuration. The registry path change can be made permanent here. The changed registry path is the saved within the Parameters key of the Service.

Load Configuration from File

Alternatively, you can configure the service to load the configuration from a file. You can set the paths with the two fields below.

When enabled, the configuration will always be backed up before applying the new configuration. The backup consists of the last iteration and will be placed in the same directory.

Create individual configuration files for Services

Can only be enabled when “Load Configuration from File” is enabled. When enabled, the Services section of the configuration will be put into a separate file.

Create individual configuration files for RuleSets

Can only be enabled when “Load Configuration from File” is enabled. When enabled, the RuleSet section of the configuration will be put into a separate file.

Automatically Reload Configuration from URL (https required)

Only possible if File Configuration Mode is used.

If enabled, the configuration will be reloaded from a remote https location. Please note that a valid SSL certificate is required, or if custom certificates are used they have to be imported on the local machine properly.

If the remote configuration file can be downloaded from the configured location and differs from the current configuration, it will be installed automatically and the service will reload itself.

Check interval

Specifies how often the service will check for remote configuration files. Please keep in mind that the configuration needs to be downloaded each time from the remote https url for comparison with the local one. We do not recommend to use a value lower then 5 minutes.

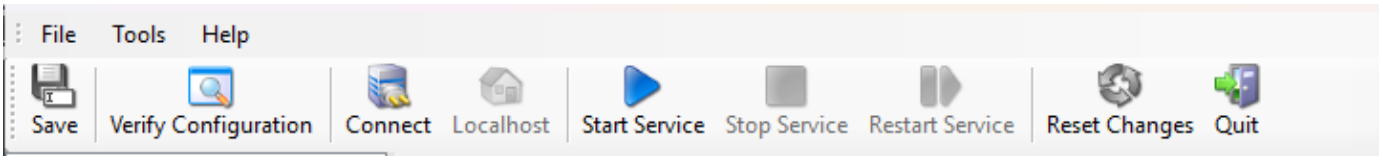
Client Tools

There are tools within the configuration client that you can use to test certain services or debug the application in general. Some can be found in the Tools menu.

Service control

From the **main window** toolbar: **Start**, **Stop**, **Restart**, **Kill**, and **Open Windows Services**. **Kill** ends an orphan process when the service manager state is inconsistent. When the service is paused during configuration reload, stop and restart may be unavailable until reload completes.

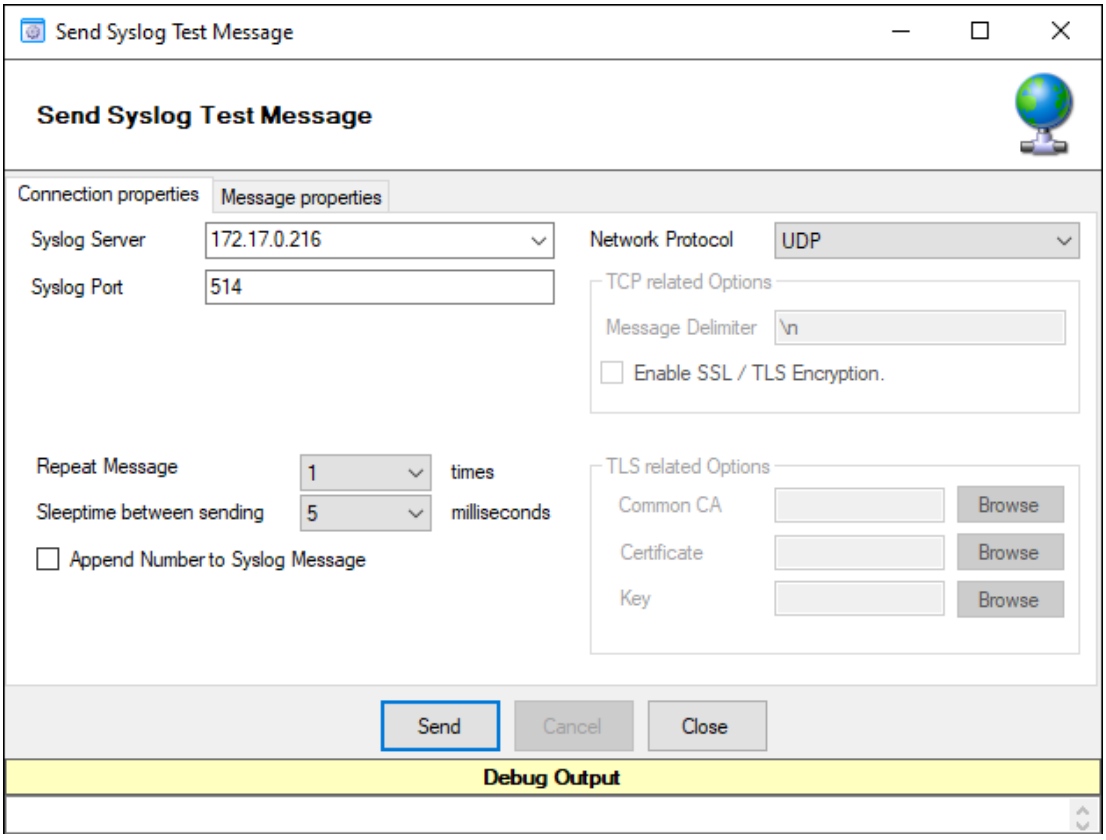
The property window toolbar (shown below) provides **Start**, **Stop**, **Restart**, and **Reset Changes** while editing a service or action. **Kill** and **Open Windows Services** are on the main window toolbar only.



See User Interface changes for **Reset to default** (selected item vs entire configuration), YAML import/export, and the MonitorWare Agent User Interface.

Syslog Test Message

Opens a new windows which can send syslog test messages to Syslog Servers. This can also be opened within the configuration window of a Syslog service.



- Syslog Test Message Connection properties - UDP*

Syslog server

The hostname or ip address of the target Syslog server.

Syslog Port

The port that should be used to connect to the target Syslog server.

Repeat Message

How often you want to repeat the test message. Can be configured from 1 to 1000.

Sleeptime between sending

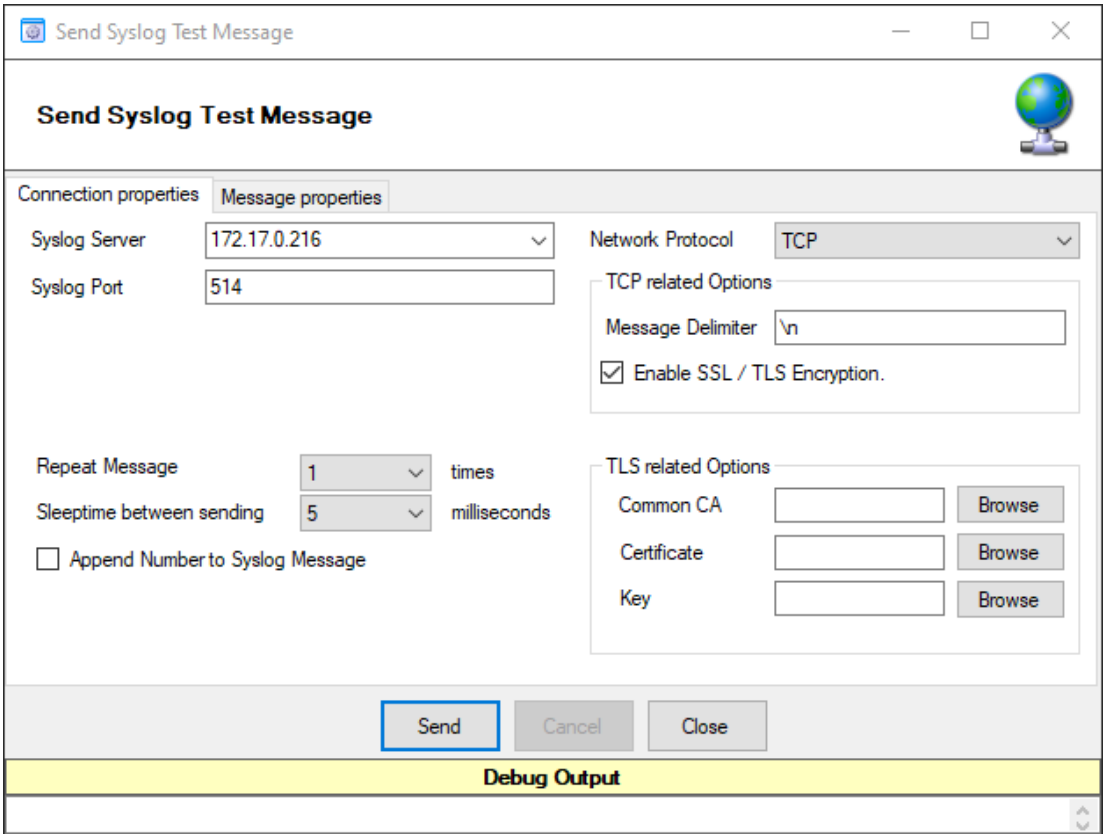
When using TCP, you can use 0ms. For UDP we recommend 1-5ms as sleeptime between sending syslog messages. Otherwise package loss can happen.

Append Number to Syslog Message

If sending multiple messages, enable this option in order to add a syslog number at the end of the message.

Network Protocol

Which network protocol should be used, either UDP or TCP can be selected.



- Syslog Test Message Connection properties - TCP*

Message Delimiter (TCP related Options)

When using TCP protocol, a message delimiter (separator) can be configured which is a simple linefeed by default.

Enable SSL/TLS Encryption (TCP related Options)

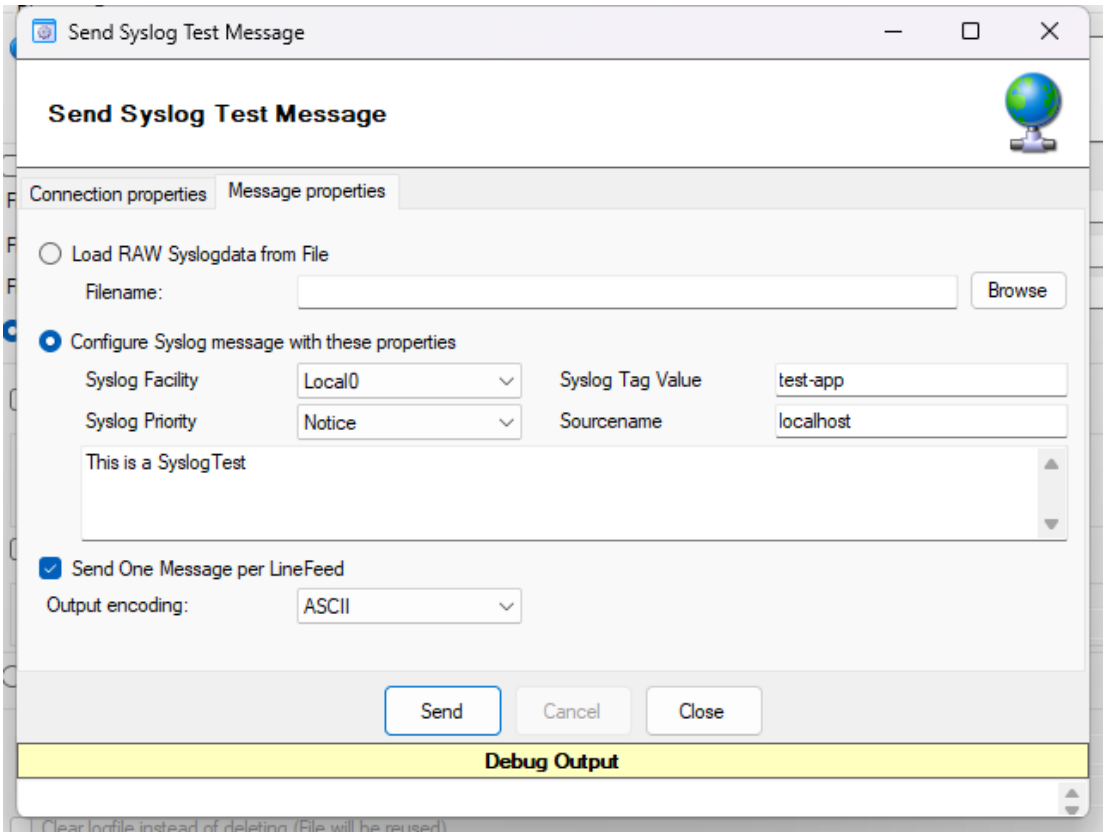
Check this option to enable the TLS related Options.

TLS related Options (TCP related Options)

Select common CA: Select the certificate from the common Certificate Authority (CA), the syslog receiver should use the same CA.

Select Certificate: Select the client certificate (PEM Format).

Select Key: Select the keyfile for the client certificate (PEM Format).



MonitorWare Agent Syslog Test Message properties

Load RAW Syslogdata from File

You can choose to load raw syslogdata from file using this option. When loading UTF8 data make sure to set the Output encoding format from ASCII to UTF8. And if your file contains multiple syslog messages make sure that - Send One Message per LineFeed - is checked.

Configure Syslog message with these properties

Choose this if you want to configure all properties of the syslog message manually.

Send one Message per LineFeed

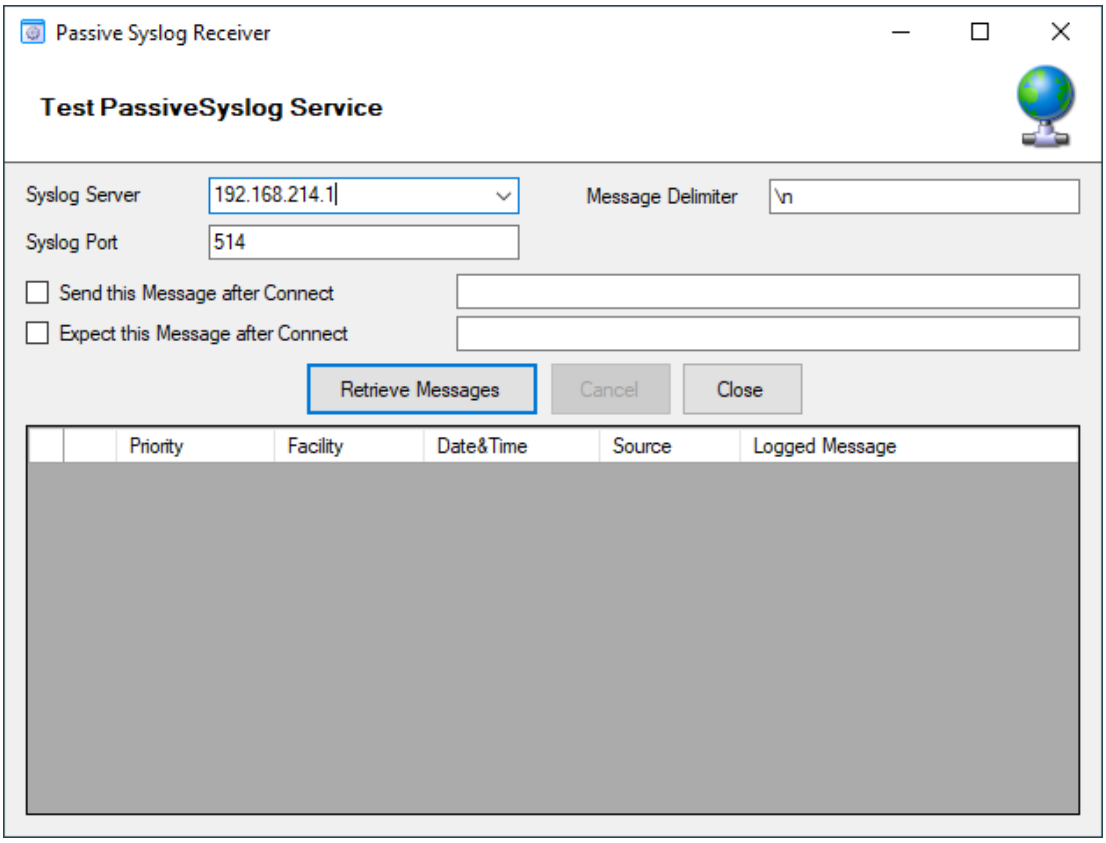
Check if your syslogdata contains multiple syslog messages divided by line feeds

Output encoding

Select the Output encoding you wish to use. When using UTF8, the UTF8 BOM is automatically prepended.

Passive Syslog Receiver

Opens a new windows to test Passive Syslog Servers. This can also be opened within the configuration window of a Passive Syslog service.



- Test Passive Syslog Service*

Syslog server

The hostname or ip address of the target passive Syslog server.

Syslog Port

The port that should be used to connect to the target passive Syslog server.

Message Delimiter

The message delimiter (separator) used to split syslog messages which is a simple linefeed by default.

Send this Message after Connect

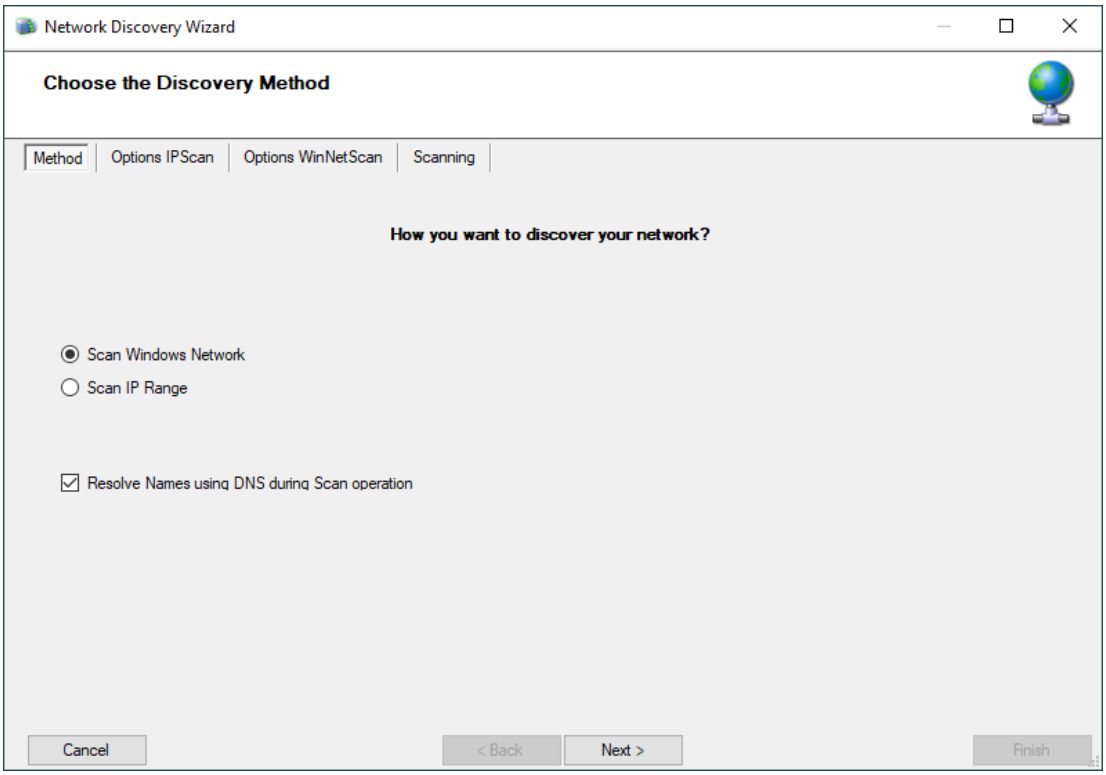
If required, configure a custom message that is send to the server after connect.

Expect this Message after Connect

If required, configure a custom message that is expected by the sender when the server response to our custom message.

Network Discovery

Opens up a Wizard that will help you discover devices in your local network. Once the wizard has scanned your network, it will show Windows compatible devices it has found. Please note that this will require Windows Management Instrumentation (WMI) access to the remote machines which may be disabled in Windows Firewalls by default.



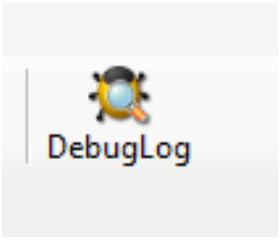
- Network Discovery - Choose the discovery Method*

Kill Service

When stopping a service, and it does not shutdown in the time period, you can use this function to forcefully stop the service. The service process will be killed if possible.

DebugLog

The **DebugLog** Button will be available if Debug Logging is enabled in your Debug Options



- DebugLog*

When clicked, a new Logviewer window will be opened. The Debug Logviewer can load, parse, and analyze debug log-files from the service.



- Logviewer (Debug)*

Debugfile

Will automatically be set to your configured debug file. You can also choose other saved debug-files for analysis.

Load

When Load is clicked, the Logviewer will load lines as configured in the initial debug-lines field. When loading all log-lines on a large debug log-file, this may take a while. While the Load button is grayed out, the Logviewer will continue to read data from the debug log as it is being written.

Stop

Stop continuous loading of the debug log.

Reset

Will reset all loaded log-lines from memory and clear the debug data-grid.

Init Debuglines

The amount of log-lines you want to read the first time.

Show debug messages for

Once the debug-log is processed, the Logviewer will automatically add filters for objects like services, rulesets, rules, and actions. You can use this select box to filter by them.

Filtering (bottom bar)

At the bottom of the Logviewer window, you can filter the debug-log for Thread (ID), Priority, internal Facility, and Functions. You can also filter for words or word sequences. The view will automatically be refreshed once you changed a filter.

Using File based configuration

Working with File based Configurations

Support for running the Service from file based configuration may be interesting for environments where you want to minimize registry access to a minimum or you want to manually edit the configuration without using the configuration client every time.

The Adiscon Configuration format is quiet simple. In the following description, all the configuration options will be explained in detail.

Adiscon Configuration format explained

Our configuration format is something between JSON and XML but hold at a very simple level.

Variables

All variables start with a dollar ($). Name and Value of a variable are separated by the FIRST space character. Everything else behind the first space will be considered as the Value. A line feed terminates the value. If your configuration value contains line feeds, you have to replace them with “\n” or “\r\n”. A single backslash can be used to escape brackets ({ and }).

Comments

All lines starting with a sharp (#) at the beginning will be ignored.

File Includes

Sample

```
includeconfig my-subconfigfiles-*.cfg*
```

The includeconfig statement will include either a single file or many files based on a filename pattern. In this sample all Files starting with “my-subconfigfiles-” and ending with “.cfg” will be included into the configuration. It is possible to create your own custom file structure with includes. The configuration client will be able to load and show your custom file structure, however it will not be able to maintain (save) it. We support a maximum include depth of up to 10 levels when using the includeconfig statement.

General Options

Sample

```
general(name="[name]") {
 $nOption 1
 ...
}
```

All options between the brackets will be loaded as variables into the general configuration object. The name attribute field specifies the general configuration block name. The brackets start and end an object block.

Services

All possible configuration parameters are named within the detailed services documentation.

Sample Service configuration:

```
input(type="[ID]" name="[name]") {
 $var1 Value1
 $var2 Value2
 ...
}
```

The brackets start and end a service block. All variables between the brackets will be loaded into the service configuration. The name attribute specifies the service display name. The type attribute contains the service type ID. It can be one of the following types:

```
1       = Syslog
2       = Heartbeat
3       = EventLog Monitor V1 (Win 2000 / XP / 2003 )
4       = SNMP Trap Listener
5       = File Monitor
8       = Ping Probe
9       = Port Probe
10      = NTService Monitor
11      = Diskspace Monitor
12      = Database Monitor
```

```
13      = Serialport Monitor
14      = CPU Monitor
16      = MonitorWare Echo Request
17      = SMTP Probe
18      = FTP Probe
19      = POP3 Probe
20      = IMAP Probe
21      = IMAP Probe
22      = NNTP Probe
23      = EventLog Monitor V2 (Win VISTA/7/2008 or higher)
24      = SMTP Listener
25      = SNMP Monitor
26      = RELP Listener
27      = Passive Syslog Listener
1999998 = MonitorWare Echo Reply
1999999 = SETP Listener
```

RuleSets

All possible configuration parameters are named within the detailed actions documentation.

Sample

```
ruleset(name="[name]" expanded="[on/off]") {
 rule(name="[name]" expanded="[on/off]" actionexpanded="[on/off]"
 ThreatNotFoundFilters="[on/off]" GlobalCondProperty="[on/off]"
 GlobalCondPropertyString="" ProcessRuleMode="[0/1/2]"
ProcessRuleDate="[uxtimestamp") {
       action(type="[ID]" name="[name]") {
               $var1 Value1
               $var2 Value2
               ...
       }
       filter(nTabSelection="0") {
               $nOperationType AND
               $PropertyType NOTNEEDED
               $PropertyValueType NOTNEEDED
               $CompareOperation EQUAL
               $nOptionalValue 0
               $nSaveIntoProperty 0
               $szSaveIntoPropertyName FilterMatch
       }
    }
}
```

The brackets start and end a ruleset block. The attributes of a Ruleset are self-explainable. Within a RuleSet, you can have Rules. The attributes of Rules are also self-explainable and partially Global Conditions that are equal to the options found in the Filter dialog. Within a Rule you can one Basefilter. This Basefilter again can have child filters it and these child filters can have child filters again. All “expanded” settings are optional and only important for the client treeview.

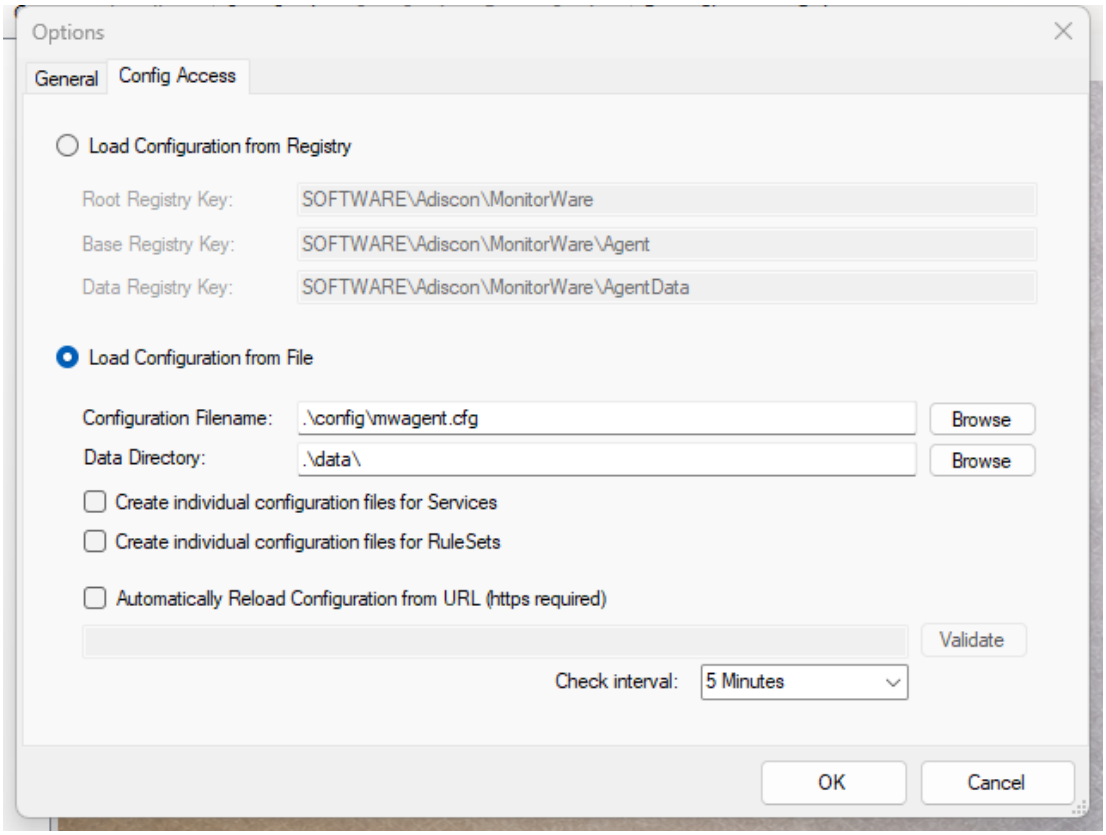
Within a Rule you can have Actions. The brackets start and end an action block. All variables in an action block between the brackets will be loaded into the action configuration. The name attribute specifies the service display name. The type attribute contains the action type ID. It can be one of the following types:

```
1000 = ODBC Database
1001 = Send Syslog
1008 = Net Send (legacy; removed from 26.07 configuration client)
1009 = Start Program
1011 = Send SETP
1012 = Set Property
1013 = Set Status
1014 = Call RuleSet
1015 = Post Process
1016 = Play Sound
1017 = Send to Communication Port
```

```
1021 = Send SNMP
1022 = Control NT Service
1023 = Compute Status Variable
1024 = HTTP Request
1025 = OleDB Database
1026 = Resolve Hostname
1027 = Send RELP
1028 = Send MS Queue
1029 = Normalize Event
1030 = Syslog Queue
1032 = HTTP REST Output
1033 = Message Ringbuffer
```

How to enable file based configuration?

To switch from registry to file configuration mode, all you need to do is to go the “Config Access” tab in the Configuration “Client Options” and switch from “Load Configuration from Registry” to “Load Configuration from File” mode. Once you accept the change, the Client will ask you if you want to export the current loaded configuration into the file. Hit YES if you want to do so and NO if already have an existing configuration file. The configuration client will reload itself automatically after this.



MonitorWare Agent file-based configuration options

Create individual configuration files for Services

When enabled, the configuration client will create separated configuration files for each configured service. The main configuration file will then use the includeconfig statement to include all these configuration files by using a pattern. When deleting a service, its configuration file will be deleted as well.

Create individual configuration files for RuleSets

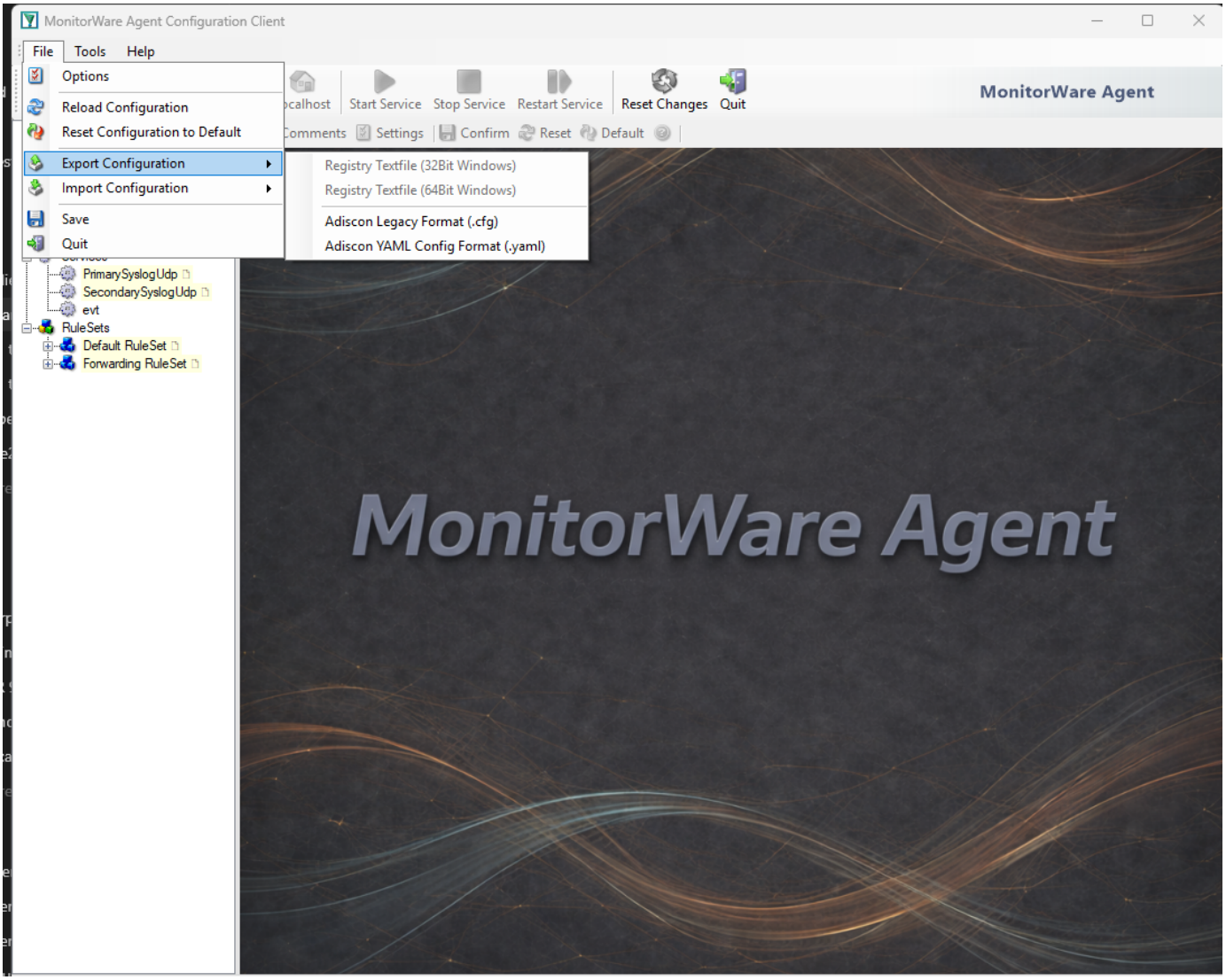
When enabled, the configuration client will create separated configuration files for each configured ruleset. The main configuration file will then use the includeconfig statement to include all these configuration files by using a pattern. When deleting a ruleset, its configuration file will be deleted as well

Adiscon YAML configuration format

The configuration client can import and export **Adiscon YAML Config Format** (`.yaml`) files in addition to the legacy `.cfg` format (**Adiscon Legacy Format** in the File menu).

New file-based deployments should use YAML configuration. The legacy `.cfg` Adiscon Config Format remains supported for compatibility with existing installations, test fixtures, support workflows, and external tooling, but it is not required for new Adiscon product deployments.

Import / export: Use **File** → import or export and select the YAML format. Select legacy CFG only when your workflow requires that format.



MonitorWare Agent File menu with YAML import and export commands

Unsupported blocks: If you open a configuration that contains blocks this client version does not understand (for example newer service features), the client skips them and may show a warning. Saving from an older client can drop those sections. See What happens when the client opens a configuration with unsupported blocks?.

License file path in general options:

```
general(name="License") {
 $szLicenseV2Path C:\\ProgramData\\Adiscon\\MonitorWare\\license.alic
}
```

Send RELP window size example:

```
action(type="1027" name="Forward RELP") {
 $nSelpWindowSize 128
 ...
}
```

HTTP REST Output example:

```
action(type="1032" name="REST Out") {
 $szProfile
 $szServer api.example.com
 $szPath /v1/events
 $bUseTLS true
 $szMethod POST
 ...
}
```

General Options

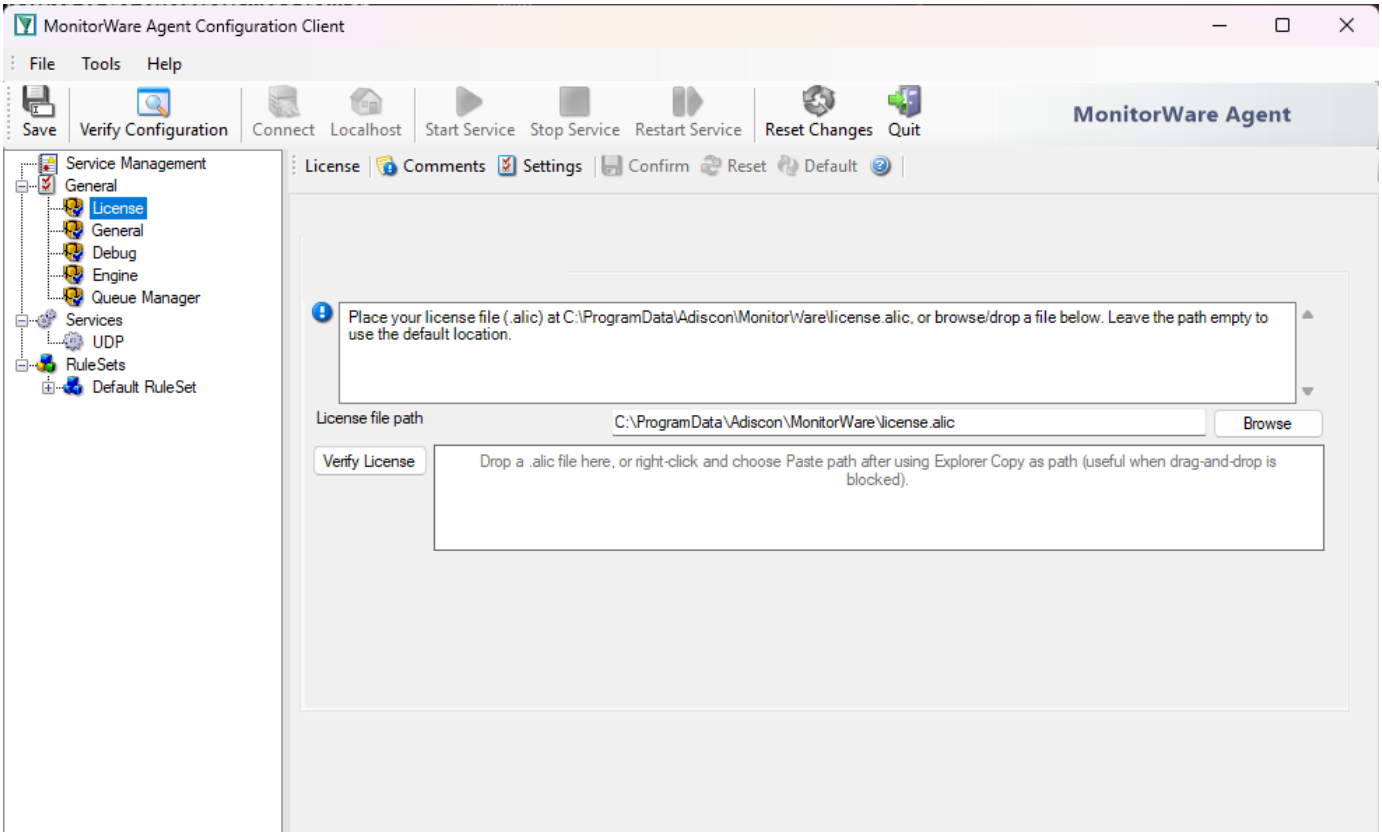
In this chapter, you find the general option settings.

License

Licensing options are on **General** -> **License** in the configuration client. Current builds use a `license.alic` license file.

License File

Use this page to apply `license.alic`.



File Configuration field:

szLicenseV2Path

Description:

Optional path to the license file. When empty, the service uses the default location:

`%ProgramData%\Adiscon\MonitorWare\license.alic`

You can browse for the file, drag-and-drop it onto the client, or paste a file path. The license is validated and applied when you save the configuration.

Current configuration clients use the license file path only. They do not read or save legacy registration-name or numeric license-key configuration values. Update an existing configuration to use `szLicenseV2Path` and a `license.alic` file.

The main window status bar shows license status (for example, the licensed organization). A version mismatch between the license file and the installed service may show a warning banner until you apply a matching license.

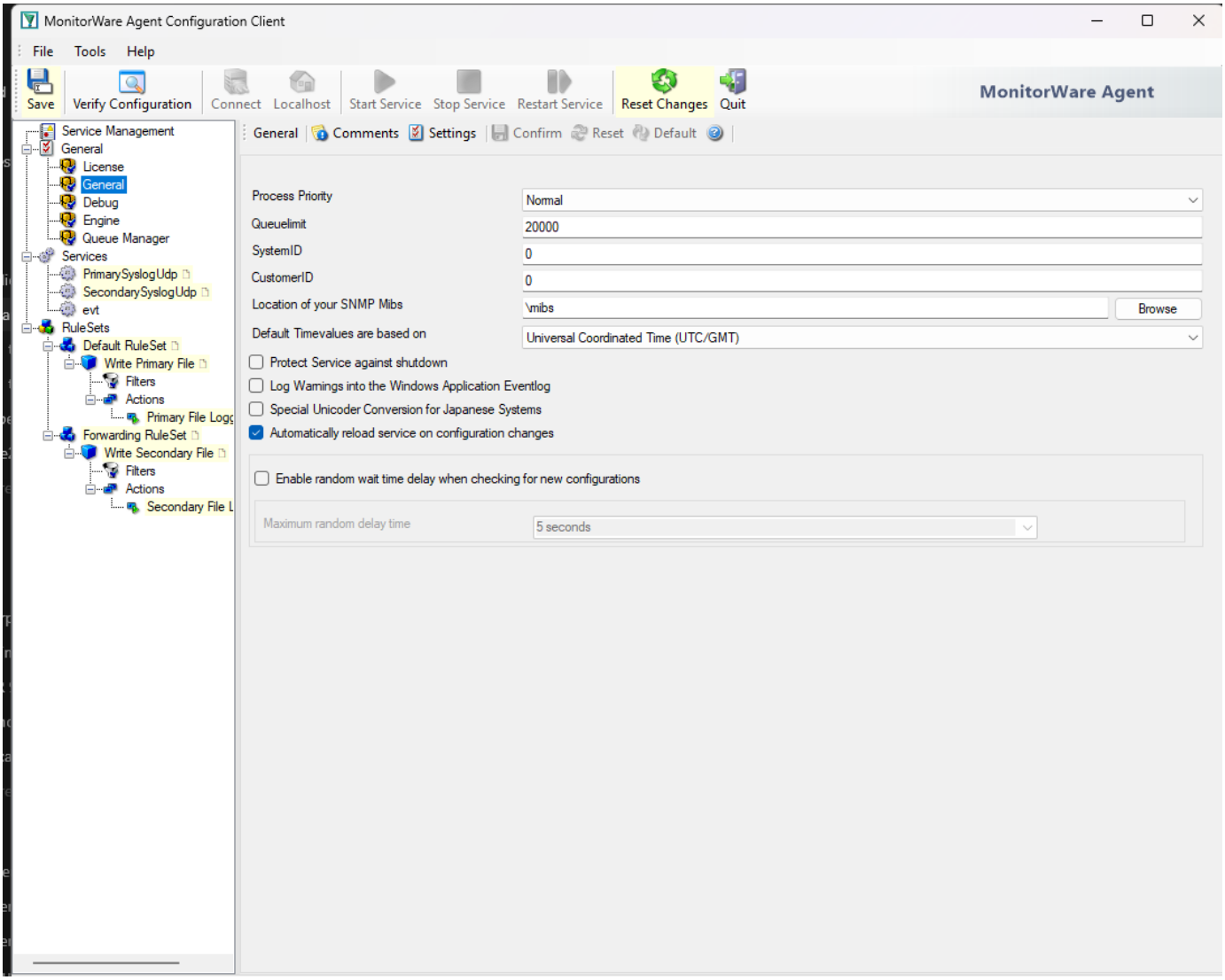
Verify License

Use this control to verify that the configured license is valid before or after you save.

If a newly issued file reports that it is not active yet, wait until the activation time shown by the client and then verify it again.

General

The General Options available on this form are explained below:



MonitorWare Agent General Options

Process Priority

File Configuration field:

nProcessPriority

Description

Configurable Process Priority to fine-tune application behavior.

Queuelimit

File Configuration field:

nQueueLimit

Description

The applications keeps an in-memory buffer where events received but not yet processed are stored. This allows the product to handle large message bursts. During such burst, the event is received and placed in the in-memory queue. The processing of the queue (via rulesets) itself is de-coupled from the process of receiving. During traffic bursts, the queue size increases, causing additional memory to be allocated. At the end of the burst, the queue size decreases and the memory is freed again.

Using the queue limit, you can limit that maximum number of events that can be in the queue at any given time. Once the limit is reached, no further enqueuing is possible. In this case, an old event must first be processed. In such situations, incoming events might be lost (depending on the rate they come in). A high value for the queue size limit (e.g. 200,000) is recommended, because of the risk of message loss.

It is also possible to place no limit on the queue. Use the value zero (0) for this case. In this case, the queue size is only limited by virtual memory available. However, we do not recommend this configuration as it might cause the product to use up all available system memory, which in turn could lead to a system failure.

SystemID

File Configuration field:

nSystemID

Description

SystemID is of type integer to be used by our customer. In addition, it is user configurable.

CustomerID

File Configuration field:

nCustomerID

Description

CustomerID is of type integer provided for customer ease. For example if someone monitors his customer's server, he can put in different CustomerIDs into each of the clients. Let us say someone monitors servers A and B. A has 5 servers all of them with CustomerID = 1 and B has 2 servers all of them with CustomerID = 2. Both A and B happen to have a server named "SERVER". Together with the customerID, these machines are now uniquely identifiable. This is user configurable.

Location of your SNMP MIBs

File Configuration field:

szMIBSPath

Description

Click the Browse button to search for your MIBs location or enter the path manually. The Client and Service will read all files from this directory automatically on startup.

Default Timevalues are based on

File Configuration field:

nTimeMode

Description

The general options of each product (EventReporter, MonitorWare Agent and WinSyslog) contain a setting for the "Default Timevalues are based on". This setting can be set to Localtime and UTC (Universal Coordinated Time) which is default. This setting has an effect on:

- Send Email Action: The date in the email header is affected
- Start Program Action: Time parameters in the command line are affected
- Write File Action: Time properties in the file name are affected
- Filter Engine: If you filter by weekday or time fields, localtime does affect the filter result

For information about local time output, see FAQ: default time values explained.

Protect Service against shutdown

File Configuration field:

nProtectAgainstShutdown

Description

When enabled, the Agent will not stop processing the internal queue when it is stopped. **Please note that it will remain in the stopping state then.**

Shutdown protection timeout

This capability is available starting with **26.08**.

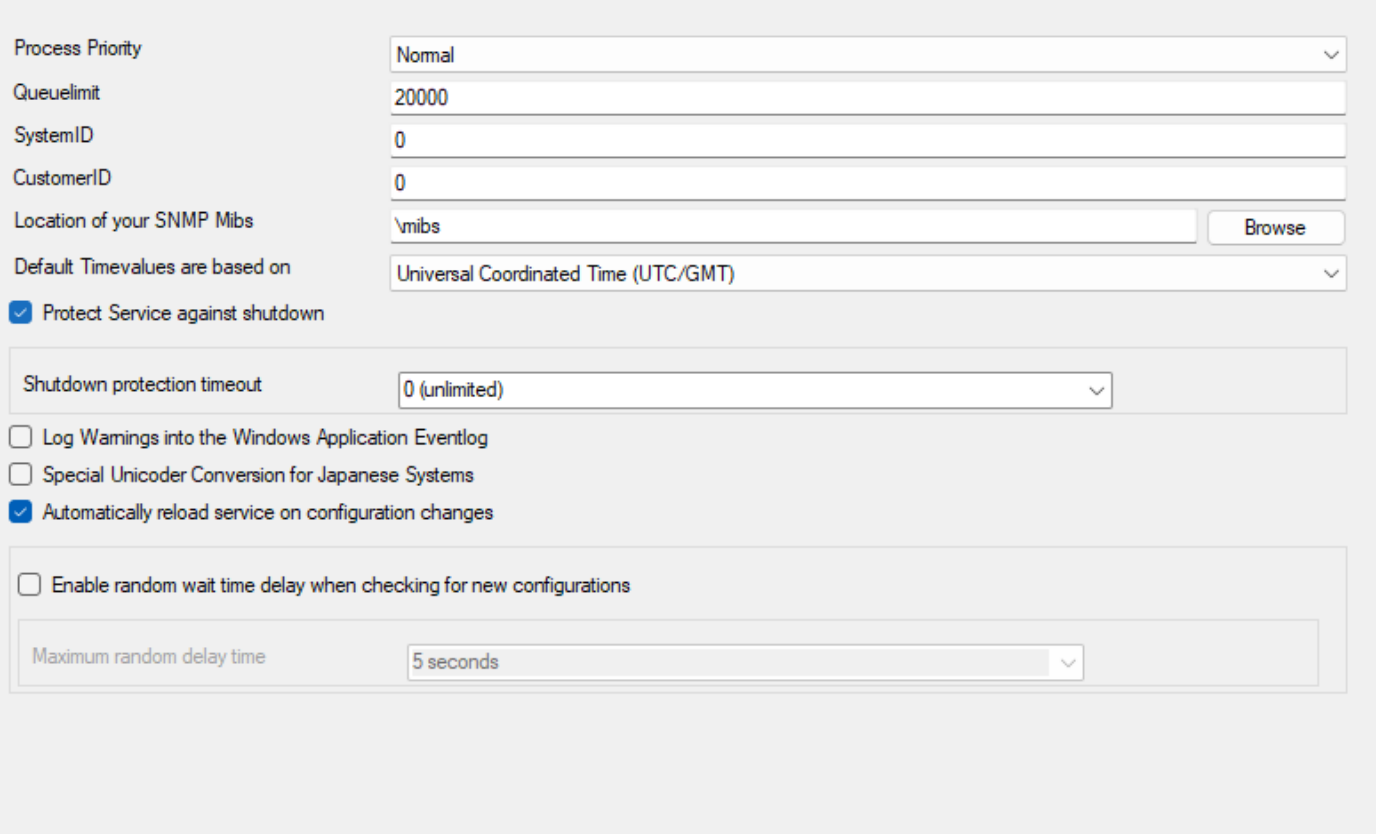
File Configuration field:

nShutdownProtectionTimeout

Description

This setting applies only when **Protect Service against shutdown** is enabled. Enter the maximum time in milliseconds for the complete protected shutdown. Set it to `0` to wait without a deadline for cooperative queue processing to finish.

A positive timeout bounds shutdown time, but messages that are still in memory or have not been stored durably can be lost when that deadline is reached.



Shutdown protection enabled with the timeout set to 0 (unlimited).

Log Warnings into the Windows Application Eventlog

File Configuration field:

nEnableEventlogWarnings

Description

The Service will also log Warnings into the Windows Application Eventlog, and so be more verbose for troubleshooting. Default is disabled.

Special Unicoder Conversion for Japanese Systems

File Configuration field:

nJapanStringHandling

Description

This is a historical option for older multibyte systems from the time when UTF8 was not known yet. If enabled, whenever text is being converted from 16 Bit wide character to 8 Bit character, the conversion is done with bit masking in order to avoid broken encoding. **For today modern systems, we do NOT recommend to enable this option.**

Automatically reload service on configuration changes

File Configuration field:

nEnableAutoConfigReload

Description

When enabled (default), the service will detect configuration changes and reload its core automatically. This feature only works if the latest Client Application is used for configuration. It will also work if you are using the file based configuration method and update the configuration file. It will not work if you are using the service in console mode unless you send any input to the console.

Enable random wait time delay when checking for new configurations

File Configuration field:

bAutoReloadRandomDelay

Description

When enabled, a random delay (with the configured maximum) will be added between new configuration checks.

Maximum random delay time

File Configuration field:

nAutoReloadDelayTime

Description

The maximum for this random delay is 24 hours. The random delay has no affect on the service control anymore.

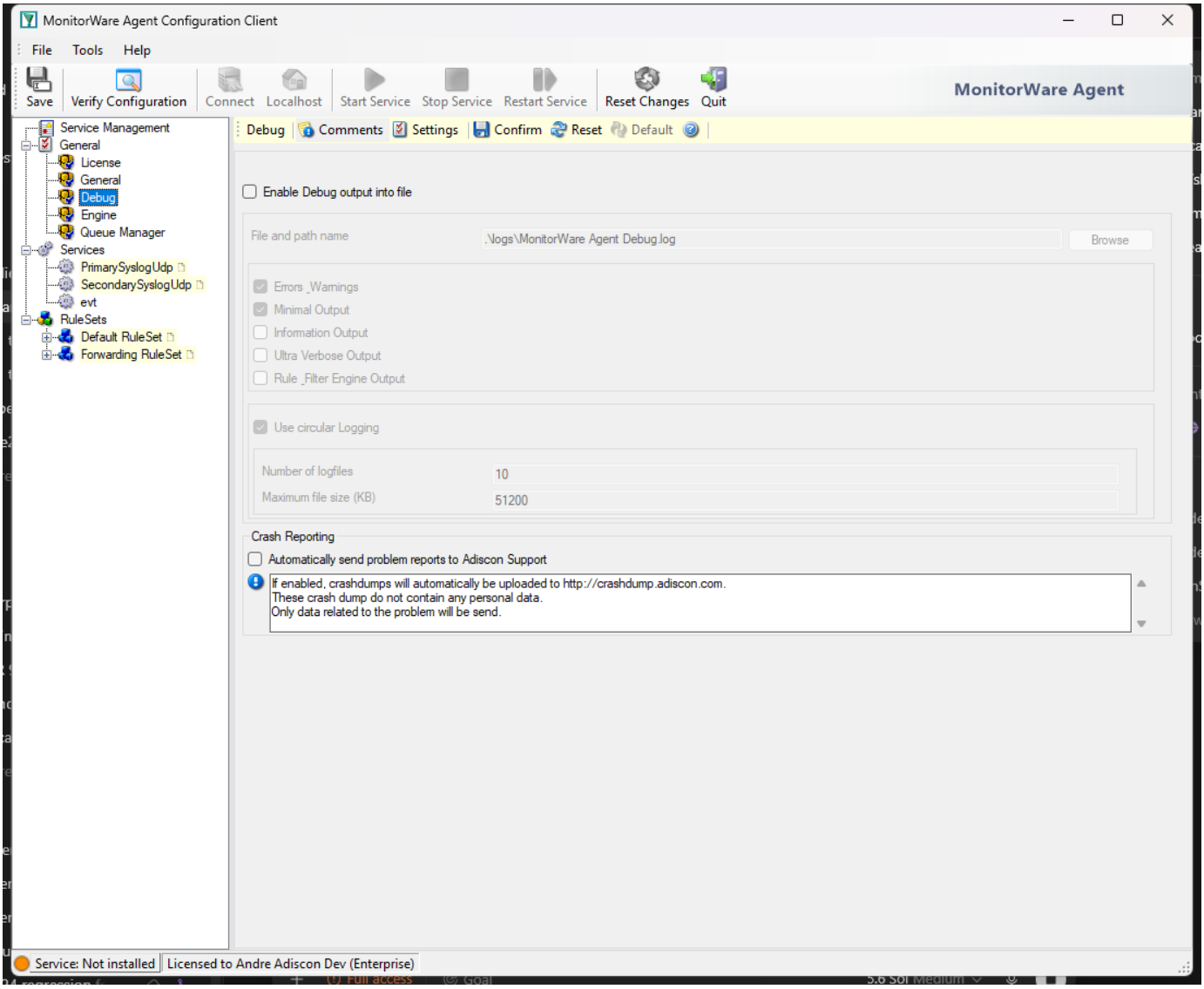
Debug

This tab can be used to debug rule bases. Especially with complex bases, it might be necessary to learn what application is internally doing while it is processing them. With the debug log, the service tells you some of these internal workings.

Other than rule basis testing, the debug log is also helpful when contacting Adiscon support. An Adiscon support engineer might ask you to set the debug log to a specific level while doing troubleshooting.

Note

Debug logging requires considerable system resources. The higher the log level, the more resources are needed. However, even the lowest level considerable slows down the service. As such, we highly recommend turning debug logging off for normal operations.



MonitorWare Agent Debug options

Enable Debug output into file

File Configuration field:

nEnableDebugOutput

Description

If checked, the debug log is enabled and written as the service operates. If unchecked, no debug log is written. For performance reasons, it is highly recommended that this box is unchecked during normal operations.

File and path name

File Configuration field:

szDebugFileName

Description

The full name of the log files to be written. Please be sure to specify a full path name including the drive letter. If just the file and/or path name is specified, that information is local to the service default directory. As this depends on a number of parameters, it might be hard to find the actual log file. So for consistency purposes, be sure to specify a fully qualified file name including the drive.

Note: If the configured directories are missing, they are automatically created by application i.e. the folder specified in “File and Path Name”.

Debug Levels

File Configuration field:

nDebugErrors, nDebugMini, nDebugInternal, nDebugUltra, nDebugRuleEngine

Description

These checkboxes control the amount of debug information being written. We highly recommend only selecting “Errors & Warnings” as well as “Minimum Debug Output” unless otherwise instructed by Adiscon support.

Use circular Logging

File Configuration field:

nCircularLogging

Description

Support for circular debug logging has been added as the debuglog can increase and increase over time. This will avoid an accidental overload of the hard disk. Of course you can also customize the amount of files used and their size or disable this feature.

Automatically send problem reports to Adiscon Support

File Configuration field:

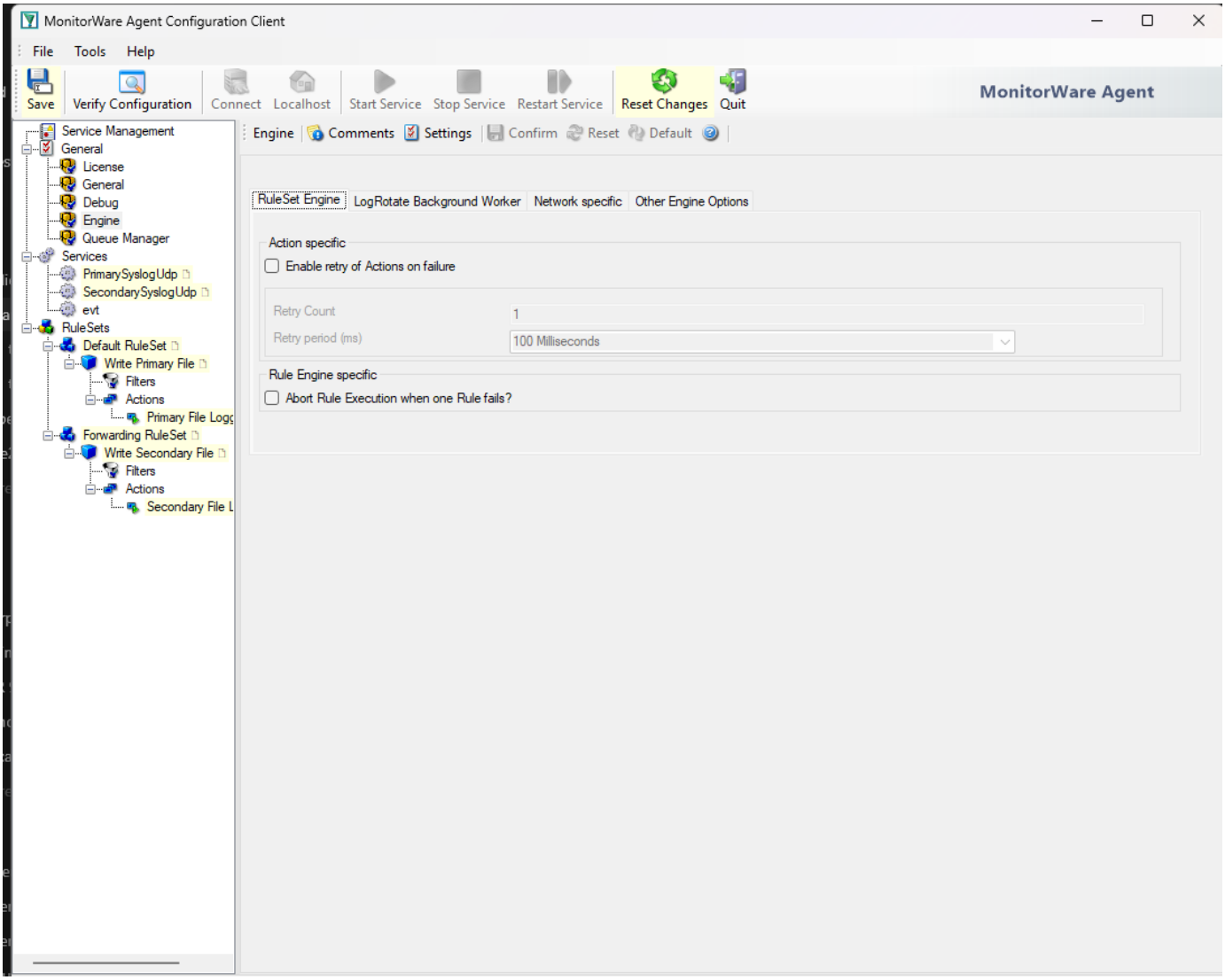
nReportCrash

Description

If enabled, problem reports will automatically be uploaded to `http://crashdump.adiscon.com`. A problem report is generated if the service internally stops working for some unknown reason. The reports are small dumpfiles which do not contain any personal data and will help us find and fix the problem. Also the dumpfiles are very small and do not exceed 256 Kbyte. In most cases only 32Kbyte data is send.

Engine

The Engine specific Options are explained below:



MonitorWare Agent RuleSet Engine tab

Action specific

Enable retry of Actions on failure

File Configuration field:

nEnableRetry

Description

If enabled, the Agent retries Actions on failure (until the retry counter is reached). Note that the Event error 114 will only be written if the last retry failed, previous error's will only be logged in the debug log (with the error facility). Note that you can customize the Retry Count and the Retry Period in ms as well.

Rule Engine specific

Abort Rule Execution when one Rule fails?

File Configuration field:

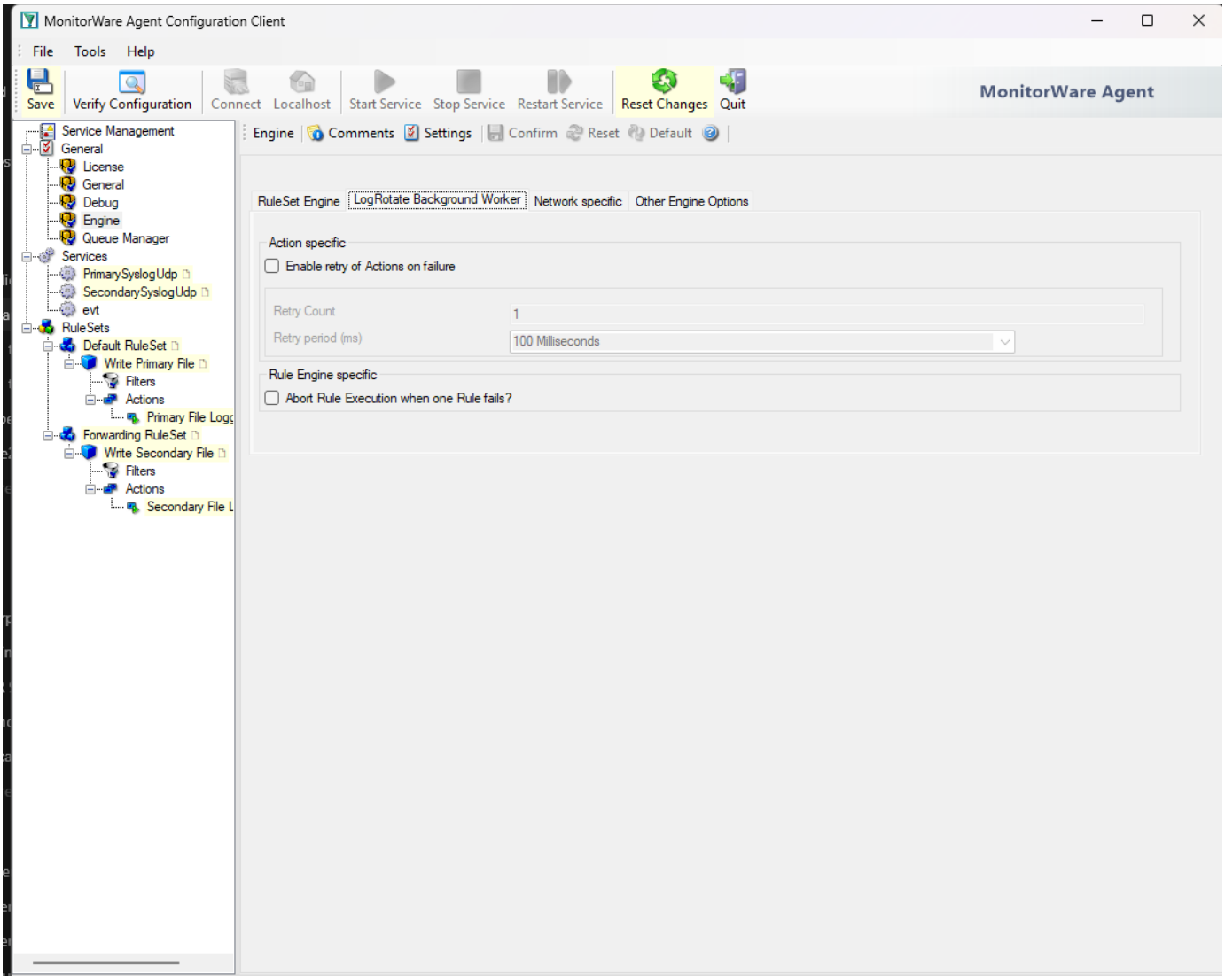
bAbortRuleOnFailure

Description

If checked, and an action fails, the execution will be aborted. If unchecked, and an action fails, simply the next action in this rule will be executed.

LogRotate Background Worker

The LogRotate Background worker checks all configured File Actions periodically and handles the time based log rotation settings, if enabled.



MonitorWare Agent LogRotate Background Worker tab

Wait time between Logrotation checks

File Configuration field:

nLogRotateWorkerSleepTime

Description

Defines how often the logrotate background worker thread checks all configured actions to see if any logfiles need to be rotated based on time related rotate conditions.

Wait time if log rotation is running on service shutdown

File Configuration field:

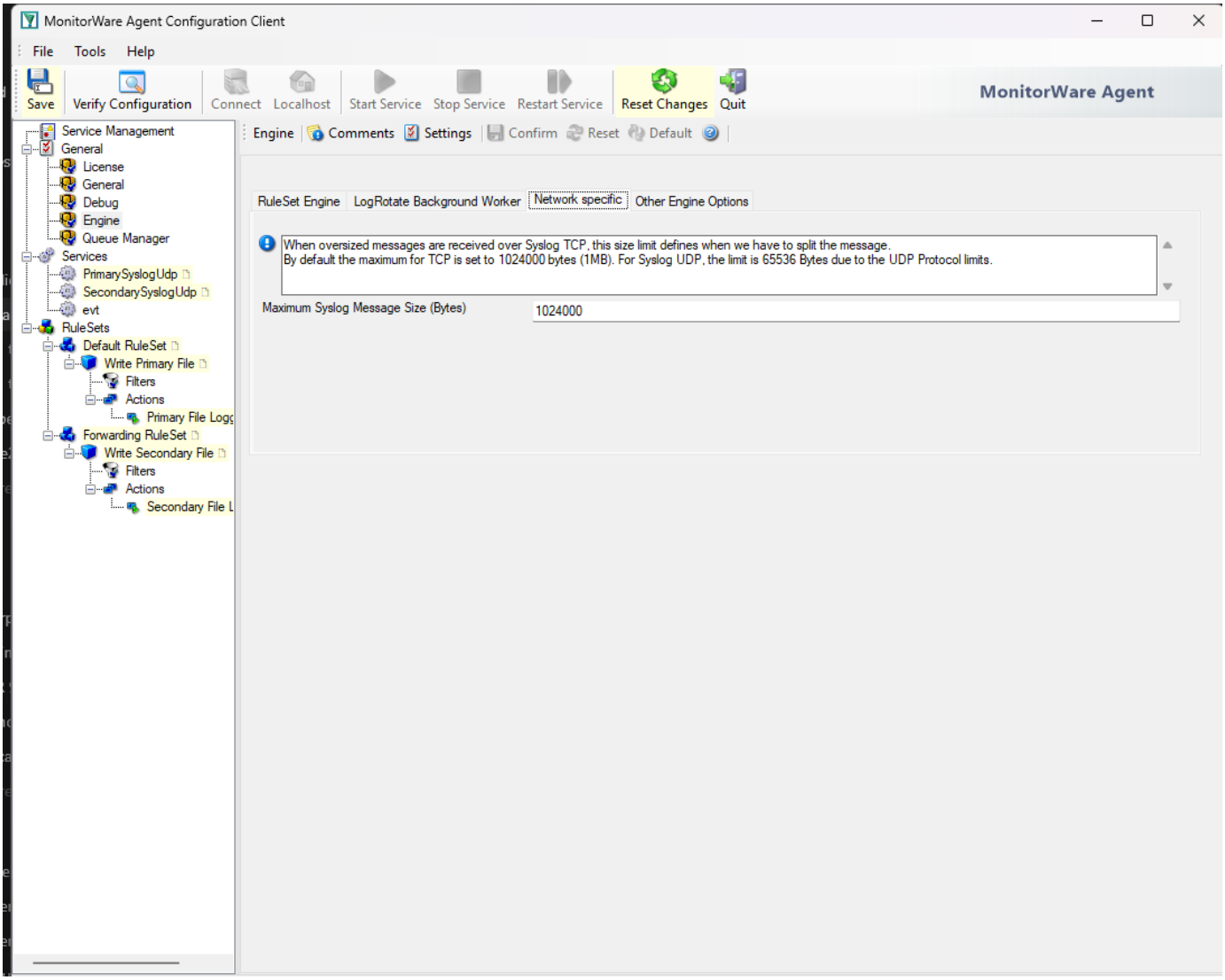
nLogRotateWorkerStopWaitTimeout

Description

When service is being shutdown, this defines how much time the logrotate background worker thread has left to finish its log rotations before the service exits.

If a queued or already active detached rotation does not finish within this bounded wait time, the unfinished detached work is saved and resumed on the next startup instead of extending shutdown indefinitely. For the full guarantee, see **`../shared/faq/log-rotation-guarantees`**.

Network specific Options



MonitorWare Agent Network specific Options tab

Maximum Syslog Message Size (Bytes)

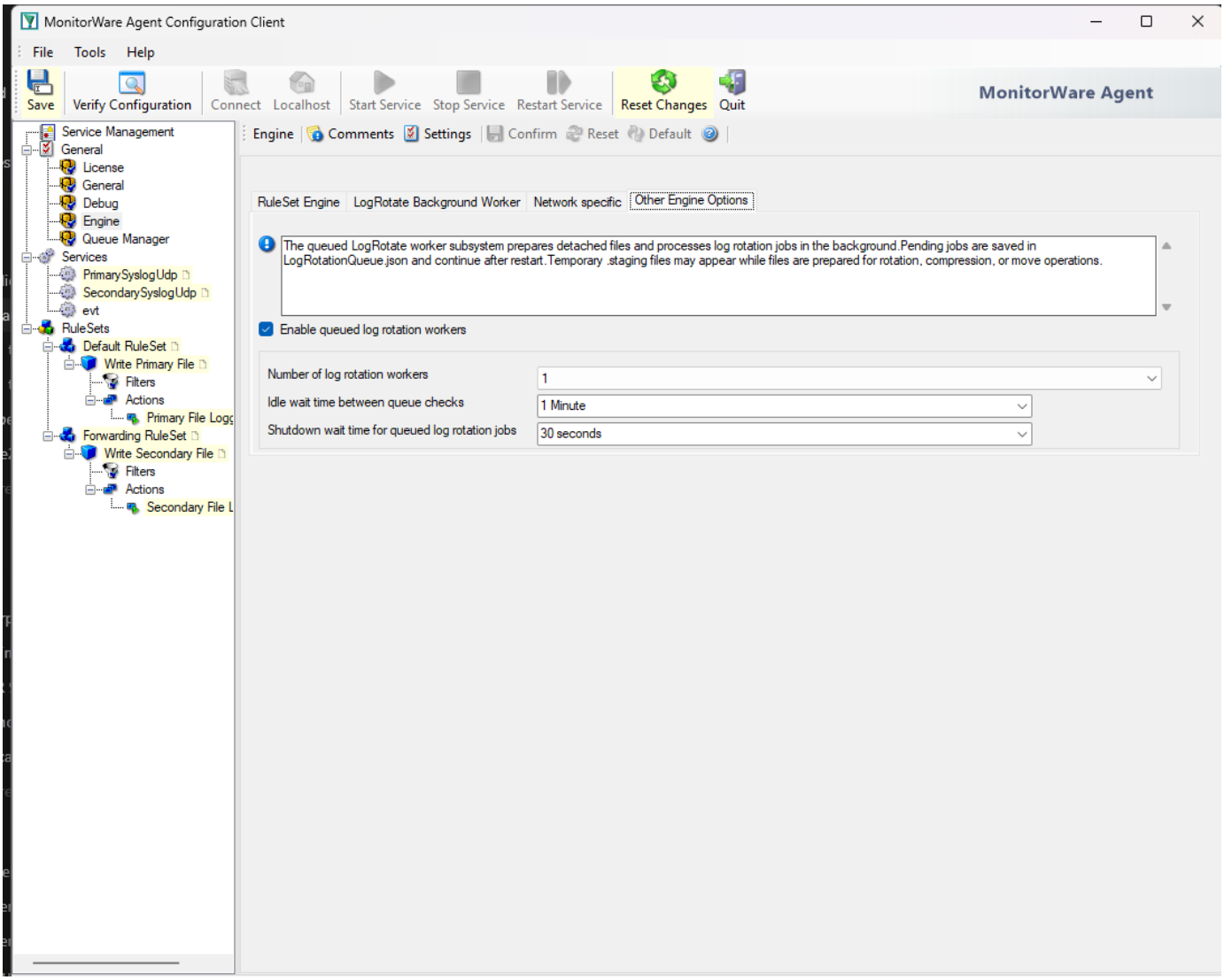
File Configuration field:

nSyslogMaxMessageSize

Description:

Configurable message size limit for Syslog TCP messages. The default is 1MB which is far more as defined in Syslog RFC's. If a syslog message exceeds the size limit, it will be split into multiple messages.

Other Engine Options



MonitorWare Agent Other Engine Options tab

Enable internal DNS Cache

File Configuration field:

nEnableDNSCache

Description

The DNS cache is used for reverse DNS lookups. A reverse lookup is used to translate an IP address into a computer name. This can be done via the resolve hostname action. For each lookup, DNS needs to be queried. This operation is somewhat costly (in terms of performance). Thus, lookup results are cached. Whenever a lookup needs to be performed, the system first checks if the result is already in the local cache. Only if not, the actual DNS query is performed and the result then stored to the cache. This greatly speeds up reverse host name lookups.

However, computer names and IP addresses can change. If they do, the owner updates DNS to reflect the change. If we would cache entries forever, the new name would never be known (because the entry would be in the cache and thus no DNS lookup would be done). To reduce this problem, cache records expire. Once expired, the record is considered to be non-existing in the cache and thus a new lookup is done.

Also, cache records take up system memory. If you have a very large number of senders who you need to resolve, more memory than you would like could be allocated to the cache. To solve this issue, a limit on the maximum number of cache records can be set. If that limit is hit, no new cache record is allocated. Instead, the least recently used record is overwritten with the newly requested one.

How long should DNS names be cached?

File Configuration field:

nDNSCacheTime

Description

This specifies the expiration time for cache records. Do not set it too high, as that could cause problems with changing names. A too low-limit results in more frequent DNS lookups. As a rule of thumb, the more static your IP-to-hostname configuration is, the higher the expiration timeout can be. We suggest, though, not to use a timeout of more than 24 to 48 hours.

How many DNS records can be cached?

File Configuration field:

nDNSCacheLimit

Description

This is the maximum number of DNS records that can be cached. The system allocates only as many memory, as there are records required. So if you have a high limit but only few sending host names to resolve, the cache will remain small. However, if you have a very large number of host names to resolve, it might be useful to place an upper limit on the cache size. But this comes at the cost of more frequent DNS queries. You can calculate about 1 to 2 KBytes per cache record.

Internet Protocoltype

File Configuration field:

nDNSInetProtocol

Description

Select if you wish to prefer IPv4 or IPv6 addresses for name resolution. Note that this only has an effect on names which return both, IPv4 and IPv6 addresses.

Resource Library Cache Options

How long should libraries be cached?

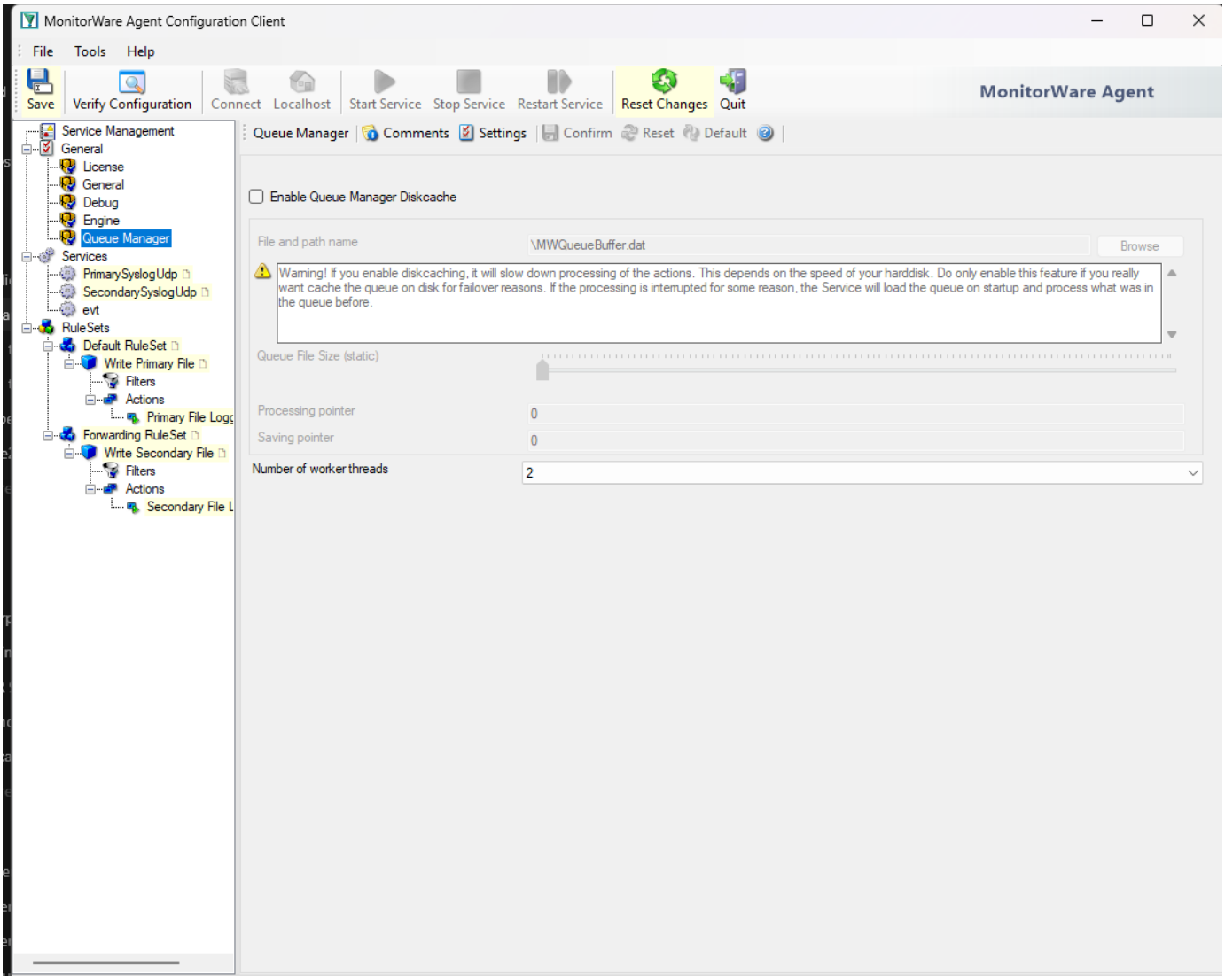
File Configuration field:

nLibCacheTimeOut

Description

This feature will be mainly useful for EventLog Monitor. For events with the same recurring event sources, this will be a great performance enhancement. The cache will also work for remote system libraries (requires administrative default shares). All libraries will be cached for 30 minutes by default.

Queue Manager



MonitorWare Agent Queue Manager options

Enable Queue Manager DiskCache

This feature enables the Agent to cache items in its internal queue on disk using a fixed data file.

> **Warning**
>
> Only use this feature if you really need to!

Depending on the speed of your hard disks, it will slow down processing of the actions, in worst case if the machine cannot handle the IO load, the Queue will become full sooner or later. The DiskCache is an additional feature for customers, who for example want to secure received Syslog messages which have not been processed yet.

The diskcache will not cache infounits from services like EventLog Monitor, as this kind of Service only continues if the actions were successfully. All other information sources like the Syslog server will cache its messages in this file. If the Service or Server crashes for some reason, the queue will be loaded automatically during next startup of the Agent. So messages which were in the queue will not be lost. Only the messages which was currently processed during the crash will be lost.

Enable Queue Manager Diskcache

File Configuration field:

nEnableRingBuffer

Description

Enable the disk based queue manager. Please read the description about the Queue Manager DiskCache first!

File and Pathname

File Configuration field:

szRingBufferFile

Description

As everywhere else, you can define here, where the queue file should be stored.

Queue File Size

File Configuration field:

nRingBufferSize

Description

With this slider, the queue size can be set from 1 MB to 2048 MB.

Processing pointer

File Configuration field:

nProcessingLow

Description

Points to the current processing position within the queue file.

Saving pointer

File Configuration field:

nSavingLow

Description

Points to the last processed position within the queue file.

Queue Manager specific

Number of worker threads

File Configuration field:

nWorkerThreads

Description

Defines the number of worker background threads that the core engine uses to process its queue.

Services

Use this section to configure how MonitorWare Agent collects data. Services are the configured product inputs and generators. They gather events or measurements and pass them to the ruleset assigned to that service.

In this manual, **input** is the clearest plain-language concept, while **service** remains the operational term for the configured MonitorWare Agent object.

For example, the Syslog Server service accepts incoming syslog messages and Event Log Monitor extracts Windows Event Log data. Multiple service instances can run at the same time when their settings do not conflict.

You must define at least one enabled input service, otherwise the product does not collect any data and cannot do useful work.

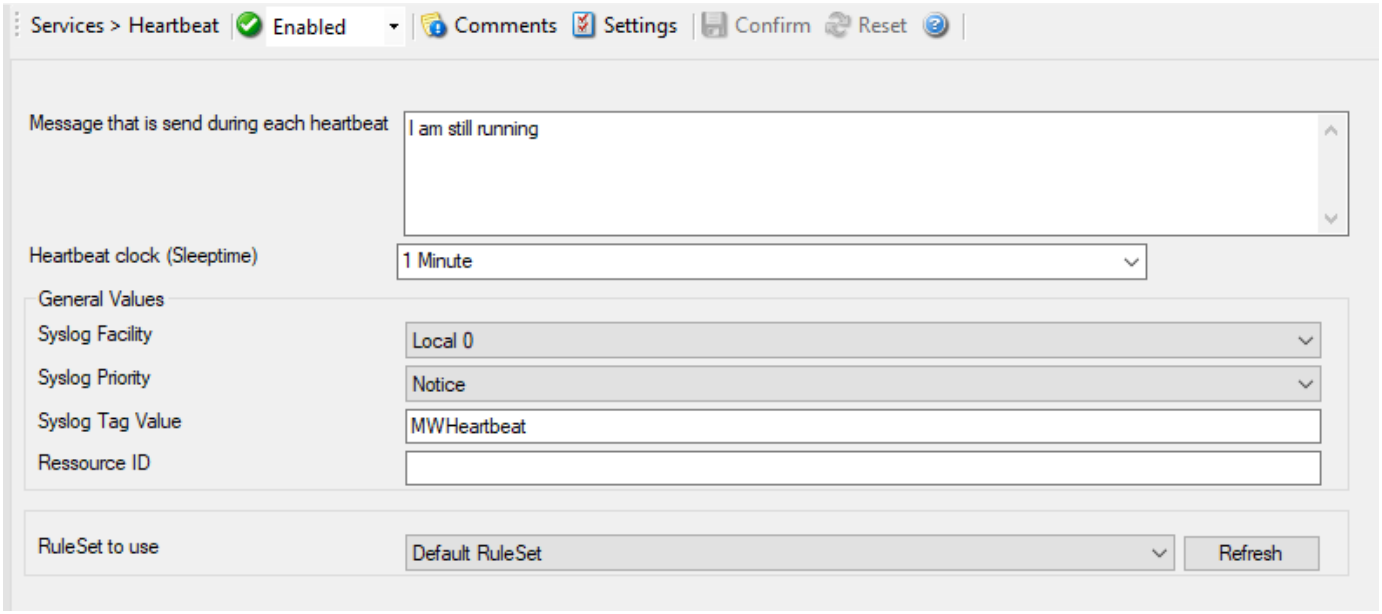
Do not confuse configured services with **service defaults** in the tree view. Service defaults are templates. They provide default properties for new services but do not run and do not collect data by themselves.

Test mode is available for selected services, including Event Log Monitor and File Monitor. Use it only for testing, because it can replay the same events or files repeatedly.

Basic Services

Heartbeat

The heartbeat process can be used to continuously check if everything is running well. It generates an information unit every specified time interval. That information unit can be forward to a different system. If it does not receive additional packets within the configured interval, it can be assumed that the sender is either in trouble or already stopped running.



- Service - Heartbeat*

Message that is send during each heartbeat

File Configuration field:

szMessage

Description:

This is the message that is used as text inside the information unit. Use whatever value is appropriate. The message text does not have any special meaning, so use whatever value you seem fit.

Heartbeat clock (Sleeptime)

File Configuration field:

nSleepTime

Description:

This is the interval, in **`milliseconds`**, that the heartbeat service generates information units in. Please note that the receiving side should be tolerant. The interval specified here is the minimum time between packets. Under heavy load, the interval might be slightly longer. It is good practice to allow twice this interval before the service is considered suspect by the system monitoring the services health.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The **`syslog facility`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

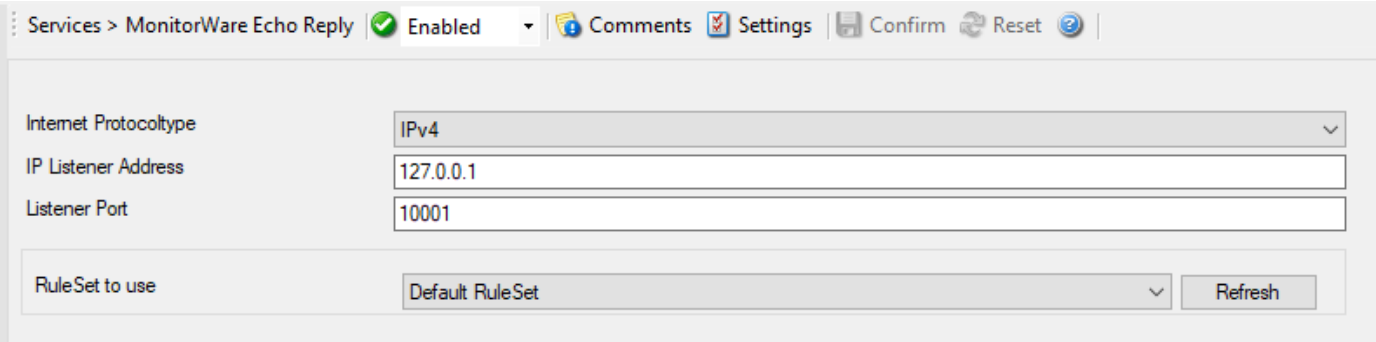
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

MonitorWare Echo Reply

The Echo Reply service is used on each of the installed EventReporter/ MonitorWare Agent. A central agent running the MonitorWare Agent is using the echo request and instructs to poll each of the other EventReporter/MonitorWare Agent services. When the request is not carried out successfully, an alert is generated. The MonitorWare echo protocol ensures that always a fresh probe of the remote EventReporter/MonitorWare Agent Service is done.



- Service - MonitorWare Echo Reply*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

IP Listener Address

File Configuration field:

szMyIPAddress

Description:

The MonitorWare Echo Reply service can be bound to a specific IP Address. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This feature is useful for multihome environments where you want to run different Syslog Servers on different IP Addresses. Please note that the default IP Address `0.0.0.0` means ANY IP Address.

Listener Port

File Configuration field:

nListenPort

Description:

Specify the listener port here.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

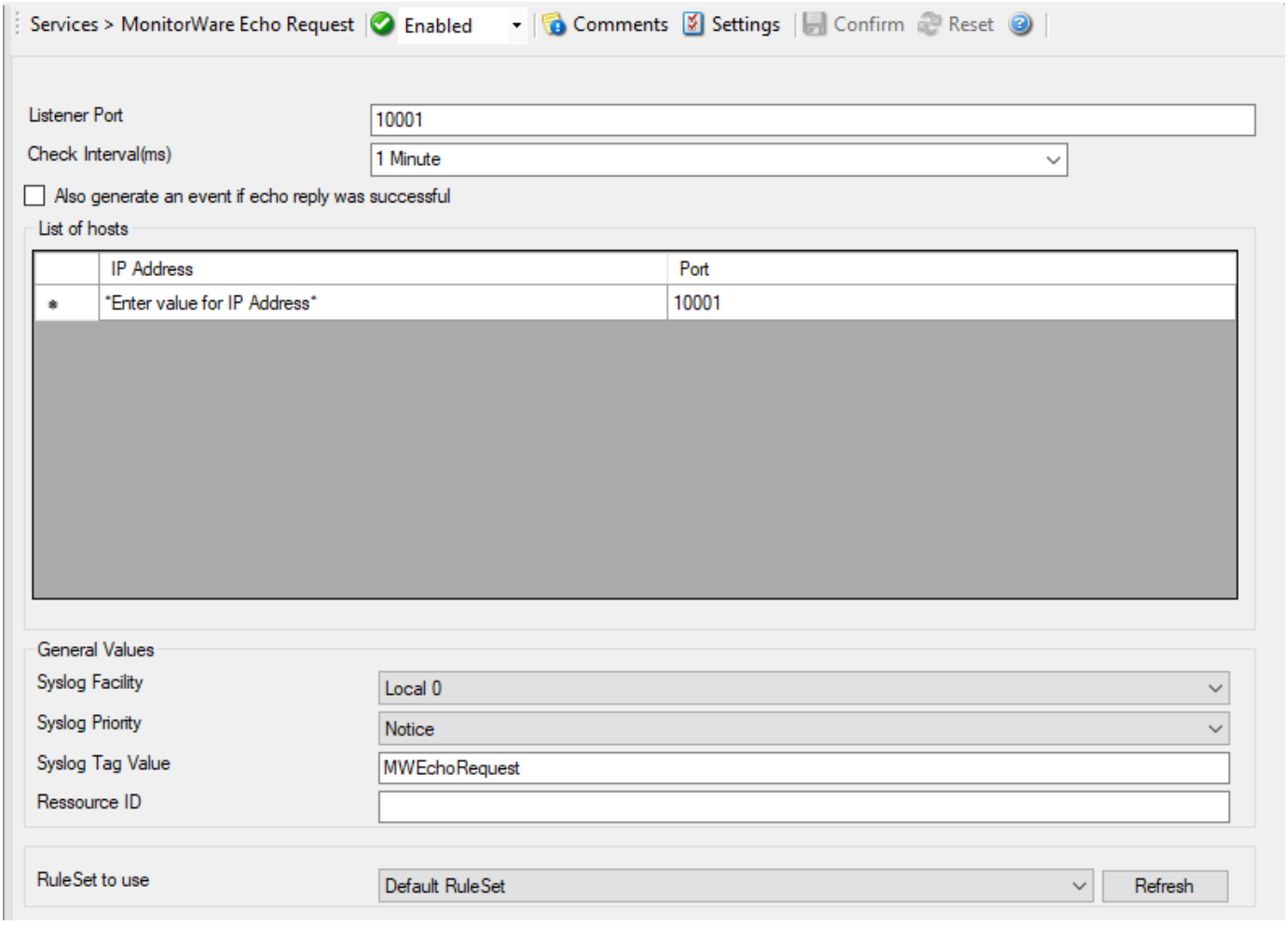
Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

MonitorWare Echo Request

The MonitorWare Echo Request service is used to check the availability of MonitorWare Agents (either MonitorWare Agent, WinSyslog or EventReporter). It works in conjunction with the MonitorWare Echo Reply service, which needs to be running on the agents which are to be monitored.

Echo Request service tries to connect to the reply service on remote agents. If it can connect, it checks if the remote agent is alive. If either the connect fails or the remote response is not satisfactory, an event is generated (which could be used for alerting as well as corrective action). Optionally, an event can also be generated when the remote agent can be contacted successfully.

A single MonitorWare Echo Request service can check an unlimited number of remote agents. Please note, however, that all checks are done in sequence. So with a large number of systems to be checked, there may be a longer delay between the checks than you expect. This is especially the case over slow network links (like found in wide area networks). If this is not acceptable, multiple Echo Request services can be configured. They then run independent of each other.



- Service - Echo Request*

Listener Port

File Configuration field:

nListenPort

Description:

The current port on which the service MonitorWare Echo Request is running.

Check Interval(ms)

File Configuration field:

nSleepTime

Description:

The Echo Request service runs periodically. This specifies how often it should run. Please note that the Echo Request service waits for the configured amount of time after the current run is finished. The time is the delay in milliseconds.

Also generate an event if echo reply was successful

File Configuration field:

nGenerateOnSuccess

Description:

If checked, an event is to be created each time the probe runs, even when it is successful. If unchecked, events are only created when the remote system fails.

List of hosts

This table contains the systems that are to be checked in each interval. Once in each run, each remote system is checked. The checks are carried out in the exact same order that the systems appear in the table - from top to bottom. Kindly insert new entries by editing the last entry (asterisk at the beginning). To delete entries, select a row and hit the delete key on your keyboard.

IP Address

File Configuration field:

szIP_[n]

Description:

Enter an Hostname or IP-Address if a remote MonitorWare Agent with a configured Echo Reply Service.

Port

File Configuration field:

nPort_[n]

Description:

Enter the configured Port you have configured in remote Echo Reply Service.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The Syslog facility to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The Resource ID to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

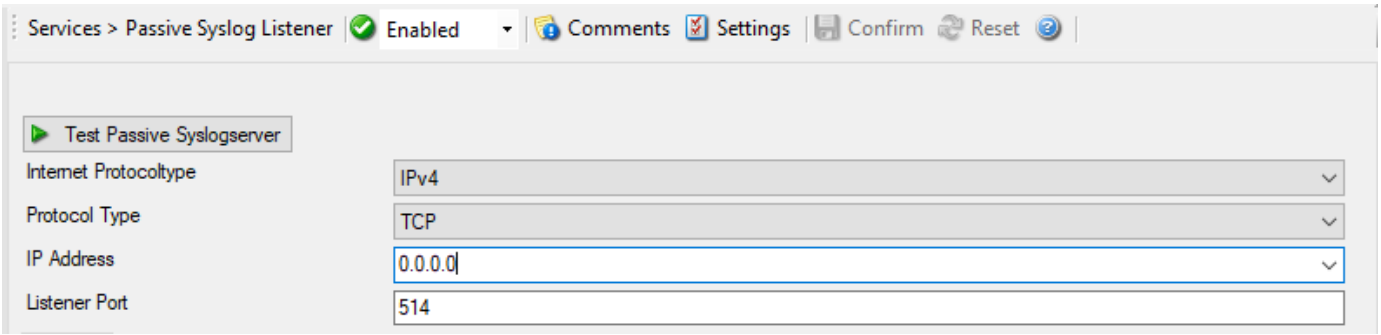
network services

Passive Syslog Listener

The Passive Syslog Listener Service is a tcp based Listener Service that sends messages from a Syslog Queue to any remote host, that connects to it. Connections can be secured with TLS including certificate based authentication. Additionally, a greeting and response message can be configured as well.

In order to use the Passive Syslog Listener, you have to configure at least one syslog queue action within your configuration first!

When configured and running, you can click the Test Passive Syslog server button in order to open a new window that will help you testing the Passive Syslog Listener. Make sure the Service is started (or restarted) after you finished the configuration of the Passive Syslog Listener. The test window will automatically be filled with correct properties and is ready to go. If the test succeeds, the data grid should rapidly fill with queued syslog messages.



- Service - Passive Syslog Listener*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Protocol Type

File Configuration field:

nProtocolType

Description:

Currently only TCP is supported for the Passive Syslog Listener.

IP Address

File Configuration field:

nProtocolType

Description:

The Syslog server can now be bound to a specific IP address. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This feature is useful for multihome environments where you want to run different Syslog Servers on different IP Addresses. Please note that the default IP Address `0.0.0.0` means ANY IPv4 Address and `"::"` means all available IPV6 Addresses.

Listener Port

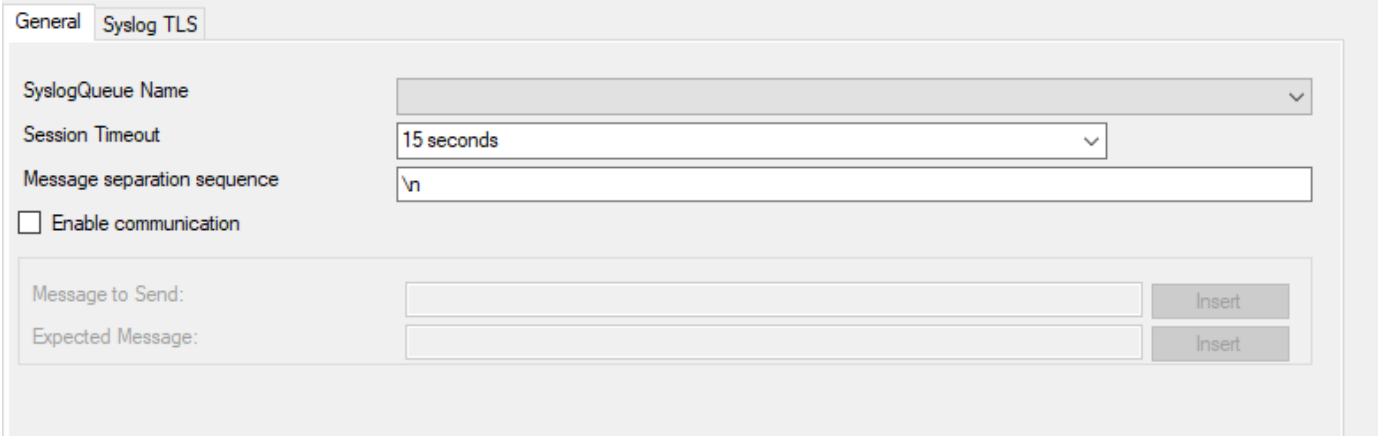
File Configuration field:

nListenPort

Description:

The port the Syslog server listens on. The typical (standard) value is 514. This should be changed only if there is a definite need for it. Such a need typically arises from security concerns. If the port is changed, all reporting devices (routers, printers …) must also be configured to use the non-standard port.

General Options



- Service - Passive Syslog Listener General Tab*

SyslogQueue Name

File Configuration field:

szSyslogQueue

Description:

Selects the SyslogQueue to be used by this Service. Must be set to a valid SyslogQueue. See SyslogQueue Action for more about Syslog Queues.

Session Timeout

File Configuration field:

nTimeOutSession

Description:

One of the TCP-specific options is the session timeout. This value declares, how long a TCP session may be kept open, after the last package of data has been sent. You can by default set values between 1 second and 1 day or you can use a custom value with a maximum of 2147483646 milliseconds. If you wish to disable the session timeout, you can use a custom value of 0 milliseconds to disable it.

Maximum concurrent TCP sessions

File Configuration field:

nTCPMaxSessions

Description:

Limits how many TCP sessions this listener accepts at the same time. The default is `1024`. A value of `0` disables the cap. For untrusted networks, keep a finite limit so stalled connections cannot consume an unbounded number of receiver threads.

TLS handshake timeout

File Configuration field:

nTLSHandshakeTimeout

Description:

Sets the timeout, in milliseconds, used while a new TLS connection completes its handshake. The default is `30000`. This setting applies before the normal TCP session timeout and helps disconnect clients that open a TLS socket but do not complete the handshake.

Message separation sequence

File Configuration field:

szTCPMsgSep

Description:

This determines how you want to separate the messages. By default `\n` is the value for this, as most times a message ends with a carriage return and/or a line feed. But, you can choose your own separation sequence here as well.

Enabled communication

File Configuration field:

nEnableCommunicate

Description:

Activate this setting when you want to Send and Receive an expected message after the connection is established.

Message to Send

File Configuration field:

szMessageToSend

Description:

Defines the message send to the Client after the connection is established. The Passive Syslog Listener will close the connection if the message does not match.

Expected Message

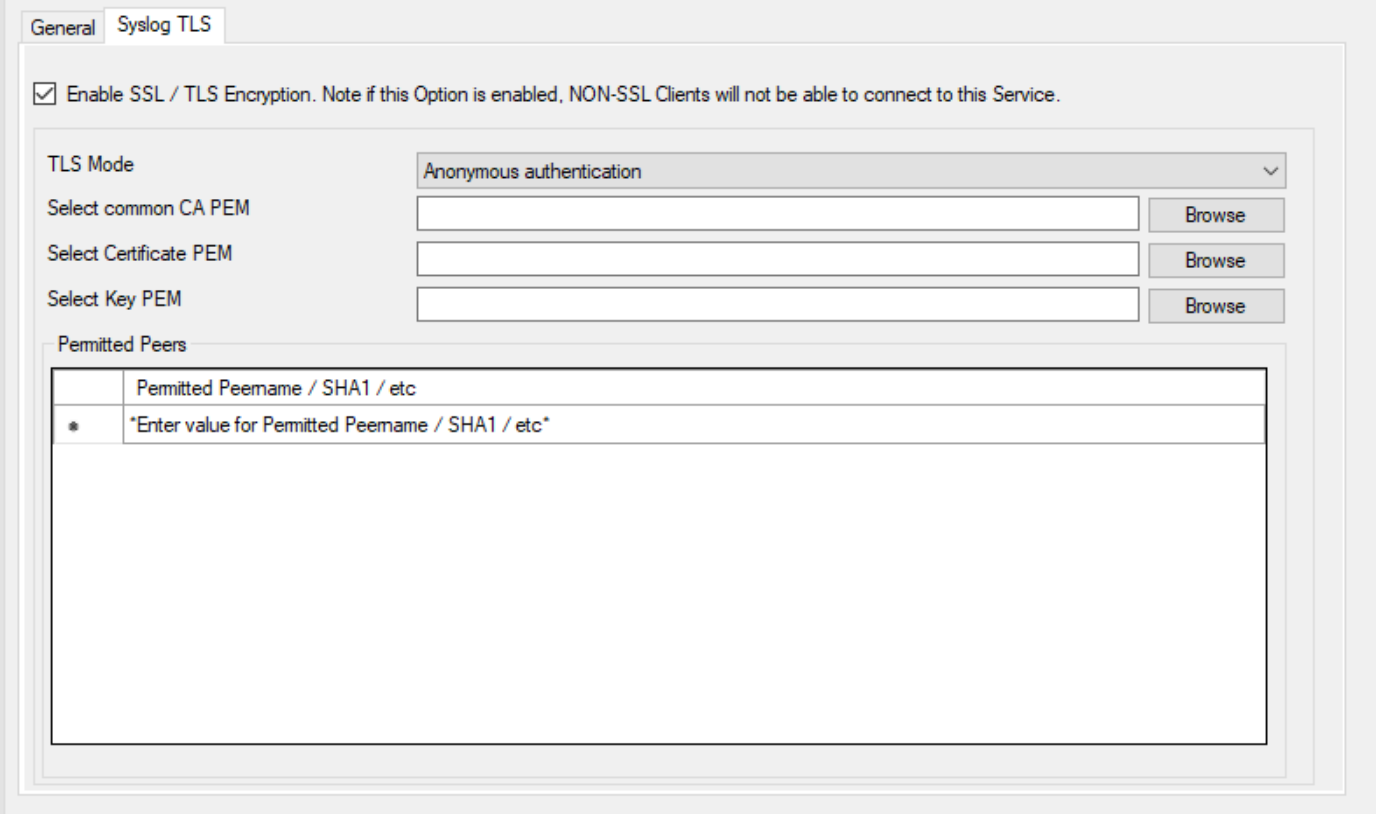
File Configuration field:

szMessageExpected

Description:

Defines the message to be expected from the Client after our message was send. The Passive Syslog Listener will close the connection if the message does not match.

Syslog TLS



- Service - Passive Syslog Listener TLS Tab*

Enable SSL/TLS Encryption

Note: if this Option is enabled, NON-SSL Clients will be able to connect to this Service.

File Configuration field:

nUseSSL

Description:

This option enables SSL/TLS encryption for your Syslog server. Please note, that with this option enabled, the server only accepts SSL/TLS enabled senders.

TLS Mode

File Configuration field:

nTLSMode

Description:

The TLS mode can be set to the following:

Anonymous authentication Default option, which means any client certificate will be accepted, or even none. This provides encryption without peer authentication. Use it only when that is intentional for the deployment; use one of the x509 modes when peer authenticity matters.

x509/name (certificate validation and name authentication) When this mode is selected, the subject within the client certificate will be checked against the permitted peers list. This means the Syslog server will only accept the secured connection if it finds the permitted peer in the subject. Newer hardened configurations can disable the legacy subject substring match and rely on certificate name checks instead.

x509/fingerprint (certificate fingerprint authentication) This mode creates a SHA1 Fingerprint from the client certificate it receives, and compares it to fingerprints from the permitted peers list. You can use the debuglog to see fingerprints of client certificates which were not permitted. SHA-1 fingerprint labels remain supported for RFC 5425 interoperability. Hardened configurations can disable legacy substring matching and use exact normalized SHA-1 or SHA-256 fingerprints.

x509/certvalid (certificate validation only) A Syslog Sender is accepted when the client certificate is valid. No further checks are done.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Select the CA certificate or CA bundle used to validate certificates presented by connecting clients. If you use a CA chain, include the intermediate CA certificates first and the root CA certificate last.

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Select the server certificate in PEM format. This is the certificate the Passive Syslog Listener presents to connecting clients. If needed, append the intermediate CA certificates after the server certificate so clients can validate the chain.

Select Key PEM

File Configuration field:

szTLSKeyFile

Description:

Select the private key in PEM format that matches the server certificate. Passphrase-protected private keys are not supported.

Permitted Peers

Permitted Peername/SHA1/etc.

File Configuration field:

szIP_[n]

Description:

This list contains all permitted peers. If x509/name is used, this can contain parts of the client certificate subject.

For example if you have `CN = secure.syslog.msg` in the certificate subject, you can add `"secure.syslog.msg"` as permitted peer. When `using x509/fingerprint`, this list holds a list of permitted SHA1 fingerprints. The fingerprints can either be generated with OpenSSL Tools, or grabbed from the debug logfile.

The format is like described in RFC 5425, for example: `"SHA1:2C:CA:F9:19:B8:F5:6C:37:BF:30:59:64:D5:9A:8A:B2:79:9D:77:A0"`.

TLS hardening compatibility options

File Configuration fields:

nTLSAllowExpiredCerts, nTLSLegacyPeerNameMatch, nTLSLegacyFingerprintMatch

Description:

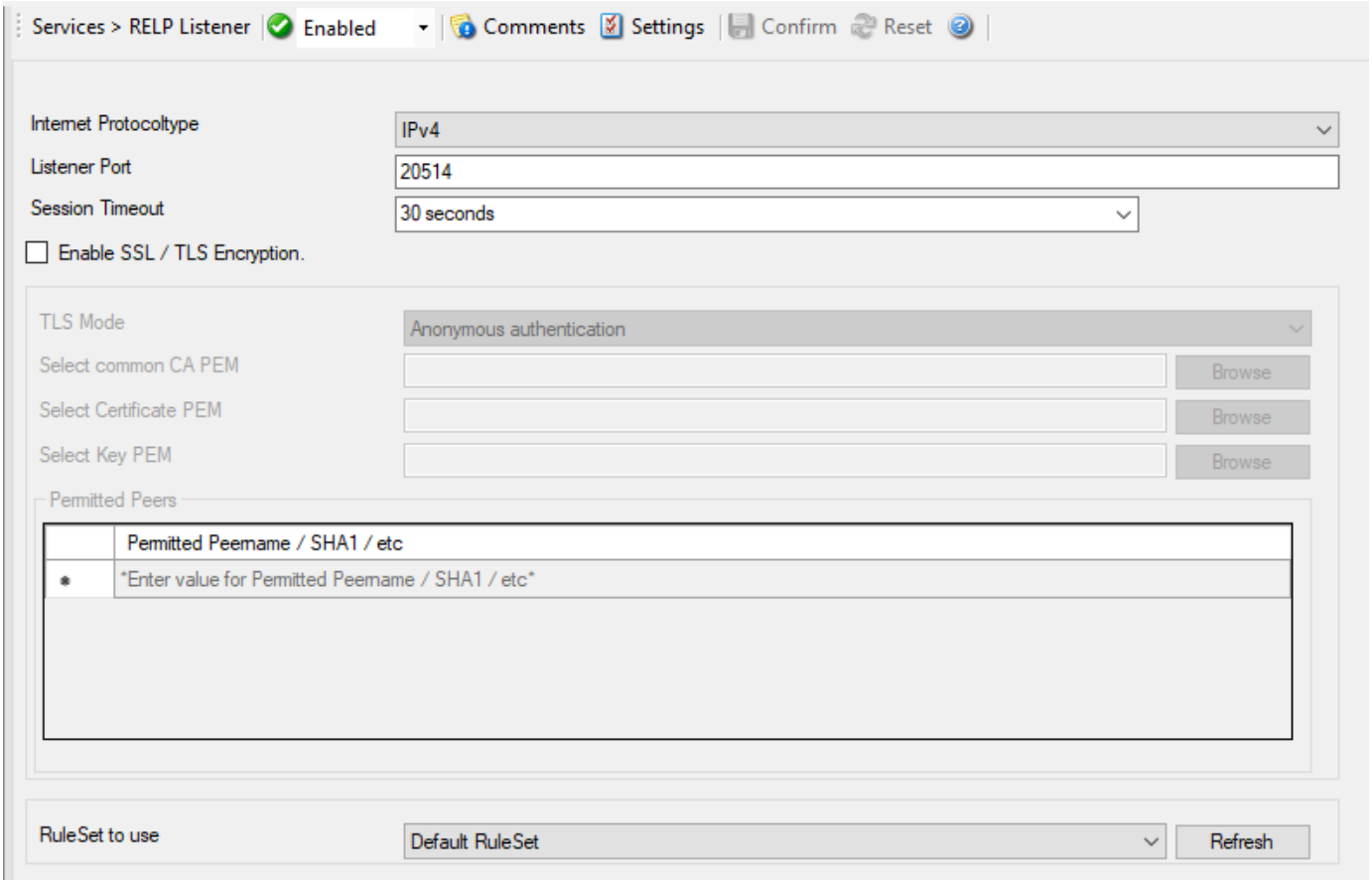
These compatibility options control stricter certificate handling for authenticated TLS modes. The defaults preserve legacy behavior: `nTLSAllowExpiredCerts=1` accepts expired client certificates, `nTLSLegacyPeerNameMatch=1` allows the historic subject substring match for x509/name mode, and `nTLSLegacyFingerprintMatch=1` allows the historic SHA-1 fingerprint substring match.

Recommended hardened values are `0` for all three settings. With those values, expired client certificates are rejected, x509/name mode uses certificate name matching, and x509/fingerprint mode requires exact normalized SHA-1 or SHA-256 fingerprints.

RELP Listener

The `RELP Listener` service receives messages over the relp protocol. In practice, it is an input service for reliable event delivery and accepts messages from senders that support RELP.

Other than using a different application protocol over TCP, the `RELP Listener` service is functionally equivalent to the `Syslog server` service. It automatically listens on all available IP addresses, including IPv4 and IPv6. This is due to the librelp implementation method.



- Service - RELP Listener*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Listener Port

File Configuration field:

nListenPort

Description:

The port the `RELP Listener` service listens on. The typical (standard) value is 20514. This should be changed only if there is a definite need for it. Such a need typically arises from security concerns. If the port is changed, all reporting devices must also be configured to use the non-standard port.

Session Timeout

File Configuration field:

nTimeOutSession

Description:

It controls how long a session is to be opened from the server side.

Enable SSL / TLS Encryption

File Configuration field:

nUseSSL

Description:

This option enables SSL / TLS encryption for the `RELP Listener` service. Please note that with this option enabled, the service only accepts SSL / TLS enabled senders.

TLS Mode

File Configuration field:

nTLSMode

Description:

The TLS mode can be set to the following:

Anonymous authentication Default option, which means any client certificate will be accepted, or even none.

x509/name (certificate validation and name authentication) When this mode is selected, the subject within the client certificate will be checked against the permitted peers list. This means the `RELP Listener` service will only accept the secured connection if it finds the permitted peer in the subject.

509/fingerprint (certificate fingerprint authentication) This mode creates a SHA1 Fingerprint from the client certificate it receives, and compares it to fingerprints from the permitted peers list. You can use the debuglog to see fingerprints of client certificates which were not permitted.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Select the CA certificate or CA bundle used to validate certificates presented by connecting clients. If you use a CA chain, include the intermediate CA certificates first and the root CA certificate last.

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Select the server certificate in PEM format. This is the certificate the `RELP Listener` service presents to connecting clients. If needed, append the intermediate CA certificates after the server certificate so clients can validate the chain.

Select Key PEM

File Configuration field:

szTLSKeyFile

Description:

Select the private key in PEM format that matches the server certificate. Passphrase-protected private keys are not supported.

Permitted Peers

Permitted Peername / SHA1 / etc

File Configuration field:

szIP_[n]

Description:

This list contains all permitted peers. If x509/name is used, this can contain parts of the client certificate subject. For example if you have CN = secure.syslog.msg in the certificate subject, you can add “secure.syslog.msg” as permitted peer. When using x509/fingerprint, this list holds a list of permitted SHA1 fingerprints. The fingerprints can either be generated with OpenSSL Tools, or grabbed from the debug logfile. The format is like described in RFC 5425, for example: `SHA1:2C:CA:F9:19:B8:F5:6C:37:BF:30:59:64:D5:9A:8A:B2:79:9D:77:A0`.

RuleSet to Use

File Configuration field:

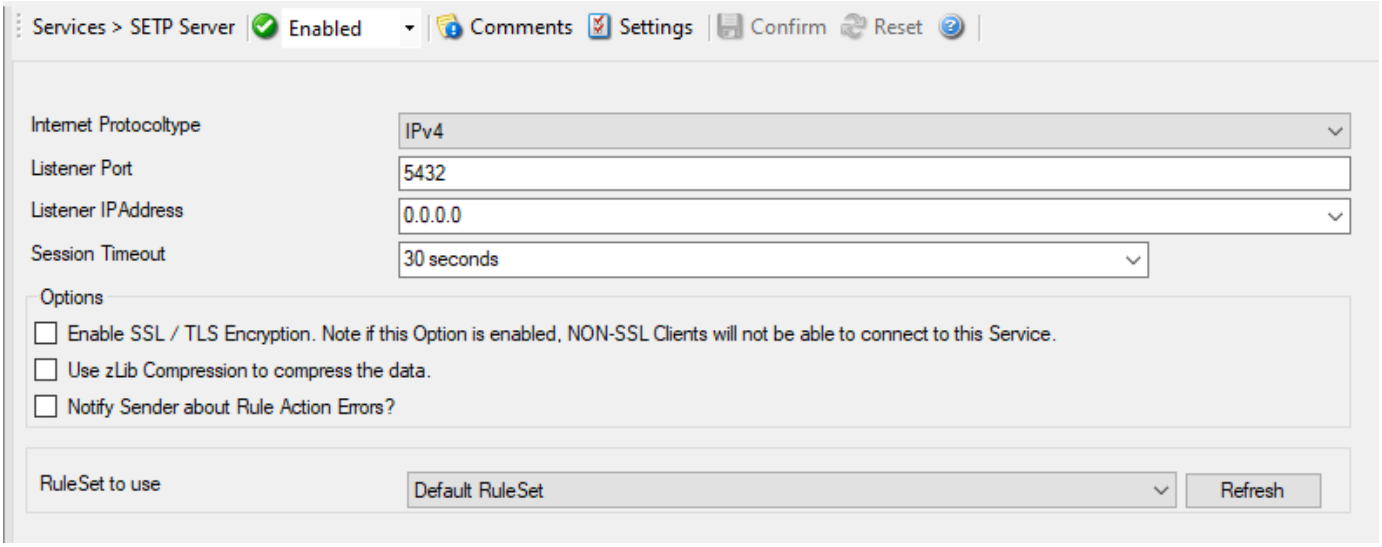
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

SETP Server

Configures the `SETP Server` service. In practice, this is an input service that receives setp events from other Adiscon systems. There are only few configuration options, as SETP takes the original message from the sender and uses the exact settings that the sender was configured for. No alteration occurs on the receiving side, so no values need to be configured for the message format.



- Service - SETP Server*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Listener Port

File Configuration field:

nListenPort

Description:

The port the `SETP Server` service listens on. The default value is 5432. This should be changed only if there is a definite need for it. Such a need typically arises from security concerns. If the port is changed, all reporting devices must also be configured to use the non-standard port. SETP operates over tcp.

Listener IP Address

File Configuration field:

szMyIPAddress

Description:

The `SETP Server` service can be bound to a specific IP address. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This feature is useful for multihome environments where you want to run different input services on different IP addresses. Please note that the default IP address `0.0.0.0` means any IP address.

Session Timeout

File Configuration field:

nTimeOutSession

Description:

This controls how long a session is to be opened from the server side.

Options

Enable SSL/TLS

Note: if this Option is enabled, NON-SSL Clients will not be able to connect to this Service.

File Configuration field:

nUseSSL

Description:

If this option is enabled then the `SETP Server` service accepts SSL / TLS setp connections only.

Please note: If this option is enabled, non-SSL SETP senders will not be able to connect.

Use zLib Compression to compress the data

File Configuration field:

nZlibComp

Description:

When enabled, MonitorWare Agent decompresses the zLib compressed data sent by the SETP senders. It is still be able to receive normal data. zLib compression is useful to reduce traffic in WAN environments.

Notify Sender about Rule Action Errors?

File Configuration field:

bIndicateErrorToOrigin

Description:

Enable this option to communicate the outcome of an action back to the sender of the SETP message.

This communicates back the status of actions carried out on the receiver to the sender of the event. In essence, the sender system will know if the action failed or succeeded on the remote machine. It can then act exactly like the action was carried out on the local machine. The exact handling of failure states is depending on the event source.

An example: you have a machine running an EventLog Monitor and sending these events via SETP, and on the other side have all incoming events written into a database. If the database would be offline and the events not being written into it, the `SETP Server` service would return as the last message that the action failed (as long as this option is enabled) and generate an error event with ID 1005 (and generate a Success Event with ID 1012 if successful again). The sender would then halt and retry sending the event. This is because SETP is built somehow like TCP which ensures data transfer, but additionally can return a status to the sender if the following action was successful.

This happens because the Event Log Monitor (as well as the file monitor and others) is a restartable event source. It uses the outcome of actions to decide if the action is to be retried in another run of the same source. Other event sources have different behavior. The `Syslog server` service, for example, does not retry failed actions. This is due to the lossy nature of syslog, in which losing syslog messages is explicitly permitted (and favorable over taking up too many system resources by trying to buffer them).

Please Note: If you enable this feature, older MonitorWare Agent Versions (4.2.x and below, as well as WinSyslog 7.2.x and EventReporter 8.2.x and below) may have trouble sending data over SETP once a Rule Exception occurs! If you intend to use this feature, make sure all MonitorWare Agent Installations are at least Version 4.3.x (This applies for WinSyslog 7.3.x and EventReporter 8.3.x as well).

RuleSet to use

File Configuration field:

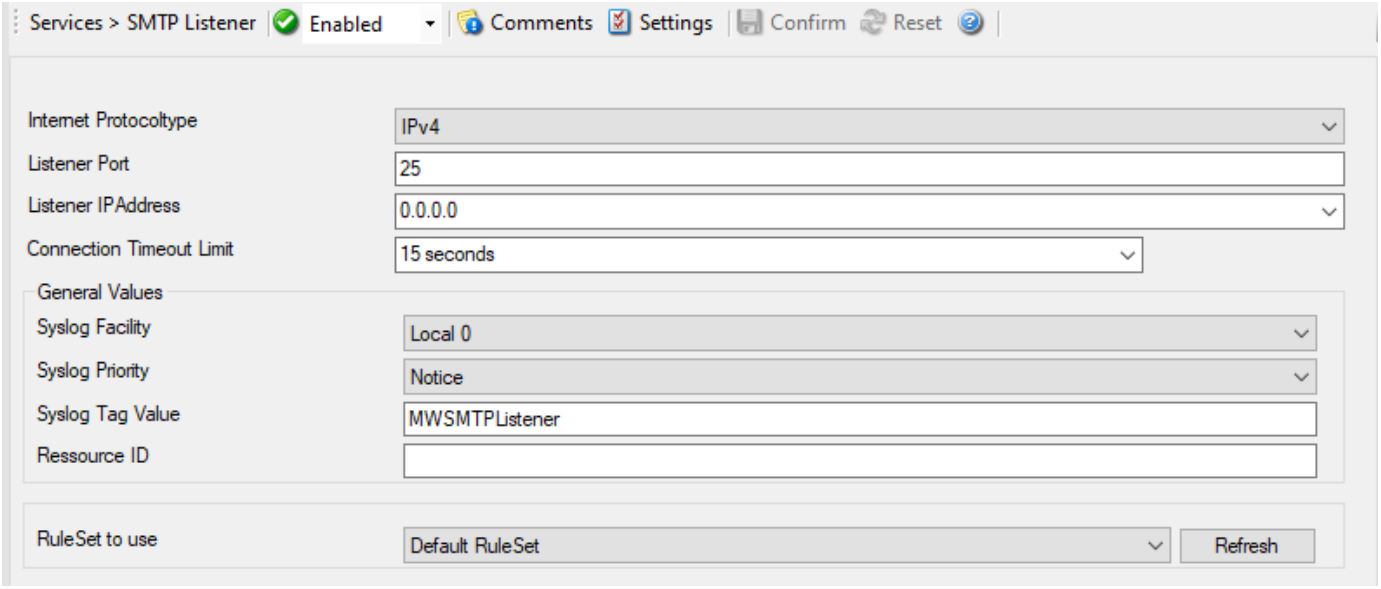
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name can be chosen from a drop-down list where you find your RuleSets.

SMTP Listener

The SMTP Listener is a service, that allows you to receive emails and convert them into syslog messages for example. It acts as a real SMTP Server would like, just with a reduced command set that is necessary to receive Emails.



- Service - SMTP Listener*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Listener Port

File Configuration field:

nSMTPPort

Description:

This port is to be probed. Please see your server's reference for the actual value to use. For example, mail servers typically listen to port 25.

Listener IP Address

File Configuration field:

szMyIPAddress

Description:

Either the IP address or resolvable host name of the SMTP server, the SMTP probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called "remote host" in the description above. Please note that specifying a host name can cause the SMTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

Connection Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The Timeout limit specifies the time the listener waits for the sender.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration fields:

nSyslogPriority

Description:

The Syslog Priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog Tag Value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful

RuleSet to Use

File Configuration field:

szRuleSetName

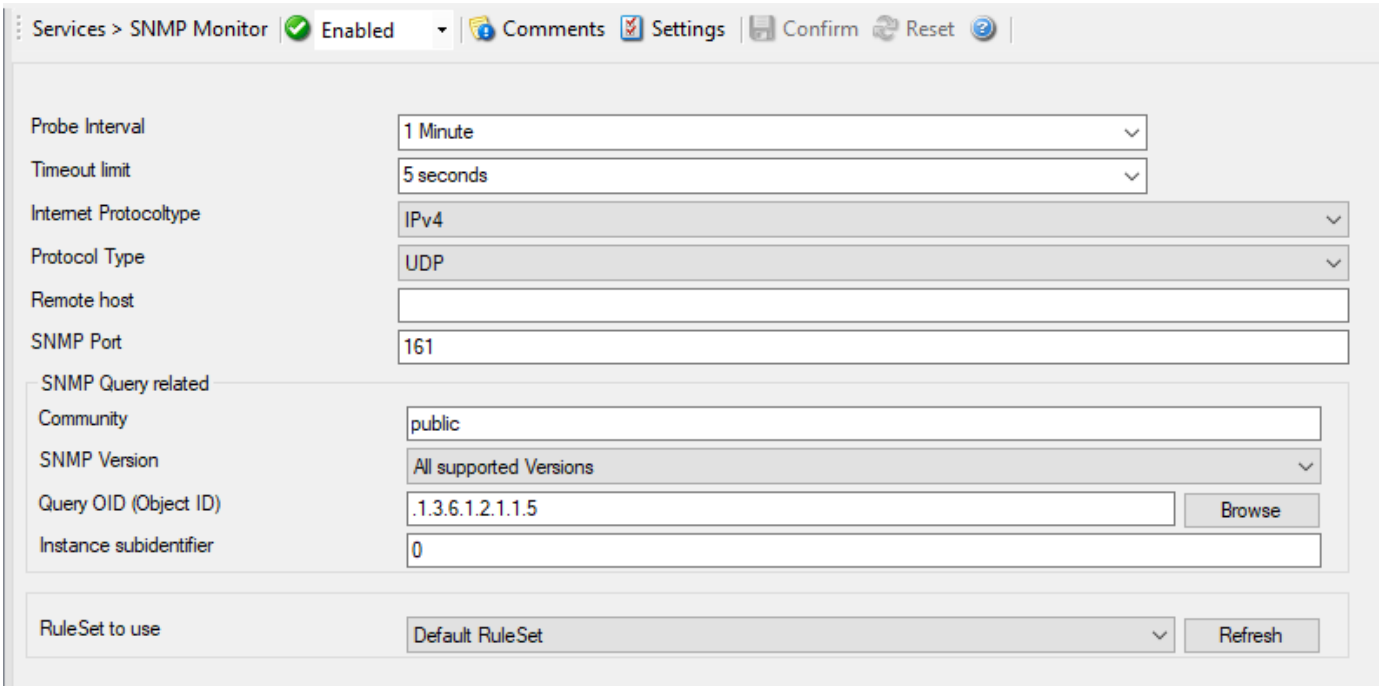
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

SNMP Monitor

SNMP Monitor can be used to query and monitor SNMP enabled devices. There are many devices that support SNMP and which can be queried for information by SNMP GET. This can be printers, router, managed switches, Linux / Windows servers and so on.

The SNMP Monitor Service runs continuously based on the configuration mentioned below.



- Service - SNMP Monitor*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the queries. After each probe, the MonitorWare Agent SNMP Monitor process goes “to sleep”. This period is specified in milliseconds.

Timeout limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the ping fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the ping probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Protocol Type

File Configuration field:

nProtocolType

Description:

SNMP Monitor can be query other devices by UDP and TCP.

Remote host

File Configuration field:

szRemoteHost

Description:

Either the IP address or resolvable host name of the system you want to monitor. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. Please note that specifying a host name can cause the SNMP monitor to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

SNMP Port

File Configuration fields:

nCheckPort

Description:

The port the SNMP listener is listening to. If in doubt, leave it at the default of 161.

SNMP Query related

Community

File Configuration field:

szCommunity

Description:

Specify the SNMP community to which the messages belong too.

SNMP Version

File Configuration field:

nSnmpVersion

Description:

Configures the SNMP protocol version, that should be used for communication:

1. All supported Versions
2. SNMP Version 1 Only
3. SNMP Version 2c Only

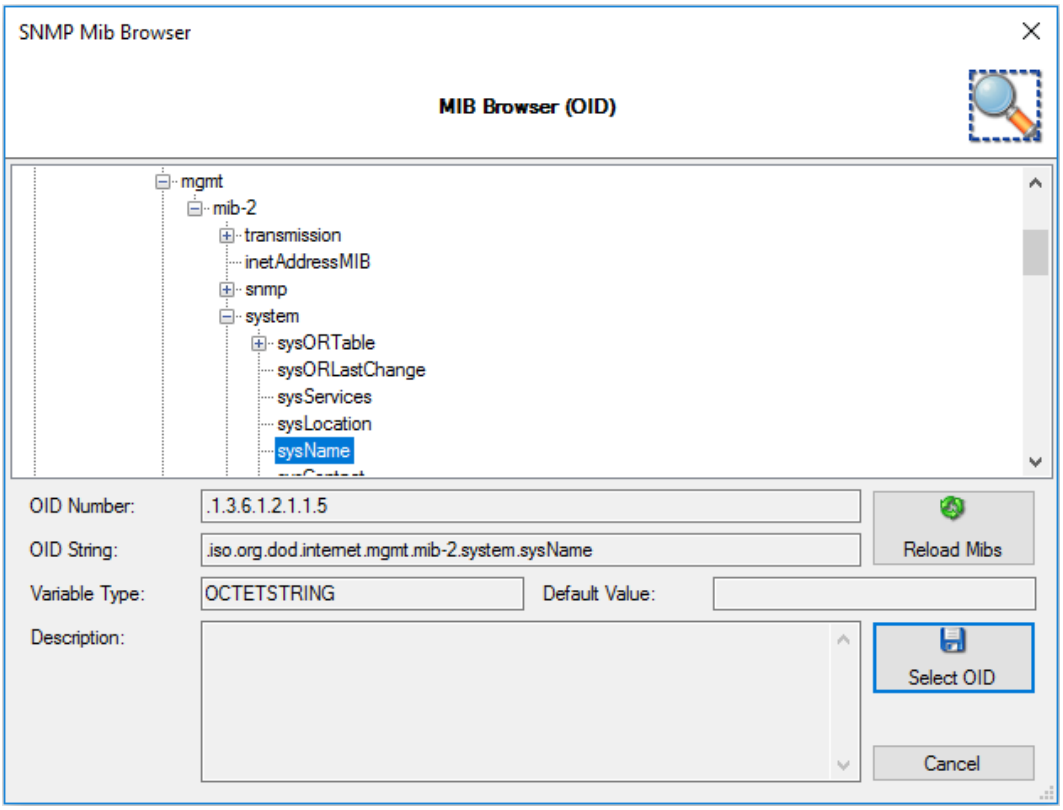
Query OID (Object ID)

File Configuration field:

szSnmpCheckOid

Description:

This is the Object ID you will query the device for. You can use Browse option to select your OID. When you click the Browse button, you will see a screen similar to the one shown below:



MIB Browser. You can select your OID here.

Instance Subidentifier

File Configuration field:

nInstanceID

Description:

Which Instance Subidentifier do you want to query, if the selected OID has multiple data entries.

RuleSet to Use

File Configuration field:

szRuleSetName

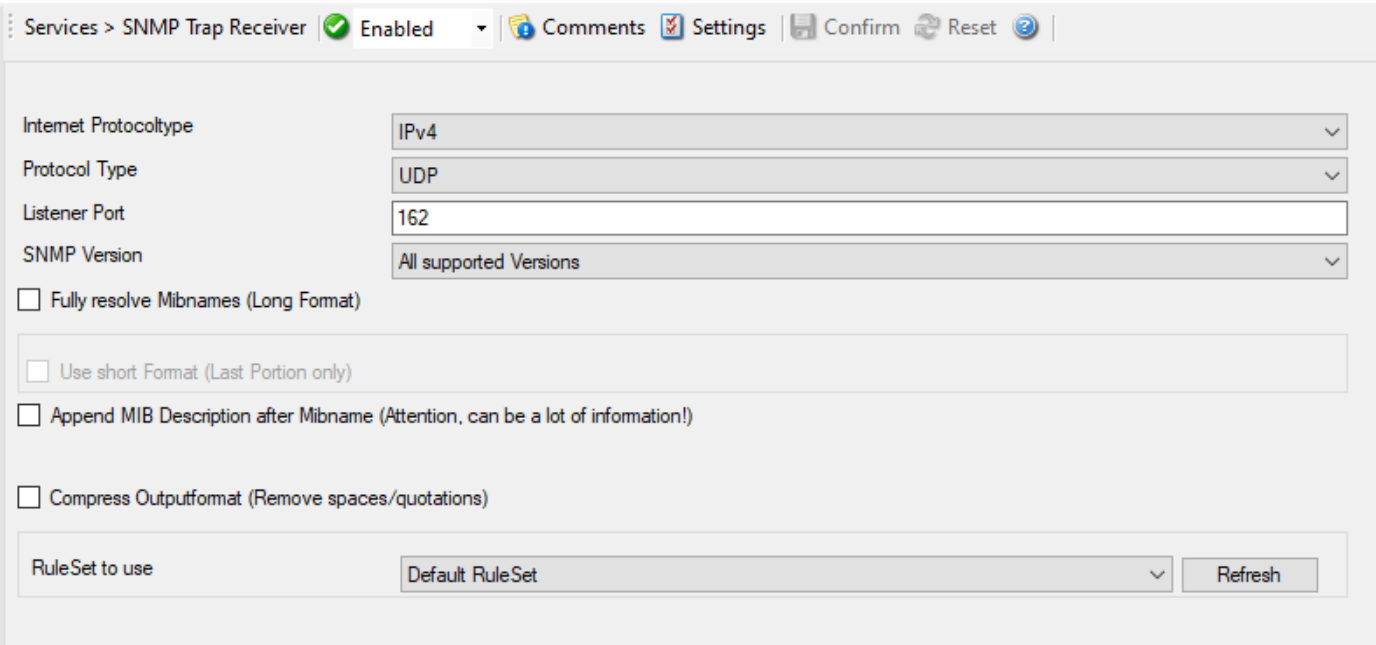
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

SNMP Trap Receiver

The `SNMP Trap Receiver` service receives SNMP messages. A trap is somewhat like a syslog message over another protocol (SNMP). It is generated by the device and contains the information that the device decides to transmit, plus a small set of standard items such as version and community.

The `SNMP Trap Receiver` service runs continuously based on the configuration mentioned below:



- Service - SNMP Trap Receiver*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Protocol Type

File Configuration field:

nProtocolType

Description:

You can select whether the `SNMP Trap Receiver` service listens on UDP or TCP for SNMP traps.

Listener Port

File Configuration field:

nPort

Description:

The port the `SNMP Trap Receiver` service listens on. If in doubt, leave it at the default of 162, which is the standard port for this.

SNMP Version

File Configuration field:

nSnmpVersion

- -1 = All Supported Versions
- 0 = SNMP Version 1 only
- 1 = SNMP Version 2c only

Description:

Can be used to restrict the SNMP versions. The available values are:

- All Supported Versions (i.e. SNMP Version 1 and SNMP Version 2c only)
- SNMP Version 1 only
- SNMP Version 2c only

Fully resolve MIB names (long format)

File Configuration field:

nResolveLongMibNames

Description:

This option fully resolves the MIB names like in the client MIB browser application.

Use short format (last portion only)

File Configuration field:

nResolveMibNamesShort

Description:

Fully resolved MIB names including their tree can become very long and unreadable. Use this option to shorten them to the last portion of the full MIB name.

Append MIB description after MIB name

File Configuration field:

nAddMibDescriptionToMsg

Description:

Append the MIB description after the MIB name. **Attention, this can be a lot of information.**

Compress output format (remove spaces/quotations)

File Configuration field:

nCompressOutputFormat

Description:

When enabled the output format will be reduced to a minimum and comma separated. Here is a sample output:

```
source=127.0.0.1, community=public, version=Ver2,
iso.3.6.1.2.1.1.3.0=Timeticks: (3493305159) 404 days, 7:37:31.59,
iso.3.6.1.6.3.1.1.4.1.0=OID: iso.3.6.1.4.1.19406.1.2.2,
iso.3.6.1.4.1.19406.1.1.1.7=This is a SyslogTest
```

General Values (Common settings for most services)

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Please Note:

Managing incoming traps works the same way as with the ``Syslog server`` service, for example.

Incoming traps will be forwarded to the corresponding Ruleset and pass by rule after rule. There it can be filtered for general information like the “Community”, the “Version” or “Value” for example. Finally it will be processed by an action, which you can select to your needs. The SNMP Agent service will co-exist peacefully next to the Windows SNMP Agent and will not hinder it in its functionality. The Windows SNMP Agent listens to port 161, while MonitorWare Agent and WinSyslog listen to port 162.**

For internal processing, the variables of incoming SNMP messages will be added to a new property. Those properties will be named %snmp_var_x% with the x being a number starting with 1. You can use these custom properties for filtering and everywhere where you can use or print properties. For example, you can create a “send mail”-action. Here you can specify complete freely how the message will look like. You can use a introductory text and then let it show the error message in some context. This could look like this:

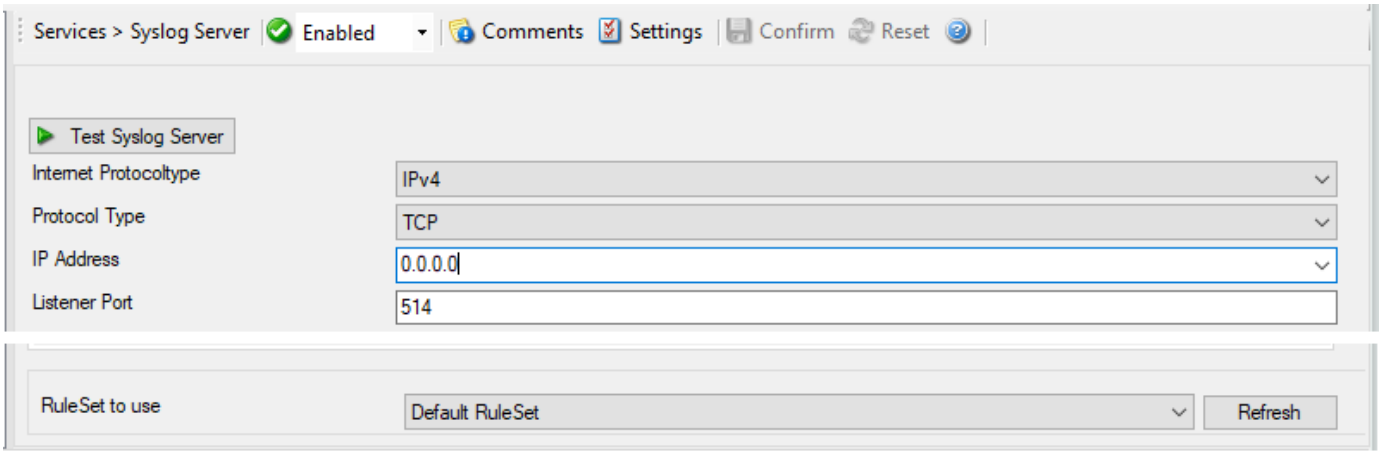
```
Hello Admin,
the following error occurred
%snmp_var_5%
Please take care at once.
Very urgent!
```

The result will be, that the 5th property of the snmp trap will be inserted into the message text.

Syslog server

Configures the `Syslog server` service. In practice, this is the WinSyslog or MonitorWare Agent input service that receives incoming syslog messages. Multiple protocols (IPv4/IPv6 and UDP/TCP) can be configured and are supported.

When configuring Syslog Services, the functionality can be checked using the Test Syslog server button. It will open the Syslog Test Message function from the configuration client.



- Service - Syslog server Global Properties*

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and ipv6 are available. The IPv6 protocol needs to be properly installed in order to be used. **Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.**

Protocol Type

File Configuration field:

nProtocolType

Description:

Syslog messages can be received via udp, tcp or rfc 3195 RAW. One service instance can only use one of the protocols at a time. Typically, syslog messages are received via UDP protocol, which is the default. The `Syslog server` service also can receive syslog messages via TCP and reliable syslog messages via TCP using the RFC 3195 RAW standard. Depending on which protocol type you choose, you get different option tabs. General and encoding are the same for everyone.

IP Address

File Configuration field:

szMyIPAddress

Description:

The `Syslog server` service can now be bound to a specific IP address. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This feature is useful for multihome environments where you want to run different syslog input services on different IP addresses. Please note that the default IP `address 0.0.0.0` means ANY IP Address.

Listener Port

File Configuration field:

nListenPort

Description:

The port the `Syslog server` service listens on. The typical (standard) value is 514. This should be changed only if there is a definite need for it. Such a need typically arises from security concerns. If the port is changed, all reporting devices (routers, printers …) must also be configured to use the non-standard port.

RuleSet to use

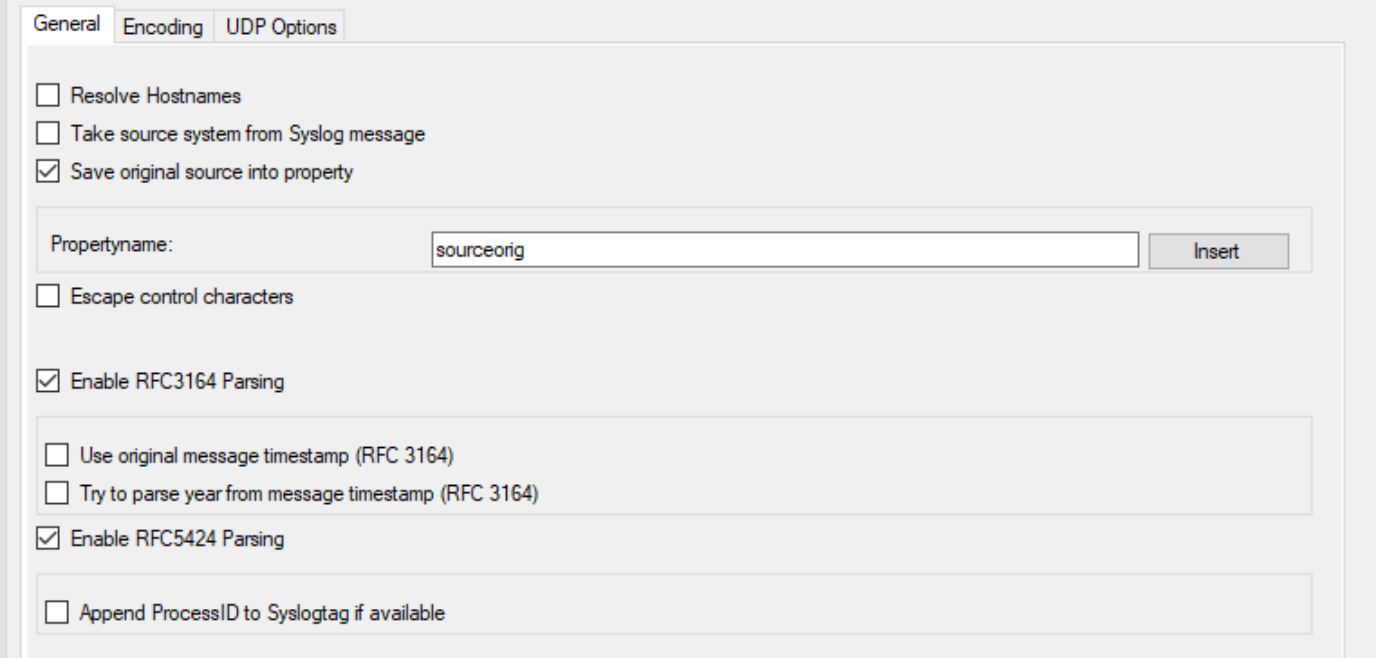
File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

General Options



- Service - Syslog server General Tab*

Resolve Hostnames

File Configuration field:

nResolveNames

Description:

If this box is checked, the name of the source system is retrieved via DNS reserve name resolution. If unchecked, the IP address itself is used as the name.

Please note that this setting does have any effect if the “Take source system from Syslog message” setting is checked. In this case, the message is always taken from the Syslog message itself.

Take source system from Syslog message

File Configuration field:

nTakeSourceSysFromSyslogMsg

Description:

If this box is checked, the name or IP address of the source system is retrieved from the Syslog message itself (according to rfc 3164). If left unchecked, it is generated based on the address, the message was received from.

Please note that there are many devices, which do NOT generate RFC 3164 compliant messages. If you check this option here, you might see a very strange value as the event source!

Save original source into property

File Configuration field:

nSaveSourceIntoProperty

Descriptions:

When this options is enabled, the original network source will be stored into the custom defined property (%sourceorig% by default). In case the original network source is needed for filtering for example.

Escape Control Characters

File Configuration field:

nEscapeControlCharacters

Description:

Control characters are special characters. They are used e.g. for tabulation, generating beeps and other non-printable uses. Typically, syslog messages should not contain control characters. If they do, control characters could eventually affect your logging. However, it might also be that control characters are needed.

With this setting, you can specify how control characters received should be handled. When checked, control characters are replaced by a 5-byte sequence with the ASCII character ID. For example, a beep is the ASCII BEL character. BEL is assigned the numerical code 7. So if a BEL is received, it would be converted to “<007>” inside your syslog message. When the box is left unchecked, no conversion takes place.

In any case, ASCII NULs are converted to “<000>” to prevent security issues in the log files.

Please note: if you used double-byte character sets, control character escaping can cause your message to become clobbered. So be sure to leave it unchecked in that case.

Enable RFC3164 Parsing

File Configuration field:

nRFC3164Parsing

Description:

If this box is checked, rfc 3164 compliant message parsing is enabled. If unchecked, “traditional” Adiscon message parsing is selected. If you experience trouble with the sender host name or the timestamp, we suggest that you turn off RFC 3164 compliant message parsing. Many existing devices do not fully comply with RFC 3164 and this can cause those issues.

Use Original Message Timestamp

File Configuration field:

nParseSyslogDate

Description:

If this box is checked, the timestamp is retrieved from the Syslog message itself (according to rfc 3164). If left unchecked, the timestamp is generated based on the local system time. The Syslog message timestamp does not contain time zone information. Thus, we strongly recommend unchecking this box if messages from devices in multiple time zones are to be received

Try to parse year from message timestamp (RFC3164)

File Configuration field:

nRFC3164DetectYear

Description:

If enabled, the service will try to detect a Year after the usual RFC3164 Date Header.

Enable RFC5424 Parsing

File Configuration field:

nRFC5424Parsing

Description:

If this box is checked, rfc 5424 compliant message parsing is enabled for Syslog RFC5424 Header detection and decoding. This also involves new usable Syslog properties. If unchecked, “traditional” Adiscon message parsing is selected. If you experience trouble with the sender host name or the timestamp, we suggest that you turn off RFC 5424 compliant message parsing. Many existing devices do not fully comply with RFC 5424 and this can cause those issues.

Append ProcessID to SyslogTag if available

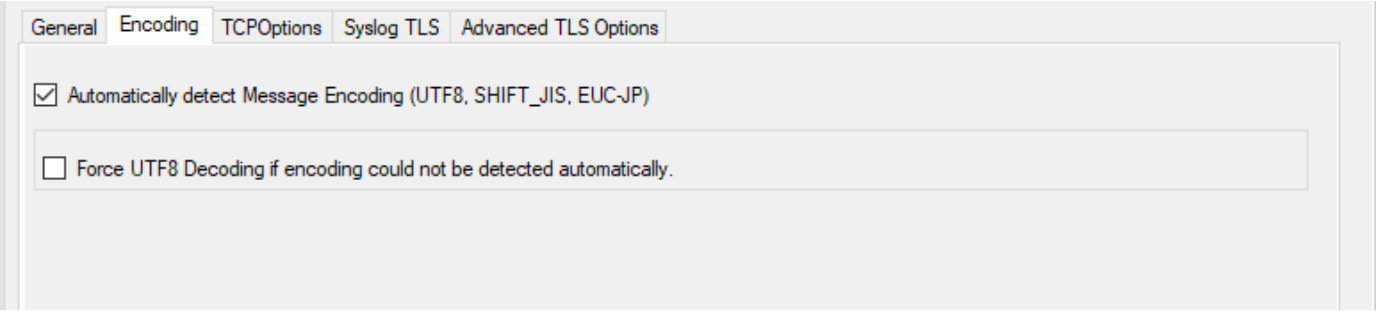
File Configuration field:

nRFC5424AddProcID2SyslogTag

Description:

This option is related to RFC5424 header parsing and was default in previous versions. However the default now is off in order to separate the Syslogtag from the ProcessID.

Encoding Options



- Service - Syslog server Encoding Tab*

Automatically detect Message Encoding (UTF8, SHIFT_JIS, EUCJP)

File Configuration field:

nTryDetectMessageEncoding

Description:

If enabled, the message will be checked for different encodings. This is important if you have syslog messages with multibyte characters. Once an encoding is detected, it will automatically be converted into UTF16 internally.

Force UTF8 Decoding

File Configuration field:

nForceUTF8Decoding

Description:

This option forces UTF8 Decoding of all incoming messages. This is also useful for syslog messages encoded in UTF8 but missing the BOM within the Syslog message.

UDP Options



- Service - Syslog server UDP Options Tab*

Enable receiving from a UDP Multicast Group

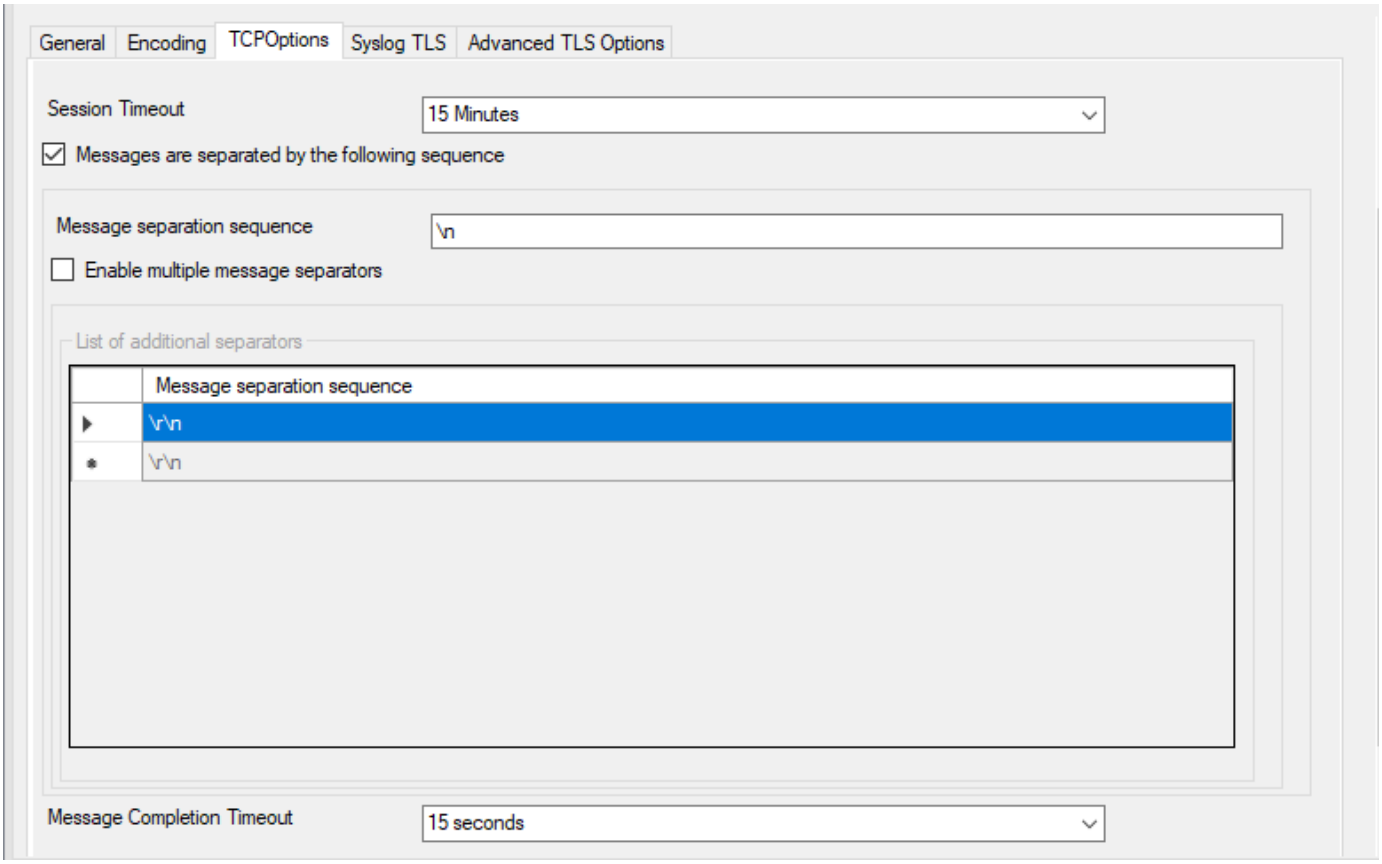
File Configuration field:

nEnableMultiCastGroup

Description:

This option supports receiving Syslog messages via multicast IP Addresses like `224.0.0.1` for example.

TCP Specific Options



- Service - Syslog server TCP Options Tab*

Session Timeout

File Configuration field:

nTimeOutSession

Description:

One of the TCP-specific options is the session timeout. This value declares, how long a TCP session may be kept open, after the last package of data has been sent. You can by default set values between 1 second and 1

day or you can use a custom value with a maximum of 2147483646 milliseconds. If you wish to disable the session timeout, you can use a custom value of 0 milliseconds to disable it.

Maximum concurrent TCP sessions

File Configuration field:

nTCPMaxSessions

Description:

Limits how many TCP sessions this listener accepts at the same time. The default is `1024`. A value of `0` disables the cap. For internet-facing or untrusted networks, keep a finite limit so stalled connections cannot consume an unbounded number of receiver threads.

TLS handshake timeout

File Configuration field:

nTLSHandshakeTimeout

Description:

Sets the timeout, in milliseconds, used while a new TLS connection completes its handshake. The default is `30000`. This setting applies before the normal TCP session timeout and helps disconnect clients that open a TLS socket but do not complete the handshake.

Messages are separated by the following sequence

File Configuration field:

szMsgSep_[n]

Description:

If this option is checked, you can use multiple messages in the same transmission and the following options are enabled: Message separation sequence and Message Completion Timeout.

Message separation sequence

File Configuration field:

nEnableTCPMsgSep

Description:

Determines, how you want to separate the messages. By default “rn” is the value for this, as most times a message ends with a carriage return and/or a line feed. But, you can choose your own separation sequence here as well.

Enable multiple message separators

File Configuration field:

nEnableMultiTCPMsgSep

Description:

If you choose the checkbox you can use more than one message separator.

Message Completion Timeout

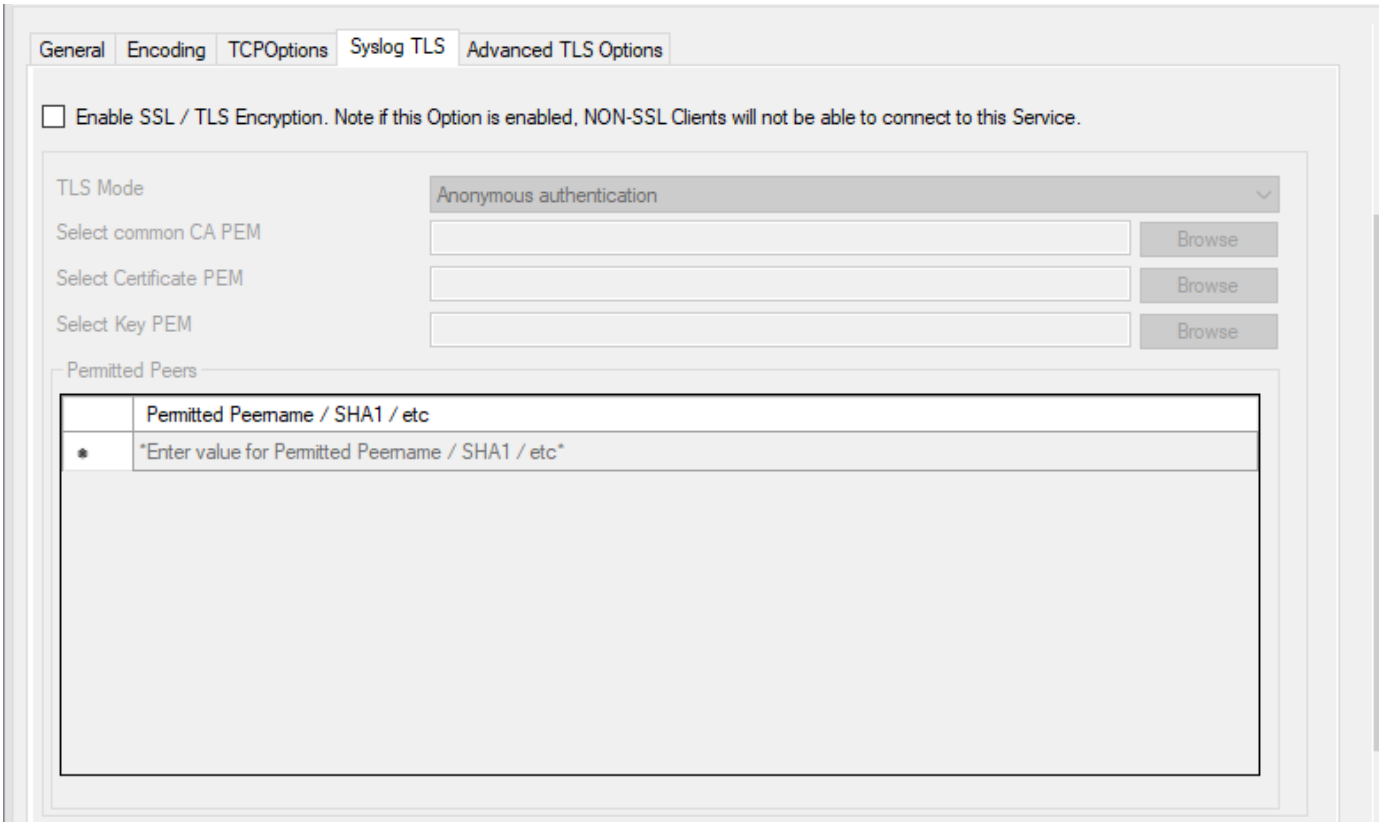
File Configuration field:

nTimeOutMsg

Description:

Here you can set the time that is allowed to complete a message. Is the time exceeded, but the message not yet completed, the rest will be treated as a new message. The counter is reset each time a new message begins. You can choose from multiple values between 1 second and 1 day, or choose a custom value in milliseconds (0 = disable, maximum = 2147483646)

Syslog TLS



- Service - Syslog server Syslog TLS Tab*

Enable SSL / TLS Encryption

File Configuration field:

nUseSSL

Description:

This option enables SSL / TLS encryption for your Syslog server. Please note, that with this option enabled, the server only accepts SSL / TLS enabled senders.

TLS Mode

File Configuration field:

nTLSMode

Description:

The TLS mode can be set to the following:

Anonymous authentication Default option, which means any client certificate will be accepted, or even none. This provides encryption without peer authentication. Use it only when that is intentional for the deployment; use one of the x509 modes when peer authenticity matters.

x509/name (certificate validation and name authentication) When this mode is selected, the subject within the client certificate will be checked against the permitted peers list. This means the Syslog server will only accept the secured connection if it finds the permitted peer in the subject. Newer hardened configurations can disable the legacy subject substring match and rely on certificate name checks instead.

x509/fingerprint (certificate fingerprint authentication) This mode creates a SHA1 Fingerprint from the client certificate it receives, and compares it to fingerprints from the permitted peers list. You can use the debuglog to see fingerprints of client certificates which were not permitted. SHA-1 fingerprint labels remain supported for RFC 5425 interoperability. Hardened configurations can disable legacy substring matching and use exact normalized SHA-1 or SHA-256 fingerprints.

x509/certvalid (certificate validation only) A Syslog Sender is accepted when the client certificate is valid. No further checks are done.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Select the CA certificate or CA bundle used to validate certificates presented by connecting clients. If you use a CA chain, include the intermediate CA certificates first and the root CA certificate last.

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Select the server certificate in PEM format. This is the certificate the Syslog server presents to connecting clients. If needed, append the intermediate CA certificates after the server certificate so clients can validate the chain.

Select Key PEM

File Configuration field:

szTLSKeyFile

Description:

Select the private key in PEM format that matches the server certificate. Passphrase-protected private keys are not supported.

Permitted Peers

Permitted Peername / SHA1 / etc.

File Configuration field:

szIP_[n]

Description:

This list contains all permitted peers. If x509/name is used, this can contain parts of the client certificate subject. For example if you have CN = secure.syslog.msg in the certificate subject, you can add “secure.syslog.msg” as permitted peer. When using x509/fingerprint, this list holds a list of permitted SHA1 fingerprints. The fingerprints can either be generated with OpenSSL Tools or grabbed from the debug logfile. The format is like described in RFC 5425, for example: `SHA1:2C:CA:F9:19:B8:F5:6C:37:BF:30:59:64:D5:9A:8A:B2:79:9D:77:A0`.

TLS hardening compatibility options

File Configuration fields:

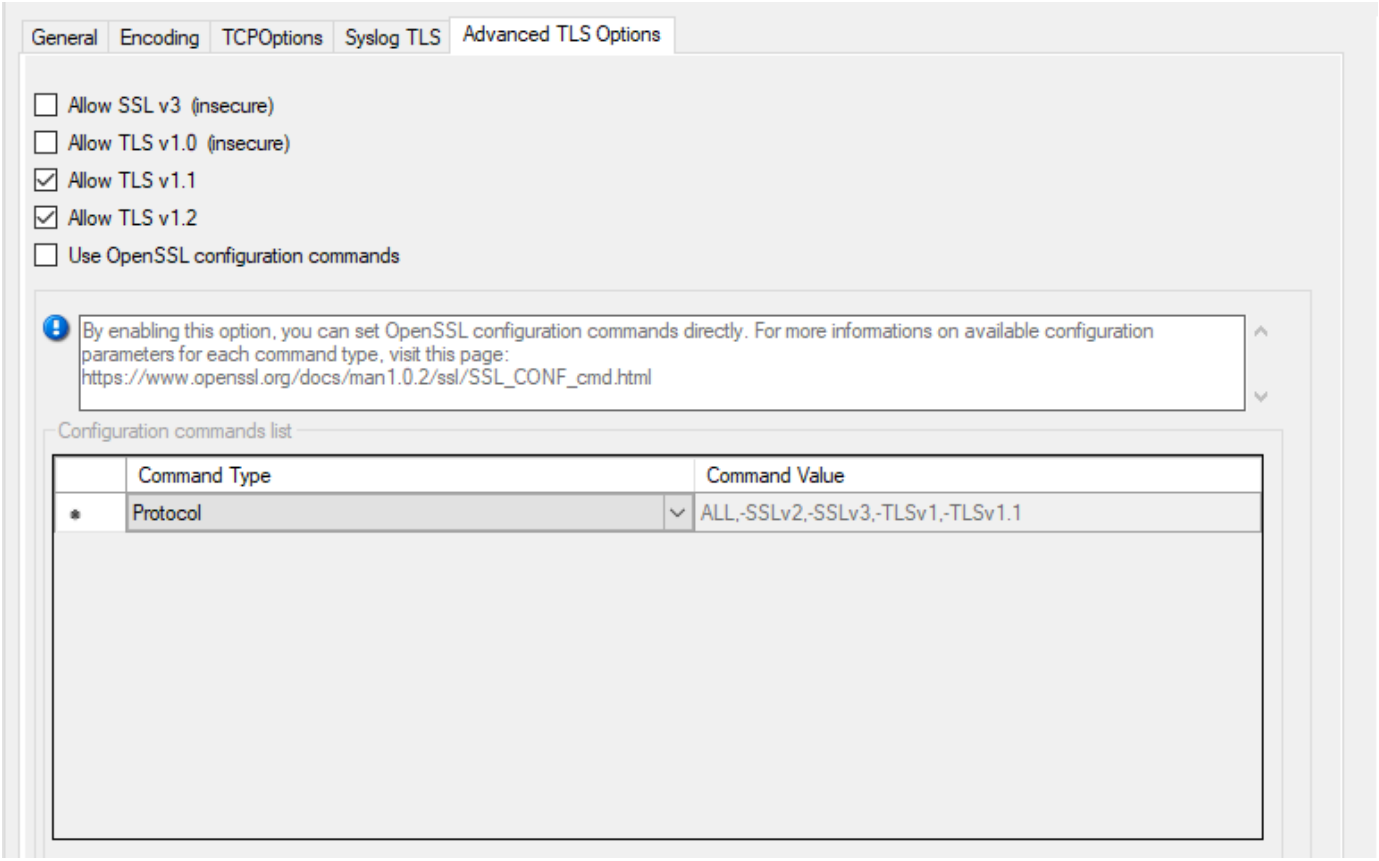
nTLSAllowExpiredCerts, nTLSLegacyPeerNameMatch, nTLSLegacyFingerprintMatch

Description:

These compatibility options control stricter certificate handling for authenticated TLS modes. The defaults preserve legacy behavior: `nTLSAllowExpiredCerts=1` accepts expired client certificates, `nTLSLegacyPeerNameMatch=1` allows the historic subject substring match for x509/name mode, and `nTLSLegacyFingerprintMatch=1` allows the historic SHA-1 fingerprint substring match.

Recommended hardened values are `0` for all three settings. With those values, expired client certificates are rejected, x509/name mode uses certificate name matching, and x509/fingerprint mode requires exact normalized SHA-1 or SHA-256 fingerprints.

Advanced TLS



- Service - Syslog server Advanced TLS Options Tab*

Allow SSL v3

File Configuration field:

nTLSAllowSSLv3

Description:

This option enables insecure protocol method SSLv3. We recommend NOT enabling this option as SSLv3 is considered broken.

Allow SSL v1.0

File Configuration field:

nTLSAllowTLS10

Description:

This option enables insecure protocol method TLSv1. We recommend NOT enabling this option as TLSv1 is considered broken.

Allow SSL v1.1

File Configuration field:

nTLSAllowTLS11

Description:

This option enables protocol method TLS1.1 which is enabled by default.

Allow SSL v1.2

File Configuration field:

nTLSAllowTLS12

Description:

This option enables protocol method TLS1.2 which is enabled by default.

Use OpenSSL configuration commands

File Configuration field:

nTLSUseConfigurationCommands

Description:

By enabling this option, you can set OpenSSL configuration commands directly. For more information's on available configuration parameters for each command type, visit this page: https://www.openssl.org/docs/man1.0.2/ssl/SSL_CONF_cmd.html

We allow to the set the following OpenSSL configuration commands in the configuration commands list.

- CipherSuite: This sets the available ciphers for TLS >= v1.3. For TLS < v1.3 use Ciphers instead. Note: setting this option will OVERWRITE the internal default CipherSuite.
- Ciphers: This sets the available ciphers for TLS < v1.3. For TLS >= v1.3 use CipherSuite instead. Setting this option will OVERWRITE the internal default cipher list.
- CipherString: Sets the allowed/disallowed used Ciphers. Setting this value will OVERWRITE the internal default ciphers.
- SignatureAlgorithms: This sets the supported signature algorithms for TLS v1.2.
- Curves: This sets the supported elliptic curves.
- Protocol: Sets the supported versions of the SSL or TLS protocol. This will OVERWRITE the Allow SSL options from above!
- Options: The value argument is a comma separated list of various flags to set.

Allow TLS v1.3

File Configuration field:

nTLSAllowTLS13

Description:

This option enables protocol method TLS1.3 which provides enhanced security and performance.

When setting advanced configuration commands, we highly recommend to enable

debug logging and review it after changes have been made. An error will be logged in the debug logfile if a configuration command cannot be processed successfully.

Fail on TLS configuration command error

File Configuration field:

nTLSFailOnConfigCommandError

Description:

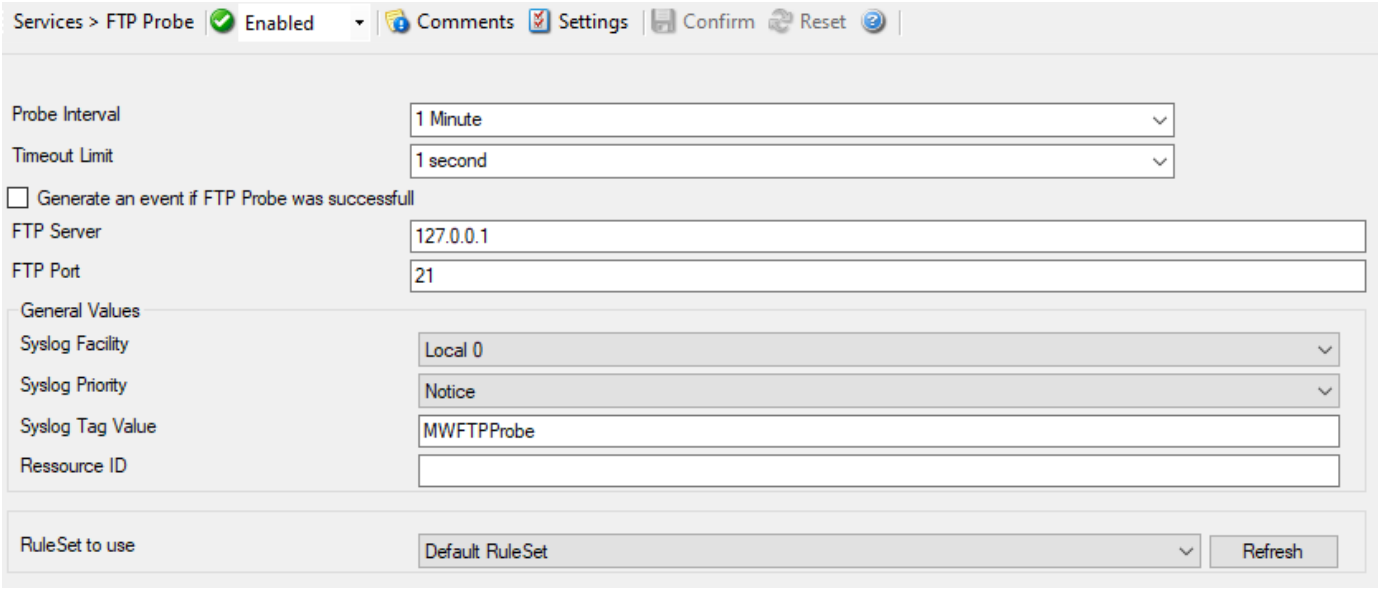
Controls whether the listener fails to start TLS when an OpenSSL configuration command cannot be applied. The default is `0`, which keeps compatibility by logging the error and continuing. Set this value to `1` for hardened deployments where a weaker-than-intended TLS configuration should stop the listener instead of being accepted.

probe services

FTP Probe

FTP probe does a connection to FTP server. It receives the response from FTP server and sends the QUIT command to terminate the connection.

The connection status is saved in the property **ftpstatus** and the response in the property **ftprespmsg**.



- Service - FTP Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if FTP Probe was successful

File Configuration field:

nFTPPort

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the FTP probe fails. The most common option is to leave it unchecked to catch events upon a failed FTP probe.

FTP server

File Configuration field:

nGenerateOnSuccess

Description:

Either the IP address or resolvable host name of the FTP server, the FTP probe is to be run against. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the FTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

FTP Port

File Configuration field:

szFTPServer

Description:

This port is to be probed. Please see your server’s reference for the actual value to use. For example, mail servers typically listen to port 25.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

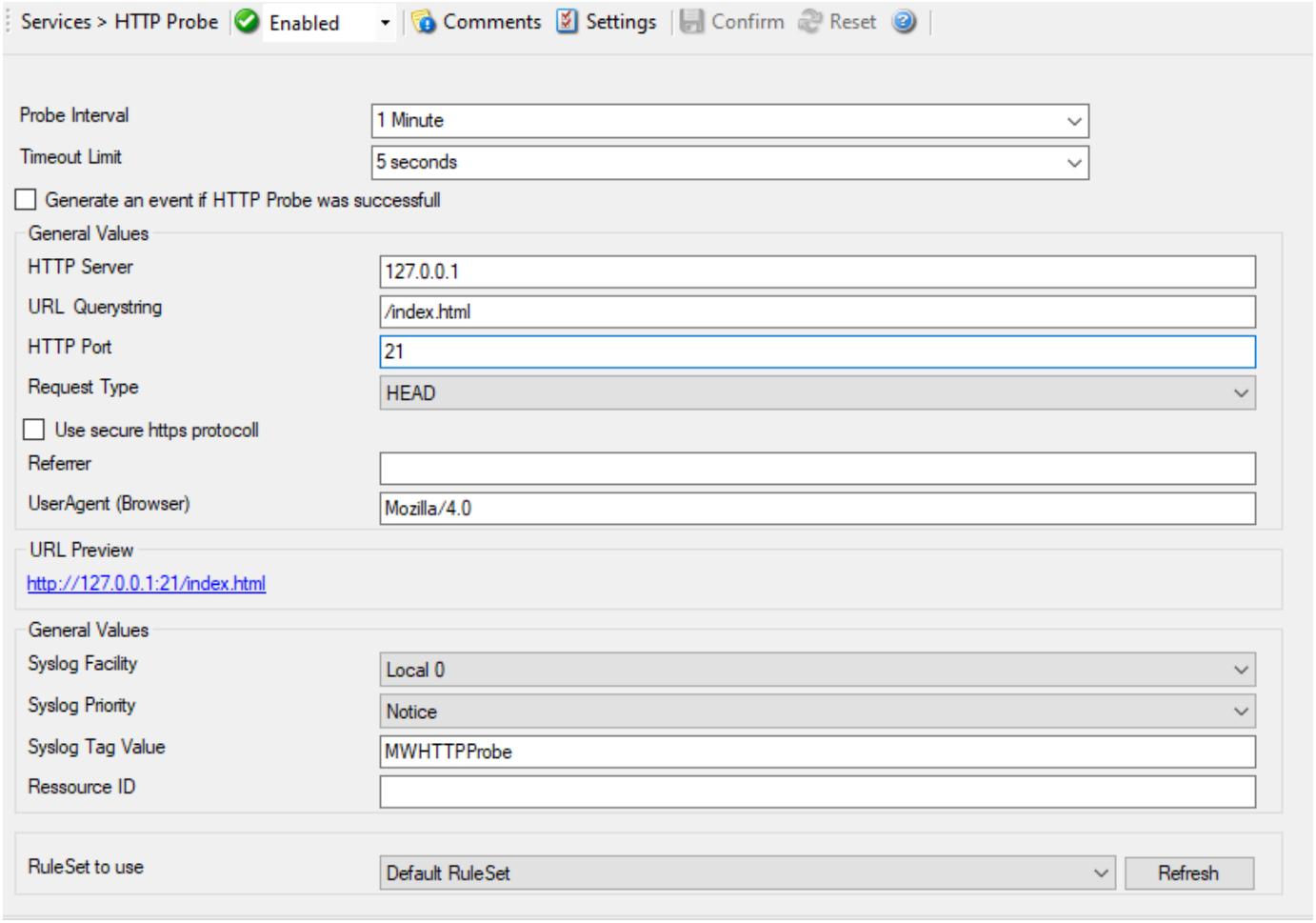
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

HTTP Probe

The HTTP Probe connects to a HTTP Server, and sends a valid HTTP request as configured. It then either receives the header, or header and content of a website, depending on how the service is configured (See Request Type).



- Service - HTTp Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if HTTP Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the HTTP probe fails. The most common option is to leave it unchecked to catch events upon a failed HTTP probe.

General Values

HTTP Server

File Configuration field:

szHTTPServer

Description:

Either the IP address or resolvable host name of the HTTP server, the HTTP probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. Please note that specifying a host name can cause the HTTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

URL Querystring

File Configuration field:

szUrl

Description:

By default this is `/index.html`. This value is used to construct an URL which is previewed in a rectangular field under Use secure https Protocol option.

HTTP Port

File Configuration field:

nHTTPPort

Description:

This port is to be probed. Please see your server's reference for the actual value to use. For example, mail servers typically listen to port 25 and web servers to 80.

Request Type

File Configuration field:

szRequestType

Description:

The Request Type can be HEAD or GET. HEAD just receives the header of a website where GET receives the whole website content. When probing a web server, you should use HEAD in order to reduce network and processing overhead.

Use secure https Protocol

File Configuration field:

nUseSSL

Description:

You can enable this option, if you want to query a web server using SSL (Secure Socket Layer). Note that the default port is changed from 80 to 443 here.

Referrer

File Configuration field:

szReferer

Description:

An optional configuration option where you can specify a Referrer that is send in the HTTP header.

UserAgent (Browser)

File Configuration field:

szUserAgent

Description:

It is also an optional value which can be used to specify an UserAgent that is send in the HTTP header.

URL Preview

Here you find a preview for the URL

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

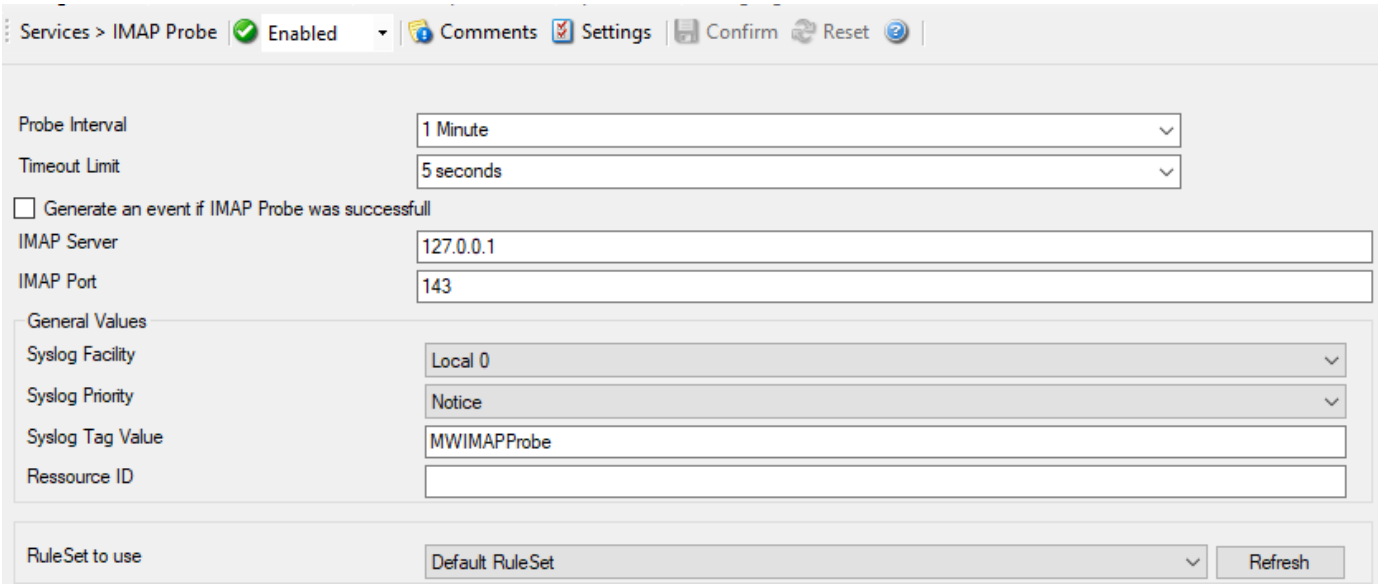
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

IMAP Probe

IMAP probe does connection to IMAP server. After receiving the response from IMAP server it sends the QUIT command to terminate the connection.

The connection status is saved in in the property **imapstatus** and the response in the property **imaprespmsg**.



- Service - IMAP Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if IMAP Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the IMAP probe fails. The most common option is to leave it unchecked to catch events upon a failed IMAP probe.

IMAP Server

File Configuration field:

szIMAPServer

Description:

Either the IP address or resolvable host name of the IMAP server, the IMAP probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. Please note that specifying a host name can cause the IMAP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

IMAP Port

File Configuration field:

nIMAPPort

Description:

This port is to be probed. Please see your server's reference for the actual value to use. For example, mail servers typically listen to port 25 and web servers to 80.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The *Syslog facility :doc:<../glossaryofterms/syslogfacility>* to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

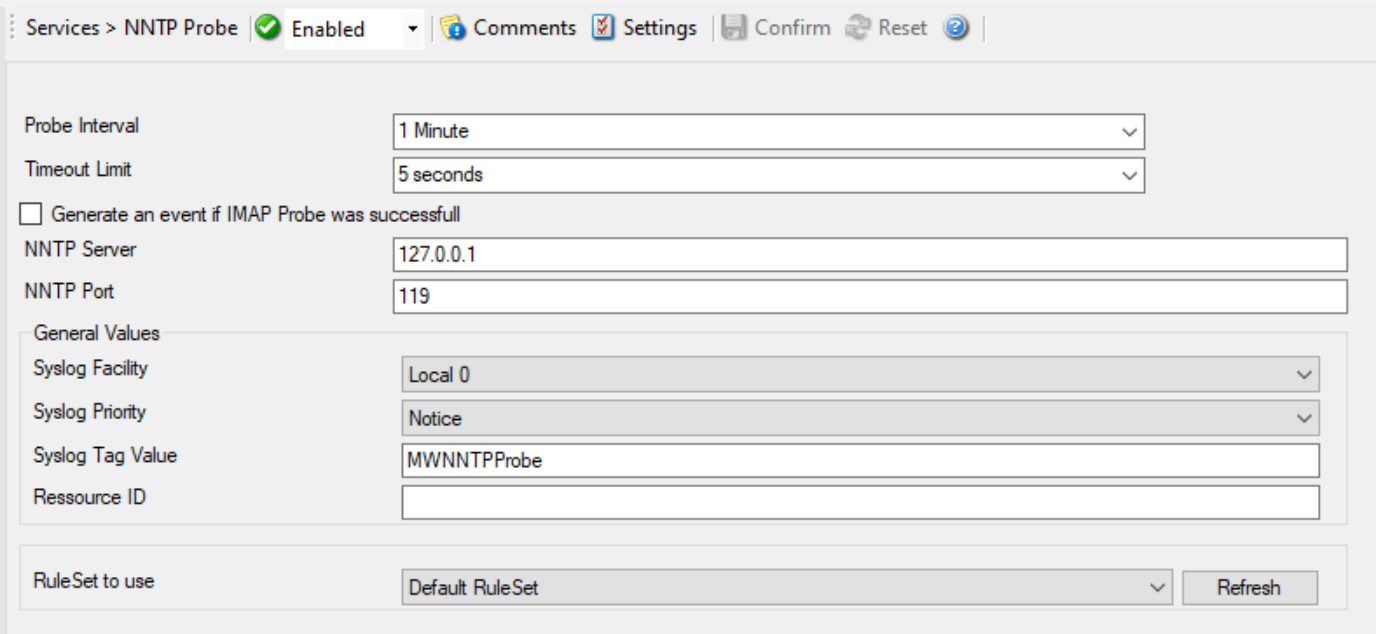
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

NNTP Probe

NNTP probe does a connection to NNTP server. After receiving the response from NNTP server it sends the QUIT command to terminate the connection.

The connection status is saved in the property **nntpstatus** and the response in the property **nntprespmsg**.



- Service - NNTP Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if NNTP Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the NNTP probe fails. The most common option is to leave it unchecked to catch events upon a failed NNTP probe.

NNTP Server

File Configuration field:

szNNTPServer

Description:

Either the IP address or resolvable host name of the NNTP server, the NNTP probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the NNTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

NNTP Port

File Configuration field:

nNNTPPort

Description:

This port is to be probed. Please see your server’s reference for the actual value to use. For example, mail servers typically listen to port 25.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

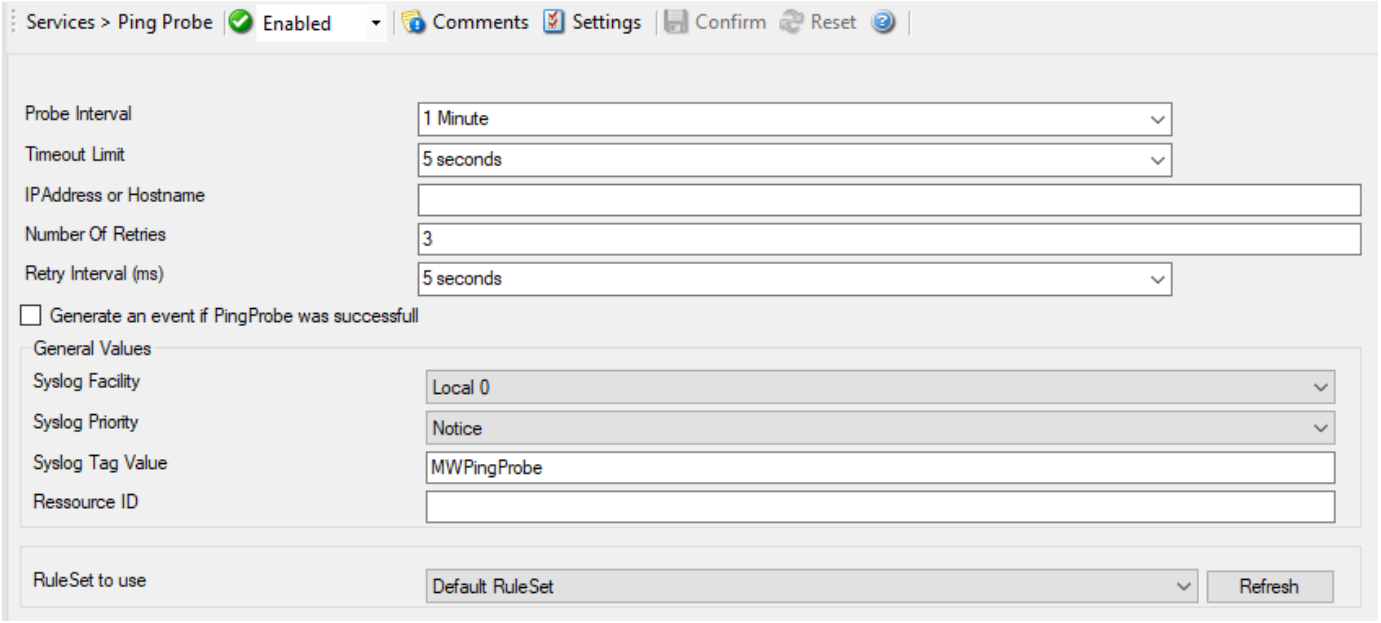
Ping Probe

The ping probe can be used to check the health of a remote system. The ping probe process sends ping messages (more precisely: ICMP Echo Requests) to a configured system. If configured properly, the remote system sends a response. If this response is received, the machine and its IP stack are operating. This does not indicate, however, that all services on this machine are alive.

If no response is received, the remote system or its IP stack is most probably not operating properly. However, the ping message might have been lost in transit or the round-trip time might have been too long so that a timeout occurred. Therefore, a single failing ping makes a system suspect, but it alone cannot be used to confirm problems at the remote system. If multiple successive pings fail, it is relatively safe to assume that the remote system has failed

Please note that most firewall setups do not allow ping messages. As such, a system behind a firewall typically cannot be pinged and the ping probe cannot be used in this configuration. If in doubt, please check with your firewall administrator.

The ping probe is typically used to check the availability of a remote system. The ping probe periodically sends the ping messages. As long as responses are received, nothing happens. If no response is received, it generates an event and passes it to the rule engine. As ping messages can get lost, the ping probe retries failed probes before it reports an error. Both the number of retries and the retry interval can be specified.



- Service - Ping Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the ping fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the ping probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

IP Address or Hostname

File Configuration field:

szIPAddress

Description:

Either the IP address or resolvable host name of the system, the ping probe is to be run against. You can either use an IPv4, an IPv6 Address or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the ping probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

Please provide the IP address or the hostname according to your environment. We have left it empty by intention.

Number Of Retries

File Configuration field:

nNbrOfRetries

Description:

If a ping fails, it is first retried to see if it is a persistent problem. The “Number of Retries” controls how many retries to be made. If this is set to zero, no retries are made and a ping probe fail event is immediately generated.

For typical systems, we recommend a setting of three retries. This is also the default value.

Retry Interval

File Configuration field:

nRetryInterval

Description:

If there is a temporary network issue like network congestion, it most probably takes some seconds to resolve it. As such, an immediate retry might not be appropriate. To delay it, configure a retry interval. This value is in **`milliseconds`** If a ping fails, the next retry is after a pause specified in this property.

The default and recommended value is 5 seconds (5000 milliseconds).

Generate an event if Ping Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the ping fails. The most common option is to leave it unchecked to catch events upon a failed ping.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The Syslog facility to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

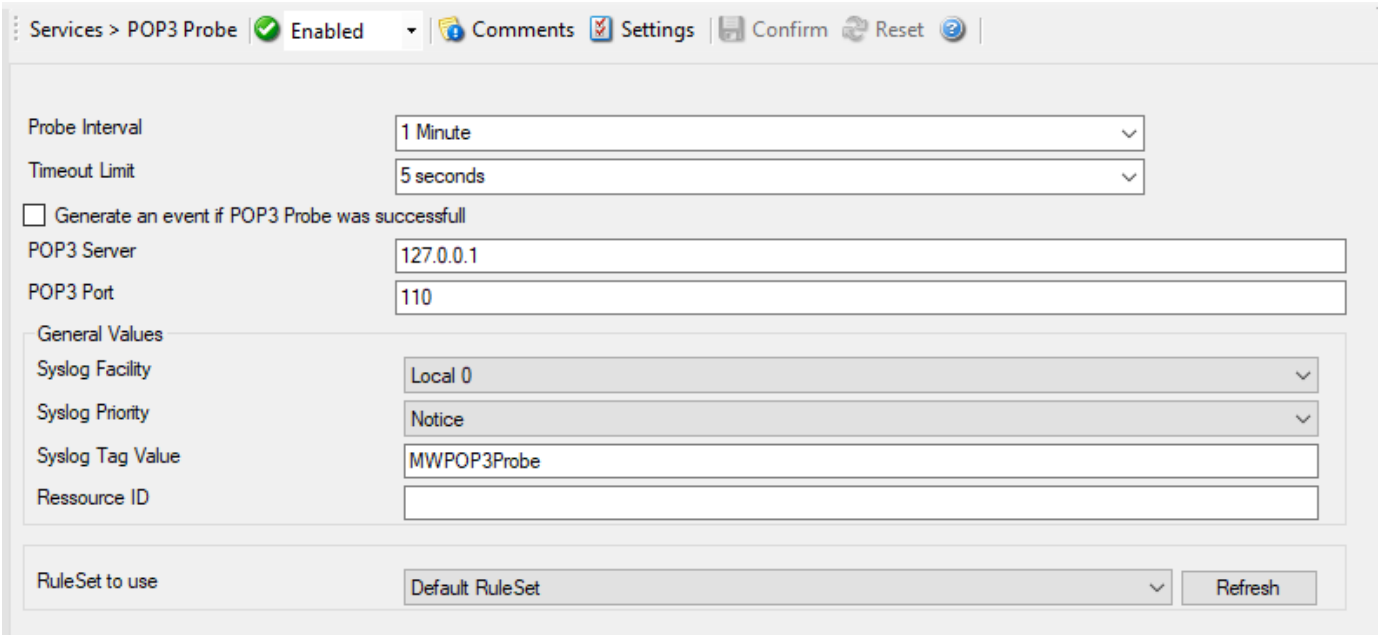
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

POP3 Probe

POP3 probe does a connection to POP3 server. It receives the response from POP3 server and sends the QUIT command to terminate the connection.

The connection status is saved in the property **pop3status** and the response in the property **pop3respmsg**.



- Service - POP3 Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if POP3 Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the POP3 probe fails. The most common option is to leave it unchecked to catch events upon a failed POP3 probe.

POP3 Server

File Configuration field:

szPOP3Server

Description:

Either the IP address or resolvable host name of the POP3 server, the POP3 probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the POP3 probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

POP3 Port

File Configuration field:

nPOP3Port

Description:

This port is to be probed. Please see your server’s reference for the actual value to use. For example, mail servers typically listen to port 110.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The **`syslog facility`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Port Probe

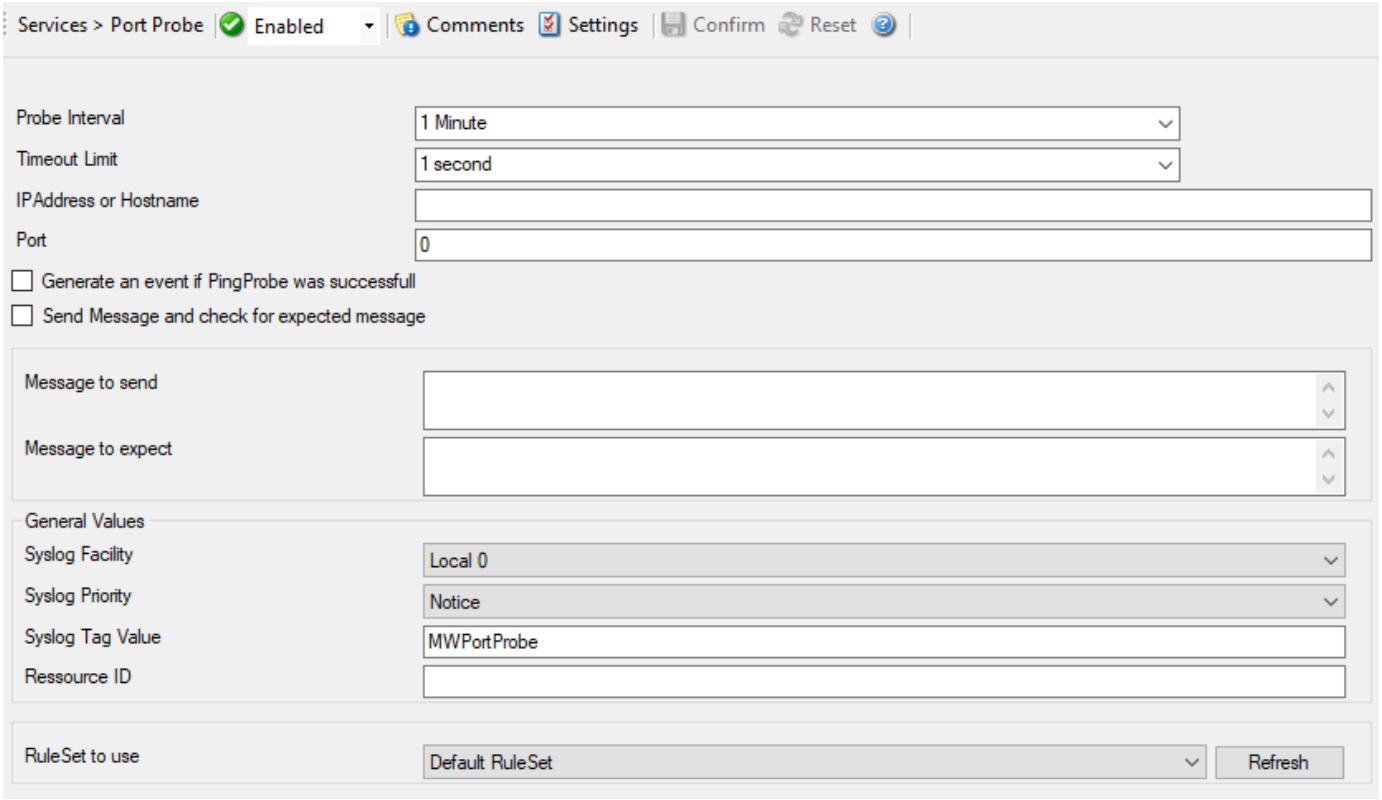
The port probe is very similar to the ping probe described above. The main difference is that it does not check the IP stack availability but rather a specific tcp port.

The difference here is that using this method a specific service on the remote machine is monitored, for example a mail (smtp) server. The port probe tries to connect to the service port (25 in our example). If that fails, the service is definitely not running. In this case, an event is generated. A single event is a definite indication of problems, as such there is no need for repetitive failures before initiating action on this (although this can be configured in the rule engine).

Being able to connect to the remote machine and service, tcp port most probably means that the remote service is running. However, more certainty can be gained by actually initiating some communication with the service. The exact application protocol needs to be known to try this test. Thus, this step is optional. If turned on, a single command can be sent to the remote service and a single response is expected back and can be compared to a pre-defined response. This does not take care of all possible application protocols, but provides an additional layer of confidence for important services like SMTP. It is up to the user to know the command sequences that a given service can understand and reply with.

As a rule of thumb, the port probe provides superior protection against service failure even without checking the message exchange. So if in doubt, use it without this advanced feature.

Please note that the port probe can probe TCP based services only. Most application services are TCP based, but there are some – mostly system – services out there, that are not. One of the most notable exceptions is DNS, which is operated primarily over UDP. In udp, there is no notion of a session and as such, it is not possible to probe the session setup, which essentially is what the port probe does. As such, a port probe can unfortunately not be used to check the status of those services. However, the majority of services like application server, databases, mail, web and a large number of others can be used with the port probe.



- Service - Port Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the ping fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the ping probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

IP Address or Hostname

File Configuration field:

szIPAddress

Description:

Either the IP address or resolvable host name of the system, the ping probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the port probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

Please provide the IP address or the hostname according to your environment. We have left it empty by intention.

Port

File Configuration field:

nPortNumber

Description:

This port is to be probed. Please see your server’s reference for the actual value to use. For example, mail servers typically listen to port 25 and web servers to 80.

Generate an event if Port Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the port probe fails. The most common option is to leave it unchecked to catch events upon a failed port probe.

Send Message and check for expected message

File Configuration field:

nSendExpect

Description:

If left unchecked, the port probe checks the TCP session setup to the remote service only. As stated above , a successfully completed session setup most probably means the service is healthy. As an extra measure, some actual message exchange can be enabled. This is done by checking this box.

Message to send

File Configuration field:

szMessageToSend

Description:

This message text is sent to the service after the tcp session has been established.

Message to expect

File Configuration field:

szMessageExpected

Description:

This is the message expected to be received from the service. Reception starts after sending the “Message to Send”. Please note that the “Message Expected” is compared against the first message sent from the service on the tcp session. With some protocols, this means the message compared is an initial greeting message and not a response to the “Message to Send”.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The syslog facility to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

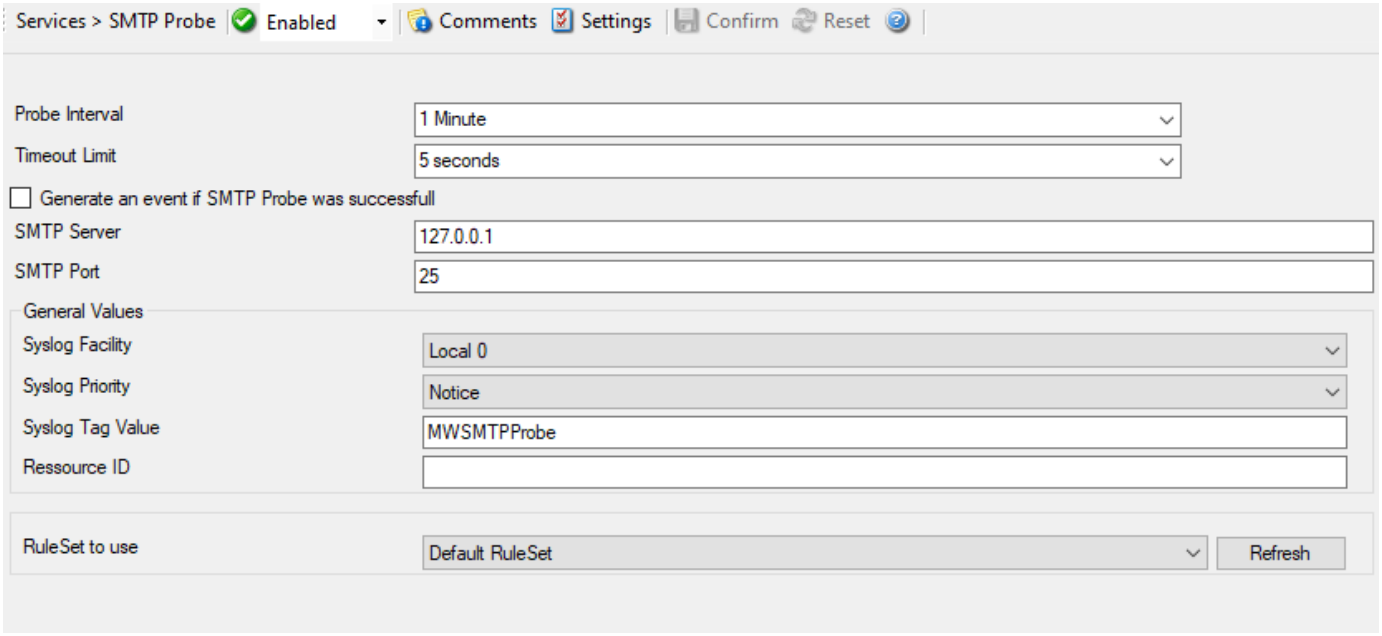
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

SMTP Probe

SMTP probe does a connection to SMTP server and sends the HELLO command. The HELLO command is automatically constructed by MonitorWare Agent on startup by using the fully qualified DNS (Domain name server) name. SMTP server sends response in reply to SMTP probe. On getting the response from SMTP server, SMTP probe sends the QUIT command to terminate the connection.

The connection status is saved in the property **smtpstatus** and the response in the property **smtprespmsg**.



- Service - SMTP Probe*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval of the probe. After each probe, the Service will sleep for the configured probe interval. This period is specified in milliseconds.

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The amount of time (in **`milliseconds`**) the remote system is expected to answer in. If no response is received within this period, the probe fails and an event is generated. The default value of 1000 milliseconds is a proper value for most well connected networks. If the probe runs against a heavily loaded system and/or slow network link, the amount must be adjusted accordingly.

Generate an event if SMTP Probe was successful

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the SMTP probe fails. The most common option is to leave it unchecked to catch events upon a failed SMTP probe.

SMTP Server

File Configuration field:

szMailServer

Description:

Either the IP address or resolvable host name of the SMTP server, the SMTP probe is to be run against. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. This system has been called “remote host” in the description above. Please note that specifying a host name can cause the SMTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address.

SMTP Port

File Configuration field:

nSMTPPort

Description:

This port is to be probed. Please see your server’s reference for the actual value to use. For example, mail servers typically listen to port 25.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

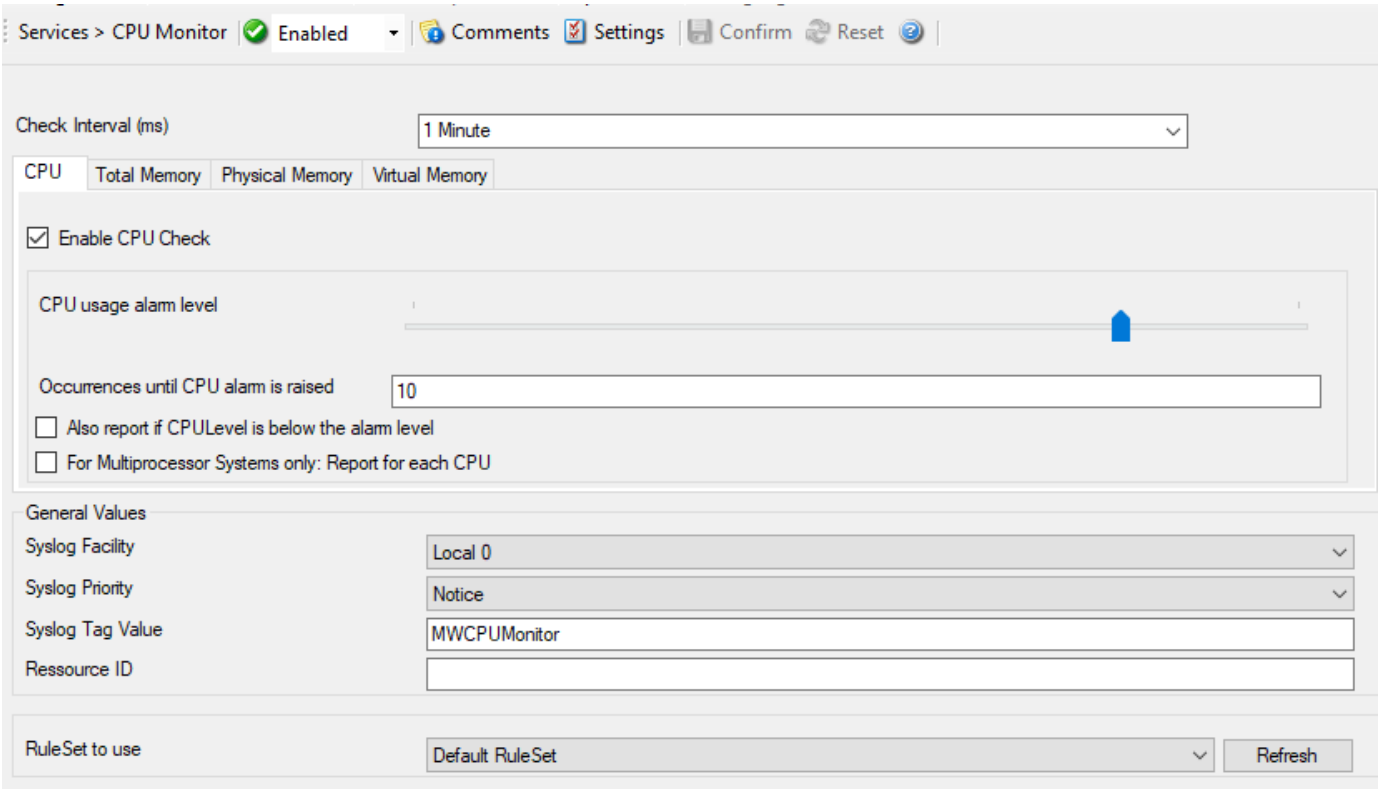
Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

file system monitoring

CPU/Memory Monitor

The CPU/Memory monitor has two parts of monitoring, a CPU and a Memory part. Both parts are checked frequently in a specified check interval. By default this interval is configured to 60 seconds so a check is done after every 1 minute. Both CPU and memory part can be disabled and enabled. The service becomes useless if you disable both parts.



- Service - CPU/Memory Monitor*

Here you find a series of tabs namely CPU, Total Memory, Physical Memory, and Virtual Memory.

Check Interval

File Configuration field:

nSleepTime

Description:

The CPU/Memory Monitor runs periodically. This specifies, how often it should run. Please note that the CPU / Memory Monitor waits the configured amount of time after the current run is finished. The time is the delay in `milliseconds`.

CPU Tab

Enable CPU Check

File Configuration field:

nCPUEnable

Description:

If this option is checked then it allows you to monitor the CPU.

CPU usage alarm level

File Configuration field:

nCPUUsageAlarmLevel

Description:

If the CPU usage reaches this level, an event is generated internally. Depending on how the occurrences value is configured, an Information Unit is generated.

Note: this value is in terms of percentage.

Occurrences until CPU alarm is raised

File Configuration field:

nCPUOccurences

Description:

Defines how often the CPU usage level has to occur in a row until an event is raised.

Also report if CPU Level is below the alarm level

File Configuration field:

nCPUReportIfBelowAlarm

Description:

If this option is checked it generates an Information Unit during each run whether it is below the alarm level or above. This option is useful for statistics and debugging.

For Multiprocessor Systems only: Report for each CPU

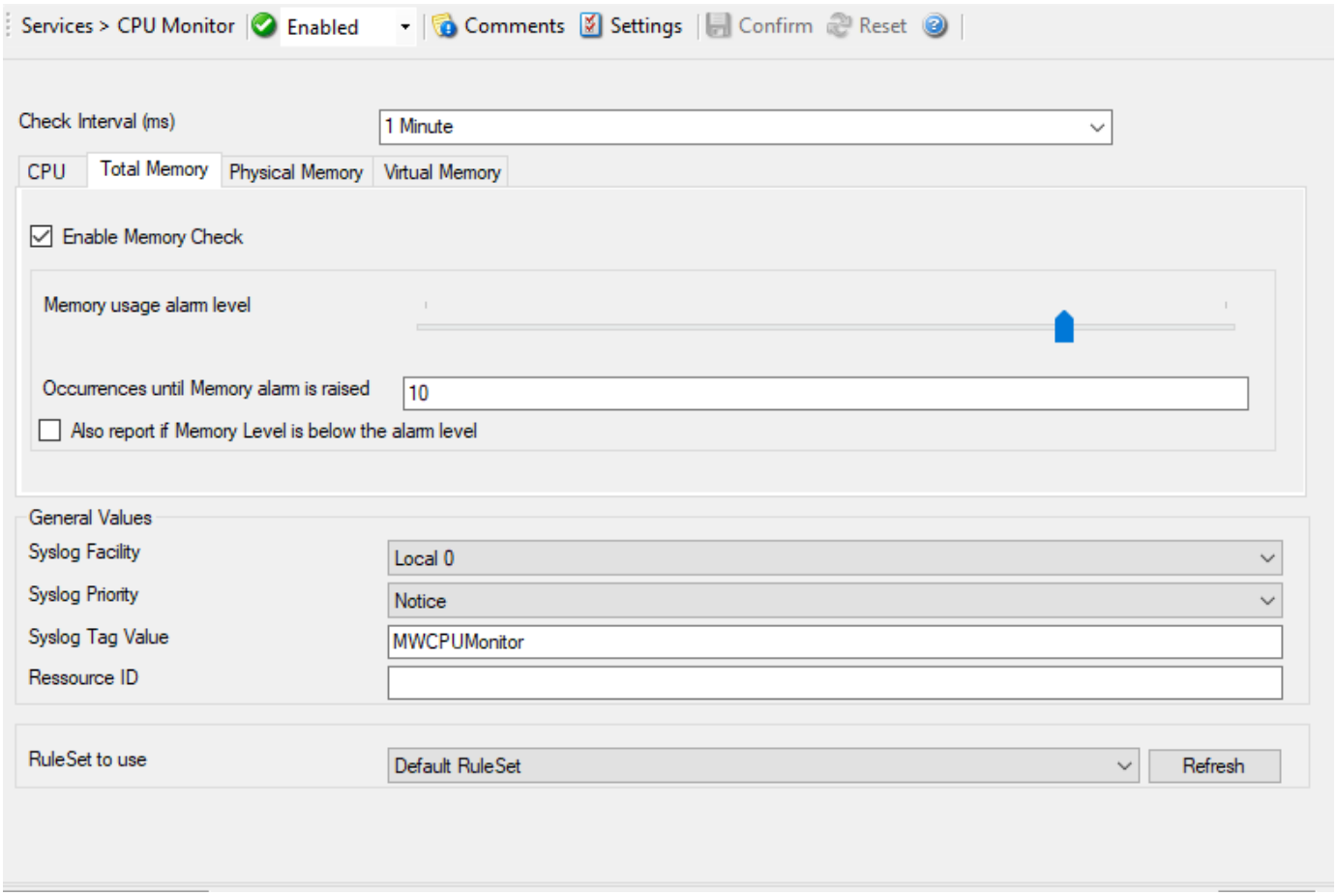
File Configuration field:

nCPUSingle

Description:

This option can only be used if you have a Multiprocessor System. When this option is checked the CPU usage is analyzed for each CPU and for the whole amount of CPU usage.

Total Memory Tab



Enable Memory Check

File Configuration field:

nMEMEnable

Description:

If this option is checked then it allows you to monitor the memory.

Memory usage Alarm level

File Configuration field:

nMEMUsageAlarmLevel

Description:

Defines the alarm level for the memory usage. Note that virtual and physical memory are calculated together.

Note that this value is in terms of percentage.

Occurrences until Memory alarm is raised

File Configuration field:

nMEMOccurences

Description:

Defines how often the memory usage has to be over the memory usage alarm level in a row.

Also report if Memory Level is below the alarm level

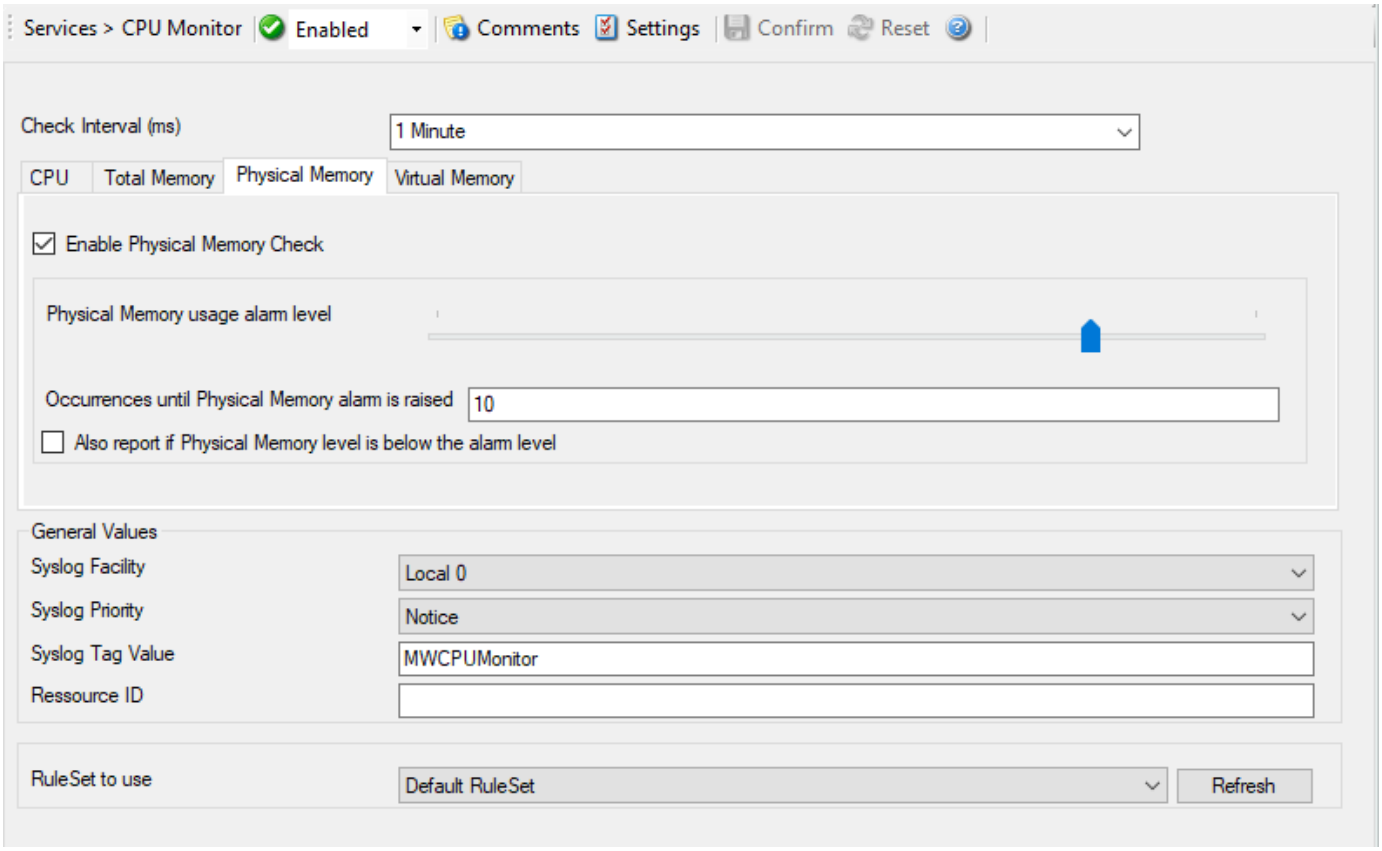
File Configuration field:

nMEMReportIfBelowAlarm

Description:

This also generates an event if the memory usage is below the alarm level. A useful option for testing and debugging.

Physical Memory Tab



Enable Physical Memory Check

File Configuration field:

nMEMPsyEnable

Description:

If this option is checked then it allows you to monitor the physical memory.

Physical Memory usage alarm level

File Configuration field:

nMEMPsyUsageAlarmLevel

Description:

Defines the alarm level for the physical memory usage.

Note that this value is in terms of percentage.

Occurrences until alarm is raised

File Configuration field:

nMEMPsyOccurences

Description:

Defines how often the physical memory usage has to be over the physical memory usage alarm level in a row.

Also report if Physical Memory level is below the alarm level

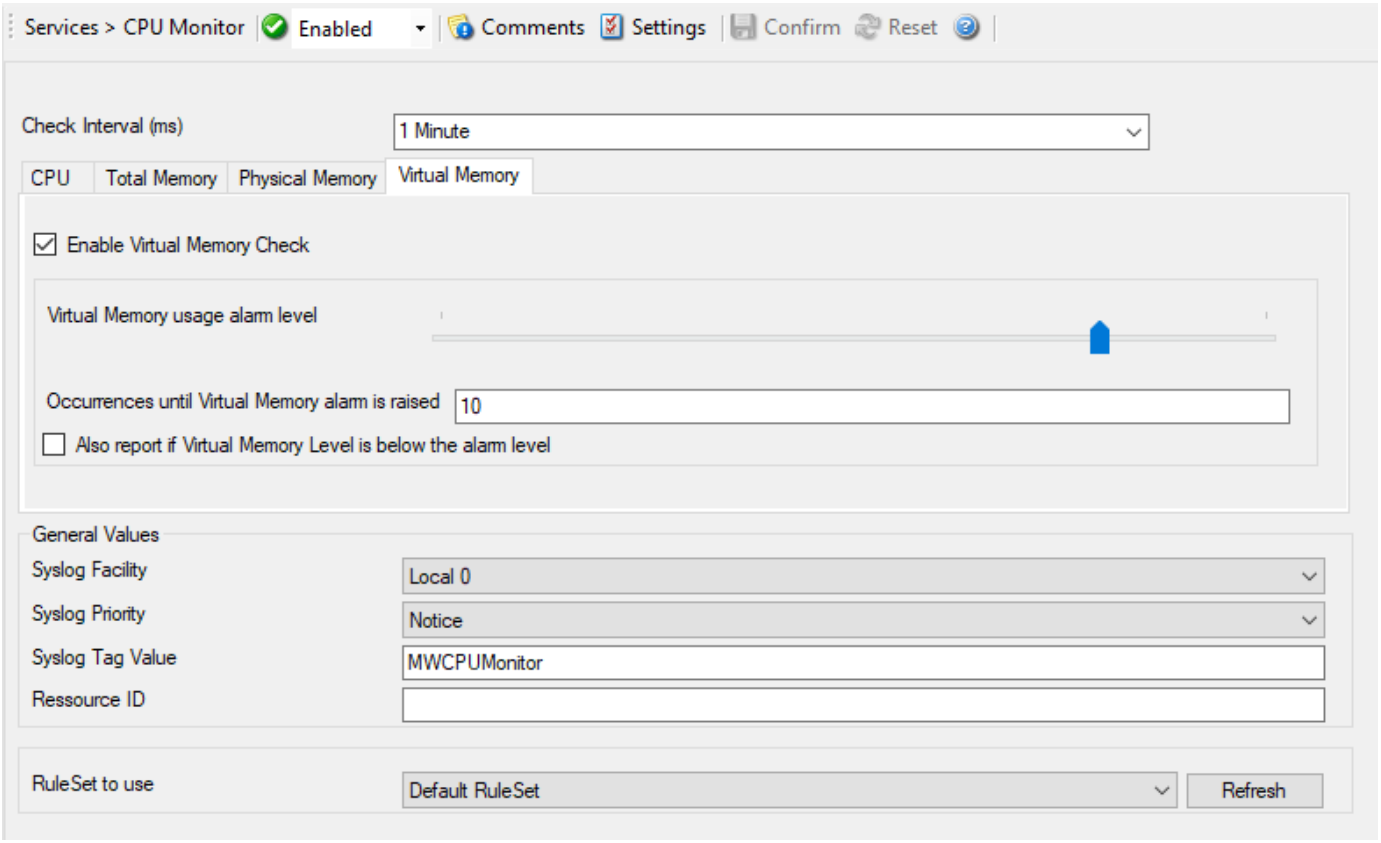
File Configuration field:

nMEMPsyReportIfBelowAlarm

Description:

This also generates an event if the physical memory usage is below the alarm level. A useful option for testing and debugging.

Virtual Memory Properties



Enable Virtual Memory Check

File Configuration field:

nMEMVirtEnable

Description:

If this option is checked then it allows you to monitor the virtual memory.

Virtual Memory usage alarm level

File Configuration field:

nMEMVirtUsageAlarmLevel

Description:

Defines the alarm level for the virtual memory usage.

Note that this value is in terms of percentage.

Occurrences until Virtual Memory alarm is raised

File Configuration field:

nMEMVirtOccurences

Description:

Defines how often the virtual memory usage has to be over the virtual memory usage alarm level in a row.

Also report if Virtual Memory Level is below the alarm level

File Configuration field:

nMEMVirtReportIfBelowAlarm

Description:

This also generates an event if the virtual memory usage is below the alarm level. A useful option for testing and debugging.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The **`syslog facility`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

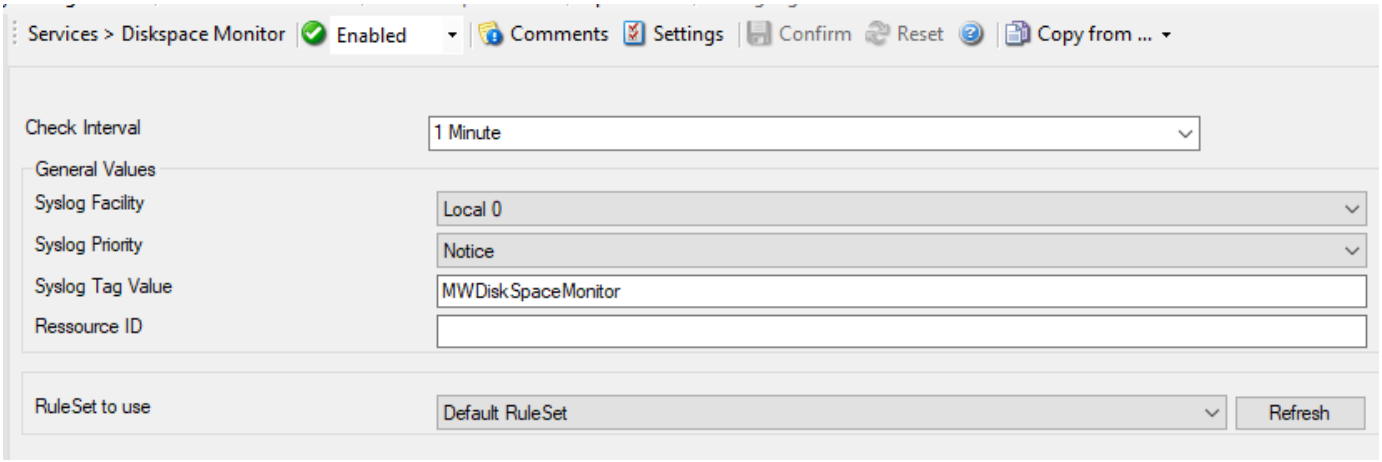
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Diskspace Monitor

This monitor checks the available and used space on all hard disks in the system. All hard disks present in the system are automatically checked. New disks are automatically detected. One event specifying the maximum size and the used size is generated per disk. The Disk Space Monitor runs continuously based on an interval set in the configuration.



- Service - Diskspace Monitor*

Check Interval

File Configuration field:

nSleepTime

Description:

This is the interval in which the service status is checked. This period is specified in **`milliseconds`**. This monitor checks the available and used space on all hard disks in the system. All hard disks present in the system are automatically checked. New disks are automatically detected. One event specifying the maximum size and the used size is generated per disk. The Disk Space Monitor runs continuously based on an interval set in the configuration.

The default is 60,000 ms, which is one minute. This should be sufficient for a typical server. If you would like to have the disk space check run less often, you might for example use the value of 3,600,000 for one hour (or a multiple for multiple hours).

For performance reasons, we do not recommend using an interval of less than 30,000 ms.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The **`syslog facility`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration fields:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Event Log Monitor V1

This dialog configures the Windows Event Log Monitor service.

This service was initially introduced by **`Adiscon's EventReporter`** product. To allow previous EventReporter customers seamless upgrades, there are a number of compatibility settings to support older message formats.

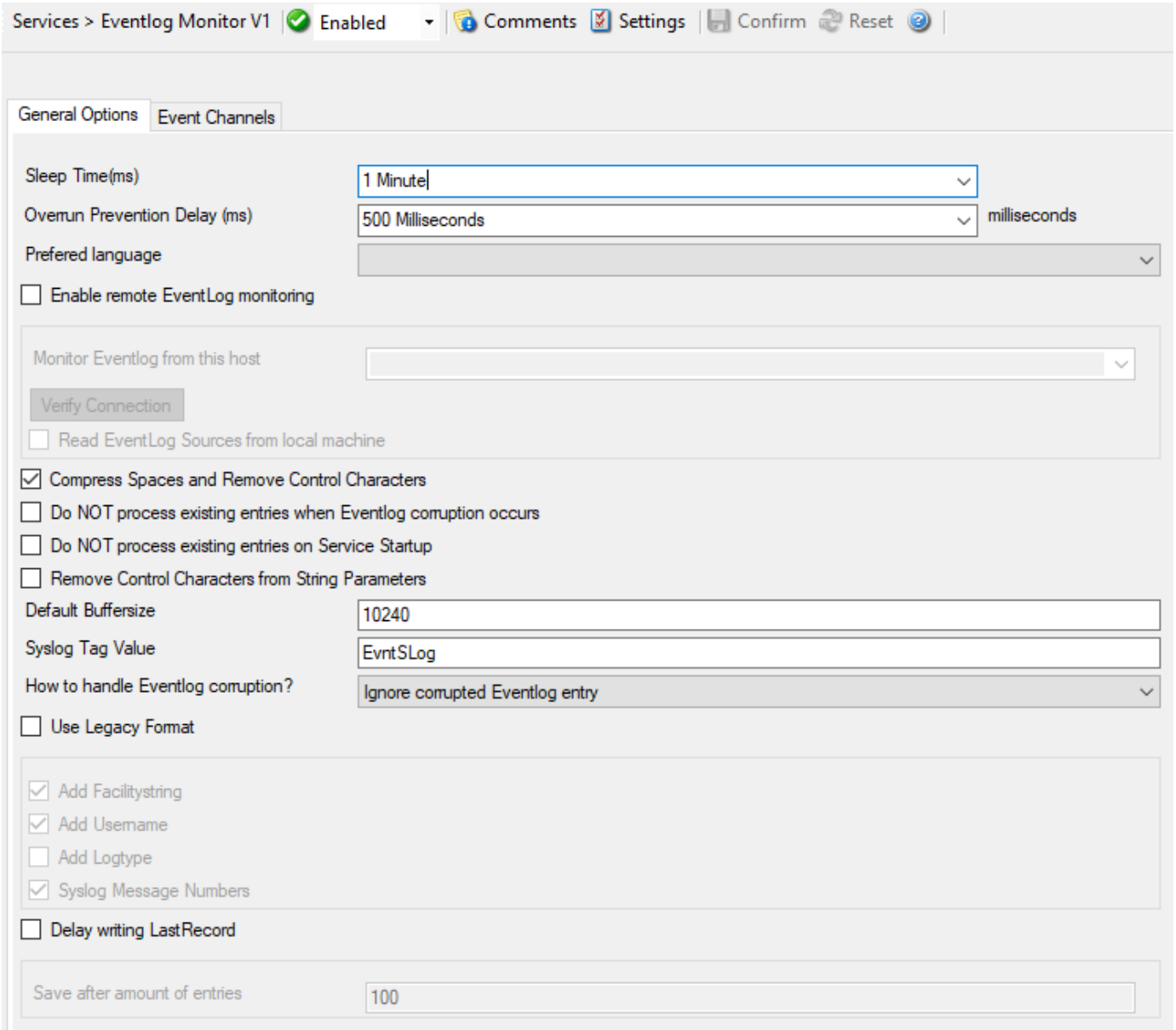
Newer Windows versions come with a considerably changed event logging system. In theory, the Event Log Monitor works with them, too. However, we know of some incompatibilities. For best results, we recommend using the event log monitor v2 service, which was specifically written for Windows Vista and newer. The Event Log Monitor described here is applicable for legacy Windows systems, and XP (where the new event logging system is not available). The Client will automatically detect and load available Event Log types during the first startup of the Event Log Monitor.

Event Log Monitor V1

- Windows XP
- Windows 2003

Event Log Monitor V2

- all modern Windows versions (Windows 10, 11, Server 2016, 2019, 2022, and newer).



- Service - Event Log Monitor V1*

General Options Tab

Sleep Time(ms)

File Configuration field:

nSleepTime

Description:

The Event Log Monitor periodically checks for new event log entries. The “Sleep Time” parameter specifies how often this happens. This value is in milliseconds.

We suggest a value of 60,000 milliseconds for the “Sleep Time”. With that setting, the Event Log Monitor checks for new events every 60 seconds. Larger periods can be specified for occasionally connected systems or if email delivery with few emails per day is intended.

Very security-aware environments might use a shorter interval. The event log monitor service is specifically designed to limit the burden on the monitored system. As such, resource usage is typically low, even with frequently run event log checks. However, we recommend not running the Event Log Monitor more often than once a second.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

This property allows configuring a delay after generating an event. The time is the delay in **`milliseconds`**.

If run at a value of zero, the Event Log Monitor service generates events as fast as the machine permits. We have seen scenarios where routers and receivers are not able to keep up with this rate, resulting in packet loss. In addition, the CPU of the reporting machine is run at 100% - which is not a problem because the service runs at a low priority. However, with even a 1-millisecond delay, there is no noticeable CPU activity even when large bursts of events are forwarded. At one millisecond, the service can still generate 1000 events per second.

The default setting is an overrun protection of five millisecond, which allows roughly 200 events per second. This should be sufficient for even very busy servers.

Preferred language

File Configuration field:

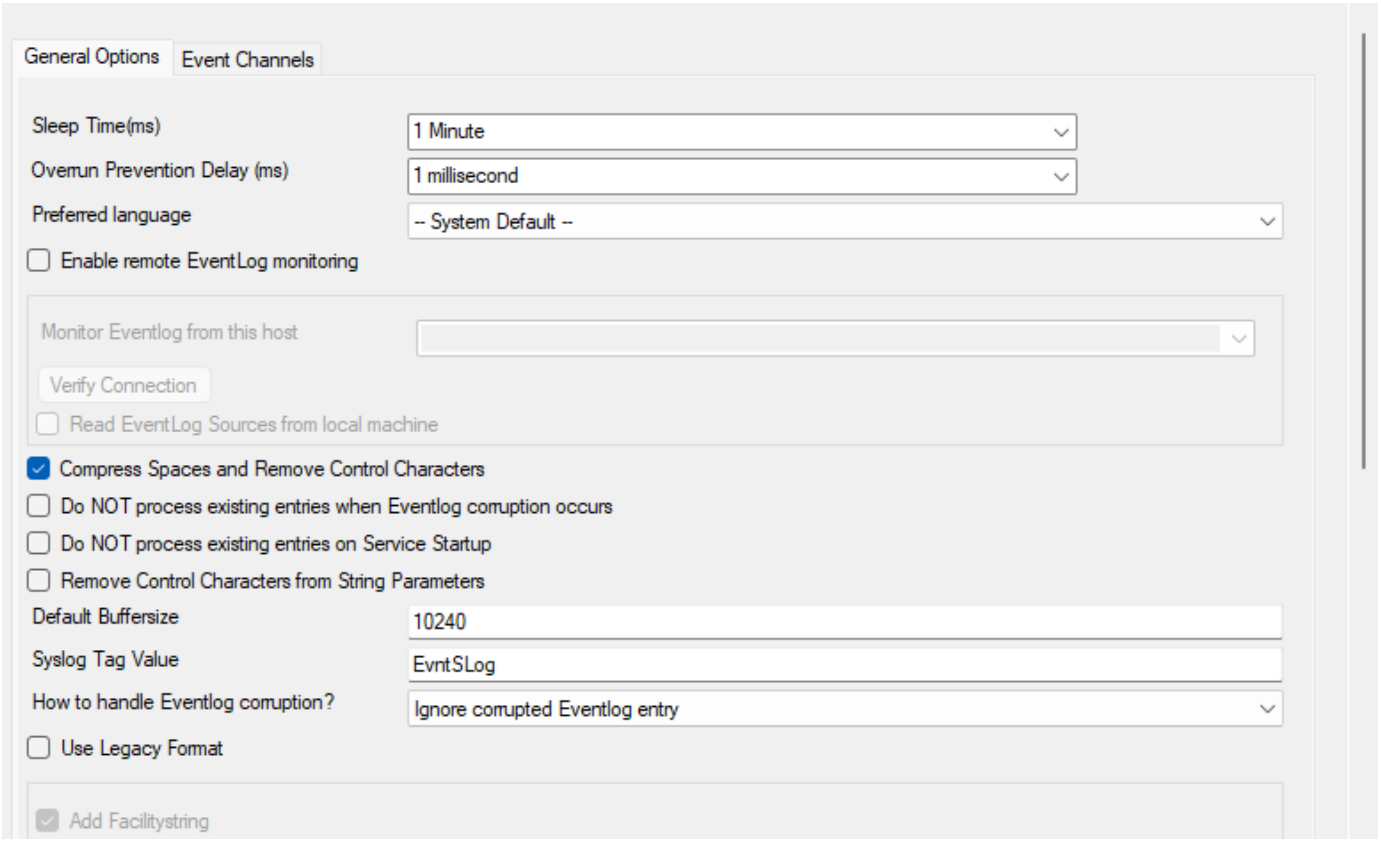
nLanguageLCID

Description:

You can select a preferred language and the Eventlog Monitor will send the message in this language. It will only work if these languages are installed and message libs are available with the preferred language. If this fails, it will automatically fall back to the system default language.

System Default is available as an explicit selection starting with **26.08**.

System Default is a valid selection and is stored as `0`.



Event Log Monitor V1 preferred language.

Enable remote Event Log monitoring

File Configuration field:

nEnabledRemote

Description:

If enabled, the Event Log Monitor will read and process the EventLog from a remote machine. Use the verify button to make sure that the network connection is working correctly.

Please make sure that the machine, which you are going to monitor, does have File and Print Services enabled, and is accessible by this machine.

This is important as the Event Log Service will read the message libraries on the remote machine by using the default administrative shares. For this reason, the Service must be configured to run with a user who has administrative privileges/permissions on the local and remote machine. If File and Print services remain disabled, the local message libraries will used automatically instead. Note that you may experience a lot of missing message libraries in this case.

Additionally you have an option to read the Event Log Sources from the local machine. If enabled, the local message libraries will be used instead of the remote machines ones. Sometimes local Event Sources are more reliable or are required for third-party EventLog implementations.

Compress Spaces and Remove Control Characters

File Configuration field:

nCompressControlChars

Description:

This option allows you to control the control character removal and space compression. If checked, control characters (e.g. CR, LF, TAB - non printable characters in general) are removed. Also multiple spaces are compressed to a single one. By default this is checked. We recommend keeping it checked for most cases as it provides better display.

Please note that it should be unchecked if events should be forwarded via email. And it MUST be turned off if double-byte character sets are being processed (e.g. Japanese).

Do NOT process existing entries when Event Log corruption occurs

File Configuration field:

nDoNotProcessLastRecord

Description:

When this option is checked, it prevents reprocessing of the whole Windows Event Log when the log becomes corrupted or truncated. This helps avoid re-reading all existing entries after such an event.

Do NOT process existing entries on Service Startup

File Configuration field:

szSyslogTagValue

Description:

When this option is checked, it prevents from reprocessing of the whole Windows Event Log when the EventReporter / MonitorWare Agent service is restarted.

Remove Control Characters from String Parameters

File Configuration field:

nRemoveControlCharsFromParams

Description:

Enable this option to remove control characters like carriage return or line feeds from parameter strings and category names in Windows Events.

Default Buffersize

File Configuration field:

nDefaultBuffer

Description:

The default Buffersize is 10k. This value will be increased or decreased dynamically if necessary. If you want to use third-party applications like NetApp you must increase the Buffersize manually (minimum 65k), because dynamic adjusting is not possible with them.

SyslogTag Value

File Configuration field:

szSyslogTagValue

Description:

The SyslogTag Value determines the SyslogTag that is used when forwarding Events via syslog. This is useful, if you want to determine later, what kind of syslog message this is, perhaps because you log Event Logs and syslog into the same database.

How to handle Eventlog corruption

File Configuration field:

nEventLogCor

- 0 = Retry processing from beginning
- 1 = Ignore corrupted Eventlog entry
- 2 = Clear all events from Eventlog

Description:

Sometimes it can occur that Event Log messages are corrupted and cannot be read correctly. This usually happens if someone tampered with the Event Log or if you are processing the Eventlog for the first time. In cases like this, you can automatically handle the situation with this option. You have the following options:

- Retry processing Event Log from the beginning: in this case the complete Eventlog will be processed again.
- Ignore corrupted Event Log entry (default): the affected Eventlog entry will be ignored and processing will continue.
- Clear all Events from the Event Log: the Event Log will be cleared completely and new Events hopefully don't get corrupted before they are processed.

Use Legacy Format

File Configuration field:

bUseLegacyFormat

Description:

This option enhances compatibility to scripts and products working with previous versions of EventReporter. The legacy format contains all Windows Event Log properties within the message itself.

The new format includes the plain text message only. The additional information fields (like event ID or event source) are part of the XML formatted event data. If the new format is used, we highly recommend sending or storing information in XML format. This is an option in each of the action properties (of those actions that support it – the write to database option for example always stores the fields separated, so there is no specific option to do so).

Legacy format is meant to support existing parser scripts. We encourage you to use the new, XML-bound format for new implementations. Legacy format will be maintained in future releases to support backward compatibility, but it is no longer actively being developed. There are some shortcomings in legacy format, which can lead to issues when building or operating a log parser. These shortcomings are by design. We will not change this in legacy format - the solution is to use the new format. After all, the new format was created in order to address the issues with legacy format.

Add Facility String

File Configuration field:

bAddFacilityString

Description:

If checked, facility identification is prepended to the message text generated. This parameter enhances compatibility with existing Syslog programs and greatly facilitates parsing the generated entries on the Syslog server. We strongly encourage users to use this enhancement.

This setting only applies if the "Use Legacy Format" option is checked. Otherwise, it does not have any meaning and consequently cannot be configured in that case.

Add Username

File Configuration field:

nAddUserName

Description:

If checked, the Windows user that generated the event log entry is transmitted. If unchecked, this information is not forwarded. This is a configurable option for customers who have written parsing scripts for a previous format which did not contain Usernames. This option must also be unchecked if MoniLog is used.

This setting only applies if the "Use Legacy Format" option is checked. Otherwise, it does not have any meaning and consequently cannot be configured in that case.

Add Logtype

File Configuration field:

nAddLogType

Description:

If checked, then log types e.g. system, security etc. is prepended to the generated message.

This setting only applies if the “Use Legacy Format” option is checked. Otherwise, it does not have any meaning and consequently cannot be configured in that case.

Syslog Message Numbers

File Configuration field:

bShowSyslogMsgNbr

Description:

If checked, a continuously advancing message number is prepended to the generated message. This is useful for Syslog delivery to make sure that all messages have been received at the remote server

This setting only applies if the “Use Legacy Format” option is checked. Otherwise, it does not have any meaning and consequently cannot be configured in that case.

Delay writing LastRecord

File Configuration field:

nEnableLastRecordDelay

Description:

Enables the LastRecord writeback delay to the configured properties below.

Save after amount of entries

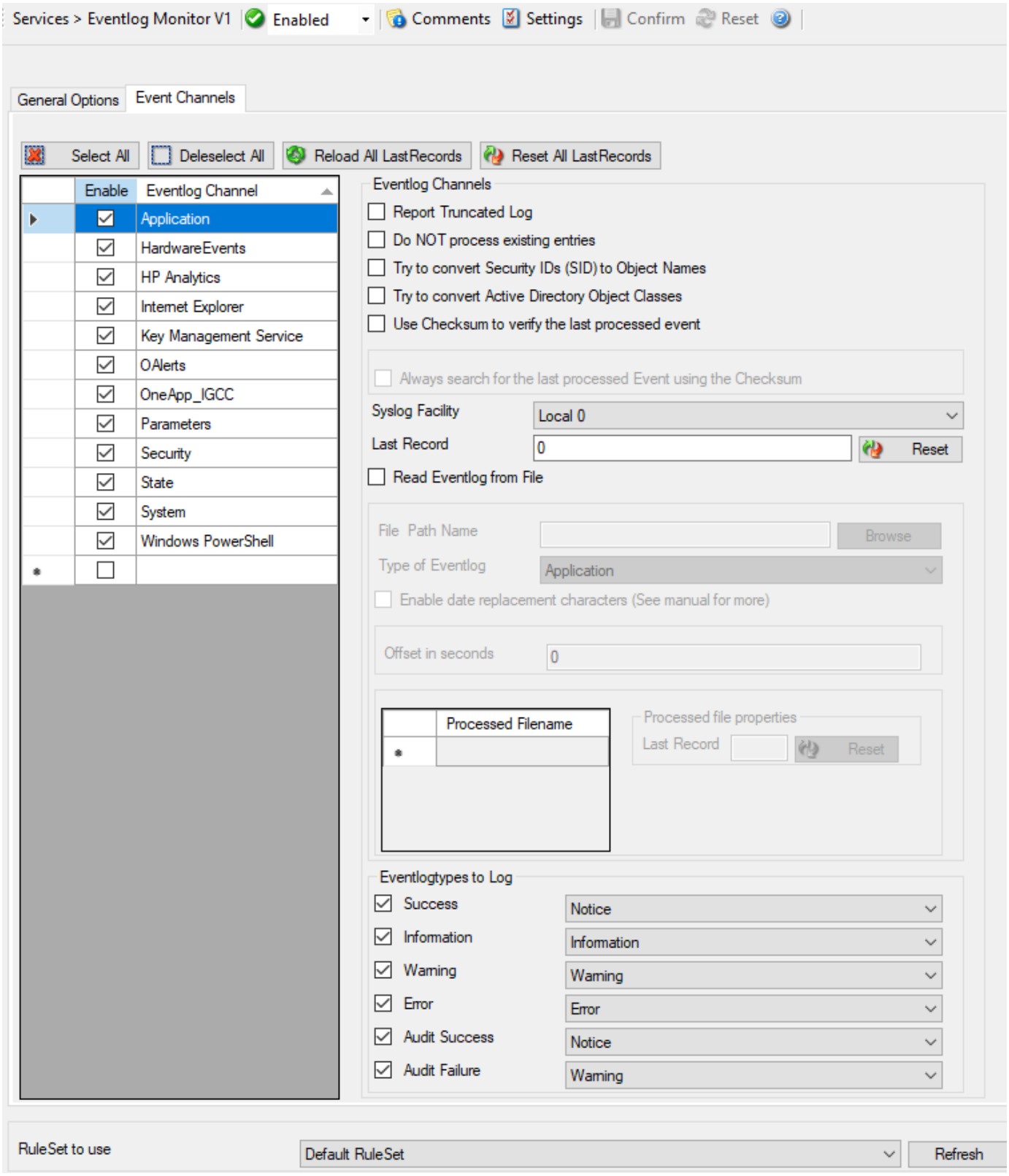
File Configuration field:

nLastRecordDelayCount

Description:

The LastRecord will be written after the amount of processed event log entries that are specified here.

Event Channels Tab



- Service - Event Log Monitor V1 Channels Tab*

Event Log Channels

They are basically a list of the different log types. The corresponding log is only be processed if the respective “Enable” checkbox is checked. The parameters are common to all logs and are explained only once.

Report Truncated Log

File Configuration field:

bReportTruncatedLog

Description:

Windows event logs can be truncated programmatically or via the Windows Event Viewer program. When a log is truncated, all information is erased from it. Any entries not already processed by the service are lost.

The service detects event log truncation. If “Report Truncated Log” is checked, it generates a separate message stating the truncation. This option is most useful in environments where truncation is not expected and as such might be an indication of system compromise.

If you regularly truncate the Windows Event Logs as part of your day-to-day operation, we suggest you turn this option off. In this case, we also recommend using a short sleep period (for example 10,000 which is 10 seconds) to avoid losing log entries.

Do NOT process existing entries

File Configuration field:

nNoExistingEntries

Description:

If you do not want to get a dump of an existing specific Windows Event Log then use this option. When MonitorWare Agent / EventReporter are restarted it will start processing after that last entry and do not look for the previous entries.

Try to convert Security IDs (SID) to Object Names

File Configuration field:

nTryConvSIDtoObj

Description:

With this option you can convert Security ID’s (SIDs) to object names. You can enable this feature in the advanced configuration of each event log type in the Event Log Monitor service. Simple check the “Try to convert Security IDs (SID) to Object Names” option.

Note that only the Security event log has this feature enabled by default. For all other event log types this feature is disabled by default.

Try to convert Active Directory Object Classes

File Configuration field:

nTryConvertDsClasses

Description:

With this option you can convert ActiveDirectory Schema GUID’s from Security Events on Domain Controllers to object names. For example Event 565, which usually has a lot of these Schema GUID’s! The GUID’s are internally cached to speed up EventLog processing operations.

Note that only the Security event log has this feature enabled by default. For all other event log types this feature is disabled by default.

Use Checksum to verify the last processed event

File Configuration field:

nEventUseChecksum

Description:

A checksum of the last processed Event will be stored along with the LastRecord of an event log. This checksum is checked during each iteration. If the checksum does not match , we consider the EventLog has

been altered, cleared, or something else happened. In this case the EventLog is being reprocessed from the beginning.

Please note: This option will prevent you from modifying the LastRecord value. If you do, the whole EventLog will be reprocessed! Please note that this behavior is by design and cannot be avoided. So we recommend to use this feature only if you intend to double check if the LastRecord value is valid.

Always search for the last processed Event using this Checksum

File Configuration field:

nEventScanLastEventByChecksum

Description:

Usually, the last processed Event is determined by the LastRecord value. If the Checksum to verify the last processed Event is activated, then the option to always search for the last processed Event using the Checksum is available. When activated, the last processed Event will also be always determined by the Checksum, not the LastRecord value.

Syslog Facility

File Configuration field:

nFacility

Description:

The `syslog facility` to map information units stemming from this log to. Most useful if the message is to forward to a Syslog daemon.

Last Record

File Configuration field:

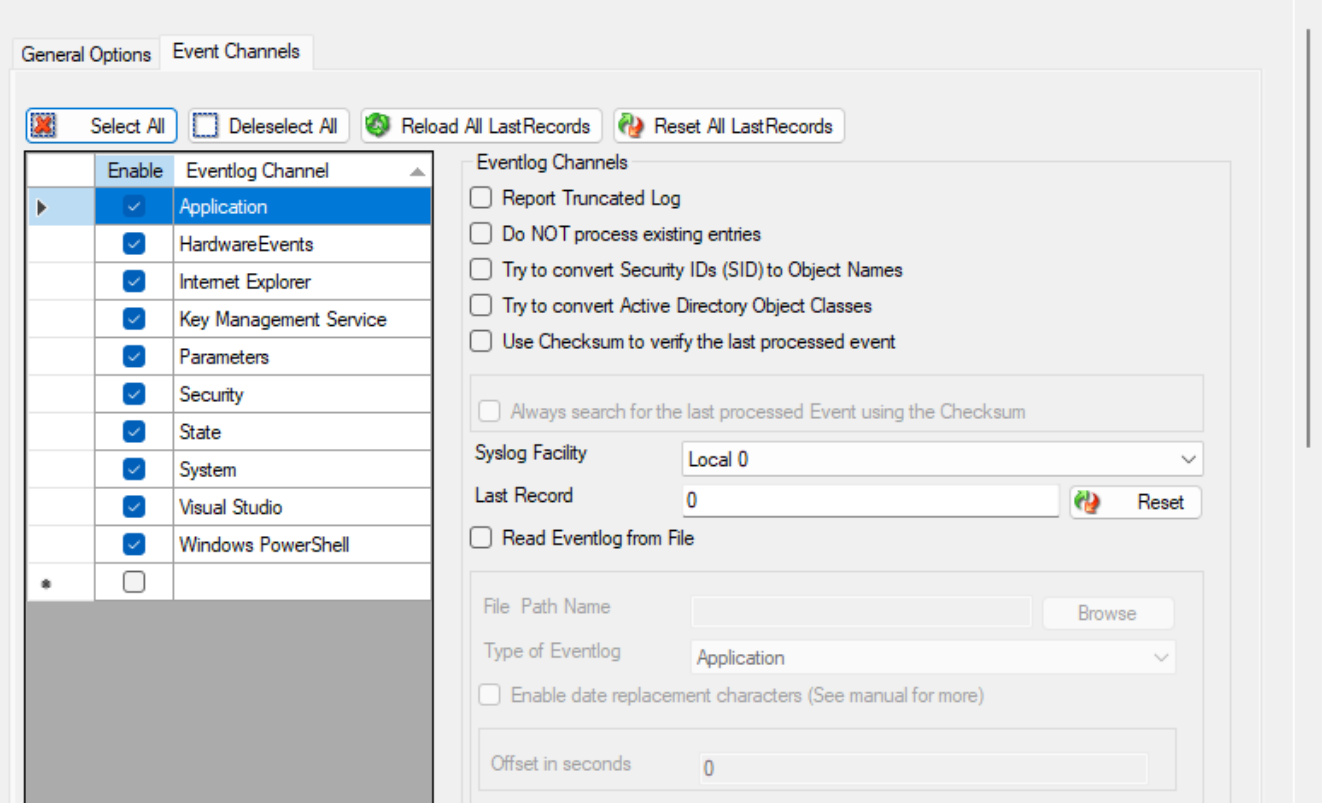
nLastRecord

Description:

Windows Event Log records are numbered serially, starting at one. The service records the last record processed. This textbox allows you to override this value.

Automatic refresh of the persisted bookmark values when you open this service property window is available starting with **26.08**.

When you open this service property window, the configuration client refreshes the persisted bookmark values from the service. It does not replace unsaved edits in the open form.



Event Log Monitor V1 Event Channels tab with the Last Record bookmark.

Use it with caution!

If you would like a complete dump of a specific Windows Event Log, reset the “Last Record” to zero with the reset button. If you missed some events, simply reset it to some lower value than currently set. It is possible to set “Last Record” to a higher value. This suspends event reporting until that record has been created. We strongly discourage to use this feature unless definitely needed.

Read Eventlog from File

File Configuration field:

nReadFromFile

Description:

When enabled, the Eventlog is read from a file instead from the system.

File Path Name

File Configuration field:

szLogFileName

Description:

It defines that which file to be read, only available when “Read Eventlog From File” is enabled.

Type of Eventlog

File Configuration field:

szLogType

Description:

It defines as which type of event log from file is handled. This is important to read the correct message libs from the system.

Enable date replacement characters

File Configuration field:

nEnableDateReplacements

description:

Allow the use of dynamic files/paths when using evt files. The same replacement characters as in the FileMonitor apply to this feature. A configured filename may look like this: `C:\temp\evt_%Y%m%d.evt` and would be replaced with `C:\temp\evt_20130101.evt`.

To support changing log file names, there are replacement characters available within the file name. These are:

- %y Year with two digits (e.g. 2002 becomes “02”)
- %Y Year with 4 digits
- %m Month with two digits (e.g. March becomes “03”)
- %M Minute with two digits
- %d Day of month with two digits (e.g. March, 1st becomes “01”)
- %h Hour as two digits
- %S Seconds as two digits. It is hardly believed that this ever be used in reality.
- %w Weekday as one digit. 0 means Sunday, 1 Monday and so on.
- %W Weekday as three-character string. Possible values are “Sun”, “Mon”, “Tue”, “Wed”, “Thu”, “Fri”, “Sat”. This replacement character is most useful for DHCP log files.
- %generatedfilename% It contains the fully generated filename (Can be useful for filtering).
- %msgsep% Only available if enable in the advanced option of the File Monitor. This value contains the current used message separator. This is useful if you want to reconstruct messages where the separator is part of the message.
- %msgseplast% Only available if enable in the advanced option of the File Monitor. This value contains the last used message separator. This is useful if you want to reconstruct messages where the separator is part of the message.

Offset in seconds

File Configuration field:

nEnableDateReplacementsOffset

Description:

When “Enable date replacement characters” is enabled, the current date will be used to generate the filenames. However in certain cases, there is a need to generate filenames with past or future dates. Negative values will generate past filenames, while positive values will generate filenames in the future. For example if you want to generate filenames from yesterday (24 hours back), use -84600 as offset.

Event Types to Log

These checkboxes allow local filtering of the event log. Filtering is based on the Windows event type. There is a checkbox corresponding to each Windows event type. Only checked event types will be processed. Unchecked ones will be ignored.

Filtering out unnecessary log types at this level enhances system performance because no information units will be generated and passed to the rule engine. Thus, Adiscon strongly recommends dropping unnecessary log types.

Ruleset to use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Note

If you intend to make the Event ID part of the actual Syslog message while forwarding to a Syslog server, adjust the Event Log Monitor output format or the Forward Syslog action message format accordingly.

The Event Log Monitor caches messages libraries. This greatly speeds up processing, but causes memory consumption for the cached libraries. By default, libraries are cached for 30 minutes. If memory consumption is too high, you may consider to lower the cache period. The cache is global to all event log monitors. As such, its size must be changed in the Engine specific Options Tab. Here you find the Resource Library Cache Options

Event Log Monitor V2

This dialog configures the Windows Event Log Monitor V2 service.

Eventlog Monitor V2

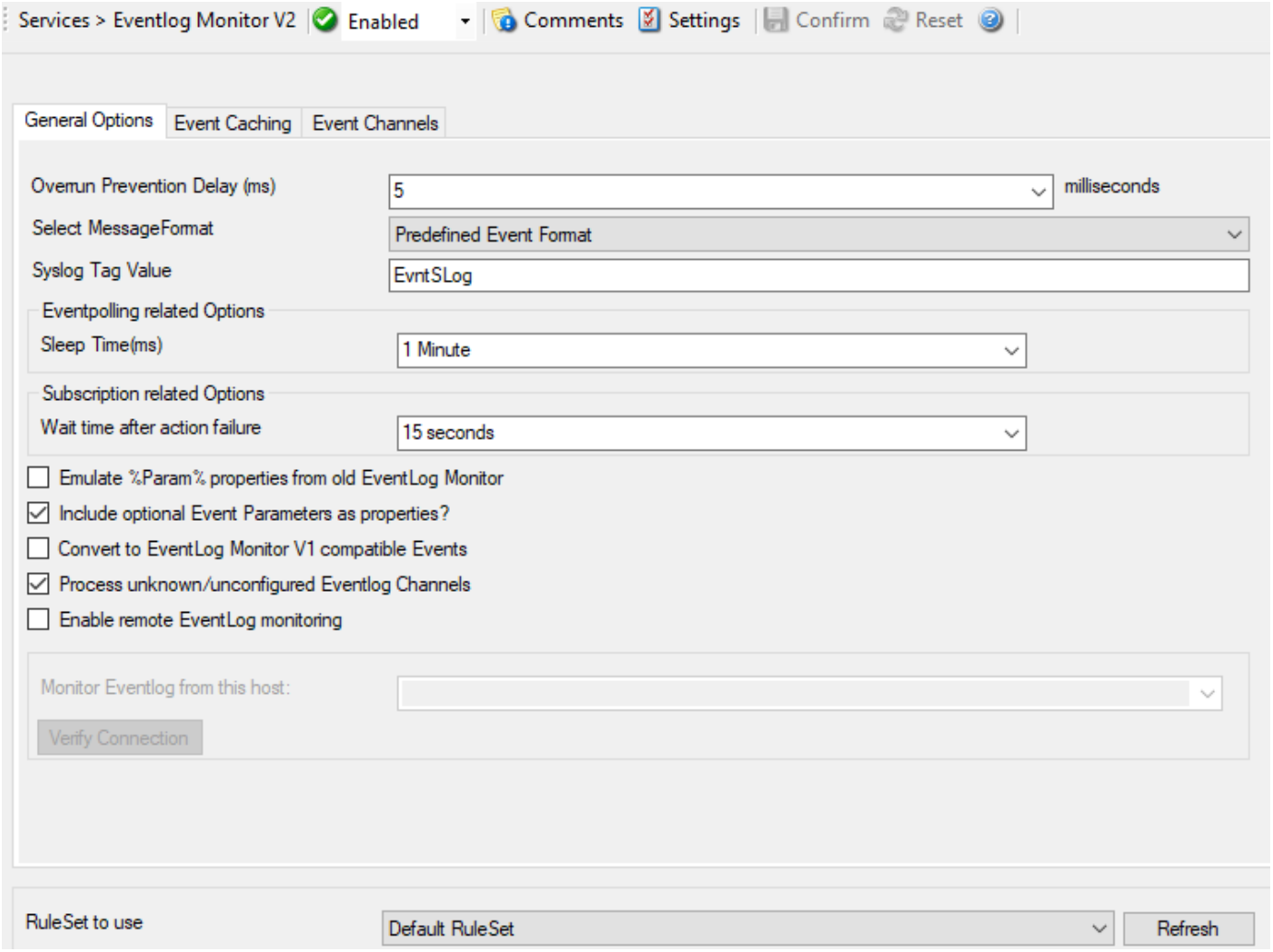
- all modern Windows versions (Windows 10, 11, Server 2016, 2019, 2022, and newer).

Eventlog Monitor

- Windows XP
- Windows 2003

The V2 Eventlog Monitor provides the ability to monitor so-called “log channels”. Each channel can work either in polling or subscription mode. In subscription mode, we are automatically notified by the operating system whenever a new event is logged. In traditional polling mode, we periodically check the channel. In both cases, it is possible for a user to re-set the channel reporting to an older event (parameter “Last Record”).

Both of these functionalities are implemented by periodically iterating over the configured channels. The frequency is controlled by the “Sleep Time” parameter.



- Service - Event Log Monitor V2 - General Options*

General Options Tab

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

This property allows configuring a delay after generating an event. The time is the delay in **`milliseconds`**.

If run at a value of zero, the Event Log Monitor service generates events as fast as the machine permits. We have seen scenarios where routers and receivers are not able to keep up with this rate, resulting in packet loss. In addition, the CPU of the reporting machine is run at 100% - which is not a problem because the service runs at a low priority. However, with even a 1-millisecond delay, there is no noticeable CPU activity even when large bursts of events are forwarded. At one millisecond, the service can still generate 1000 events per second.

The default setting is an overrun protection of five millisecond, which allows roughly 200 events per second. This should be sufficient for even very busy servers.

Select Message Format

File Configuration field:

nFormatType

- 0 = XML Format
- 1 = Predefined EventFormat

Description:

With this option you can choose whether the Events will be extracted in “Raw XML Format” or in the “Predefined Event Format”.

The XML format is the exact representation of the XML Stream returned by the EventLog System. **Please note that it only contains EventLog data and not a formatted message.**

The “Predefined Event Format” is what the Event in the event viewer looks like.

Copy Format into Property

If enabled, a second message format can be stored into a custom property.

Select Message Format

File Configuration field:

nCopyFormatIntoProperty

Description

Select which message format should be stored into the custom property.

Store into Property

File Configuration field:

szCopyFormatIntoProperty

Description

The custom message property, for the “Copy Format into Property” Option.

SyslogTag Value

File Configuration field:

szSyslogTagValue

Description:

The SyslogTag Value determines the SyslogTag that is used when forwarding Events via syslog. This is useful, if you want to determine later, what kind of syslog message this is, perhaps because you log EventLogs and syslog into the same database.

Eventpolling related Option: Sleep Time(ms)

File Configuration field:

nSleepTime

Description:

As said in the overview, this controls iteration over the configured channels. The value is specified in milliseconds.

For channels configured to use Polling Mode, the “Sleep Time” parameter specifies how often they are processed. Note that when multiple channels are set to polling mode, they are processed one after another. So there is a somewhat larger delay in processing than given by the “Sleep Time” parameter. The total frequency depends on how busy all polling channels are.

For channels configured to subscription mode, the “Sleep Time” interval will only influence how often a potential reset of “Last Record” is checked. Other than that, it has no effect on the event delivery rate.

We suggest a value of 60,000 milliseconds for the “Sleep Time”. With that setting, the Event Log Monitor checks for new events every 60 seconds. Larger periods can be specified for occasionally connected systems or if email delivery with few emails per day is intended.

Very security-aware environments might use a shorter interval. The event log monitor service is specifically designed to limit the burden on the monitored system. As such, resource usage is typically low, even with frequently run event log checks. However, we do NOT recommend running the Event Log Monitor more often than once a second.

Note that it is almost always an error to use a “Sleep Time” value of 0. The main processing loop of the EventLog Monitor V2 would re-run without any delay and would cause a very high CPU usage, close to 100%. For these reasons, newer versions of the product will no longer permit to use a “Sleep Time” of zero and automatically change it to one

Subscription related Option: Wait time after action failure

File Configuration field:

nSubscriptionSleepTime

Description:

Adds some extra wait time (Delay) if an action failed to process. Without the delay, the subscription would immediately process the last event again. In some cases a reasonable delay before a retry is needed.

Emulate %Param% properties from old EventLog Monitor

File Configuration field:

nEmulateParameters

Description:

This option emulates the %Param% properties, which were often used in the old EventLog Monitor. The new EventLog implementation does not support them in the same way anymore. The Event Log Monitor V2 is still able to provide parameters in the “old style” format, what means that log analysis scripts can receive a consistent stream of data for both new style and old style Windows events.

Include optional Event Parameters as properties?

File Configuration field:

nIncludeEventParameters

Description:

If enabled, the < EventData> node from the raw XML stream (Eventlog entry) will be searched for variables. If variables with names are found, they will be set as Properties with their variable name automatically. If the variable does not have a name, it will be set to a common name like “Param1, Param2 …. ParamX”.

Convert to EventLog Monitor V1

File Configuration field:

nConvertToEventLogMonitorV1

Description:

This option maps the EventID's from the Security EventLog back to V1 (Windows 2000/2003). The internal InforUnitID is also changed to V1. This option helps postprocessing EventLog V1 and V2 events equally.

Process unknown/unconfigured Eventlog Channels

File Configuration field:

nEnableUnknownChannels

Description:

If enabled, unconfigured Eventlog Channels (Those found on the system, but not listed in the Eventlog Channels list) will automatically be processed.

Enable remote EventLog monitoring

File Configuration field:

nEnabledRemote

Description:

If enabled, EventLog Monitor will connect to a remote machine to process the EventLog. Please note that the RPC Service needs to be installed on the remote machine, and the Service has to be configured with a network user that has sufficient access rights.

Monitor Eventlog from this host

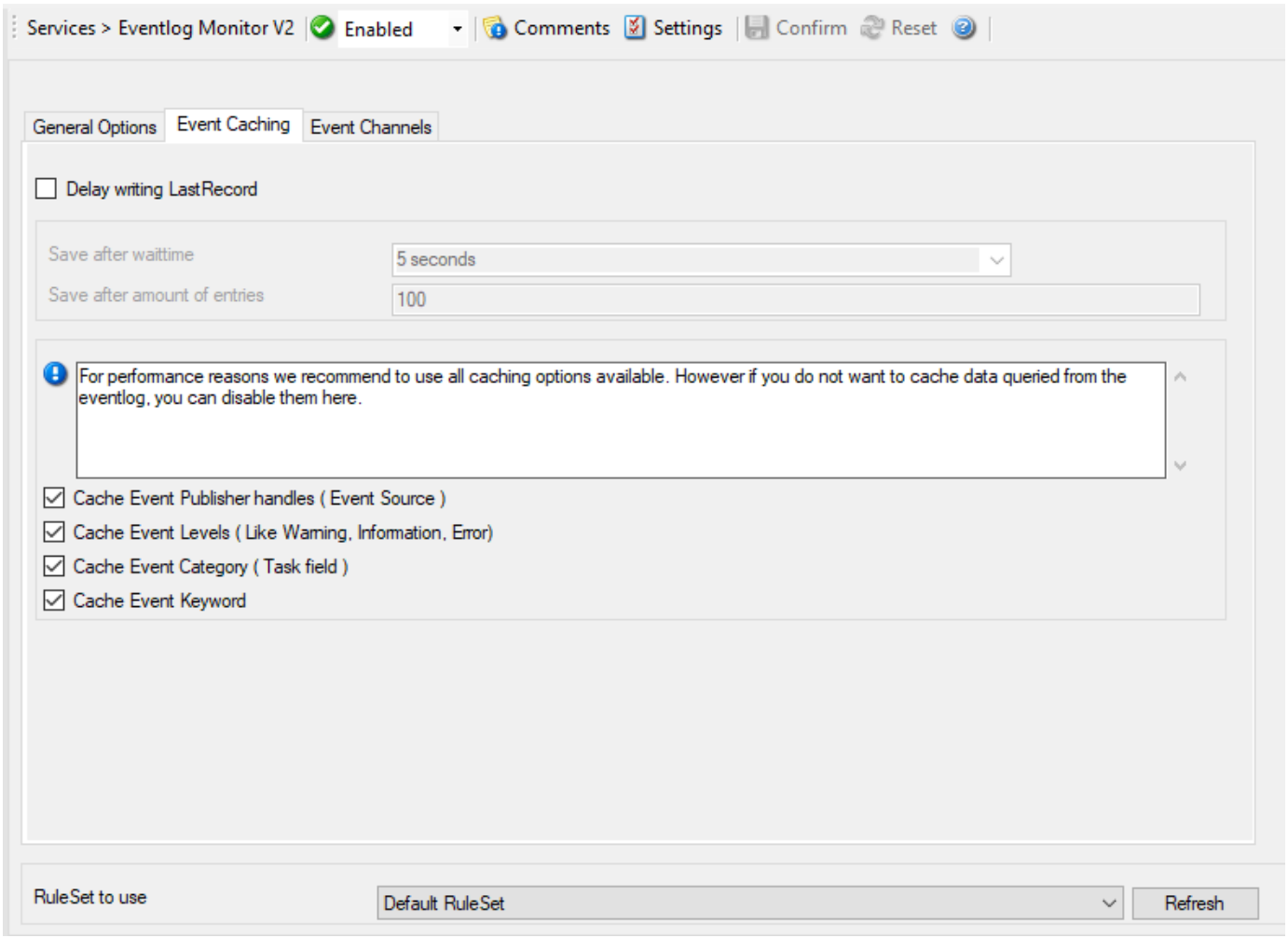
File Configuration field:

szServerName

Description:

The hostname of the remote server to be monitored by EventLog Monitor.

Event Caching Tab



- Service - Event Log Monitor V2 - Event Caching*

Delay writing LastRecord

File Configuration field:

nEnableLastRecordDelay

Description:

Enables the LastRecord writeback delay to the configured properties below.

Save after waittime

File Configuration field:

nLastRecordDelayTime

Description:

Regardless of the amount of processed event log entries, the lastrecord value will delayed for this waittime period.

Save after amount of entries

File Configuration field:

nLastRecordDelayCount

Description:

Regardless of the configured waittime period, the LastRecord will be written after the amount of processed event log entries that are specified here.

Cache Event Publisher handles (Event Source)

File Configuration field:

nCacheEventPublisher

Description:

All publisher sources will be kept open once loaded until the application / service is stopped. This increases processing speed for events from same sources.

Cache Event Levels (Like Warning, Information, Error)

File Configuration field:

nCacheEventLevel

Description:

If enabled the textual representations for event levels will be cached.

Cache Event Category (Task field)

File Configuration field:

nCacheEventCategory

Description:

If enabled, all textual representations for event categories will be cached.

Cache Event Keyword

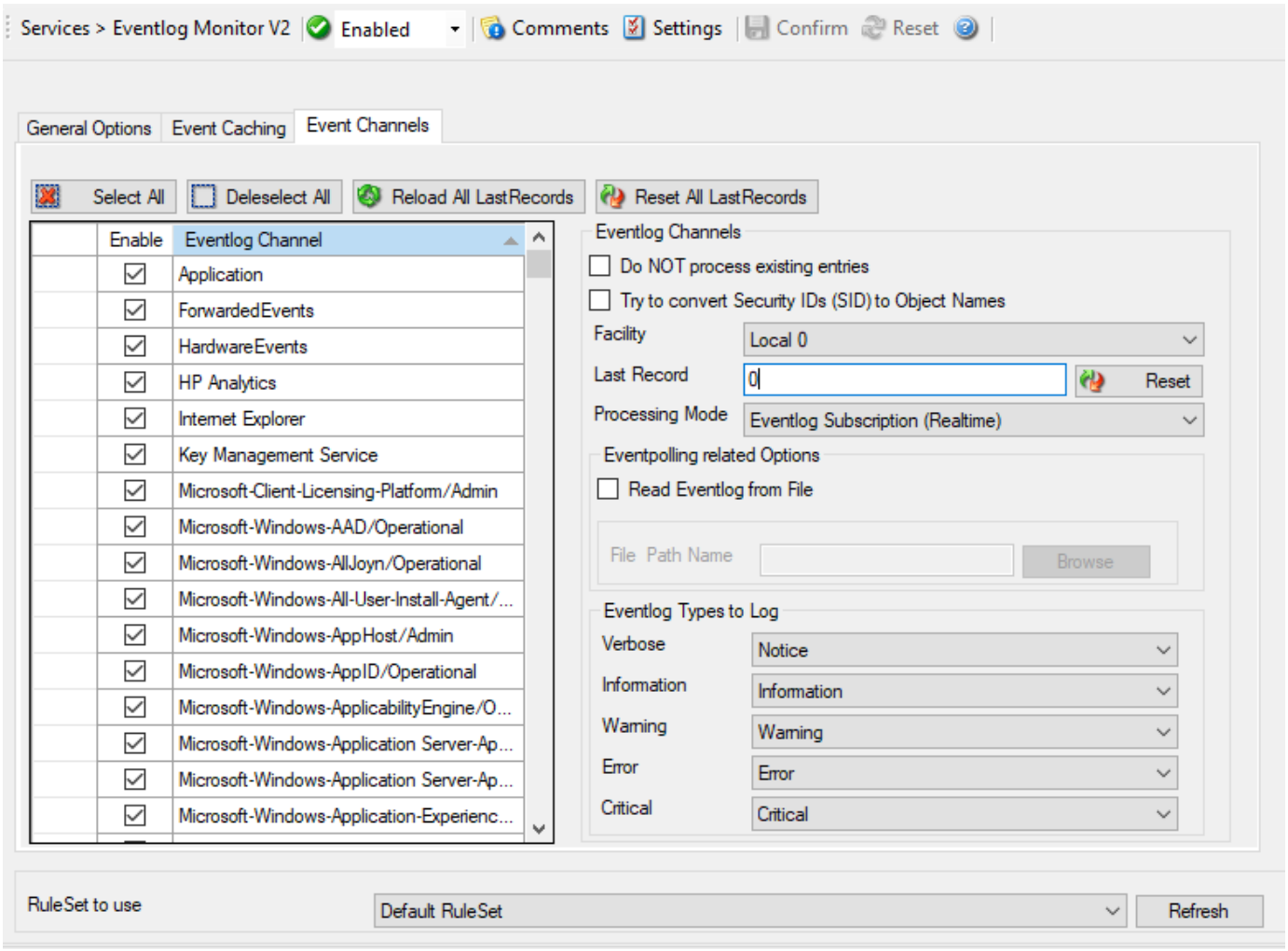
File Configuration field:

nCacheEventKeyword

Description:

If enabled, all textual representations for event keywords will be cached.

Event Channels Tab



- Service - Event Log Monitor V2 Event Channels*

The most important part of this dialog is the treeview of available Channels. It specifies which event logs are to be monitored. The monitor is set to all Channels that are currently available. There happen to be custom Channels, too, due to Applications creating them on their own. They will be added to the treeview automatically every time you re-open this configuration window.

Here you can adjust the syslog facility and the event log types. You are also able to overwrite all existing custom advanced channel configurations with your new ones.

Channels which are checked in the table will be processed. Channels which are unchecked are kept in the configuration, but are not processed.

Do NOT process existing entries

File Configuration field:

nNoExistingEntries

Description:

If you do not want to get a dump of an existing specific Windows Event Log then use this option. When MonitorWare Agent / EventReporter are restarted it will start processing after that last entry and do not look for the previous entries.

Try to convert Security IDs (SID) to Object Names

File Configuration field:

nTryConvSIDtoObj

Description:

With this option you can convert Security ID's (SIDs) to object names. You can enable this feature in the advanced configuration of each event log type in the Event Log Monitor service. Simple check the "Try to convert Security IDs (SID) to Object Names" option.

Note that only the Security event log has this feature enabled by default. For all other event log types this feature is disabled by default.

Facility

File Configuration field:

nFacility

Description:

The **`syslog facility`** to map information units stemming from this log to. Most useful if the message is to forward to a Syslog daemon.

Last Record

File Configuration field:

szXMLBookmark

Description:

Windows Event Log records are numbered serially, starting at one. The service records the last record processed. This textbox allows you to override this value. **Use it with caution!**

If you would like a complete dump of a specific Windows Event Log, reset the "Last Record" to zero. If you missed some events, simply reset it to some lower value than currently set. It is possible to set "Last Record" to a higher value. This suspends event reporting until that record has been created. We strongly discourage to use this feature unless definitely needed.

Processing Mode

File Configuration field:

nApiReadMode

- 0 = Subscription Readmode (Real-time)
- 1 = Polling Readmode (Sleeptime)

Description:

There are two processing modes available, first the default processing mode is "EventLog Subscription" which processes Events in real time. This means events are send to MonitorWare Agent by the OS as they happen, there is no delay at all. The other processing mode called "Eventlog Polling" and is similar to the method used in the old EventLog Monitor. The EventLog is checked and processed periodically controlled by the sleeptime. However using the polling method, you enable the "Read EventLog From File" option.

Eventpolling related Options

Read Eventlog from File

File Configuration field:

nReadFromFile

Description:

When enabled, the Eventlog is read from a file instead from the system.

File Path Name

File Configuration field:

szLogFileName

Description:

It defines which is file to be read, only available when “Read Eventlog From File” is enabled.

Event Types to Log

These checkboxes allow local filtering of the event log. Filtering is based on the Windows event type. There is a checkbox corresponding to each Windows event type. Only checked event types will be processed. Unchecked ones will be ignored.

Filtering out unnecessary log types at this level enhances system performance because no information units will be generated and passed to the rule engine. Thus, Adiscon strongly recommends dropping unnecessary log types.

RuleSet to use

File Configuration field:

szRuleSetName

Description:

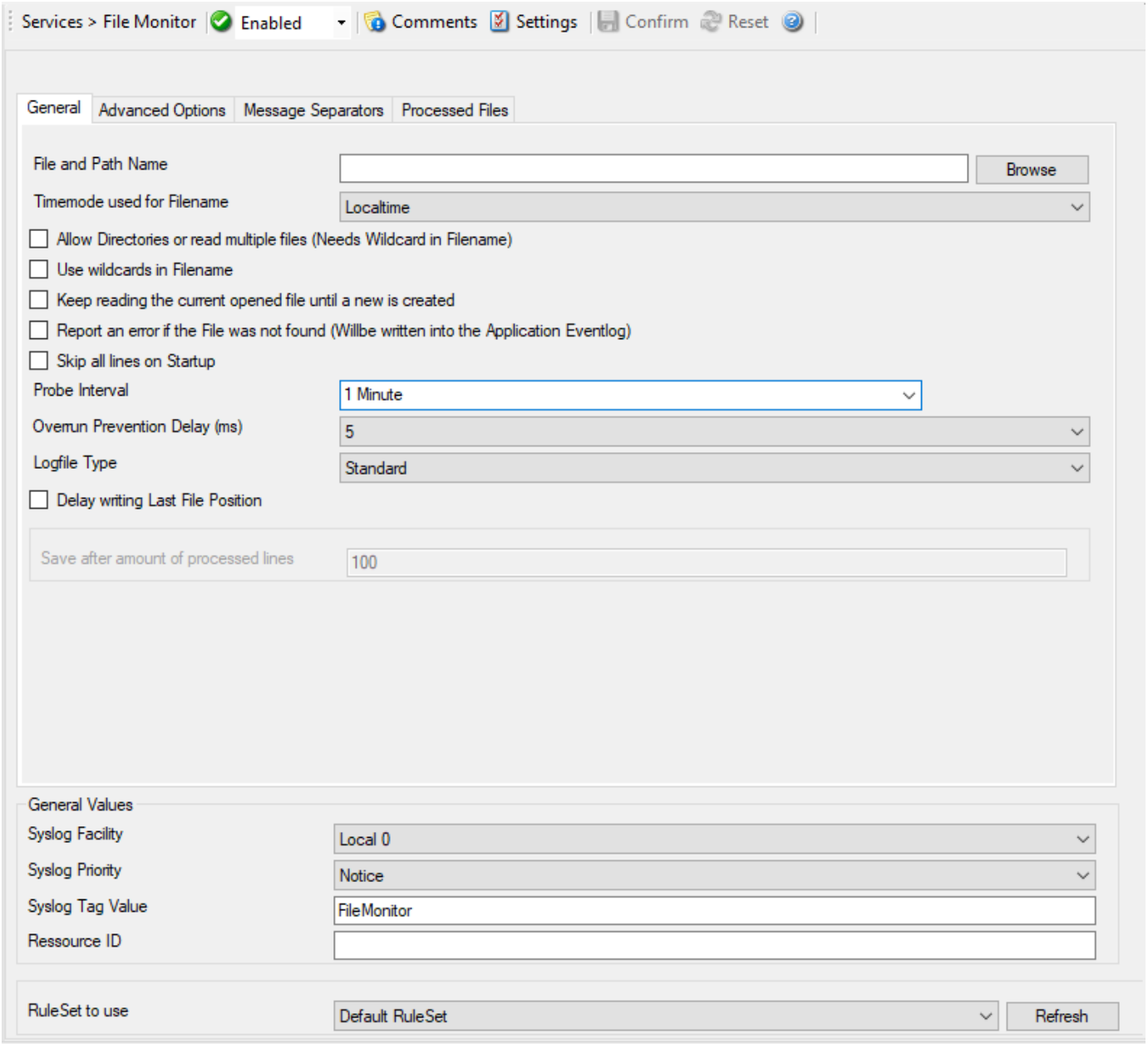
Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

File Monitor

The file monitor monitors the content of a text file just as the event monitor monitors the Windows Event Log. Its purpose is to gather vital information that is stored in system text files. Many applications do not write events to the event log but to a text file. This is also the case with many Microsoft applications (for example the WINS log).

The file monitor can also gather Internet Information Server (Windows' web server) log files. This is very useful for monitoring web activity and detecting attacks.

General Tab



- Service - File Monitor General*

File and Path name

File Configuration field:

szPathAndFileName

Description:

Here, you must type the name of the file to be monitored. To select a file from any specified location, press the browse button. Once a complete file name is specified, exactly that file is monitored.

The file name is never changed automatically. However, many systems generate changing log files. For example, Internet Information Server (IIS) can be configured to change the log file every day. Therefore, each day's log file has a different name.

To support changing log file names, there are replacement characters available within the file name. These are:

- %y Year with two digits (e.g. 2002 becomes "02")
- %Y Year with 4 digits
- %m Month with two digits (e.g. March becomes "03")
- %M Minute with two digits
- %d Day of month with two digits (e.g. March, 1st becomes "01")
- %h Hour as two digits
- %S Seconds as two digits. It is hardly believed that this ever be used in reality.
- %w Weekday as one digit. 0 means Sunday, 1 Monday, and so on.
- %W Weekday as three-character string. Possible values are "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat". This replacement character is most useful for DHCP log files.
- %generatedfilename% It contains the fully generated filename (Can be useful for filtering).
- %msgsep% Only available if enable in the advanced option of the File Monitor. This value contains the current used message separator. This is useful if you want to reconstruct messages where the separator is part of the message.
- %msgseplast% Only available if enable in the advanced option of the File Monitor. This value contains the last used message separator. This is useful if you want to reconstruct messages where the separator is part of the message.

Please note: the replacement characters are case sensitive!

For example, daily Internet Information Server log files are named "exyymmdd.log", with yy being the 2 digit year, mm the month, and dd the day of month. To generate the same name with file monitor, use the following name "ex%y%m%d.log".

Please note that there is no replacement character for the monthly week number (1st week, 2nd week). As such, the weekly log file setting of IIS is not supported.

On network paths: The File Monitor can also work on network storages. There are two ways of monitoring files in a network path.

1. Direct the service to a full UNC path. In this case, make sure the system account with which the service is running is able to access the network path or the service will fail to access with a permission error. Sample path: `\Hostname\folder1\folder2\`
2. Map the UNC path to a local drive letter in Windows. In this case, the path will look like a regular local path, but actually points to a network location. This requires a workaround, which is run a scheduled task at system startup under Local System and perform a net use specifying the user and password of the share. Else, the service will not be able to access the mapped UNC path, because the mapping usually happens for interactive sessions only.

TimeMode used for Filename

File Configuration field:

nTimeMode

Description:

Select the time mode used for the log file to be monitored with this drop-down list. Available options are:

1. Local Time: log file is monitored based on local time.
2. utc: log file is monitored based on universal coordinated time. UTC was formerly referred to as "GMT" (Greenwich Mean Time) and is the basis of the international time zone system.

Allow Directories or Read Multiple Files

This capability is available starting with **26.08**.

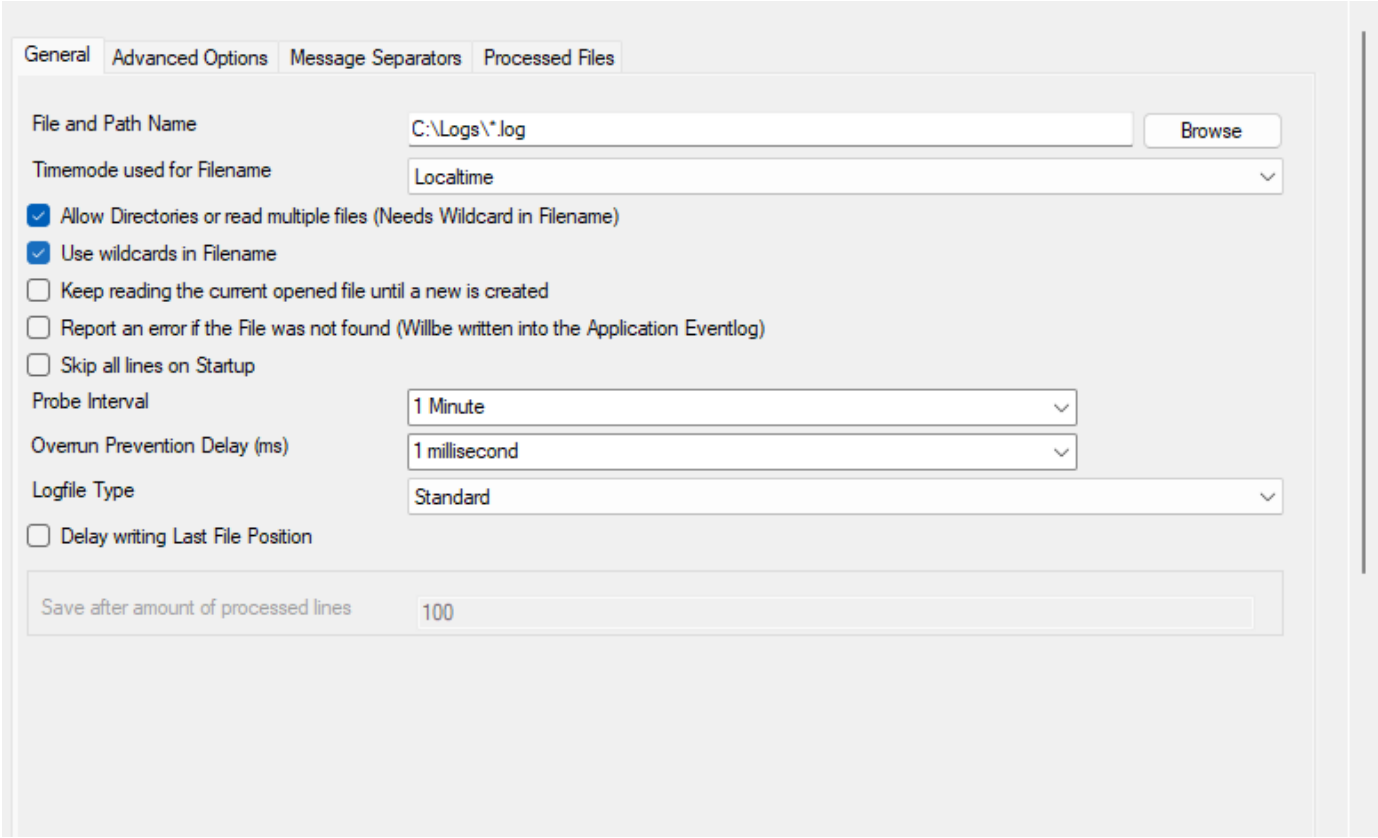
File Configuration field:

nMultipleFiles

Description:

This option reads a set of matching files. It supports wildcards in directory names and in the filename. For example, `C:\logs\tenant*\app\*.log` and `C:\logs\foo*\bar*\*.log` first expand matching directories, then apply the filename pattern inside them. Each matching file keeps separate read state.

Use this option for multiple files or wildcard directories. Directory matches are recursive only; similarly named files are not treated as directories.



File Monitor configured for multiple files and filename wildcards.

Use wildcards in Filename

File Configuration field:

nUseWildcard

Description:

This option allows you use `*` as a random character sequence in the filename for a single-file configuration.

Please note: with this single-file option, wildcards are limited to the filename, not the file path. To use wildcard directories, enable **Allow Directories or Read Multiple Files** instead.

Keep reading the current opened file until a new is created

File Configuration field:

nKeepReadingUntilNew

Description:

This has been added to define if the Service shall continuously read an open logfile until a new file (depending on the configured filename) is available. This Options is helpful for such cases where you do not know when a new logfile is generated and the old one is closed.

Report an error if the File was not found (Will be written into the Application Eventlog)

File Configuration field:

nReportErrorOnFNF

Description:

As the name says, if this setting is enabled, an error is reported in the Windows Eventlog if the file was not found.

Skip all lines on Startup

File Configuration field:

nSkipLinesEnabled

Description:

If this option is enabled, the File Monitor will skip all new lines of a logfile during startup. This will work in single-file mode as well as multi-file mode.

Probe Interval

File Configuration field:

nSleepTime

Description:

This interval is in **`milliseconds`**. After the specified interval the file monitor checks the file for new records.

We recommend a value of 60000 milliseconds for the “Check Interval”. With that setting, the file monitor checks for new records every 60 seconds. Larger periods can be specified for occasionally connected systems or if email delivery with few emails per day is intended.

Very security-aware environments might use a shorter interval. The MonitorWare Agent 3.0 is specifically designed to limit the burden on the monitored system. As such, resource usage is typically low, even with frequently run file monitor checks. However, we recommend not running the file monitor more often than once a second.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

This property allows configuring a delay after generating an event. The time for the delay is in **`milliseconds`**.

If run at a value of zero, the Service will process events as fast as the machine permits. We have seen scenarios where routers and receivers are not able to keep up with this rate, resulting in packet loss. In addition, the CPU of the reporting machine may be higher which is not a problem for most common multi-core machines in these days. However, with even a 1-millisecond delay, there is no noticeable CPU activity even when large bursts of events are forwarded. At one millisecond, the Service can still generate about 500- 1000 events per second.

The default setting is an overrun protection of five millisecond, which allows roughly 200 events per second. This should be sufficient for even very busy servers.

If you need real-time event reporting, we recommend to set the value to 0.

Logfile Type

File Configuration field:

nLogFileType

- 0 = Standard (Default)
- 1 = W3CLog

Description:

Select the type of the log file to be monitored with this drop-down list. Available options are:

- Standard - a standard text log file
- W3C Web Server logfile - log files in the W3C web server compliant format.

Delay writing Last File Position

File Configuration field:

nEnableLastRecordDelay

Description:

Enables a writeback delay for the Last File Position. When processing large logfiles, we would recommend to enable this feature.

Save after amount of processed lines

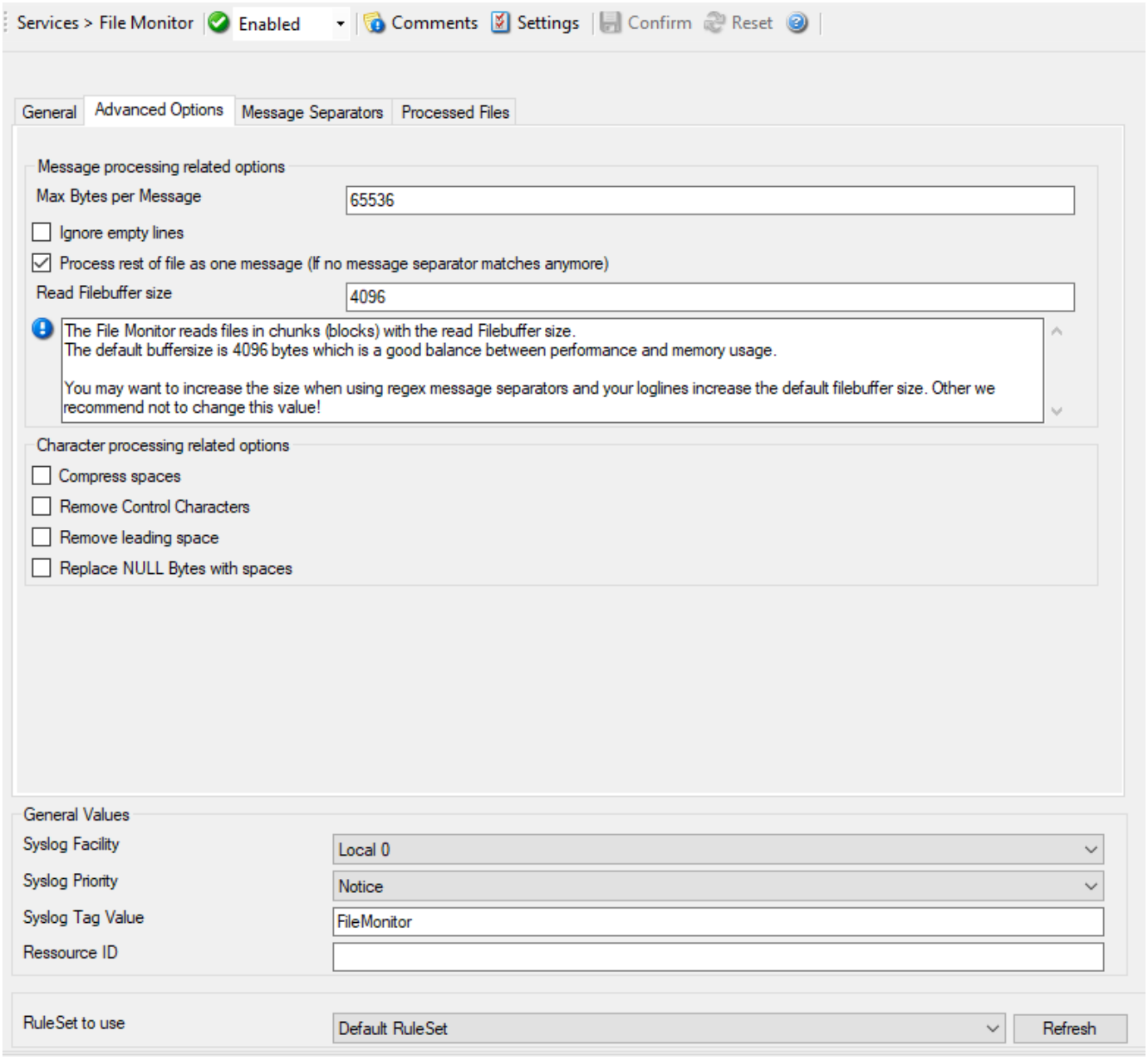
File Configuration field:

nLastRecordDelayCount

Description:

When Delay writing Last File Position is enabled, the Last File Position will be written after the amount of processed lines that are specified here.

Advanced Options Tab



- Service - File Monitor Advanced Options*

Message processing related options

Max Bytes per Message

File Configuration field:

nMaxBytesPerMessage

Description:

Maximum value of bytes that the file monitor reads per line. If a message is larger then this value, the message splits into multiple parts.

Ignore empty lines

File Configuration field:

nIgnoreEmptyLines

Description:

As the name already says, this option discards empty lines within the logfile.

Process rest of file as one message (If no message separator matches anymore)

File Configuration field:

nProcessRestOfFile

Description:

When enabled, file monitor will consider the rest of a file as single message if no other message separator matches anymore.

Read Filebuffer size

File Configuration field:

nReadFileBuffer

Description:

File Monitor reads files in chunks (blocks) with the read Filebuffer size. You can define the size of these chunks here, the default buffersize is 4096 which is a good balance between performance and memory usage. Please note that when using regex message separators, you may need to increase the Filebuffer size to the maximum possible length of a single logline. Other we recommend not to change this value!

Character processing related options

Compress spaces

File Configuration field:

nCompressSpaces

Description:

This option compresses sequences of spaces found inside the message to a single one.

Remove Control Characters

File Configuration field:

nRemoveControlChars

Description:

Removes control characters like CR and LF(carriage return and line feed).

Remove leading space

File Configuration field:

nRemoveLeadingSpaces

Description:

If there are any leading spaces in the file, this option removes them.

Replace NULL Bytes with spaces

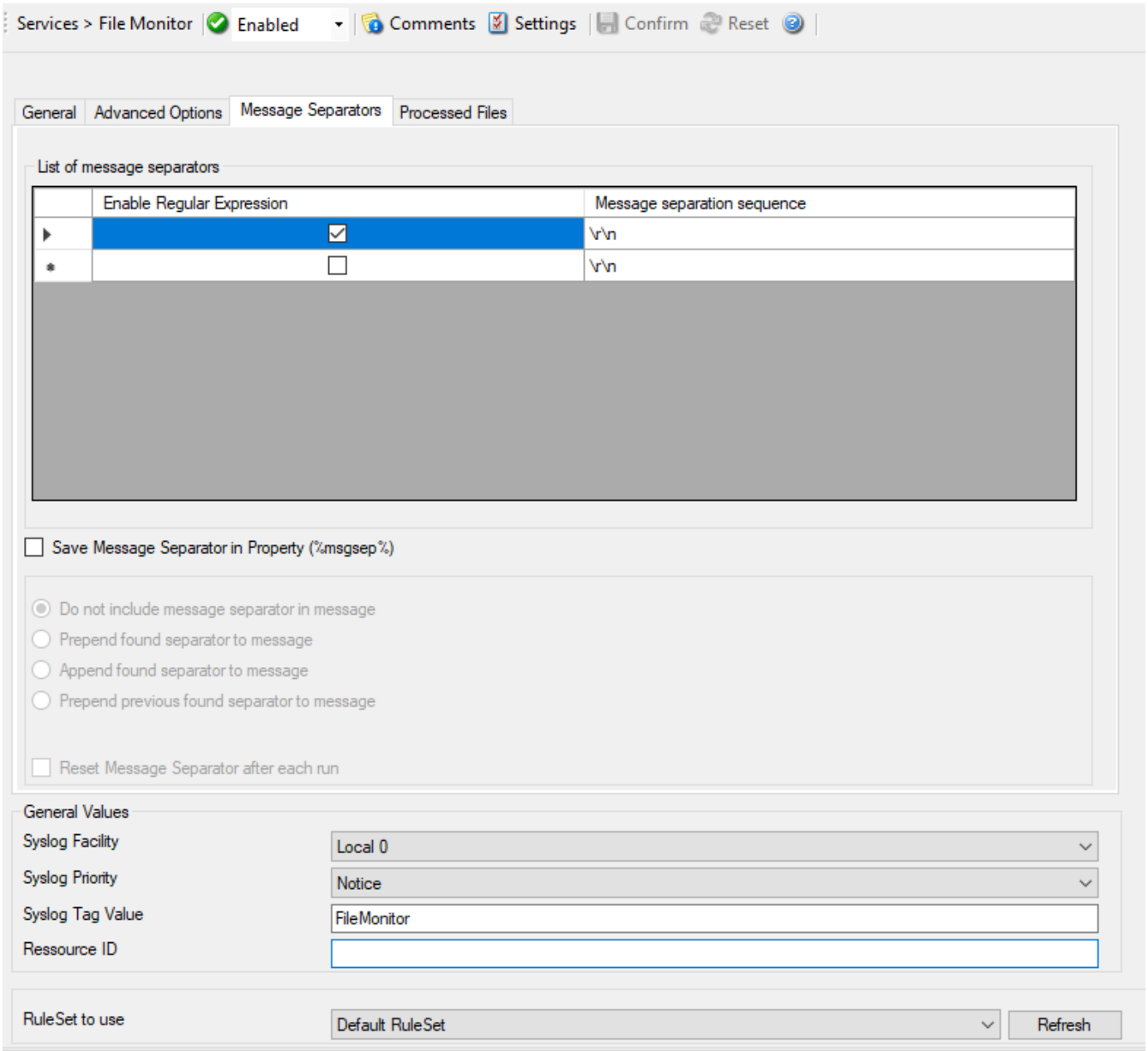
File Configuration field:

nReplaceNullBytes

Description:

If this option is enabled, the FileMonitor will replace NULL Bytes within files with spaces. These spaces again can be compressed with the “Compress spaces” options.

Message Separators Tab



- Service - File Monitor Message Separators*

Enable Regular Expression

File Configuration field:

bIsRegex_[n]

Description:

When enabled, the Message separation sequence will be handled as regular expression. Everything known in the regular expression syntax can be used to define a matching pattern.

Here are some regular expressions samples:

Regular Expression: `[0-9]{4,4}-[0-9]{1,2}-[0-9]{1,2} [0-9]{1,2}:[0-9]{1,2}:[0-9]{1,2}` Matches typical Date like `2015-11-20 12:11:01`

Regular Expression: `\n[0-9]{4,4}` Matches Linefeed and 4-digit number.

Regular Expression: `(;|:)` Matches semicolon or a colon.

More samples and details about the Regular Expression Syntax can be found here: https://msdn.microsoft.com/en-us/library/bb982727(v=vs.90).aspx

Message separation sequence

File Configuration field:

szMsgSep_[n]

Description:

Defines a customizable separation sequence by which the file monitor splits messages.

If using multiple separation sequences, the comparison operation will be held as an OR operation. That means, that either this value or another value has to be true, so a message can be split. This is especially important for logfiles with different log formats.

To date, the following control characters are available:

- r -> carriage return
- n -> line feed

Save Message Separator in Property (%msgsep%)

If this option is enabled, the current and last used message separator will be saved into the properties `%msgsep%` and `%msgseplast%`.

When using regular expression as message separators, it might be needed to append or prepend the message separator to the message itself. For these cases, we have multiple way to do this:

Do not include message separator in message

File Configuration field:

nPropertyMsgSep = 0

Description:

Message Separator will not be included in the message

Prepend found separator to message

File Configuration field:

nPropertyMsgSep = 1

Description:

When enabled, the current found message separator will be prepended to the message.

Append found separator to message

File Configuration field:

nPropertyMsgSep = 2

Description:

When enabled, the current found message separator will be appended to the message.

Prepend previous found separator to message

File Configuration field:

nPropertyMsgSep = 3

Description:

When enabled, the previous found message separator will be prepended to the message.

Reset Message Separator after each run

File Configuration field:

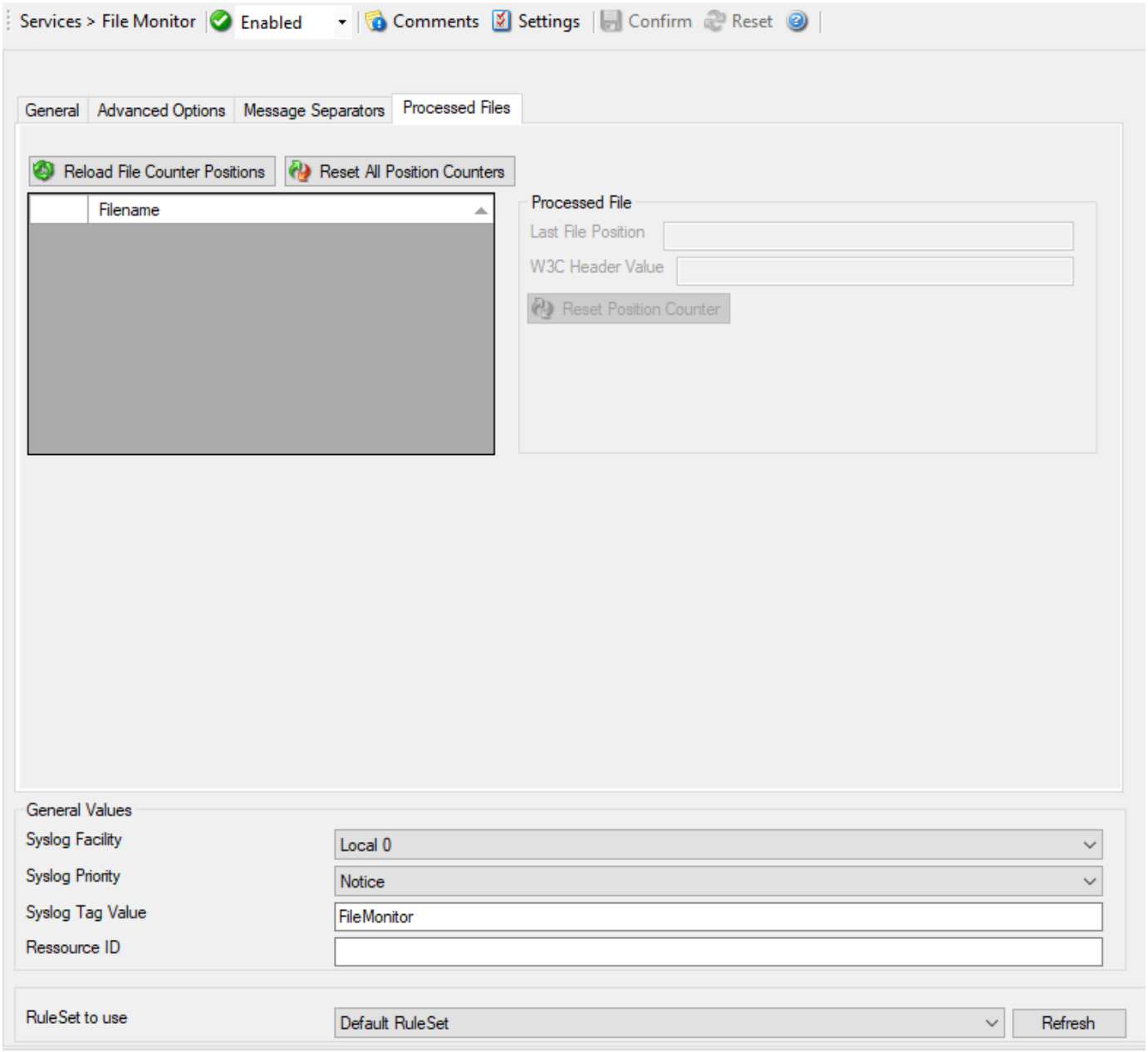
nPropertyMsgSepReset

Description:

If enabled, the message separator values will be reset after the File Monitor has finished a run (reached the end of a file).

Processed Files Tab

On this tab you see all files in a data grid that file monitor has yet processed. Select a file within this grid to see its data values like the last file position.



- Service - File Monitor Processed Files*

Last File Position

File Configuration field:

nLastPos [Data Value]

Description: This is the last file (Byte) position that the File Monitor processed. Lower or reset the Position Counter if you want to reprocess the file partially or even fully.

The data values can be controlled using the Reload File Counter Positions and Reset All Position Counters buttons, or simply by editing the Last File Position field. When saving applied changes to the data values, the service will reload them during next check interval and reprocess files if necessary.

W3C Header Value

File Configuration field:

szW3CHeader [Data Value]

Description:

If logfile type is set to “W3C Webserver Logfile”, this value will be filled with a list of field types taken from the W3C Field header.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The Syslog facility to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The Resource ID to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

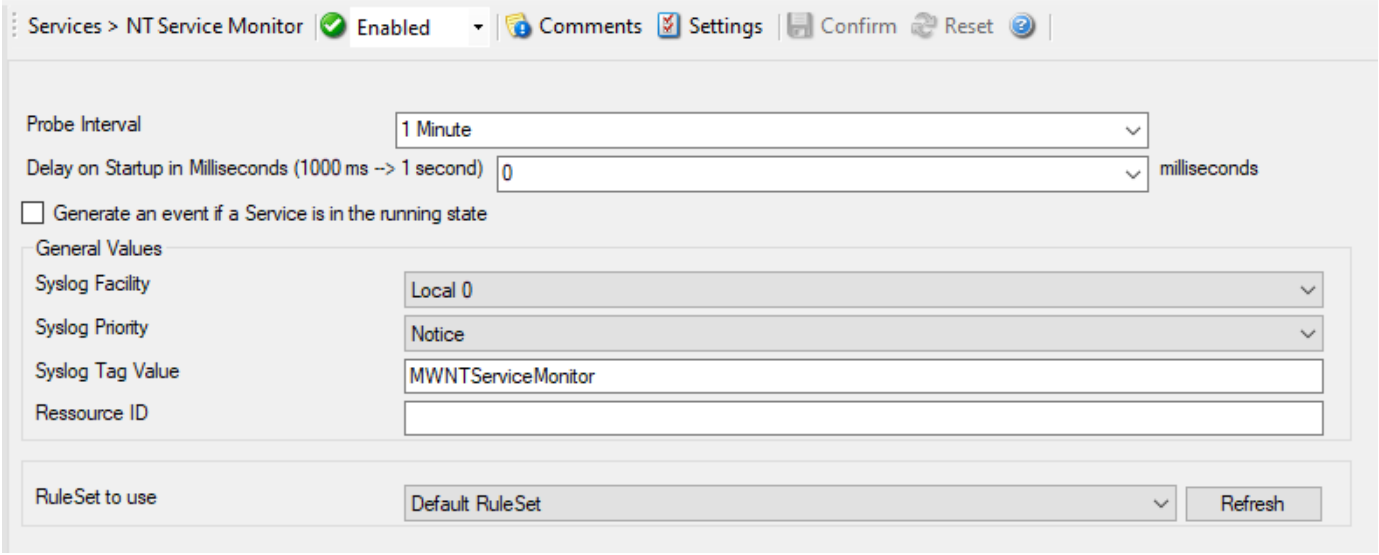
szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

NT Service Monitor

The NT Services Monitor is used to monitor if vital operating services are running. The monitor continuously checks all services set to “automatic” startup. If such a service does not run, an event is generated and passed to the rule engine.



- Service - NT Service Monitor*

Probe Interval

File Configuration field:

nSleepTime

Description:

This is the interval in which the service status is checked. This period is specified in **`milliseconds`**. The default is 60,000 ms, which is one minute. We recommend to lower this interval only if the server is performing very critical operations and service stops need to be detected in close real-time.

For performance reasons, we do not recommend using an interval of less than 2000 ms.

Delay on Startup in Milliseconds (1000 ms -> 1 second)

File Configuration field:

nDelayOnStartup

Description:

During system boot, the monitoring service eventually starts before all other services have been started. As such, the service monitor probably finds some services not running – simply because they are to be started very soon. Nevertheless, the service monitor still generates a “service not running” event.

To avoid this situation, use the startup delay setting. It specifies an amount of time (in **`milliseconds`**) that the service monitor is to hold right after startup. So during system boot, the operating system has a chance to start all other services before the service monitor comes into action.

The actual delay is very much depending on the number of services and hardware sizing of a particular server. Typically, a value 60,000 ms (one minute) should be a good value. But a busy server with many services might require a much higher value.

Generate an event if a Service is in the running state

File Configuration field:

nGenerateOnSuccess

Description:

When checked, an event is generated every time. If unchecked, it is generated only when the Service probe fails. The most common option is to leave it unchecked to catch events upon a failed Service startup.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The **`syslog facility`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The **`resource id`** to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

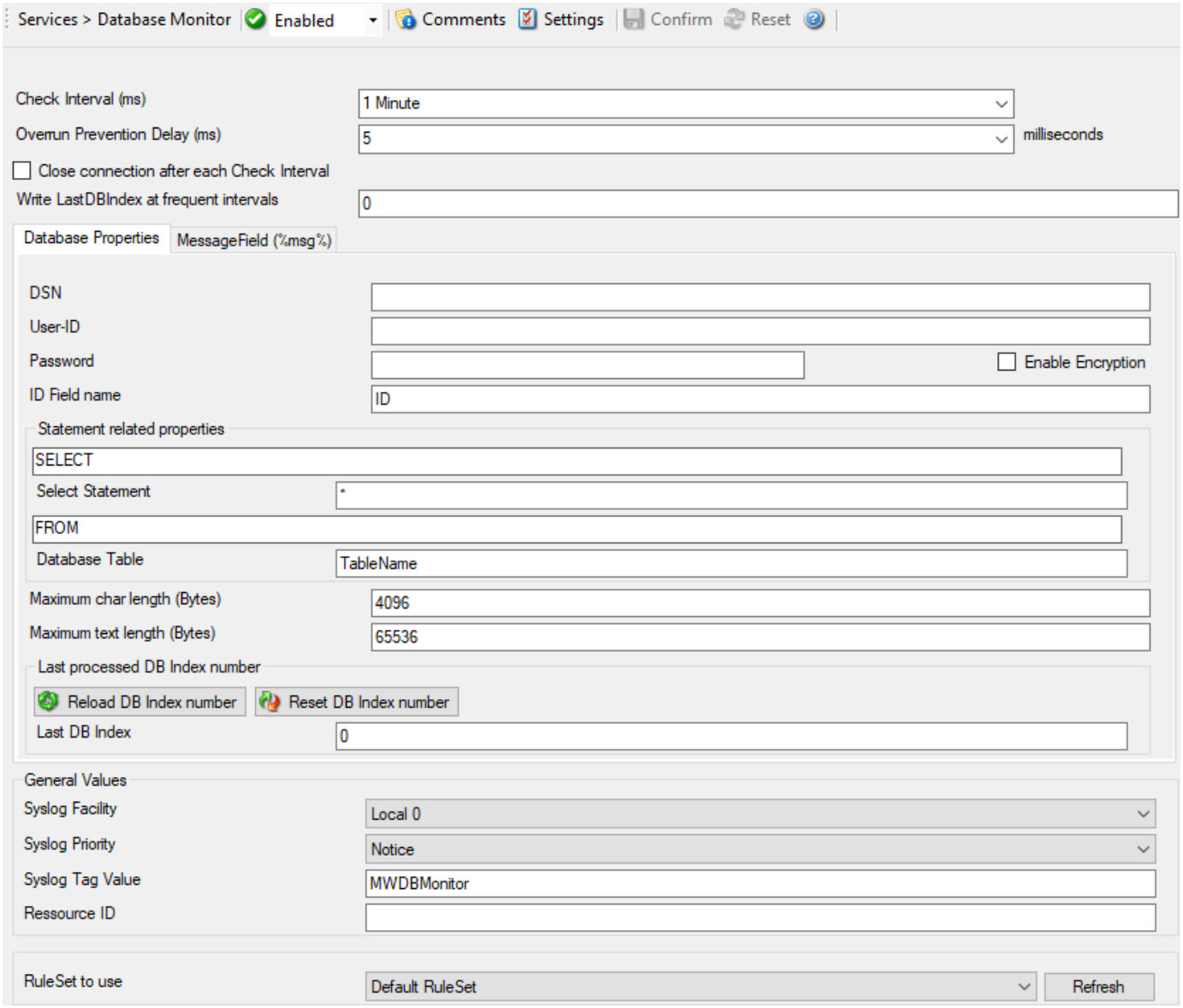
Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

other services

Database Monitor

The database monitor is used to monitor database tables. It periodically checks a database table for new records and if it finds them, generates an event from each record. A table that is to be monitored by the database monitor must have an integer ID field that auto-increments.

Please note that the database monitor transmits all of the data obtained within its** event properties. This means that you must use an output format suitable to show event properties if you intend to process the record with a third party application. We strongly recommend using XML based formatting for this. Alternatively, you can also select a format for the msg property itself (which is the default message). To do so, you need to configure the database monitor's advanced option's msg field settings.



- Service - Database Monitor*

Check Interval (ms)

File Configuration field:

nSleepTime

Description:

The database monitor runs periodically. This specifies, how often it should run. Please note that the Database Monitor waits for the configured amount of time after the current run is finished. The time is the delay in milliseconds.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

This property allows configuring a delay after generating an event. The time is the delay in milliseconds.

If run at a value of zero, the service generates events as fast as the machine permits. We have seen scenarios where routers and receivers are not able to keep up with this rate, resulting in packet loss. In addition, the CPU of the reporting machine is run at 100% - which is not a problem because the service runs at a low priority. However, with even a 1-millisecond delay, there is no noticeable CPU activity even when large bursts of events are forwarded. At one millisecond, the service can still generate 1000 events per second. The default setting is an overrun protection of five millisecond, which allows roughly 200 events per second. This should be sufficient for even very busy servers.

Close connection after each Check Interval

File Configuration field:

nForceConnectionClose

Description:

If checked, the database connection will be closed after each checking interval. When using a low checking interval, this can have an impact on the database performance.

Write LastDBIndex at frequent intervals

File Configuration field:

nWriteLastDBINdex

Description:

By default, the Last processed DBIndex field will be written after each database record. On large database, this can cause additional overhead. In order to avoid this problem, you can write the Last DBINdex after 10, 100, or even 1000 data records only.

Database Properties Tab

Here you can configure the access data for the database.

DSN

File Configuration field:

szDBDSN

Description:

The data source name of the database to access. All databases that support standard SQL syntax and have an ODBC driver support.

User

File Configuration field:

szDBUser

Description:

The User ID to log on to the database system. Please note that the database system may not require this setting or may ignore it (e.g. Microsoft SQL Server in “integrated” security mode) - please check with your database vendor or your administrator if in doubt.

Password

File Configuration field:

szDBPass

Description:

The password to access the database. If the “Enable Encryption” check box is checked, a weak symmetrical encryption is applied on the password. Thus, we highly recommend to create a specific account with very limited permissions if you store a password. This account does only need to have “select” permissions.

ID Field Name

File Configuration field:

szTableID

Description:

The name of the column in your database table, that will be used as ID field.

Select Clause

File Configuration field:

szDBSelect

Description:

You can configure a Select Statement to be issued to the database. This way, you have full control over what is fetched from the database.

> **Note**
>
> If you specify specific fields, the ID field must be present in the select clause; otherwise, the service cannot process the records.

Table Name

File Configuration field:

szDBTableName

Description:

Enter the name of the table from which the records should be monitored.

Maximum char length (Bytes)

File Configuration field:

nMAX_VCHAR_LEN

Description:

The maximum supported length in bytes for VARCHAR fields.

Maximum text length (Bytes)

File Configuration field:

nMAX_LONGVCHAR_LEN

Description:

The maximum support length in bytes for text fields.

Last DB Index

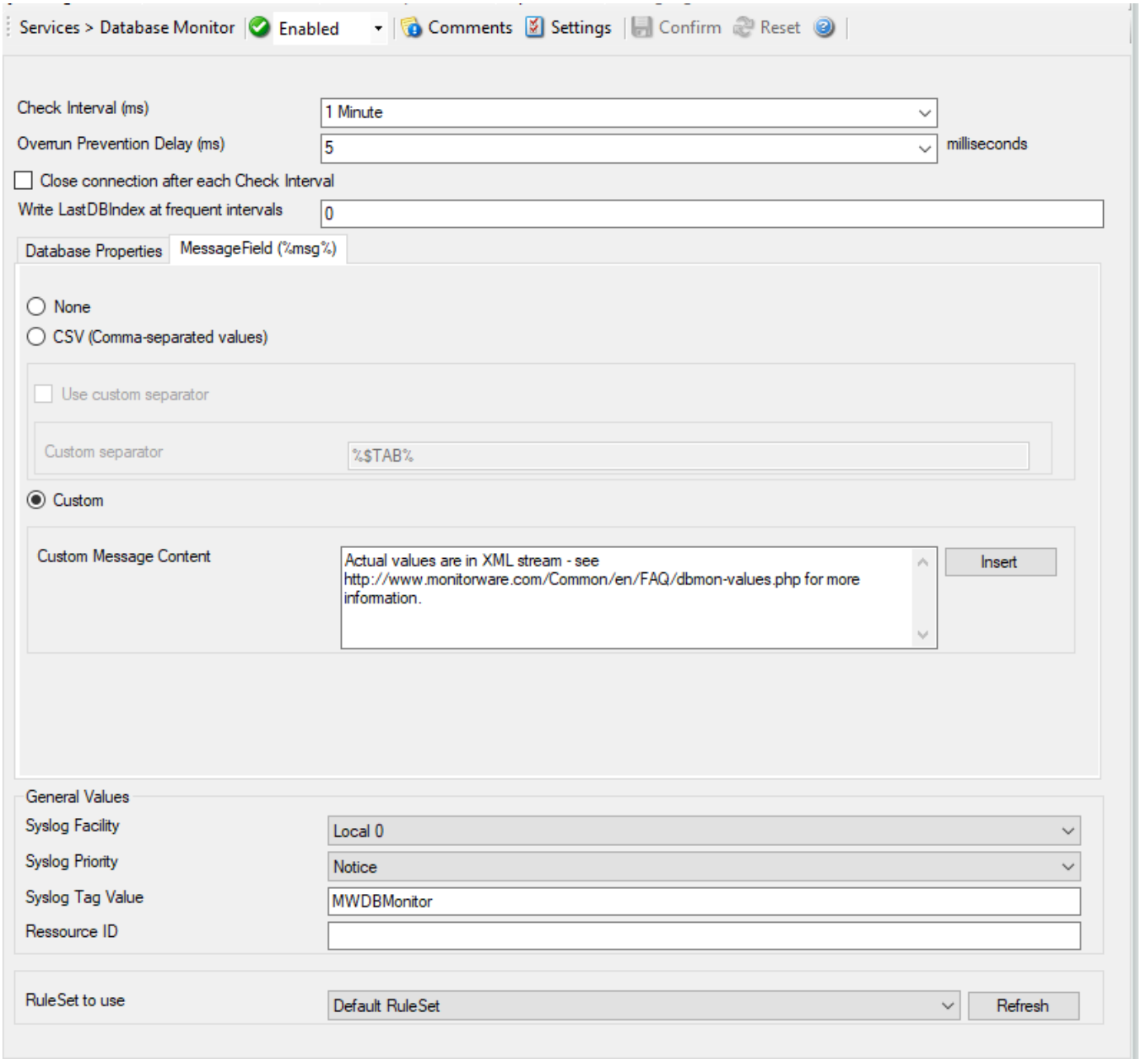
File Configuration field:

iLastDBID [Data Value]

Description:

The Database Monitor will store the last processed index of the configured ID Field Name into this data value. The data value can be controlled using the Reload DB Index number and Reset DB Index number buttons or simply by editing the field. When saving changes to the Last DB Index, the service will reload the value during next check interval and process database records if necessary.

Message Field (%msg%) Tab



- Service - Database Monitor Message Field*

Message Field

File Configuration field:

nMessageMode .. code-block:: text 0 = None

1 = CSV 2 = Custom

Description:

This field specifies the content of the “msg” property. By default, msg does NOT contain any useful information. This is because all data is provided via the event properties. If you actually need this as part of the msg, you can either select a custom format or CSV format.

If CSV is selected, msg contains all field values (not names) in comma-separated format. Instead of a comma you can also use any other custom separator. The field order is as it was in the select statement. We recommend not to use `select *` in this case (but specify the fields inside the select statement, so that they have a definite order).

We recommend not to rely on msg with the database monitor. Access via properties is much better. If you do not need msg, we recommend to set the msg content to “none” as this removes the unnecessary default message.

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The Syslog facility to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource

File Configuration field:

szResource

Description:

The Resource ID to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

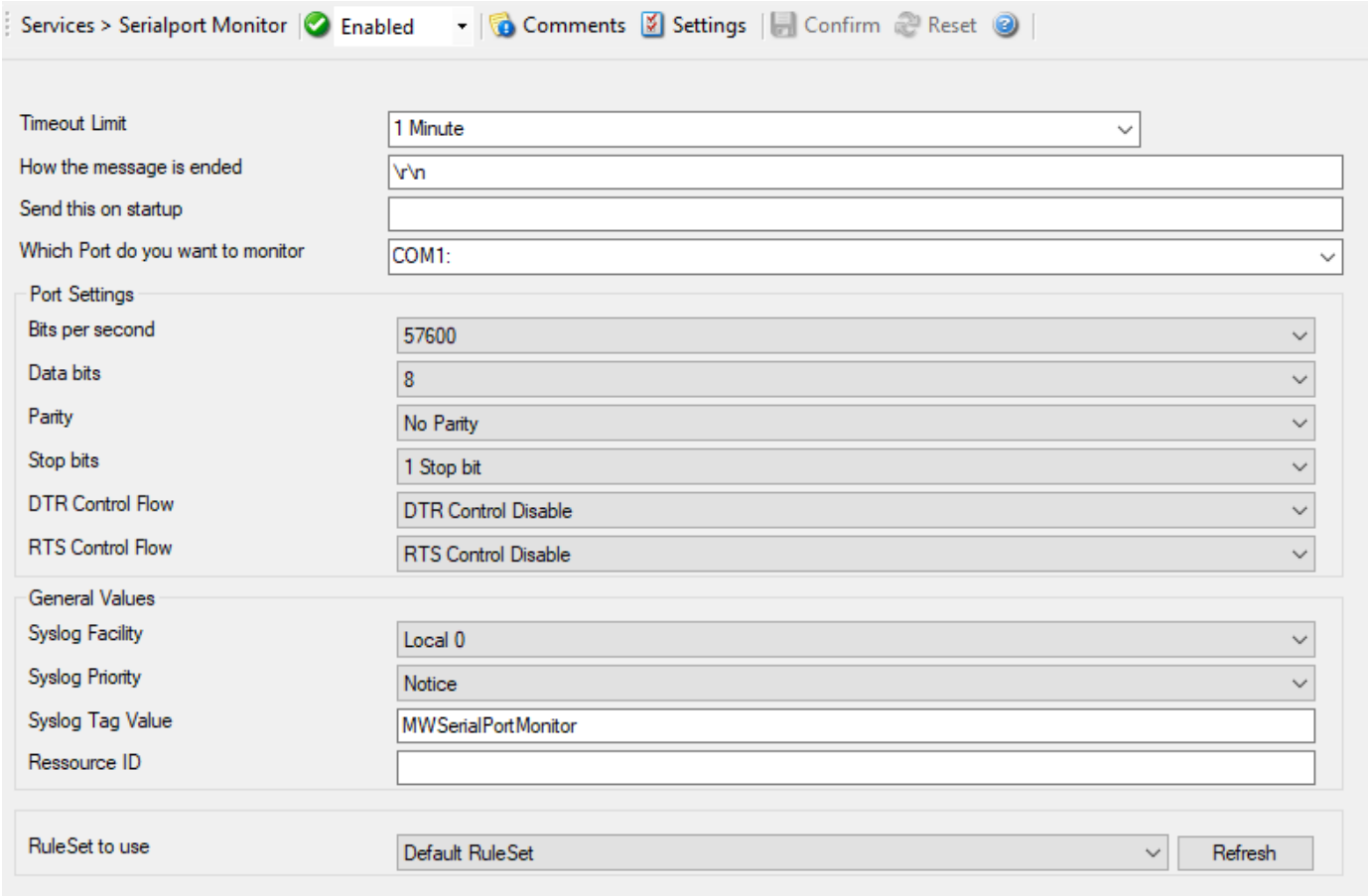
Serialport Monitor

The serial port monitor allows you to monitor devices attached to local communication ports. Actually, this is not limited to serial (RS232) devices - devices connected via e.g. LPT ports can also be monitored as long as the device provides a proper interface to the port device.

For example - uses for the serial port monitor may be interfacing to data loggers, “strange” log sources (e.g. PBX call logs) or out-of-band log retrieval (e.g. setting a router to log to the serial port instead to the network and then picking the data from that serial line). Out-of-band log retrieval can also be used to hide the fact that logging is actually taking place.

The serial port monitor works as follows: it listens to the configured port. With each received character, it checks if a configured “message end sequence” is received. If it is not it continues listening until either another character is received or a timeout occurs.

If either the “message end sequence” is received or the timeout occurred, the message is considered to be complete. In this case, an event is generated and that event is scheduled for processing.



- Service - Serialport Monitor*

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

This is the maximum amount of time the service waits to receive the “message end characters” from the attached device.

How the message is ended

File Configuration field:

szMessageEnd

Description:

This is the sequence that, when received, denotes the end of the message. Most often, this is either

```
"\r\n" or "\n" ("\r" represents a CR characters,
"\n" represents a LF character).
```

Which Port do you want to monitor

File Configuration field:

szPortName

Description:

This is the port that the device is attached to. Most often, this is either COM1: or COM2:. All locally-existing ports can be used. When working locally, the configuration program enumerates the locally available ports. This can be one of the following values:

```
 1. MSFAX
 2. COM1
 3. COM2
 4. COM3
 5. COM4
 6. FILE
 7. LPT1
 8. LPT2
 9. LPT3
10. AVMISDN1
11. AVMISDN2
12. AVMISDN3
13. AVMISDN4
14. AVMISDN5
15. AVMISDN6
16. AVMISDN7
17. AVMISDN8
18. AVMISDN9
```

Port Settings

Bits per Seconds

File Configuration field:

nBps

Description:

Bits per second can be 110 and go up to 256000, by default 57600 is selected.

Data bits

File Configuration field:

nDatabits

Description:

Databits define the number of bits in the bytes transmitted and received.

Parity

File Configuration field:

nParity

Description:

With Parity you can configure the Parity scheme to be used. This can be one of the following values:

```
1. Even
2. Mark
3. No parity
4. Odd
5. Space
```

Stop bits

File Configuration field:

nStopbits

Description:

You can configure the Number of stop bits to be used. This member can be one of the following values:

```
1. 1 stop bit
2. 1.5 stop bits
3. 2 stop bits
```

DTR Control Flow

File Configuration field:

nDtsControl

Description:

DTR (data-terminal-ready) flow control. This member can be one of the following values:

```
1. DTR_CONTROL_DISABLE - Disables the DTR line when the device
   is opened and leaves it disabled.
2. DTR_CONTROL_ENABLE - Enables the DTR line when the device
   is opened and leaves it on
3. DTR_CONTROL_HANDSHAKE - Enables DTR handshaking.
```

RTS Control Flow

File Configuration field:

nRtsControl

Description:

RTS (request-to-send) flow control. This member can be one of the following values:

```
1. RTS_CONTROL_DISABLE - Disables the RTS line when the device
   is opened and leaves it disabled.
2. RTS_CONTROL_ENABLE - Enables the RTS line when the device
   is opened and leaves it on.
3. RTS_CONTROL_HANDSHAKE - Enables RTS handshaking. The driver
   raises the RTS line when the "type-ahead" (input) buffer is
   less than one-half full and lowers the RTS line when the
   buffer is more than three-quarters full.
4. RTS_CONTROL_TOGGLE - Specifies that the RTS line will be high
   if bytes are available for transmission. After all buffered
   bytes have been sent, the RTS line will be low.
```

General Values (Common settings for most services)

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

The `syslog facility` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Priority

File Configuration field:

nSyslogPriority

Description:

The Syslog priority to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Syslog Tag Value

File Configuration field:

szSyslogTagValue

Description:

The Syslog tag value to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

Resource ID

File Configuration field:

szResource

Description:

The `resource id` to be assigned to events created by this service. Most useful if the message is to forward to a Syslog server.

RuleSet to Use

File Configuration field:

szRuleSetName

Description:

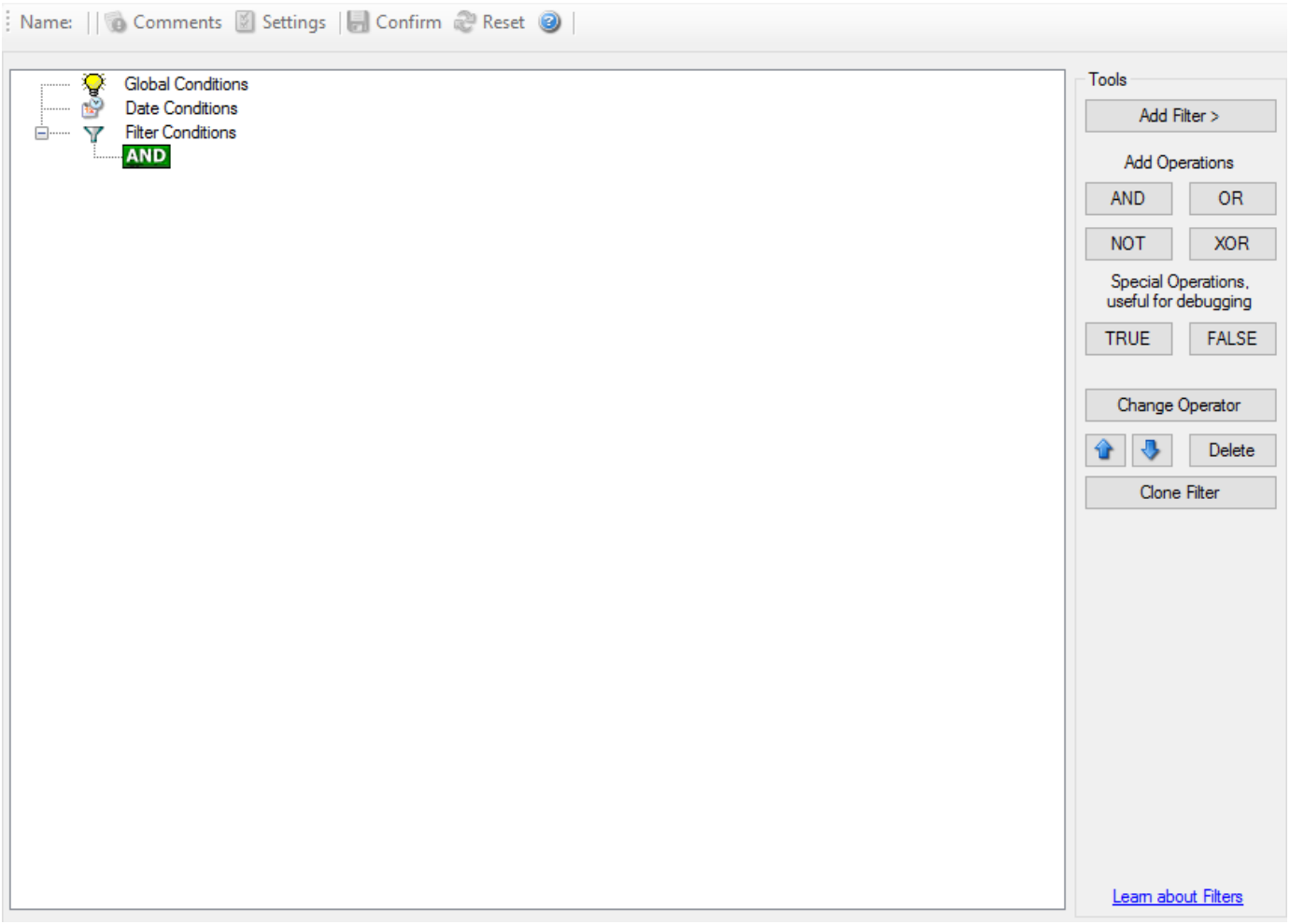
Name of the ruleset to be used for this service. The RuleSet name must be a valid RuleSet.

Filter Conditions

Use filter conditions to decide **when** a rule should match. If the filter condition evaluates to true, the rule matches and its actions are carried out.

Filter conditions can be simple or complex. Boolean operations and nested expressions are supported.

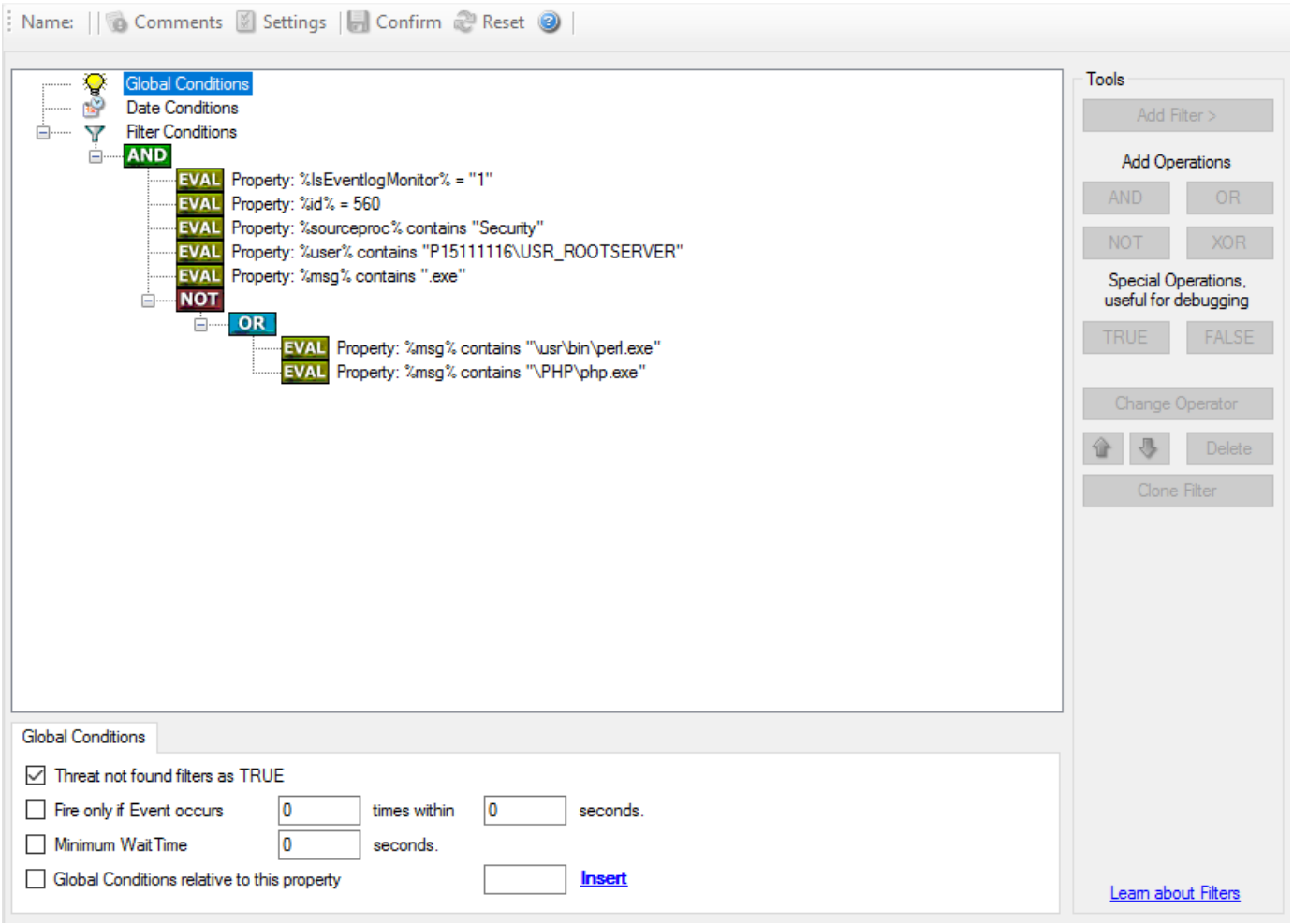
By default, the filter condition is empty, respective tree contains only a single “AND” at the top level. This is to facilitate adding filters (the top level-node is typically “AND” and thus provided by default). A filter condition containing only the “AND” always evaluates as true. A sample screenshot can be found below



- Filter Conditions*

The default filter condition means that the actions associated with the rule are to be carried out for every information unit received. It is often used for actions that should be broadly taken, for example to write all incoming information units to a database or text file.

On the other hand, there are actions that should only be executed under very special conditions. They may even require a complex filter condition including multiple levels of Boolean operations. Below is a sample of such a condition:



- Filter Conditions - Complex Filter*

This filter condition is part of an intrusion detection ruleset. Here, Windows file system auditing is used to detect a potentially successful intrusion via Internet Information Server (IIS). This is done by enabling auditing on all executable files. Internet Information Server accesses them under the `IUSR_<machinename>` account, which in our sample is `"P15111116\IUSR_ROOTSERVER"`. If that user runs any unexpected executables, chances are good that someone was able to intrude the machine via IIS. Please note that Perl and PHP scripts need to run the Perl and PHP engine. This is reflected by specifically checking, if `perl.exe` and `php.exe` is executed – and if so, no alarm is triggered.

Here is how the above sample works: first, the message contents are checked if it contains either the full path name to `perl.exe` or `php.exe`. This is done in the “OR” branch at the bottom. We now need to keep in mind that when a filter condition evaluates to “true”, the actions are executed. In case of `perl.exe` and `php.exe`, this is just the opposite of what we want. We need it to be executed, when other files are executed. Consequently, we negate (Boolean “NOT”) the result of the OR. The end result of the “NOT” operation is then combined via a “AND” with some other properties describing the event we need.

First, we check if the specific event really occurred. For this, we need to make sure we deal with an Event Log Monitor information unit. Then, these information units are identified by the event source as well as the Event ID. We also check for the Event User to identify only IIS generated requests. Lastly, we check if the message contains the string `".exe"`.

In order to avoid too frequent alerts, we also have specified a minimum wait time of 60 seconds. Therefore, the filter condition evaluates as “true” at most every 60 seconds, even if all other conditions are true.

Note: If you want to know more about complex filter conditions you can click on the “Learn about Filters” link.

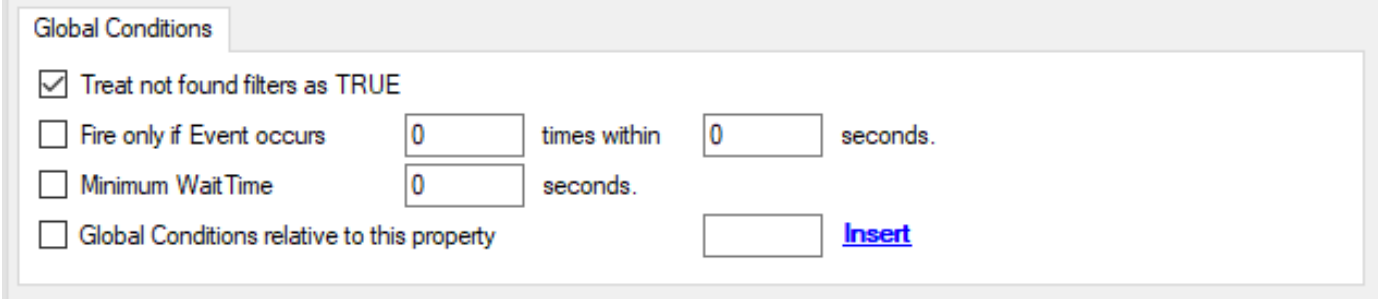
String comparison in Filter Conditions are “Case Sensitive”! For example, if the Source System name is “ws01” and you have written “WS01” while applying the

filter, then this filter condition would**”NEVER”** evaluate to True! Please double check before proceeding further!

If you are not still sure about what to do, you can drop a word about your requirements to https://ticket.adiscon.com, and we look into it!

Global Conditions

Global Conditions apply to the rule as whole. They are automatically combined with a logical “AND” with the conditions in the filter tree.



- Global Conditions*

Treat not found Filters as TRUE

If a property queried in a filter condition is not present in the event, the respective condition normally returns “FALSE”. However, there might be situations where you would prefer if the rule engine would evaluate this to “TRUE” instead. With this option, you can select the intended behavior. If you check it, conditions with properties not found in the event evaluates to “TRUE.

Fire only if Event occurs

This is kind of the opposite of the “Minimum WaitTime”. Here, multiple events must come in before a rule fires. For example, this time we use a ping probe. Ping is not a very reliable protocol, so a single ping might be lost. Thus, it may not be the best idea to restart some processes just because a single ping failed. It would be much better to wait for repetitive pings to fail before doing so.

Exactly this is why the “Fire only if Event Occurs” filter condition is made for. It waits until a configured amount of the same events occurs within a period. Only if the count is reached, the filter condition matches and the rule can fire.

Note: If you used previous versions of the product, you might remember a filter called “Occurrences”. This has just been renamed.

Minimum Wait Time

This filter condition can be used to prevent rules from firing too often. For example, a rule might be created to check the status of a port probe event. The port probe probes an smtp server. If the event is fired and the rule detects it, it spawns a process that tries to restart the service. This process takes some time. Maybe the SMTP gateway need some more time to fully start up so that the port probe might fail again while the problem is already taken care of. The port probe as such generates an additional event.

Setting a minimum wait time prevents this second port probe event to fire again if it is – let’s say – within 5 minutes from the original one. In this case, the minimum wait time is not yet reached and as such, the rule does not match. If, however, the same event is generated 5 hours later (with the mail gateway failing again), the rule once again fires and corrective actions are taken.

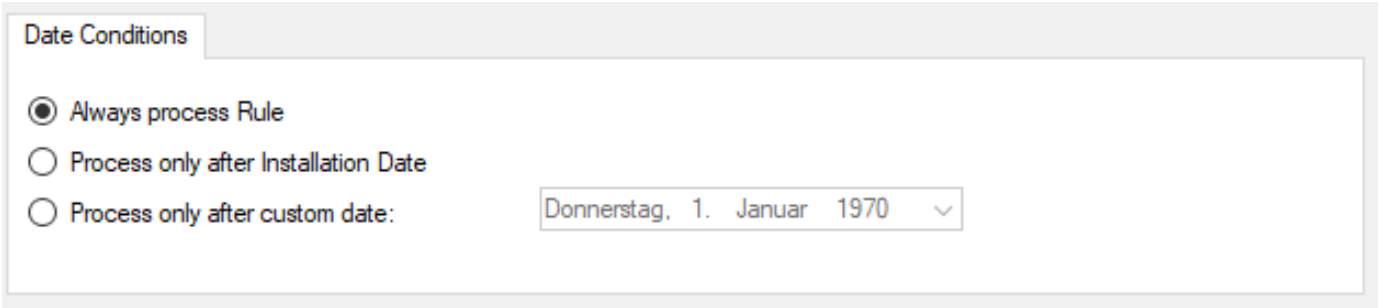
Global Conditions relative to this property

This feature enables you to control the Global Conditions based on a property.

For example take the source of a message as property. In this case, the Minimum WaitTime for example would be applied individual on each message source.

Date Conditions

Rule processing can be bound to a specific or the installation date. By default a Rule will always be processed.



- Date Conditions*

Always process Rule

No date filter will be applied

Process only after Installation Date

Rule will only be processed if message was generated after the application installation date.

Process only after custom date

Rule will only be processed if message was generated after the custom specified date.

Operators

In general, operators describes how filter conditions are linked together. The following operators can be used. Boolean operators like “AND” or “OR” can be used to create complex filter conditions.

AND:

All filters placed below must be true. Only then AND returns TRUE.

OR:

If one or both of the filters placed below is true, OR returns TRUE.

NOT:

Only one Filter can be placed below NOT operator, and if the filter evaluation is true, NOT returns FALSE.

XOR:

If one of the two filters are possible in the XOR Operator.

TRUE:

Useful for debugging, just returns TRUE.

FALSE:

Useful for debugging as well, returns FALSE.

Filters

Filters can be added under each Operation node. There are a few common filters which can be used for all services and there are special filters which only apply if a special kind of Information Unit is evaluated.

What happens with Filters that are not available in an “Information Unit”?

Every filter that is not found in an Information Unit is ignored in the filtering process. If you want to create filters specialized for types of Information Units, always make sure to add an “Information Unit Type” filter.

An example, you have one ruleset, rule and action. In the filters you have one EventID filter. Then you have two services, one Eventlog Monitor and the other is Heartbeat monitor both pointing to this ruleset. The Information Units from the Eventlog Monitor would be filtered correctly, but those from the Heartbeat monitor would not be filtered as they do not have an EventID property. The EventID filter would be ignored and the actions would be executed every time.

Note, if a filter is used that does not apply to the evaluated Info Unit, it will be just ignored. This gives you the possibility to build one filter set for several types of Information Units.

There are different types of filters, and so there a different ways in which you can compare them to a value. The following Types exist:

String:

Can be compared to another String with “=”, “Not =”, “Range Match” or through

REGEX Compare Operation

The property will be evaluated against a regular expression. Everything known in the regular expression syntax can be used to define a matching pattern.

Here are some regular expressions samples:

Regular Expression:

```
[0-9]{4,4}-[0-9]{1,2}-[0-9]{1,2} [0-9]{1,2}:[0-9]{1,2}:[0-9]{1,2}
```

Matches typical Date like `2018-11-20 12:11:01`

Regular Expression: `\n[0-9]{4,4}`

Matches Linefeed and 4-digit number.

Regular Expression: `(;|:)` Matches semicolon or a colon.

More samples and details about the Regular Expression Syntax can be found here:

https://msdn.microsoft.com/en-us/library/bb982727(v=vs.90).aspx

number:

can be compared with another number with “=”, “not =”, “<” and “>”

boolean:

can be compared to either true or false with “=” and “not =”

time:

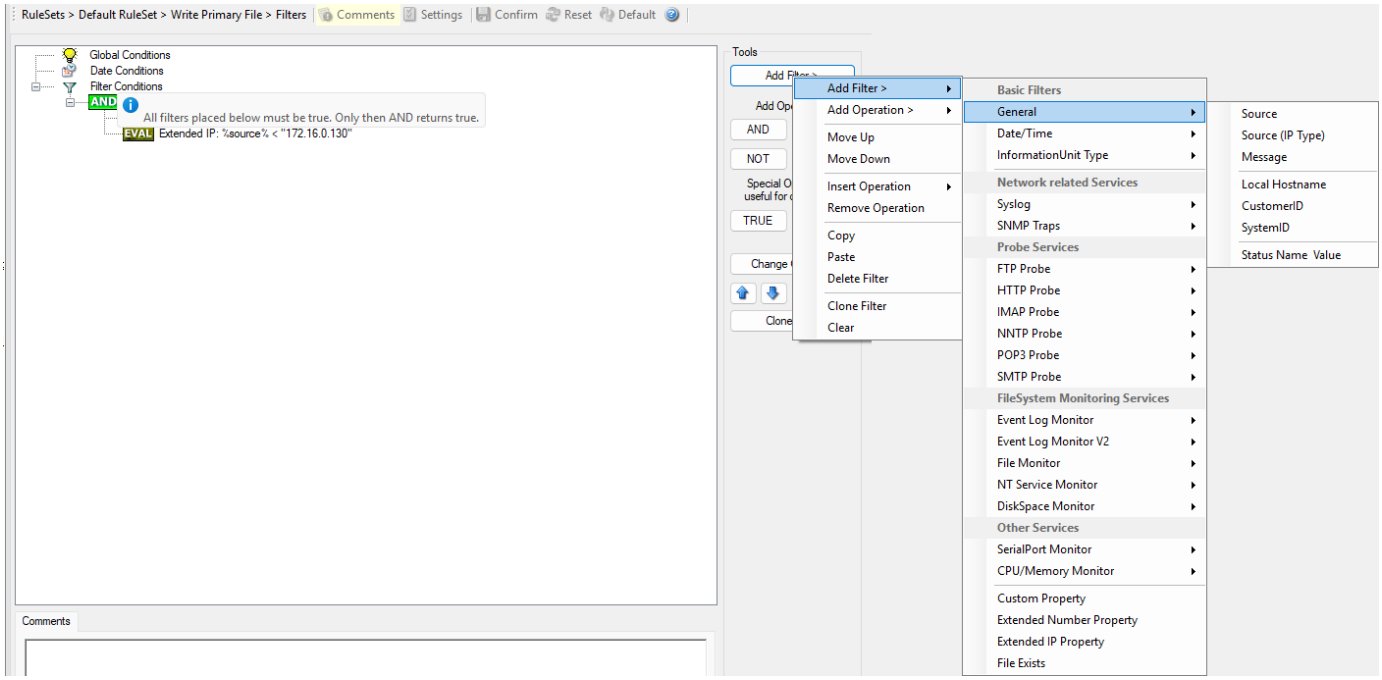
can be compared with another time but only with “=”

the list of possible filters, which can be evaluated is described in the following sections.

basic filters

General

These are non-event log specific settings.



MonitorWare Agent Filter Conditions - General

Source

This filter condition checks the system that generated the information unit. For example, in case of the Syslog server, this is the Syslog device sending a Syslog message.

This filter is of type string and should contain the source system name or IP address.

Source System (IP)

The IP Filter can basically work on any property, but we recommend to only use it on the %source% property, as we usually can be sure that this is contains a valid IP Address or hostname. The IP Filter can filter against hostnames and IP Addresses, hostnames are automatically resolved using the internal DNSCache (for obvious performance reasons).

This filter is of type string and should contain the source system name or IP address.

Please see the description for extended ip property for more information on how to use this property.

Message Content

The message content filter condition is very powerful. It evaluates to true if the specified content is found anywhere within the message. As there is implicit wildcarding, there is no need for extra wildcards to be specified.

The content search can be limited to a region within the message. To do so, select a starting and ending position within the string by choosing the **“contains within range”** compare operation. This can be done by specifying the start range and end range into the respective boxes.**Please note that you can enter the character position you desire in these fields. The default “Start Range” and “End Range” are set to 0.**

If you would like to search for a string just between positions 10 and 50, specify these values as start and end values, respectively. Similarly if you want to receive all logs from 192.168.0.1 then set this as:

- Property value = 192.168.0.0
- Range Start = 0
- Range End = 10

Which means 10 characters starting at zero (“192.168.0.”). Please note that the final DOT must be included. If you just used range “9”, then 192.168.010 would also match.

This filter is of type string.

CustomerID

CustomerID is of type integer provided for customer ease. For example if someone monitors his customer's server, he can put in different CustomerIDs into each of the agents. Let us say someone monitors servers A and B. A has 5 servers all of them with CustomerID = 1 and B has 2 servers all of them with CustomerID = 2. Both A and B happen to have a server named "SERVER". Together with the customerID, these machines are now uniquely identifiable. This is user configurable.

CustomerID (Type=Number).

SystemID

SystemID is of type integer to be used by our customer. In addition, it is user configurable.

SystemID (Type=Number).

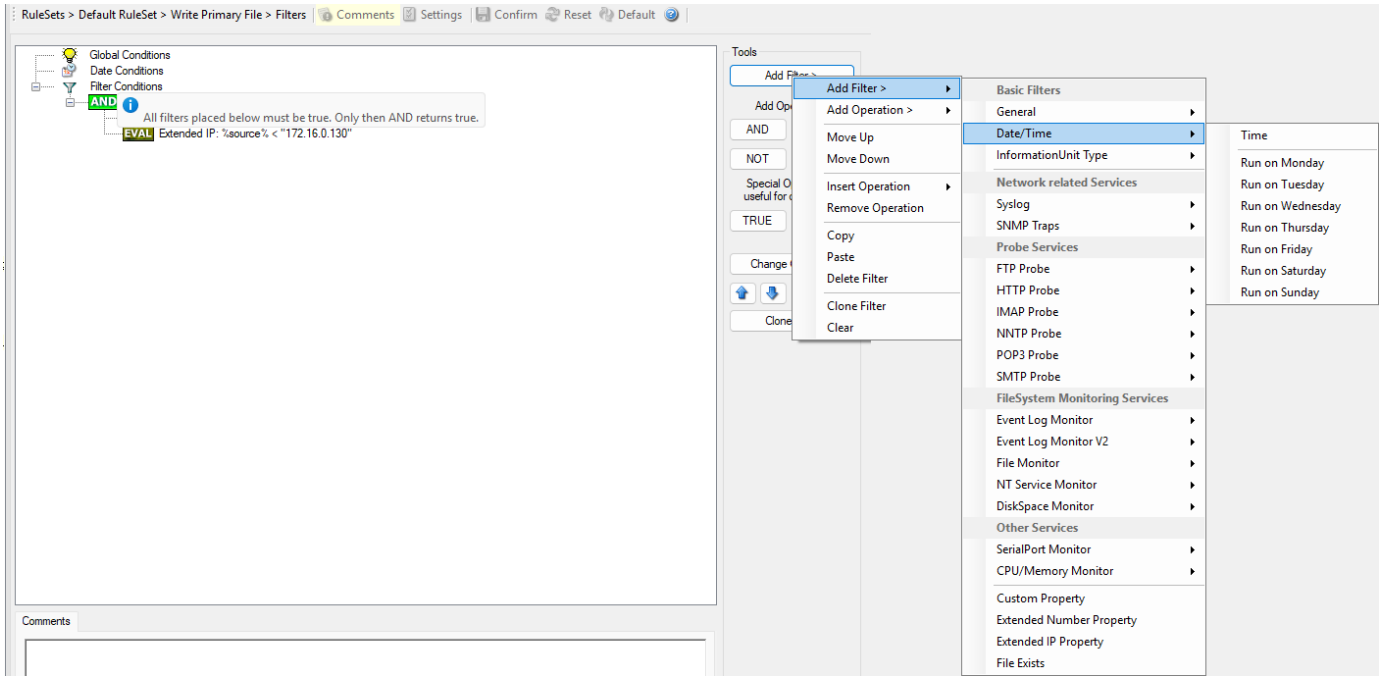
Status Name and Value

These filter type corresponds to set status action .

Status Name and Value (Type=String)

Date/Time

This filter condition is used to check the time frame and / or day of week in which an event occurred.



MonitorWare Agent Filter Conditions - Date/Time

Time

This filter condition is used to check the period in which an event occurred. For example, a Syslog message from a Cisco router saying that it dialed up is normal if it occurs during office hours. If it occurs at night, so, it is an alerting signal and an administrator might receive notification of this event (while he might otherwise decide to discard it). This can be done with the time setting.

You can also set the timezone setting (DefaultTimemode, UTC or Localtime) for the TimeMode's (DeviceReportedTime/ReceivedTime).

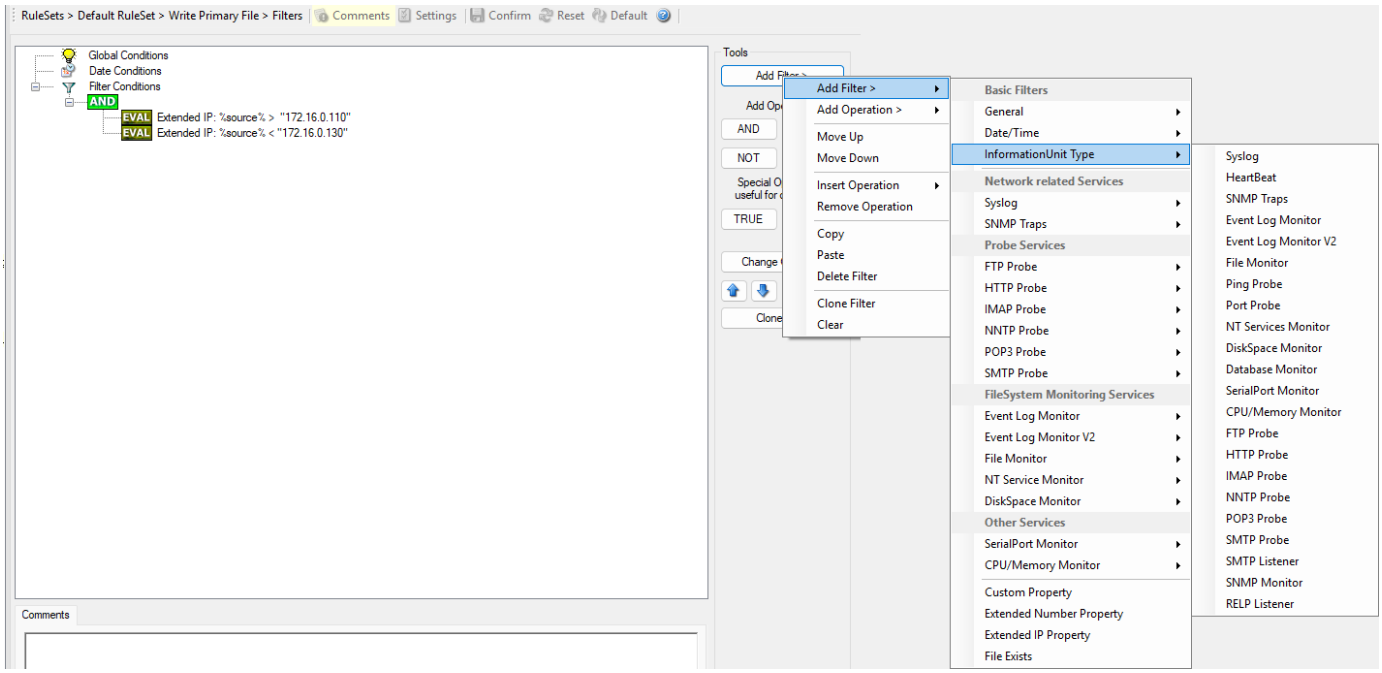
Weekdays

This is closely equivalent to the time filter condition, except that it is applied on a per-day basis. So it can be used to detect for example events occurring on weekends and act differently on them. The following filters are available:

1. Run on Monday (Type=Boolean)
2. Run on Tuesday (Type=Boolean)
3. Run on Wednesday (Type=Boolean)
4. Run on Thursday (Type=Boolean)
5. Run on Friday (Type=Boolean)
6. Run on Saturday (Type=Boolean)
7. Run on Sunday (Type=Boolean)

InformationUnit Type

Select the specific information if a rule should just be processed for some information unit types. This is especially useful if a specific type needs non-standard processing. There is one pre-defined filter for each possible InformationUnit Type available (shown below).



MonitorWare Agent Filter Conditions - InformationUnit Type

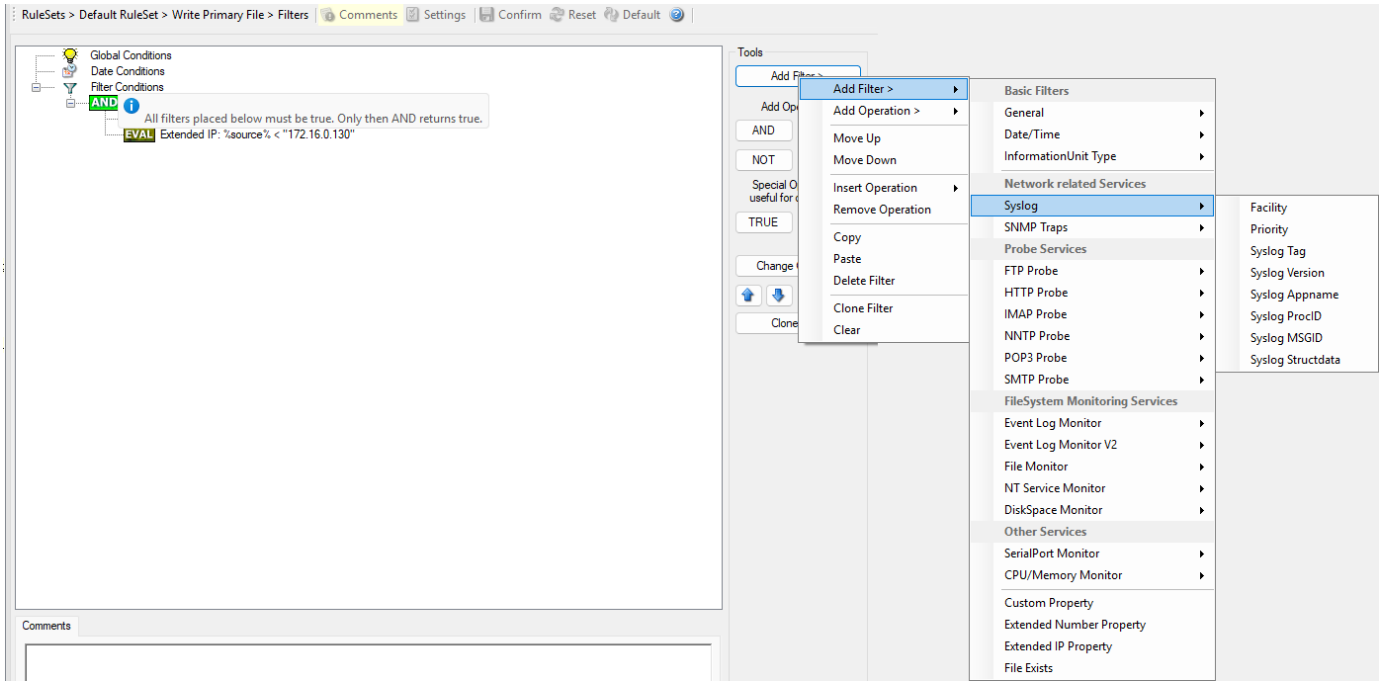
The following filters are available:

1. Syslog (Type=Boolean)
2. Heartbeat (Type=Boolean)
3. SNMP Traps (Type=Boolean)
4. Event Log Monitor (Type=Boolean)
5. File Monitor (Type=Boolean)
6. Ping Probe (Type=Boolean)
7. Port Probe (Type=Boolean)
8. NT Services Monitor (Type=Boolean)
9. Disk Space Monitor (Type=Boolean)
10. Database Monitor (Type=Boolean)
11. Serial Port Monitor (Type=Boolean)
12. CPU/Memory Monitor (Type=Boolean)
13. FTP Probe (Type=Boolean)
14. HTTP Probe (Type=Boolean)
15. IMAP Probe (Type=Boolean)
16. NNTP Probe (Type=Boolean)
17. POP3 Probe (Type=Boolean)
18. SMTP Probe (Type=Boolean)

network related services filters

Syslog

Syslog related filters are grouped here. Please keep in mind that every Information Unit has assigned a Syslog priority and facility and thus these filters can be used with all Information Units.



MonitorWare Agent Filter Conditions - Syslog

Syslog Facility

The information unit must have the specified Syslog facility value. For Syslog type information units, it is the actual Syslog priority code, for all others it is a value mapped on a best effort basis.

This filter is of type number.

Syslog Priority

The information unit must have the specified Syslog priority value. For Syslog type information units, it is the actual Syslog priority code, for all others it is a value mapped on a best effort basis.

The first list box allows to set a matching mode. The operations “less than” (<), “greater than” (>), and “equal” (=) can be selected. The match is made depending on these operations, so a “less than” operation means that all priorities below the specified priority match. Please note that the specified priority is not a match. If you would like to include it, be sure to specify the next higher one.

This filter is of type number.

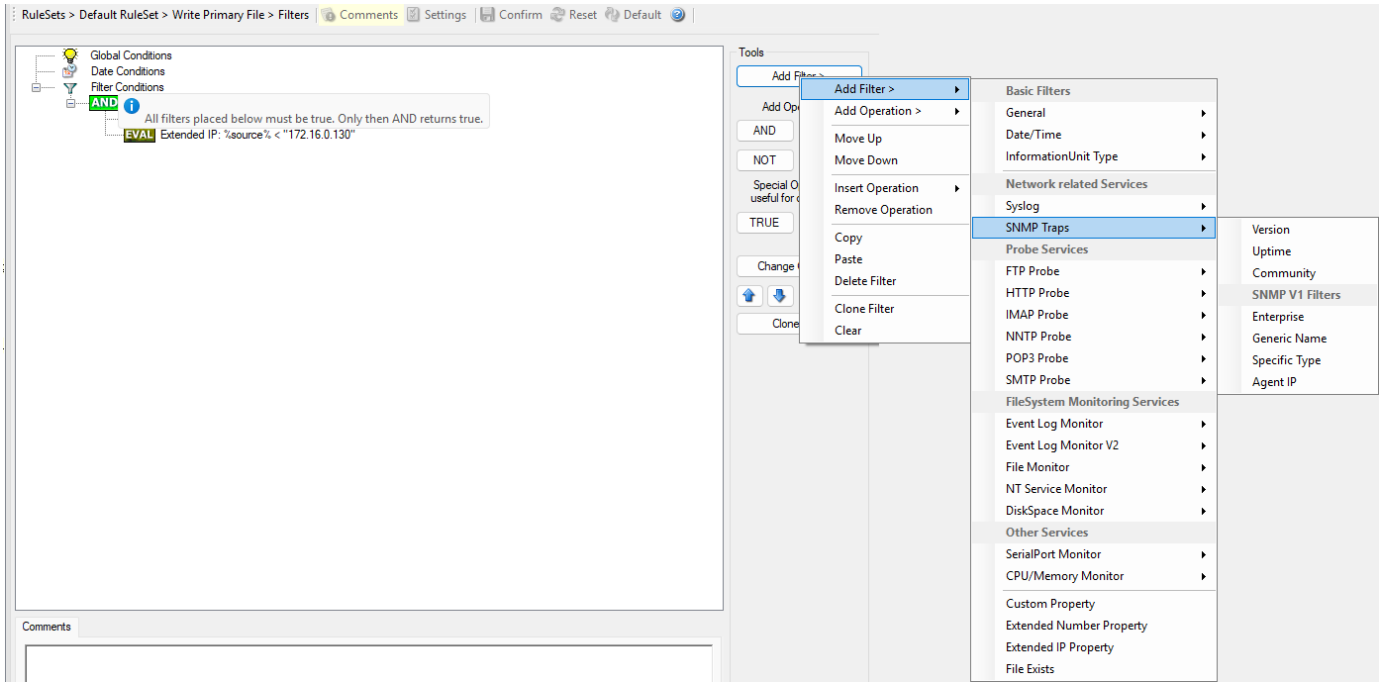
Syslog Tag

This filter is of type string.

SNMP Traps

Using SNMP Traps, since MonitorWare Agent 3.0 now can be used to manage and monitor all sorts of equipment including computers, routers, wiring hubs, toasters, and jukeboxes.

A trap is generated when the device feels it should do so and it contains the information that the device feels should be transmitted.



MonitorWare Agent Filter Conditions - SNMP Traps

Community

It corresponds to the respective SNMP entity.

This filter is of type string.

Enterprise

It corresponds to the respective SNMP entity.

This filter is of type string.

Generic name

It corresponds to the respective SNMP entity.

This filter is of type string.

Version

It corresponds to the respective SNMP entity.

This filter is of type number.

Uptime

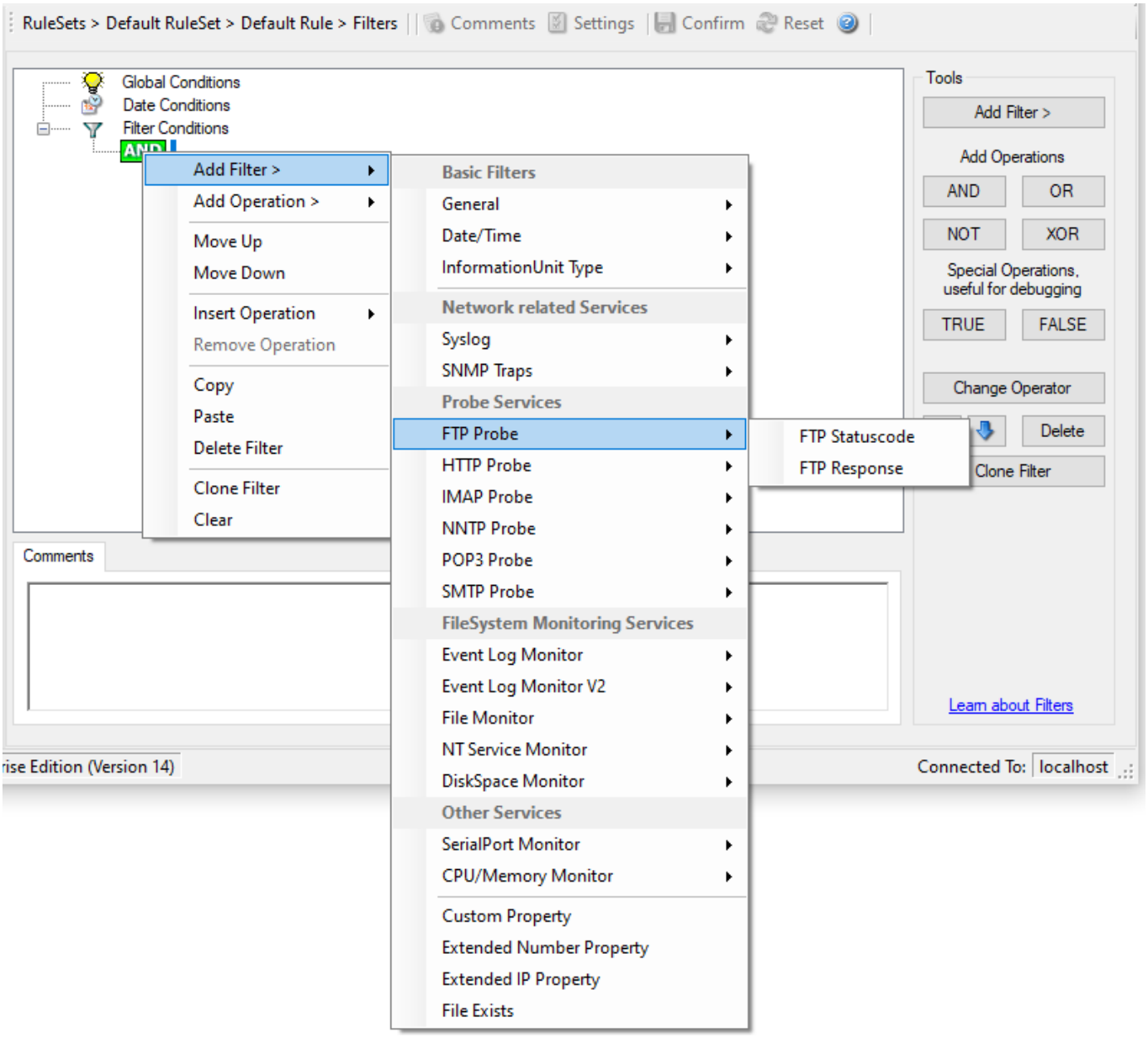
It corresponds to the respective SNMP entity.

This filter is of type string.

probe services filters

FTP Probe

FTP related filters are grouped here.



- Filter Conditions - FTP Probe*

FTP Statuscode

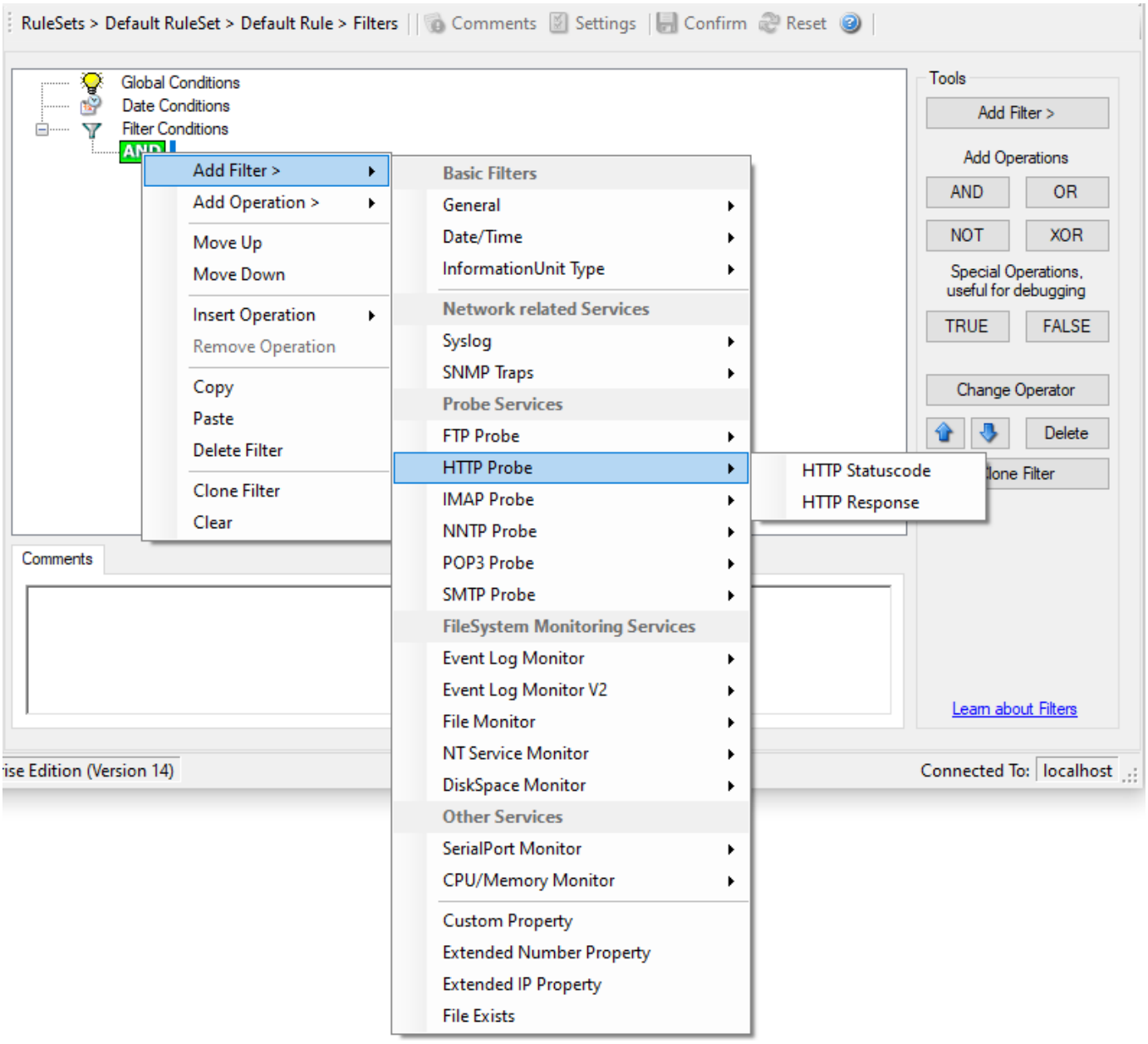
It contains the FTP success or error code. This filter is of type number.

FTP Response

It contains the FTP response.

HTTP Probe

HTTP related filters are grouped here.



- Filter Conditions - HTTP Probe*

HTTP Statuscode

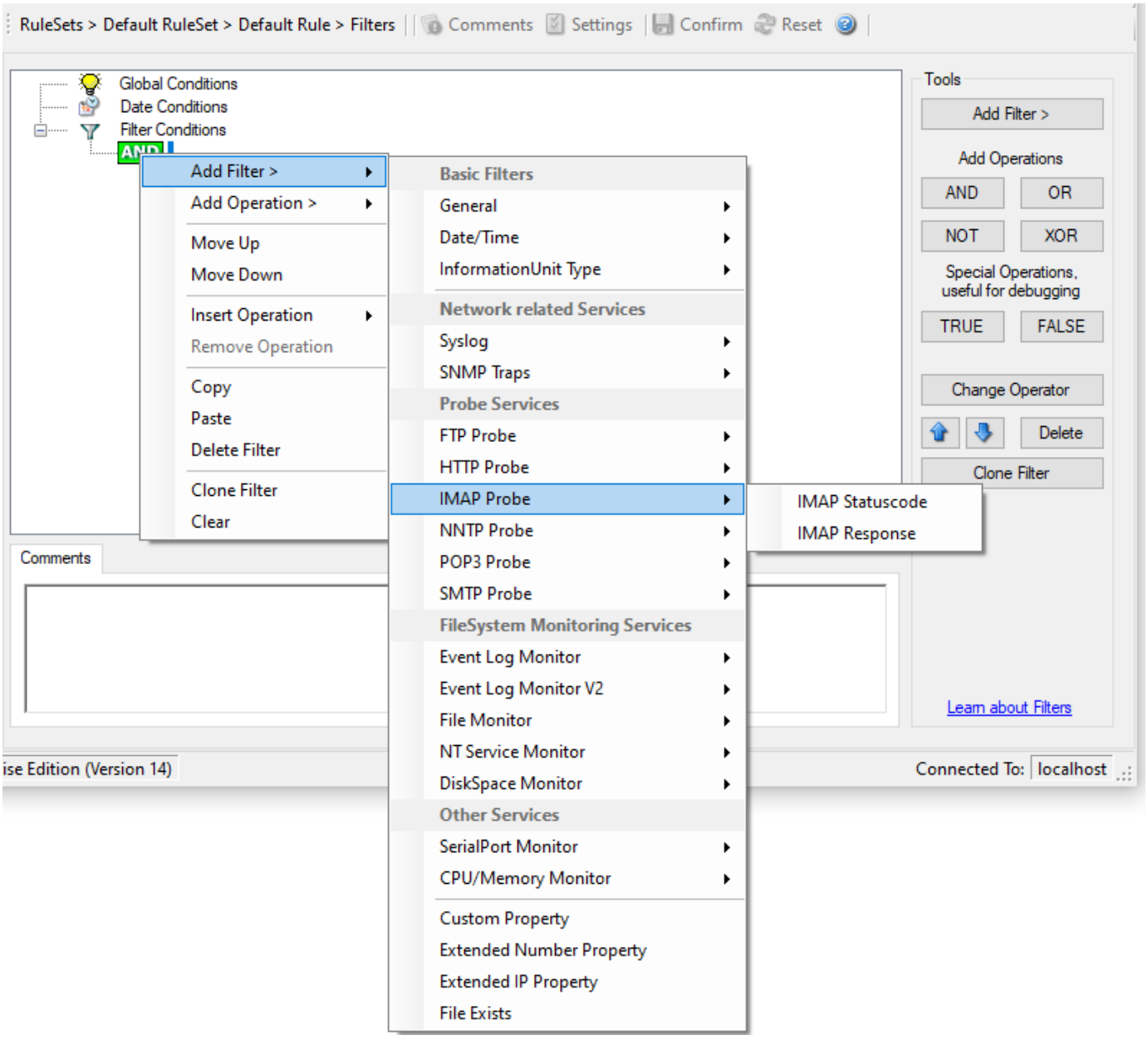
It contains the HTTP success or error code. This filter is of type number.

HTTP Response

It contains the HTTP response.

IMAP Probe

IMAP related filters are grouped here.



- Filter Conditions - IMAP Probe*

IMAP Statuscode

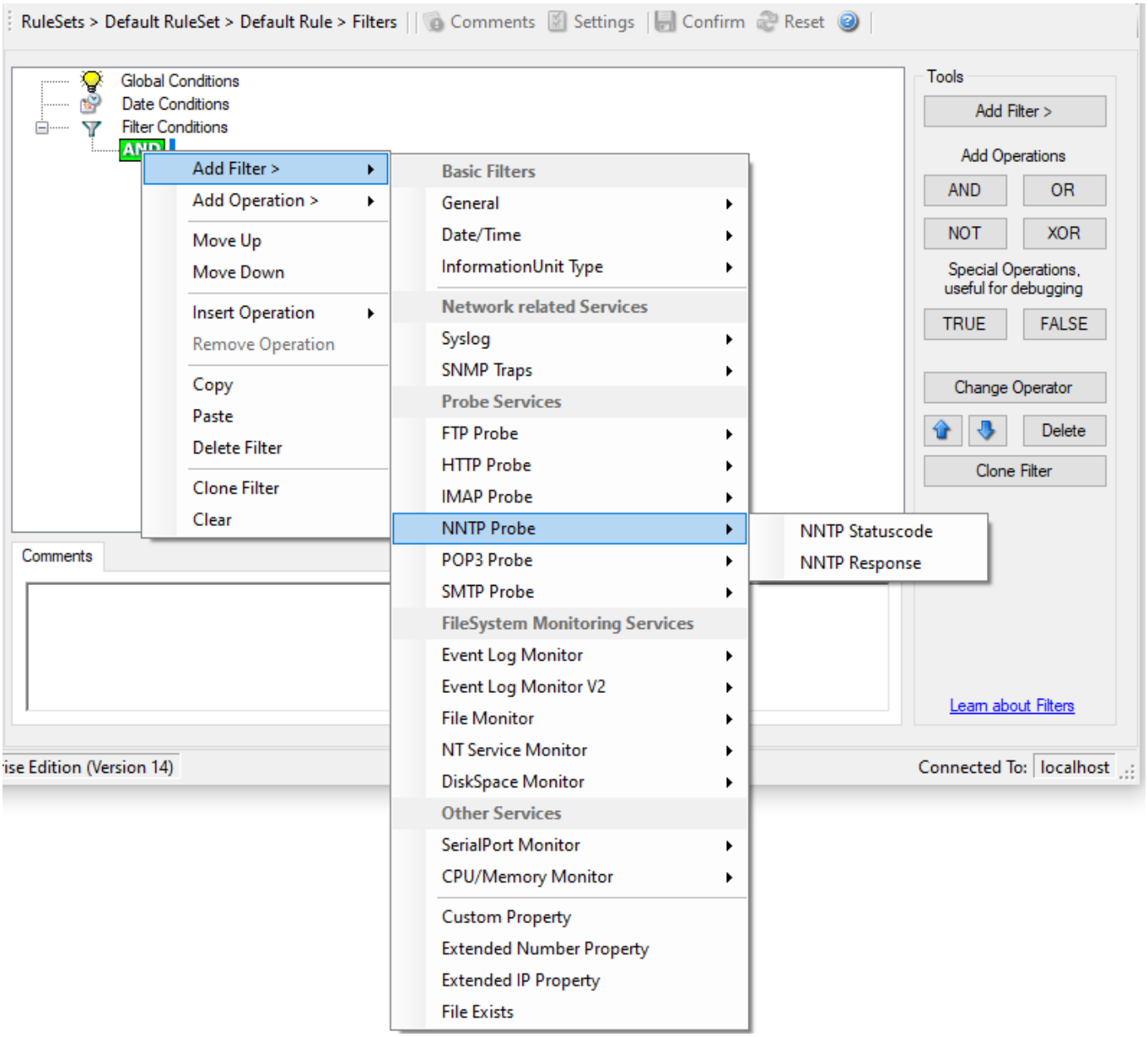
It contains the IMAP success or error code. This filter is of type number.

IMAP Response

It contains the FTP response.

NNTP Probe

NNTP related filters are grouped here.



- Filter Conditions - NNTP Probe*

NNTP Statuscode

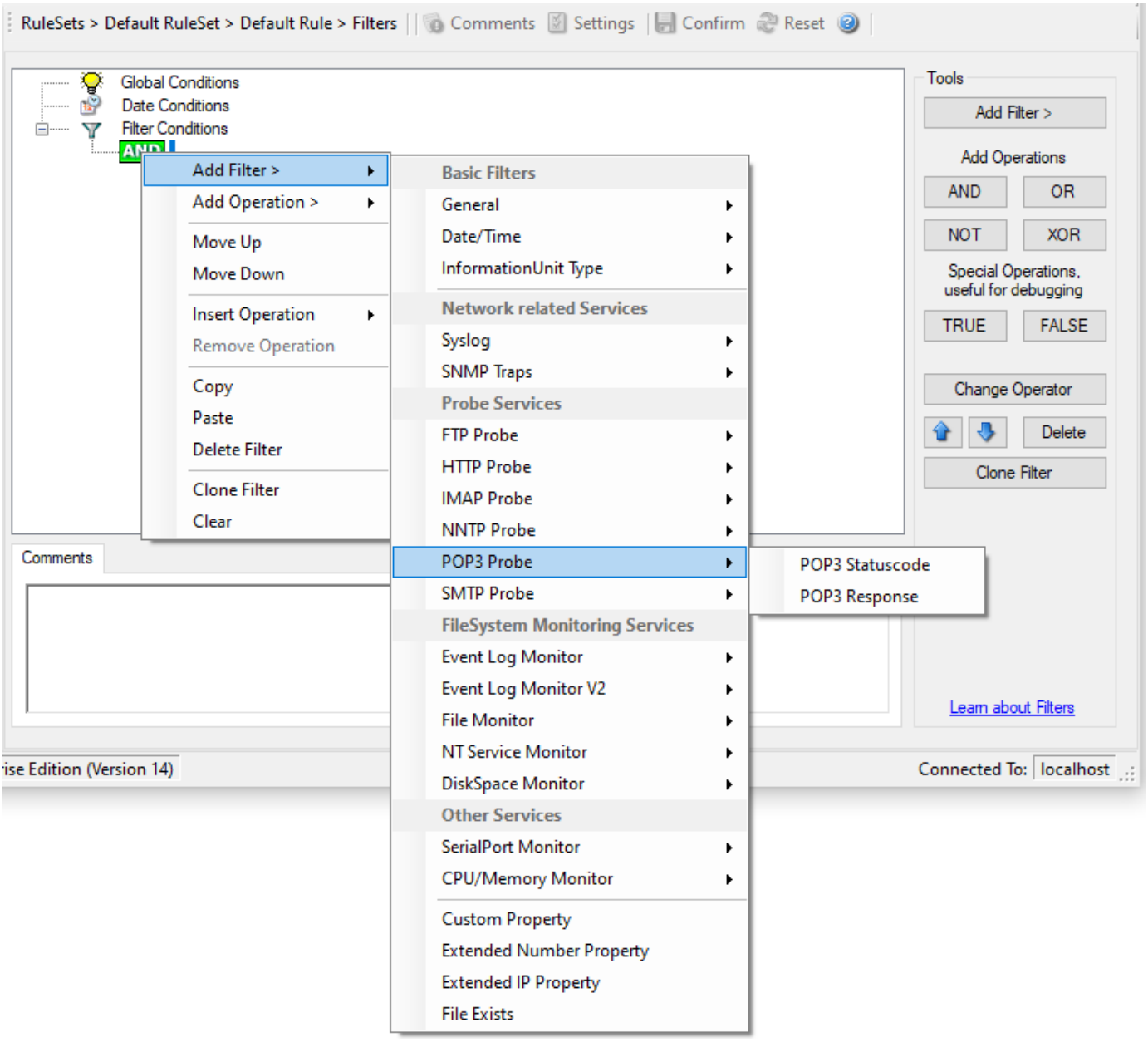
It contains the NNTP success or error code. This filter is of type integer.

NNTP Response

It contains the NNTP response.

POP3 Probe

POP3 related filters are grouped here.



- Filter Conditions - POP3 Probe*

POP3 Statuscode

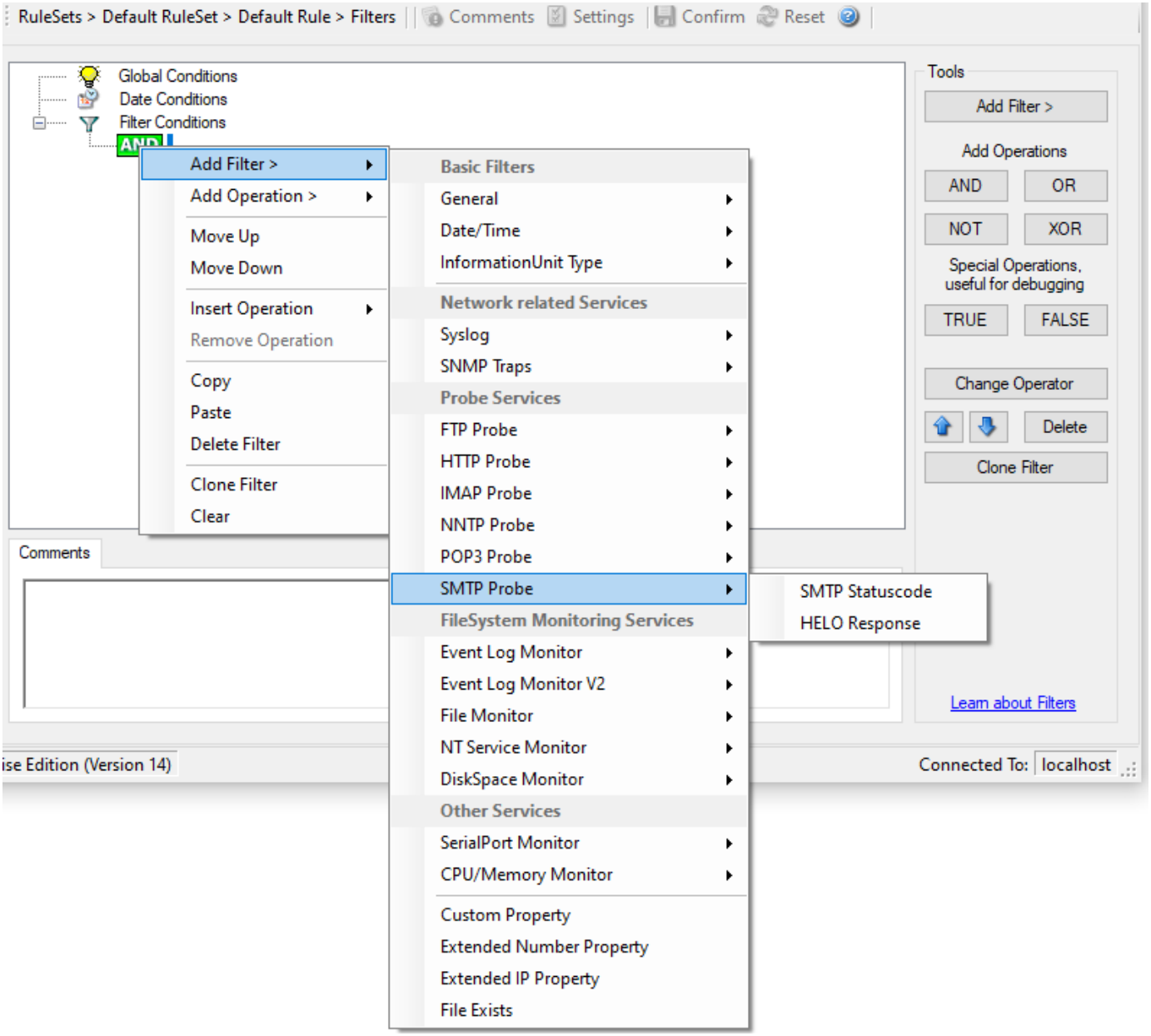
It contains the POP3 success or error code. This filter is of type integer.

POP3 Response

It contains the POP3 response.

SMTP Probe

SMTP related filters are grouped here.



- Filter Conditions - SMTP Probe*

SMTP Statuscode

It contains the SMTP success or error code. This filter is of type integer.

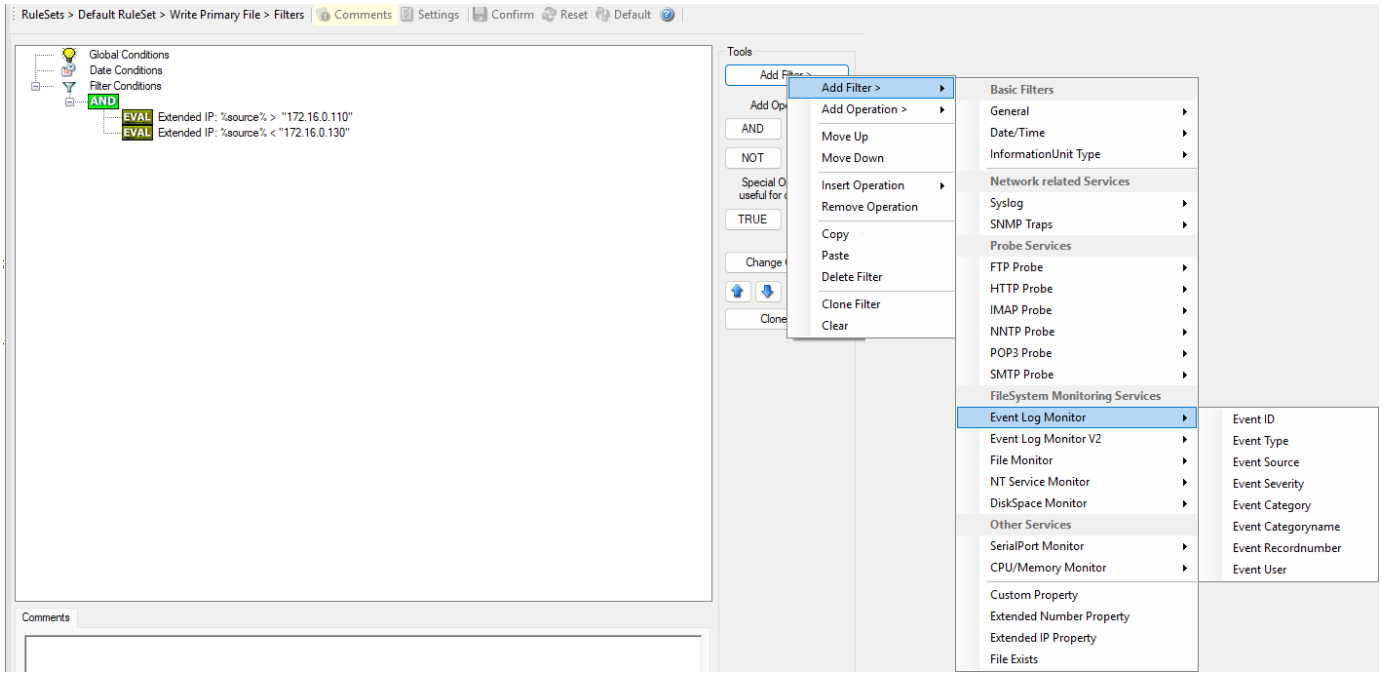
SMTP Response

It contains the SMTP response.

filesystem monitoring services filters

Event Log Monitor

Event Log Monitor specific filters are grouped here.



MonitorWare Agent Filter Conditions - Event Log Monitor V1

Event ID

This is the event log ID as specified in the Windows Event Log. If enabled, the event must have the configured event ID or the rule will not match. This is an integer value.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type number.

Event Type

This is the event log type as specified in the Windows Event Log. If enabled, the event must have the configured event type or the rule will not match. The supported values can be selected from the list box.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Source

This is the event log source as specified in the Windows Event Log. If enabled, the event must have the configured event source or the rule will not match. This is a string value. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Severity

This is the event log severity as specified in the Windows Event Log. If enabled, the event must have the configured severity or the rule will not match. The supported values can be selected from the list box.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type number.

Event Category

This is the event log category as specified in the Windows Event Log. If enabled, the event must have the configured event category or the rule will not match.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type number.

Event Categoryname

This value contains the Category value as string if it can be resolved. Otherwise it contains the category number.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Recordnumber

This value contains the internal event record number. Please note that if the event log has been truncated before, it may not start with 0 or 1 but a higher number.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type number.

Event User

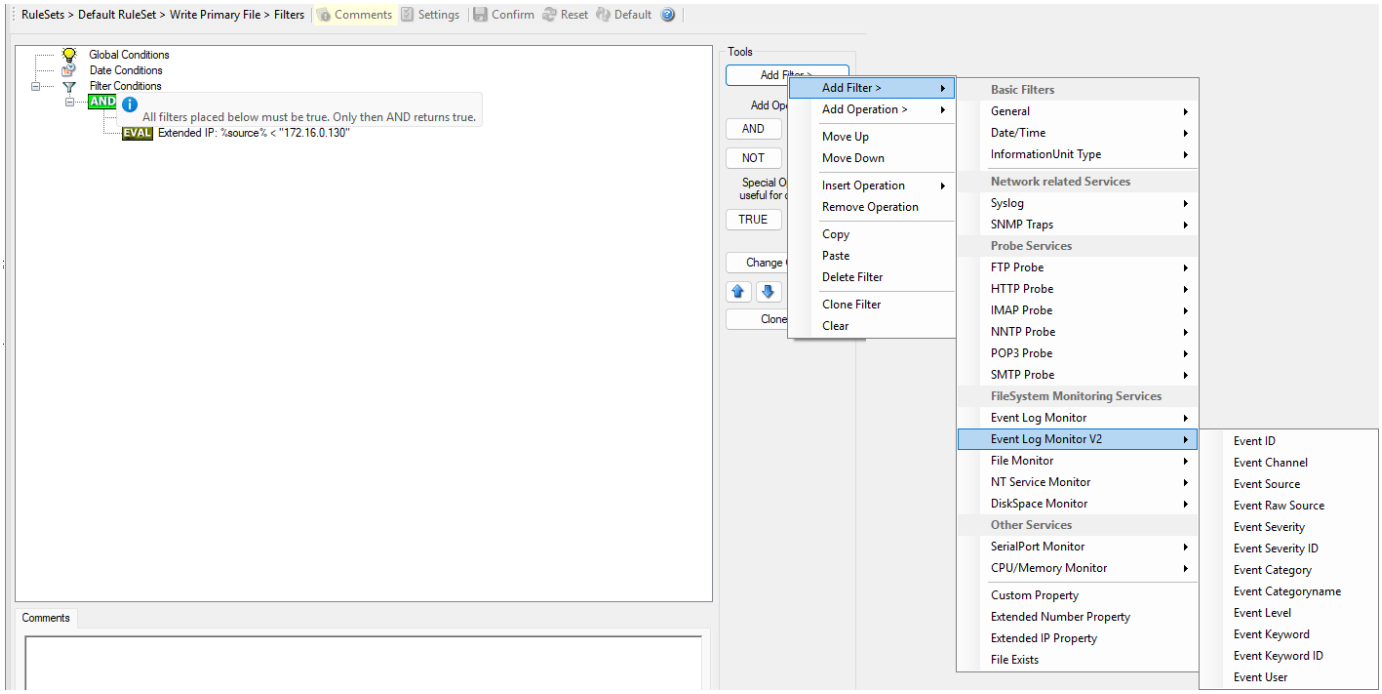
This is the event log user as specified in the Windows Event Log. If enabled, the event must have the configured event user or the rule will not match. Since it is a string value there must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Log Monitor V2

Event Log Monitor V2 specific filters are grouped here.



MonitorWare Agent Filter Conditions - Event Log Monitor V2

Event Channel

The channel property for event log entries, for classic Event logs they match the %nteventlogtype% property, for new event logs, they match the “Event Channel”. If enabled, the event must have the configured event type or the rule will not match. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Raw Source

This contains the full internal name of the event source for new event logs, for classic event logs it contains the same value as in %sourceproc%. If enabled, the event must have the configured event source or the rule will not match. This is a string value. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event SeverityID

This is the internal ID of the event log level as number. This is a integer value. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type number.

Event Level

This is a textual representation of the event log level (which is stored as number in %severityid%). This property is automatically localized by the system. If enabled, the event must have the configured level or the rule will not match. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event Keyword

This is a textual representation of the event keyword. This property is automatically localized by the system. If enabled, the event must have the configured event keyword or the rule will not match. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

Event KeywordID

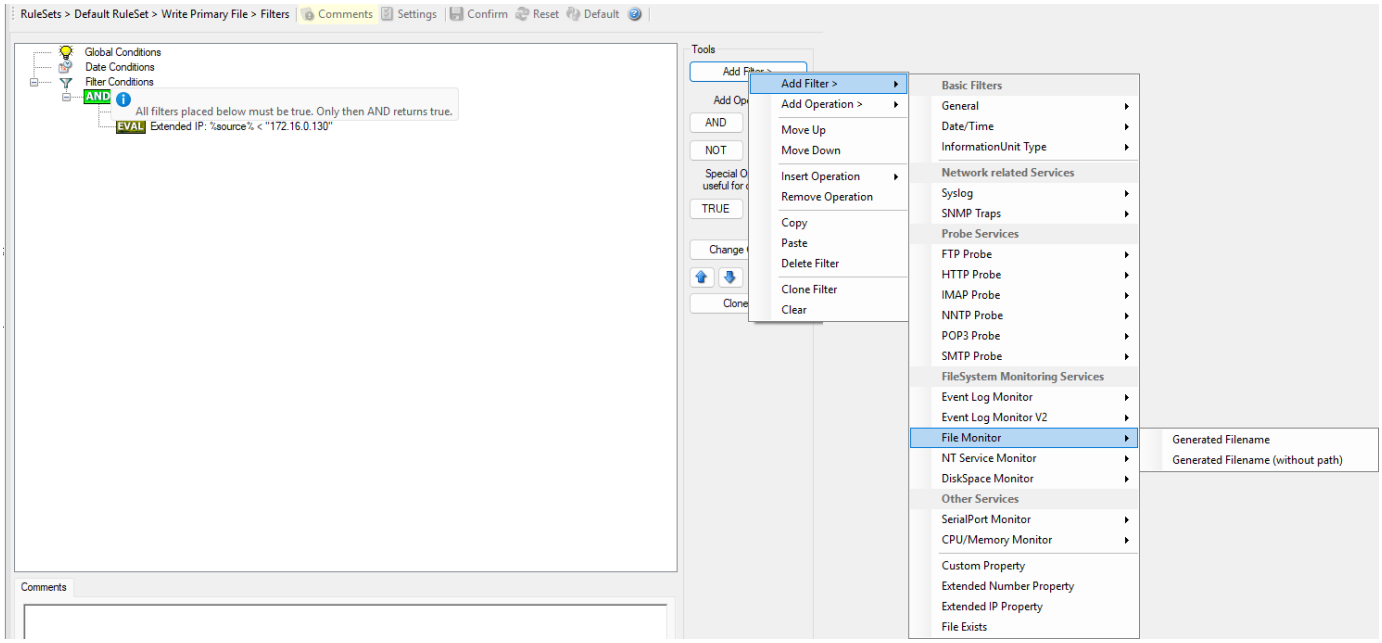
This is the internal keyword ID as string. If enabled, the event must have the configured event keyword ID or the rule will not match. There must be an exact match. Please note that this value is case-sensitive.

This filter condition should only be used with event log information units. If used with others, a mapped value is to be used which might not properly reflect the actual value.

This filter is of type string.

File Monitor

File Monitor specific filter is described here.



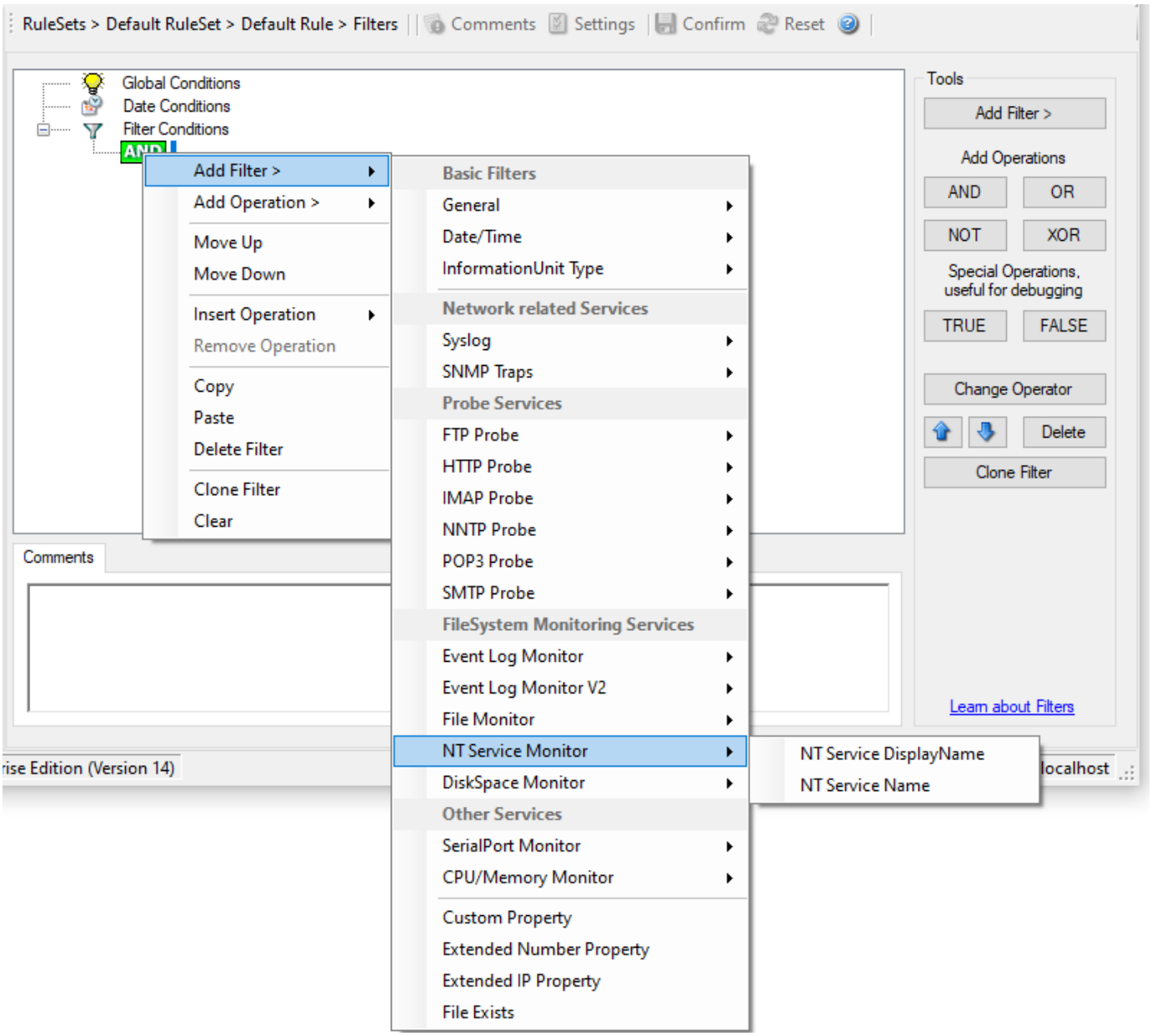
MonitorWare Agent Filter Conditions - File Monitor

Generated Filename

The configured generic name of the file being reported. Filter has to match exactly to work.

NT Service Monitor

The NT Service Name is used to check if vital operating services are running continuously. By default these services set to “automatic” startup. If the value returned is not true then corrective measures can be taken e.g. alerts can be generated. See nt services monitor for more details.



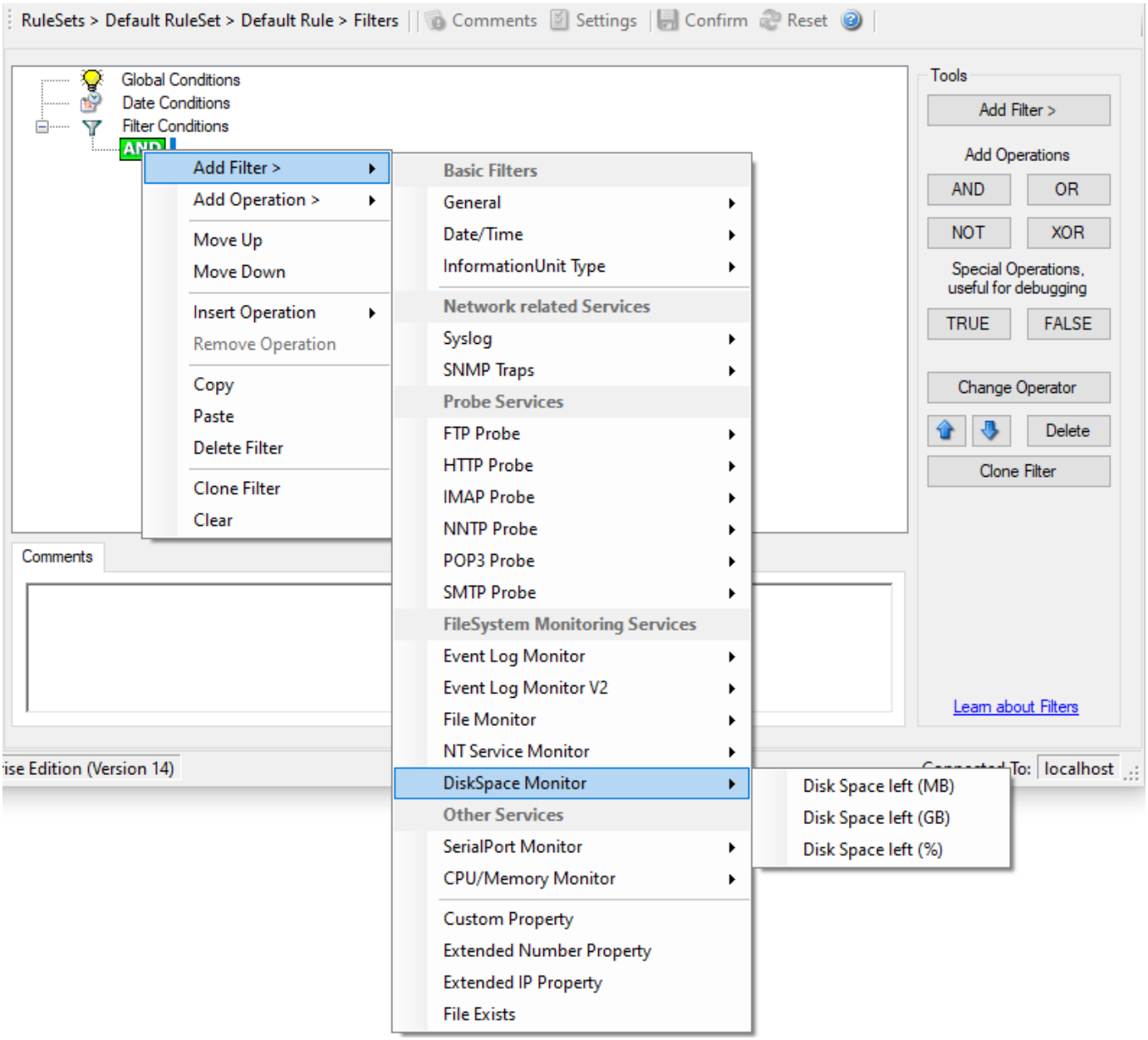
- Filter Conditions - NT Service Monitor*

NT Service DisplayName

NT Service Name (Type=String).

Disk Space Monitor

This filter works with the disk space report, only. It can be used to trigger actions when disk space is running low and / or becoming free again.



- Filter Conditions - Diskspace Monitor*

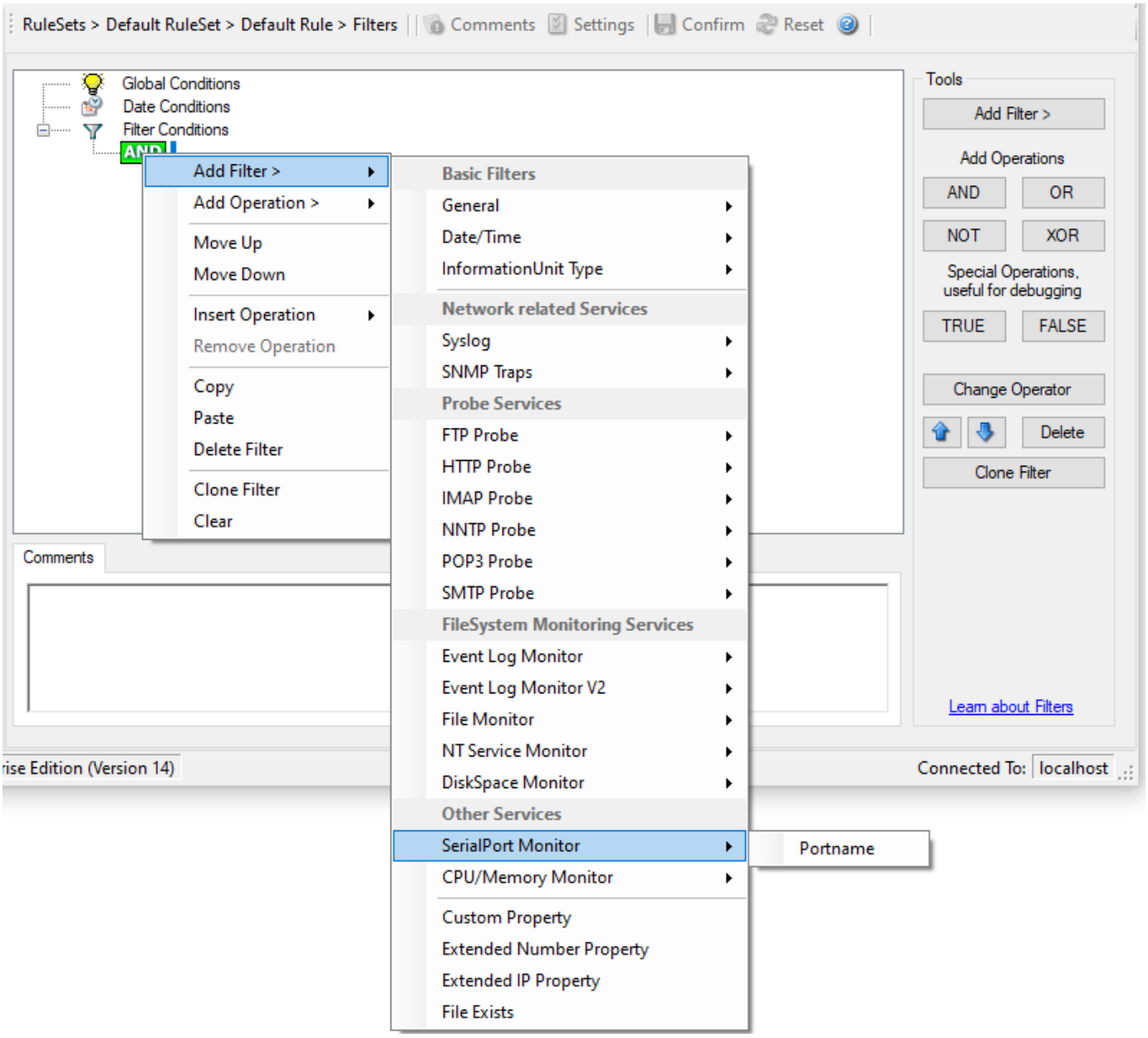
The following filters are available:

1. Disk Space left (MB) (Type=Number)
2. Disk Space left (GB) (Type=Number)
3. Disk Space left (%) (Type=Number)

other services filters

SerialPort Monitor

SerialPort Monitor specific filter is described here.



- Filter Conditions - SerialPort Monitor*

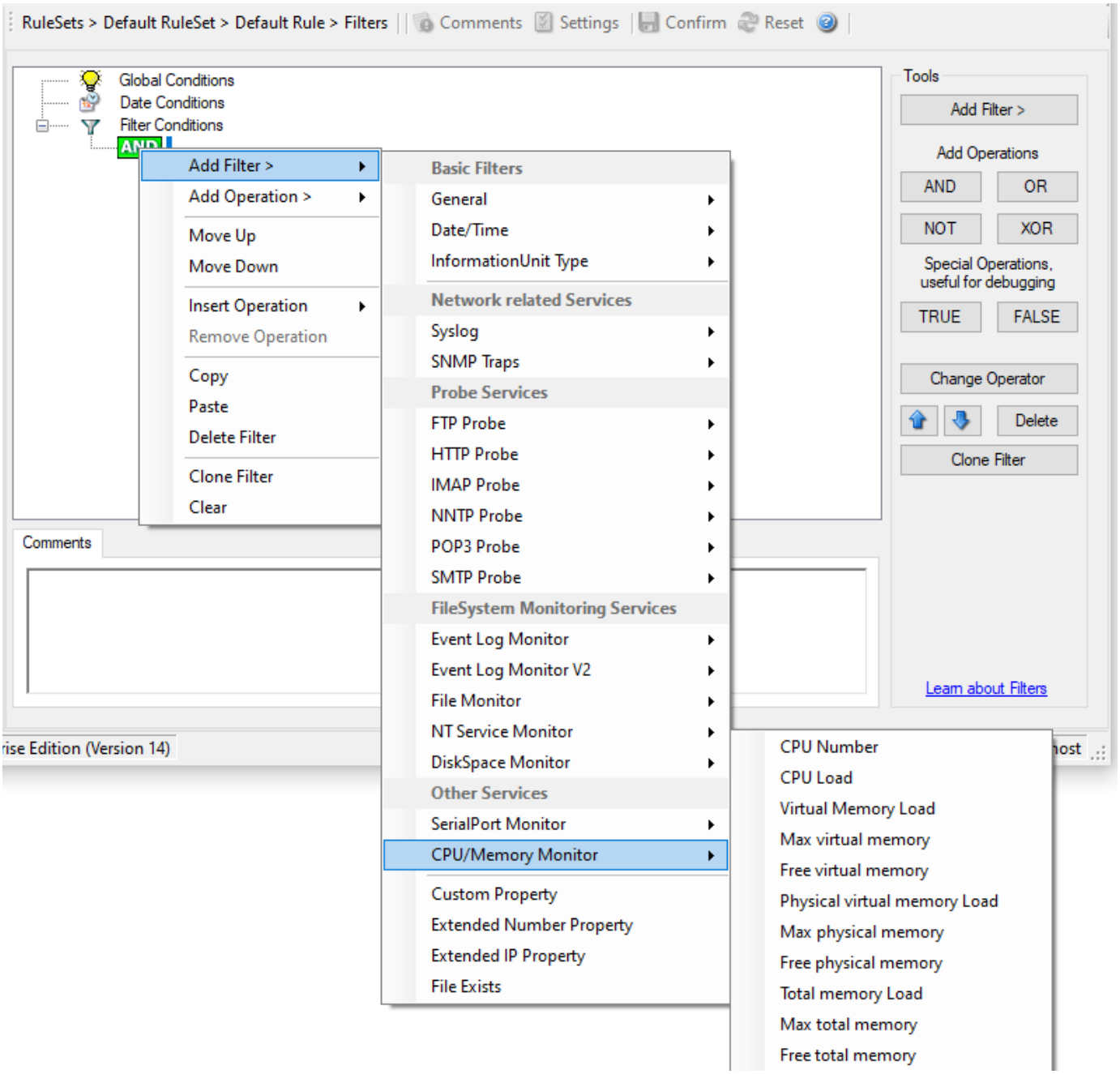
Portname

There can be unlimited number of ports in a system - there is no limitation i.e. port names are not specified. But you can use the default list from the “SerialPort Monitor” configuration window as sample of values, some examples are COM1, LPT1, FILE etc. The MonitorWare Agent Client dynamically reads the properties from the local machine.

This filter is of type string.

CPU / Memory Monitor

CPU and Memory Monitor specific filter is described here.



- Filter Conditions - CPU/Memory Monitor*

CPU number

This lets you filter for the number of the monitored CPU.

CPU load

The workload of the CPU as number, can be 0 to 100

Virtual memory load

How much virtual memory is used (MB)

Max virtual memory

How much virtual memory is max available (MB)

Free virtual memory

How much virtual memory is free (MB)

Physical memory load
: How much physical memory is used (MB)

Max physical memory
: How much physical memory is max available (MB)

Free physical memory
: How much physical memory is free (MB)

Total memory load
: How much total(Virtual+Physical) memory is used (MB)

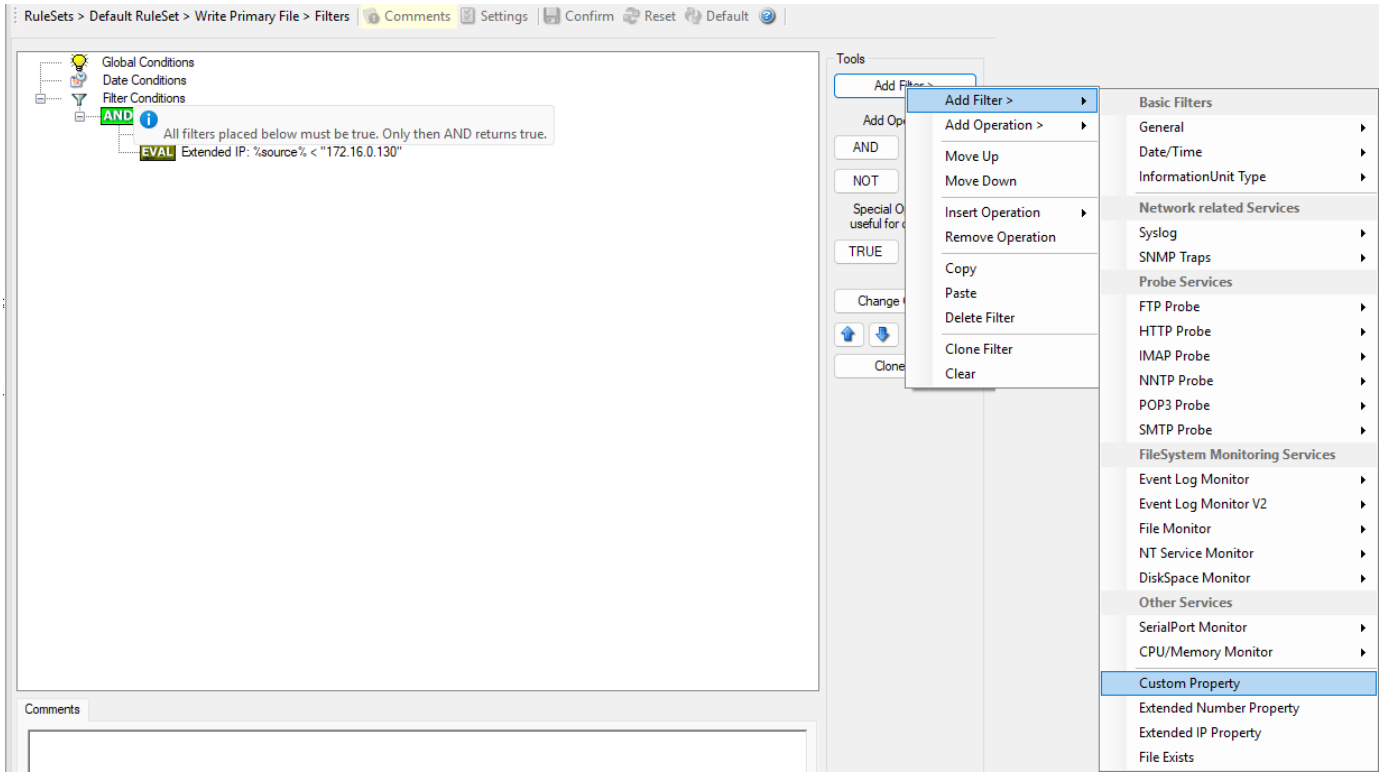
Max total memory
: How much total(Virtual+Physical) memory is max available (MB)

Free total memory
: How much total(Virtual+Physical) memory is free (MB)

custom properties

Custom Property

Custom Property specific filter is described here.



MonitorWare Agent Filter Conditions - Custom Property

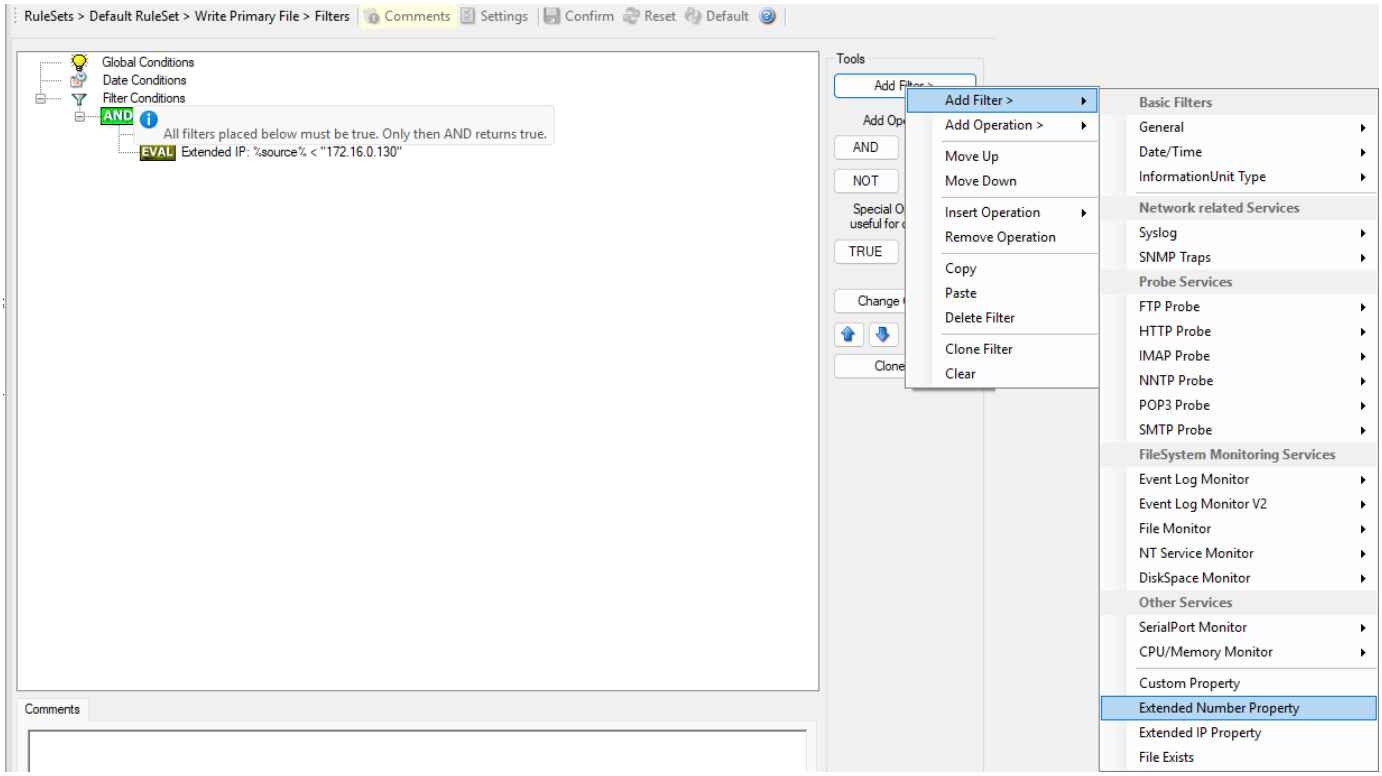
Custom Property

As the name suggests it is a “Custom Property”. Internally in MonitorWare Agent all values are stored in properties. For example the main message is stored in a property called “msg”. By using this dialog you can access properties which are dynamic (Like those from SNMP Trap Monitor when using V2 protocol).

This filter is of type string.

Extended Number Property

Extended Number Property specific filter is described here.



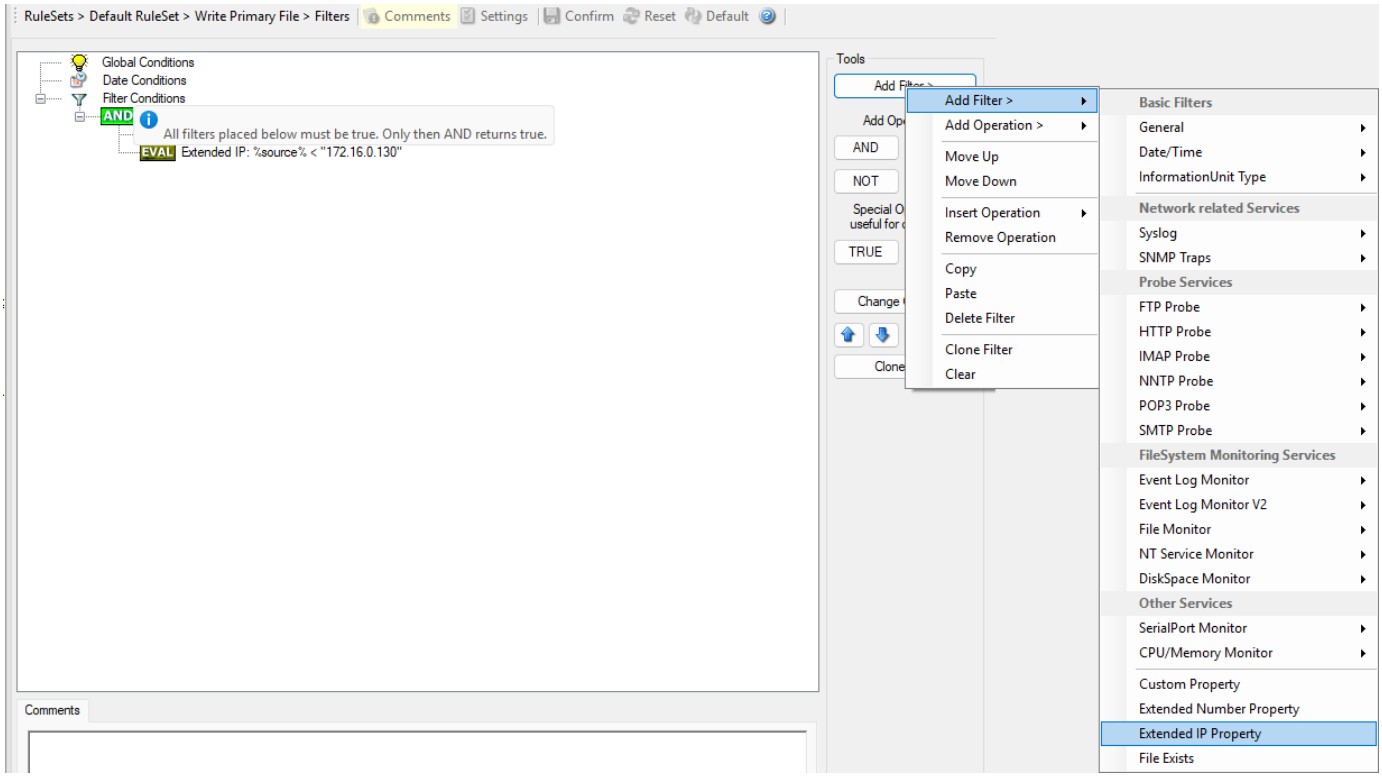
MonitorWare Agent Filter Conditions - Extended Number Property

Extended Number Property

As the name suggests it is a “Extended Number Property”. Internally in MonitorWare Agent all values are stored in properties. For example the main message is stored in a property called “msg”. By using this dialog you can access properties which are dynamic (Like those from SNMP Trap Monitor when using V2 protocol).

This filter is of type numeric.

Extended IP Property



MonitorWare Agent Filter Conditions - Extended IP Property

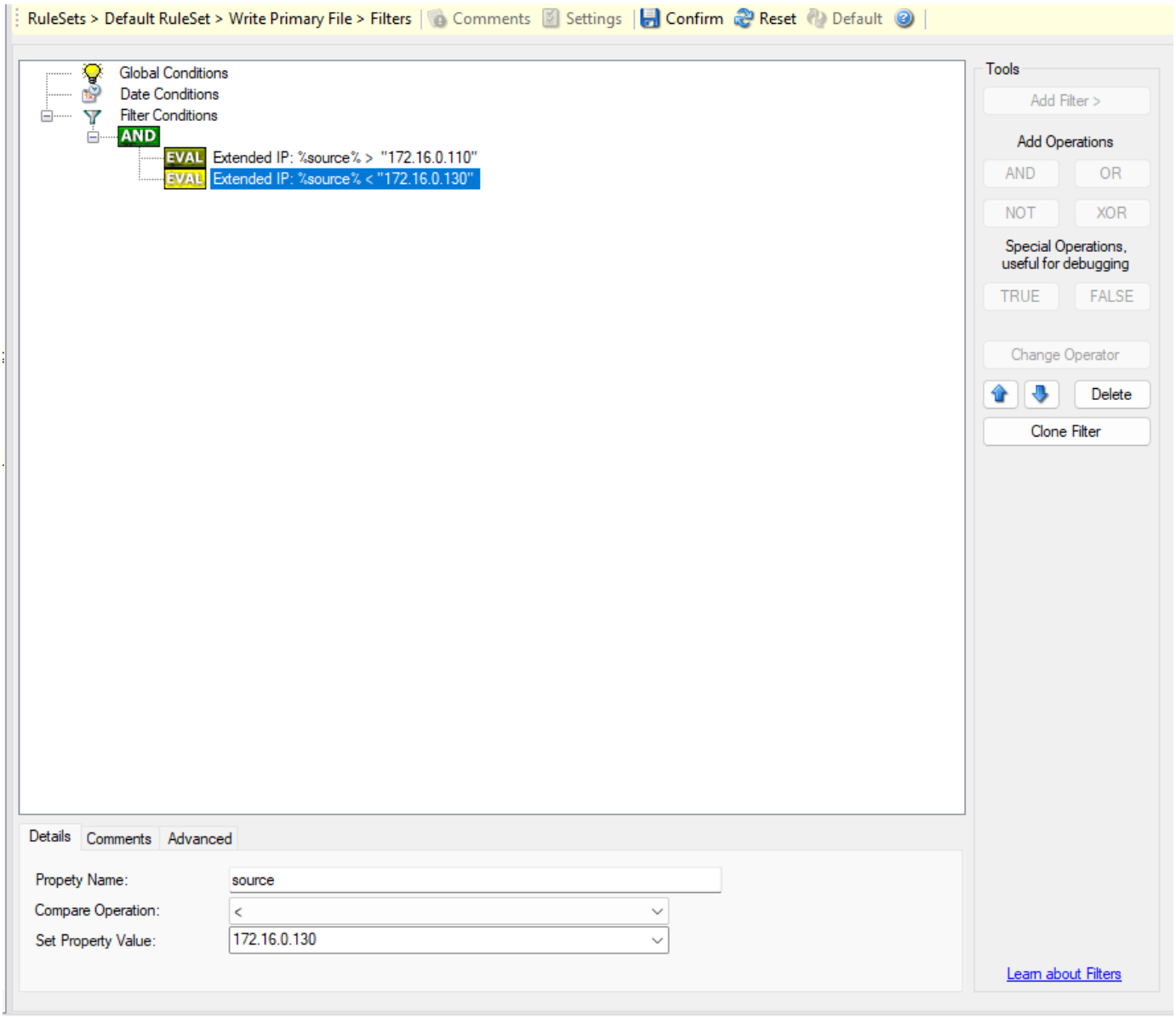
Extended IP Property filter settings

The IP Filter can basically work on any property, but we recommend to only use it on the %source% property, as we usually can be sure that this contains a valid IP Address or hostname. The IP Filter can filter against hostnames and IP Addresses, hostnames are automatically resolved using the internal DNSCache (for obvious performance reasons). If you are going to use a different or custom property, please make sure, that the data in the property is a valid IP Address.

Available compare operations for the IP Filter Type are:

Equal (=): The IP Address must match the one you configured in the Property Value field. Not Equal (!=): The IP Address must not match the one you configured in the Property Value field. Higher (>): The IP Address must be higher than the one you configured in the Property Value field. You can use IP Address Formats like: `192.168.0.10, 192.168.0, 192.168 or even 192`. It depends on what IP Ranges you are going to filter for. Lower (<): The IP Address must be lower than the one you configured in the Property Value field. You can use IP Address Formats like: `192.168.0.10, 192.168.0, 192.168 or even 192`. It depends on what IP Ranges you are going to filter for.

If you want to filter for IP Ranges, I recommend to use two filters to define the range, one filter with the “Higher (>)” compare operation and one with the “Lower (<)” compare operation. This could look like the following:

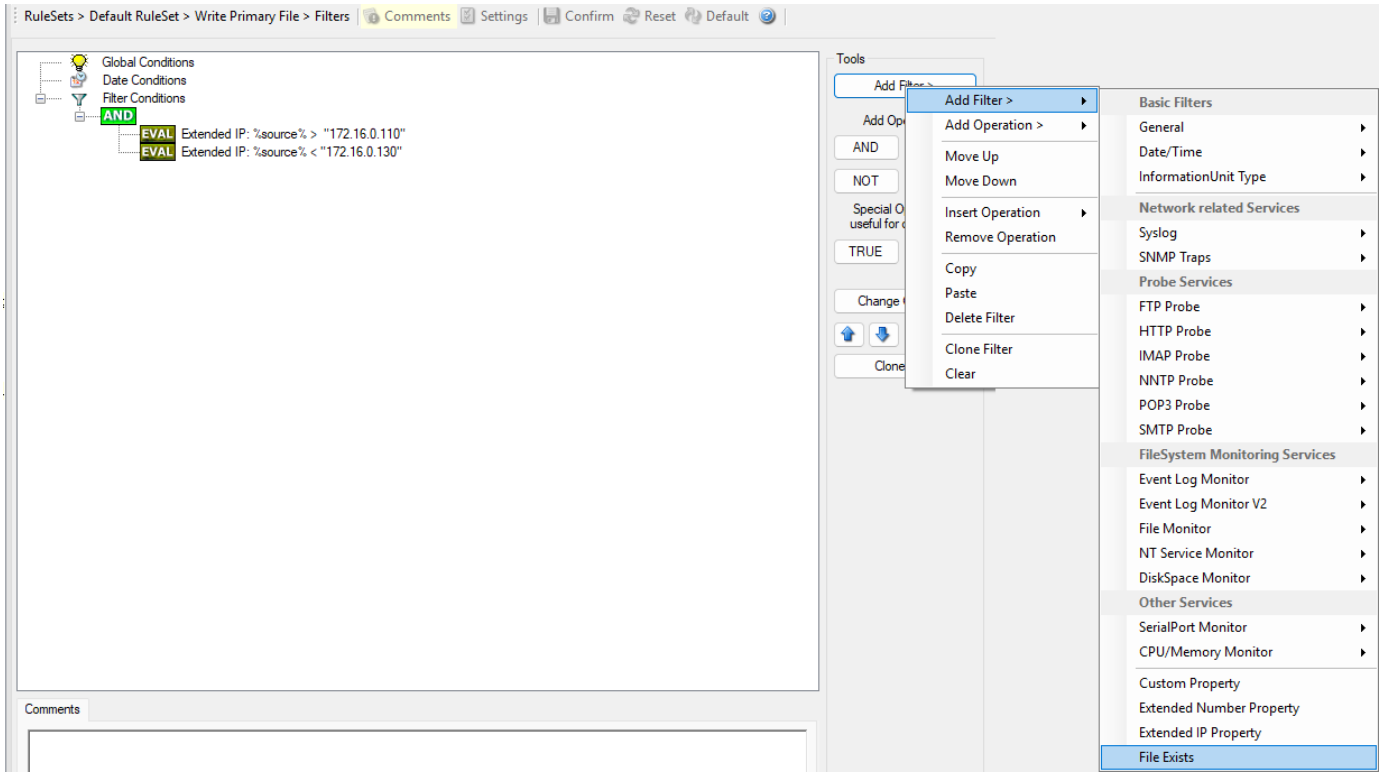


MonitorWare Agent Filter Conditions - Filtering for an IP Range

The filter you can see here will accept all IPs which lie between `172.16.0.110` AND `172.16.0.130`. That means, that for every IP that matches these two conditions, the whole filter will evaluate to true and therefore the message will be processed. If the filter does not evaluate to true, the rule will be aborted and the message is sent to the next rule.

File Exists

Filter setting by string.



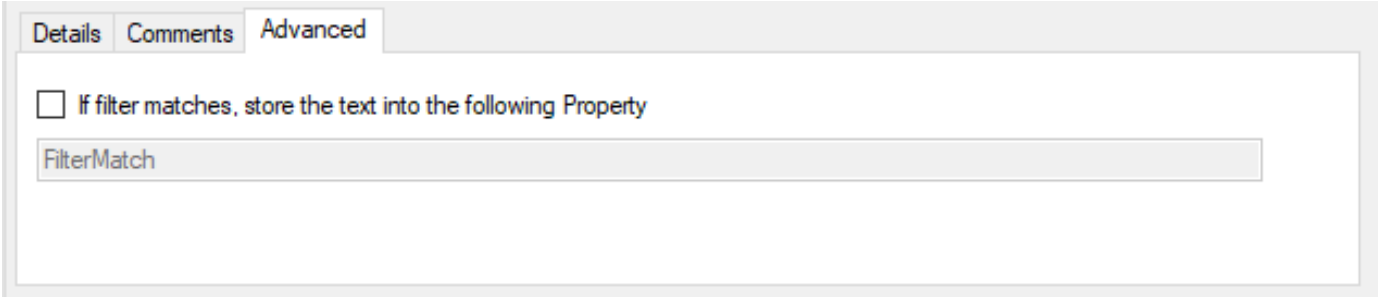
MonitorWare Agent Filter Conditions - File Exists

File Exists

With this Filter you can simply check if a file exists or not. You can directly enter the file and its location or you can use the browse-button to find it.

Store Filter Results

How to store Filter Results is described here.



- Filter Conditions - Store Filter Results*

Store Filter Results

If a filter matches, you can now store the result of the match into a custom property.

This custom property can be used in Actions later.

Actions

Use this section to configure what MonitorWare Agent does after a rule matches. Actions can forward events, store them, enrich them, or trigger follow-up processing.

There can be multiple actions in one rule. They run in the order configured, and you can change that order by moving actions up or down.

Storing Actions

ODBC Database Options

Use this action to write matched events or messages to a database through ODBC.

The ODBC database action is an integration feature. It can write to the built-in Adiscon default schema or to a user-defined schema in any supported ODBC database. Use the default schema when you want the fastest supported setup or compatibility with Adiscon tools. Use custom mapping when the product needs to write into an existing database design.

Common usage patterns

- **Default schema:** Use the built-in `SystemEvents` and `SystemEventProperties` tables when you want the shortest supported setup or when downstream Adiscon tools expect the standard schema.
- **Custom schema integration:** Map event properties to an existing table with your own column names and data types.
- **Microsoft SQL Server stored procedures:** Use the call-statement option only when your SQL Server design requires a stored procedure instead of a standard `INSERT` statement.

Out of scope

This action does not design your database for you. It does not decide table layout, indexes, retention policy, reporting logic, or broader analytics architecture. For custom integration, you own the destination schema and the mapping decisions.

Before you start

- Install a supported ODBC driver on the Windows host that runs the service.
- Create an **ODBC System DSN** for the target database. User DSNs and file DSNs are not suitable for the service path.
- Verify that the database server is reachable and that the configured credentials have the required permissions.
- Decide whether the action should:
  - create and use the default Adiscon tables, or
  - write into an existing user-defined table

Minimal action path

1. Create and test an ODBC **System DSN** outside the product.
2. Add a **Write to Database** action to the relevant ruleset.
3. Configure the DSN, credentials, and connection settings.
4. Choose one of these paths:
   - keep the default schema and use **Create Database**, or
   - set the table name and field list for a custom schema
5. Save and apply the configuration.
6. Send a matching test event or message and verify that rows are inserted.

Default schema versus custom schema

Default schema

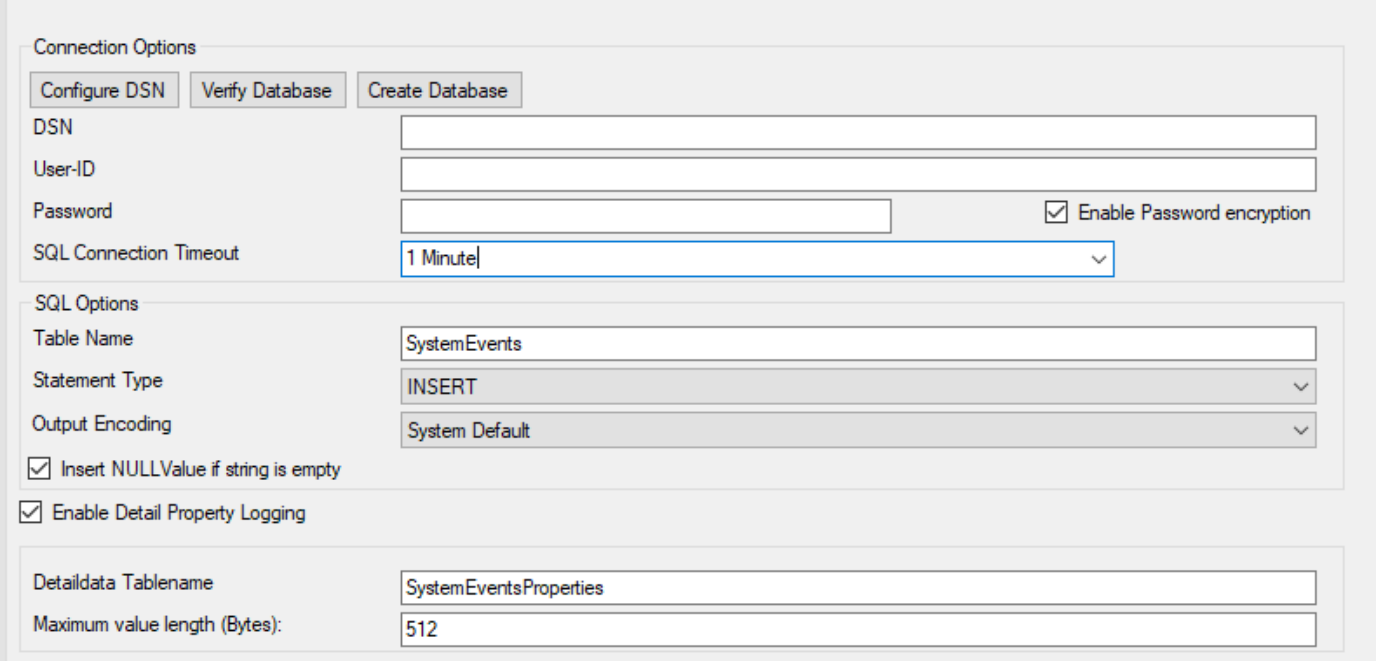
Use the default schema when you want a predictable starting point or when you need compatibility with other Adiscon components that expect the standard table layout. In this path, the action can create the default tables for you.

Custom schema integration

Use a custom schema when your organization already has a database design that WinSyslog, EventReporter, or MonitorWare Agent must write into. In this path, the action does not infer the schema. You must set the target table name and map each field deliberately.

If you diverge from the default schema, do not assume that Adiscon tools that expect the standard layout will continue to work unchanged.

Connection options



Action - ODBC Database Connection

Buttons

Configure DSN

Opens the Windows ODBC administrator so you can add, edit, or remove data sources.

Verify Database

Attempts to connect to the configured ODBC System DSN with the current settings. Use this before you save the action into production.

Create Database

Creates the default Adiscon tables in the target database. Use this only when you intentionally want the default schema.

DSN

File Configuration field:

szODBCDsn

Description:

Name of the ODBC **System DSN** used for the database connection. The DSN must already contain the correct driver and target-database connection details.

User-ID

File Configuration field:

szODBCUid

Description:

User name for database authentication, if the DSN and driver require it.

Password

File Configuration field:

szODBCPwd

Description:

Password for the configured user ID. Use an account with only the permissions needed for this action.

Enable Encryption

File Configuration field:

nODBCEnCryption

Description:

Stores the configured ODBC password encrypted instead of plaintext. Enable this unless you have a documented reason not to.

SQL Connection Timeout

File Configuration field:

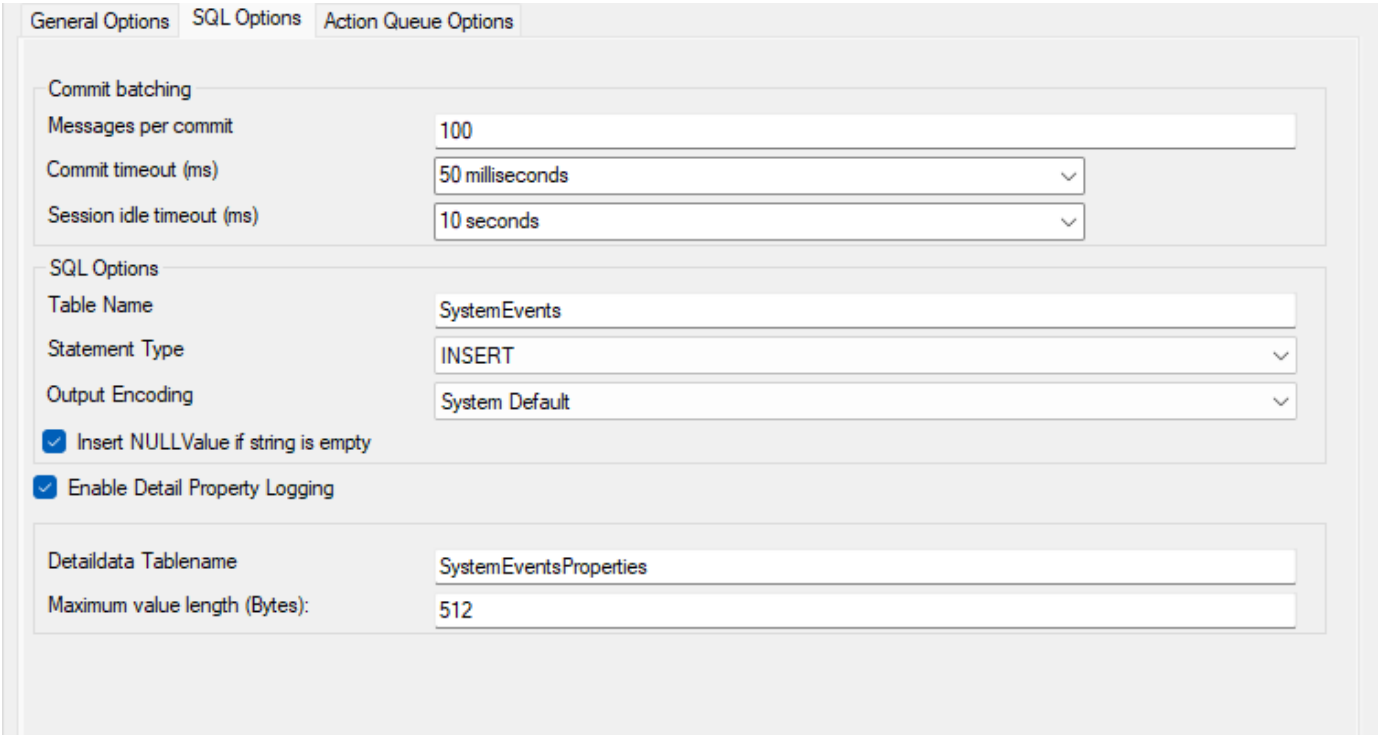
nSQLConnectionTimeOut

Description:

Maximum time to wait while opening the database connection.

SQL options

The client organizes ODBC database settings across **General Options**, **SQL Options**, and **Action Queue Options** tabs.



Action - ODBC Database SQL Options

Commit batching (SQL Options tab)

File Configuration field:

nCommitBatchSize

Description:

Number of messages to batch before committing (Messages per commit). Increase for higher throughput when the database can sustain larger batches; decrease for more frequent commits.

File Configuration field:

nCommitTimeoutMs

Description:

Maximum time in milliseconds to wait before flushing a partial batch.

File Configuration field:

nSessionTimeoutMs

Description:

Idle timeout in milliseconds for the database session.

Table Name

File Configuration field:

szTableName

Description:

Target table name for database writes. Keep the default `SystemEvents` when you use the built-in schema. Set it to your existing table name when integrating with a custom schema.

SQL Statement Type

File Configuration field:

nSQLStatementType

Description:

Selects whether the action uses a normal `INSERT` statement or a Microsoft SQL Server call statement for stored procedures. The call-statement path is Microsoft SQL Server specific.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

Controls how string data is encoded when written. In most environments, **System Default** is the correct setting unless you have a confirmed character-set requirement.

Insert NULL Value if string is empty

Description:

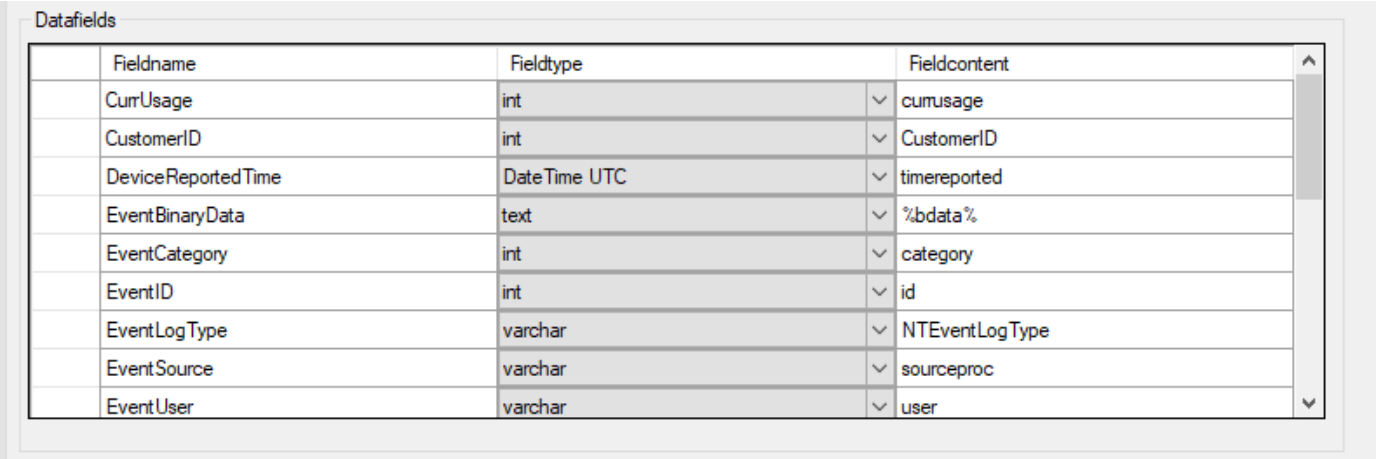
Writes `NULL` instead of an empty string for empty string properties. Use this only if your schema and downstream queries intentionally distinguish between empty text and `NULL`.

Datafields

The field list controls how event properties are written into the destination table. This is the most important part of custom integration work.

For the default schema, the built-in field list already reflects the standard Adiscon table layout. For a custom schema, keep only the rows that correspond to actual destination columns and adjust them deliberately.

For string data types, you can use the property replacer. For example, the expression `%msg:1:200%` stores only the first 200 characters of the message. For simple mappings, use the relevant event property directly.



Action - ODBC Database Datafields

Fieldname

File Configuration field:

szFieldName_[n]

Description:

Database column name in the destination table.

Fieldtype

File Configuration field:

nFieldType_[n]

- 1 = varchar
- 2 = int
- 3 = text
- 4 = DateTime

Description:

Data type of the destination column. It must match both the database schema and the kind of property you are storing.

Fieldcontent

File Configuration field:

szFieldContent_[n]

Description:

Event property or property-replacer expression written into the destination column. See event properties and property access and replacer syntax.

Practical mapping guidance

For a custom syslog-oriented table, a minimal mapping often includes:

- a timestamp column populated from `timegenerated` or `timereported`
- a source column populated from `source`
- a severity column populated from `syslogpriority`
- a tag or application column populated from `syslogtag` or `syslogappname`
- a message column populated from `msg`

If a destination column is shorter than the source property, truncate or transform the value explicitly instead of hoping the driver or database will do the right thing.

Detail property logging

Enable Detail Property Logging

File Configuration field:

nPropertiesTable

Description:

Writes non-standard properties into a separate detail table. This can be useful when additional event metadata must be retained, but it also increases write volume.

Detaildata Tablename

File Configuration field:

szPropertiesTableName

Description:

Table name used for detail-property logging. In the default schema, this is typically `SystemEventProperties`.

Maximum value length (Bytes)

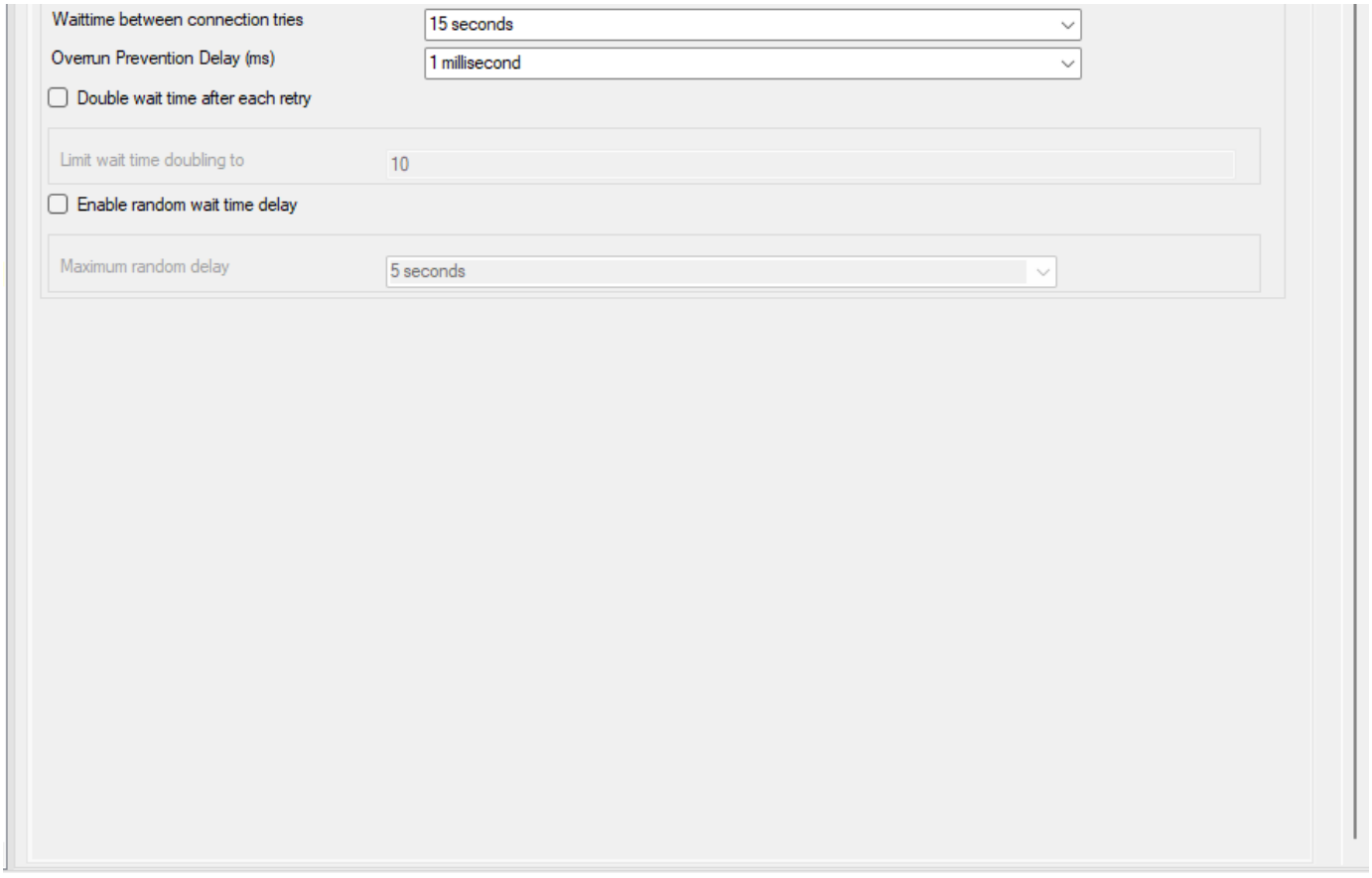
File Configuration field:

nMaxValueLength

Description:

Maximum size in bytes for values written into the detail-property table.

Action Queue Options



MonitorWare Agent - ODBC database Action Queue Options

Use Diskqueue if connection to database fails

File Configuration field:

nUseDiscQueue

Description:

Stores pending writes on disk when the database path is temporarily unavailable.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

Directory used to store queue files for pending database writes.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

Minimum wait time before the action retries the database connection after a failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

Optional delay between replayed queue writes to avoid overwhelming the target database after recovery.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

Doubles the retry wait time after each failure.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

Adds a randomized delay to retry timing. This can reduce synchronized retry spikes when many senders reconnect at the same time.

Maximum random delay

File Configuration field:

nCacheRandomDelayTime

Description:

Upper bound for the additional randomized retry delay.

Verification

- Use **Verify Database** before enabling production traffic.
- Send a matching test event or message after saving the action.
- Query the destination table and confirm that:
  - rows are inserted
  - values appear in the expected columns
  - data types and lengths are compatible with the schema

Common pitfalls

- Using a user DSN instead of a **System DSN**
- Leaving the default field list unchanged while targeting a custom table
- Using **Create Database** when the goal is an existing custom schema
- Mapping text properties into integer or datetime columns
- Using the SQL Server call-statement mode on non-Microsoft SQL Server targets
- Forgetting that custom schemas may break compatibility with tools that expect the default Adiscon layout

OLEDB Database Action

Use this action to write matched events or messages to a database through an OLEDB provider.

This action serves the same main use cases as ODBC Database Options, but it connects through OLEDB instead of an ODBC System DSN. It can write to the built-in Adiscon default schema or to a user-defined schema. Provider availability depends on your Windows environment and the database vendor's current OLEDB support.

When to choose OLEDB

- You already have a supported OLEDB provider for the target database.
- Your environment standardizes on OLEDB rather than ODBC.
- You need the same database-writing and field-mapping behavior but through an OLEDB connection path.

Use the ODBC action instead when your preferred or only supported driver path is ODBC.

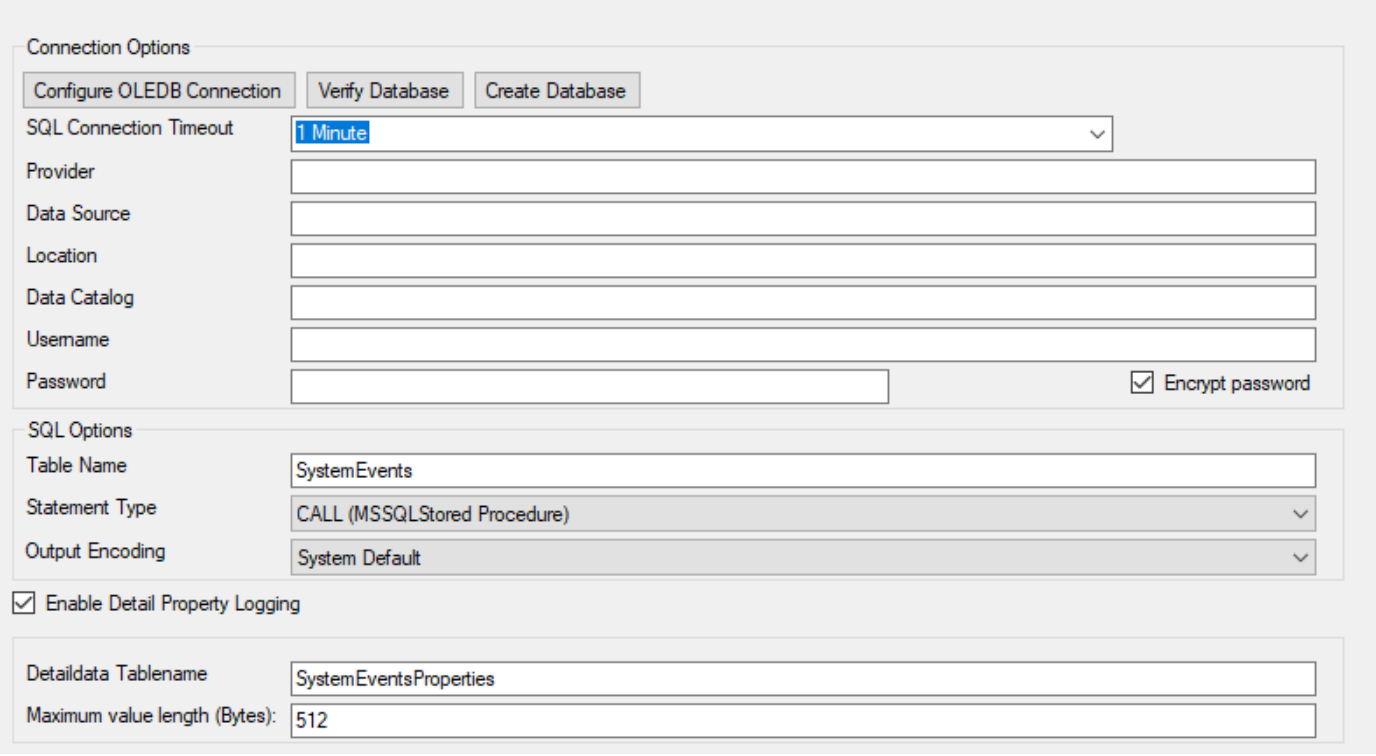
Before you start

- Verify that the required OLEDB provider is installed on the Windows host.
- Confirm the server, database, and authentication details that the provider expects.
- Decide whether you want the default Adiscon schema or an existing custom schema.
- Ensure the target account has the required database permissions.

Minimal action path

1. Configure the OLEDB connection.
2. Use **Verify Database** to test the connection.
3. Choose one of these paths:
    - use **Create Database** for the default schema, or
    - set the table name and field list for a custom schema
4. Save and apply the configuration.
5. Send a matching test event or message and verify that rows are inserted.

Connection options



Action - OLEDB Database Connection

Buttons

Configure OLEDB Connection

Starts the OLEDB configuration wizard for the provider and connection string.

Verify Database

Tests the current OLEDB connection settings.

Create Database

Creates the default Adiscon tables in the target database. Use this only when you intentionally want the default schema.

SQL Connection Timeout

File Configuration field:

nSQLConnectionTimeOut

Description:

Maximum time to wait while opening the database connection.

Provider

File Configuration field:

szProvider

Description:

OLEDB provider name. Use a provider that is actually installed and supported in your environment.

Data Source

File Configuration field:

szDataSource

Description:

Server, instance, or provider-specific data source identifier.

Location

File Configuration field:

szLocation

Description:

Optional OLEDB location setting if your provider requires it.

Data Catalog

File Configuration field:

szDataCatalog

Description:

Database name or catalog, depending on the provider.

Username

File Configuration field:

szUsername

Description:

User name for database authentication, if required by the provider.

Password

File Configuration field:

szPassword

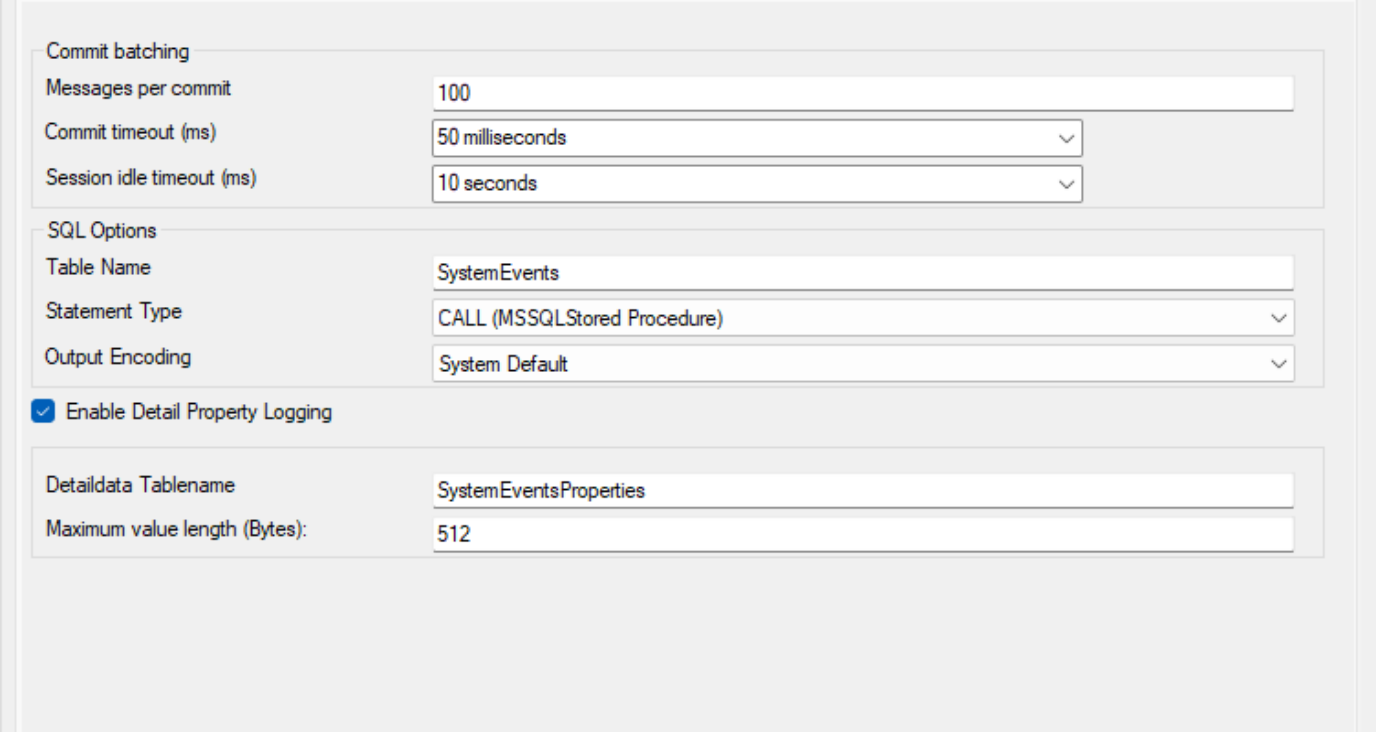
Description:

Password for the configured user.

Encrypt password

Description:

Enable password encryption if your build exposes this option. As with ODBC, prefer encrypted storage unless you have a documented reason not to.



Action - OLEDB Database SQL Options

Commit batching (SQL Options tab)

File Configuration field:

nCommitBatchSize

Description:

Number of messages to batch before committing (Messages per commit). Tune for throughput versus commit frequency under load.

File Configuration field:

nCommitTimeoutMs

Description:

Maximum time in milliseconds to wait before flushing a partial batch (Commit timeout).

File Configuration field:

nSessionTimeoutMs

Description:

Idle timeout in milliseconds for the database session (Session idle timeout).

Table Name

File Configuration field:

szTableName

Description:

Target table name for database writes. Keep the default `SystemEvents` when you use the built-in schema. Set it to your existing table when integrating with a custom schema.

Statement Type

File Configuration field:

nSQLStatementType

Description:

Selects whether the action uses a standard `INSERT` statement or a Microsoft SQL Server call statement for stored procedures. The call-statement path is Microsoft SQL Server specific.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

Controls how string data is encoded when written. In most environments, **System Default** is the correct setting unless you have a confirmed character-set requirement.

Data mapping and custom schemas

The field list works the same way as in ODBC Database Options. It controls which event properties are written to which destination columns.

For custom integration:

- set the table name to your existing table
- keep only the fields that exist in that table
- make each field name, field type, and field content match the destination schema deliberately

For string fields, you can use property-replacer expressions such as `%msg:1:200%` when you need truncation or transformation.

If you use the default schema, keep the default field list unchanged unless you understand the compatibility impact on tools that expect the standard Adiscon layout.

Detail property logging

File Configuration field:

nPropertiesTable

Description:

Writes non-standard properties into a separate detail table. This increases write volume and is usually needed only when you intentionally want those additional properties retained.

Detaildata Tablename

File Configuration field:

szPropertiesTableName

Description:

Table name used for detail-property logging. In the default schema, this is typically `SystemEventProperties`.

Maximum value length (Bytes)

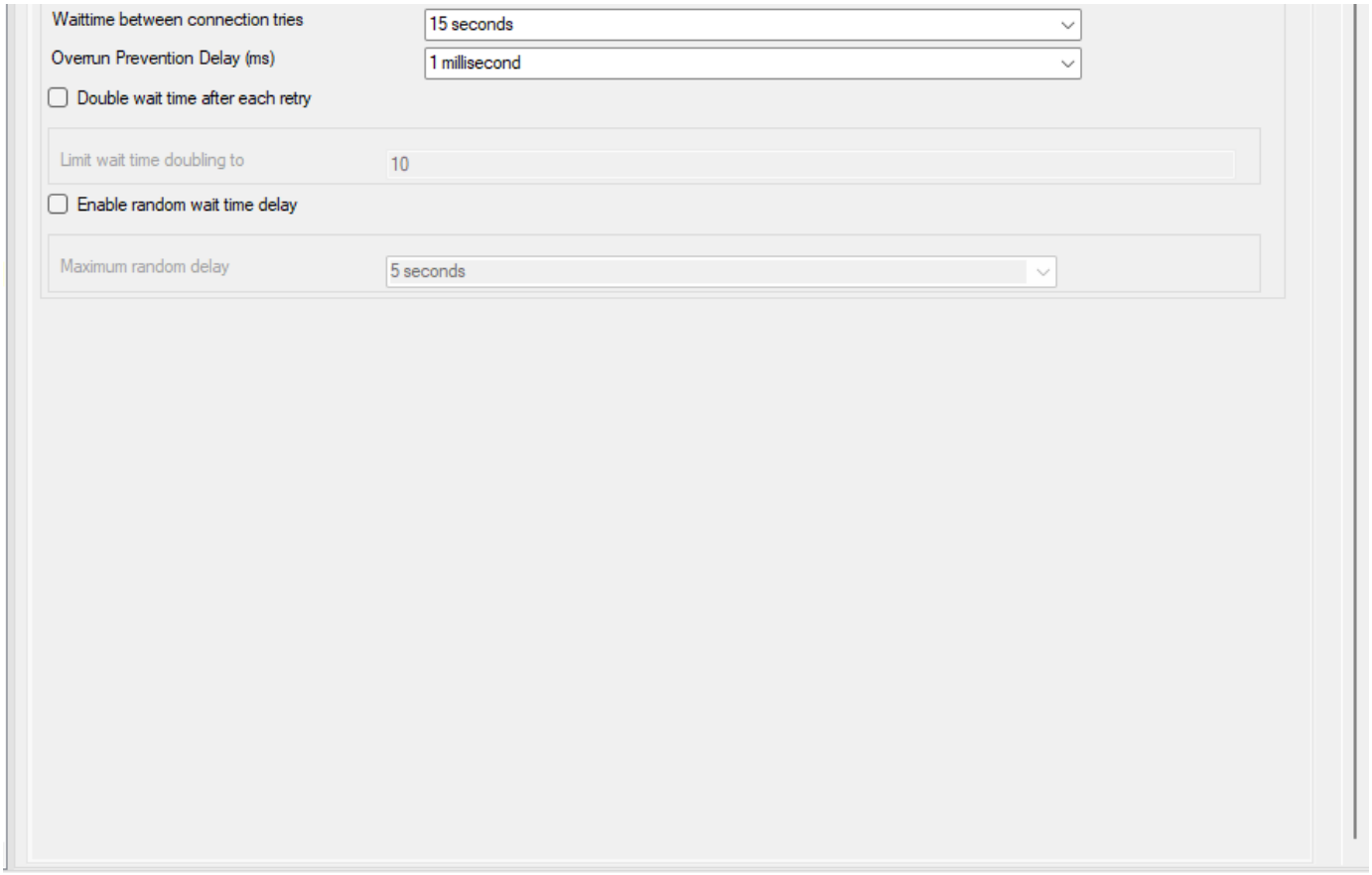
File Configuration field:

nMaxValueLength

Description:

Maximum size in bytes for values written into the detail-property table.

Action Queue Options



MonitorWare Agent - OLEDB database Action Queue Options

Use Diskqueue if connection to database fails

File Configuration field:

nUseDiscQueue

Description:

Stores pending writes on disk when the database path is temporarily unavailable.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

Directory used to store queue files for pending database writes.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

Minimum wait time before the action retries the database connection after a failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

Optional delay between replayed queue writes to avoid overwhelming the target database after recovery.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

Doubles the retry wait time after each failure.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

Adds a randomized delay to retry timing. This can reduce synchronized retry spikes when many senders reconnect at the same time.

Maximum random delay

File Configuration field:

nCacheRandomDelayTime

Description:

Upper bound for the additional randomized retry delay.

Common pitfalls

- Assuming OLEDB is required when a supported ODBC path is simpler
- Relying on provider names or examples from older Windows environments without verifying that the provider is still installed and supported
- Using the default field list unchanged while targeting a custom table
- Expecting the action to design a custom schema automatically

File Logging Options

This configuration dialog is available both in the defaults section as well as with file logging actions.

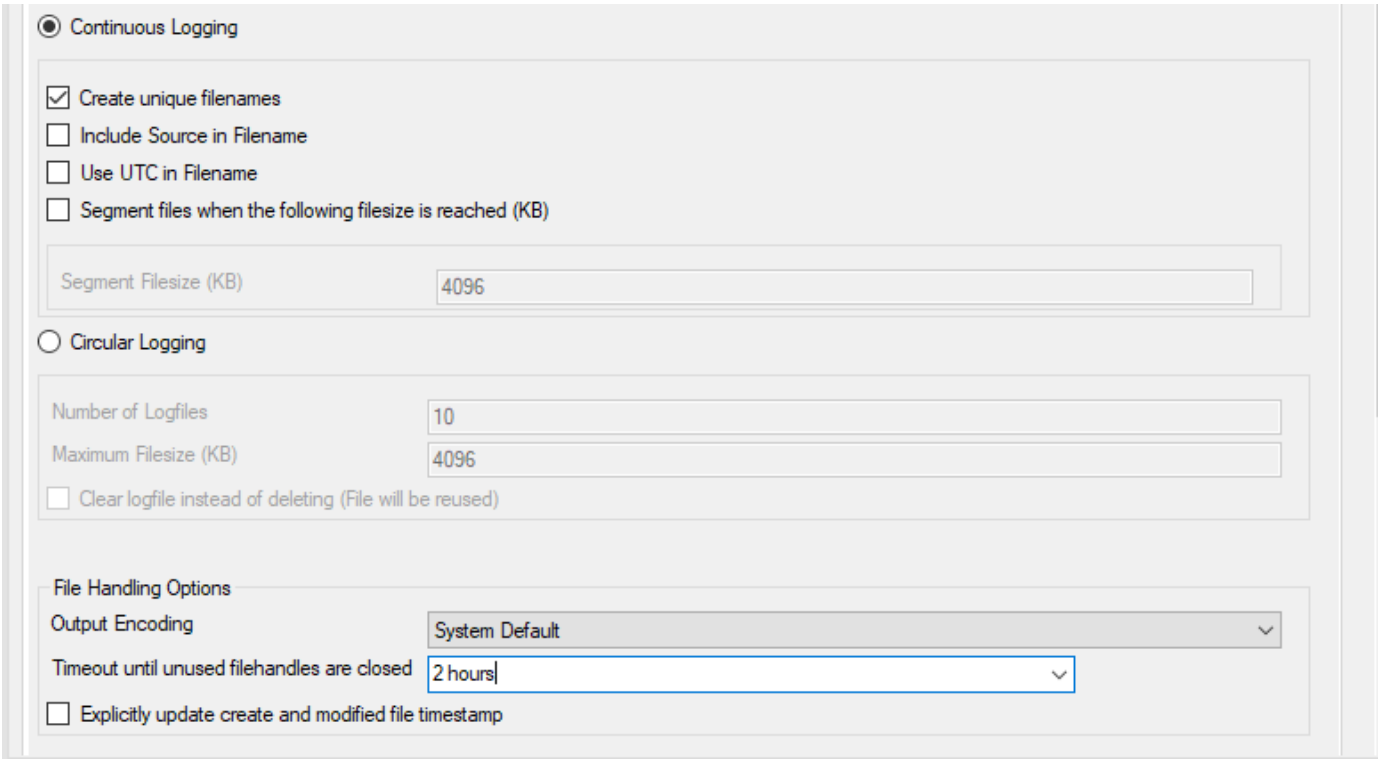
File logging is used to write text files of received messages. One file per day is written. New entries are appended to the end of the file.

File locks are released when currently no data is written. Therefore, other applications can access the files while the service is running. However, please be sure that the other applications do not place a file-lock onto it. Popular WordPad does so. In this case, the service will not be able to log any further messages (an error event is written to the Windows Event Log in this case). We recommend copying the file when accessing it at runtime - or use notepad.exe, which does not place file-locks on the files it opens.

The filename is build as follows:

`<FilePathName><FileBaseName>-year-month-day.<FileExtension>`

Parameters in the brackets can be configured via dialog shown below:



MonitorWare Agent - File Logging filename options

Enable Property replacements in Filename

File Configuration field:

nEnablePropertyFileName

Description:

By activating this option, you can use properties within the file or pathname like `%source%` and all the others. For example: File Path Name can be `F:\syslogs\%source%` File Base Name can be `IIS-%source%`

If your source is `10.0.0.1`, that writes the following file: `F:\syslogs\10.0.0.1\IIS-10.0.0.1.log`

The path `f:\syslogs\10.0.0.1` was generated because the source property was used inside the path.

Please Note that you can use ANY property inside the path and base name. event properties are described in the property replacer section.

File Path Name

File Configuration field:

szFilePath

Description:

The base path (directory) of the file. Please see above for exact placement. Default is `c:\temp`. The Insert Menu entry allows you to create “Dynamic Directories”. For example:

File Path Name can be **``F:syslogs%source%``**

event properties are described in the property replacer section.

On network paths: The File Logging action can also work on network storages. There are two ways of storing log files in a network path.

1. Direct the action to a full UNC path. In this case, make sure the system account with which the service is running is able to access the network path or the service will fail to access with a permission error. Sample path: `\Hostname\folder1\folder2\`
2. Map the UNC path to a local drive letter in Windows. In this case, the path will look like a regular local path, but actually points to a network location. This requires a workaround, which is to run a scheduled task at system startup under Local System and perform a net use specifying the user and password of the share. Else, the service will not be able to access the mapped UNC path, because the mapping usually happens for interactive sessions only.

File Base Name

File Configuration field:

szFileBaseName

Description:

The base name of the file. Please see above for exact placement. Default is “MonitorWare”. The Insert Menu entry allows you to recreate “Dynamic Base Filenames”. For example:

File Base Name can be `IIS-%source%`

File Extension

File Configuration fields:

szFileExtension

Description:

The extension to be used when writing the file. Please see above for exact placement. Default is `.log`.

Continuous Logging

Description

When enabled log files will not be overwritten, there is a single file with consistent file name. See below checkboxes to choose in which cases a new file should be created.

Create unique Filenames

File Configuration field:

nUniqueFileName

Description:

If checked, a unique file name is created for each day. This is done by adding the current date to the base name.

If left unchecked, the date is not added and as such, there is a single file with consistent file name. Some customers that have custom scripts to look at the file name use this.

Include Source in Filename

File Configuration field:

nIncludeSourceInFilename

Description:

This works together with the “Create unique Filenames” setting. If checked, the file name generation explained above is modified. The source of the Syslog message is automatically added to the file name.

This feature has been introduced because many customers would like to have separate log files for each device. While this can be achieved with multiple rules, it is much more straight forward with this single checkbox. If it is checked, the messages are automatically written to separate files and the file name includes the originating device information.

Use UTC in Filename

File Configuration field:

nUseUTCInFileName

Description:

This works together with the “Create unique Filenames” setting. If unique names are to be created then select the “Use UTC in Filename” option, in this case the file name is generated on the basis of universal coordinated time (UTC) or on local time. UTC was formerly referred to as “GMT” and is the basis of the time zone system. For example, New York, USA is 5 hours behind UTC. Therefore, if it is 12 noon in New York, the UTC time is 5pm.

When it comes to log file creation, it means that the date is computed on UTC. Taking the same example, if the “Use UTC in Filename” is checked, the log file name would roll over to the next date at 7 pm New York time. If it were unchecked, the rollover would occur exactly at midnight New York time (5 am UTC).

Using UTC for file name creation can be helpful if log files are written among different time zones and later consolidated. Using UTC ensures a consistent time notation across all log files.

Please note that this setting does affect the file name creation only. A different setting controls the dates recorded inside the file.

Segment files when the following file size is reached (KB)

File Configuration field:

nSegmentFileEnable

Description:

Files are segmented if the defined file size: Segment Filesize (KB) is reached. A sequence number is appended to the file name: _1 to _n.

Circular Logging

File Configuration field:

nCircularLogging

Description:

If enabled, log files are created and overwritten in a cycle.

Number of Log Files

File Configuration field:

nNumberOfLogfiles

Description:

Once the last log file is reached, circular logging begins and overwrites the first log file again. If set to 0, log files will not be rotated but can still be processed by Rotate Post Processing (for example compression or backup) along with the Rotate Conditions.

Maximum Filesize (KB)

File Configuration field:

nMaxFileSize

Description:

Max filesize of a log file, once this size is reached a new logfile is created.

Clear logfile instead of deleting (File will be reused)

File Configuration field:

nReUseFile

Description:

This option causes the File Action to truncate the log file instead of deleting and recreating it.

File Handling Options

Output Encoding

File Configuration field:

nOutputEncoding

Description:

This setting is most important for Asian languages. A good rule is to leave it at “System Default” unless you definitely know you need a separate encoding. “System Default” works perfectly in the far majority of cases, even on Asian (e.g. Japanese) Windows versions.

Timeout until unused filehandles are closed

File Configuration field:

nCleanFileHandlesTimeout

Description:

When dynamic filenames are used, filehandles are cached internally to avoid massive amount of File open/close operations. This timeout specifies after which time handles should be finally closed if not used anymore. Each write to a file will reset the timeout counter for the current filehandle.

Explicitly update create and modified file Timestamp

File Configuration field:

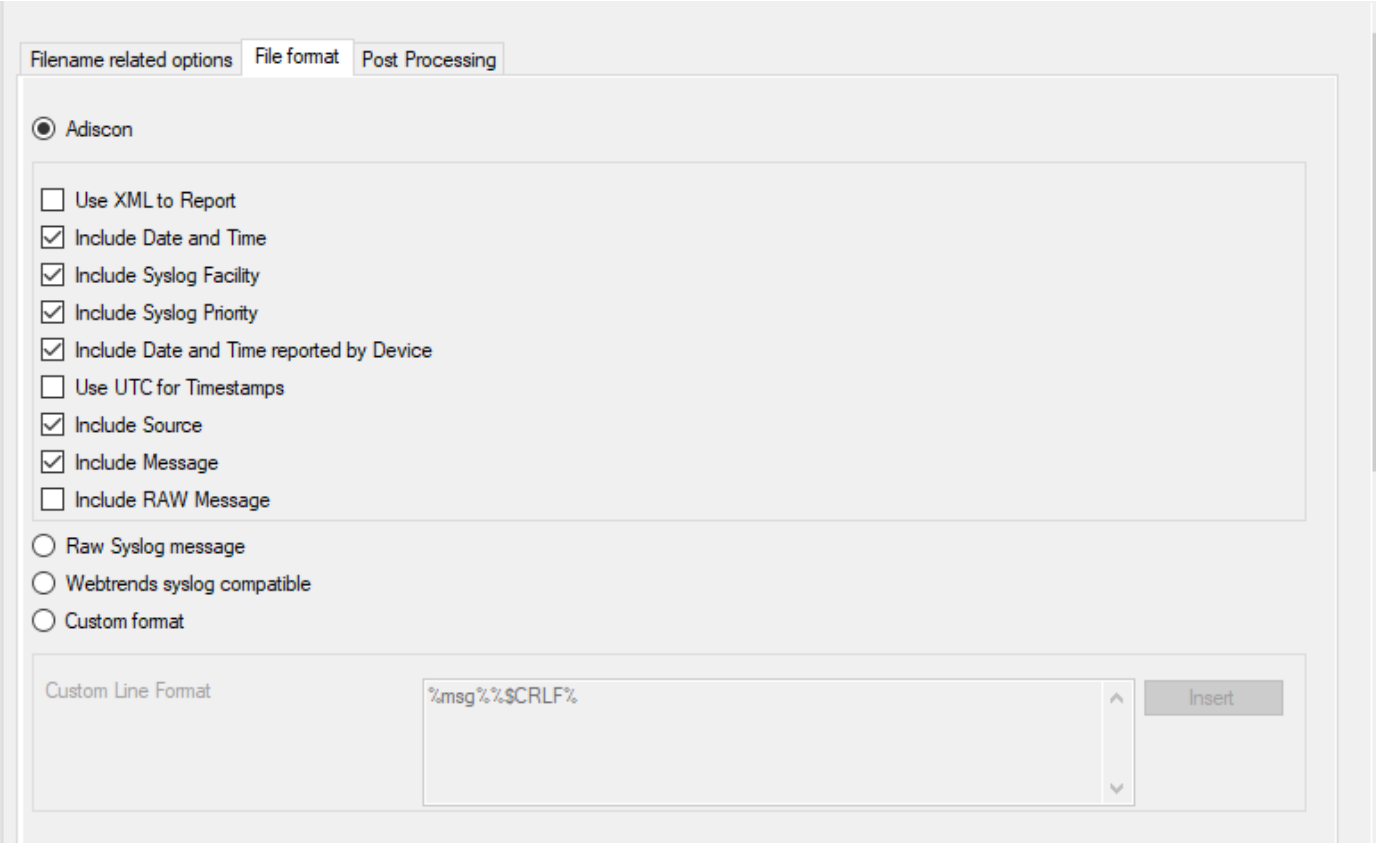
nEnableUpdateFileTime

Description:

If the checkbox is not selected the operating system updates the timestamps for creating and modifying files. In cases where the filesystem does not do this reliably, the checkbox can be selected. Now the service itself updates the timestamps for creating and modifying files.

File Format

The format in which the log file is written can be selected here. The default is “Adiscon”, which offers most options. Other formats are available to increase log file compatibility to third party applications.



- Action - File Logging File Format*

Adiscon

> **Note**
>
> Any other format besides “Adiscon Default” are fixed formats. As such, if it is selected, all other formatting options do not apply and consequently are turned off.

The following options are possible:

Use XML to Report

File Configuration field:

nUseXMLtoReport

Description:

If checked, the message part includes a complete XML-formatted information record. It includes additional information like timestamps, **`syslog facility`** and priority, and others in an easy to parse format. If XML output format is selected, you might consider turning all other information fields off, as they are already included in the XML stream. However, this is not a requirement.

Use UTC for Timestamps

File Configuration field:

nUseUTCForTimestamps

Description:

Please see the definition of utc above at “Use UTC in Filename”. This setting is very similar. If checked, all time stamps are written in UTC. If unchecked, local time is used instead. Again, UTC is useful if logs written in multiple time zones are to be consolidated.

Include <Fieldname>

File Configuration field:

- nFileDateTime
- nFileFacility
- nFilePriority
- nFileDateTimeReported
- nFileSource
- nIncludeMessage
- nIncludeRAWMessage

Description:

The various “include” settings controls are used to specify the fields which are to be written to the log file. All fields except the message part itself are optional. If a field is checked, it is written to the log file. If unchecked, it will not be written. All fields are comma-delimited.

Please note the difference between the “Date and Time” and “Date and Time reported by Device”. Both are timestamps. Either both are written in local time or utc based on the “Use UTC for Timestamps” check box. However, “Date and Time” is the time when the product received the message. Therefore, it is always a consistent value.

In contrast, the “Date and Time Reported by Device” is a timestamp taken from the actual message. As such, it is dependent on the reporting device clock, which might be off. In addition, in the case of Syslog messages, there is no time zone information within the device reported timestamp. As such, if devices from multiple time zones are reporting, the timestamp information is not consistent. This is due to Syslog design as of rfc 3164. The Syslog server can be configured to ignore the RFC in this case and provide a consistent time stamp. However, from the view of the log file writer, the “Date and Time Reported by Device” might not be as trustworthy as the “Date and Time” field. Nevertheless, it might also be more useful than the former one. This is the reason both timestamps are present and can individually be selected.

The “Include Message” and “Include RAW Message” fields allow customizing the message part that is being written. The raw message is the message as – totally unmodified, was received. This might be useful if a third party application is expecting raw Syslog entries. The message itself is just that part of the Syslog message that is being parsed as message. That is without e.g. host information or a tag value. Please note that we recommend selecting only one of these options, as otherwise two message fields are written. Similarly, if none is selected no message is written at all. Please note that we support these configurations, too – there might be a legitimate need for them.

Raw Syslog message

The “Raw Syslog message” format writes raw Syslog format to the log file. That is, each line contains the Syslog message as of RFC 3164. No specific field processing or information adding is done. Some third party applications require that format.

Webtrends syslog compatible

The “WebTrends Syslog compatible” mimics the format that WebTrends applications expect. Please note that we only mimic the log file format. It is still the job of the reporting device (most notable firewall) to generate the correct WebTrends WELF format. The “WebTrends” format is supported because many customers would like to use product enhanced features while still having the ability to work with WebTrends.

Custom format

The “Custom format” allows you to customize formats to increase log file compatibility for third party applications. When you choose this option then Custom line format is enabled.

Custom Line Format

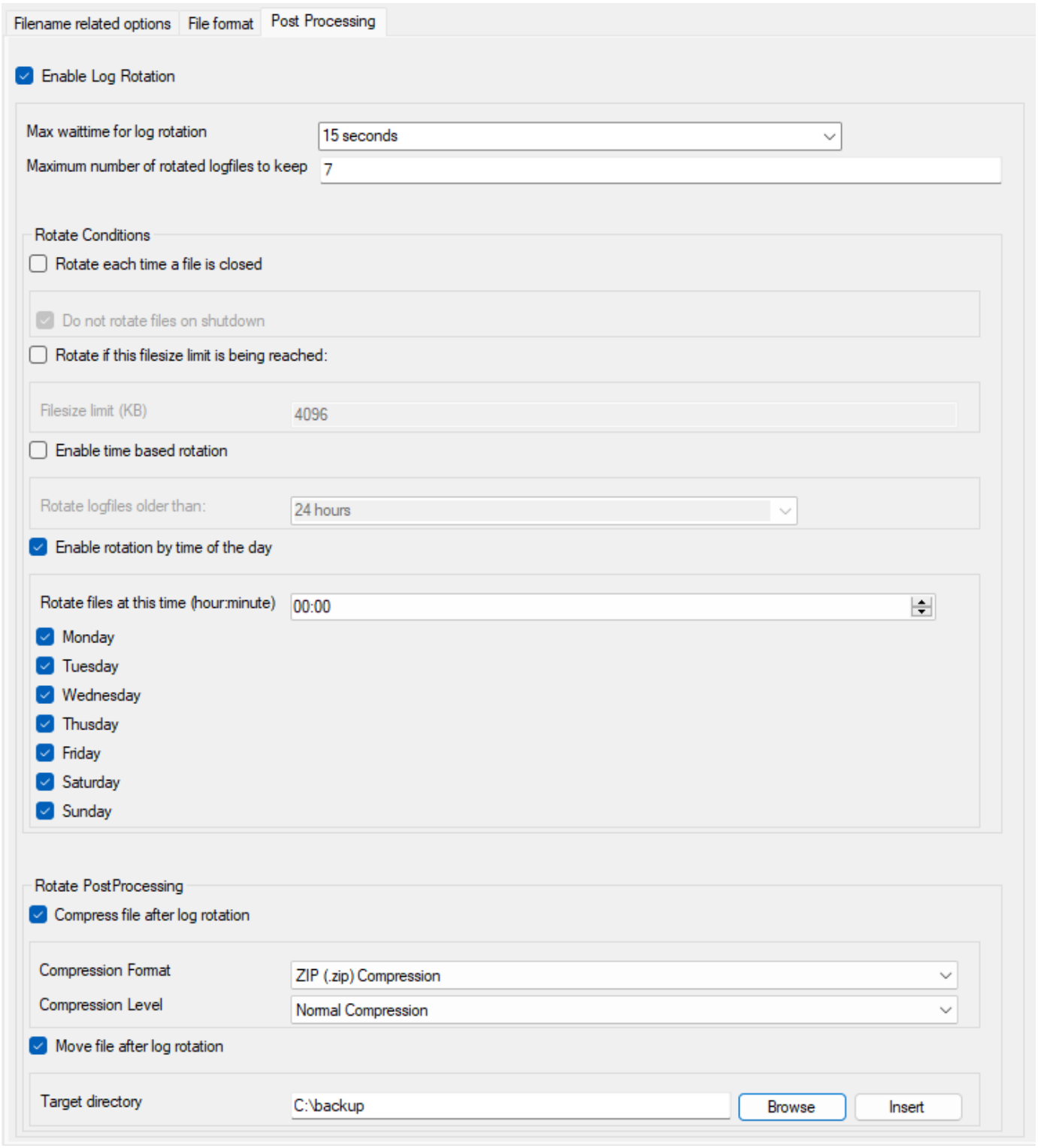
File Configuration field:

szLineFormat

Description:

Custom Line Format enables you to fully customize the output for the log file. The Insert Menu entry provides further options and they only work in custom line format. Default value is `%msg%%$CRLF%`.

Post Processing



- Action - File Logging Post Processing*

Enable Log Rotation

File Configuration field:

nLogEnableRotate

Description:

Enables the log rotation post-processing subsystem for this File Action.

Maximum wait time for log rotation

File Configuration field:

nLogRotateMaxWait

Description:

Maximum Wait time when log rotation is processed within the Queue Engine.

Maximum number of rotated log files to keep

File Configuration field:

nLogRotateMaxFiles

Description:

Maximum number of rotated log file generations to keep. If set to 0, log files will not be renamed into numbered generations but can still be processed by Rotate Post Processing (for example compression or backup) along with the Rotate Conditions.

Rotate Conditions

Rotate each time a file is closed

File Configuration field:

nLogRotateOnClose

Description:

When a file is closed (Timeout for example), log rotation will be done.

Do not rotate files on Shutdown

File Configuration field:

nLogDoNotRotateOnShutdown

Description:

Do not rotate log files if service is stopped even with “Rotate each time a file is closed” enabled.

Detached log rotation work that was already queued or already active in the background worker is still recovered on the next startup. This setting only suppresses starting an additional rotate-on-close operation because the service is shutting down.

Rotate if this filesize limit is being reached

File Configuration field:

nLogRotateOnSizeLimit

Description:

Enable log rotation if a configured file size is reached.

Filesize limit (KB)

File Configuration field:

nLogRotateSizeLimit

Description:

The actual file size in KB for “Rotate if this filesize limit is being reached”.

Enable time based rotation

File Configuration field:

nLogEnableRotateTimeout

Description:

Enable time based log rotation.

Rotate log files older than

File Configuration field:

nLogRotateTimeout

Description:

Sets the maximum file age before a logfile is being rotated when “Enable time based rotation” is enabled.

Enable rotation by time of the day

File Configuration field:

nLogEnableRotateTimeOfTheDay

Description:

Rotate this file at this time (hour:minute) and the checked day/days.

Rotate PostProcessing

Compress File After log rotation

File Configuration field:

nLogZipAfterRotate

Description:

Enable file compression after log rotation.

Compression runs in the asynchronous log rotation worker after the live file has already been detached. If graceful shutdown happens while compression is still running, the unfinished detached work is resumed on the next startup instead of being abandoned.

Compression Format

File Configuration field:

nLogZipAfterRotateFormat

Description:

It is possible to compress to ZIP or GZIP format.

Compression Level

File Configuration field:

nLogZipCompressionLevel

Description:

There are different levels that can be selected:

- Best Speed
- Low Compression
- Normal Compression
- Best Compression

Move file after log rotation

File Configuration field:

nLogMoveAfterRotate

Description:

Move logfile after rotation & compression.

Move-after-rotate uses the same asynchronous recovery model as compression. If shutdown reaches the configured worker wait timeout before the move finishes, the detached work is resumed on the next startup.

Target directory

File Configuration field:

szLogMoveAfterRotatePath

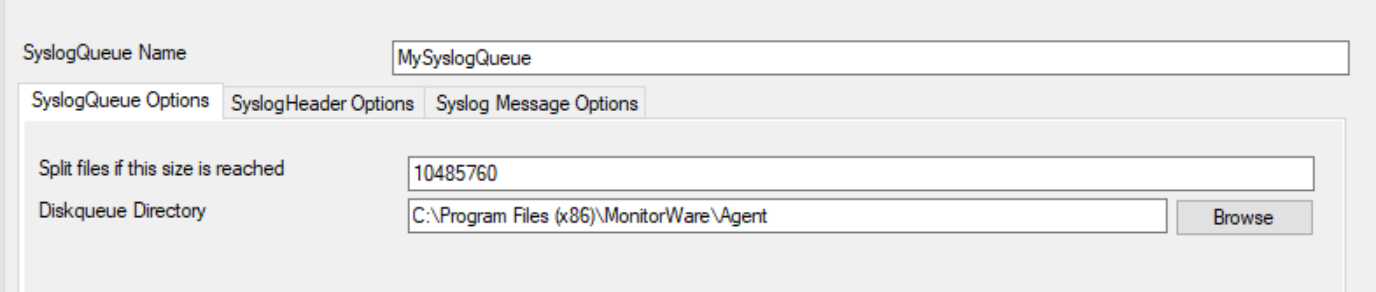
Description:

Location where to move the logfile after rotation & compression.

For an overview of shutdown, restart, reload, and dynamic-filename guarantees, see **`../shared/faq/log-rotation-guarantees`**.

Syslog Queue Action

The Syslog Queue Action was added as part of the passive syslog listener service. All messages send to this action are stored preformatted in disk based queuefiles. Therefore you can configure the Syslog Header and message format in this action as well.



- Action - SyslogQueue Options*

SyslogQueue Name

File Configuration field:

szSyslogQueue

Description:

The internal Name of the SyslogQueue, must be unique. The Configuration Client will verify the Name is unique while you save the configuration.

Split files if the size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

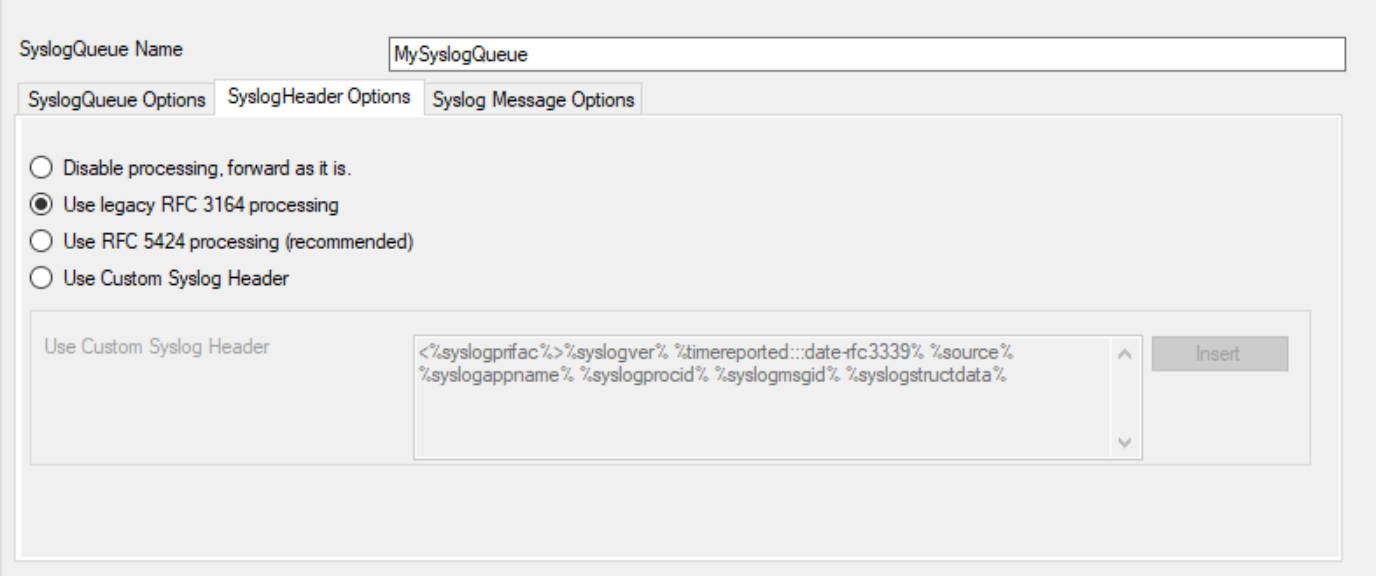
File Configuration field:

szDiskQueueDirectory

Description:

The default directory where the queue files are saved into.

SyslogHeader Options



- Action - SyslogQueue SyslogHeader*

Syslog processing

File Configuration field:

szSyslogQueue

Description:

With this settings you can assign how your syslog messages will be processed. For processing syslog you can choose out of four different options. You can use rfc 3164 or RFC 5424 (recommended) which is the current syslog standard, you are able to customize the syslog header or you do not process your syslog and forwards it as it is.

Use Custom Syslog Header

File Configuration field:

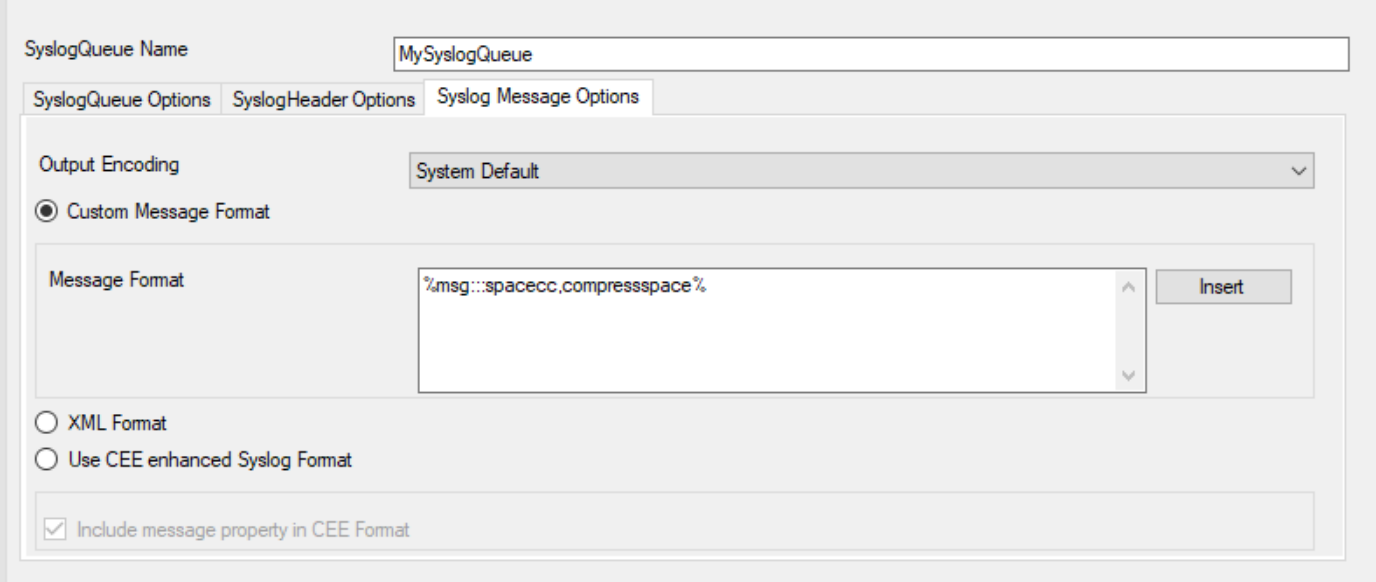
szSyslogQueue

Description:

In this field you can specify the contents of your syslog header. This option is only available when you choose “Use Custom Syslog Header” in the Syslog Processing menu. The contents can be either a fixed message part which you can write into the field yourself or you use properties as dynamic content. By default the Header field is filled with the content of the RFC 5424 header.

Please note that the field content can be configured with event properties are described in the property replacer section.

Syslog Message Options



- Action - SyslogQueue Syslog Message*

Message Format

You can use several different message formats for forwarding messages via syslog.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

This setting is most important for Asian languages. A good rule is to leave it at “System Default” unless you definitely know you need a separate encoding. “System Default” works perfect in the far majority of cases, even on Asian (e.g. Japanese) Windows versions.

Custom Message Format

File Configuration field:

nMessageFormatType = 0

Description:

The custom format lets you decide how the content of a syslog message looks like. You can use properties to insert content dynamically or have fixed messages that appear in every message.

Please note that the field content can be configured with event properties are described in the property replacer section.

XML Format

File Configuration field:

nMessageFormatType = 1

Description:

If this option is checked, the forwarded Syslog message is a complete XML-formatted information record. It includes additional information like timestamps or originating system in an easy to parse format.

The XML formatted message is especially useful if the receiving system is capable of parsing XML data. However, it might also be useful to a human reader as it includes additional information that cannot be transferred otherwise.

Use CEE enhanced Syslog Format

File Configuration field:

nMessageFormatType = 2

Description:

If enabled, the new CEE enhanced Syslog format will be used (work in progress). All useful properties will be included in a JSON Stream. The message itself can be included as well, see the “Include message property in CEE Format” option. Here is a sample how the format looks like for a security Eventlog message:

@cee: {“source”: “machine.local”, “nteventlogtype”: “Security”, “sourceproc”: “Microsoft-Windows-Security-Auditing”, “id”: “4648”, “categoryid”: “12544”, “category”: “12544”, “keywordid”: “0x8020000000000000”, “user”: “N\A”, “SubjectUserSid”: “S-1-5-11-222222222-333333333-4444444444-5555”, “SubjectUserName”: “User”, “SubjectDomainName”: “DOMAIN”, “SubjectLogonId”: “0x5efdd”, “LogonGuid”: “{00000000-0000-0000-0000-000000000000}”, “TargetUserName”: “Administrator”, “TargetDomainName”: “ DOMAIN “, “TargetLogonGuid”: “{00000000-0000-0000-0000-000000000000}”, “TargetServerName”: “servername”, “TargetInfo”: “ servername “, “ProcessId”: “0x76c”, “ProcessName”: “C:\Windows\System32\spoolsv.exe”, “IpAddress”: “-”, “IpPort”: “-”, “catname”: “Logon”, “keyword”: “Audit Success”, “level”: “Information”, }

Additionally to this format you can set Include message property in CEE Format

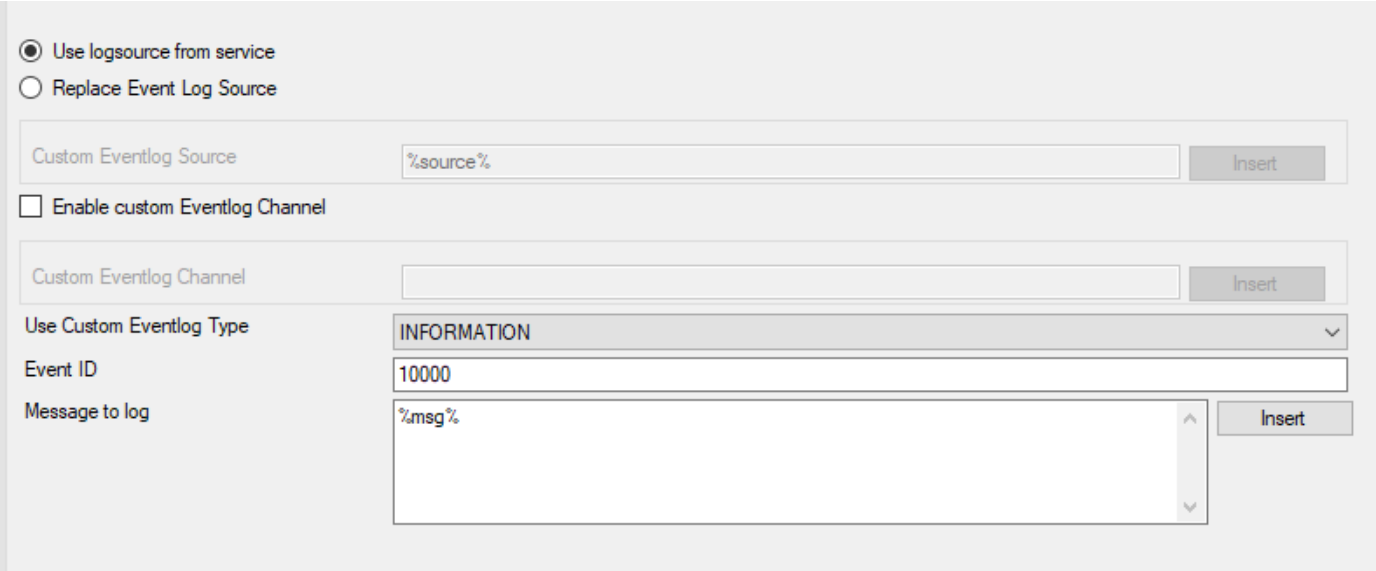
If enabled, the message itself will be included in the JSON Stream as property. Disable this option if you do not want the message itself in the CEE Format.

Please note that the field content can be configured with event properties are described in the property replacer section.

forwarding actions

Event Log Options

This tab is used to configure the logging to the Windows Event Log. It is primarily included for legacy purposes.



- Action - EventLog*

Use logsource from service

File Configuration field:

bUseCustomEventLog = 0

Description:

Takes the service name as logsource for the log entry. This option is enabled by default.

Replace Event Log Source

File Configuration field:

bUseCustomEventLog = 1

Description:

If checked, a special mapping mechanism is activated. In this mode, the Windows event source is set to the IP address of the system sending the Syslog message. In addition, the ID is set to **`syslog facility`**. This mode helps to quickly gather information about the system state in Windows event viewer.

However, this mode has its drawbacks. Effectively, we are writing invalid event source information to the event log. This does not harm any application, but Windows event viewer will try to locate the matching message libraries. Of course, this is impossible. As such, event viewer will warn the user that the message library could not be found. Nevertheless, it will display the complete logged message. This happens only in detail view.

Users should fully understand the implications of this mapping mechanism for their environment before turning this option on.

Custom Event Log Source

File Configuration field:

szCustomSource

Description:

EventSource is now fully configurable with all possibilities the property engine gives you. Please note that content of this field can be configured. event properties are described in the property replacer section.

Enable custom Eventlog Channel

File Configuration field:

bUseCustomEventLog

Description:

If enabled, a custom event log channel will be used instead of application.

Custom Eventlog Channel

File Configuration field:

szCustomEventLog

Description:

The custom Eventlog channel to be used instead of application. Will be automatically created if the channel does not exist.

Use Custom Eventlog Type

File Configuration field:

nEventType

- 0 = EVENTLOG_SUCCESS (Information event)
- 1 = EVENTLOG_ERROR_TYPE (Error event)
- 2 = EVENTLOG_WARNING_TYPE (Warning event)
- 4 = EVENTLOG_INFORMATION_TYPE (Information event)
- 8 = EVENTLOG_AUDIT_SUCCESS (Success Audit event)
- 16 = EVENTLOG_AUDIT_FAILURE (Failure Audit event)

Description:

The type – or severity – this log entry is written with. Select from the available Windows system values.

EventID

File Configuration field:

nEventID

Description:

The ID to be used when writing to the event log. Different IDs can be used to provide other processes with a consistent interface to specific messages. WinSyslog does not restrict the IDs that can be used. However, if an ID is written that is not registered with the operating system, Windows event viewer places an error message pointing this out before the actual message text. To avoid this text, event IDs 10,000 to 10,100 have been registered with the OS. We highly recommend that these IDs should be used for all custom messages. IDs below 10,000 should not be used as they might potentially interfere with events generated by MonitorWare Agent 3.0 itself.

Message to Log

File Configuration field:

szMessagecontent

Description:

It is the message which will be logged into the Windows Event Log. It is fully configurable what is logged into the Eventlog.

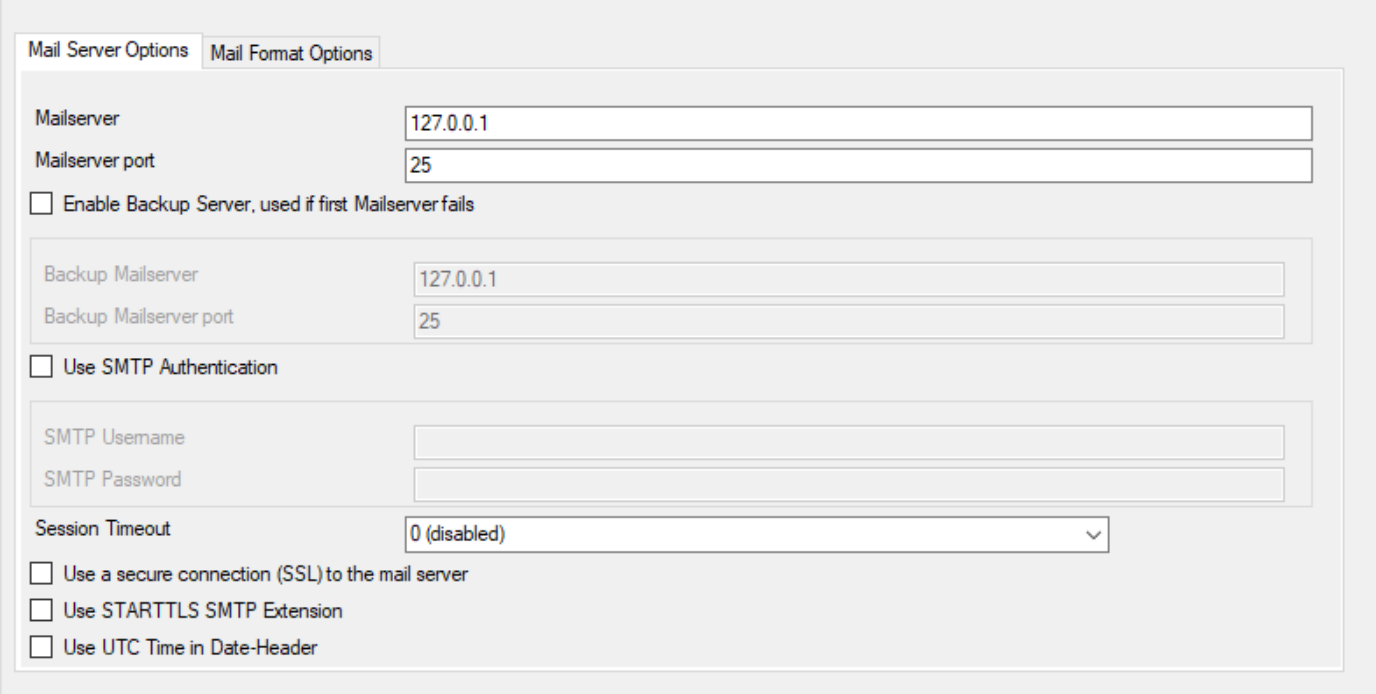
Insert Menu entry allows you to add replacement characters e.g. ``%msg%`` - you can write the actual message of an event into the Windows Event Log.

Please note that the message content of the message field can be configured. event properties are described in the property replacer section.

Send Email

This tab is used to configure mail (SMTP) parameters. These are the basic parameters for email forwarding. They need to be configured correctly, if mail message should be sent by the service.

Mail Server Options



- Action - Send Email - Mail Server Options*

Mailserver

File Configuration field:

szSMTPServer

Description:

This is the Name or IP address of the mail server to be used for forwarding messages. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address. Please note that this server must be able to relay messages if the recipient is not hosted at this server. Be sure to contact your mail server's administrator if in doubt on this issue.

The service expects to talk to a standard SMTP mail server. Message relaying to the final destination must be permitted.

Mailserver port

File Configuration field:

nSMTPPort

Description:

Port the mail server is to be contacted at. Usually, this is 25. It might, however, be changed in your system. Then, specify the port your mail server uses. If in doubt, try the default of 25 - or contact your mail server administrator.

Enable Backup Server, used if first Mailserver fails

File Configuration field:

nEnableBackupServer

Description:

When enabled, you can configure a second Mailserver that will be used if the regular Mailserver is not available/accessible.

Backup Mailserver

File Configuration field:

szSMTPServerBackup

Description:

In case that the connection to the main configured mail server cannot be established, the backup mail server is tried. Note that an error is only generated, if the connection to the backup server fails as well.

Backup Mailserver port

File Configuration field:

nSMTPPortBackup

Description:

Port the mail server is to be contacted at. Usually, this is 25. It might, however, be changed in your system. Then, specify the port your mail server uses. If in doubt, try the default of 25 - or contact your mail server administrator.

Use SMTP Authentication

File Configuration field:

nUseSMTPAuth

Description:

Select an authentication mode offered by your SMTP server: **None** or **Username and password (LOGIN)**. Older builds show a checkbox: unchecked means none; checked means LOGIN. For LOGIN, enter the username and password supplied by your mail server administrator.

Supported classic WinForms builds also offer **Microsoft 365 OAuth (application)**. See the section below for the customer setup guide.

Microsoft 365 application authentication

In builds offering the **SMTP authentication** selector in the Adiscon User Interface, choose **Microsoft 365 OAuth (application)** for unattended Exchange Online delivery. This first OAuth profile supports Microsoft 365; it does not configure other providers. **None** and **Username and password (LOGIN)** retain their existing behavior. OAuth never falls back to LOGIN.

Before configuring the action, ask your Microsoft 365 administrator to:

1. Register an application in Microsoft Entra and create a client secret. Record the tenant ID, application ID, secret value, and expiration.
2. Grant the Office 365 Exchange Online application permission `SMTP.SendAsApp` and grant administrator consent.
3. Register the application's service principal in Exchange Online using `New-ServicePrincipal`. Use the **Enterprise application** object ID; the app registration object ID is different.
4. Grant the Exchange service principal `FullAccess` to the selected mailbox with `Add-MailboxPermission`. Separately, grant it `SendAs` permission on the sender mailbox with `Add-RecipientPermission`. Confirm SMTP AUTH is permitted for the selected mailbox under the organization's policies.

Follow Microsoft's current OAuth SMTP application setup for the exact administrative commands and permissions.

For a complete administrator walkthrough and the Adiscon client fields, see Microsoft 365 OAuth for email alerts.

In the action, enter the tenant and application IDs as GUIDs, enter the client secret **value**, and use the mailbox address as the SMTP username. Select `smtp.office365.com`, port `587`, **Use SSL / TLS**, and **Use STARTTLS method**. Set the sender to a mailbox the application may send as. No interactive sign-in or refresh token is required.

Set **SMTP trusted CA file (PEM)** to a trusted CA bundle on the service machine, readable by the service account. The service verifies the SMTP certificate chain and server hostname against this bundle. A missing or invalid bundle,

failed STARTTLS, or invalid certificate stops delivery. The Microsoft token endpoint uses Windows HTTPS certificate verification.

The client secret is masked in the Adiscon User Interface and stored with the existing reversible credential encoding. This is not strong encryption. Restrict configuration file and registry access, including exported files and backups, to administrators and the service account. Rotate the secret before it expires and update the action. Do not include secrets or tokens in support evidence.

The corresponding file settings are `nUseSMTPAuth` (`0` none, `1` LOGIN, `2` OAuth), `szSMTPOAuthTenantId`, `szSMTPOAuthClientId`, `szSMTPOAuthClientSecret`, `nSMTPOAuthClientSecretEncrypted` (`on`), `szSMTPUsername`, and `szSMTPTLSCAFile`. Let the Adiscon User Interface write the encoded secret rather than placing a plaintext value in a file.

Session Timeout

File Configuration field:

nTimeoutValue

Description:

This option controls if multiple rapidly incoming messages should be combined to a single email message. The SMTP session with the server is held open for the specified timeout period. Please note that the period is specified in milliseconds, not seconds.

If a new event arrives within the specified timeout period, that event will be included in the same email message as the previous one. Then, the timeout is re-started. As such, any events coming in within successive timeout periods will be combined in a single mail.

This is most appropriate when large burst of messages are expected and these should be combined in few mail messages. Otherwise, multiple mail messages can easily overflow the administrator’s mailbox.

The session timeout is user configurable between 1 and 2147483647 milliseconds (32bit integer) or different pre-set values. Larger values are not supported as they probably affect the SMTP server performance and can lead to unpredictable results.

The session timeout of zero milliseconds has a special meaning: if it is selected, every event will be sent in a separate message, no matter how fast two messages occur after each other.

Use a secure connection (SSL) to the mail server

File Configuration field:

nUseSSL

Description:

This option enables SSL-secured traffic to the mail server. Please note, that this only works, if the receiving mail server supports SSL-secured transmission of emails.

Use STARTTLS SMTP Extension

File Configuration field:

nUseStartTLSMethod

Description:

Enable the STARTTLS SMTP extension when the mail server supports it. The server begins with a normal SMTP connection and upgrades it to a TLS-secured connection after the STARTTLS command.

Use UTC Time in Date-Header

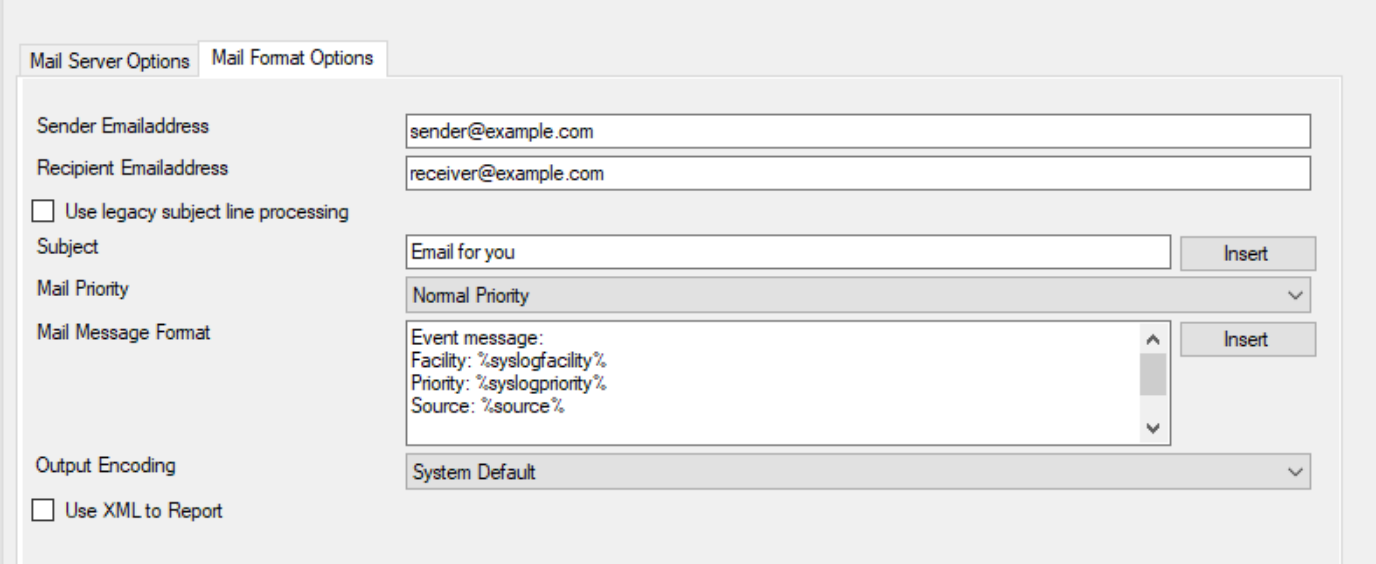
File Configuration field:

nUseUTCTimeStamp

Description:

Some Email Readers do not support UTC time in date-headers. Therefore here is a switch to turn the UTC time on or off.

Mail Format Options



- Action - Send Email - Mail Format Options*

Sender email address

File Configuration field:

szSMTPSender

Description:

Email address used as the sender address for outgoing messages. In order for your SMTP server to accept it, it probably must be a valid address.

Recipient email address

File Configuration field:

szSMTPRecipient

Description:

The recipient emails are addressed to. To send a message to multiple recipients, enter all recipient's email addresses in this field. Separate addressed by spaces, semicolons, or commas `(e.g. "receiver1@example.com, receiver2@example.com")`. Alternatively, you can use a single email address and define a distribution list in your mail software. The distribution list approach is best if the recipients frequently change or there is a large number of them. Multiple recipients are also supported. They can be delimited by space, comma, or semicolon.

Use legacy subject line processing

File Configuration field:

nUseLegacySubjectProcessing

Description:

This checkbox specifies which type of subject line processing will be done. If it is checked, the old-style processing using single character replacement sequences is applied. If it is left unchecked, the far more powerful event property based method is used.

In legacy mode, the following replacement characters are recognized inside the subject line:

`%s` IP address or name (depending on the "resolve hostnames" setting) of the source system that sent the message.

`%f` Numeric facility code of the received message

`%p` Numeric priority code of the received message

`%m` the message itself. Please note: this is the complete message text and can be rather lengthy. As such, it is most probably subject to truncation. If that occurs, all other information after the `%m` replacement character is also truncated. As such, we strongly recommend using the `%m` replacement at the end of the subject line only.

`%%` It represents a single `%` sign. As an example, you may have the subject line set to `Event from %s: "m"` and enabled legacy processing. If a message `This is a test` were received from `172.16.0.1`, the resulting email subject would read: `Event from 172.16.0.1: This is a test`

In non-legacy mode, the Property Replacer can be used. With it, you can include any property from the event message and also modify it. Please visit the Property Replacer documentation for details.

As an example, in non-legacy mode, you can set the subject line to `Mesg: '%msg:1:15%' From: %fromhost%`. If the message `This is a lengthy test message` were received from `172.16.0.1`, the resulting email subject would read: `Mesg: 'This is a lengt' From: 172.16.0.1`. Please note that the message is truncated because you only extracted the first 15 characters from the message text (position 1 to 15).

Subject

File Configuration field:

szSMTPSubject

Description:

Subject line to be used for outgoing emails and it is used for each message sent. It can contain replacement characters or “Event Properties” to customize it with event details. This is especially useful when sending email to cellular phones or pagers, which often display only the subject line and not the actual message body. The subject line – after expansion of the any replacement sequences – can hold a maximum of 255 characters. Characters beyond this will be truncated. Please note that many email systems impose a more strict limit and truncation may occur before the 255-character limit. It is advisable to limit the subject line length to 80 characters or less.

The mail body will also include full event information, including the source system, facility, priority, and actual message text as well as any other information that came with this event. As there is no size limitation for message bodies, the body always contains the full message received (except otherwise configured – see below).

Please note that Insert Menu entry allows you to add replacement characters e.g. `%msg%` - you can send out the actual message of an event in the subject line.

There will be one email for each received message. Email delivery is meant for urgent notifications and actions (e. g. calling pagers and such). It is not meant to provide an email report.

Please note that The message content of the Message field can be configured. Event properties are described in the property replacer section.

Mail Priority

File Configuration field:

nMailPriority

- 0 = low
- 1 = Default
- 2 = High

Description:

Here you can adjust the priority with which the mail will be sent. You can choose between “low”, “normal”, and “high” priority. With this you can give your setup some complexity, being able to send some events as “important” and others with less importance.

Mail Message Format

File Configuration field:

szSMTPBody

Description:

This is the format of the message body. Properties from the event can be included by using the Property Replacer. Please note that the message body is only sent if “Include Message/Event in Email Body” is checked.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

Determines the character encoding mode.

Use XML to Report

File Configuration field:

nUseXMLtoReport

Description:

If checked, the received event will be included in XML format in the mail. If so, the event will include all information, like the original timestamp, the facility, priority etc. XML format is especially useful if the mail is sent to an automated system, which will then parse the message.

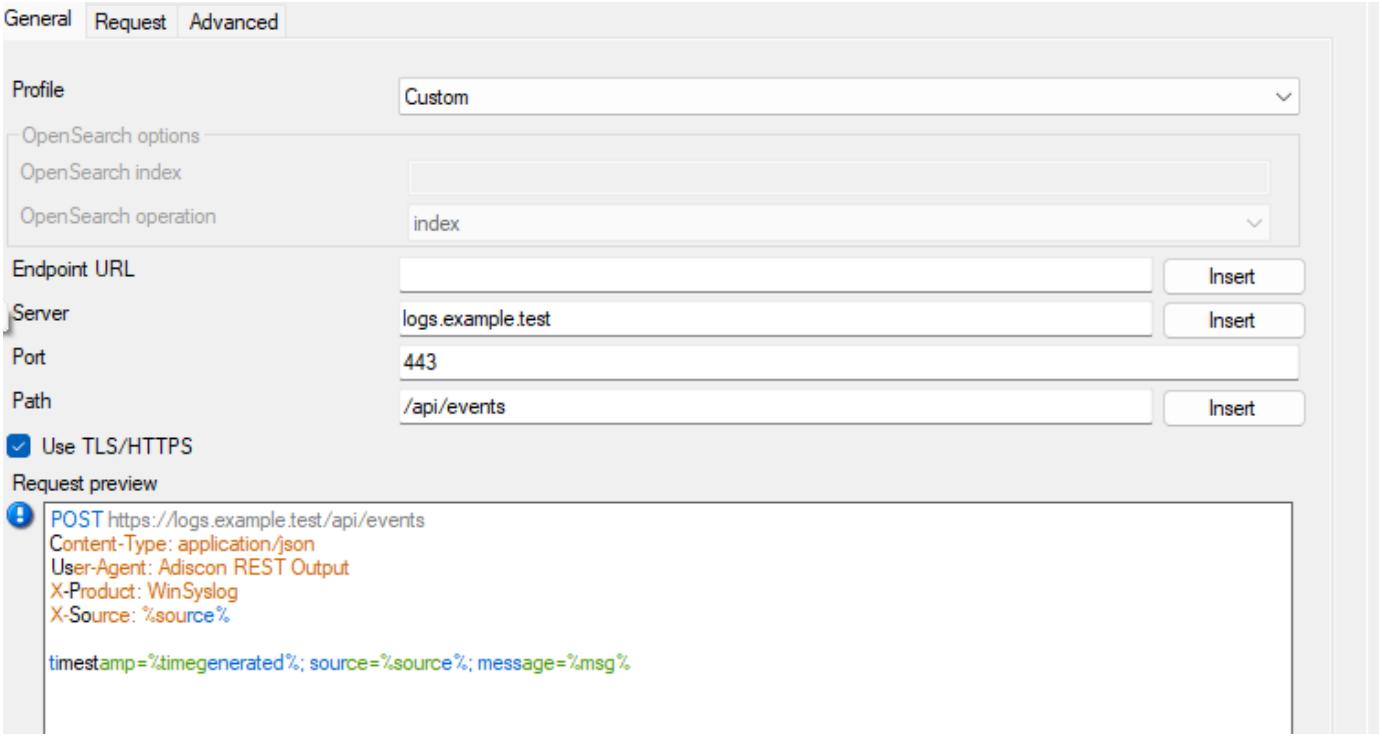
If unchecked, just the plain text message will be included in the mail. This format is more readable for a human reader.

HTTP REST Output

The **HTTP REST Output** action forwards matched events or messages to an HTTP or HTTPS endpoint. It is available on WinSyslog, EventReporter, and MonitorWare Agent starting with **26.07** (action type **1032**, `RestOutput`).

Use this action for webhooks, REST APIs, and OpenSearch bulk indexing. It is distinct from the older **HTTP Request** action, which performs a simpler HTTP call.

Action - HTTP REST Output - General



General tab

Profile

File Configuration field:

szProfile

Description:

Selects the request profile:

- **Custom** — full control over endpoint, method, headers, and body template.
- **OpenSearch bulk** — preconfigured layout for OpenSearch bulk API uploads.

Endpoint

File Configuration field:

szEndpoint

Description:

Optional full endpoint URL. When set, it can override separate server, path, and port fields depending on profile behavior. A preview shows the resolved URL in the client.

Server

File Configuration field:

szServer

Description:

Host name or IP address of the REST endpoint.

Path

File Configuration field:

szPath

Description:

URL path (default `/`).

Port

File Configuration field:

nPort

Description:

TCP port (`0` uses the default for HTTP or HTTPS).

Use TLS

File Configuration field:

bUseTLS

Description:

Use HTTPS instead of HTTP.

Ignore TLS certificate errors

File Configuration field:

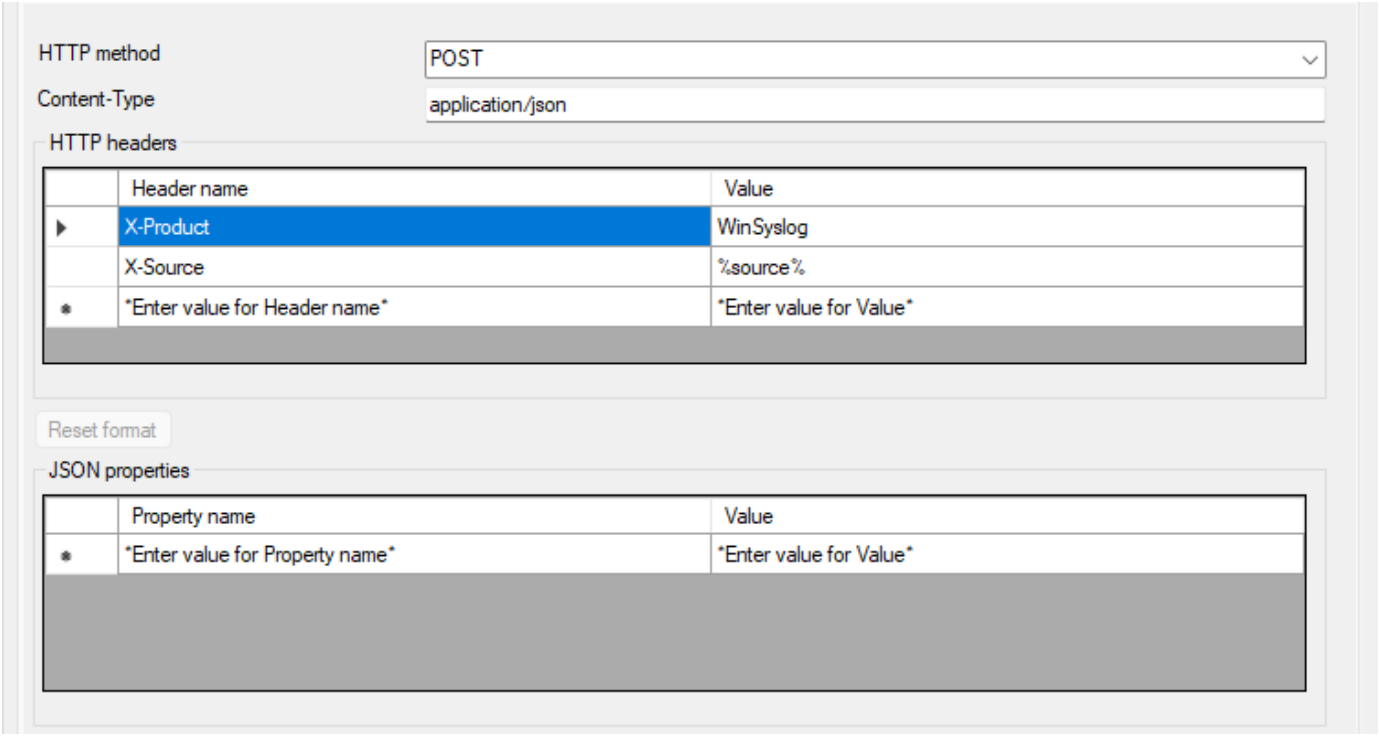
bIgnoreTlsCertificateErrors

Description:

Accept server certificates even when validation fails. Use only in controlled test environments.

Request tab

Action - HTTP REST Output - Request



Method

File Configuration field:

szMethod

Description:

HTTP method: `POST`, `PUT`, `PATCH`, `GET`, or `DELETE`.

Content-Type

File Configuration field:

szContentType

Description:

Value for the `Content-Type` header (for example `application/json`).

HTTP headers

File Configuration field:

szHttpHeaders

Description:

Additional headers as configured in the client header list.

Request template

File Configuration field:

szRequestTemplate

Description:

Body template for the HTTP request. Property replacers can embed event fields. The client supports mapping JSON properties to values for structured payloads.

OpenSearch bulk profile

When **OpenSearch bulk** is selected:

File Configuration field:

szOpenSearchIndex

Description:

Target index name.

File Configuration field:

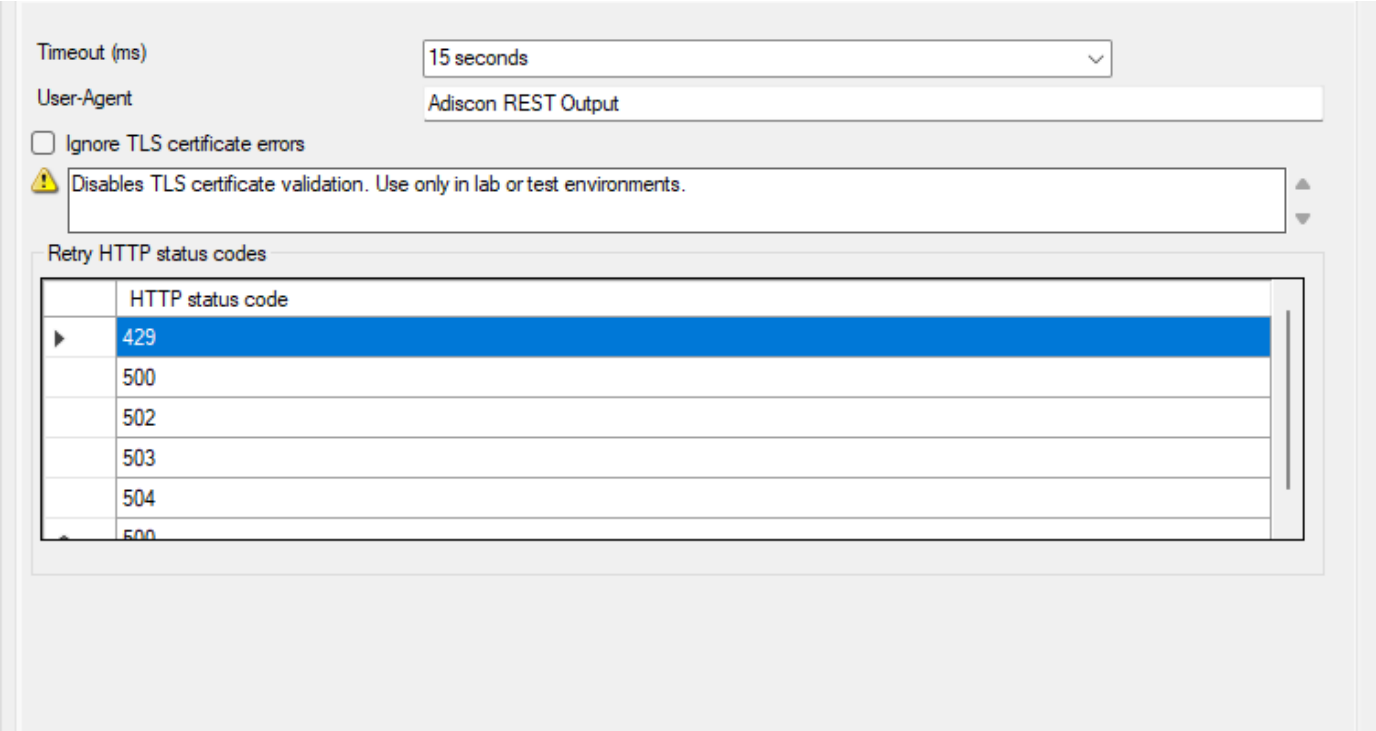
szOpenSearchOperation

Description:

Bulk operation type: `index` or `create`.

Advanced tab

Action - HTTP REST Output - Advanced



Timeout

File Configuration field:

nTimeoutMs

Description:

Maximum time in milliseconds to wait for the HTTP response (default 15000).

User-Agent

File Configuration field:

szUserAgent

Description:

`User-Agent` header sent with the request (default `Adiscon REST Output`).

Retry HTTP status codes

File Configuration field:

szRetryHttpStatusCodes

Description:

Comma-separated list of HTTP status codes that trigger a retry (default `429,500,502,503,504`). Individual codes can also be configured in the retry list in the client.

Related information

- HTTP Request
- Accessing Properties

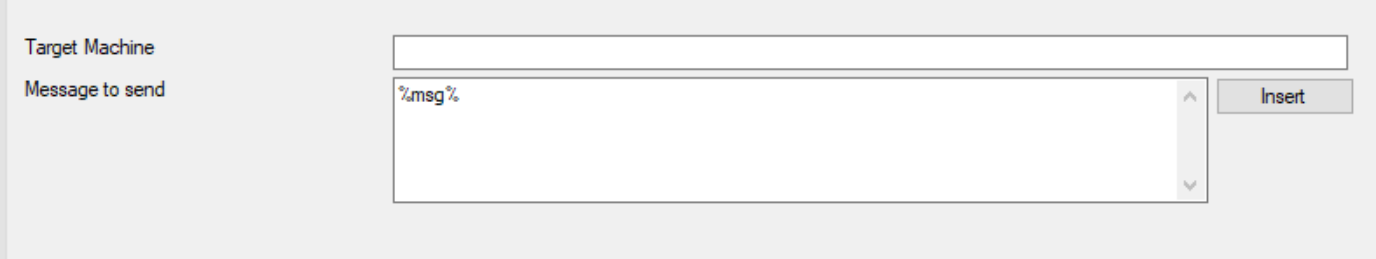
Net Send

Warning

Removed from configuration client (26.07): You cannot create new Net Send actions in WinSyslog, EventReporter, or MonitorWare Agent from the **26.07** configuration client onward. Existing configurations that still contain Net Send may load with a skip or warning; use **Send Email**, HTTP REST Output, or **Start Program** for alerting instead.

Deprecated: The Windows Messenger service (`net send` pop-up messages) is not available by default on modern Windows versions and may be blocked or unavailable in managed environments.

With the “Net Send” action, short alert messages can be sent via the Windows “net send” facility. These messages are delivered on a best-effort basis. If the recipient can be reached, they will pop up in a message box on the recipient’s machine. If the recipient cannot be reached, they will simply be discarded. No buffering takes place. Consequently, the rule engine does not check if the message can be delivered. It will never flag an action to be in error due to a reported delivery problem with “net send”.



- Action - Net Send*

Target Machine

File Configuration field:

szTarget

Description:

This is the Windows user name of the intended recipient, a NETBIOS machine name, or even an IP address (in the form of `10.1.1.1`). You can either use an IPv4, an IPv6 Address or a Hostname that resolves to an IPv4 or IPv6 Address.

Message to send

File Configuration field:

szMessage

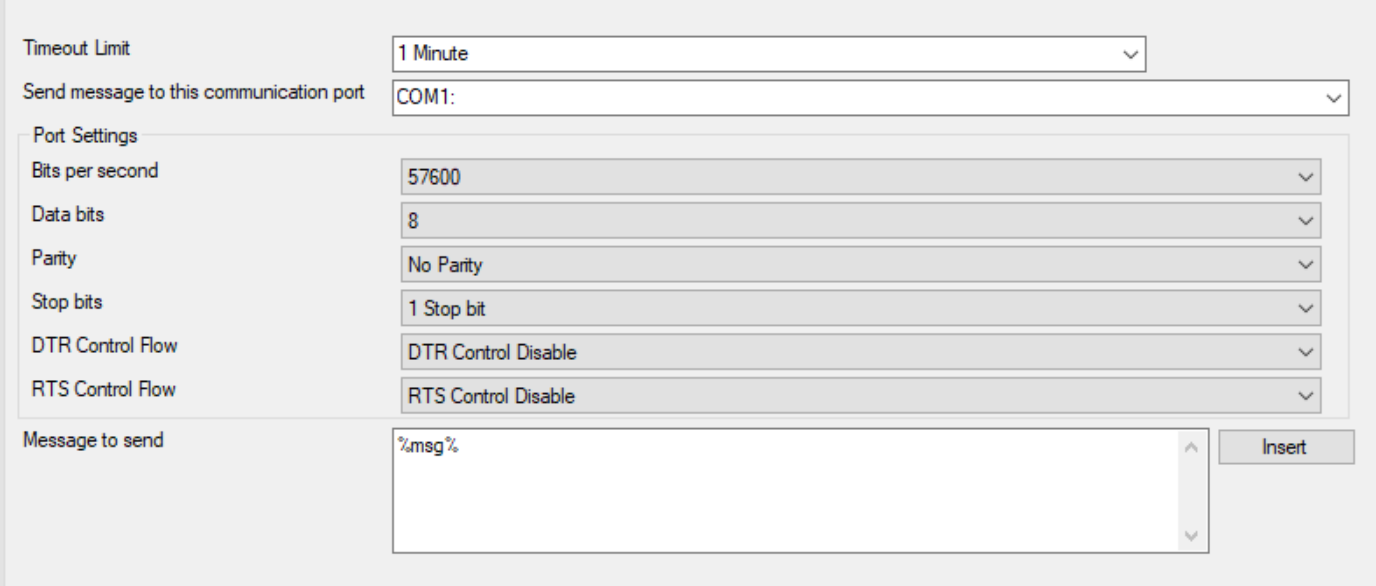
Description:

This is the message that is sent to the intended target.

Please note that the message content of the Message to send field can now be configured. event properties are described in the property replacer section.

Send to Communications Port

This action allows you to send a string to an attached communications device, that is, it sends a message through a Serial Port.



- Action - Send to Communication Port*

Timeout Limit

File Configuration field:

nTimeOutLimit

Description:

The maximum time allowed for the device to accept the message. If the message could not be sent within that period, the action is aborted. Depending on the device, it may be left in an unstable state.

Send message to this communication port

File Configuration field:

szPortName

Description:

Specify the port to which your device is being attached. Typically, this should be one of the COMx: ports. The list box shows all ports that can be found on your local machine. You may need to adjust this to a different value, if you are configuring a remote machine.

1. MSFAX
2. COM1
3. COM2
4. COM3
5. COM4
6. FILE
7. LPT1
8. LPT2
9. LPT3
10. AVMISDN1
11. AVMISDN2
12. AVMISDN3

13 AVMISDN4
.
14 AVMISDN5
.
15 AVMISDN6
.
16 AVMISDN7
.
17 AVMISDN8
.
18 AVMISDN9
.

Port Settings

File Configuration field:

szPortSettings

Description:

Use those settings that your device expects. Please consult your device manual if in doubt.

Bits per Seconds

File Configuration field:

nBps

Description:

Bits per second can be 110 and go up to 256000, by default 57600 is selected.

Databits

File Configuration field:

nDatabits

Description:

Databits defines that how many bits you want to send and receive to the communication port.

Parity

File Configuration field:

nParity

Description:

With Parity you can configure the Parity scheme to be used. This can be one of the following values:

1. Even
2. Mark
3. No parity
4. Odd
5. Space

Stop bits

File Configuration field:

nStopbits

Description:

You can configure the number of stop bits to be used. This can be one of the following values:

1. 1 stop bit

2. 1.5 stop bits
3. 2 stop bits

DTR Control Flow

File Configuration field:

nDtsControl

Description:

DTR (data-terminal-ready) flow control. This member can be one of the following values:

1. DTR_CONTROL_DISABLE - Disables the DTR line when the device is opened and leaves it disabled.
2. DTR_CONTROL_ENABLE - Enables the DTR line when the device is opened and leaves it on.
3. DTR_CONTROL_HANDSHAKE - Enables DTR handshaking.

RTS Control Flow

File Configuration field:

nRtsControl

Description:

RTS (request-to-send) flow control. This member can be one of the following values:

1. RTS_CONTROL_DISABLE - Disables the RTS line when the device is opened and leaves it disabled.
2. RTS_CONTROL_ENABLE - Enables the RTS line when the device is opened and leaves it on.
3. RTS_CONTROL_HANDSHAKE - Enables RTS handshaking. The driver raises the RTS line when the “type-ahead” (input) buffer is less than one-half full and lowers the RTS line when the buffer is more than three-quarters full.
4. RTS_CONTROL_TOGGLE - Specifies that the RTS line will be high if bytes are available for transmission. After all buffered bytes have been sent, the RTS line will be low.

Message to Send

File Configuration field:

szMessage

Description:

This is the message that is to be sent to the device. You can enter text plainly and you can also include all properties from the current event. For example, if you have a serial audit printer and you would just plainly like to log arrived messages to that printer, you could use the string “%msg%%$CRLF%” to write the actual message arrived plus a CRLF (line feed) sequence to the printer.

Please note that the message content of the Message field can now be configured. event properties are described in the property replacer section.

Send MSQueue

In order to use this Action, the “Microsoft Message Queue (MSMQ) Server” needs to be installed. This Action can be used to send a message into the Microsoft Message Queue.



- Action - Send MSQueue*

Server Computername/IP

File Configuration field:

szComputerName

Description:

Sets the computername or IP which contains the MSQueue you want to query. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

Queuename

File Configuration field:

szQueueName

Description:

Specify the Queuename into which you want to write.

Queue Priority

File Configuration field:

nMessagePriority

Description:

Configure or set the priority property here.

Queue Message Label

File Configuration field:

szQueueLable

Description:

Sets the Label text of a queue item.

Queue Message Body

File Configuration field:

szQueueBody

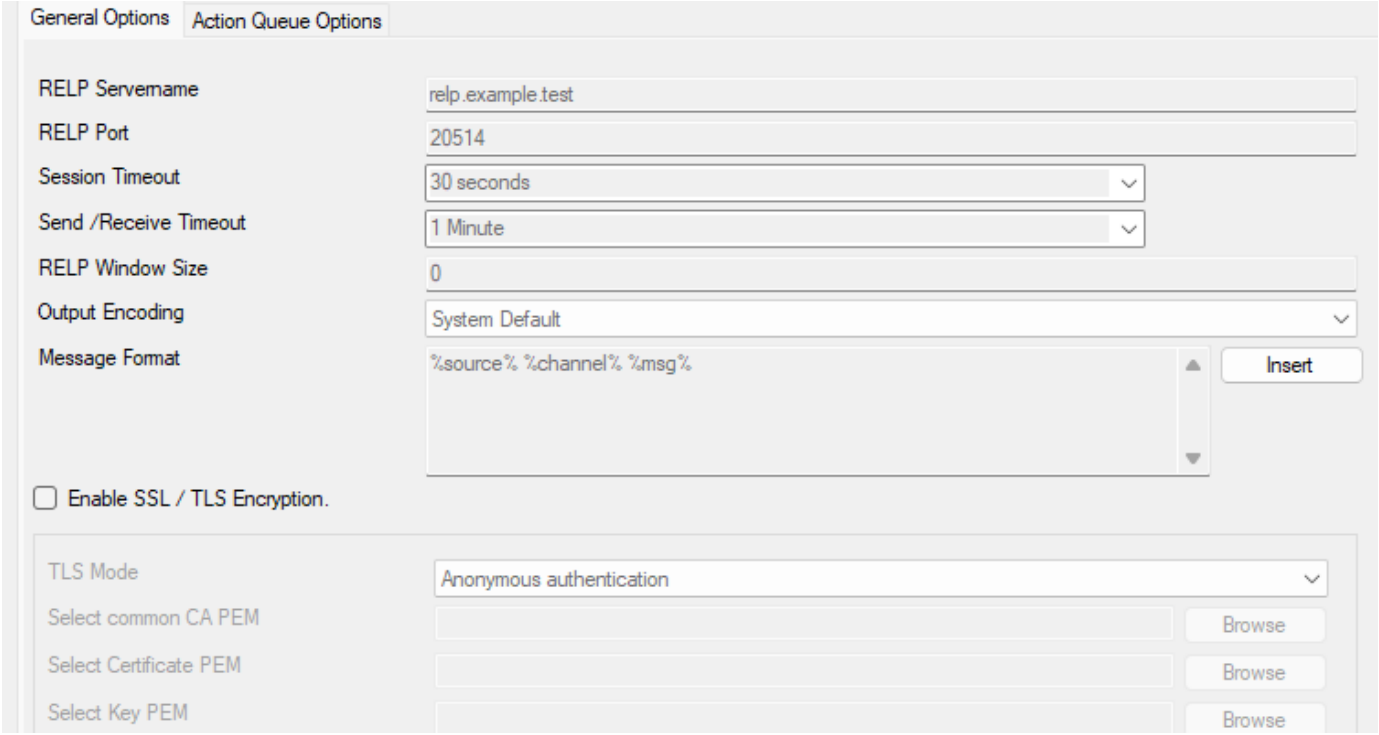
Description:

The text here will be set to the body of a queue item.

Send RELP

This action is roughly equivalent to the “send syslog” action, except that it utilizes the new reliable event logging protocol (RELP) for message transmission. It can only be used together with a RELP-enabled receiver but then provides enhance reliability in the communications process.

Note that for reliable operation where messages should be preserved over a service shutdown, queue cache mode must be activated. This is because RELP guards only the transmission channel, but not local processing.



- Action - Send RELP General*

RELP Servername

File Configuration field:

szSelpSendServer

Description:

This is the name or IP address of the system to which RELP messages should be sent to. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

RELP Port

File Configuration field:

nSelpSendPort

Description:

The remote port on the RELP server to report to. If in doubt, please leave it at the default value of 20514, which is typically the RELP port. Different values are only required for special setups, for example in security sensitive areas.

Instead of the port number, a service name can be used. If so, that name is looked up via the socket service database functions.

Session Timeout

File Configuration field:

nTimeOutSession

Description:

The maximum time a session to a SETP server is to be kept open.

Send / Receive Timeout

File Configuration field:

nSendTimeOut

Description:

The maximum time a server waits for a response of a remote server. When the timeout expires without receiving a response, the connection is broken and (based on rule settings) being reestablished. This can be a useful option if the remote system drops connections for whatever reason AND the sender system is not notified about this (which, for example, can happen due to some firewall configurations).

RELP Window Size

File Configuration field:

nSelpWindowSize

Description:

Configures the RELP send window size (0–4096). When greater than `1`, the value is passed to the RELP client library to control how many messages can be in flight before acknowledgment. Use `0` or `1` for default librelp behavior. Tune this when you need higher throughput on reliable links or stricter flow control on constrained links.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

Allows you to specify the character encoding for messages sent to the RELP server. The default setting is “System Default”, which uses the system’s default character encoding. Other common options include UTF-8, ASCII, and other standard encodings.

Message format

File Configuration field:

szMessage

Description:

You can change the message format. By default the original message is forwarded.

Please note that the message content of the Message field can be configured. event properties are described in the property replacer section.

Enable SSL / TLS Encryption

File Configuration field:

nUseSSL

Description:

If this option is enabled, the action will use SSL/TLS encryption for secure communication with the RELP server. When disabled, messages will be sent unencrypted. Note that if this option is enabled, the action will not be able to talk to a NON-SSL secured server.

TLS Mode

File Configuration field:

nTLSMode

Description:

Anonymous Authentication Default option. This means that a default certificate will be used.

Use Certificate If this option is enable, you can specify your own certificate. For further authentication solutions, you will need to create your own certificates using OpenSSL Tools for example.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Select the certificate from the common Certificate Authority (CA). The RELP Receiver should use the same CA.

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Select the client certificate (PEM Format).

Select Key PEM

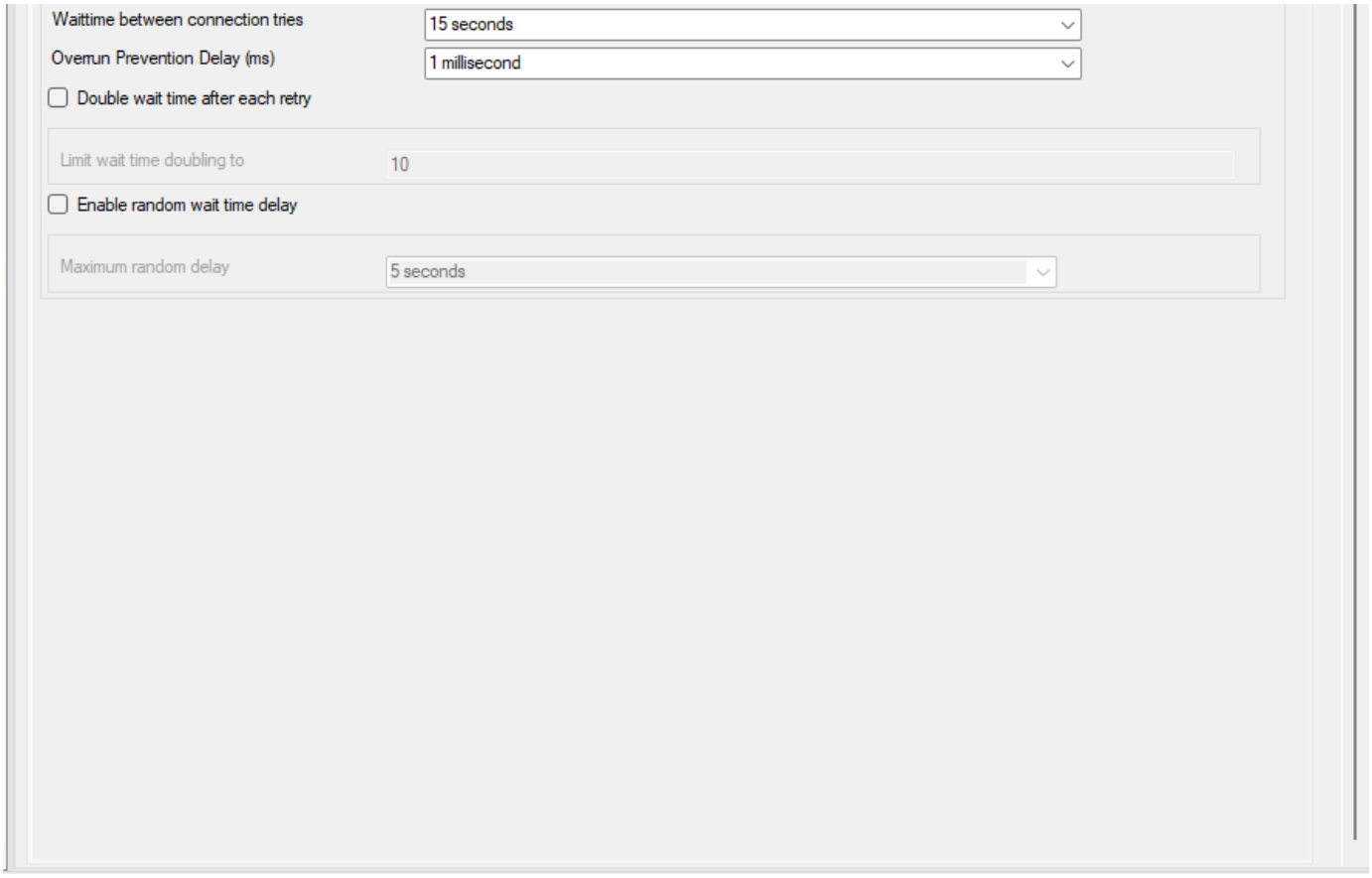
File Configuration field:

szTLSKeyFile

Description:

Select the keyfile for the client certificate (PEM Format).

Action Queue Options



MonitorWare Agent - Send RELP Action Queue Options

Use Diskqueue if connection to Syslog server fails

File Configuration field:

nUseDiscQueue

Description:

Enable diskqueuing syslog messages after unexpected connection loss.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

The directory where the queue files will be generated in. The queuefiles will be generated with a dynamic UUID bound to the action configuration.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

The minimum waittime until the Syslog Action retries to establish a connection to the Syslog server after failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

When the Action is processing syslog cache files, an overrun prevention delay can be added to avoid flooding the target Syslog server.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

If enabled, the configured waittime is doubled after each try.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

If enabled, a some random time will be added into the waittime delay. When using many syslog senders, this can avoid that all senders start sending cached syslog data to the Syslog server at the same time.

Maximum random delay

File Configuration field:

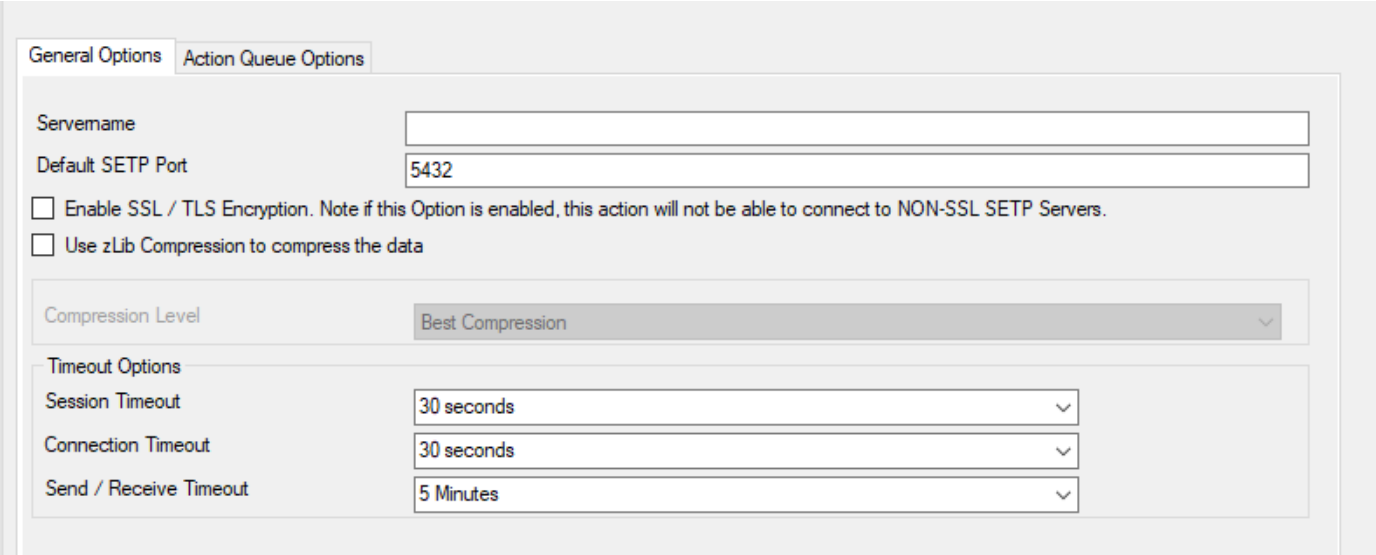
nCacheRandomDelayTime

Description:

Maximum random delay time that will be added to the configured waittime if Enable random wait time delay is enabled.

Send SETP

With the “Send SETP” action, messages can be sent to a SETP server.



- Action - Send SETP General*

Servername

File Configuration field:

szServer

Description:

The product sends setp to the server/listener under this name. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

Default SETP Port

File Configuration field:

nMIAPSendPort

Description:

The Send setp sends outgoing requests on this port. The default value is 5432. Set the port to 0 to use the system-supplied default value (which defaults to 5432 if not modified by a system administrator).

Instead of the port number, a service name can be used. If so, that name is looked up via the socket service database functions. The lookup is for protocol TCP.

Please Note: The SETP port configured here must match the port configured at the listener side (for example, WinSyslog Enterprise edition). If they do not match, a Send SETP session cannot be initiated. The rule engine will log this to the Windows Event Log.

Enable SSL / TLS Encryption

File Configuration field:

nUseSSL

Description:

If this option is enabled then this action will be able to connect to SSL/TLS setp servers. Please make sure that you want this option to be enabled.

Use zLib Compression to compress the data

File Configuration field:

nZlibComp

Description:

It enables zLib compression support. Note that the SETP receiver must have zLib Compression support and enabled, otherwise it does not work.

Compression Level

File Configuration field:

nCompLevel

- 1 = Best Speed
- 3 = Low Compression
- 6 = Normal Compression
- 9 = Best Compression

Description:

Higher level results in better compression but slower performance.

Session Timeout

File Configuration field:

nTimeOutSession

Description:

The maximum time a session to a SETP server is to be kept open.

Connection Timeout

File Configuration field:

nConnectTimeOut

Description:

Maximum time a connection can take to connect or disconnect.

Send / Receive Timeout

File Configuration field:

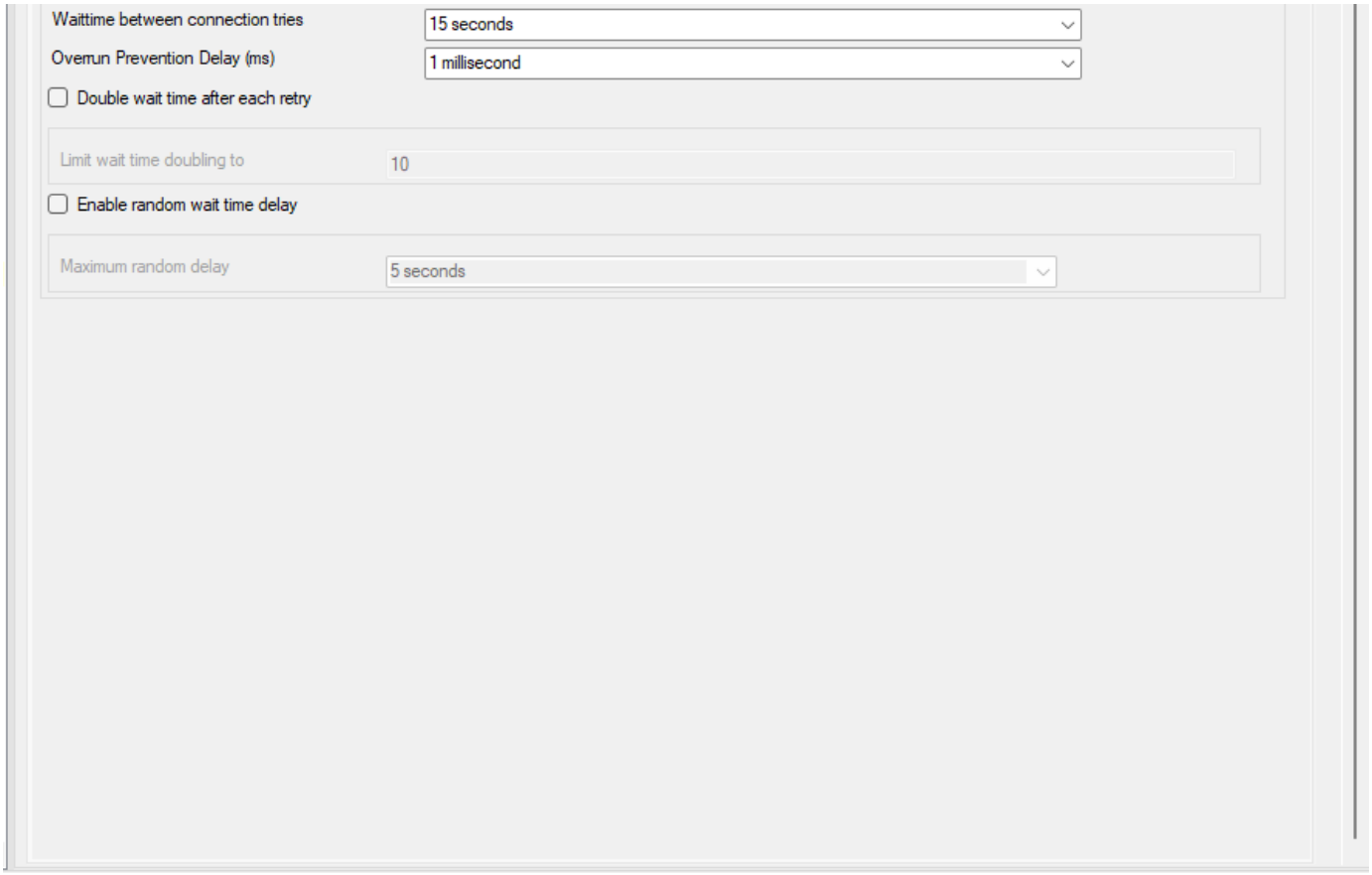
nSendRecvTimeOut

Description:

When sending or receiving data, this timeout applies.

Please note: If this option is enabled, this action is not be able to connect to NON-SSL SETP servers.

Action Queue Options



MonitorWare Agent - Send SETP Action Queue Options

Use Diskqueue if connection to Syslog server fails

File Configuration field:

nUseDiscQueue

Description:

Enable diskqueuing syslog messages after unexpected connection loss.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

The directory where the queue files will be generated in. The queuefiles will be generated with a dynamic UUID bound to the action configuration.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

The minimum waittime until the Syslog Action retries to establish a connection to the Syslog server after failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

When the Action is processing syslog cache files, an overrun prevention delay can be added to avoid flooding the target Syslog server.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

If enabled, the configured waittime is doubled after each try.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

If enabled, a some random time will be added into the waittime delay. When using many syslog senders, this can avoid that all senders start sending cached syslog data to the Syslog server at the same time.

Maximum random delay

File Configuration field:

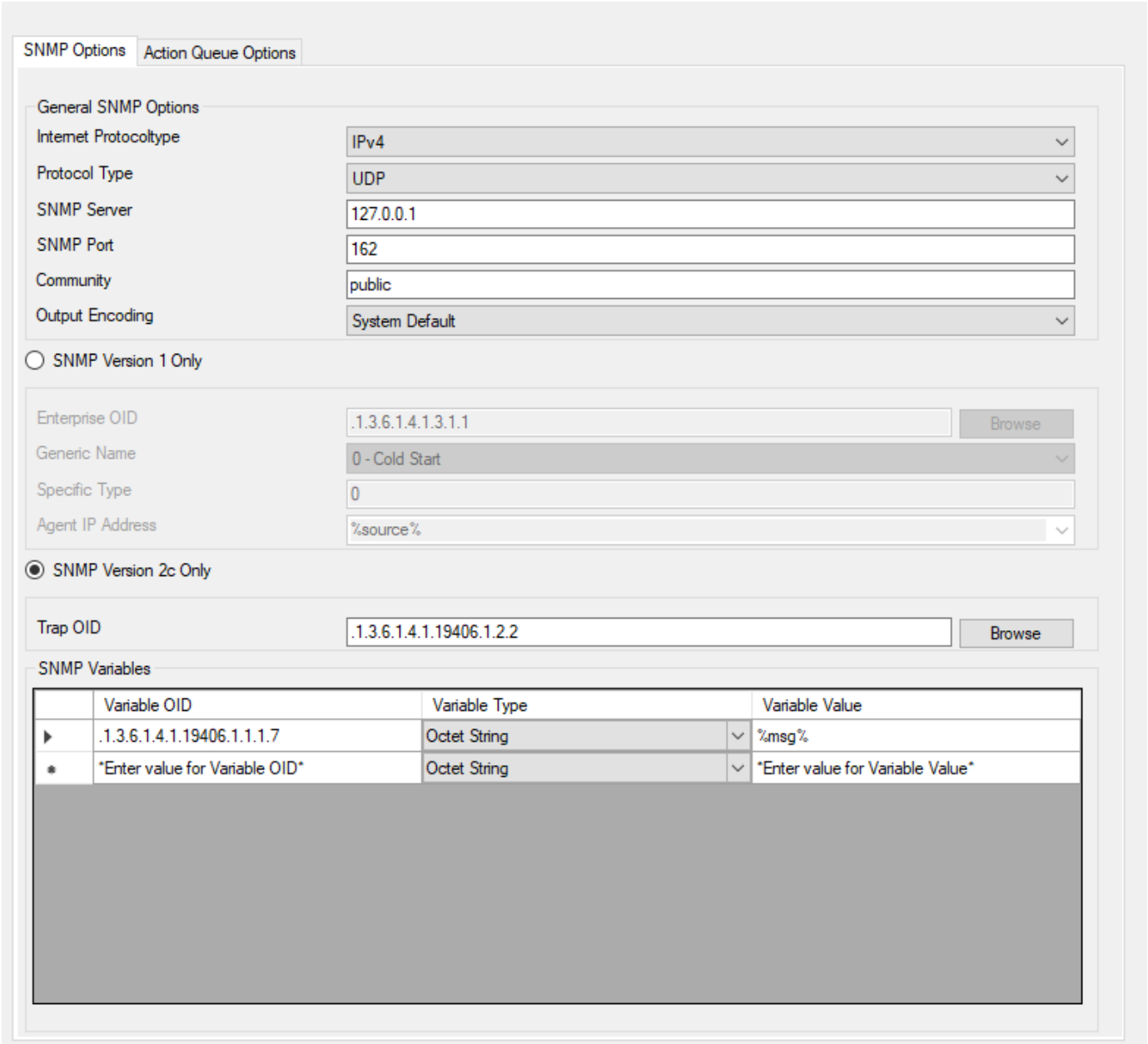
nCacheRandomDelayTime

Description:

Maximum random delay time that will be added to the configured waittime if Enable random wait time delay is enabled.

Send SNMP Trap

General Options



- Action - Send SNMP Trap Options*

SNMP Version

You can choose between SNMP Version 1 Only and SNMP Version 2c Only. Both options have different SNMP related configuration properties which need to be configured.

Internet Protocoltype

File Configuration field:

nInetType

Description:

Select the desired protocol type. IPv4 and IPv6 are available. The IPv6 protocol needs to be properly installed in order to be used. Note that one Service can only handle IPv4 or IPv6, so if you want to use both protocols, you will need to create two separate services.

Protocol Type

File Configuration field:

nProtocolType

Description:

You can select to listen on UDP or TCP protocol for SNMP Traps.

SNMP Server

File Configuration field:

szAgent

Description:

Specify the agent that has to receive the SNMP trap. Please note that specifying a host name can cause the SMTP probe to fail if DNS name resolution fails (for example due to a failing DNS server). To avoid this, specify an IP address. You can either use an IPv4, an IPv6 Address or a Hostname that resolves to an IPv4 or IPv6 Address.

SNMP Port

File Configuration field:

nPort

Description:

This port is to be probed. Please see your server's reference for the actual value to use. For example, mail servers typically listen to port 25 and web servers to 80.

Community

File Configuration field:

szCommunity

Description:

Specify the SNMP community to which the messages belong too.

SNMP V1 Specific Parameters

Under this group box you can see the parameters related to SNMP version 1.

Enterprise OID

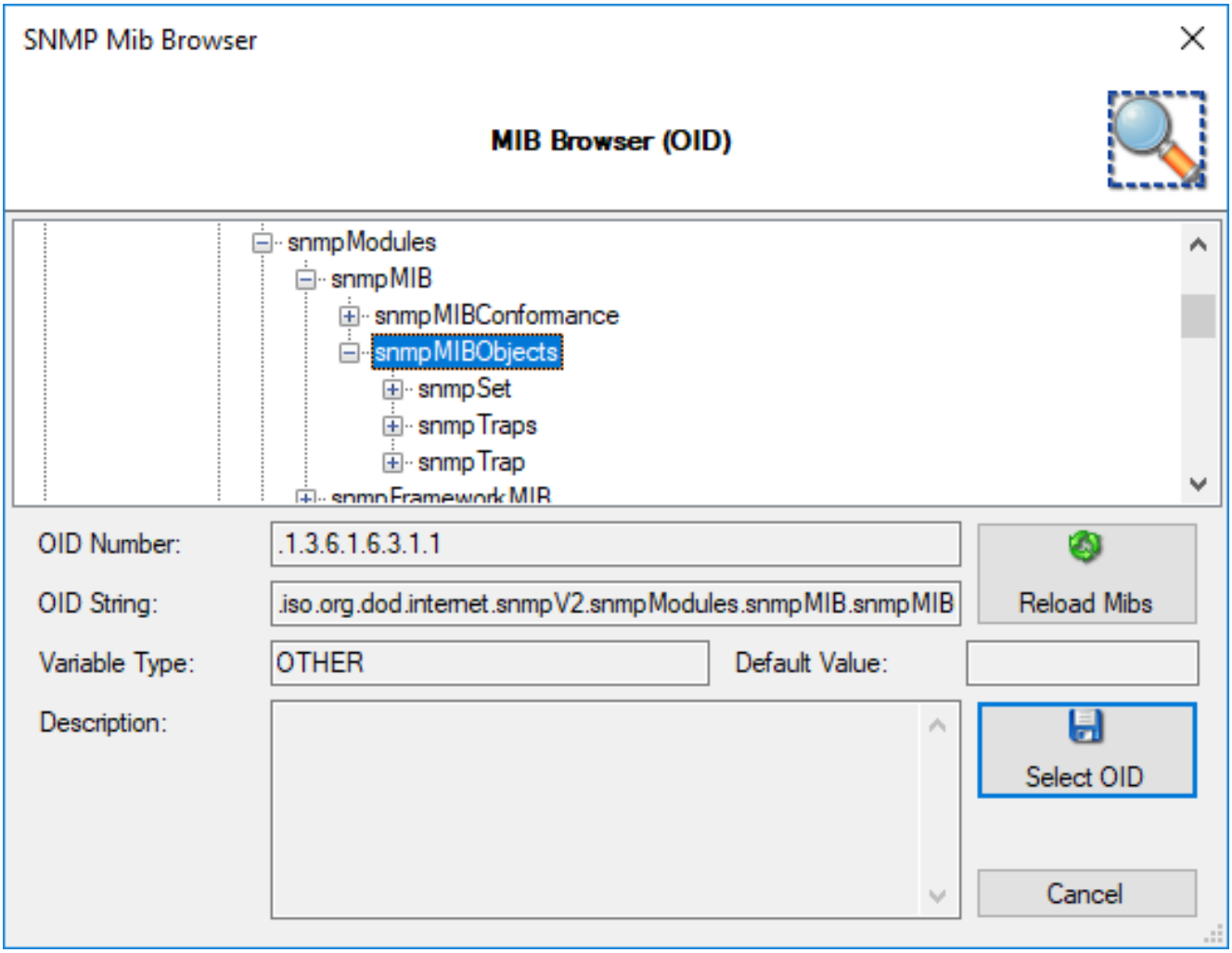
File Configuration field:

nInetType

Description:

It is also an optional value which can be used to specify a UserAgent that is send in the HTTP header.

Specify the enterprise object ID here. You can use Browse option to select your OID. If you click the Browse link, the screen similar to shown below is appeared:



MIB Browser

You can select your MIB here.

Generic Name

File Configuration field:

nGenericName

- 0 - Cold Start
- 1 - Warm Start
- 2 - Link Down
- 3 - Link Up
- 4 - Authentication Failure
- 5 - EGP Neighbor Loss
- 6 - Enterprise Specific

Description:

You can specify the generic name of the trap which can be one of these: coldStart(0), warmStart(1), linkDown(2), linkUp(3), authenticationFailure(4), egpNeighborLoss(5), or enterpriseSpecific(6).

Specific Type

File Configuration field:

nSpecificType

Description:

You can define an additional code for the trap. It is also an Integer value.

Agent IP Address

File Configuration field:

szAgentIP

Description:

The SNMPv1 Agent Address field can be set to other IP Addresses here. Hostnames will automatically be resolved if possible. By default we are using the %source% property.

SNMP Variables

These are the variables to send in the SNMP Trap. If you know the trap codes, you can enter them manually, otherwise use the built-in SNMP MIB Browser.

Variable OID

File Configuration field:

szVariableOID_[n]

Description:

OID of the SNMP Trap. Use the built-in SNMP MIB Browser for a list of known and available OIDs.

Variable Type

File Configuration field:

nVariableType_[n]

- 1 = TYPE_OBJID
- 2 = TYPE_OCTETSTR
- 3 = TYPE_INTEGER
- 5 = TYPE_IPADDR
- 6 = TYPE_COUNTER
- 7 = TYPE_GAUGE
- 8 = TYPE_TIMETICKS
- 12 = TYPE_BITSTRING
- 14 = TYPE_UINTEGER
- 15 = TYPE_UNSIGNED32
- 16 = TYPE_INTEGER32

Description:

The variable type of the variable, usually OCTETSTRING or INTEGER. Depending on this type, the Variable value needs to be formatted correctly (Like for the type IPADDR).

Variable Value

File Configuration field:

szVariableValue_[n]

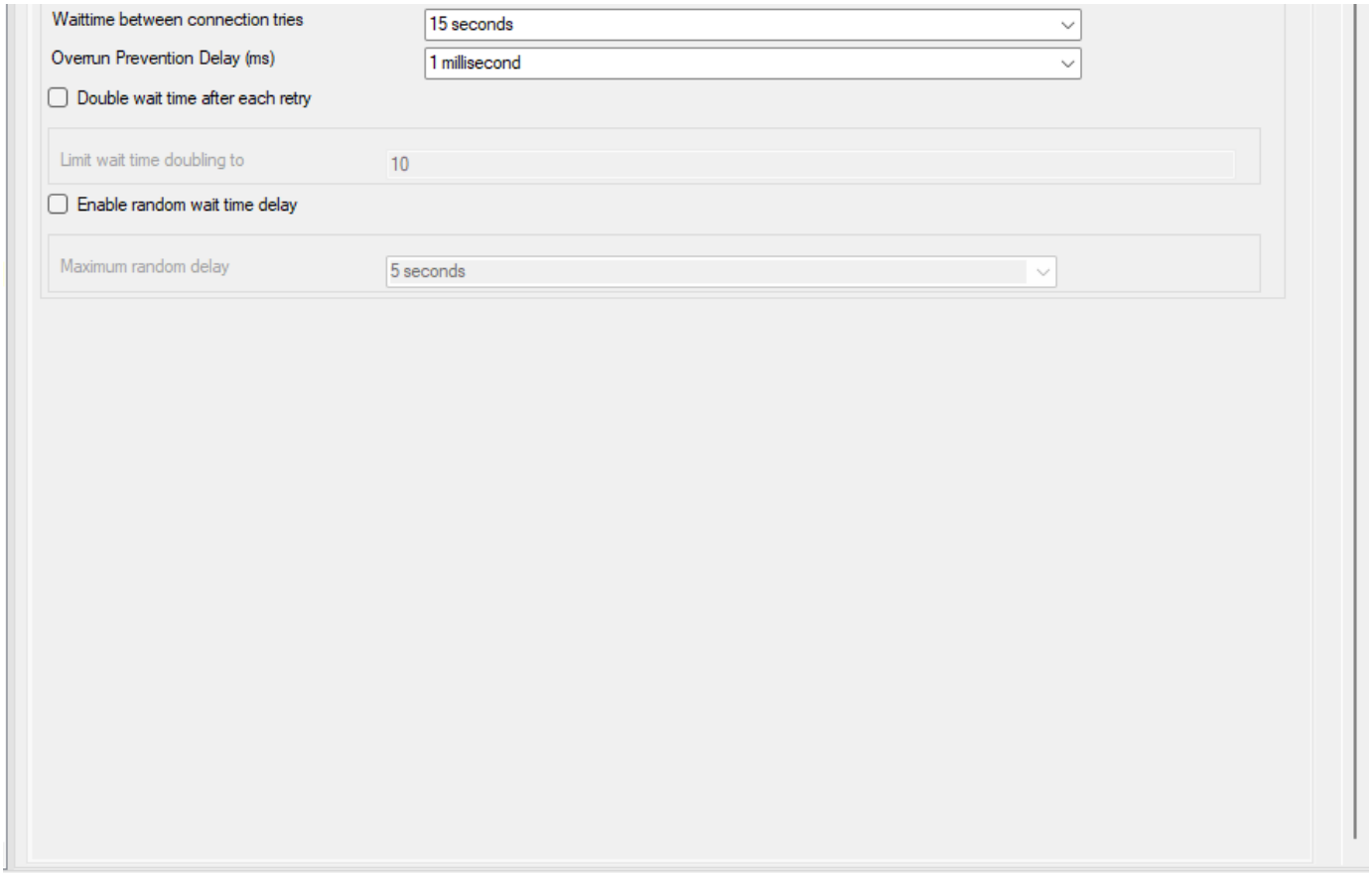
Description:

The value of the Variable. It needs to be formatted depending on the variable type.

Please Note:

The “Send SNMP Trap”-Action is capable of sending all kinds of Traps. You can choose the whole variety of the MonitorWare Products’ Properties as a value for the messages. With that, you can send SNMP Traps to the Windows internal SNMP Agent or any other device that is able to receive SNMP Traps. Of course you have full enterprise support, too. This gives you the possibility to involve every machine on your network into your security plan or whatever purpose it should serve.

Action Queue Options



MonitorWare Agent - Send SNMP Trap Action Queue Options

Use Diskqueue if connection to Syslog server fails

File Configuration field:

nUseDiscQueue

Description:

Enable diskqueuing syslog messages after unexpected connection loss.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

The directory where the queue files will be generated in. The queuefiles will be generated with a dynamic UUID bound to the action configuration.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

The minimum waittime until the Syslog Action retries to establish a connection to the Syslog server after failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

When the Action is processing syslog cache files, an overrun prevention delay can be added to avoid flooding the target Syslog server.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

If enabled, the configured waittime is doubled after each try.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

If enabled, a some random time will be added into the waittime delay. When using many syslog senders, this can avoid that all senders start sending cached syslog data to the Syslog server at the same time.

Maximum random delay

File Configuration field:

nCacheRandomDelayTime

Description:

Maximum random delay time that will be added to the configured waittime if Enable random wait time delay is enabled.

Syslog Forwarding

Protocol Type

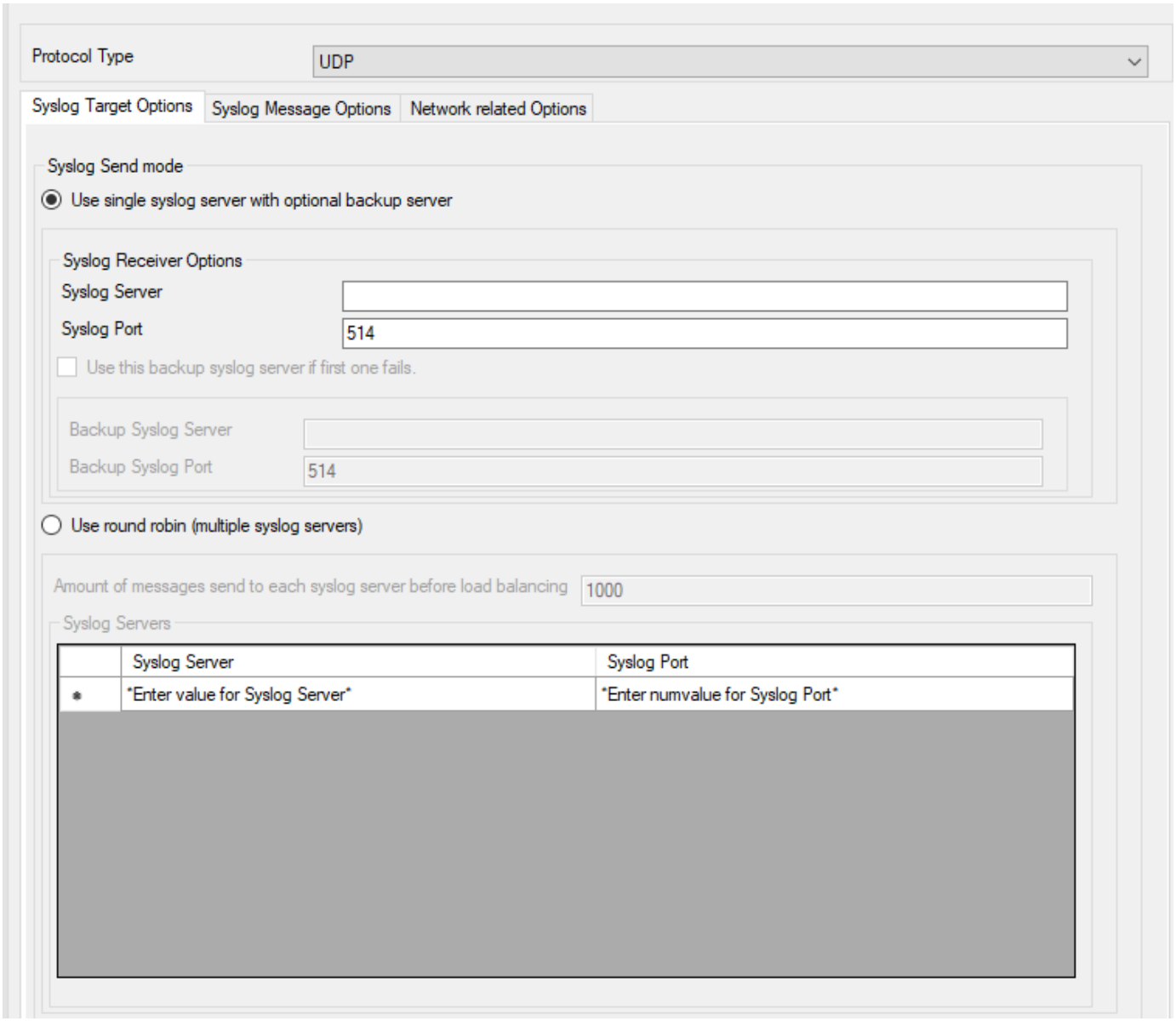
There are various ways to transmit syslog messages. In general,they can be sent via UDP, TCP, or RFC 3195 RAW. Typically, syslog messages are received via UDP protocol, which is the default. UDP is understood by almost all servers, but does not guarantee transport. In plain words, this means that syslog messages sent via UDP can get lost if there is a network error, the network is congested or a device (like a router or switch) is out of buffer space. Typically, UDP works quite well. However, it should not be used if the loss of a limited number of messages is not acceptable.

TCP and RFC 3195 based syslog messages offer much greater reliability. RFC 3195 is a special standardized transfer mode. However, it has not receive any importance in practice. Servers are hard to find. As one of the very few, Adiscon products support RFC 3195 also in the server implementations. Due to limited deployment, however, RFC 3195 is very little proven in practice. Thus we advise against using RFC 3195 mode if not strictly necessary (e.g. part of your requirement sheet).

TCP mode comes in three flavors. This stems back to the fact that transmission of syslog messages via plain TCP is not yet officially standardized (and it is doubtful if it ever will be). However, it is the most relevant and most widely implemented reliable transmission mode for syslog. It is a kind of unwritten industry standard. We support three different transmission modes offering the greatest compatibility with all existing implementations. The mode “TCP (one message per connection)” is a compatibility mode for Adiscon servers that are older than roughly June 2006. It may also be required for some other vendors. We recommend not to use this setting, except when needed. “TCP (persistent connection)” sends multiple messages over a single connection, which is held open for an extended period of time. This mode is compatible with almost all implementations and offers good performance. Some issues may occur if control characters are present in the syslog message, which typically should not happen. The mode “TCP (octet-count based framing)” implements algorithms of an IETF standard RFC 6587. It also uses a persistent connection. This mode is reliable and also deals with embedded control characters very well. This standard is now widely supported by modern syslog receivers and implementations.

As a rule of thumb, we recommend to use “TCP (octet-count based framing)” if you are dealing only with (newer) Adiscon products. Otherwise, “TCP (persistent connection)” is probably the best choice. If you select one of these options, you can also select a timeout. The connection is torn down if that timeout expires without a message being sent. We recommend to use the default of 30 minutes, which should be more than efficient. If an installation only occasionally sends messages, it could be useful to use a lower timeout value. This will free up connection slots on the server machine.

Syslog Target Options



- Action - Forward Syslog Target Options*

Syslog Send mode

File Configuration field:

nSendMode

Description

The Sendmode has been added since 2018 into all products supporting the forward syslog action. There are two options available.

Use single Syslog server with optional backup server This is the classic syslog send mode which uses a primary Syslog server and a secondary backup Syslog server if configured.

Use round robin (multiple syslog servers) This new method allows you to configure multiple targets that will be used one by one after a configured amount of messages has been sent to each target.

Syslog server (Syslog Send mode)

File Configuration field:

szSyslogSendServer

Description:

This is the name or IP address of the system to which Syslog messages should be sent to. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

Syslog Port (Syslog Send mode)

File Configuration field:

nSyslogSendPort

Description:

The remote port on the Syslog server to report to. If in doubt, please leave it at the default value of 514, which is typically the Syslog port. Different values are only required for special setups, for example in security sensitive areas. Set the port to 0 to use the system-supplied default value (which defaults to 514 on almost all systems).

Instead of the port number, a service name can be used. If so, that name is looked up via the socket service database functions.

Use this backup Syslog server if first one fails

File Configuration field:

nEnableBackupServer

Description:

The backup server is automatically used if the connection to the primary server fails. The primary server is automatically retried when the next Syslog session is opened. This option is only available when using TCP syslog.

Use round robin (multiple Syslog server)

Amount of messages send to each Syslog server before load balancing

File Configuration field:

nRoundRobinMsgCount

Description:

When using round robin mode, this is the amount of messages to be sent to each configured Syslog server.

Syslog server (Round robin mode)

File Configuration field:

szSyslogServer_[n]

Description:

This is the name or IP address of the system to which Syslog messages should be sent to. You can either use an IPv4, an IPv6 Address, or a Hostname that resolves to an IPv4 or IPv6 Address.

Syslog Port (Round robin mode)

File Configuration field:

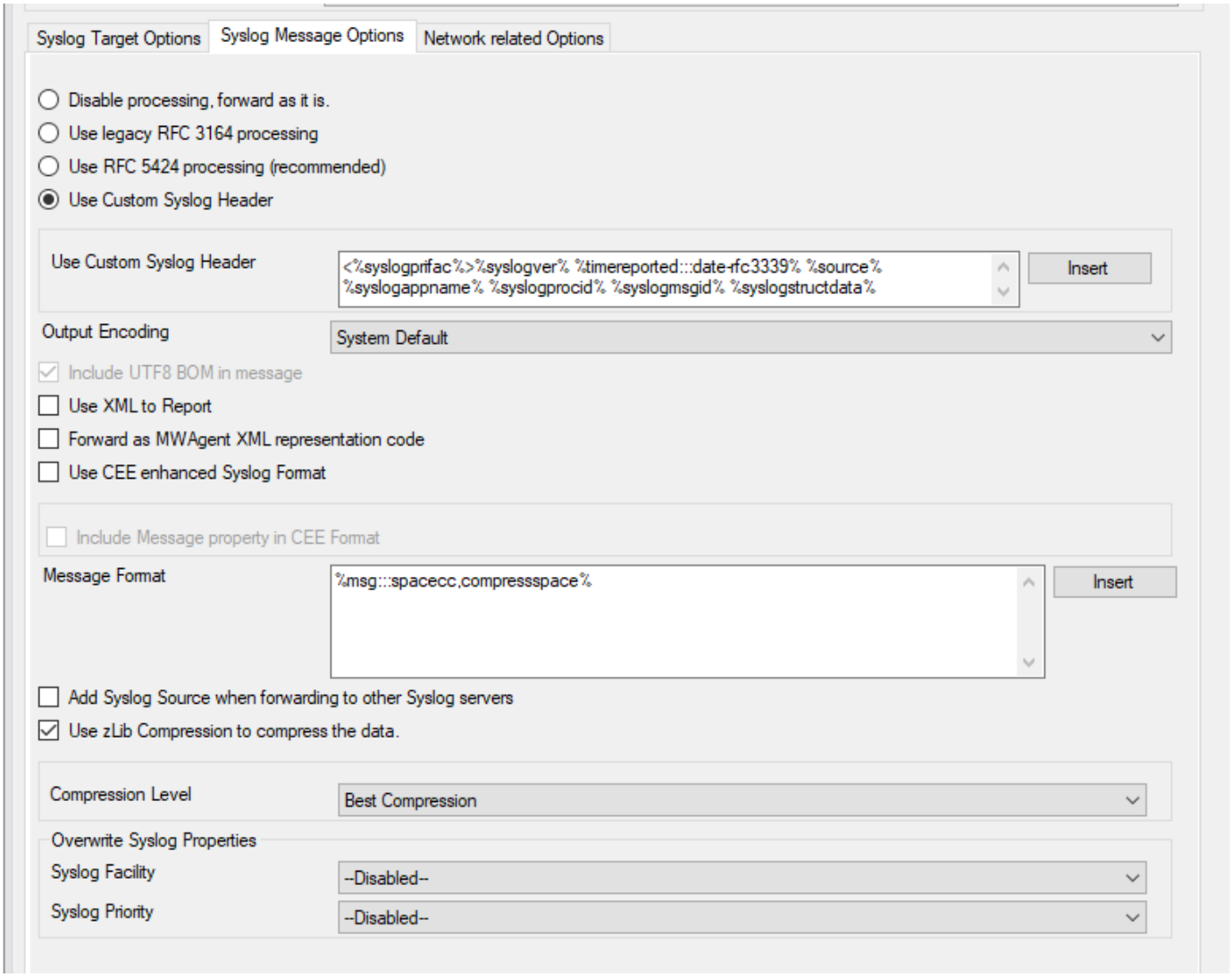
nSyslogPort_[n]

Description:

The remote port on the Syslog server to report to. If in doubt, please leave it at the default value of 514, which is typically the Syslog port. Different values are only required for special setups, for example in security sensitive areas. Set the port to 0 to use the system-supplied default value (which defaults to 514 on almost all systems).

Instead of the port number, a service name can be used. If so, that name is looked up via the socket service database functions.

Syslog Message Options



- Action - Forward Syslog - Message Options*

Syslog processing

File Configuration field:

bProcessDuringRelay

- 0 = Disable processing, forward as it is
- 1 = RFC3164 Header - Use legacy RFC 3164 processing
- 2 = RFC5424 Header - Use RFC 5424 processing (recommended)
- 3 = Custom Syslog Header

Description:

With this settings you can assign how your syslog messages will be processed.

For processing syslog you can choose out of four different options. You can use rfc3164 or RFC5424 (recommended) which is the current syslog standard, you are able to customize the syslog header or you do not process your syslog and forwards it as it is.

Use Custom Syslog Header

File Configuration field:

szCustomSyslogHeader

Description:

In this field you can specify the contents of your syslog header. This option is only available when you choose “Use Custom Syslog Header” in the Syslog Processing menu. The contents can be either a fixed message part which you can write into the field yourself or you use properties as dynamic content. By default the Header field is filled with the content of the RFC 5424 header.

Please note that the header content of the Header field can be configured. event properties are described in the property replacer section.

Output Encoding

File Configuration field:

nOutputEncoding

Description:

This setting is most important for Asian languages. A good rule is to leave it at “System Default” unless you definitely know you need a separate encoding. “System Default” works perfect in the far majority of cases, even on Asian (e.g. Japanese) Windows versions.

Include UTF8 BOM in message

File Configuration field:

nProtocolType

Description:

If enabled (default), the UTF8 BOM code will be prepended to the output message if you are using UTF8 Output encoding. If the syslog receiver cannot handle and remove the UTF8 BOM you can disabled this option.

Use XML to Report

File Configuration field:

bReportInXML

Description:

If this option is checked, the forwarded Syslog message is a complete XML-formatted information record. It includes additional information like timestamps or originating system in an easy to parse format.

The XML formatted message is especially useful if the receiving system is capable of parsing XML data. However, it might also be useful to a human reader as it includes additional information that cannot be transferred otherwise.

Forward as MonitorWare Agent XML Representation Code

File Configuration field:

nForwardIUT

Description:

MonitorWare supports a specific XML-Representation of the event. If it is checked, that XML representation is used. It provides additional information (like informationunit type, original source system, reception time & many more) but is harder to read by a human. At the same time, it is obviously easier to parse.

Use CEE enhanced Syslog Format

File Configuration field:

nReportInJSON

Description:

If enabled, the CEE enhanced Syslog format will be used. All useful properties will be included in a JSON Stream. The message itself can be included as well, see the “Include message property in CEE Format” option. Here is a sample how the format looks like for a security Eventlog message:

```
@cee: {"source": "machine.local", "nteventlogtype": "Security", "sourceproc": "Microsoft-Wi
ndows-Security-Auditing", "id": "4648", "categoryid": "12544", "category": "12544", "keyw
```

```
ordid": "0x8020000000000000", "user": "N\A", "SubjectUserSid": "S-1-5-11-222222222-33333333
3-4444444444-5555", "SubjectUserName": "User", "SubjectDomainName": "DOMAIN", "SubjectLogon
Id": "0x5efdd", "LogonGuid": "{00000000-0000-0000-0000-000000000000}", "TargetUserName": "A
dministrator", "TargetDomainName": " DOMAIN ", "TargetLogonGuid": "{00000000-0000-0000-0000
-000000000000}", "TargetServerName": "servername", "TargetInfo": " servername ", "ProcessId
": "0x76c", "ProcessName": "C:\Windows\System32\spoolsv.exe", "IpAddress": "-", "IpPort": "
-", "catname": "Logon", "keyword": "Audit Success", "level": "Information", }
```


Additionally to this format you can set: Include message property in CEE Format.

If enabled, the message itself will be included in the JSON Stream as property. Disable this option if you do not want the message itself in the CEE Format.

Please note you can also make Event ID part of the actual Syslog message while forwarding to a Syslog server. To do so, use XML output or a custom message format in the Forward Syslog action.

Include message property in CEE Format

Description

If enabled, the message itself will be included in the JSON Stream as property. Disable this option if you do not want the message itself in the CEE Format.

Please note you can also make Event ID part of the actual Syslog message while forwarding to a Syslog server. To do so, use XML output or a custom message format in the Forward Syslog action.

Message Format

File Configuration field:

szMessageFormat

Description:

The custom format lets you decide how the content of a syslog message looks like. You can use properties to insert content dynamically or have fixed messages that appear in every message. Event properties are described in the property replacer section.

Add Syslog Source when forwarding to other Syslog servers

File Configuration field:

nSyslogInsertSource

Description:

If this box is checked, information on the original originating system is prepended to the actual message text. This allows the recipient to track where the message originally came from.

Please note: This option is not compatible with RFC 3164. We recommend selecting it primarily when message forwarding to a WinSyslog Interactive Server is intended.

Use zLib Compression to compress the data

File Configuration field:

nUseCompression

Description:

With this option you can set the grade of compression for your syslog messages. For more information please read the note at the bottom of this page.

Compression Level

File Configuration field:

nCompressionLevel

- 1 = Best Speed

- 3 = Low Compression
- 6 = Normal Compression
- 9 = Best Compression (default)

Description:

With this option you can set the grade of compression for your syslog messages. For more information please read the note at the bottom of this page.

Note on Using Syslog Compression

Compressing syslog messages is a stable but rarely used feature. There is only a very limited set of receivers who are able to understand that format. Turning on compression can save valuable bandwidth in low-bandwidth environments. Depending on the message, the saving can be anything from no saving at all to about a reduction in half. The best savings ratios have been seen with Windows Event Log records in XML format. In this case, 50% or even a bit more can be saved. Very small messages do not compress at all. Typical syslog traffic in non-xml format is expected to compress around 10 to 25%.

Please note that compression over TCP connections requires a special transfer mode. This mode uses OpenSSL TLS Implementation 3.x for secure transmission. TLS compression is not implemented; instead, the system uses standard OpenSSL compression mechanisms.

Besides the fact that the mechanisms behind compression are experimental, the feature itself is solid.

Overwrite Syslog Properties

Syslog Facility

File Configuration field:

nSyslogFacility

Description:

When configured, will overwrite the Syslog Facility with the configured value.

Syslog Priority

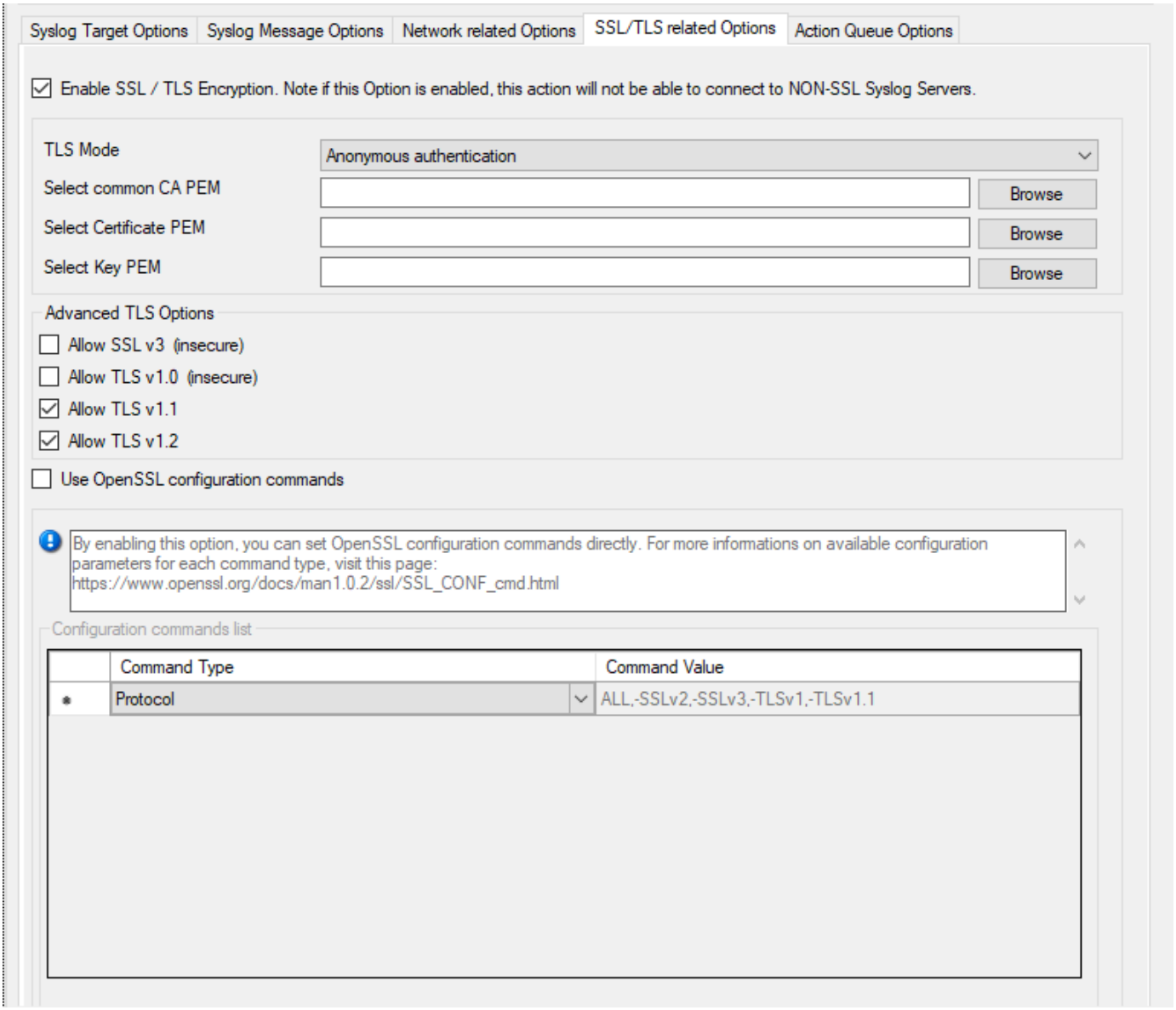
File Configuration field:

nSyslogPriority

Description:

When configured, will overwrite the Syslog Priority with the configured value.

SSL/TLS related Options



- Action - Forward Syslog SSL/TLS related Options*

Enable SSL / TLS Encryption

File Configuration field:

nUseSSL

Description:

If this option is enabled, the action will not be able to talk to a NON-SSL secured server. The method used for encryption is compatible to RFC5425 (Transport Layer Security (TLS) Transport Mapping for Syslog).

TLS Mode

File Configuration field:

nTLSMode

Description:

Anonymous Authentication

Default option. This means that a default certificate will be used.

Use Certificate

If this option is enable, you can specify your own certificate. For further authentication solutions, you will need to create your own certificates using OpenSSL Tools for example.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Select the certificate from the common Certificate Authority (CA). The syslog receiver should use the same CA.

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Select the client certificate (PEM Format).

Select Key PEM

File Configuration field:

szTLSKeyFile

Description:

Select the keyfile for the client certificate (PEM Format).

Allow SSL v3

File Configuration field:

nTLSAllowSSLv3

Description:

This option enables insecure protocol method SSLv3. We recommend NOT enabling this option as SSLv3 is considered broken.

Allow SSL v1.0

File Configuration field:

nTLSAllowTLS10

Description:

This option enables insecure protocol method TLSv1. We recommend NOT enabling this option as TLSv1 is considered broken.

Allow SSL v1.1

File Configuration field:

nTLSAllowTLS11

Description:

This option enables protocol method TLS1.1 which is enabled by default.

Allow SSL v1.2

File Configuration field:

nTLSAllowTLS12

Description:

This option enables protocol method TLS1.2 which is enabled by default.

Allow TLS v1.3

File Configuration field:

nTLSAllowTLS13

Description:

This option enables protocol method TLS1.3 which provides enhanced security and performance.

Use OpenSSL configuration commands

File Configuration field:

nTLSUseConfigurationCommands

Description:

By enabling this option, you can set OpenSSL configuration commands directly. For more information's on available configuration parameters for each command type, visit this page:

https://www.openssl.org/docs/man1.0.2/ssl/SSL_CONF_cmd.html

We allow to the set the following OpenSSL configuration commands in the configuration commands list:

- CipherString: Sets the allowed/disallowed used Ciphers. Setting this value will OVERWRITE the internal default ciphers.
- SignatureAlgorithms: This sets the supported signature algorithms for TLS v1.2.
- Curves: This sets the supported elliptic curves.
- Protocol: Sets the supported versions of the SSL or TLS protocol. This will OVERWRITE the Allow SSL options from above!
- Options: The value argument is a comma separated list of various flags to set.

When setting advanced configuration commands, we highly recommend to enable debug logging and review it after changes have been made. An error will be logged in the debug logfile if a configuration command cannot be processed successfully.

TCP related Options

When using TCP-based syslog forwarding, you have the additional option to use the diskqueue. Whenever a connection to a remote Syslog server fails, the action starts caching the syslog messages into temporary files. The folder for these files can be configured. The filenames are generated using a unique GUID which is automatically generated for each Action, thus enabling you to use this feature in multiple Actions. Once the Syslog server becomes available again, the cached messages are being sent automatically. If you restart the Service while the Syslog Cache was active, it cannot be checked during service startup if the Syslog server is available now. Once the action is called again, the check is done and if the Syslog server is available, the messages are being sent. The size of this cache is only limited by the disk size. Files are split by 10MB by default, but this can also be configured. The maximum supported file size is 2GB.

Please Note: This option is not available for UDP or RFC 3195.

Session Timeout

File Configuration field:

nTimeoutValue

Description:

Controls when an idle TCP session is closed, including persistent and octet-count based framing connections. This is separate from the TLS Send Progress Timeout, which limits a TLS operation that stops making progress.

TLS Send Progress Timeout

File Configuration field:

nTLSSendTimeout

Availability:

Scheduled for version 26.11. The setting and the timeout and cancellation guarantees below require service version 26.11 or later. Updating the configuration client alone does not add this capability to an older service.

Description:

Maximum time without successful TLS send progress, in milliseconds. The default is 30000 (30 seconds). Valid values are 1 through 2147483647. Missing or invalid values use the default; zero does not disable the timeout.

This setting applies when forwarding Syslog over TCP with TLS enabled, including persistent connections, reconnects, backup destinations, and diskqueue replay. It does not apply to UDP or unencrypted TCP forwarding.

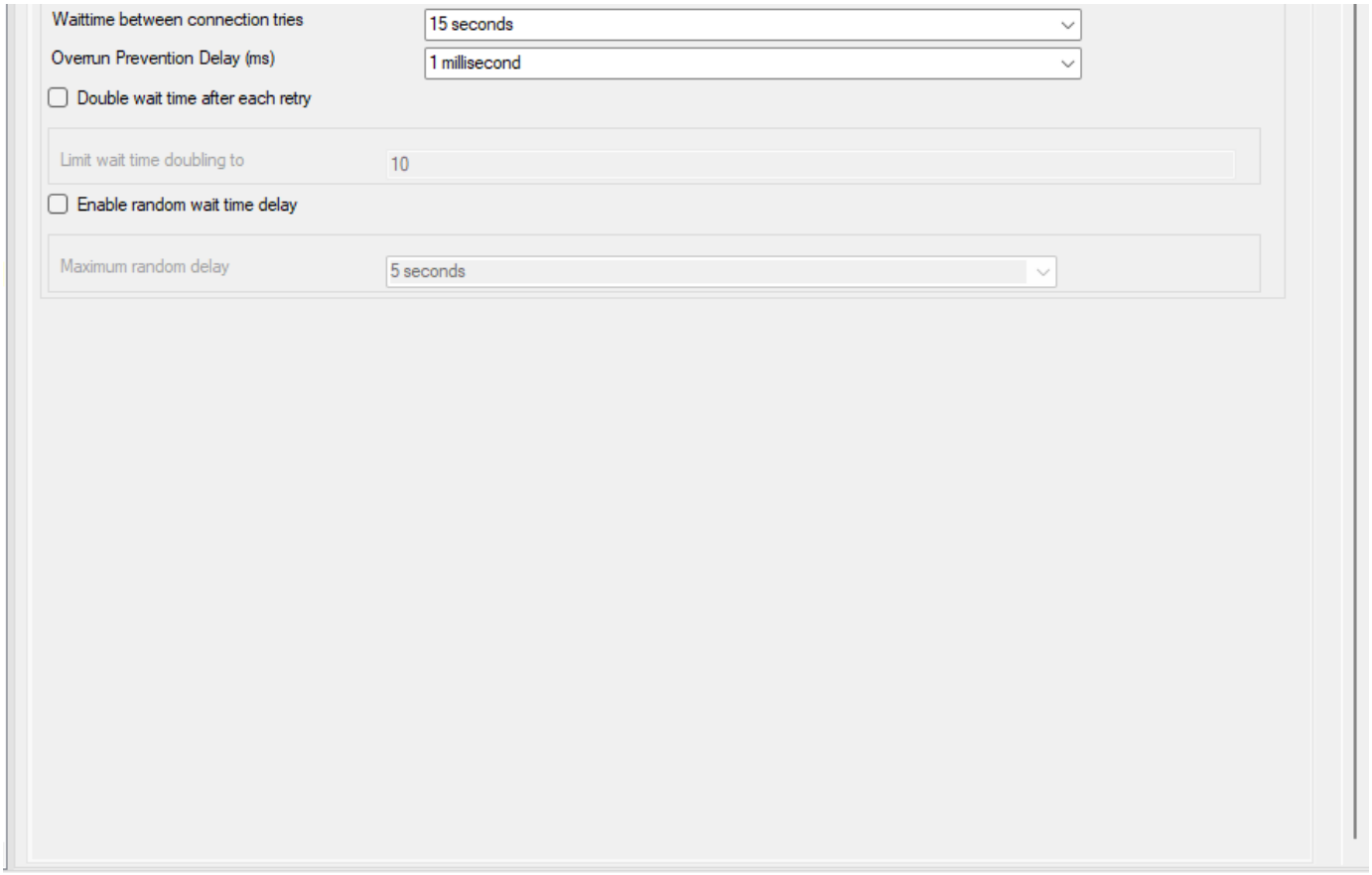
Each successful TLS write, including a partial write, restarts the inactivity interval. Socket readiness and TLS retry requests do not restart it. A send can therefore take longer than the configured interval while it continues making progress. Successful writes do not confirm that the destination has processed the message.

TCP connection establishment and the TLS handshake share one total deadline with the same configured value. Progress during these steps does not restart that deadline. Name resolution is also bounded by the configured value, using a separate deadline before the connection attempt.

On timeout, the failed connection is closed and the action uses its existing transmission-failure handling. If diskqueuing is enabled and persistence succeeds, unsent messages are retained for later replay. A timeout does not immediately trigger a reconnect or a backup attempt. Partially transmitted messages may be duplicated when replayed.

Service stop and configuration reload cancel an active TLS network operation without waiting for this timeout. The Session Timeout setting (`nTimeoutValue`) instead controls closure of an idle TCP session; it does not bound an active TLS send.

Action Queue Options



MonitorWare Agent - Forward Syslog Action Queue Options

Use Diskqueue if connection to Syslog server fails

File Configuration field:

nUseDiscQueue

Description:

Enable diskqueuing syslog messages after unexpected connection loss.

Split files if this size is reached

File Configuration field:

nDiskQueueMaxFileSize

Description:

Files are split when they reach this size in bytes. The default is 10485760 (10 MB). The maximum per file is 2147483648 bytes (2 GB). The total diskqueue size is limited by free disk space.

Diskqueue Directory

File Configuration field:

szDiskQueueDirectory

Description:

The directory where the queue files will be generated in. The queuefiles will be generated with a dynamic UUID bound to the action configuration.

Waittime between connection tries

File Configuration fields:

nDiskCacheWait

Description:

The minimum waittime until the Syslog Action retries to establish a connection to the Syslog server after failure.

Overrun Prevention Delay (ms)

File Configuration field:

nPreventOverrunDelay

Description:

When the Action is processing syslog cache files, an overrun prevention delay can be added to avoid flooding the target Syslog server.

Double wait time after each retry

File Configuration field:

bCacheWaittimeDoubling

Description:

If enabled, the configured waittime is doubled after each try.

Limit wait time doubling to

File Configuration field:

nCacheWaittimeDoublingTimes

Description:

How many times the wait time is doubled after a failed connection try. This is a count, not seconds. The range is 1 to 100, and the default is 10.

Enable random wait time delay

File Configuration field:

bCacheRandomDelay

Description:

If enabled, a some random time will be added into the waittime delay. When using many syslog senders, this can avoid that all senders start sending cached syslog data to the Syslog server at the same time.

Maximum random delay

File Configuration field:

nCacheRandomDelayTime

Description:

Maximum random delay time that will be added to the configured waittime if Enable random wait time delay is enabled.

UDP related Options

Enable IP Spoofing for the UDP Protocol

File Configuration field:

nSpoofIPAddress

Description:

This option enables you to spoof the IP Address when sending Syslog messages over UDP. Some notes regarding the support of IP Spoofing. It is only supported the UDP Protocol and IPv4. IPv6 is not possible yet. Due system limitations introduced by Microsoft, IP Spoofing is only possible on Windows Server 2003, 2008, or higher. It is NOT possible in Windows XP, VISTA, 7, or higher. For more information see the Microsoft explanation. Also please note that most routers and gateways may drop network packages with spoofed IP Addresses, so it may only work in local networks.

Fixed IP or single property

File Configuration field:

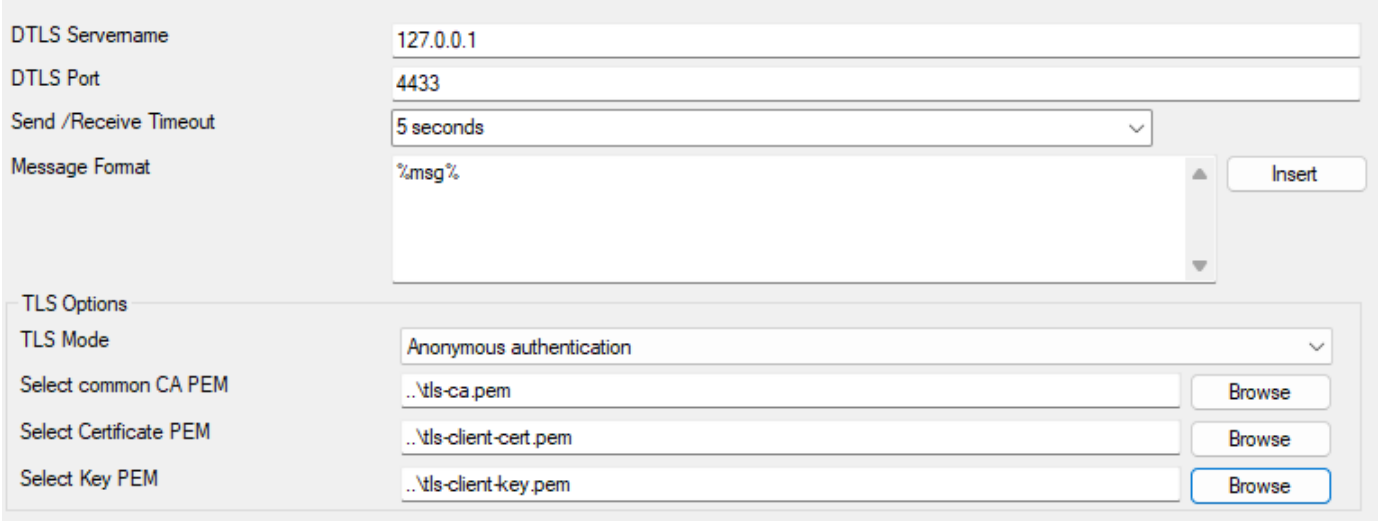
szSpoofedIPAddress

Description:

You can either use a static IP Address or a property. When using a property, the IP Address is tried to be resolved from the content of the property. For example by default the `%source%` property is used. If the name in this property cannot be resolved to an IP Address, the default local IP Address will be used.

Send DTLS

This action sends messages securely using Datagram Transport Layer Security (DTLS). Use it when the receiving system expects DTLS transport for forwarded messages.



- Action - Send DTLS Configuration*

DTLS Servername

File Configuration field:

szDTLSServer

Description:

The hostname or IP address of the DTLS server to which messages should be sent. You can use an IPv4, IPv6 address, or a hostname resolving to one of these.

DTLS Port

File Configuration field:

nDTLSSendPort

Description:

The port number on the DTLS server where messages are sent. Typically, this port is 4433.

Send/Receive Timeout

File Configuration field:

nSendTimeOut

Description:

Specifies the time in seconds to wait for a response from the DTLS server before timing out. For instance, set this value to “5 seconds” for a 5-second timeout.

Message Format

File Configuration field:

szMessage

Description:

Defines the format of the message being sent. Use placeholders like “%msg%” to define the dynamic content of the message. Multi-line messages are supported.

TLS Options

TLS Mode

File Configuration field:

nTLSMode

Description:

Specifies the authentication method used. Options include “Anonymous authentication” or other modes requiring certificates.

Select common CA PEM

File Configuration field:

szTLSCAFile

Description:

Path to the CA certificate file (e.g., *tls-ca.pem*).

Select Certificate PEM

File Configuration field:

szTLSCertFile

Description:

Path to the client certificate file (e.g., *tls-client-cert.pem*).

Select Key PEM

File Configuration field:

szTLSKeyFile

Description:

Path to the private key file for the client (e.g., *tls-client-key.pem*).

HTTP Request

The **HTTP Request** action sends an HTTP or HTTPS request to a remote host. It is listed under **Forwarding** in the configuration client. Use it for simple HTTP callbacks where the **HTTP REST Output** action is not required.



Action - HTTP Request

Host

File Configuration field:

szHost

Description:

Specify the targeted host here.

URL & Querystring

File Configuration field:

szUrl

Description:

By default this is `/index.html`. This value is used to construct an URL which is previewed in a rectangular field under Use secure https Protocol option.

Port

File Configuration field:

nPort

Description:

This port is to be probed. Please see your server's reference for the actual value to use. For example, mail servers typically listen to port 25 and web servers to 80.

Referrer

File Configuration field:

szReferer

Description:

An optional configuration option where you can specify a Referrer that is send in the HTTP header.

UserAgent (Browser)

File Configuration field:

szUserAgent

Description:

It is also an optional value which can be used to specify a UserAgent that is send in the HTTP header.

internal actions

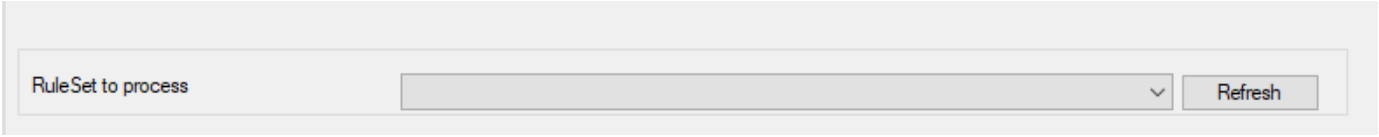
Call RuleSet

A Call RuleSet action simply calls another ruleset in some existing ruleset. When this action is encountered, the rule engine leaves the normal flow and goes to the called ruleset (which may contain many rules as well). It executes all the rules that have been defined in the called RuleSet. After the execution of all of them, it will return to its point from where it left the original flow. Let's take an example to clarify it a little further.

Let's say that Rule 1 has two actions - Action 1 and Action 2. The Action 1 of Rule 1 is an include (Call Ruleset) action. If the filter condition result of Rule 1 evaluates to true, it will execute the Action 1. Since Action 1 is the include action in this example, it will go to the included ruleset and will execute its filter condition. If that filter condition evaluates to true, it will execute all of its actions and will return to Action 2 of Rule 1 (of normal flow). If on the other hand, the filter condition of the included rule set evaluates to false, it will skip all of its actions and will come back to the Action 2 of Rule 1 (of normal flow).

Note: there is no limit on including the rules which means that a rule

that has been included in another rule may contain another rule in it which might contain another rule in it and so on.



- Action - Call RuleSet*

Ruleset to Call

File Configuration field:

szRuleSet

Description:

Select the Ruleset to be called.

Note: Call RuleSet stays disabled until you have more then "One" RuleSet!

Compute Status Variable

An internal action used to compute a status variable. This is needed for RuleSets which operate on a counter basis. This dialog controls the compute status variable options.



- Action - Compute Status Variable*

Status variable

File Configuration field:

szStatusVar

Description:

Name of the unique status variable.

Operation Type

Increment Value

File Configuration field:

nCalcType = 1

Description:

It increments the value by the operation value.

Decrement Value

File Configuration field:

nCalcType = 2

Description:

It decrements the value by the operation value.

Operation value

File Configuration field:

nChangeVal

Description:

The operation value that is to be used.

Discard

A Discard Action immediately destroys the current Information Unit and any action of any rule that has been defined after the Discard action execution. When this action has been selected then no dialog appears as nothing needs to be configured for this.

Use the Discard action when matching events should be ignored and no later actions in the same rule chain should run for them.

Normalize Event

Parameters can be normalized and converted into XML, CSV, and JSON formats. The normalization result is stored into an internal property which can be used for filtering decisions as well as for output actions.

The action uses liblognorm (http://www.liblognorm.com/files/manual/index.html) which is also used by rsyslog. Rulebases created for liblognorm can easily be used and adapted.



- Action - Normalize Event*

Normalize Parameter

File Configuration field:

szMessage

Description:

Specifies the property that you want to normalize, by default this is the `%msg%` property.

Select Rulebase File

File Configuration field:

szRulebase

Description:

The text file that contains the rulebase definitions (see liblognorm documentation for more).

Lognorm Output Format

File Configuration field:

nOutputFormat

- 0 = DISABLED
- 1 = JSON
- 2 = XML
- 3 = CSV

Description:

- Disabled: No additional output format.
- JSON Format: Creates a string formatted in JSON which is stored in the output property.
- XLM Format: Creates an XML formatted string which is stored in the output property.
- CSV Format: Creates a CSV (Comma separated values) string which is stored in the output property.

Output Property

File Configuration field:

szOutputProperty

Description:

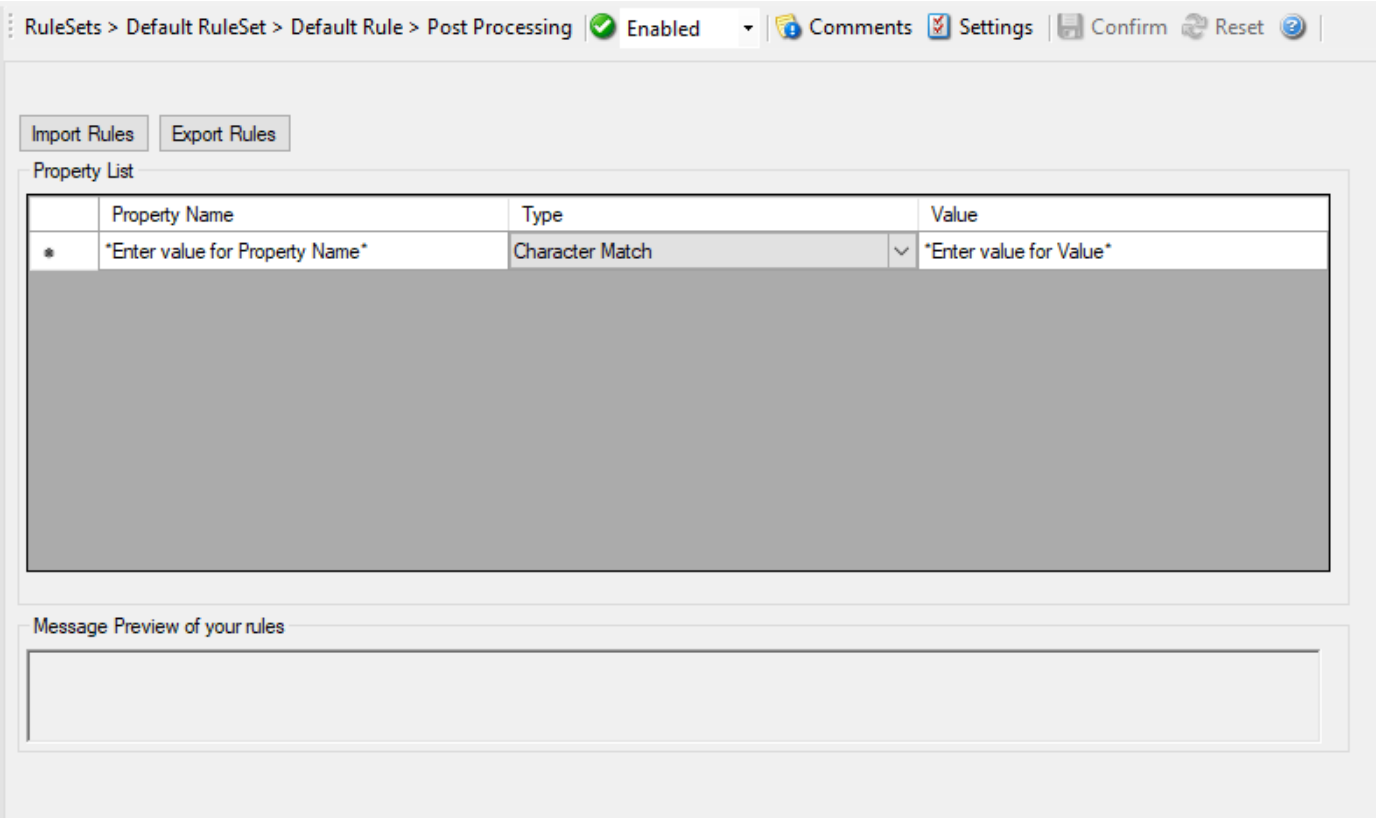
The property where the normalized format is saved to.

Post Processing

The Post Processing action allows you to re-parse a message after it has been processed e.g. Tab Delimited format.

Such re-parsing is useful if you either have a non-standard Syslog format or if you would like to extract specific properties from the message.

The post process action takes the received message and parses it according to a parse map. The parse map specifies which properties of which type are present at which position in the message. If the message actually matches the parse map, all properties are extracted and are set as part of the event. If the parse map does not match the message, parsing stops at the first-non matching entry.



- Action - Post Processing*

Templates

Parse maps can be quite complex. In order to facilitate exchange for parse maps, they can be persisted to XML files. Adiscon also plans to provide parse maps for some common devices.

We know that creating a parse map is often not a trivial task. If you are in doubt how to proceed, please contact us via the Customer Service System - we will happily assist you with your needs. In this case, you will probably receive a parse map file that you can import here.

The Parse Map Editor

In this dialog, you can edit only in the text boxes above the data grid. When you select an entry in the grid, its values are updated in the textboxes. Any edits made there will automatically be reflected to the grid. Pressing Insert or Delete will create a new entry or delete the currently selected one.

Property Name

File Configuration field:

szProperty_[n]

Description:

The property name that is to be parsed. The list box is pre-populated with standard and event properties. However, you can add any property name you like. If you create your own properties, we highly recommend

prefixing their name with “u-” so that there will be no duplicates with standard properties. Adiscon will never prefix any properties with “u-”. For example, if you would like to create a custom property “MyProperty”, we highly suggest that you use the property name “u-MyProperty” instead.

The property name “Filler” is reserved. Any values assigned to the Filler-property will be discarded. This is the way to get rid of fill-characters that you do not really need.

Type

File Configuration field:

nSyntax_[n]

- Integer = 101
- IPV4Addr = 102
- CharMatch = 201
- RestOfMessage = 202
- Word = 203
- UpTo = 204
- TimeStampISO = 301
- TimeStampUNIX = 302

Description

Some types need an additional value. If that is needed, you can provide it here.

Value

File Configuration field:

szParsValue_[n]

Description:

Some types need an additional value. If that is needed, you can provide it here.

Message Preview

This is a read-only box. It shows a hypothetical message that would match the configured parsing rules.

Parsing log messages

This article describes how to parse log message via “Post-Process”. It illustrates the logic behind Post-Process action.

Get relevant information from logs

Log files contain a lot of information. In most cases only a small part of the log message is of actual interest. Extracting relevant information is often difficulty. Due to a variety of different log formats a generic parser covering all formats is not available.

Good examples are firewalls. Cisco PIX and FortiGate firewalls both use syslog for logging. But the content of their respective log messages are very different. Therefore a method is needed to parse the logs in a generic way. Here Post-Process action of Adiscon’s MonitorWare comes into play.

Tool kit for parsing

Post-Process action provides an editor for creating a log format template. A template consists of as many rules as necessary to parse out the relevant information.

Determine necessary information

In order to parse out information it is vital to know the exact structure of the message. Identifying the position of each relevant item is essential. Assuming for auditing purposes the following items are needed:

- Timestamp
- Source IP-Address
- SyslogTag
- MessageID
- Username
- Status
- Additional Information

A sample message looks like:

```
Mar 29 08:30:00 172.16.0.1 %Access-User: 12345: rule=monitor-user-login user=Bob status=denied msg=User does not exist
```

In order to extract the information let us examine each item within the message. Splitting the message makes it easier to explain. So here we go.

```
Pos = Position of the character
*p  = Points to the position the parser stands after parsing the*
      rule
Log = Message subdivided into its characters.
Pro = Property. In the term of Adiscon a property is the name of
      the item which is parsed out.mk:
      @MSITStore:C:\PROGRA~2\MONITO~1\Agent\manual\MONITO~1.CHM::/
```

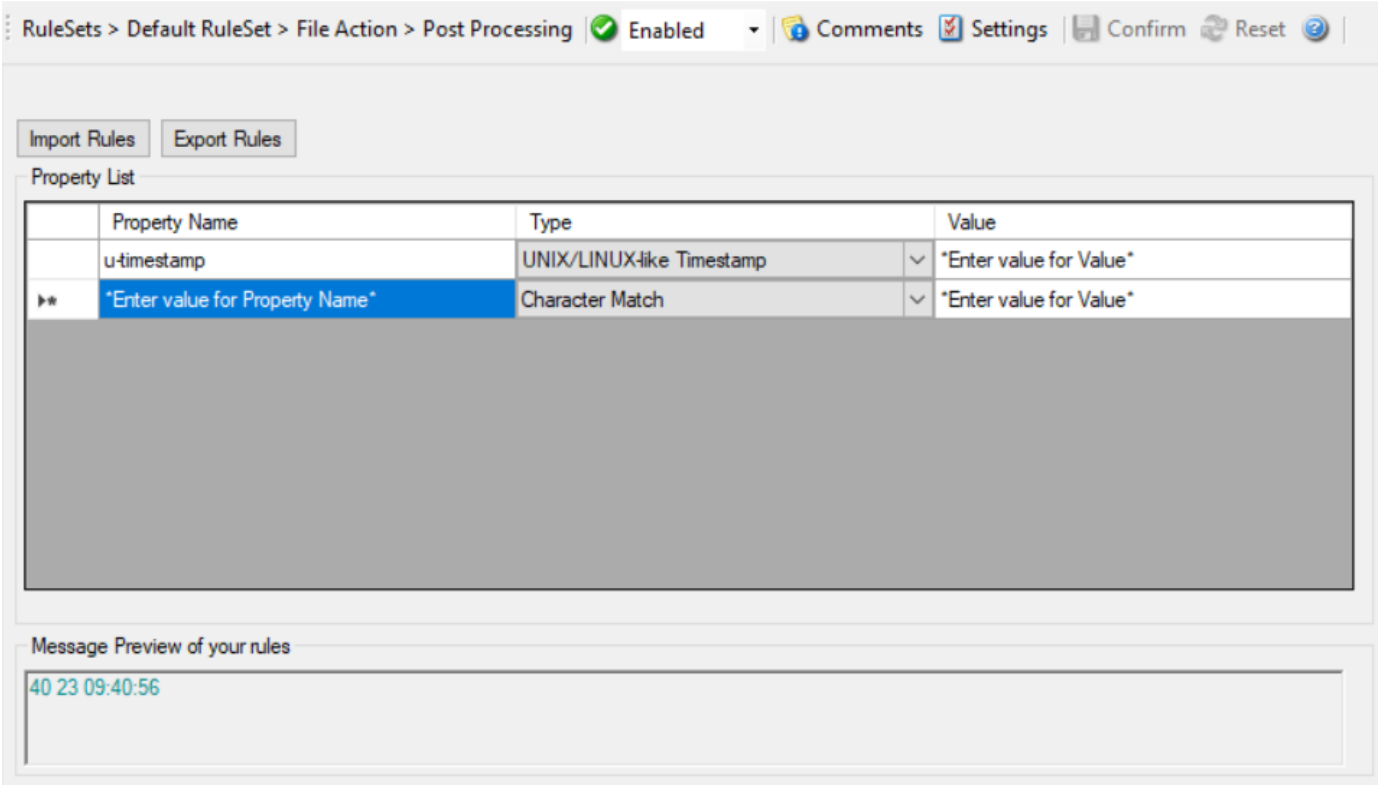
Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Log	M	a	r		2	9		0	8	:	3	0	:	0	0		1	7	2	.
*p	*																			
Pro																				

Note that at beginning of the parse process the parser’s pointer points to the first character. Each parse type starts parsing at the current position of the pointer.

Parsing out a Timestamp

The first identified item is a so called Unix/Timestamp. It has always a length of 15 characters. ‘UNIX/LINUX-like Timestamp’ parse type exactly covers the requirement to parse this item. Therefore insert a rule and select ‘UNIX/LINUX-like Timestamp’ type. This rule parses out the timestamp and moves the pointer to the next character after the timestamp. Name the property ‘u-timestamp’ [1].

Note: There is a second timestamp-type, the **ISO-like-timestamp**. It has the format**2006-07-24 13:37:00.**



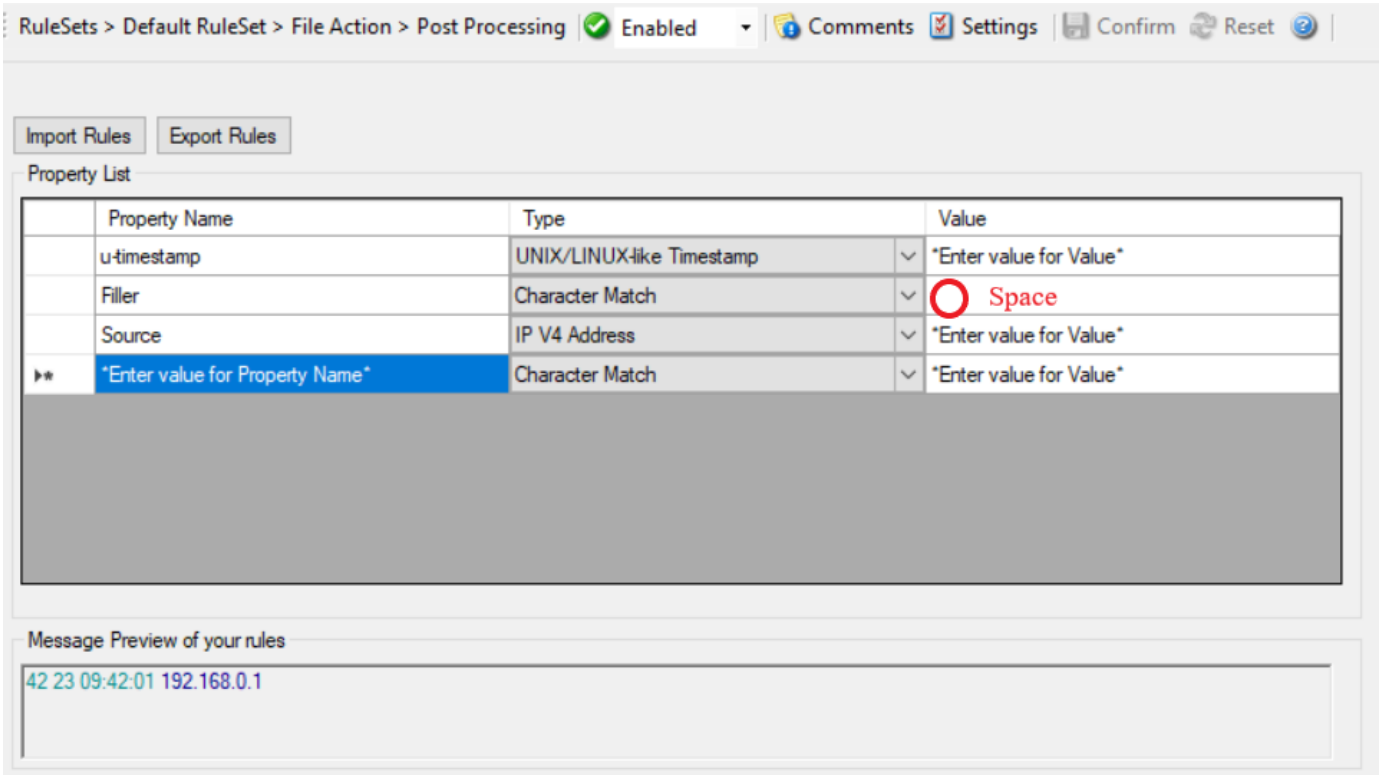
- Post-Process Editor: Inserted a ‘UNIX/LINUX like timestamp’ rule*

Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Log	M	a	r		2	9		0	8	:	3	0	:	0	0		1	7	2	.
*p																*				
Pro	u-timestamp																			

Get the IP-Address

Next item is the IP address. Note that after the timestamp follows a space and then the IP address. Therefore insert a ‘Character Match’ rule with a space as value. Select the ‘Filler’ [2] property for this rule. ‘Character Match’ requires a user defined value. This parse type compares the given value with the character at the current position of the message. The character has to be identical with the given value otherwise the parse process will fail. After applying this parse type the parse pointer is moved to the position immediately after the given value. In our sample this is the start position of the IP Address (position 17).

After that the address can be obtained. Place in a ‘IP V4 Address’ type. This type parses out a valid IP regardless of its length. No need to take care about the characters. Select ‘Source’ property or name it to whatever you prefer. The parser will automatically move the pointer to the position next to the address.



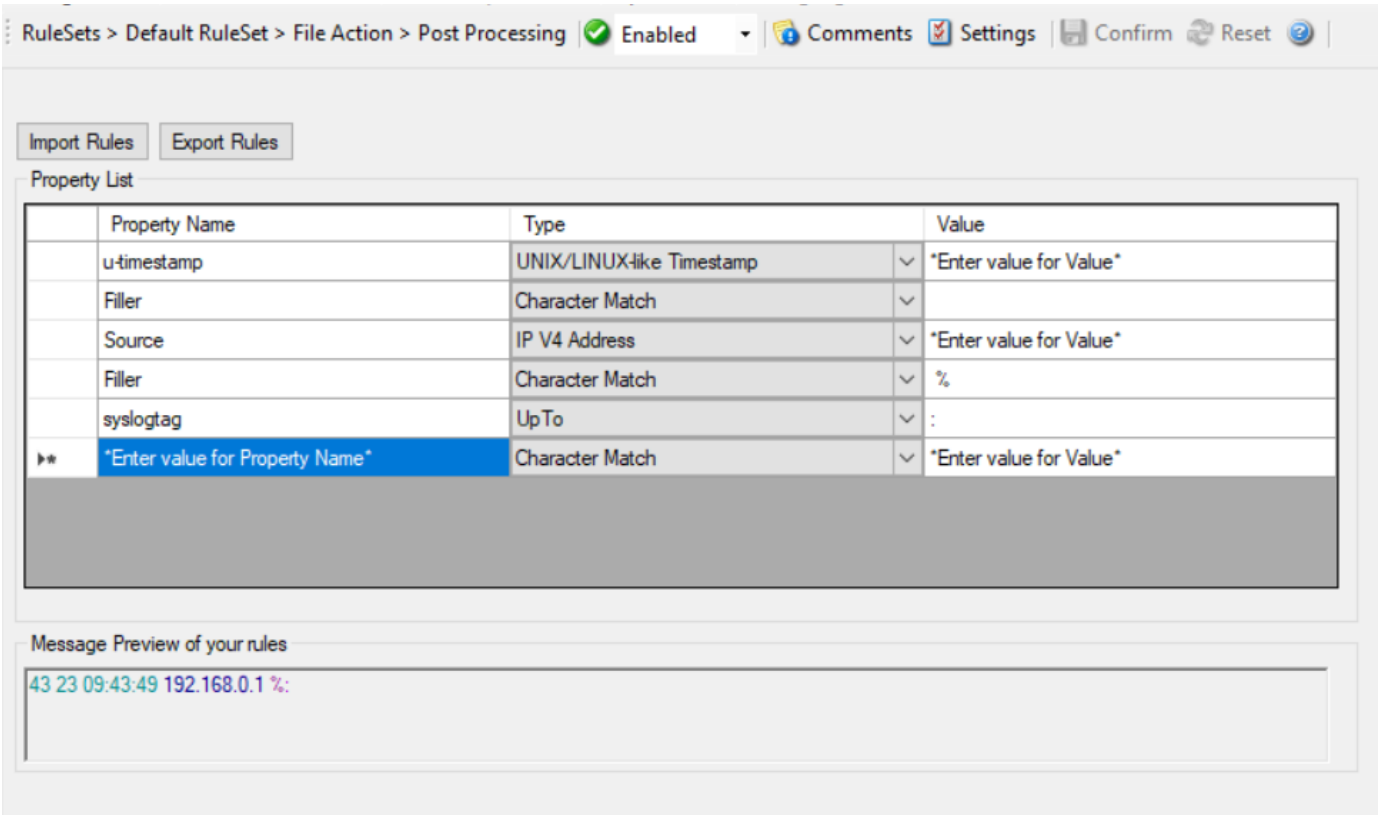
- Post-Process Editor: Note the value of ‘Character Match’ rule is a Space*

Pos	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Log	0		1	7	2	.	1	6	.	0	.	1		%	A	c	c	e	e	s
*p													*							
Pro	Filler		Source																	

Obtain the syslogtag

Behind the IP it is a blank followed by a percent sign. The percent indicates that the syslogtag is following. To move the pointer to the syslogtag position once again a ‘Character Match’ rule is necessary. It has to match the space (actual position of the pointer) and the percent sign. This content is not needed therefore assign it to the ‘Filler’ property.

A colon is immediately behind the syslogtag. So all characters between the percent sign and the colon are needed. The ‘UpTo’ type can do this job. Insert an ‘UpTo’ rule. As value enter ‘:’ (without the quotes) and select the syslogtag property. Note that after parsing the pointer stands on the first character of the ‘UpTo’ value.



- Post-Process Editor*

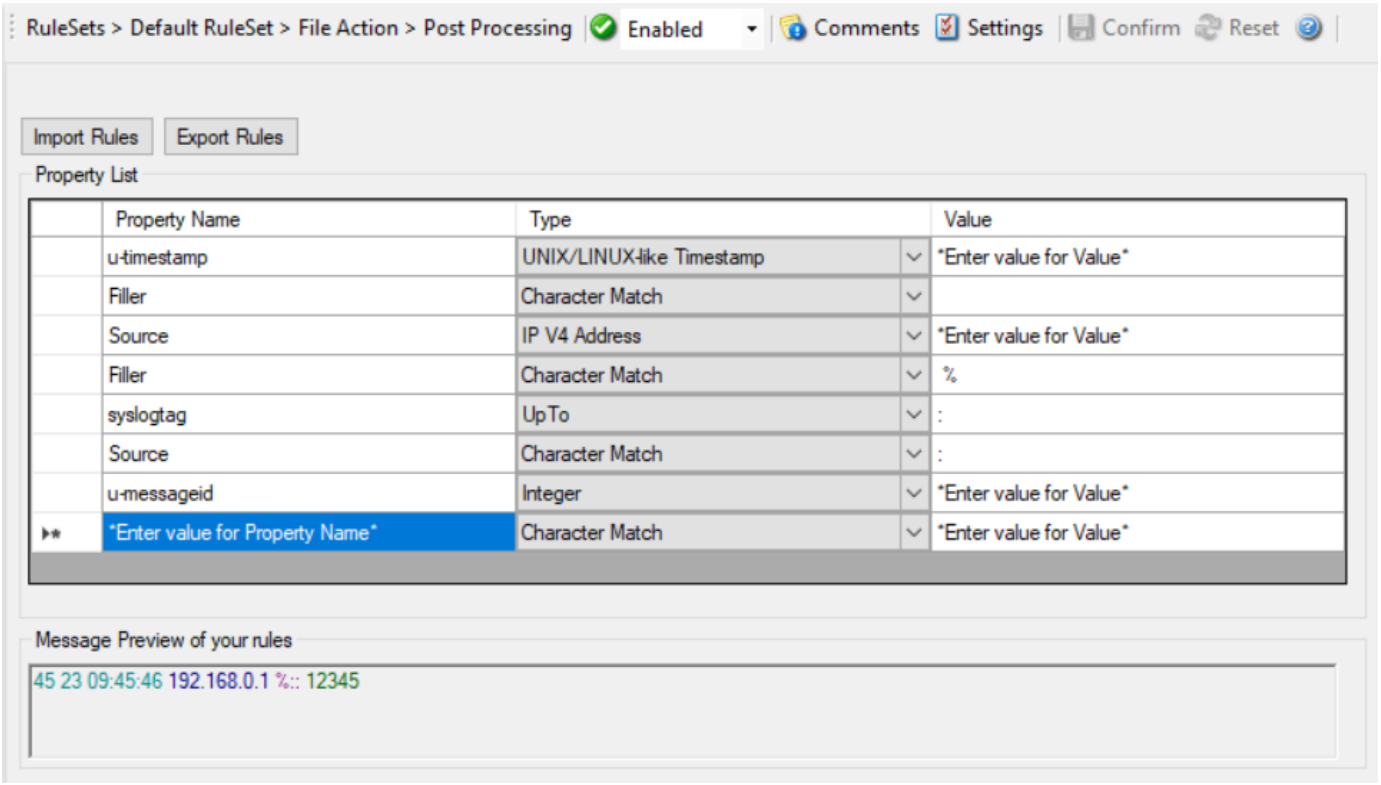
Pos	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Log	l		&	A	c	c	e	s	s	-	U	s	e	r	:		1	2	3	4
*p															*					
Pro		Filler		syslogtag																

- Important: It points to the colon not to the blank.*

Take the MessageID

The next interesting item is the MessageID. Move the pointer to start position of the MessageID part. Again, do this by using a ‘Character Match’ rule. Keep in mind that the pointer points to the colon. Behind the colon is a space and then the MessageID starts. Thus, the value of the rule has to be ‘: ‘.

MessageID consist of numbers only. For numeric parsing the ‘Integer’ parse type exist. This type captures all characters until a non-numeric character appears. The pointer is moved behind the number. Note that numeric values with decimal dots cannot be parsed with this type (because they are not integers). This means trying to parse 1.1 results in 1, because the dot is a non-numeric value.



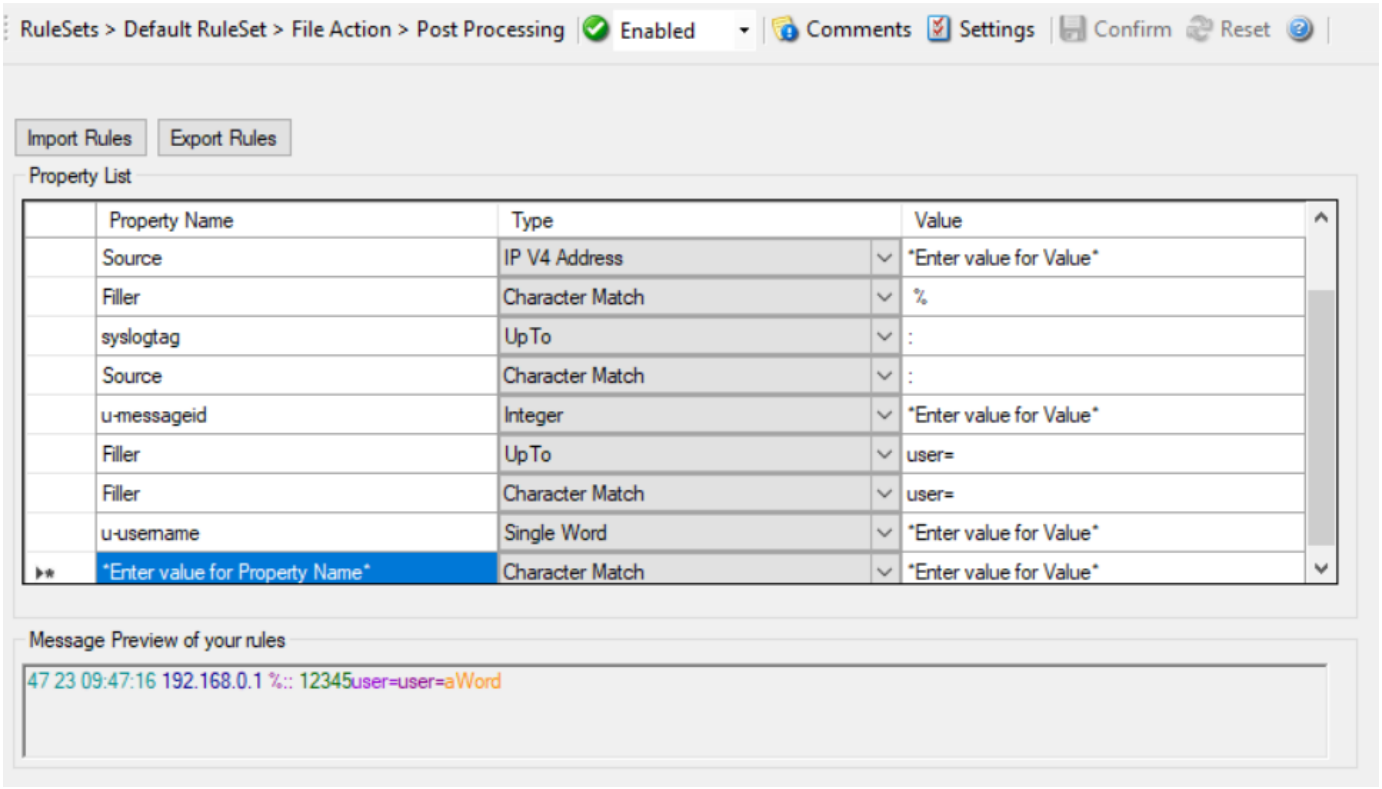
- Post-Process Editor*

Pos	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
Log	r	:		1	2	3	4	5	:		r	u	l	e	=	m	o	n	i	t
*p									*											
Pro				u-messageid																

Find the username and status

Looking at the remainder of the message indicates that the username is not immediately after syslogtag. Thankfully though, the username always starts with ‘user=’. Consequently the ‘UpTo’ type can be used to identify the username. To get the start position of the username we have to use ‘UpTo’ together with ‘Character Match’. Remember that ‘UpTo’ points to the first character of the given value. For this reason the ‘Character Match’ rule is necessary.

After locating the start position of the username ‘Word’ parse type can be used. ‘Word’ parses as long as a space sign is found. Enter ‘u-username’ as property.

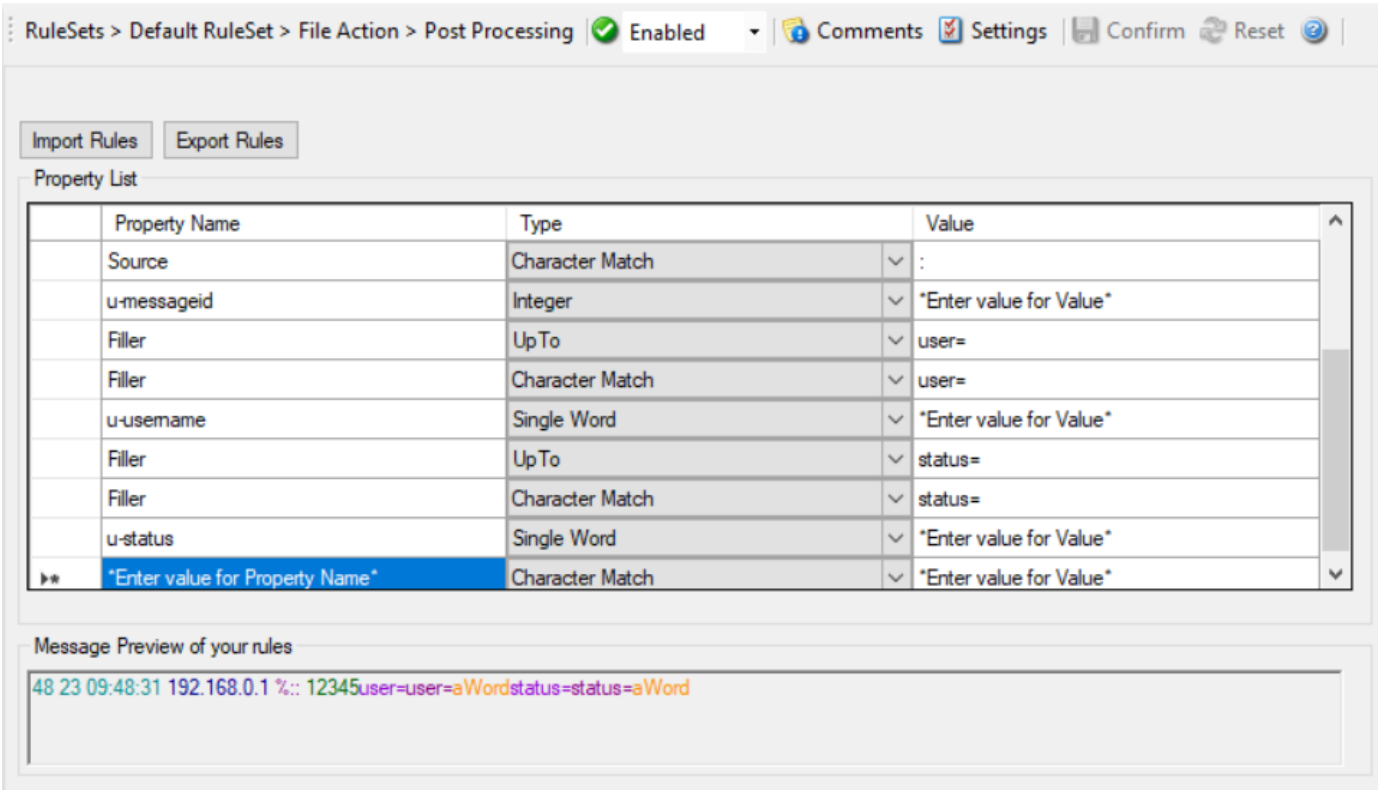


- Post-Process Editor*

Pos	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
Log	i	n		u	s	e	r	=	B	o	b		s	t	a	t	u	s	=	d
*p	Filler			Filler					u-username			*								
Pro																				

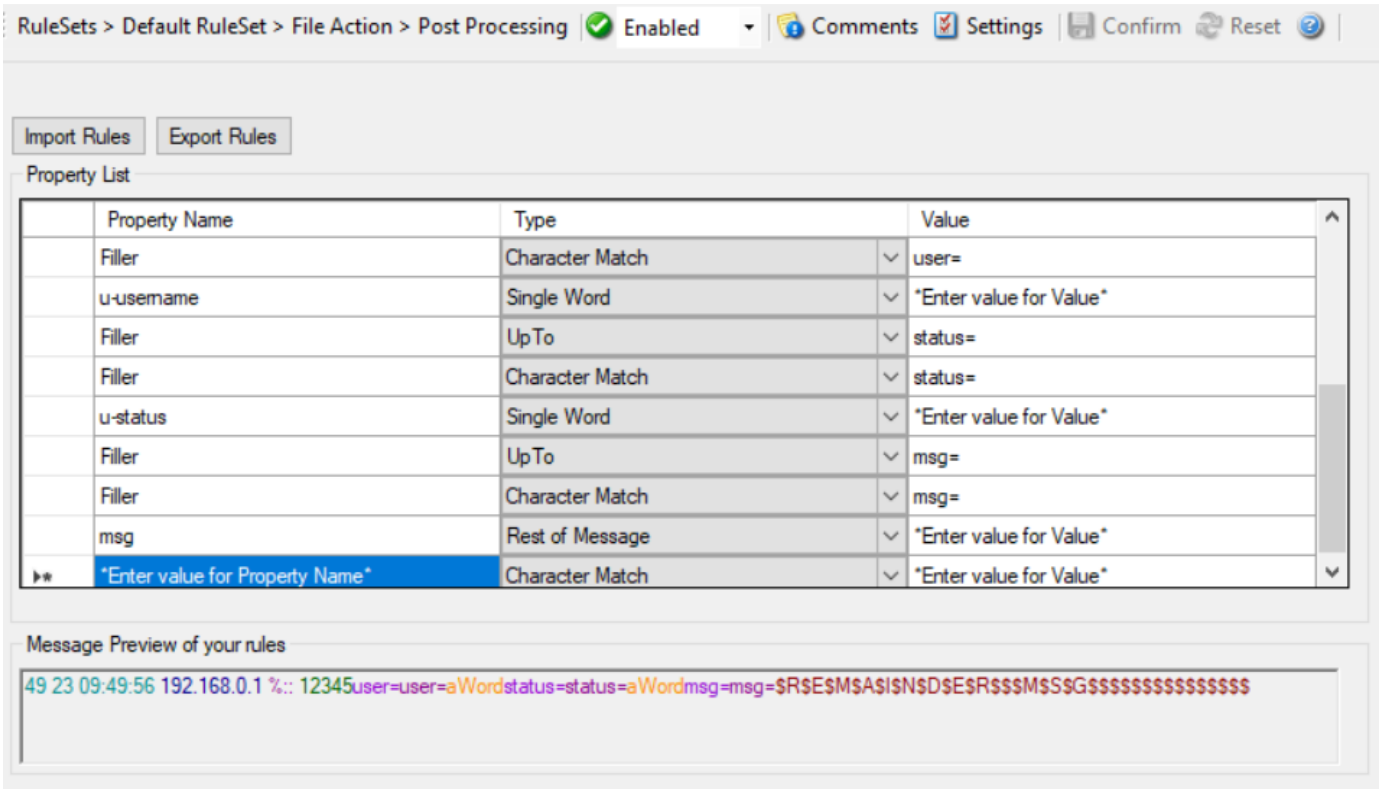
- Notice: After parsing a word the pointer stands on the space behind the parsed word.*

The steps to get the status are very similar to the previous one



The last rule - Additional Information

One item of interest is left. The last part of the message contains additional information. It starts after ‘msg=’. So the combination of ‘UpTo’ and ‘Character Match’ is used to go to the right position. All characters after ‘msg=’ until the end of the message are interesting. For this purpose the ‘Rest of Message’ parse type is available. It stores all characters from the current position until the end of the message. This also means that this rule can only be used once in a template and is always the last rule.

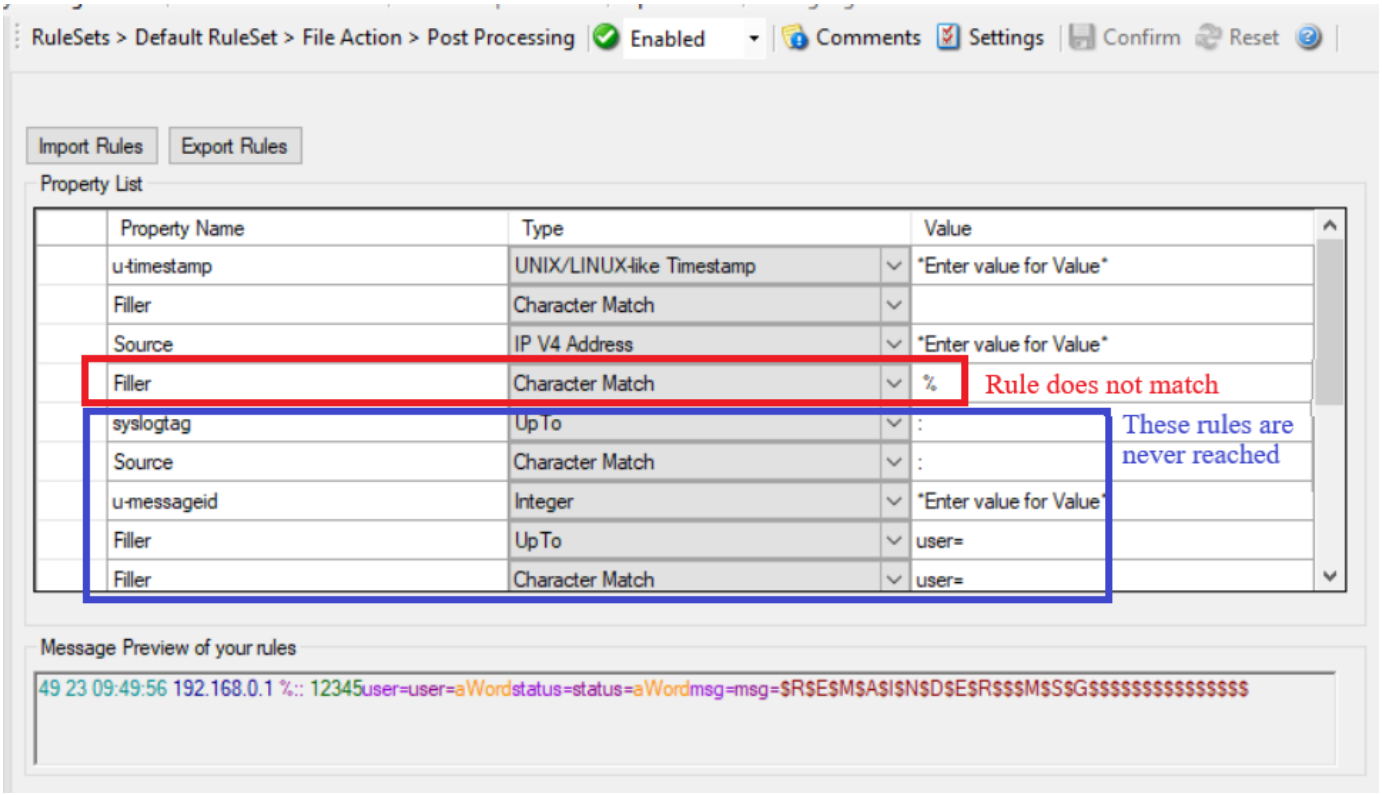


- Complete parse template.*

What happens if the parser fails?

If a rule does not match processing stops at this point. This means all properties of rules which were processed successfully until the non-matching rule occurs are available.

Let's assume the fourth rule of the following sample does not match.



The first three rules were processed successfully. Therefore u-timestamp and Source are available. But syslogtag and u-messageid are always empty due to the parser never process this rules.

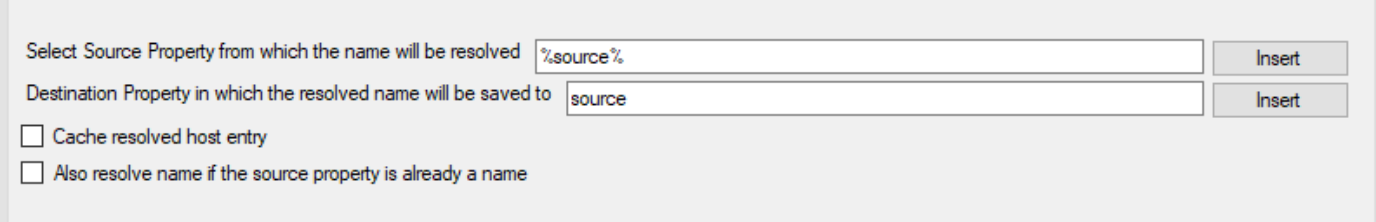
[1] Using the "u-" prefix is recommended to differentiate between MonitorWare-defined properties and user defined one. It is not required, but often of great aid. A common trap is that newer versions of MonitorWare may use property names that a user has also used. MonitorWare will never use any name starting with "u-", so the prefix also guards against such a scenario.

[2] Filler is a predefined property which acts as a bin for unwanted characters. Essentially, the data is simply discarded.

Please Note: There's also a StepByStep Guide available which describes how the PostProcessAction works, you can find it here.

Resolve Hostname Action

The **Resolve Hostname** action resolves a host name or address from one event property and stores the result in another property. Because it is an action, you can place it in the ruleset where the resolved value is needed.



- Action - Resolve Hostname*

Select Source Property from which the name will be resolved

File Configuration field:

szSourcePropertyName

Description:

Click on the Insert menu link on the right side of the textfield to customize the source property from which the name will be resolved.

Destination Property in which the resolved name will be saved to

File Configuration field:

szDestinationPropertyName

Description:

Same as above, please click on the Insert menu link on the right side of the textfield to customize the destination property in which the resolved name will be saved to.

Also resolve name if the source property is already a name

File Configuration field:

nResolveIfName

Description:

Activates the feature that the name will also be resolved if there is already a source property with that name.

Cache resolved host entry

File Configuration field:

nCacheNameEntry

Description:

If activated this will, as it says, cache the resolved host entry.

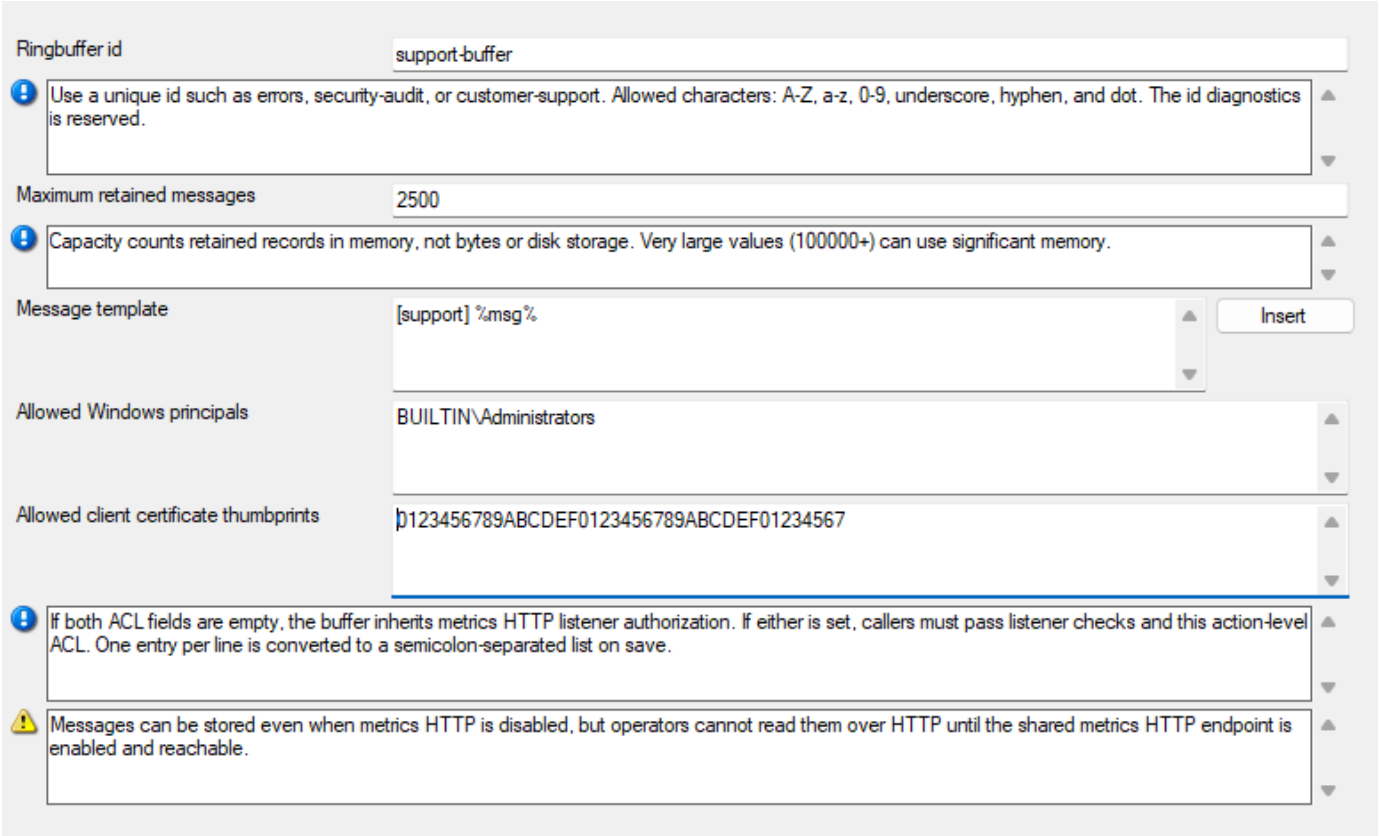
Message Ringbuffer Action

The **Message Ringbuffer** action keeps recent copies of processed messages in a named, in-memory buffer. Use it for bounded troubleshooting or an approved integration that needs recent messages. It does not replace archival logging, audit retention, or a disk-backed queue.

The action is available starting with **26.08** in MonitorWare Agent, WinSyslog, EventReporter, and rsyslog Windows Agent builds when the installed edition includes it.

Messages are retained only while the service and this action configuration remain active. When the buffer is full, the oldest retained messages are overwritten. Its contents are lost when the service restarts, when a configuration reload recreates the action, or when the action is removed.

Remote reads use the secure metrics HTTP listener. Enable that listener through the file-based `general(name="Metrics")` settings; see **`metrics-http-listener`**. Current configuration clients preserve the Metrics block but do not provide a Metrics editor.



Message Ringbuffer action properties.

Ringbuffer ID

File Configuration field:

szRingBufferId

Description:

Enter a unique ID for this buffer. Use one to 64 letters, digits, periods, underscores, or hyphens. The ID identifies the configured buffer, so do not reuse it for another Message Ringbuffer action. The ID `diagnostics` is reserved and cannot be used.

Maximum retained messages

File Configuration field:

nRingBufferMaxMessages

Description:

Set the number of messages to retain, from 2 through 1,000,000. This is a record count, not a storage size. Choose a bounded value after considering the average message size and the available memory. Larger buffers keep more history but use more memory.

Message template

File Configuration field:

szMessageTemplate

Description:

Define the text stored for each message. The default is `%msg%`. Use the property insertion control to include the event properties needed by the intended troubleshooting or integration workflow.

Allowed Windows principals

File Configuration field:

szRingBufferAllowedWindowsPrincipals

Description:

Optionally list the Windows users, groups, aliases, or SID strings that may read this buffer. Separate entries with commas, semicolons, or line breaks. Listener authorization is inherited only when both action ACL fields are empty. If either this field or **Allowed client certificate thumbprints** is populated, the caller must still pass the metrics HTTP listener checks and must also match at least one populated action ACL list.

Allowed client certificate thumbprints

File Configuration field:

szRingBufferAllowedClientCertificateThumbprints

Description:

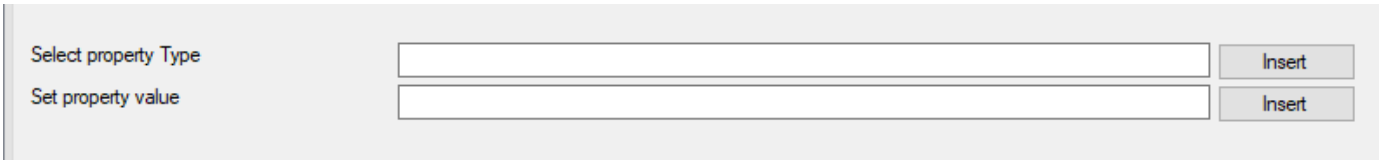
Optionally list SHA-1 client certificate thumbprints that may read this buffer. Do not enter SHA-256 fingerprints; this field matches SHA-1 only. Use this only when the deployment requires client-certificate authentication on the configured secure metrics listener. Listener authorization is inherited only when both action ACL fields are empty. If either this field or **Allowed Windows users, groups, aliases, or SID strings** is populated, the caller must still pass the metrics HTTP listener checks and must also match at least one populated action ACL list.

Set Property

You can set every property and custom properties using this action.

This dialog controls the set property options. With the “Set Property” action, some properties of the incoming message can be modified. This is especially useful if an administrator would like to e.g. rename two equally named devices.

Please note: when you change or create a property, the value will be changed as soon as the set property action is carried out. It will not change before that happens and the old value is no longer available thereafter. That means all actions and filter conditions will use the new value after it is set. So, if you would like e.g. rename a system, make sure the set property actions are at the top of the rule base!



- Action - Set Property*

Select Property Type

File Configuration field:

szPropertyType

Description:

Select the property type to be changed. The list box contains all properties that can be changed. By default it is set to nothing.

Please note that the field content can be configured with event properties are described in the property replacer section.

Set Property Value

File Configuration field:

szPropertyValue

Description:

The value to be assigned to the property. Any valid property type value can be entered.

Please note that the field content can be configured with event properties are described in the property replacer section.

Difference from Set Status

Set Property changes data on the current message. The updated value is then used by later filters and actions for that same message only.

Use *Set Property* when you need to rewrite, normalize, or enrich message content. Use Set Status instead when you need a global value that persists across multiple messages.

Set Status

Each information unit have specific properties e.g. EventID, Priority, Facility etc. These properties have some values. Lets suppose that EventID has property value 01. Now, If you want to add “a new property of your own choice” in the existing set of properties then Set Status action allows you to accomplish this!

You can create a new property and assign any valid desired value to it e.g. we create a new property as CustomerID and set its value to 01. After you have created the property through this action, then you can define filters for them. There is an internal status list within the product which you can use for more complex filtering.

Please note: when you change a property, the value will be changed as soon as the set status action is carried out. It will not change before that happens and the old value is no longer available thereafter. That means all actions and filter conditions will use the new value after it is set. So if you would like e.g. rename a system, make sure the set status actions are at the top of the rule base!



- Action - Set Status*

Status Variable Name

File Configuration field:

szPropertyName

Description:

Enter the Property name. That name will from now on be used inside the rule base. More precisely, it will be used in the filter conditions and actions.

Please note that the field content can be configured with event properties are described in the property replacer section.

Status Variable Value

File Configuration field:

szPropertyValue

Description:

The value to be assigned to the property. Any valid property type value can be entered.

Please note that the field content can be configured with event properties are described in the property replacer section.

Difference from Set Property

Set Status and *Set Property* look similar, but they solve different problems:

- A **property** belongs to the current message and exists only while that message is processed.
- A **status variable** is global and remains available across multiple messages until another action changes it.

Use *Set Status* when you need shared state across messages, for example a counter, workflow state, or a flag that later filters can evaluate.

other actions

Control NT Service

This dialog controls the control NT Service.



- Action - Control NT Service*

Service Name

File Configuration field:

szServiceName

Description:

Specify the service name which you want to control. Please note that it is the internal name, not the display name. You can see the service internal name when you view the properties in the services control panel.

Action to perform

File Configuration field:

nAction

Description:

Few Actions are available in the drop down namely Start, Stop, Restart, Pause, and Unpause. The selected action is performed on the configured service.

Timeout limit

File Configuration field:

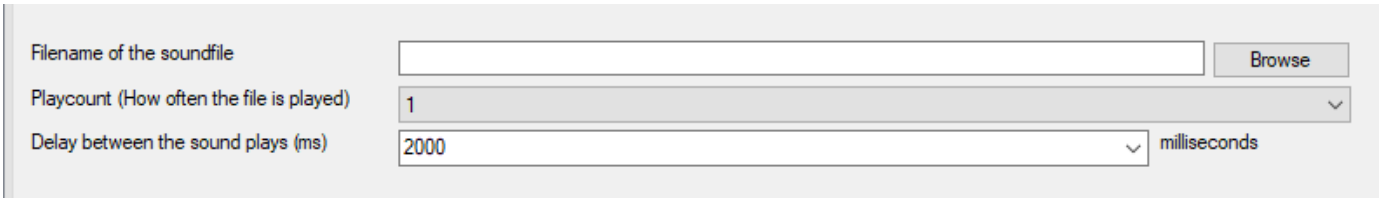
nTimeOutLimit

Description:

The amount of time (in milliseconds) the service is expected to wait for the configured action to take place.

Play Sound

This action allows you to play a sound file. Since Windows VISTA/2008/7, Microsoft has disabled any interaction between a system service and the user desktop. This includes playing sounds as well. So if you want to use the Play Sound Action on any of this Windows Version, you will need to run the service in console mode (From command prompt with the -r option).



- Action - Play Sound*

Please note: if your machine has multiple sound cards installed, the **Play Sound** action uses the playback device that Windows exposes as the primary output for the service context.

If you need a different playback device, run the service under a user account whose Windows audio settings select the desired primary output. This is an advanced workaround and is usually of limited practical value on modern server systems.

Filename of the Soundfile

File Configuration field:

szFilename

Description:

Please enter the name of the sound file to play. **This must be a .WAV** file, other formats (like MP3) are not supported. While in theory it is possible that the sound file resides on a different machine, we highly recommend using files on the local machine only. Using remote files is officially not supported (but currently doable if you are prepared for some extra effort in getting this going).

If the file can either not be found or is not in a valid format, a system beep is emitted instead (this should - by API definition - be possible on any system).

Playcount

File Configuration field:

nCount

Description:

This specifies how many times the file is played. It can be re-played up to a hundred times.

Delay between Plays

File Configuration field:

nDelay

Description:

If multiple repeats are specified, this is the amount of time that is to be waited for between each individual play.

Start Program

With the “Start Program” action, an external program can be run. Any valid Windows executable can be run. This includes actual programs (EXE files), as well as scripts like batch files (.BAT), or VB scripts (.vbs).

Start process can, for example, be combined with the service monitor to restart failed services. Another example application is a script that deletes temporary files if the disk space monitor detects a low space condition.



- Action - Start Program*

Command to execute

File Configuration field:

szCommand

Description:

This is the path of actual program file to be executed. This can be the path of any valid executable file. A relative file name can be specified if it can be found via the operating system default search path.

Use legacy parameter processing

File Configuration field:

nUseLegacyProcessing

Description:

When enabled, old style parameter processing is used. Otherwise all properties can be used.

Parameters

File Configuration field:

szParameters

Description:

These parameters are passed to the program executed. They are passed as command line parameters. There is no specific format – it is up to the script to interpret them.

Parameters can contain replacement characters to customize it with event details. This allows passing event data to the script. The following replacement characters can be used:

- %d Date and time in local time
- %s IP address or name (depending on the “resolve hostnames” setting) of the source system that sent the message.
- %f Numeric facility code of the received message
- %p Numeric priority code of the received message
- %m The message itself
- %% Represents a single % sign.

In the example above, replacement characters are being used. If a message “This is a test” were received from “172.16.0.1”, the script would be started with 3 parameters:

Parameter 1 would be the string “e1” – it is assumed that this has some meaning to the script. Parameter 2 would be the IP address, 172.16.0.1. Parameter 3 would be “This is a test”. Please note that due to the two

quotes (“), the message is interpreted as a single parameters. If they were missing, it would typically be split into several ones, with parameter 3 being “This”, 4 being “is”, and so on. So these quotes are very important!

Sync Timeout

File Configuration field:

nSyncTimeOut

Description:

Time Out option is under Sync. Processing. When a program is executed, the service waits for it to finish before it carries on further actions. This is needed in order to ensure that all actions are carried out in the correct sequence.

The external program should only run for a limited amount of time. If it would block for some reason, the agent would be prevented from carrying out any further processing. As such, a timeout value must be specified. If the program still runs after the configured timeout, the rule engine cancels it, flags the action as unsuccessful, and then carries on with processing.

Important: Even though the timeout value can be as high as 30 seconds, we strongly recommend limiting the run time of external program to below 5 seconds. Otherwise, they could affect the overall performance too much. If the average run time is 5 seconds, the default timeout of 10 seconds ensures that the program can finish even when there is high system activity.

For performance reasons, we also strongly recommend to use the “Start Program” action only for rules that apply relatively seldom.

Core concepts

Use this section to understand the core MonitorWare Agent model: input services, information units, filter conditions, actions, rules, and SETP.

These concepts explain how the product collects monitoring data, evaluates it, and decides what to do next.

Services

Services inside the product gather the data that is processed by rules. Each service type reflects a specific set of code inside the product. For example, a Syslog Service represents an instance of a Syslog server and an NT Event Log Monitor Service represents an instance of an NT Log Monitor (periodically pulling out log information).

Typically, there can be multiple instances of the same service running, as long as their configuration parameters do not conflict. For example the syslog service: there can be multiple syslog servers on a given system as long as they listen to different ports. Consequently, there can be multiple instances of the syslog service be created. For example, there could be three of them: two listen to the default port of 514, but one with TCP and one with UDP, and a third one listens to UDP port 10514. All three coexist and run at the same time.

The following services are supported:

Syslog server

Implements a Syslog server. It can be set to listen to any valid port. UDP and TCP communication is supported.

Passive Syslog Listener

The Passive Syslog Listener Service is a TCP based Listener Service that sends messages from a Syslog Queue to any remote host, that connects to it. Connections can be secured with TLS including certificate based authentication. Additionally, a greeting and response message can be configured as well.

RELP Listener

Apart from the fact that a different communication protocol is used, the RELP listener corresponds functionally to the syslog listener. The RELP listener automatically monitors all available IP addresses, including IPv4 and IPv6. This is due to the Librelp implementation method.

SETP server

Implements an SETP Server. It is used for reliable receiving event notifications.

Event Log Monitor

Monitors Windows event logs. As soon as new events are detected, these are forwarded to the product processing pipeline. This service is similar to the Adiscon EventReporter functionality.

Database Monitor

The Database Monitor read a table from an ODBC data source and generates InfoUnits out of it. These InfoUnits have properties (names by the table fields) which are filled dynamically depending on which field your table has. Each property can be used like other properties within the product.

In short it is used to Monitor Database tables. It periodically checks a database table for new records and if it finds them, generates an event from each record. A table that shall be monitored by the Database Monitor must have an integer ID field that auto-increments.

SerialPort Monitor

The SerialPort Monitor allows you to monitor devices attached to local communications ports. Actually, this is not limited to serial (RS232) devices - devices connected via e.g. LPT ports can also be monitored as long as the device provides a proper interface to the port device.

For example - uses for the serial port monitor may be interfacing to data loggers, “strange” log sources (e.g. PBX call logs) or out-of-band log retrieval (e.g. setting a router to log to the serial port instead to the network and then picking the data from that serial line). Out-of-band log retrieval can also be used to hide the fact that logging is actually taking place.

SNMP Trap Receiver

SNMP Trap Receiver allows you to receive SNMP messages. A rough description of a Trap is that it is somewhat like a Syslog message, just over another protocol (SNMP). A trap is generated when the device feels it should do so and it contains the information that the device feels should be transmitted. It also contains some (few) standard items, as the version, community etc.

File monitor

Monitors text files. As soon as new lines at the end of the file are detected, these are forwarded to the product for processing. They can be forwarded either one line at a time or in fixed chunks as set by the administrator.

Heartbeat

This service generates a special information type. Its primary purpose is to notify an upstream system that the product configured for heart beating is still alive. So the upstream system can be configured to raise alarms (or corrective action) if it does not receive heartbeats from the downstream system.

Ping Probe

The ping probe pings a configured (remote) system on a schedule. If no ping response (echo reply) is received within a configured interval, an event is generated. This way, the product can check if a remote system is responding, at least at the IP stack level.

Port Probe

This is similar to the ping probe, but works at the application level. It can be used with any TCP based service. Basically, the product goes out and periodically tries to connect to a specific TCP port on a specific (remote) machine. If the connection request fails, an event is generated. As such, failing services (like database or mail servers) can be detected.

Optionally, the port probe can send a single greeting string if the connection was established and check if a response is sent by the remote system. For example, a SMTP mail gateway can be probed by connecting to port 25 and then sending a “HELO” sequence. The system should respond with a “HELO” message. Many protocols have such command sequences. Thus, they can be very effectively probed. Again, if the system does not provide the expected response, the port probe will generate a notification event.

NT Service Monitor

The NT Service Monitor checks if vital system services and applications are running and generates an alert if not.

Disk Space Monitor

Disk Space Monitor continuously checks all hard drives for available and used space. It can be used to generate long term reports as well as alerts or corrective action on low space conditions.

Associated rulesets

Each instance of a service has an associated ruleset. This allows easy creation of customized rulesets on a per service basis. Of course, all services can also operate on a common ruleset.

All services are executed as multiple threads inside the product. From the operating point of view, there is only one system service. If the service configuration of the product is modified, the product service needs to be restarted in order to activate the new configuration. Later releases will have some options to automate this task.

Information Units

Information units contain the data gathered by the services. As soon as a service detects a reportable event, it creates a new information unit. The information unit contains a textual representation of the event (for example a syslog message) as well as information about the event itself. For example, it contains the system that the event was originated from and the date and time it was received.

Which data is contained in the information unit depends on its type. However, there are a number of common data elements present in all information units. Most of these elements can be used as filter conditions in the rule engine. Information unit specific data elements are not eligible as filter conditions. However, there are data elements (properties) which are defined to be present in all information units even though they seem to be specific to a service type. One example is syslog priority. These values are present in each information unit type simply because priority is a good abstraction for other types, too. Such generally available properties are mapped if they are not directly supported by the service type. In the example, an Event Log Monitor maps the event log severity to the syslog priority.

There is a direct one-to-one relation between service type and information unit type. Each service type has its own information unit type.

Inside the rule base, the information unit type itself can be used as a filter condition. This facilitates creating rules that check information unit type specific properties only if they originated from the specific service type (e.g. check syslog priority only if the information unit was generated by a Syslog server).

Filter Conditions

Filter conditions are used inside the rule engine. They help to decide when a rule is to be carried out. Filter conditions are considered to match of the outcome if the configured comparison operation is “TRUE”. Available filter conditions are listed down below:

- Global Conditions
- General Conditions
- Date / Time
- InformationUnit Type
- Syslog
- Event Log Monitor
- NT Service Monitor
- Disk Space Monitor
- SNMP Traps
- SerialPort Monitor
- Custom Property

Global Conditions

Global Conditions apply to the rule as whole. They are automatically combined with a logical “AND” with the conditions in the filter tree. These are:

- Treat not found Filters as TRUE*

If a property queried in a filter condition is not present in the event, the respective condition normally returns “FALSE”. However, there might be situations where you would prefer if the rule engine would evaluate this to “TRUE” instead. With this option, you can select the intended behavior. If you check it, conditions with properties not found in the event evaluates to “TRUE.

- Fire only if Event occurs* - This is kind of the opposite of the “Minimum Wait

Time”. Here, multiple events must come in before a rule fires. For example Ping is not a very reliable protocol, so a single ping might be lost. Thus, it may not be the best idea to restart some processes just because a single ping failed. It would be much better to wait for repetitive pings to fail before doing so.

Exactly this the “Fire only if Event occurs” filter condition is made for. It waits until a configured amount of the same events occurs within a period. Only if the count is reached, the filter condition matches and the rule can fire.

- Minimum Wait Time* - This filter condition can be used to prevent rules from

firing to often. For example, a rule might be created to check the status of a port probe event. The port probe probes an smtp server. If the event is fired and the rule detects it, it will spawn a process that tries to restart the service. This process will take some time. Maybe the SMTP gateway need some more time to fully start up so that the port probe might fail again while the problem is already taken care of. The port probe as such will generate an additional event. Setting a minimum wait time will prevent this second port probe event to fire again if it is – let us say – within 5 minutes from the original one. In this case, the minimum wait time is not yet reached and as such, the rule will not match. If, however, the same event is generated 5 hours later (with the mail gateway failing again), the rule will once again fire and corrective action taken.

Date Conditions

Rule processing can be bound to a specific or the installation date. By default a Rule will always be processed.

General Filter Conditions

This set includes filters which are related to Non-Event Log specific settings. These are:

- Source System* - This is the system a message is originated from. It can be

used to check for authorized systems to pass messages to the MonitorWare Agent.

- Message Content* - The message content filter condition is very powerful. It

evaluates to true if the specified content is found anywhere in the message. As there is implicit wildcarding, there is no need to specify extra wildcards.

- CustomerID* - CustomerID is provided for customer ease. For example if someone

monitors his customer’s server, he can store different CustomerIDs in each agent. This is user configurable.

- SystemID* - SystemID is of type integer and is to be used by our customer. In

addition, it is user configurable.

- Status Name and Value* - These filter type corresponds to set status action.

Date / Time

This filter condition is used to check the time frame and / or day of week in which an event occurred.

- Time* - This filter condition is used to check the period in which an event

occurred. For example, a syslog message from a Cisco router saying that it dialed up is normal if it occurs during office hours. If it occurs at night, so, it is an alerting signal and an administrator might receive notification of this event (while he might otherwise decide to discard it). This can be done with the time setting.

- Weekdays* - This is closely equivalent to the time filter condition, except that

it is applied on a per-day basis. So it can be used to detect for example events occurring on weekends and act differently on them.

Information Unit Type

This is based on the type of service that generated the information unit. So with this setting rules can be created that act only on e.g. syslog messages or NT event reports.

Syslog

Syslog related filters are grouped here:

- Syslog Facility* - For syslog information units, this is the actual syslog

facility. If that filter condition is used on non-syslog originated information units, it will be a value mapped on a best effort basis to a syslog facility.

- Syslog Priority* - For syslog information units, this is the actual syslog

priority. If that filter condition is used on non-syslog originated information units, it will be a value mapped on a best effort basis to a syslog priority.

- Syslog Tag* - The syslog tag value, is a short string. This is provided for

non-syslog messages based on configuration. In most cases, this is used for filtering.

Event Log Monitor

Event Log Monitor related filters are grouped here:

- Event ID* - For Event Log Monitor information units, this is the actual NT event

log ID. For others, this value is undefined. We recommend using it with Event Log Monitor information units only.

- Event Type* - For Event Log Monitor information units, this is the actual NT

event log. If enabled, the event must have the configured event type or the rule will not match. This filter condition should only be used with event log information units only.

- Event Source* - For Event Log Monitor information units, this is the actual NT

event log source. For others, this value is undefined. We recommend using it with Event Log Monitor information units only.

- Event Severity* - For Event Log Monitor information units, this is the actual NT

event log severity. For others, the value is mapped on a best effort basis or not available. We recommend using it with Event Log Monitor information units only.

- Event Category* - For Event Log Monitor information units, this is the actual NT

event log category. If enabled, the event must have the configured event category or the rule will not match. This filter condition should only be used with event log information units.

- Event Categoryname* - This value contains the Category value as string if it can

be resolved. Otherwise it will contain the category number.

- Event User* - For Event Log Monitor information units, this is the actual NT

event log user. If enabled, the event must have the configured event user or the rule will not match. This filter condition should only be used with event log information units.

NT Service Monitor

The NT Service Name is used to check if vital operating services are running continuously. By default these services set to “automatic” startup. If the value returned is not true then corrective measures can be taken e.g. alerts can be generated.

DiskSpace Monitor

A flexible dialog allows to generate filters on disk free space – both with an absolute or relative value. Multiple comparisons can be done.

SNMP Traps

Using SNMP Traps MonitorWare Agent can be used to manage and monitor all sorts of equipment including computers, routers, wiring hubs etc. A trap is generated when the device feels it should do so and it contains the information that the device feels should be transmitted. Related filters are grouped here:

- Community* - It corresponds to the respective SNMP entity.
- Enterprise* - It corresponds to the respective SNMP entity.
- Generic name* - It corresponds to the respective SNMP entity.
- Version* - It corresponds to the respective SNMP entity.
- Uptime* - It corresponds to the respective SNMP entity.

Serial Port Monitor

The serial port monitor allows you to monitor devices attached to local communications ports.

Custom Property

As the name suggests it is a “Custom Property”. Internally in MonitorWare Agent all values are stored in properties. For example the main message is stored in a property called “msg”. By using this dialog you can access properties which are dynamic (Like those from SNMP Trap Monitor when using v2 protocol).

Actions

Actions tell the Product (i.e. MonitorWare Agent or EventReporter or WinSyslog or any of the combinations) what to do with a given event. With actions, you can forward events to a mail recipient or Syslog server, store it in a file or database or do many other things with it. There can be multiple actions for each rule. These actions are described in the following section.

Write to File

The message is written to a plain text log file.

Write to Database

The message will be written to the specified ODBC database. This database format will be used by the MonitorWare Console that becomes available later. Therefore, if you intend to use the console, we recommend adding at least one rule that persists data to the database.

Write to EventLog

The message will be written to the application event log. Please note that the agent intentionally does not try to make the message look like it was generated on the local system. This could be very confusing. Instead, it is written inside the message part with standard values for event source and type.

Forward via Email

The message will be forwarded via email. Please note that each message will generate one email message. Messages are not combined to fit into a single mail. The Send Mail Action includes a timeout feature (m_nTimeoutValue) that provides control over message delivery timing.

Forward via Syslog

The message will be forwarded to a syslog daemon. UDP and TCP forwarding is supported.

Forward via SETP

The message will be forwarded via the custom SETP protocol. This is typically used in environments where data from different agents will be consolidated in a central place. SETP allows to transfer all InformationUnits exactly as they are. As such, the central repository can store an exact picture of the whole network.

Net Send

> **Warning**
>
> **Removed from configuration client (26.07).** Retained for reference only.

The message was forwarded via the Windows `net send` functionality. The Windows Messenger service is unreliable on modern Windows and is no longer available from the configuration client. Use **Send Email**, **HTTP REST Output**, or other forwarding actions instead.

Start Program

The message will be passed to an external process. The command line is specified in the action modifier.

Play Sound Action

This action allows you to play a sound file.

Send to Communications Port

This action allows you to send a string to an attached communication device, that is it sends a message through a Serial Port. It can send any message to a configured Serial or Printer port.

Set Status

This action allows you to create new properties of your own choice in the incoming messages. There is an internal Status List within the product which you can use for more complex filtering. You can set property over the Set Status action and you can add filter for them. They are more or less helpers for building complex rule constructions.

Set Property

With the “Set Property” action, some properties of the incoming message can be modified. This is especially useful if an administrator would like to e.g. rename two equally named devices.

Call RuleSet

This Action simply calls another RuleSet in some existing RuleSet. When this Action is encountered, the Rule Engine leaves the normal flow and go to the called RuleSet (which may contain many rules as well). It executes all the rules that have been defined in that called RuleSet. After the execution of all of them, it will return to its point from where it left the original flow.

Discard

Please see the rules description below for a complete discussion. Effectively, the message will be discarded and any further processing of this information unit be stopped as soon as a “Discard” action is found.

Post-Process Event Action

The post process action allows you to re-parse a message after it has been processed e.g. Tab Delimited format. Such re-parsing is useful if you either have a non-standard syslog format or if you would like to extract specific properties from the message.

Rules

Rules are the workhorse of the MonitorWare Agent. All actions and processing carried out is configured by the rules defined. Rules are configured by the client and processed by the so-called “rule engine” inside the MonitorWare Agent service.

You might already know something similar to the MonitorWare Agent rule engine. Rule engines and rule bases are an extremely powerful tool and in widespread use in the industry. Examples of rule bases can be found at Checkpoint’s Firewall One Firewall Rule Base or Cisco Routing filter - just to name a few.

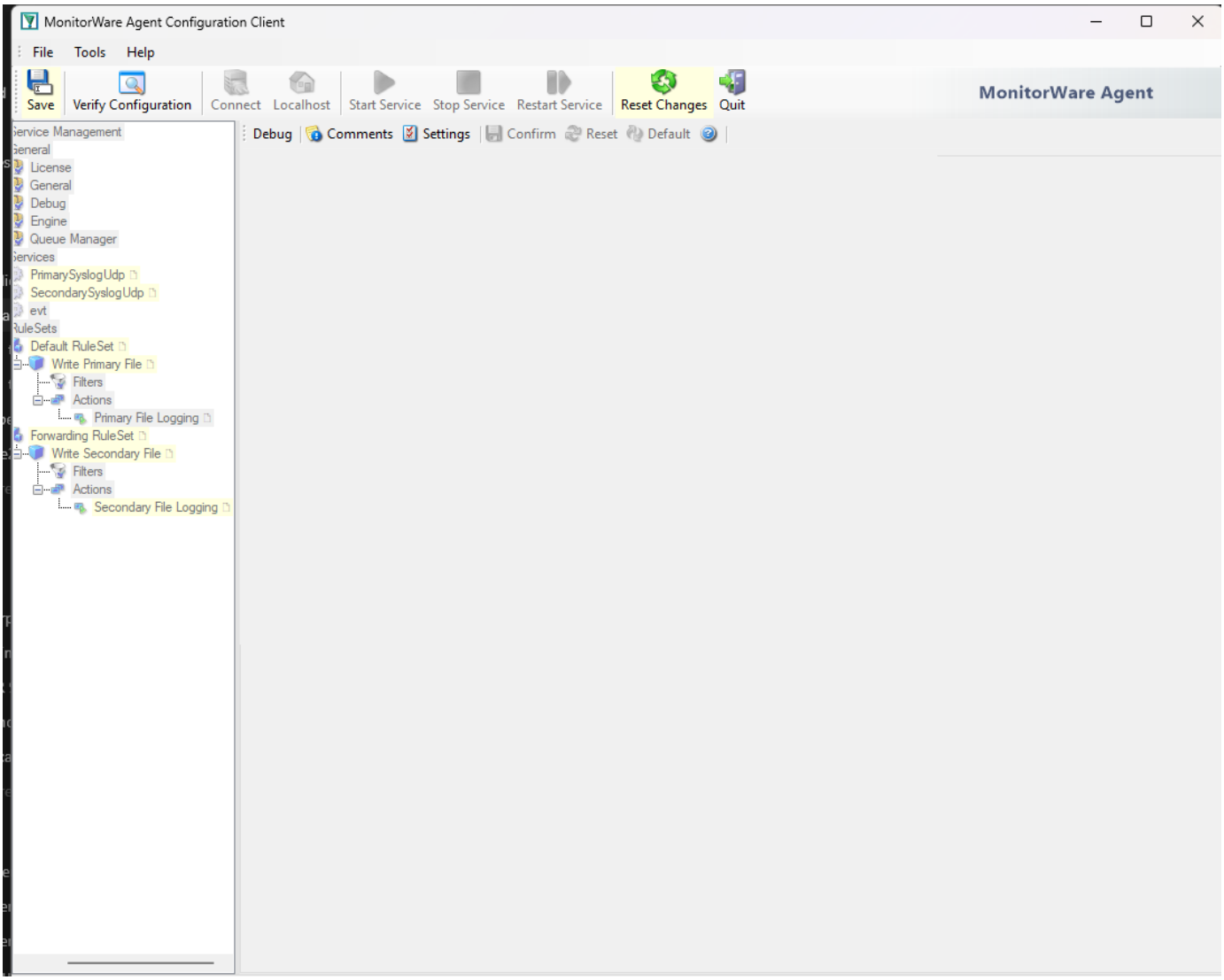
The rule base consists of the rules as configured in the client. The rule engine is the process carrying out the rules. A rule base can contain no, one or an unlimited number or rules. However, if there is no rule at all defined, no action will ever be carried out by the agent. Consequently, the client will issue a warning message in this case.

A rule has a description, associated match conditions, and actions. The match conditions are called “filter conditions”. These specify when a rule is to be carried out. Again, there can be no, one, or many filter conditions for a single rule. If there are no filter conditions, the rule will always match. This is useful in many cases. If there is more than one filter condition, all filter conditions need to match in order for the rule to match (logical AND).

Actions associated with a rule specify what to do when the associated rule matches (and only the associated rule). Actions carry out the actual processing of messages. For example, actions include logging a message to a flat file or database, sending it via email or forwarding it to syslog daemon or another MonitorWare Agent. There can be no, one, or an unlimited number of actions associated with a rule. However, if no action is associated, the rule will not have any effect. Consequently, the client will issue a warning when writing the rule base. Rules without actions can be useful to temporarily disable a rule with complex filter condition. If there are multiple actions, they are not guaranteed to be carried out in any specific order. If you definitely need an action to be carried out before another one, you currently need to define two rules.

Actions can be modified with action modifiers. These are the strings attached to a specific action. Action modifiers allow customizing a specific behavior of this action. It modifies only this action and only this one, other actions of the same type are not affected - regardless if the appear in the same rule or a very different one. The use of the action modifier depends on the type of action. For example, with syslog forwarding it is the host the syslog message is to be forwarded to. With ODBC database logging it is the DSN and so on. If there is no action modifier, the values configured in the client’s configuration tabs will be used. They are also used for all values that cannot be modified via the action modifier (e.g. the SMTP server address for email forwarding).

Below find a screenshot of a rule base with a number of rules, filter conditions and action modifiers:



MonitorWare Agent sample rule base

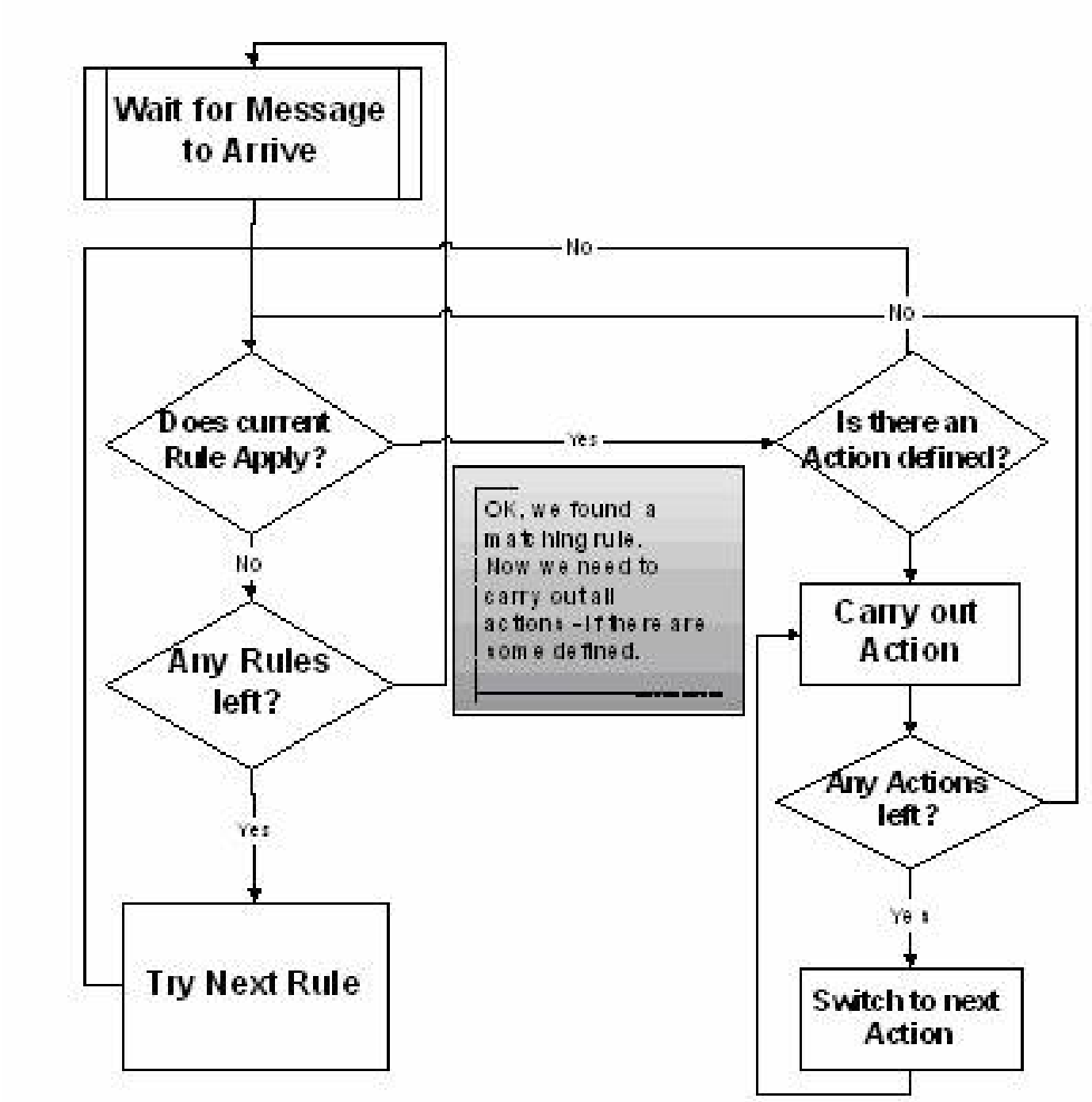
Now that we know the elements, how are rules being processed. It is easy. Rules are strictly processed from top to bottom, or from number one to the last one. For each rule the filter conditions are checked to see if they match. If they do, all associated actions are carried out. Then, the rule engine advances to the next configured rule. Once again, it checks if it matches and - if it does - carries out the actions associated with that rule. Then the next rule is processed and so on. The rule engine stops when there are no more rules to be evaluated. It also stops if a rule contains a “discard” action.

The “discard action” is a very special and powerful action. It does not actually carry out any processing. In fact, it disables all further processing for a message as soon as it is found by the rule engine. So what is the discard action good for? It is used to handle common situations where a number of well know messages - unimportant messages - should be filtered out so that the other rules do not need to take care of these messages. In many other products using rules bases, this is called the “block rule”. Please note that with Adiscon’s rule engine, there can be multiple block rules at multiple layers of the rule base giving you additional flexibility.

One last thing to mention: the rule base is applied to every message arriving at the MonitorWare Agent. By design, there is no way to modify the behavior of the rule base for the next message to be arrived. This ensures an always consistent processing of incoming messages. However, there can be multiple rule bases. Each rule base is associated with a service. Only the rule base associated with the service generating the message will be processed.

While building and testing your rule base, please keep in mind that the MonitorWare Agent service needs to be restarted to load a modified rule base. The reason is that the service does not re-read the rule base to save system resources.

There is an online seminar available on the rule engine and its processing. If you are interested in a more in-depth view, you might want to visit it at rule engine.



Rule Engine Flowchart

For those interested in more in-depth information on how the rule engine works, this flowchart might be helpful:

There is an online seminar available on the rule engine and its processing. If you are interested in a more in-depth view, you might want to visit it at rule engine.

The Rule Engine

Overview

This paper explains you the Rule Engine that is employed in some of the MonitorWare Line of Products namely MonitorWare Agent, WinSyslog, and EventReporter 6.0 (and higher)

What is the Rule Engine

Rule Engine is actually an engine present in the above mentioned MonitorWare Line of Products using which you can define certain filters and the actions that are to be carried out if the defined filter condition matches with the real time condition.

Rule Engine revolves around four basic concepts:

- Information Unit
- Information Services
- RuleSets
- Queue Manager

In order to understand the complete Rule Engine, you need to understand the above mentioned four concepts. The details of these are written below

1. Information Unit (Info Unit)

“Information Unit” or “Info Unit”, as we call it, is the basic building block of Rule Engine. Info Unit is basically an object that contains all the information about a specific event which includes:

- Message
- Which application generated this event
- When this event was generated
- Syslog Facility
- Syslog Priority
- Info Unit Type (it tells which Info Service has generated this Info Unit)
- etc

The following figure will give you an idea about an Info Unit:

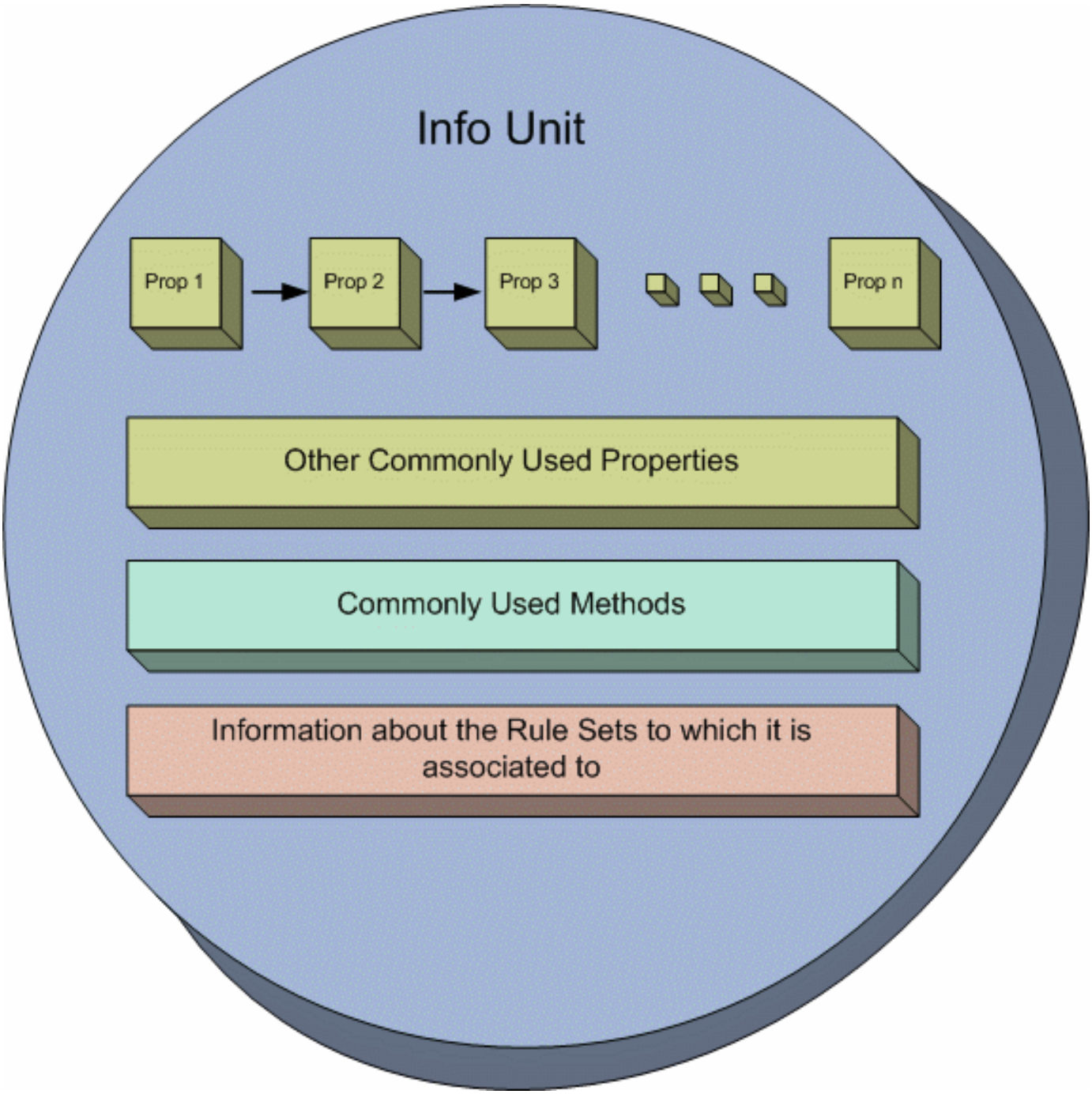


Figure 1: Conceptual Diagram of an Info Unit

As the figure illustrates, an Info Unit contains most of the properties (mentioned above in bullets) in the form of a list. In addition to this list, it also has some commonly used properties separately stored in it (for efficiency reasons). Apart from the properties, an Info Unit also has some methods which allow it to write it or to construct itself etc. Information about the RuleSets (will be explained in the coming sections) is also contained within each Info Unit so that it exactly knows which rules will be applied on it.

2. Information Services (Info Service)

“Information Services” or “Info Services”, as we call them, generate Info Units. Each Information Service will generate its own Info Units. The important thing to note over here is that each Info Unit has the same format but can have different properties and rulesets associated with it. For example, if an architect makes a building plan then it becomes a template. Now he can use this template to construct as many buildings as he likes but each one can have different properties (they can differ in color scheme, window styles etc). Exactly in the similar way, an Info Unit is actually a template from which each Info Service makes a specific object of Info Unit that might differ in properties from another Info Unit object.

Examples of Info Services

There can be a number of different examples on Info Services. Following are some of the examples:

1. Syslog server

It receives the messages that are forwarded to it and for each message (or event) it generates an Info Unit out of it.

2. Event Log Monitor

It picks up the events from the Window's Event Log and for each event it constructs an Info Unit.

3. Ping Probe

It pings a specified device and if doesn't find a response from the other side, it generates an Info Unit with desired information.

Important Note

One thing to note about Info Services is that there can a number of different Services running on the same machine. You can even run the different instances of the same Info Service (but with different properties naturally). In either case, each Info Service will generate its own Info Unit.

3. RuleSets

As the name suggests, a RuleSet is a set of Rules. A "Rule" consists of the following two things

- Filter Condition
- Actions

You might have noticed that the point 1 written above is singular and point 2 is plural which clearly means that you can define only one Filter condition for one rule but can define as many actions as you like. The filter condition can however contain as many Boolean operators as you like.

Filter Condition

Filter Condition is a combination of different Boolean operators which will evaluate to a Boolean answer. In simple words, the result of a filter condition can either be True or False.

Actions

Actions are all those events which are fired when a filter condition evaluates to a True value. As mentioned above, a Rule can have more than one actions associated with it which means that if a filter condition evaluates to a true value then all of the actions associated with that rule will execute. If the filter condition, on the other hand, evaluates to a false value then all of the defined actions will be skipped.

Note that other than normal actions, there are three special kinds of Actions that are worth mentioning here:

- Discard Action (Explained Later)
- Include Action (Explained Later)
- Actions that can alter the contents of Info Units permanently

4. Queue Manager

Queue Manager simply maintains a queue of all of the Info Units that have been forwarded to it by different Info Services.

Overall Picture

This section will explain you that how the different components are related to each other and how does the whole process work. The picture shown below gives an idea about how things are working. As you can see that we have four different stages through which the events are processed.

Info Services picks up the events and convert them into Info Unit. Note that each Info Service has its own Info Unit. These Info Units are passed to the Queue Manager. The job of the Queue Manager, as mentioned above and as clear from the diagram, is to simply make a queue of these Info Units that it has received from various Info Services. The Rule Engine picks up the Info Units from this Queue Manager, applies the rules on these Info Units (as

mentioned above, each Info Unit has the information about which rules should be applied on it) and if necessary carries on the actions. The rule engine keeps on repeating this process while there are some Info Units present in the Queue.

Manager's Queue

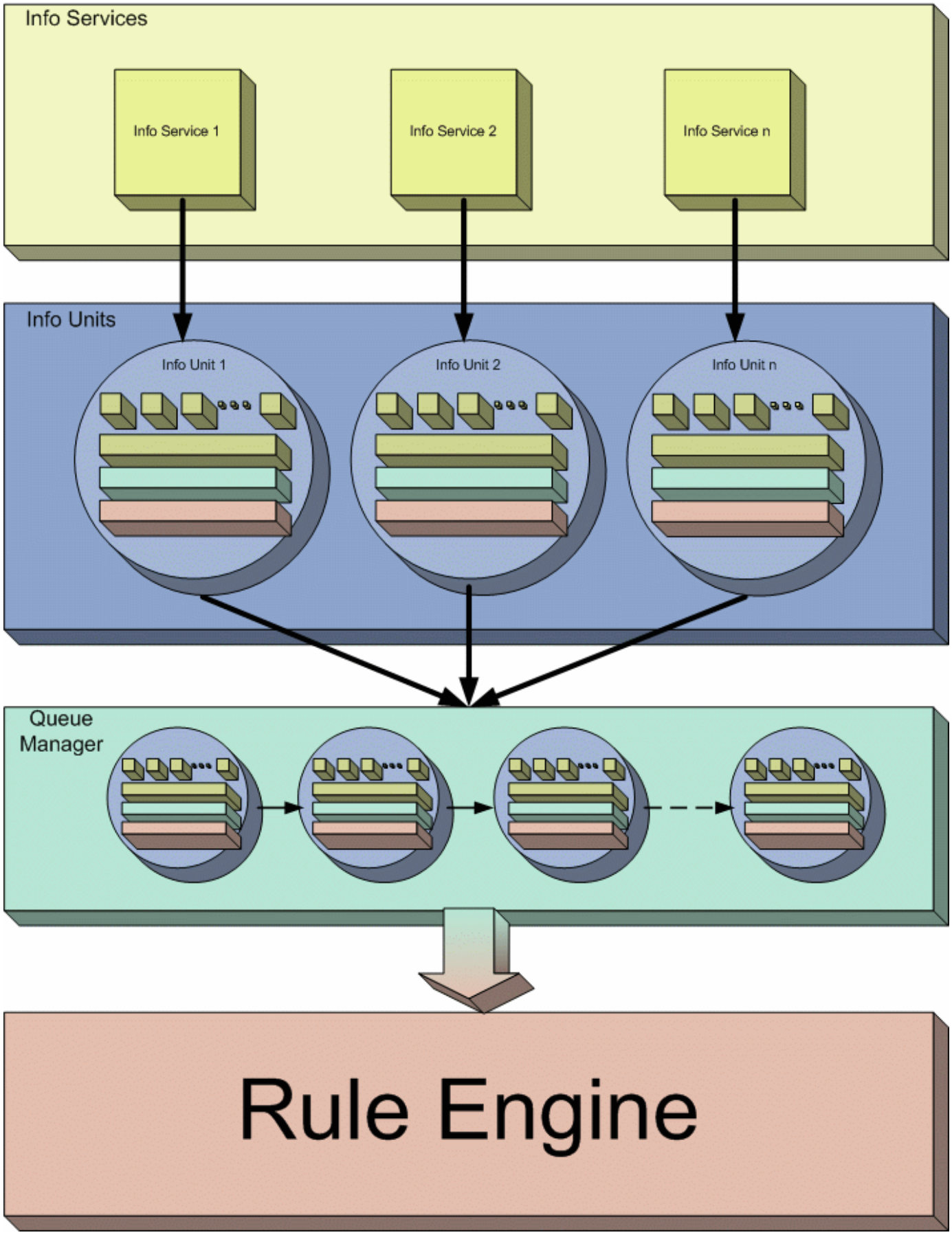


Figure 2: Overall Process

How Does the Rule Engine Work

Having explained the overall picture of the whole process, let’s specifically talk about Rule Engine. The following figure explains it in detail:

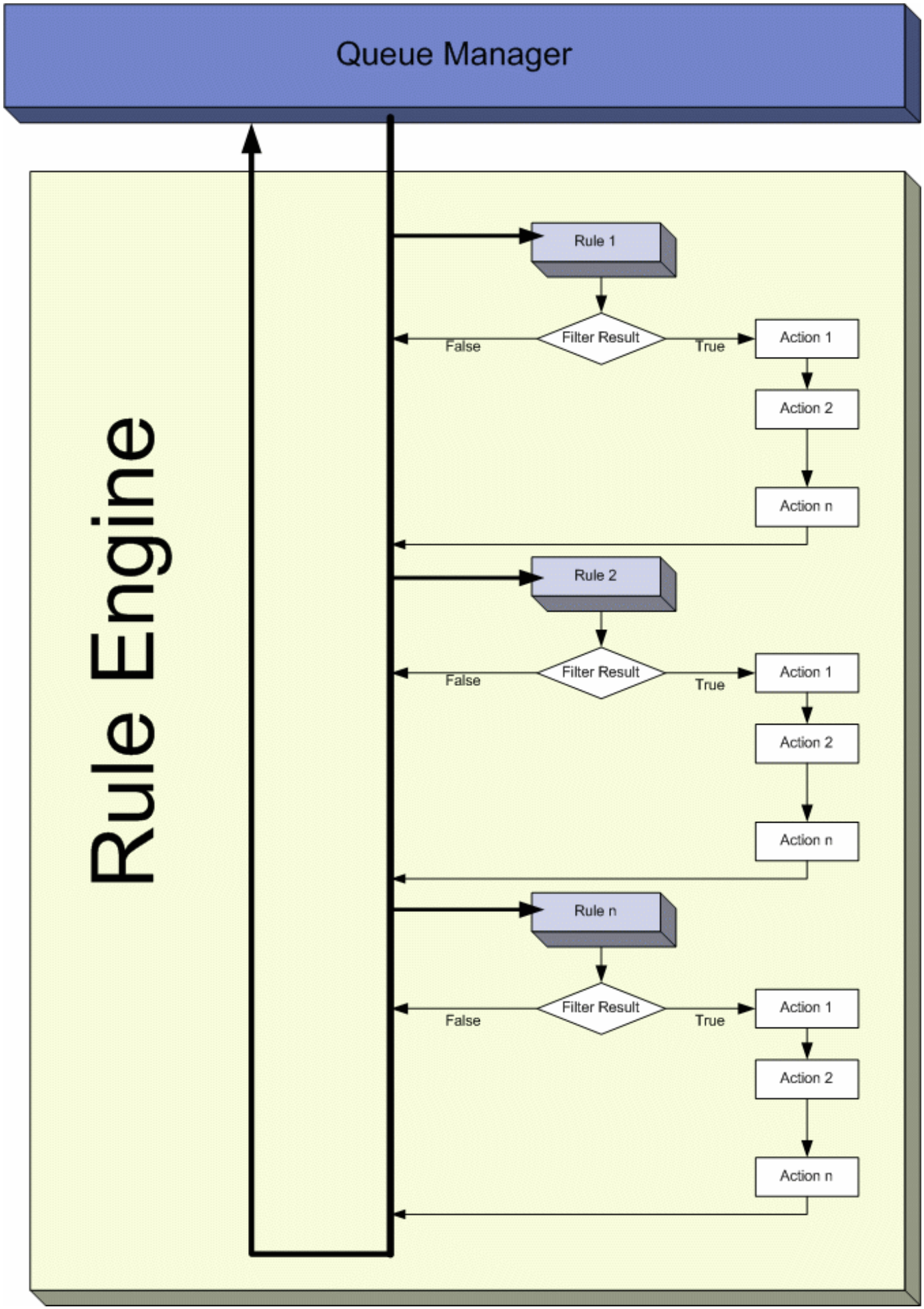

Queue Manager
Rule Engine
Rule 1
Filter Result
False
True
Action 1
Action 2
Action n
Rule 2
Filter Result
False
True
Action 1
Action 2
Action n
Rule n
Filter Result
False
True
Action 1
Action 2
Action n

Figure 3: Working of Rule Engine

As you can see in the figure, the Rule Engine picks up Info Units one by one from the Queue Manager. Since each Info Unit has the information about its Rule sets, it will apply the rules on it in the same order in which they were defined. As you can see above, it will pick up the first Rule and evaluates its Filter Condition. If that Filter Condition is evaluated to false, all the actions associated with that rule will be skipped and it will pick up the second Rule. If the Filter Condition, on the other hand, evaluates to True, it will execute all the actions that are associated with this Rule in the order in which they were defined. After the execution of all these actions, it will pick up the next rule in the current ruleset. Once all the rules have been executed, the current Info Unit (that was handed over to Rule Engine by the Queue Manager) will be destroyed and the Rule Engine will go to the Queue Manager to pick up the next Info Unit if there exists one.

The above picture has been drawn for normal flow of executions. There can be 2 conditions when the flow will not follow the diagram shown above. These conditions arise in response to 2 special kinds of actions that are called Discard Action and Include Action.

Discard Action

A Discard Action immediately destroys the current Info Unit and any action of any Rule that has been defined after the Discard Action will not be executed at all. Let's take a simple example to clarify it further.

Let's say that Action 2 of Rule 1 in the picture above is a Discard Action. If the Filter Result of Rule 1 is evaluated to true, then Action 1 will be executed. As Action 2 is a Discard Action, immediately the current Info Unit will be destroyed (which means that now the Rule Engine will skip all the Rules and all the actions associated with them) and the Rule Engine will go back to the Queue Manager to pick up the next Info Unit in the Queue.

Include Action

An Include Action simply includes another RuleSet in some existing RuleSet. When this Action is encountered, the Rule Engine leaves the normal flow and go to the included ruleset (which may contain many rules as well). It executes all the rules that have been defined in that included RuleSet. After the execution of all of them, it will return to its point from where it left the original flow. Let's take an example to clarify it a little further.

Let's say that the Action 1 or Rule 1 is an include action. If the Filter Condition result of Rule 1 evaluates to true, it will execute the Action 1. Since Action 1 is the include action in this example, it will go to the included ruleset and will execute its Filter Condition. If that filter condition evaluates to true, it will execute all of its actions and will return to Action 2 of Rule 1 (of normal flow) and if on the other hand, the filter condition of the included ruleset evaluates to false, it will skip all of its actions and will come back to the Action 2 of Rule 1 (of normal flow).

Note that there is no limit on including the rules which means that a rule that has been included in another rule may contain another rule in it which might contain another rule in it and so on.

Suggestions for Defining Complex RuleSets

While defining a complex RuleSet, it might be a good idea to follow the stages defined below.

Edit Stage # - Actions Stage 0 - Discard unwanted events Stage 1 - Post Process Stage 2 - Discard unwanted events Stage 3 - All Actions Stage 4 - Individual Actions

As mentioned above, the rules and actions will be executed in the order in which you will define them. So it's very important that you define the actions in a way such that you achieve the desired results as well as achieve them with efficiency. For example, if you haven't defined any filter which we call as No Filter (it always evaluates to true) and if the first action that you have defined is the Discard Action, then there is no meaning of defining any action after this first action because the first action will always be executed and it will always discard the complete Info Unit.

Here is the explanation of the above mentioned stages.

Stage 0

In this stage, you can discard those events that you are not interested in. You can use the Discard Action explained above to discard the events.

Stage 1

In this stage, we recommend to Post Process the incoming Info Units. Once the Info Unit has been handed over to the Rule Engine from the Queue Manager, you can actually change the contents of the Info Units to make them more meaningful.

Stage 2

In this stage, you might want to again discard those events that you are not interested in. Simply use the Discard Action.

Stage 3

In this stage, you will apply the actions that will apply to all of the Info Units coming (to be more specific, you will apply those rules over here for which you have selected “No Filter” as the filter condition.

Stage 4

In this stage, you will create the rules for which you have specific filter conditions.

To sum it up, we recommend doing most generic things first and least generic things later or in other words, do the generic things first and the specific things later. Note that this section suggests only the typical scenario but it can vary from depending upon the needs. For example, you might want to perform some actions on some specific events after stage 1 and before stage 2.

SETP

SETP is the “Simple Event Transfer Protocol”. SETP allows reliable delivery of events between SETP supporting systems. EventReporter, WinSyslog, and MonitorWare Agent support SETP. EventReporter works as SETP Client Only. As such, it can forward events generated and gathered by them to central or intermediary SETP servers. WinSyslog EnterPrise Edition works as SETP client and server, only. The MonitorWare Agent can operate both as a SETP server and client and as such also as a relay. It plays a vital role in a complex, distributed environment.

SETP was developed for MonitorWare. It allows synchronous communication between SETP clients and servers. With SETP, an event can be forwarded exactly as it was on the original event generating system. For example, if a syslog message is received on a remote system, that exact syslog message can be forwarded via as many SETP relays as is configured. During that relaying, no information from the original message is altered or lost. As such, each of the relays as well as the final SETP server will see the original source address, time stamps and message.

Furthermore, SETP guarantees reliable delivery. It is based on TCP, so each of the SETP peers know exactly that the communication partner can successfully receive and process the message. SETP guarantees that new events are only forwarded after the previous ones were successfully received and processed. SETP also checks for on the wire errors. Due to its characteristics, SETP can successfully be used in barely or occasionally connected environments like radio connected systems.

The SETP design is influenced by many industry standard movements, most notably the BEEP protocol and XML. However, SETP is optimized to have a very lightweight footprint. As such, it can be implemented even in low powered devices with little overhead.

Sales

This section answers sales and licensing questions for Adiscon products in a question-focused format.

Use this section for commercial topics (quotes, orders, licenses, renewals, and purchase orders). For technical troubleshooting and product support, use the FAQ and troubleshooting sections in the relevant product manual.

Quick actions

- I need to contact sales: How do I contact Adiscon sales?.
- I need to request a quote: What should I include in a quote request?.
- I opened a ticket and need to check delivery/notification behavior: What happens after I open a sales ticket?.
- I need help with purchase orders and billing data: How do purchase orders and billing requests work?.
- I need product licensing and ordering links: Licensing and ordering.
- I need to use an older product version with my license: Can I use an older product version with my license?.
- I need to confirm offline or air-gapped licensing behavior: Air-gapped environments.
- I need UpgradeInsurance policy details: UpgradeInsurance.

How do I contact Adiscon sales?

Short answer

Use the Customer Service System as the primary channel; email to `sales@adiscon.com` is also accepted and creates tickets.

Question

How do I contact Adiscon sales for quotes, ordering, licensing, or renewals?

Answer

Use the Customer Service System. This is the primary contact path for sales questions.

Details

- You can also send email to `sales@adiscon.com`.
- Emails to `sales@adiscon.com` create tickets automatically.

- The ticket portal is recommended because email delivery can be unreliable in both directions (customer to Adiscon and Adiscon to customer).
- If you do not see a response, this is usually a delivery or filtering issue, not an intentionally unanswered request.
- Choosing a sales category helps speed up handling. If a ticket is opened in the wrong category, it is reassigned internally.
- For language handling, see **`../contact-language-policy`**.

Technical support routing

For technical incidents, troubleshooting, and product behavior issues, use the support category in the same system or the FAQ and troubleshooting sections in your product manual.

Next action

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

What should I include in a quote request?

Short answer

You can start with a short request, and sales will guide you through missing details; providing more context upfront can speed up the first quote.

Question

What information should I provide to get an accurate sales quote quickly?

Answer

You can start with a short message like “I want to buy your tool.” Sales will follow up and guide you through any missing details.

Details

If you want a faster first quote

- Product name
- Edition (if known) or note that you need help selecting one
- Number of licenses or systems/devices to be covered
- Billing country
- Commercial contact email

Optional but speeds finalization

- Deployment type (for example production, test, or mixed)
- License term and UpgradeInsurance requirements
- Preferred purchase method (online order or purchase order)
- Company legal name and billing contact details
- Target purchase timeline
- Existing license, renewal, or expansion context

EU VAT note

Customers in EU member states are normally charged VAT. If your organization is eligible for VAT exemption, provide your official VAT ID during ordering or invoicing so the billing team can apply the exemption.

Optional copy/paste template

If you already have details, this template can speed up quote processing:

```
Product:
Edition (or "help me choose"):
Scope (licenses/systems/devices):
Deployment type (production/test/mixed):
License term / UpgradeInsurance needs:
Billing country:
Company legal name:
Purchase method (online order/PO):
Target purchase date:
Existing license context (if any):
VAT ID (EU, if applicable):
Contact email:
```

Next action

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

What happens after I open a sales ticket?

Short answer

Your ticket is confirmed by email and then handled in the same ticket thread, with first response usually within one business day.

Question

What should I expect after opening a sales ticket?

Answer

Adiscon sales reviews and responds in the same ticket thread, which is the primary place to track status and replies.

Normal flow

1. You open a ticket (via portal or email).
2. An automatic confirmation email is sent (if a valid address is available).
3. A sales agent replies in the same ticket thread.
4. Follow-up questions and updates continue in that same thread.

Details

Notification behavior

When a ticket is opened, an automatic response is sent by email to the registered address (if available).

If no automatic response arrives

Do the following:

- Spam or junk folders
- Mail security gateways
- Internal email policy filters

Then sign in to the Customer Service System to confirm whether your ticket was created.

Avoid duplicate tickets

If a ticket already exists, continue in that ticket instead of opening a duplicate request. Duplicate tickets can slow handling and split context.

When replying by email, keep the same subject/thread whenever possible so updates remain attached to the original ticket.

Next action

Check and continue the existing ticket in the Customer Service System. If no ticket exists, open a new one in the portal or send email to `sales@adiscon.com`.

How do purchase orders and billing requests work?

Short answer

Use the Customer Service System for PO processing, billing changes, and invoice requests; for enterprise procurement flows, describe your process and Adiscon will adapt as much as possible.

Question

How do I handle purchase orders, invoicing, and billing-data updates?

Answer

Use the Customer Service System for purchase order processing and billing requests. Include complete company and billing details to avoid order delays.

Details

Typical flow

1. Open a sales ticket in the Customer Service System.
2. Share PO and billing details in that ticket.
3. Sales confirms details and clarifies open points.
4. Order and invoice handling continues in the same ticket thread.

For larger organizations with their own procurement flow, open a sales ticket and describe your process. Adiscon will adapt as much as possible.

Purchase orders

Helpful information to include at the start:

- PO number (if already issued)
- Company legal entity
- Billing address
- Billing contact
- Product and scope

For formal purchase order requirements and additional details, see: Adiscon purchase orders.

Billing and invoice requests

For invoice details, billing data updates, tax/VAT information, and related order handling, contact sales via the Customer Service System.

Use the Customer Service System for billing-data changes both before and after order placement.

Security and language

- Prefer the ticket portal (including attachments) over plain email when sending sensitive billing data.
- For language handling, see **`../contact-language-policy`**.

Common requests

The sales team can also handle:

- Invoice copy and invoice re-send requests
- Billing address/contact changes
- VAT/tax-related billing updates

Next action

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

Licensing and ordering

Short answer

Use product ordering pages for direct purchase or open a sales ticket for edition guidance and licensing clarification.

Question

How do I order Adiscon products, and where do I clarify licensing questions?

Answer

Order through the product-specific ordering pages or via purchase order. If edition or licensing details are unclear, open a sales ticket first.

Details

Trial period

WinSyslog, EventReporter, MonitorWare Agent, and rsyslog Windows Agent provide 30-day trial functionality after installation. After that period, a valid license is required for full-feature operation.

License agreement (EULA)

The End User License Agreement (EULA) is shown during setup. If you need a copy or have licensing questions, contact the Customer Service System.

Product-specific links

Product	Pricing and ordering
WinSyslog	WinSyslog ordering page
EventReporter	EventReporter ordering page
MonitorWare Agent	MonitorWare Agent ordering page
rsyslog Windows Agent	rsyslog Windows Agent ordering page

Choosing an edition

If you are unsure which edition fits your requirements, open a sales ticket in the Customer Service System. A short request is enough to start.

Product-specific licensing details

Licensing and counting rules can be product-specific. For now, use the sales ticket process to clarify product-specific licensing details. These details will be documented in dedicated product-specific sales pages.

Offline and licensing behavior

For common licensing and deployment questions, see these canonical answers:

- Air-gapped environments
- Offline installation and activation
- Online verification after activation
- Perpetual licenses and UpgradeInsurance
- Can I use an older product version with my license?

Purchase methods

You can place orders through each product ordering page or by purchase order. If you need a formal quote before placing the order, open a sales ticket in the Customer Service System.

Maintenance and renewal

For maintenance and renewal policy details, see UpgradeInsurance.

Purchase orders and billing

For purchase order handling and billing details, see How do purchase orders and billing requests work?.

Next action

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

Can I use an older product version with my license?

Question

Can I use an older Adiscon product version with my current license?

Answer

Yes. Your license can cover older product versions.

If the older product version does not support license files, contact Adiscon support or sales and request a free license key for that product version.

Details

Current products use a `license.alic` license file. Older products that do not support license files use a registration name and license key instead. Tell Adiscon which product and version you need to run so the license can be issued in the right format.

Related information

- How do I contact Adiscon sales?
- Licensing and ordering

Air-gapped environments

Short answer

Adiscon products can be deployed and operated in fully closed environments without internet access.

Question

Can Adiscon products be used in completely closed or air-gapped environments?

Answer

Yes. Adiscon products support deployment and operation in fully closed networks.

Details

Products can be installed and operated in environments where internet access is not available or not permitted. They do not require outbound internet access for normal runtime operation in such environments.

If you also need details about license activation without internet access, see Offline installation and activation.

Action path

If your procurement or security process requires a written confirmation for a specific environment, open a sales ticket in the Customer Service System.

Related information

- Offline installation and activation
- Online verification after activation

Offline installation and activation

Short answer

Installation and license activation do not require internet access.

Question

Do Adiscon product installation and license activation require internet access?

Answer

No. Installation and license activation can be completed without an internet connection.

Details

Adiscon supports installation and license activation in offline environments. This allows products to be deployed in restricted networks where direct internet connectivity is not available.

This question is separate from whether the licensed product later requires online verification. For that, see Online verification after activation.

Action path

If you need product delivery or license handling guidance for an offline rollout, open a sales ticket in the Customer Service System.

Related information

- Air-gapped environments
- Online verification after activation

Online verification after activation

Short answer

After activation, Adiscon product licenses do not require ongoing internet connectivity, online heartbeats, or “phone home” checks to remain valid.

Question

Do Adiscon product licenses require online verification after activation?

Answer

No. After activation, the license remains valid without periodic online verification.

Details

Once the product is installed and the license has been applied, no ongoing outbound connection to Adiscon systems is required to keep the license active. There is no periodic online verification, heartbeat, or “phone home” mechanism needed to maintain licensed status.

This question is separate from whether installation and activation themselves require internet access. For that, see Offline installation and activation.

Action path

If your security or compliance process requires explicit confirmation about offline license behavior, open a sales ticket in the Customer Service System.

Related information

- Air-gapped environments
- Offline installation and activation
- Perpetual licenses and UpgradeInsurance

Perpetual licenses and UpgradeInsurance

Short answer

Adiscon product licenses are perpetual. UpgradeInsurance is a separate, time-limited service that is strongly recommended for access to version-line upgrades.

Question

Are Adiscon product licenses perpetual, and how does that differ from UpgradeInsurance?

Answer

Adiscon product licenses are perpetual. UpgradeInsurance is an additional, time-limited service for upgrade and maintenance benefits.

Details

A perpetual license allows continued use of the licensed product version after activation. It does not depend on periodic online verification to remain valid.

UpgradeInsurance is separate from the base license. It is a time-limited additional service that is strongly recommended if you want access to future product version lines and related maintenance benefits.

When UpgradeInsurance expires, the licensed product version does not stop working. What changes is entitlement to later version-line upgrades and the additional benefits covered by active UpgradeInsurance.

License files: Current product versions use a `license.alic` file from Adiscon.

For detailed renewal and reinstatement policy, see UpgradeInsurance.

Action path

If you need confirmation for purchasing, renewal, or compliance review, open a sales ticket in the Customer Service System.

Related information

- UpgradeInsurance
- Can I use an older product version with my license?
- Online verification after activation

UpgradeInsurance

Short answer

UpgradeInsurance provides version-line upgrade rights and priority support while active; if coverage has lapsed, reinstatement is possible with back-dated start rules.

Question

What is UpgradeInsurance, and how do renewal and reinstatement work?

Answer

UpgradeInsurance is Adiscon’s maintenance plan.

Details

What it includes

- Free version-line upgrades during active coverage
- Priority support handling

Coverage period

UpgradeInsurance is available for periods between 1 and 5 years.

Coverage continuity and reinstatement

- UpgradeInsurance should be kept active through timely renewal.
- If coverage lapses, reinstatement is possible.
- If UpgradeInsurance was not purchased with the original license, it can still be added later.
- Reinstatement is back-dated to the previous coverage end date or, if it was never purchased, to the original license purchase date.

Difference from the base license

UpgradeInsurance is separate from the base product license. For the distinction between perpetual licenses and this time-limited service, see Perpetual licenses and UpgradeInsurance.

Examples

1. If coverage ended on June 30 and renewal is requested in September, reinstatement starts from June 30.
2. If no UpgradeInsurance was purchased with the initial order, later activation is back-dated to the original license purchase date.

How to request renewal or reinstatement

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

Next action

Open a sales ticket in the Customer Service System or send email to `sales@adiscon.com` (emails create tickets).

FAQ

Use the FAQ when you need a direct answer to a deployment, licensing, troubleshooting, or maintenance question.

Deployment and licensing

How Do I Enter MonitorWare Agent License Information?

Answer

Apply the `license.alic` file through **General** -> **License** in the configuration client, save, and restart the service.

Details

Current MonitorWare Agent builds require a `license.alic` file from Adiscon.

Default file location:

`%ProgramData%\Adiscon\MonitorWare\license.alic`

Use the default location unless Adiscon support or your deployment process requires another path.

Action path

1. Obtain `license.alic` from Adiscon for your edition.
2. Open the MonitorWare Agent Configuration Client.
3. Expand **General** and select **License**.
4. Browse for `license.alic`, drag-and-drop the file, or paste the file path.
5. Save the configuration and restart the MonitorWare Agent service.

Related information

- MonitorWare Agent edition comparison
- How do I contact Adiscon sales?

How Do I Get a Printable MonitorWare Agent Manual?

Answer

Use the PDF build of the manual when you need a printable or offline copy.

Details

The HTML manual is the primary format for navigation and search. The PDF build is the better choice when you need a single printable document.

Action path

1. Open the current MonitorWare Agent manual download area.
2. Download the PDF version of the manual.
3. Print or archive that PDF as needed.

Related information

- Getting Started

Why did product versions jump to 26.07?

Question

Why is the current version `26.07` when older product versions used numbers such as 18, 19, 15, or 8?

Answer

Adiscon changed to calendar-based version numbers. In `26.07`, `26` means 2026 and `07` means July. There are no missing intermediate product releases.

Details

The latest old-style version families were:

- **WinSyslog**: `18.x`
- **EventReporter**: `19.x`
- **MonitorWare Agent**: `15.x`
- **rsyslog Windows Agent**: `8.x`

The new `YY.MM` format starts with `26.07`.

Related information

- See the product website for version history and release notes.

What happens when the client opens a configuration with unsupported blocks?

Question

The configuration client shows a warning about unsupported configuration items when I open a file. What does that mean?

Answer

The client skipped configuration blocks that this client version does not understand. Saving the configuration may remove those unsupported sections.

Details

Newer service or file formats can introduce configuration blocks that a configuration client cannot edit. The client loads what it supports and displays a one-time warning.

Current configuration clients preserve an existing `general(name="Metrics")` block when they load and save CFG, YAML, or registry configuration. They do not provide a Metrics editor. Other unknown blocks can still be skipped and may be lost when the configuration is saved.

If you save without upgrading the client, unsupported blocks may be dropped from the saved file.

Action path

1. Note which blocks the warning mentions.
2. If you need to edit those settings, upgrade to a configuration client that supports them, or edit the YAML or legacy `.cfg` file with care in a text editor.
3. Back up the configuration before saving from an older client.

Related information

- See the file-based configuration chapter in the WinSyslog, EventReporter, MonitorWare Agent, or rsyslog Windows Agent manual.

Why is Net Send no longer available in the configuration client?

Question

I cannot add a Net Send action in the configuration client. Where did it go?

Answer

Net Send was **removed from the configuration client** in the **26.07** release for WinSyslog, EventReporter, and MonitorWare Agent.

Details

The Windows Messenger service (`net send`) is deprecated on modern Windows and was unreliable for production alerting. The **26.07** client no longer offers Net Send in the action list.

Existing configurations that still reference Net Send may load with a skip or warning depending on client version. You cannot create new Net Send actions from the current client.

Action path

Use one of these alternatives in your ruleset:

- **Send Email** for operator notifications.
- **HTTP REST Output** for webhooks and REST endpoints (see **Actions** → **Forwarding** in this manual).
- **Start Program** to invoke a custom script or notifier.
- Syslog or RELP forwarding to a central monitoring system.

Related information

For the deprecated Net Send action reference and HTTP REST Output details, see **Configuration** → **Actions** in the WinSyslog, EventReporter, or MonitorWare Agent manual.

How do I set up HTTP REST Output?

Question

How do I forward events to a REST API or OpenSearch using the configuration client?

Answer

Add an **HTTP REST Output** action to your ruleset, choose a profile (Custom or OpenSearch bulk), configure the endpoint and request body, and save the configuration.

Details

The **HTTP REST Output** action (type **1032**, `RestOutput`) is available on WinSyslog, EventReporter, and MonitorWare Agent starting with **26.07**. It is listed under **Forwarding** in the action list.

Action path

1. Open the configuration client and select the target ruleset and rule.
2. Add action → **HTTP REST Output**.
3. On the **General** tab, choose **Custom** or **OpenSearch bulk** and set the endpoint (server, path, port, TLS as needed).
4. On the **Request** tab, set the HTTP method, content type, headers, and request template or JSON property mappings.
5. On the **Advanced** tab, adjust timeout, user agent, and retry status codes if needed.
6. Save the configuration and restart the service.

7. Send a test event and verify delivery at the remote endpoint.

Related information

- See **HTTP REST Output** and **HTTP Request** under **Actions** → **Forwarding** in the WinSyslog, EventReporter, or MonitorWare Agent manual when those actions are part of your product build.
- Accessing Properties

How Do Remote Administration and Browser-Based Log Review Fit Together?

Question

How do remote administration and browser-based log review work in the current Adiscon Windows products?

Answer

Treat them as two separate functions.

- Administrative changes are made with the Configuration Client, either on the local system or through the remote-connect workflow when that product supports it.
- The current product family does not use a built-in browser administration interface for service configuration.
- Browser-based review is handled by Adiscon LogAnalyzer, which is a separate and optional component for stored data. It is not the service administration interface.

Details

Remote administration

The current product family uses the Windows Configuration Client for administration. Depending on the product and deployment style, you typically work in one of these ways:

- connect to another machine from the client
- export and import configuration
- use a repeatable deployment process for repeated deployments

This means remote administration is a client-and-deployment workflow, not a built-in browser administration console.

When the client connects to another machine directly, the target system must be reachable over the network and the current user must have the required access rights on that remote machine.

Browser-based log review

Adiscon LogAnalyzer is the browser-based component in this ecosystem. It is used to review data that has already been written to a file or database. It is deployed separately from the logging service and requires its own web server and PHP runtime.

That split is important:

- LogAnalyzer is for stored data review.
- The logging service still receives, processes, and stores or forwards data.
- The Configuration Client is still the place where you change service settings.

What this means operationally

If you want both remote administration and browser-based visibility, plan them as separate pieces:

1. Decide how the product configuration will be administered remotely.
2. Decide where retained data will be stored.
3. Deploy LogAnalyzer separately if browser-based review of stored data is needed.

Action path

1. Use the Configuration Client for administrative changes.
2. If the target system is remote, use the product's remote-connect or deployment workflow.
3. Configure file or database storage for the data you want to review later.
4. Deploy Adiscon LogAnalyzer separately on a web server if browser-based review is required.
5. Point LogAnalyzer at the same stored data source and verify end-to-end that new rows appear there.

Related information

- `../tutorials/loganalyzer-setup-and-use`
- Use the product-specific remote-connect page when the Configuration Client can connect to another machine directly.
- Use the product-specific deployment or configuration-copy guidance when you need repeatable deployment across multiple systems.

How Do I Perform a Repeatable Deployment?

Answer

Use a prepared reference configuration and deploy the MonitorWare Agent service to multiple target systems in a controlled, repeatable process.

Details

Repeatable deployment is a deployment pattern, not a first-run setup task. It is most useful when the service configuration is already validated on a reference system and must be applied to more than one target.

Action path

1. Build and validate the configuration on a reference system.
2. Decide whether the target systems need only the engine or the full client installation.
3. Deploy the package and configuration in a staged manner.
4. Verify that target systems start the service and apply the expected configuration.

Related information

- How Do I Perform a Repeatable Update Deployment?
- Understand the Components

How Do I Perform a Repeatable Update Deployment?

Answer

Use repeatable update deployment when MonitorWare Agent is already deployed and you need to distribute an updated configuration or package revision to multiple systems.

Details

Repeatable update deployment differs from initial repeatable deployment because the target systems already exist in production and may already process data.

Action path

1. Validate the updated package or configuration on a non-production system.
2. Plan restart timing and rollback expectations.
3. Deploy the update in stages.

4. Confirm that services restart cleanly and continue to process data.

Related information

- How Do I Perform a Repeatable Deployment?
- Differences Between Repeatable Deployment and Repeatable Update Deployment

Differences Between Repeatable Deployment and Repeatable Update Deployment

While repeatable deployment and repeatable update deployment are closely related, there are important distinctions in how they are planned and carried out for Adiscon products. Understanding these differences helps you choose the right method for the target systems you are preparing.

1. Repeatable Deployment (Initial Deployment)

A **repeatable deployment**, also known as an initial deployment, refers to the **first-time installation** of software on multiple target systems where the application **does not currently exist**.

- **Primary Goal:** To establish the software and its baseline configuration on new machines.
- **Target System State:** The software is **not installed** yet.
- **Key Steps:**

    1. Perform an initial, full installation on a reference system.
    2. Create and thoroughly test the **baseline configuration**.
    3. Export this baseline configuration to a registry file.
    4. Package the product's executable files (e.g., `winsyslg.exe`, `mwagent.exe`) and associated DLLs along with the exported registry file.
    5. Distribute and execute a script that will:

        - Copy the product files to the target machine's desired installation directory.
        - **Install** the product as a Windows service (e.g., using `winsyslg -i` or `mwagent -i`).
        - Import the baseline configuration from the `.reg` file.
        - **Start** the newly installed service.
- **Focus:** Establishing a functional, standardized installation from a clean slate.

2. Repeatable Update Deployment

A **repeatable update deployment** involves the **planned upgrade or patching** of an application that is **already installed** on the target systems to a newer version.

- **Primary Goal: To update the software and potentially its**

    configuration to a newer version, while ensuring minimal downtime and maintaining operational continuity.
- **Target System State: The software is already installed and**

    likely running.
- **Key Steps:**

    1. Perform an **in-place upgrade** of the software on a reference system to the new version.
    2. Adjust and refine the configuration for the new version, if necessary, and thoroughly test it.
    3. Export the **updated configuration** to a registry file.
    4. Package the **new product files** (executables, DLLs) and the updated registry file.
    5. Distribute and execute a script that will:

        - **Stop** the existing, running service on the target machine.
        - Copy the new files to the existing installation directory, **overwriting** the old executables.
        - Import the updated configuration from the `.reg` file, applying changes to the existing registry entries.
        - **Restart** the service.
- **Focus:** Updating existing installations with minimal disruption.

3. Key Differences at a Glance

Comparison of Deployment Types

Repeatable Deployment (Initial):

- **Target State:** Software **not installed**.
- **Core Action:** First-time installation, provisioning.
- **Service Handling:** Service is **installed and started**.
- **File Copying:** Copying **new** files for initial setup.
- **Configuration:** Import of a **baseline configuration**.
- **Complexity:** Generally simpler, no running service to manage.

Repeatable Update Deployment:

- **Target State:** Software **already installed**.
- **Core Action:** Upgrade, patch, version migration.
- **Service Handling:** Existing service is **stopped, then restarted**.
- **File Copying:** Copying **new** files to **overwrite old ones**.
- **Configuration: Import of an updated configuration**

  (changes applied to existing).
- **Complexity: Slightly more complex, requires service**

  management and compatibility checks.

Why did my MonitorWare Agent update report success when the files were not upgraded correctly?

Question

Why can an in-place MonitorWare Agent update report success while the installed service, client, or selected features still contain files from the older release?

Answer

This can happen when Windows Installer retains an incomplete feature state while processing a cross-generation update. The setup wizard can finish and report success even though a later maintenance operation still sees features as advertised, unavailable, or otherwise not fully installed. The product configuration is normally not deleted; the problem is that the expected program files were not refreshed.

Details

This behavior has been confirmed for direct MonitorWare Agent updates from the 13.x generation to the 15.x generation. Other direct source versions can show the same symptoms. The source version alone does not prove that an update path is safe or affected.

The underlying mechanism is consistent with Windows Installer feature-state handling. A newer setup package can be accepted as an update without changing the installed product identity, but Windows Installer still evaluates the feature and component state recorded for the previous installation. A change between product generations can leave a feature only partially selected or advertised. `ADDLOCAL=ALL` explicitly requests all features locally, while `REINSTALL=ALL` only refreshes features that Windows Installer considers installed. This is why a two-stage repair is useful for this symptom.

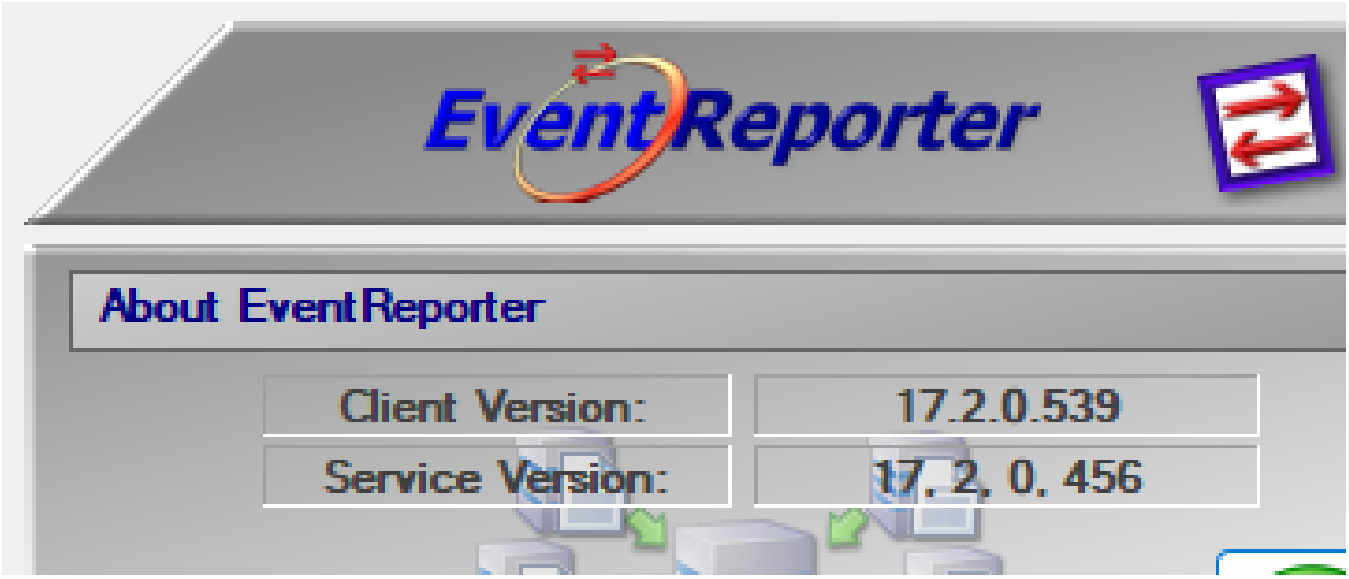
Look for this combination:

- the setup wizard displays a successful completion page
- the MonitorWare Agent About dialog or file properties still show an older client or service version
- Modify or Custom Setup shows an unexpected state such as `0 of 1 subfeatures selected` or `0 KB`
- a normal repair does not replace the older files
- the installer requests a reboot because a service or file is still in use

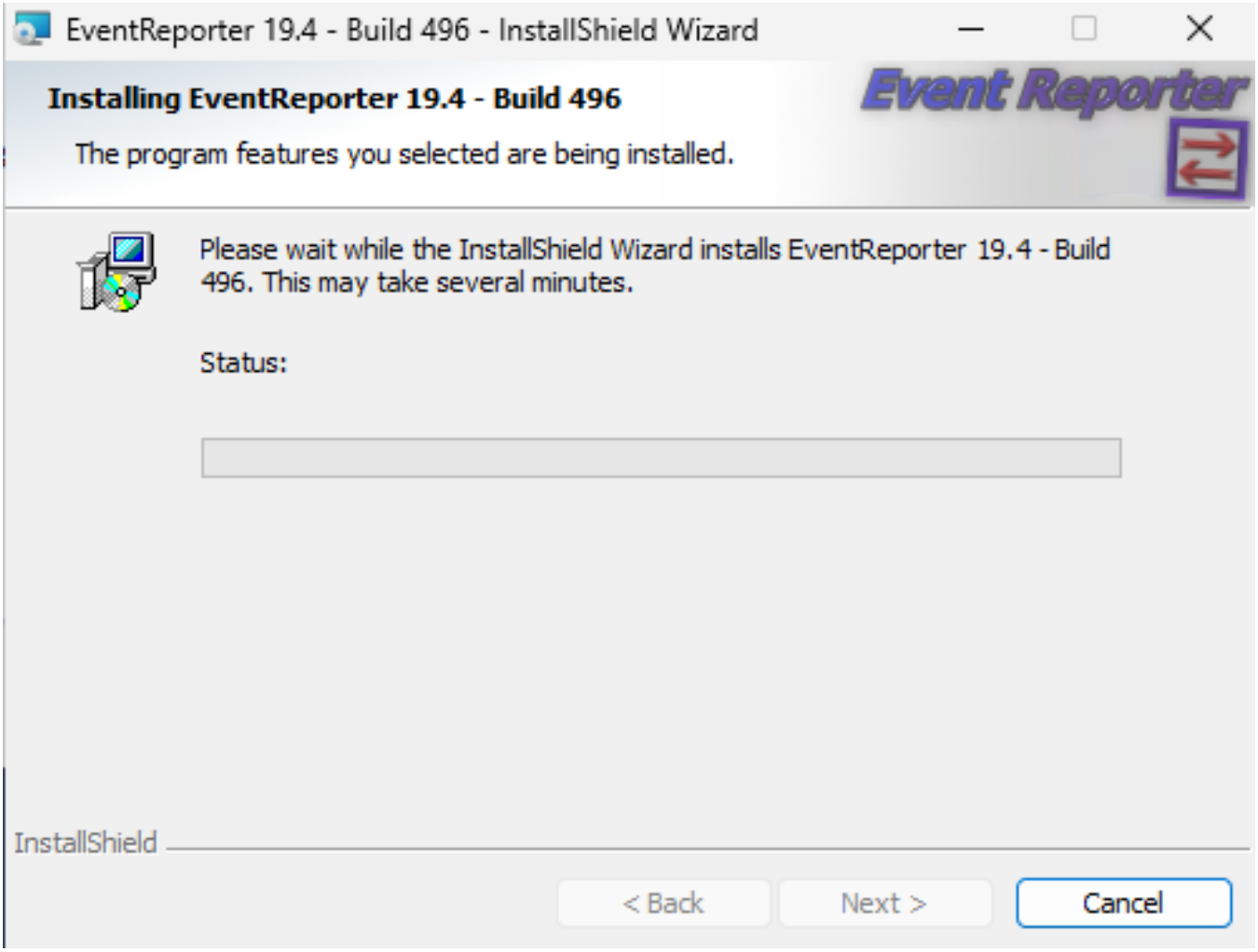
orphan:

Representative setup evidence

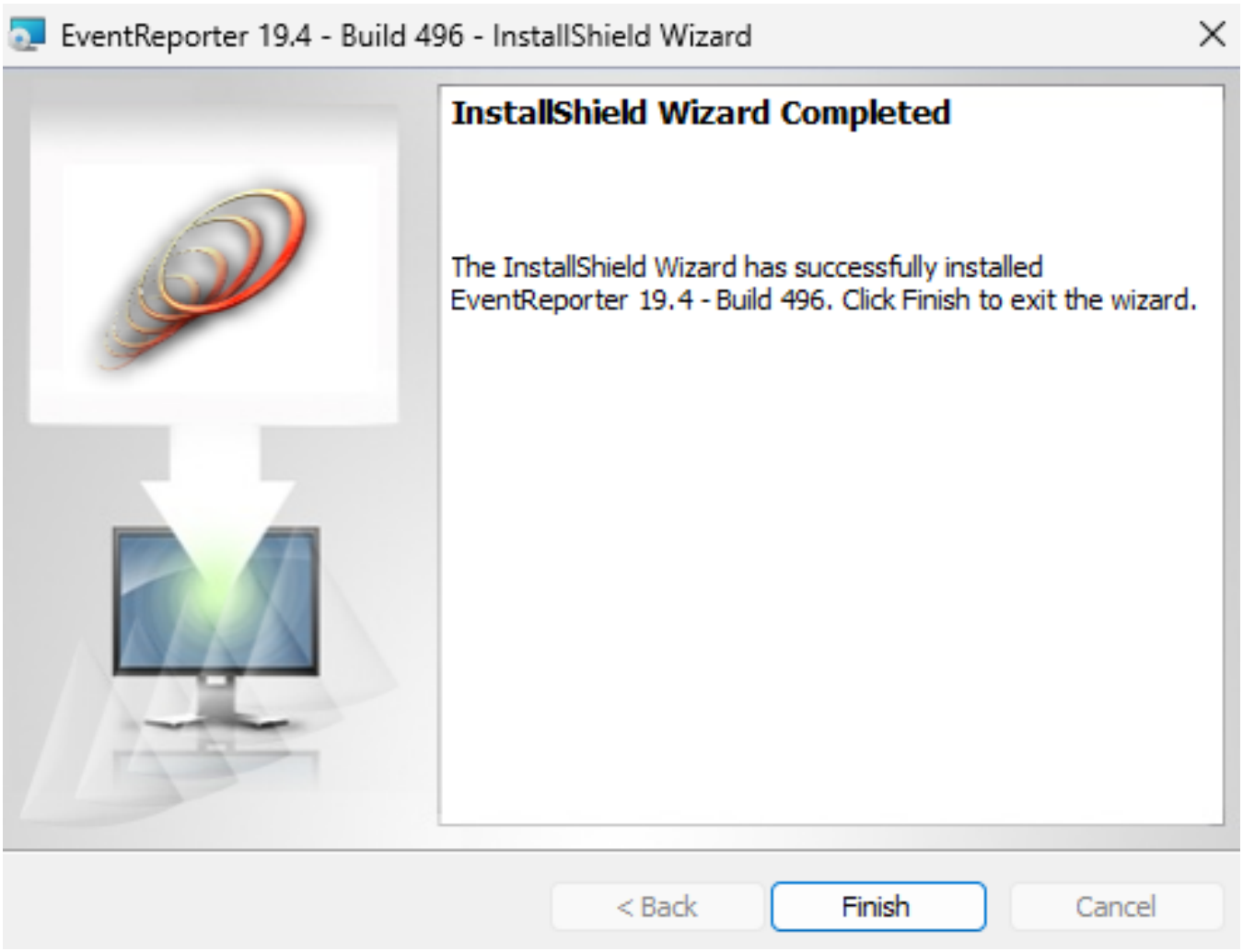
The screenshots below come from one affected setup run and are representative of the visual clues described in this article. Product names, component labels, and version numbers can differ in other product installations.



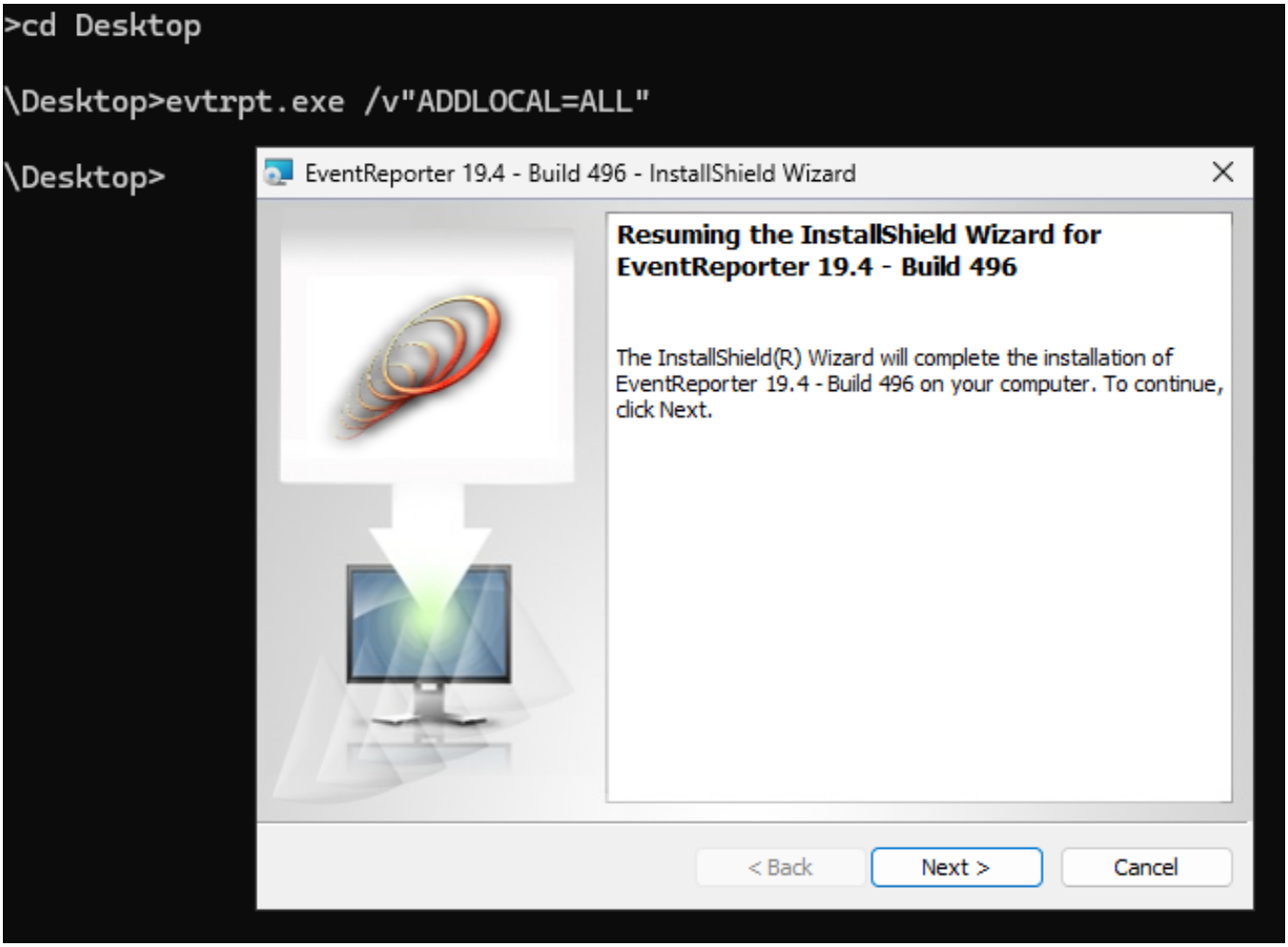
The installed product reports the older client and service versions before the update.



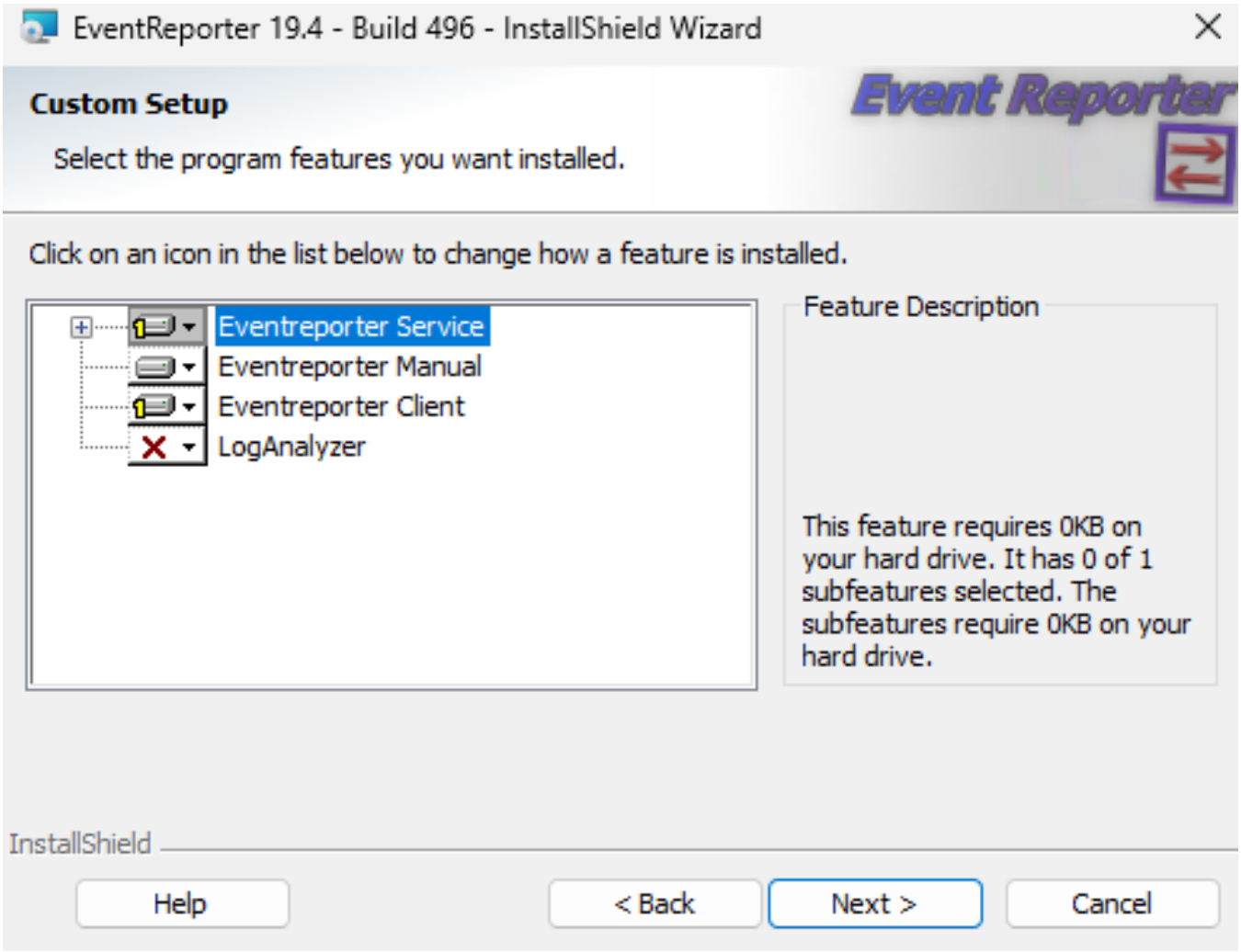
The setup wizard can display a normal installation-progress page.



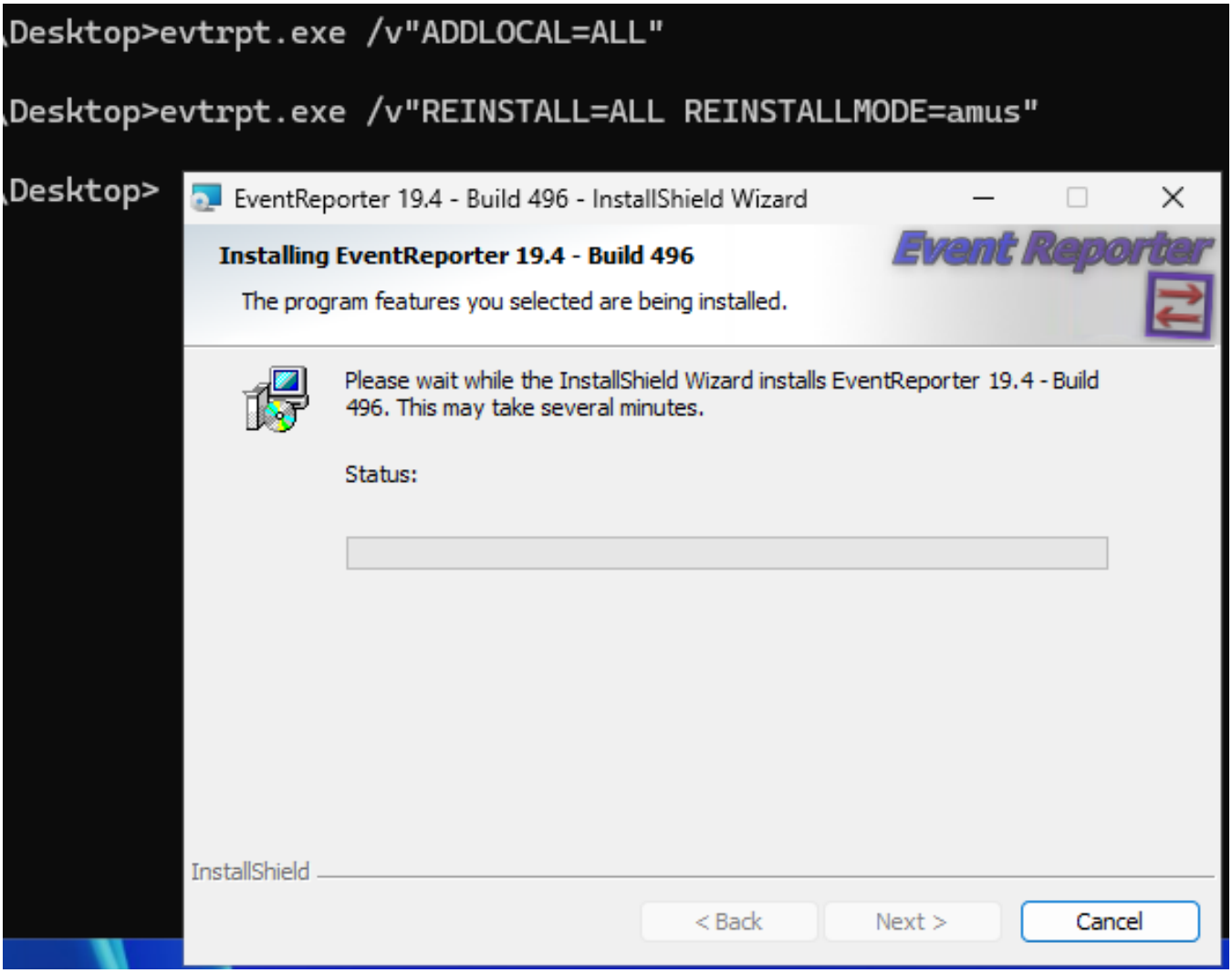
The wizard can report that the installation completed successfully.



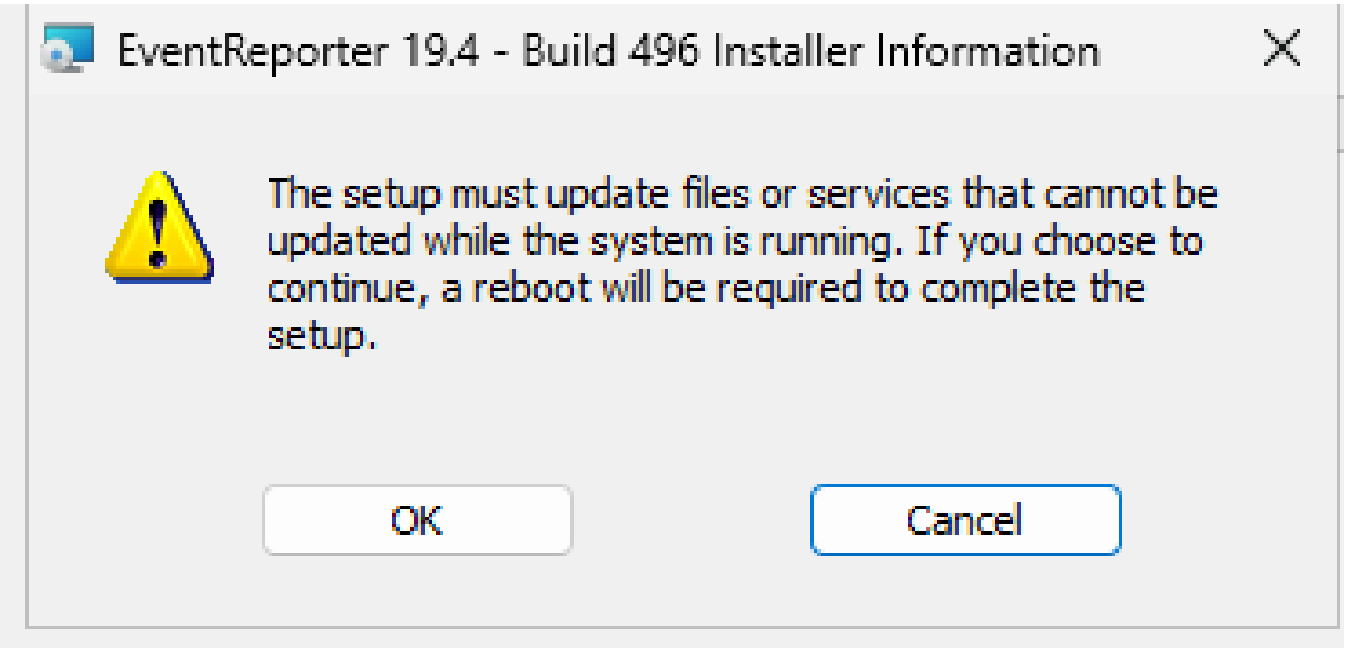
A later maintenance action can resume the InstallShield wizard.



Custom Setup can show an unexpected feature state, such as zero selected subfeatures or zero required disk space.



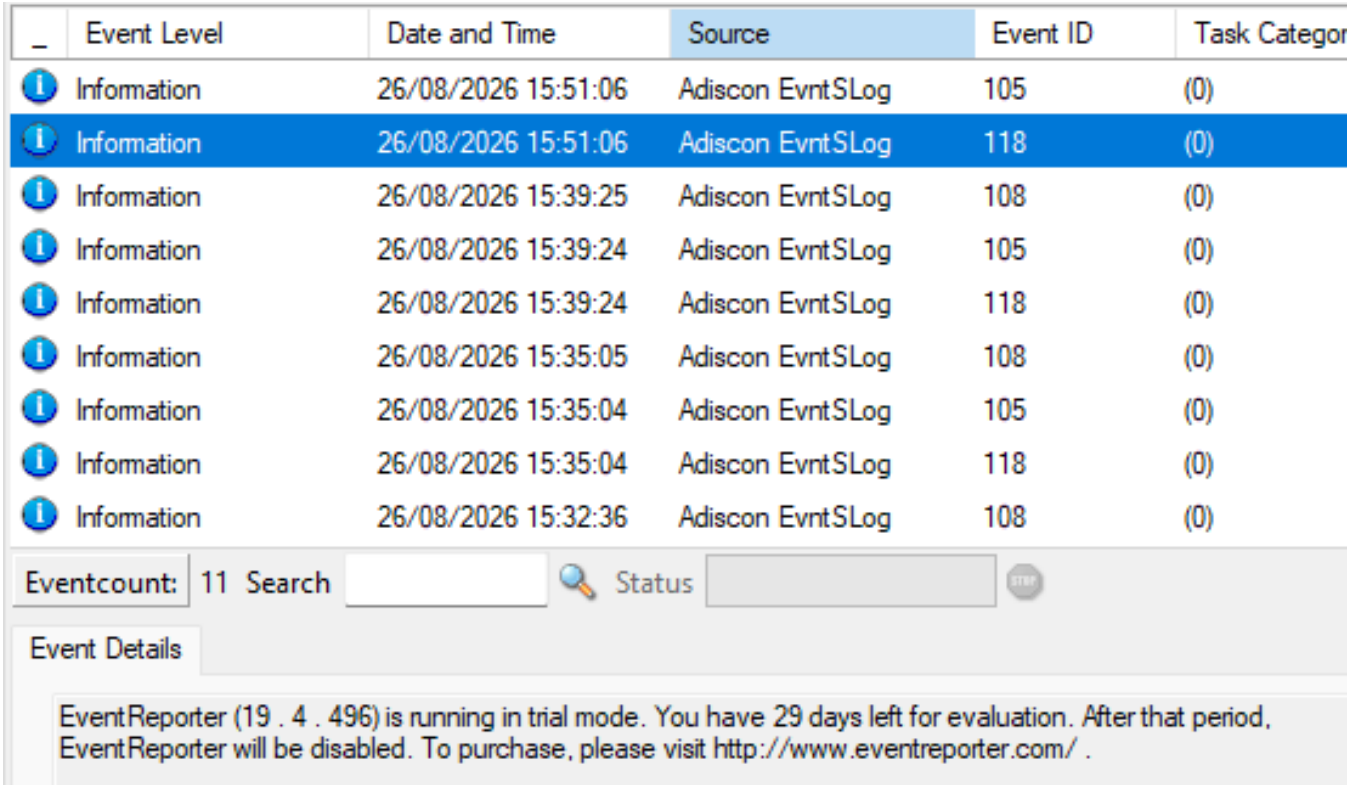
A second maintenance run can reinstall the selected product files.



Files or services that remain in use can cause the installer to request a reboot.



After a successful file refresh, the client and service report the newer versions.



Verify the running product after the installer finishes.

Action path

1. Export or back up the MonitorWare Agent configuration before changing the installation.

2. Close the MonitorWare Agent Configuration Client and stop the MonitorWare Agent service manually before each setup run. Stopping the service first can avoid a reboot request caused by locked service files, but it cannot avoid every reboot request.
3. If a staged update is practical, use a tested intermediate release, such as 13.x to 14.x to 15.x, and verify the client, service, features, and configuration after each hop. Do not assume that an adjacent version path is safe without verification.
4. If the installation remains inconsistent, use the clean-install procedure for MonitorWare Agent after exporting the configuration.
5. If you are already working from the folder that contains the installer, run the following as two separate elevated setup runs.

   First run: mark every setup feature as locally installed.

   ```
   mwaremax.exe /v"ADDLOCAL=ALL /L*v %TEMP%\mwagent-addlocal.log"
   ```

   Second run: force a refresh of the installed files and registration data.

   ```
   mwaremax.exe /v"REINSTALL=ALL REINSTALLMODE=amus /L*v %TEMP%\mwagent-reinstall.log"
   ```

   Let the wizard finish after each command. Do not combine the two property sets into one command for this recovery path. If the first command opens a resume page, continue through the wizard. After the second run, check Modify or Custom Setup, then verify the About dialog and the file versions before starting the service.

Related information

- **`err-2026-002-mwagent-cross-generation-installer-upgrade`**
- How Do I Perform a Repeatable Update Deployment?
- Microsoft Windows Installer ADDLOCAL property
- Microsoft Windows Installer REINSTALL property
- Microsoft Windows Installer REINSTALLMODE property
- Microsoft Windows Installer system reboots

Running MonitorWare Agent on a Windows Cluster Server

Question

Can MonitorWare Agent run on a Windows Cluster Server, and are there any particular issues to be aware of?

Answer

Yes. MonitorWare Agent runs on a Windows Cluster node without problems. However, MonitorWare Agent does not include built-in cluster failover support. If a node fails, you must start the MonitorWare Agent service on another node manually or through a cluster script. The steps below explain how to prepare the cluster for this scenario.

Step 1: Set the Service Startup Type

On every cluster node **except** the primary node, set the MonitorWare Agent service startup type to **Manual**:

1. Open the Windows Service Manager (Start > Control Panel > Administrative Tools > Services).
2. Locate the service named **AdisconMonitorWareAgent**.
3. Right-click the service and select **Properties**.
4. Set **Startup type** to **Manual**.
5. Click **Apply**, then **OK**.

On the primary node, leave the startup type set to **Automatic** so that MonitorWare Agent starts automatically after a reboot.

Step 2: Mirror the Configuration Between Nodes

MonitorWare Agent stores its configuration in the Windows registry. To replicate a working configuration from one node to another, export it as a registry file and import it on each secondary node:

1. Open the MonitorWare Agent Configuration Client on the primary node.
2. Go to the **Computer** menu.
3. Select **Export Settings to Registry File**.
    - Choose the standard registry format (do **not** select a binary format).
    - Select the correct architecture (Win32 or x64) for your system.
4. Save the `.reg` file to a network share or removable media.
5. On each secondary node, double-click the `.reg` file to import the configuration.

After importing, the secondary node has the same configuration as the primary node. When a failover is needed, start the MonitorWare Agent service on the secondary node using the Services Manager or from the command line:

```
net start "AdisconMonitorWareAgent"
```

Best Practices

- **Keep configurations in sync.** After every configuration change on the primary node, re-export and re-import the registry file on all secondary nodes.
- **Test failover regularly.** Verify that the MonitorWare Agent service starts correctly and processes messages on each secondary node.
- **Use automation.** Consider a cluster resource script or a scheduled task that starts the MonitorWare Agent service on a secondary node when the primary node becomes unavailable.
- **Verify firewall rules.** Ensure that the necessary network ports are open on all cluster nodes so that monitoring and log forwarding continue to work after failover.

Which Database Format Should I Use with MonitorWare Agent?

Question

Which database format should I use with MonitorWare Agent, and what should I consider before logging events or messages into a database?

Answer

Use the default MonitorWare Agent database format when you want the fastest supported setup or compatibility with the standard Adiscon table layout. Use a custom schema when MonitorWare Agent must integrate with an existing database design.

MonitorWare Agent is not limited to an “internal schema” path. Its database actions can write to supported databases with user-defined schemas, as long as you configure the table name and field mapping correctly.

For most production deployments, use a server-grade database such as Microsoft SQL Server, MySQL, MariaDB, or PostgreSQL. Avoid Microsoft Access for production logging.

Details

MonitorWare Agent can write events or messages into a database through ODBC Database Options or OLEDB Database Action.

The built-in default format is the safest choice for first-time setup because it matches the fields that Adiscon tools expect and avoids unnecessary mapping work. However, the database actions are also general integration features: they can write to your own table and column layout when that is the real requirement.

Use the default format when:

- you are setting up database logging for the first time
- you want predictable field mapping
- you plan to use the built-in **Create Database** flow

- you plan to analyze the data with Adiscon-compatible or standard SQL tooling
- you do not have an existing schema that MonitorWare Agent must integrate with

Use a custom format only when:

- your organization already has a fixed schema
- another system requires specific column names or data types
- you have tested the mapping and understand the compatibility impact

What the database action does not do

The database actions are writers and mapping layers. They do not design your schema, choose your indexes, or build your reporting model for you. If you choose a custom schema, you own the destination database design.

Action path

1. Decide whether you need the default supported schema or integration with an existing custom schema.
2. Decide whether your environment should use the ODBC or OLE DB path.
3. Create and test the matching database connection.
4. In MonitorWare Agent, add the matching database action to the ruleset that should store data.
5. For the default schema path, follow Tutorial: Store Data in the Default Database Schema.
6. For the custom integration path, follow Tutorial: Integrate MonitorWare Agent with a Custom Database Schema.
7. Trigger matching data and verify that a row is inserted into the intended table.

Related information

- ODBC Database Options
- OLEDB Database Action
- Tutorial: Store Data in the Default Database Schema
- Tutorial: Integrate MonitorWare Agent with a Custom Database Schema
- mariadb-odbc-support

Operation and troubleshooting

How Do I Export Settings and Debug Data for a Support Case?

Answer

Export the current configuration, capture a debug log while reproducing the problem, and provide both artifacts together with a short problem description.

Details

Support cases are easier to resolve when configuration and runtime evidence are available together. The most useful combination is:

- exported configuration
- debug log covering the problem window
- the expected result and the actual result

Action path

1. Export the current configuration.
2. Enable debug logging.
3. Reproduce the problem.
4. Disable debug logging after the problem is captured.
5. Submit the exported configuration and debug log with the support request.

Related information

- Tutorial: Export Configuration and Create a Debug Log
- How do I contact Adiscon sales?

How Do Default Time Values Work?

Answer

The **Default Timevalues are based on** setting controls whether generated time values use UTC or local time in places where the product formats or interprets time-dependent output.

Details

This setting affects multiple areas, including:

- email header dates
- time parameters passed to Start Program actions
- time properties used in file names
- filter results when weekday or time-based conditions are evaluated

UTC is the safer default for consistent cross-system processing. Local time can be more convenient when output is primarily reviewed by administrators in one time zone.

Action path

1. Open **General** -> **General Options**.
2. Locate **Default Timevalues are based on**.
3. Choose *UTC* or *Localtime* according to your operational need.
4. Save and apply the configuration.

Troubleshooting the Start Program action in MonitorWare Agent

This article explains common issues with the Start Program action in MonitorWare Agent and provides solutions to resolve them.

Background

The Start Program action allows MonitorWare Agent to execute external programs, batch files, or scripts when specific monitoring conditions are met. However, there are several common issues that can prevent this action from working correctly.

Common Issues and Solutions

Issue 1: Program not found or path problems

Symptoms: - The Start Program action appears to run but nothing happens - No error messages in the Windows Event Log - The external program works when run manually from command line

Root Cause: MonitorWare Agent may not be able to locate the executable file due to path issues or missing dependencies.

Solutions:

1. **Use absolute paths for all executables** - Instead of: `curl google.com > temp.txt` - Use: `C:\curl\curl-win\bin\curl.exe google.com > C:\temp\temp.txt`
2. **Verify executable location** - Check if the program exists in the specified path - Ensure all required DLL files are present - Test the command manually from Windows Command Prompt
3. **Check Windows PATH environment variable** - MonitorWare Agent may not have access to the same PATH as your user session - Use full paths instead of relying on PATH resolution

Issue 2: Permission problems

Symptoms: - No error messages in Event Log - Program works when run manually but not through MonitorWare Agent

Root Cause: MonitorWare Agent runs as a Windows service with different permissions than your user account.

Solutions:

1. **Store files in accessible locations** - Avoid system folders like `C:\Windows\System32` - Use generic folders like `C:\temp` or `C:\scripts` - Ensure MonitorWare Agent service has read/execute permissions
2. **Check file permissions** - Right-click on the executable file - Go to Properties > Security - Ensure “SYSTEM” and “SERVICE” accounts have execute permissions

Issue 3: Working directory problems

Symptoms: - Program runs but cannot find input/output files - Relative paths in scripts don’t work

Root Cause: The working directory when MonitorWare Agent executes the program may be different from expected.

Solutions:

1. **Use absolute paths for all file references** - Instead of: `> temp.txt` - Use: `> C:\temp\temp.txt`
2. **Set working directory in batch files** - Add `cd /d C:\your\working\directory` at the beginning of batch files

Issue 4: Parameter processing problems

Symptoms: - Program runs but doesn’t receive expected parameters - Event data is not passed correctly to the external program

Root Cause: MonitorWare Agent uses specific replacement characters to pass event data to external programs.

Solutions:

1. **Use correct replacement characters** - `%d` - Date and time in local time - `%s` - Source system IP address or name - `%f` - Numeric facility code - `%p` - Numeric priority code - `%m` - The message itself - `%%` - Represents a single % sign
2. **Quote parameters properly** - Use quotes around parameters that contain spaces - Example: `"Alert: %m"` instead of `Alert: %m`
3. **Check legacy parameter processing setting** - Enable “Use legacy parameter processing” if you’re using old-style parameters - This affects how replacement characters are processed

Issue 5: Timeout and performance issues

Symptoms: - Program starts but gets terminated unexpectedly - MonitorWare Agent becomes unresponsive - Action is marked as unsuccessful

Root Cause: External programs running too long can affect MonitorWare Agent performance.

Solutions:

1. **Set appropriate timeout values** - Default timeout is 10 seconds - Keep external programs under 5 seconds for best performance - Maximum recommended timeout is 30 seconds
2. **Optimize external programs** - Use efficient scripts and programs - Avoid long-running operations - Consider asynchronous execution for longer tasks

Troubleshooting Steps

1. **Check Windows Event Log** - Open Event Viewer (type “Event Viewer” in Windows search) - Navigate to Windows Logs > Application - Look for MonitorWare Agent-related error events
2. **Test with simple commands first** - Start with a basic batch file that creates a text file - Example: `echo Test > C:\temp\test.txt`
3. **Verify the command works manually** - Open Command Prompt as Administrator - Run the exact same command that MonitorWare Agent should execute - Ensure it works from the command line first
4. **Check MonitorWare Agent service account** - Verify which account MonitorWare Agent is running under - Ensure that account has necessary permissions
5. **Test rule triggering** - Create a test condition that should trigger your Start Program action - Verify the rule is being triggered correctly - Check if the action is configured properly
6. **Check sync timeout settings** - Ensure the sync timeout is appropriate for your external program - Consider using async execution for longer-running programs

Example Working Configuration

Here's an example of a properly configured Start Program action for MonitorWare Agent:

Command to execute: `C:\scripts\process-alert.bat`

Parameters: `"%d" "%s" "Alert: %m"`

Sync Timeout: `10` (seconds)

Batch file content (C:scriptsprocess-alert.bat): ``batch @echo off
echo Alert at %1 from %2 >> C:\temp\alerts.log echo Message: %3 >> C:\temp\alerts.log ``

Key points: - Full path to batch file - Quoted parameters to handle spaces in messages - Absolute paths for output files - Proper use of replacement characters - Appropriate timeout setting

Additional Tips

- **Performance considerations:** Use Start Program actions only for rules that apply relatively seldom
- **Error handling:** Consider adding error checking to your batch files
- **Logging:** Add logging to your scripts to help troubleshoot issues
- **Testing:** Always test Start Program actions in a development environment first
- **Rule optimization:** Ensure your rules are efficient and don't trigger too frequently

If you continue to experience issues after following these steps, please contact Adiscon support with: - MonitorWare Agent version - Windows version - Exact command being executed - Any error messages from Event Log - Results of manual command testing - Rule configuration details

Configuration reload issues under high load in MonitorWare Agent

This article explains why MonitorWare Agent configuration reloads can stall under heavy load and how to stabilize reload behavior.

Problem

During periods of high message volume, MonitorWare Agent detects configuration changes but may not complete the reload process. The service can appear to hang during reloads and stop requests can time out.

Symptoms

- Configuration changes are detected, but Event ID 126 ("Configuration reload successfully done") is not logged
- Service stop operations timeout with "Could not stop the service within 20 seconds" errors
- Reloads complete successfully during low-load periods but fail during high-load periods
- Noticeable time gaps between detection of a configuration change and reload completion

Root Cause

A configuration reload requires the service to pause message processing, drain in-flight work, reload configuration data, reinitialize rules and actions, and then resume processing. Under high message volume, draining in-flight work takes much longer when worker threads are insufficient, which stretches the reload window and can prevent completion.

Solution

Option 1: Increase worker threads

1. Open the MonitorWare Agent Configuration Client.
2. Navigate to **General Options > Queue Manager**.
3. Set **Number of worker threads** to at least half the CPU core count.
    - Example: For an 8-core system, set at least 4 worker threads.
    - Example: For a 16-core system, set at least 8 worker threads.
4. Save the configuration and allow MonitorWare Agent to reload.

Option 2: Upgrade to the latest build

Upgrade to the latest MonitorWare Agent build to pick up fixes that address configuration reload and log rotation behavior under load.

Option 3: Reduce the Queue Limit when Action Queue is enabled

If you use Action Queue on database actions, review **General Options > General > Queue Limit** and keep it around 100,000 to 200,000 when configured higher. This reduces queue management overhead while Action Queue continues to buffer output.

Option 4: Disable automatic reload in production

If configuration changes are infrequent, clear **Automatically reload service on configuration changes** in **General Options > General** and perform manual service restarts during maintenance windows.

Option 5: Split configuration into multiple services and rulesets

A single high-volume service with a single ruleset forces every message to be evaluated against all rules. Split the configuration so each service uses a smaller ruleset.

Implementation steps:

1. Create additional services for the highest-volume inputs.
2. Create matching rulesets and move rules to the appropriate ruleset.
3. Update data sources to use the new services.
4. Test each service and ruleset combination.
5. Migrate one source at a time.
6. Keep the original configuration as a backup until migration is complete.

Best Practices

- Set worker threads to at least half the CPU core count.
- Use Action Queue for database actions instead of expanding the main queue.
- Plan reloads during low-traffic periods or scheduled maintenance windows.
- Monitor for “Configuration reload successfully done” entries to confirm reload completion.

Verification

1. Check the Windows Application Event Log for the reload completion message after configuration changes.
2. Confirm MonitorWare Agent service stop operations complete within the timeout period.
3. Monitor worker thread utilization and queue depth during peak load.
4. Verify reload completion times are consistent under normal conditions.

Why were dynamic log files sometimes not rotated in older MonitorWare Agent versions?

Older MonitorWare Agent versions could miss some scheduled rotations when dynamic filenames were combined with file-handle cleanup. That historical behavior affected older releases and was improved in later versions of the shared log rotation subsystem.

For the guarantees of the current subsystem, including graceful shutdown, restart recovery, reload behavior, and dynamic filename support, see **`../../shared/faq/log-rotation-guarantees`**.

Summary

In affected older versions, unused dynamic log file handles could already be closed when a scheduled rotation time arrived. In that case, the product could skip the rotation for that inactive file.

If you are still running one of those older builds, increasing the file handle cleanup timeout can reduce the chance of missing a scheduled rotation, but the recommended long-term solution is to upgrade to a current release.

Log Rotation Naming Convention Change in MonitorWare Agent 15.x

This article explains the change in rotated log file naming convention in MonitorWare Agent 15.x and later versions.

Question

Why are my rotated log files named differently after upgrading to MonitorWare Agent 15.x?

Answer

MonitorWare Agent 15.x and later versions use a new naming convention for rotated log files. Instead of placing sequence numbers before the file extension (e.g., `syslog1.csv`, `syslog2.csv`), the new format appends sequence numbers after the file extension (e.g., `syslog.csv.1`, `syslog.csv.2`).

This change is intentional and by design. The new format follows Unix/POSIX conventions and provides better compatibility with common log management tools and scripts.

What Changed

Old Format (MonitorWare Agent versions before 15.x):

- `syslog.csv` (active log file)
- `syslog1.csv` (first rotated file)
- `syslog2.csv` (second rotated file)
- `syslog3.csv` (third rotated file)

New Format (MonitorWare Agent 15.x and later):

- `syslog.csv` (active log file)
- `syslog.csv.1` (first rotated file)
- `syslog.csv.2` (second rotated file)
- `syslog.csv.3` (third rotated file)

Root Cause

This change was intentionally implemented as part of improvements to the log rotation subsystem. The new format provides several benefits:

1. **Better compatibility:** Follows Unix/POSIX conventions used by standard log rotation utilities
2. **Improved reliability:** Enhanced thread safety in the log rotation mechanism
3. **Tool compatibility:** Works better with common log management tools and scripts
4. **Industry standard:** Aligns with widely-adopted log rotation naming practices

Important: The filename format change cannot be reverted through configuration settings.

Impact on Existing Workflows

The naming convention change may affect:

- **Scripts that parse log filenames:** Scripts expecting the old format may fail to find rotated files
- **Monitoring tools:** Tools that reference specific filename patterns may need updates
- **Log management workflows:** Automated processes that depend on the old naming convention may break
- **Backup scripts:** File backup routines that filter by filename pattern may need adjustment

Solution

Updating Scripts and Tools

If you have scripts, monitoring tools, or applications that parse or reference rotated log files, update them to work with the new format:

1. **Modify file parsing logic:**

   Update patterns to handle `filename.ext.N` format instead of `filenameN.ext`

Example (PowerShell):

```
# Old pattern
Get-ChildItem "syslog[0-9].csv"

# New pattern
Get-ChildItem "syslog.csv.[0-9]"
```

2. **Update hardcoded filename references:**

   Replace any hardcoded file paths in scripts to use the new naming convention
3. **Test compatibility:**

   Verify script functionality with the new naming convention in a test environment before deploying to production

Log Management Tool Compatibility

The new format is compatible with most modern log rotation utilities:

- **Standard logrotate:** Fully compatible with the new format
- **Third-party tools:** Most log management tools support POSIX-style naming
- **Custom solutions:** May require updates to filename matching patterns

Recommendation: Verify that your log management tools support the POSIX-style naming convention. Most modern tools do, but older or custom solutions may need configuration updates.

Migration Best Practices

When upgrading to MonitorWare Agent 15.x or later:

1. **Test in development:**
   - Deploy the new version in a development environment first
   - Run your log processing workflows and scripts
   - Verify all tools work correctly with the new naming format
   - Document any required changes
2. **Update automation:**
   - Modify scripts before deploying the new MonitorWare Agent version
   - Update monitoring tool configurations
   - Test all changes in the development environment
3. **Plan for transition:**
   - Consider running both old and new versions during a transition period
   - Update scripts to handle both naming conventions if needed during migration
   - Document the change in deployment procedures
4. **Verify backup processes:**
   - Ensure backup scripts include files with the new naming pattern
   - Test backup restoration to verify rotated files are included
   - Update retention policies if they depend on filename patterns
5. **Update documentation:**
   - Document the filename format change in maintenance procedures
   - Update runbooks and operational guides
   - Communicate changes to all stakeholders

Common Questions

Can I configure MonitorWare Agent to use the old naming format?

No. The new naming format is built into the log rotation subsystem and cannot be changed through configuration. This ensures consistent behavior and maintains the reliability and thread safety improvements.

Will my existing rotated log files be renamed automatically?

No. Existing rotated files retain their original names. The new naming convention applies only to files rotated after upgrading to MonitorWare Agent 15.x or later.

What happens to old rotated files?

Old rotated files (using the previous naming convention) remain unchanged. They coexist with newly rotated files that use the new convention. You may want to rename old files manually if consistency is important for your workflows, or simply let them age out according to your retention policy.

Are there any performance implications?

No. The naming convention change does not affect performance. In fact, the underlying improvements to the log rotation subsystem provide better reliability and thread safety.

Additional Information

For more information about log rotation configuration, see the log file action documentation in the MonitorWare Agent manual.

If you need assistance updating scripts or tools to work with the new naming convention, contact Adiscon support at https://ticket.adiscon.com/

Why does log rotation fail when using ZIP compression in MonitorWare Agent?

This article explains why log rotation preparation can time out before the service detaches a file for background compression or move processing.

Problem

Log rotation preparation can fail when the “Maximum wait time for log rotation” setting is too short for the File Action to acquire the rotation mutex while the service is busy.

Symptoms

- Log files are compressed into ZIP format but remain in the live logging directory
- Rotation is skipped or deferred because the rotation preparation mutex could not be acquired in time
- Incomplete log rotation leaves compressed files in active directories
- Current day logs may be archived prematurely when using time-based rotation triggers

Root Cause

The “Maximum wait time for log rotation” setting in the MonitorWare Agent Configuration Client controls how long rotation preparation waits to acquire the File Action rotation mutex. Compression and move operations run afterward as detached background work. When this wait is too short, the file may not be detached for rotation under load.

Solution

Option 1: Increase Maximum Wait Time for Log Rotation

1. Open the MonitorWare Agent Configuration Client
2. Navigate to the rotation settings section
3. Locate the “Maximum wait time for log rotation” setting
4. Change the value from 15000 (15 seconds) to 60000 (60 seconds) or 120000 (120 seconds)
5. Save the configuration and restart the MonitorWare Agent service
6. Test log rotation during the next scheduled rotation period

Option 2: Switch to Size-Based Rotation

1. Change rotation trigger from time-based to size-based
2. Configure appropriate file size thresholds for rotation

3. Adjust rotation timing to avoid current-day log pre-archiving
4. Test rotation behavior with smaller log files first

Best Practices

- Set the rotation wait time to at least 60 seconds when the service is busy or storage is slow
- Consider increasing to 120 seconds for large log files or slow storage systems
- Use size-based rotation instead of time-based to prevent current-day log pre-archiving

Related Settings

- **Maximum wait time for log rotation**: Controls how long rotation preparation waits for the File Action rotation mutex (in milliseconds)
- **Rotation trigger**: Determines when rotation begins (time-based vs size-based)
- **Compression method**: Affects processing time (ZIP compression takes longer than other methods)

Verification

- Monitor log directories after rotation triggers to ensure files are properly moved
- Check that compressed files are not remaining in live logging directories
- Verify rotation completes within expected timeframes
- Confirm no rotation failures in MonitorWare Agent logs during test periods

Queue Buildup During SQL Server Table Cleanup Operations in MonitorWare Agent

This article explains queue buildup issues in MonitorWare Agent when performing regular cleanup operations on Microsoft SQL Server SystemEvents tables.

Question

Why does MonitorWare Agent's message queue build up when deleting old rows from the SQL Server SystemEvents table, even though the table is not explicitly locked?

Answer

When using Microsoft SQL Server as storage via OLEDB or ODBC Actions in MonitorWare Agent, performing regular cleanup operations (deleting old rows) on the SystemEvents table may cause MonitorWare Agent's message queue to build up even though the table is not explicitly locked. This can occur even with optimized batch delete processes that use primary key-based deletes.

Note: This issue applies specifically to MonitorWare Agent using Microsoft SQL Server as storage through OLEDB or ODBC Actions. The queue buildup occurs when cleanup operations (DELETE statements) run concurrently with MonitorWare Agent's INSERT operations to the same SQL Server database.

Symptoms

- Queue saturation incidents that correlate with cleanup schedule times
- Queue buildup during delete operations, even with batch delete processes
- Brief blocking or slowdowns during cleanup operations
- High memory consumption when queue holds large numbers of messages
- Processing rate barely keeping up with ingestion rate during cleanup

Root Cause

Even with optimized delete processes, several subtle mechanisms can cause contention between INSERT and DELETE operations:

1. **Page-Level Locks**: SQL Server may use page-level locks during deletes. If MonitorWare Agent's INSERT operations target the same pages being deleted, brief blocking can occur. With high-frequency inserts (200-400 messages per second or higher), even brief page-level contention can cause queue buildup.
2. **Index Maintenance Overhead**: The primary key index must be maintained during each delete batch. Even with efficient primary key-based deletes, index pages need to be updated, which can cause brief contention that slows INSERT operations.
3. **Transaction Log Activity**: Regular delete operations generate significant transaction log activity. If the transaction log is on the same disk as data files, I/O contention can occur during delete operations, temporarily slowing all database operations including inserts.
4. **Ghost Record Cleanup**: SQL Server marks deleted rows as "ghost records" initially, then cleans them up asynchronously. If ghost record cleanup coincides with high INSERT activity, page-level contention can occur.

These issues are more subtle than traditional locking problems and may not show up as explicit table locks, but can still cause queue buildup during delete operations.

Solution

Option 1: Enhance Delete Process with ROWLOCK Hint

The ROWLOCK hint forces SQL Server to keep locks at the row level instead of escalating to page-level locks, which means INSERT operations can proceed on other rows within the same pages even while deletes are running. Adding OPTION (MAXDOP 1) prevents parallel execution that could escalate locks.

Implementation:

```
DELETE TOP (5000) FROM SystemEvents WITH (ROWLOCK)
WHERE [Date] < DATEADD(day, -1, GETDATE())
OPTION (MAXDOP 1);
```

Benefits:

- Simple change that can reduce blocking
- No SQL Server edition changes required
- Works with Standard Edition
- Reduces lock escalation to page level

Considerations:

- Provides partial improvement, not complete elimination of contention
- Still requires index maintenance during deletes

Option 2: Separate Transaction Log Disk

Place the transaction log on a separate physical disk, separate from data files. This is a SQL Server best practice and eliminates I/O contention between log writes and data file operations.

Benefits:

- Eliminates I/O contention between log and data operations
- Works with any SQL Server edition
- Best practice for SQL Server configuration

Considerations:

- Requires separate physical disk or storage volume
- Addresses I/O contention only, not locking issues

Option 3: Table Partitioning (Enterprise Edition)

Partition the SystemEvents table by date (e.g., daily partitions). Inserts always go to today's partition while deletes target old partitions that no longer receive inserts, completely eliminating contention. When cleaning up, use partition switching to instantly move an entire partition to a staging table and drop it - this is a metadata-only operation that takes milliseconds instead of minutes.

Benefits:

- Completely eliminates contention between inserts and deletes
- Partition switching is a metadata-only operation (milliseconds)
- Inserts and deletes operate on different partitions

Considerations:

- Requires SQL Server Enterprise Edition
- Requires initial setup and ongoing partition management
- More complex implementation

Option 4: Delayed Durability (If Acceptable Risk)

This can improve insert performance by 20-40% by deferring transaction log writes. However, there's a risk of losing the last few seconds of inserts if the server crashes before the log is flushed.

Implementation:

```
ALTER DATABASE [DatabaseName] SET DELAYED_DURABILITY = ALLOWED;
```

Benefits:

- Significant performance improvement (20-40%)
- Works with Standard Edition
- Simple configuration change

Considerations:

- Risk of data loss if server crashes before log flush
- Addresses I/O performance only, not locking issues
- May not be acceptable for all environments

Best Practices

1. **Monitor Queue Saturation Correlation**: Check whether queue saturation incidents correlate with cleanup schedule times. If deletes run on a regular schedule and queue buildup occurs at predictable intervals, this strongly suggests the cleanup process is a contributing factor.
2. **Monitor SQL Server Blocking**: Use the following query to check for blocking during delete operations:

```
SELECT
r.session_id,
r.blocking_session_id,
r.wait_type,
r.wait_time,
SUBSTRING(t.text, 1, 200) AS QueryText
FROM sys.dm_exec_requests r
CROSS APPLY sys.dm_exec_sql_text(r.sql_handle) t
WHERE r.blocking_session_id > 0;
```

3. **Optimize Batch Delete Process**: Use primary key-based deletes with appropriate batch sizes (e.g., 5000 rows) to balance performance and lock duration. Using the primary key ensures efficient index seeks.
4. **Isolate Parsing Workload**: If using separate processes for parsing, use (NOLOCK) hints to completely isolate the parsing workload from MonitorWare Agent's insert operations.
5. **Verify Transaction Log Location**: Ensure transaction log is on separate physical disk from data files to eliminate I/O contention.
6. **Consider Action Queue Feature**: Use Action Queue feature at Database Action level (OLEDB or ODBC Actions) instead of increasing main queue limit excessively. This can help manage queue buildup during temporary database slowdowns.

Related Settings

- **Main Queue Limit**: The maximum number of messages that can be queued in MonitorWare Agent. Large limits (e.g., 2-4 million) can cause increased CPU overhead and memory consumption when queue is full.
- **Worker Threads**: Number of worker threads for parallel processing in MonitorWare Agent. Increasing worker threads (e.g., from 2 to 4) can improve parallel processing during normal operations.
- **Action Queue**: Feature at Database Action level (OLEDB or ODBC Actions) in MonitorWare Agent that provides additional buffering during temporary database slowdowns. Recommended over excessive main queue limits.
- **Database Connection Settings**: Connection timeout and retry settings for SQL Server connections via OLEDB or ODBC Actions in MonitorWare Agent.

Verification

To verify if cleanup process is contributing to queue issues in MonitorWare Agent:

1. **Check Timing Correlation**: Monitor whether queue saturation incidents occur at predictable intervals matching cleanup schedule.
2. **Monitor Blocking**: Run the blocking query during cleanup operations to identify any blocking sessions.
3. **Review SQL Server Wait Statistics**: Check for PAGEIOLATCH, LCK_M_* wait types during cleanup operations.
4. **Monitor Transaction Log Activity**: Check transaction log file growth and I/O during cleanup operations.
5. **Review Queue Metrics**: Monitor queue depth over time in MonitorWare Agent and correlate with cleanup schedule to identify patterns.

If queue buildup incidents correlate with cleanup schedule times, the recommendations described above can help address the contention issues.

Recommended Service Stop Order for MonitorWare Agent Maintenance

Question

What is the recommended order for stopping the MonitorWare Agent service during system maintenance or reboots?

Answer

When performing system maintenance, updates, or planned reboots on a system running MonitorWare Agent, follow a specific shutdown sequence to prevent data loss and ensure a clean shutdown. The MonitorWare Agent service should be stopped **after** any web server and **before** the database server.

Recommended Stop Order

1. **Stop IIS/Web Server** (if using a web-based log viewer)
2. **Stop MonitorWare Agent Service**
3. **Stop Database Server** (SQL Server, MySQL, etc.)

Rationale

This sequence ensures:

- **Web connections are closed first:** Prevents new user sessions from accessing the database while MonitorWare Agent is still writing.
- **MonitorWare Agent stops gracefully:** Allows MonitorWare Agent to complete any in-progress writes and flush its queues before the database becomes unavailable.
- **Database closes last:** Ensures all pending transactions from MonitorWare Agent are committed before the database shuts down.

Stop Commands

You can stop the MonitorWare Agent service using its internal service name `AdisconMonitorWareAgent` in PowerShell or Command Prompt:

Command Prompt:

```
net stop w3svc
net stop "AdisconMonitorWareAgent"
net stop MSSQLSERVER
```

PowerShell:

```
Stop-Service -Name "w3svc"
Stop-Service -Name "AdisconMonitorWareAgent"
Stop-Service -Name "MSSQLSERVER"
```

Startup Order

When starting services after maintenance, reverse the order:

1. **Start Database Server**
2. **Start MonitorWare Agent Service**
3. **Start IIS/Web Server**

Command Prompt:

```
net start MSSQLSERVER
net start "AdisconMonitorWareAgent"
net start w3svc
```

PowerShell:

```
Start-Service -Name "MSSQLSERVER"
Start-Service -Name "AdisconMonitorWareAgent"
Start-Service -Name "w3svc"
```

Service Name Reference

When managing the MonitorWare Agent service from the command line, use the internal service name:

- **Internal Service Name:** `AdisconMonitorWareAgent`
- **Display Name:** MonitorWare Agent Service

The internal service name remains consistent across installations and should be used in automation scripts for reliability.

Verifying Service Status

```
Get-Service -Name "AdisconMonitorWareAgent"
```

```
sc query "AdisconMonitorWareAgent"
```

Best Practices

- **Plan maintenance windows:** Schedule downtime during low-traffic periods to minimize log message loss.
- **Backup database:** Perform a database backup before shutting down services.
- **Verify connections:** After restart, verify that the MonitorWare Agent service started correctly and is writing to the database.
- **Check logs:** Review the Windows Event Viewer for any MonitorWare Agent service errors after restart.
- **Use internal service names:** Always use the internal service name `AdisconMonitorWareAgent` in scripts for reliability.

Troubleshooting

If the MonitorWare Agent service does not stop gracefully:

- Check for stuck processes in Task Manager.
- Review the Windows Event Viewer for service errors.
- Verify that database connections are properly closed.
- Check service dependencies: `sc qc "AdisconMonitorWareAgent"`
- As a last resort, use force stop: `net stop "AdisconMonitorWareAgent" /y`

Are MonitorWare Agent products affected by recent OpenSSL CVEs?

Question

Are MonitorWare Agent products affected by recent OpenSSL CVEs? Which OpenSSL version do the products use, and are the vulnerable components used?

Problem

Customers may see OpenSSL security advisories (e.g., multiple CVEs from OpenSSL 3.6, 3.5, 3.4, 3.3, 3.0, or 1.1.1/1.0.2 branches) and need to know:

- Whether MonitorWare Agent is affected by specific CVEs
- Which OpenSSL version is shipped with MonitorWare Agent
- Whether the vulnerable code paths or components are used

Symptoms

- Security or compliance teams request a formal assessment of OpenSSL CVEs for MonitorWare Agent
- Scans or reports may flag MonitorWare Agent due to bundled OpenSSL
- No observable runtime failure; this is a security/compliance assessment topic

Solution

MonitorWare Agent **26.07** bundles an updated OpenSSL library as part of the platform refresh. OpenSSL advisories list affected version ranges per CVE. Many CVEs affect only certain release branches (for example 3.6, 3.5, 3.4, 3.3, 3.0, 1.1.1, 1.0.2) and do **not** include every minor line shipped with Adiscon products.

If MonitorWare Agent ships OpenSSL from a branch that is not in the affected set for a given CVE, the product is not vulnerable to that CVE regardless of whether the vulnerable API exists in the code base.

Information:

- OpenSSL versions are embedded into the product statically without dependencies on system-installed versions
- The product uses its own bundled OpenSSL library, independent of any OpenSSL installation on the system
- This means system OpenSSL updates do not affect the product, and conversely, the product's OpenSSL does not affect system security

Important Notes:

- OpenSSL version information for your specific build can be obtained from Adiscon Support
- Adiscon monitors security advisories and provides updates as necessary
- For the most current information, consult the MonitorWare Agent release notes or contact Support

Notes

Is MonitorWare Agent v15+ supported on Windows Server IoT 2025?

Overview

This FAQ answers whether MonitorWare Agent v15+ is supported on Windows Server IoT 2025 and outlines current guidance, functional status, and considerations for deployments, including Server Core.

Notes

Support Status

Official support:

- Windows Server IoT 2025 is not yet explicitly listed in the MonitorWare Agent v15+ platform matrix.

Functional status:

- MonitorWare Agent v15+ is known to function properly on Windows Server IoT 2025 (including Server Core) based on internal testing and field feedback.

Guidance for Server Core Deployments

Windows Server IoT 2025 Server Core does not provide a graphical user interface. For new file-based deployments, use YAML configuration (`.yaml`) and point `szFileConfig` to that file. The legacy `.cfg` Adiscon Config Format remains supported for compatibility with existing installations, test fixtures, support workflows, and external tooling, but it is not required for new deployments.

Recommended workflow:

1. Create the configuration on a GUI-enabled machine
   - Install MonitorWare Agent and open the Configuration Client
   - Configure rules, services, and actions as required
   - Export YAML (`.yaml`) for Server Core file config mode, backup, or re-import on another GUI machine
2. Transfer the configuration to Server Core
   - Copy the exported `.yaml` file to the Server Core system (e.g., via PowerShell Remoting or SMB)
3. Enable File Config Mode and set paths via registry

   Registry path: `HKEY_LOCAL_MACHINE\SOFTWARE\Adiscon\MonitorWare Agent\Settings`

   Required values:

   - `szFileConfig` (REG_SZ): Example `c:\configs\mwagent\central-server.yaml`
   - `szDataDirectory` (REG_SZ): Example `c:\configs\mwagent\`
   - `iAccessMode` (REG_DWORD): `1` (enables file config mode)

> **Important**
>
> When running in file config mode, ensure the service account has read access to the configuration file and write access to the data directory.

Why did my MonitorWare Agent update report success when the files were not upgraded correctly?

Question

Why can an in-place MonitorWare Agent update report success while the installed service, client, or selected features still contain files from the older release?

Answer

This can happen when Windows Installer retains an incomplete feature state while processing a cross-generation update. The setup wizard can finish and report success even though a later maintenance operation still sees features as advertised, unavailable, or otherwise not fully installed. The product configuration is normally not deleted; the problem is that the expected program files were not refreshed.

Details

This behavior has been confirmed for direct MonitorWare Agent updates from the 13.x generation to the 15.x generation. Other direct source versions can show the same symptoms. The source version alone does not prove that an update path is safe or affected.

The underlying mechanism is consistent with Windows Installer feature-state handling. A newer setup package can be accepted as an update without changing the installed product identity, but Windows Installer still evaluates the feature and component state recorded for the previous installation. A change between product generations can leave a feature only partially selected or advertised. `ADDLOCAL=ALL` explicitly requests all features locally, while `REINSTALL=ALL` only refreshes features that Windows Installer considers installed. This is why a two-stage repair is useful for this symptom.

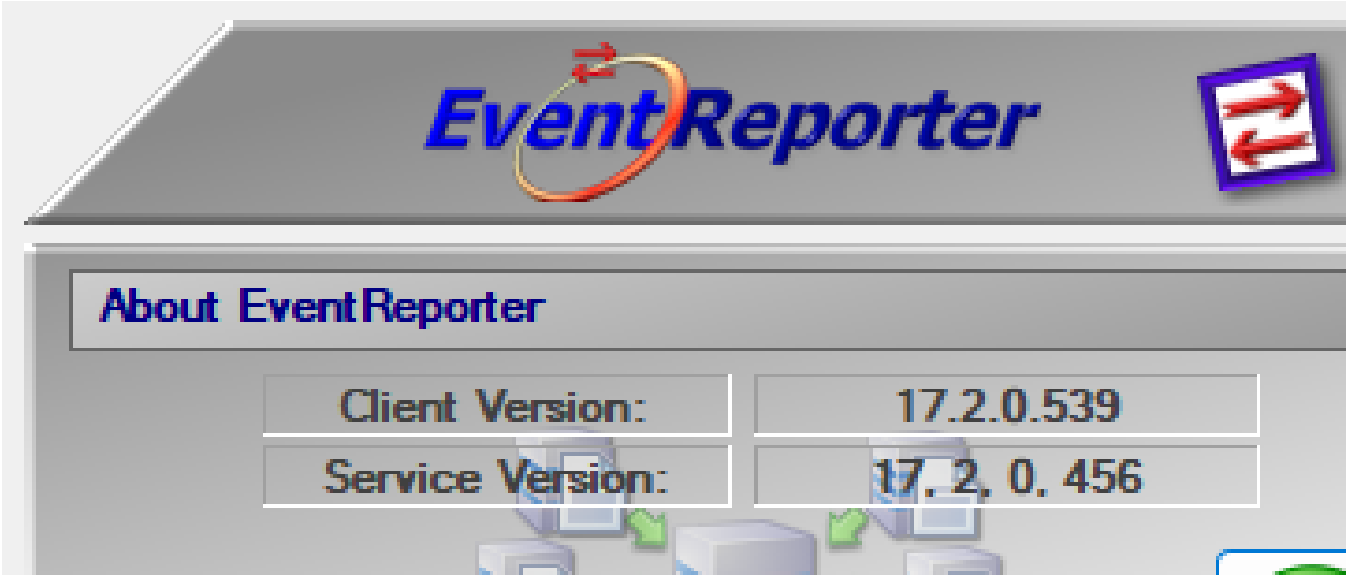
Look for this combination:

- the setup wizard displays a successful completion page
- the MonitorWare Agent About dialog or file properties still show an older client or service version
- Modify or Custom Setup shows an unexpected state such as `0 of 1 subfeatures selected` or `0 KB`
- a normal repair does not replace the older files
- the installer requests a reboot because a service or file is still in use

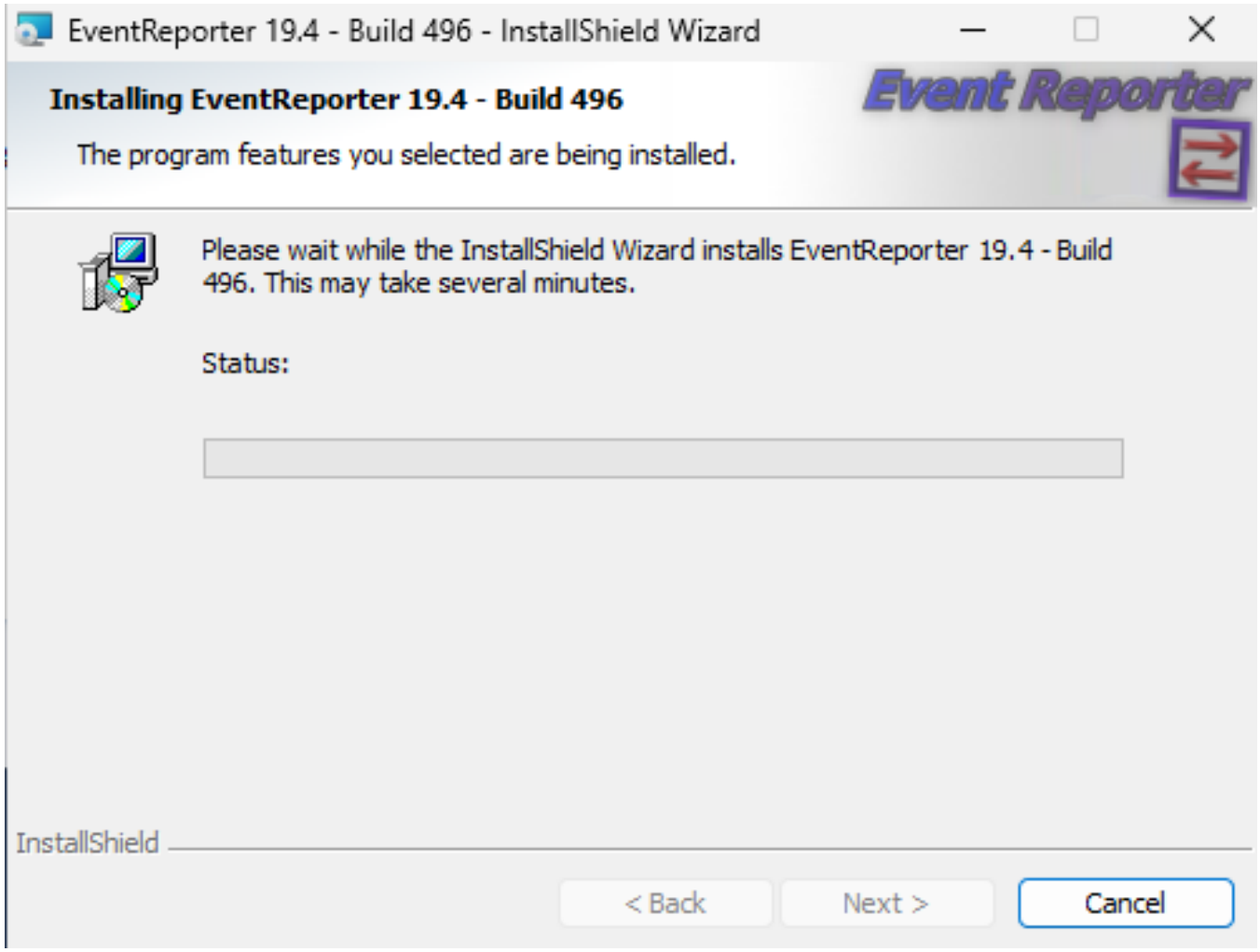
orphan:

Representative setup evidence

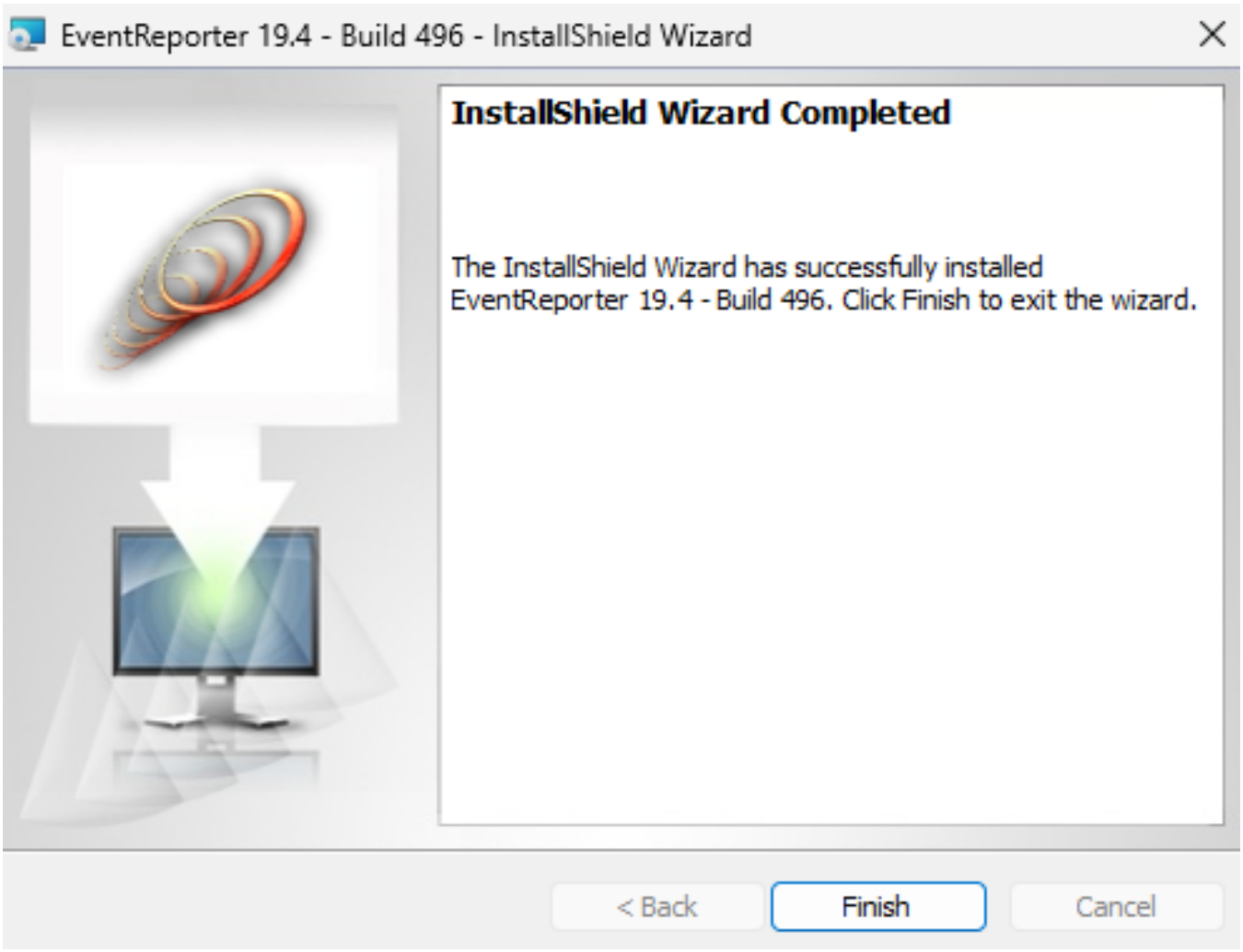
The screenshots below come from one affected setup run and are representative of the visual clues described in this article. Product names, component labels, and version numbers can differ in other product installations.



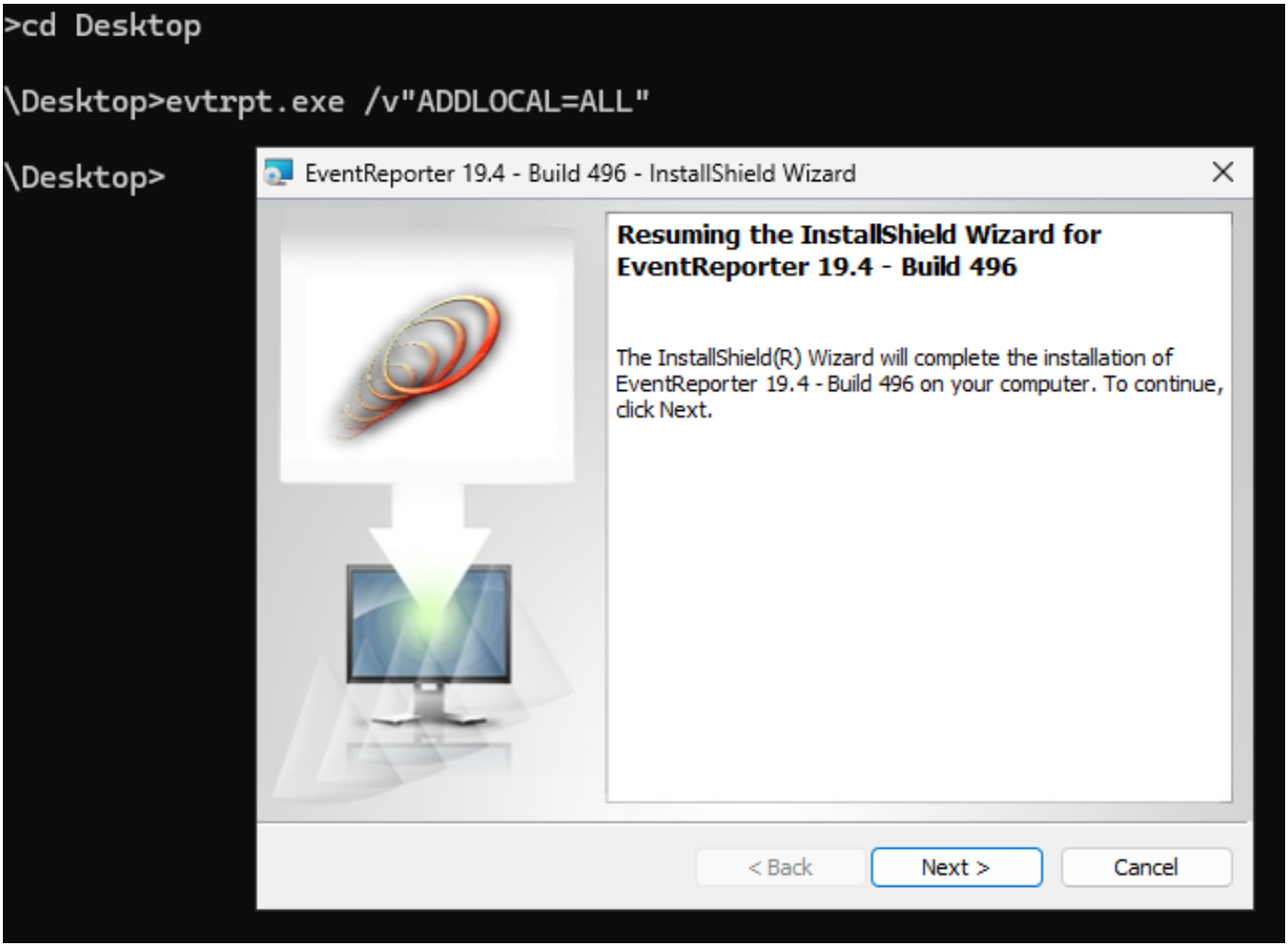
The installed product reports the older client and service versions before the update.



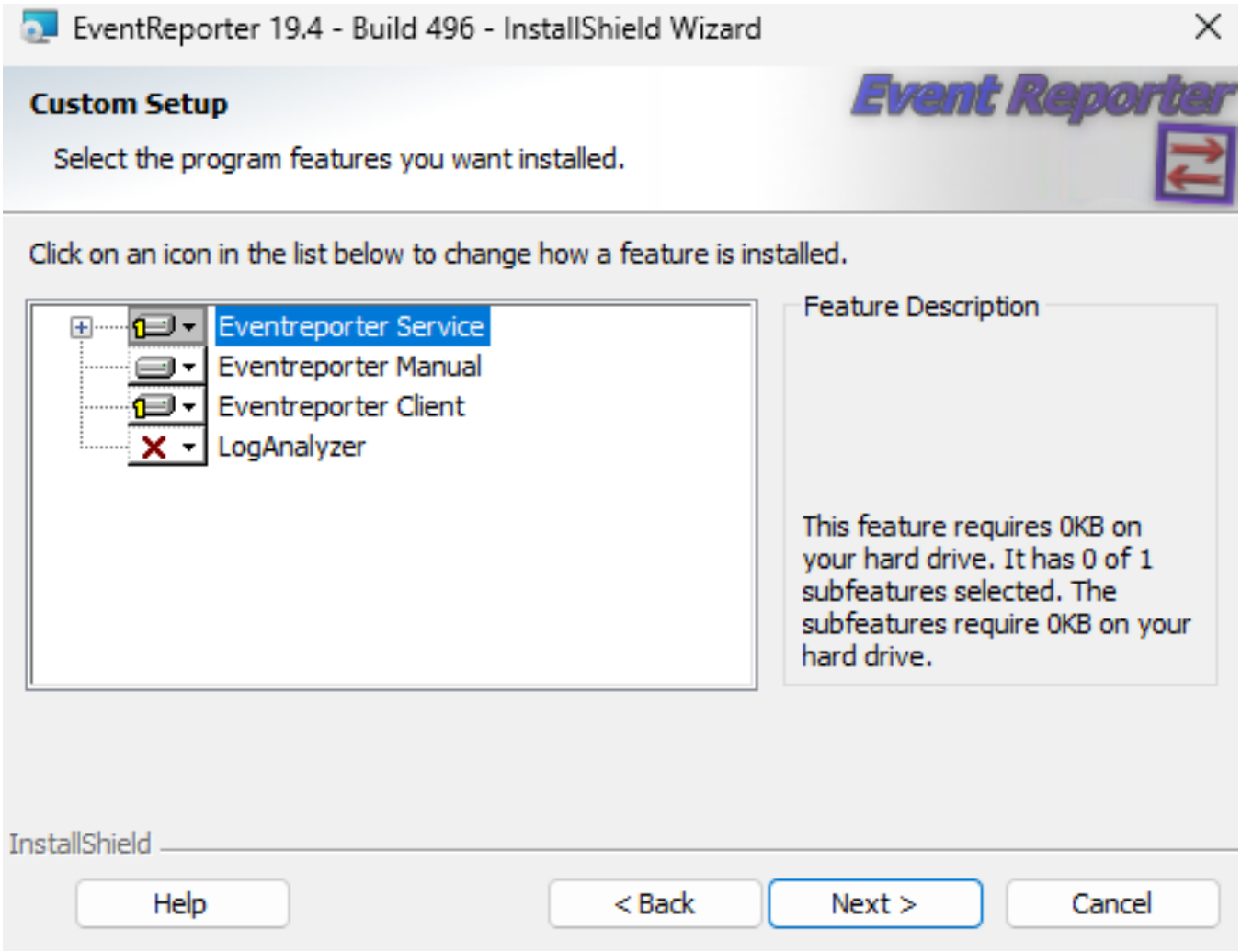
The setup wizard can display a normal installation-progress page.



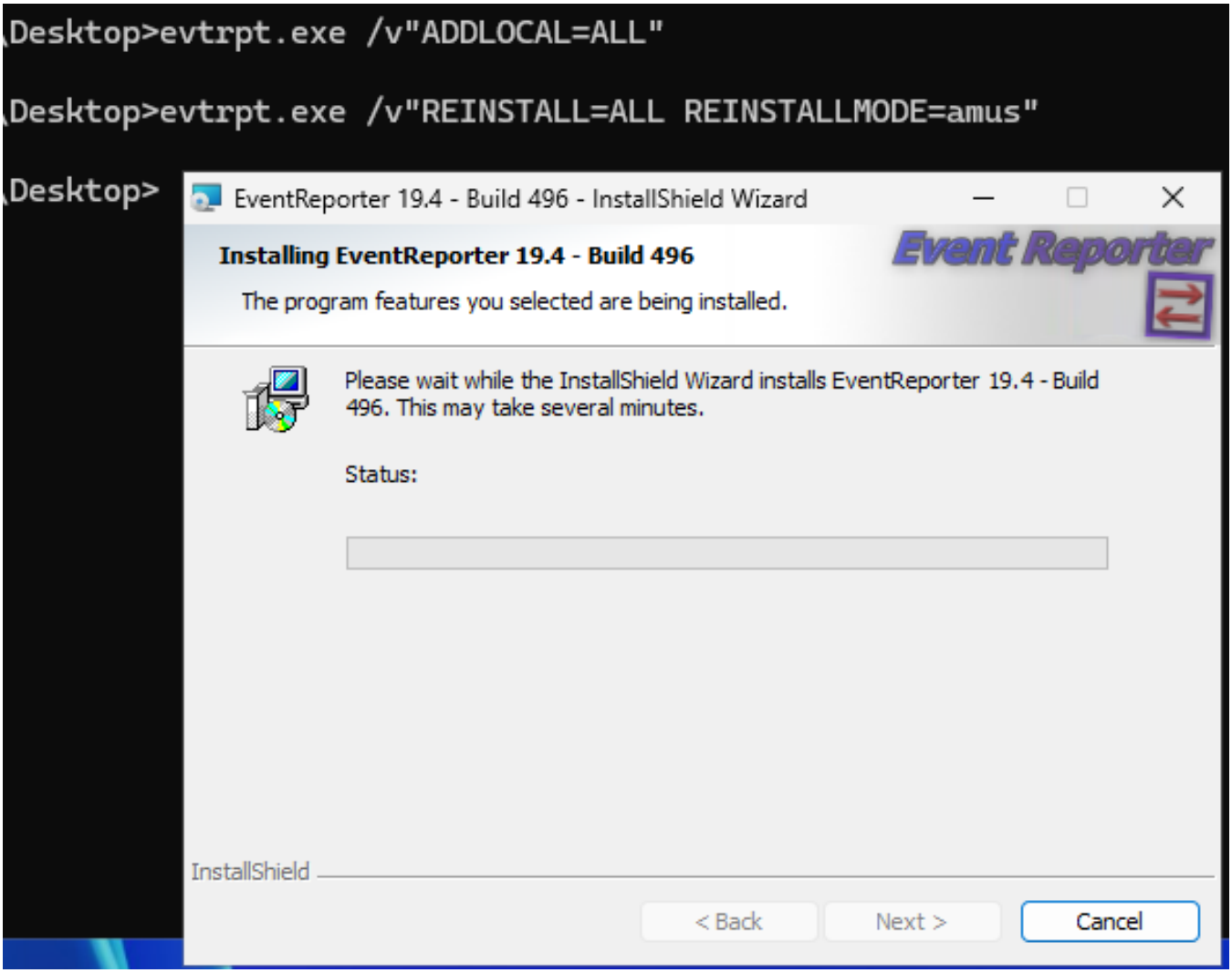
The wizard can report that the installation completed successfully.



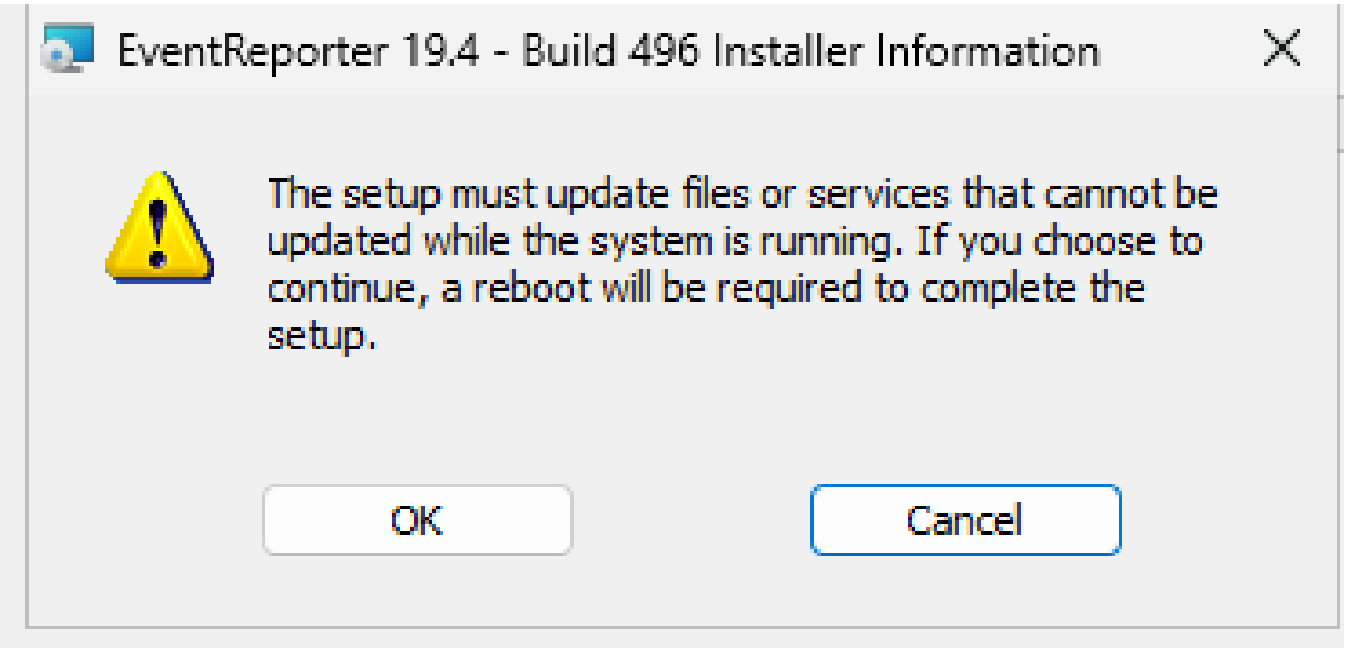
A later maintenance action can resume the InstallShield wizard.



Custom Setup can show an unexpected feature state, such as zero selected subfeatures or zero required disk space.



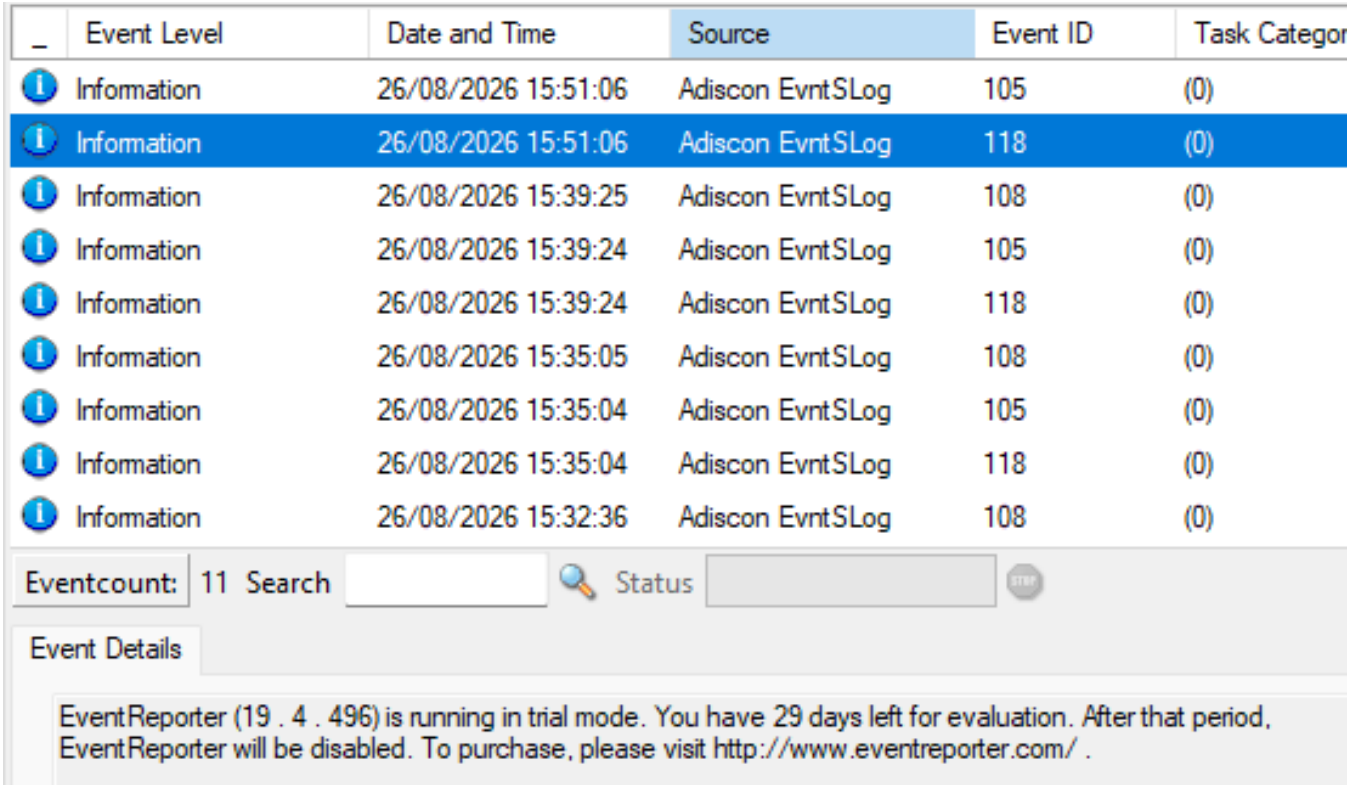
A second maintenance run can reinstall the selected product files.



Files or services that remain in use can cause the installer to request a reboot.



After a successful file refresh, the client and service report the newer versions.



Verify the running product after the installer finishes.

Action path

1. Export or back up the MonitorWare Agent configuration before changing the installation.

2. Close the MonitorWare Agent Configuration Client and stop the MonitorWare Agent service manually before each setup run. Stopping the service first can avoid a reboot request caused by locked service files, but it cannot avoid every reboot request.
3. If a staged update is practical, use a tested intermediate release, such as 13.x to 14.x to 15.x, and verify the client, service, features, and configuration after each hop. Do not assume that an adjacent version path is safe without verification.
4. If the installation remains inconsistent, use the clean-install procedure for MonitorWare Agent after exporting the configuration.
5. If you are already working from the folder that contains the installer, run the following as two separate elevated setup runs.

   First run: mark every setup feature as locally installed.

   ```
   mwaremax.exe /v"ADDLOCAL=ALL /L*v %TEMP%\mwagent-addlocal.log"
   ```

   Second run: force a refresh of the installed files and registration data.

   ```
   mwaremax.exe /v"REINSTALL=ALL REINSTALLMODE=amus /L*v %TEMP%\mwagent-reinstall.log"
   ```

   Let the wizard finish after each command. Do not combine the two property sets into one command for this recovery path. If the first command opens a resume page, continue through the wizard. After the second run, check Modify or Custom Setup, then verify the About dialog and the file versions before starting the service.

Related information

- **`err-2026-002-mwagent-cross-generation-installer-upgrade`**
- How Do I Perform a Repeatable Update Deployment?
- Microsoft Windows Installer ADDLOCAL property
- Microsoft Windows Installer REINSTALL property
- Microsoft Windows Installer REINSTALLMODE property
- Microsoft Windows Installer system reboots

Why do log files remain locked when multiple rules write to the same file?

This article explains why WinSyslog, EventReporter, and MonitorWare Agent may continue to hold file handles to log files even after the configured timeout period, preventing external processes from accessing or archiving those files.

Applies To

- WinSyslog
- EventReporter
- MonitorWare Agent

Problem

The service continues to hold file handles to log files even after the configured timeout period has elapsed. This prevents external processes such as batch scripts or archiving tools from accessing, moving, or archiving the log files.

Symptoms

- Log files remain locked after the expected release time (e.g., after 2:00 AM daily when “Create unique filenames” is enabled)
- External batch scripts fail to archive log files because files are still in use by the service
- Files are not released even hours after the timeout period has passed
- CleanFileHandlesTimeout setting appears to be ignored or ineffective
- Error messages indicating files are in use when attempting to access them

Root Cause

The issue occurs when multiple file actions use identical filename templates that can reference the same physical file. This creates a conflict in file handle management:

1. Each rule's file action creates its own independent file handle tracking mechanism
2. Multiple actions hold references to the same physical file simultaneously
3. The file cannot be released until ALL actions release their handles
4. Even though CleanFileHandlesTimeout is set correctly (e.g., 7200 seconds / 2 hours), the file remains locked because different actions have different timer states and may not all reach the timeout simultaneously

Problematic Configuration Pattern

Multiple rules using identical filename templates:

- File Path: `log-directory\%timegenerated%`
- File Base Name: `%source%-%timegenerated%.log`

When multiple rules match messages from the same source device, they all write to the same physical file (e.g., `device-ip-20251012.log`). This causes handle conflicts where each action maintains its own handle to the same file.

Example of the Issue

- Rule 1: Filter matches source "device-hostname" OR source "192.168.1.100" - File Action writes to `device-ip-20251012.log`
- Rule 2: Filter matches source "device-hostname" OR source "192.168.1.100" - File Action writes to `device-ip-20251012.log` (SAME FILE!)
- Rule 3-N: Same pattern with different filters but identical file action configuration

Solution

Option 1: Consolidate Rules with Identical File Actions (Recommended)

Instead of having multiple separate rules with identical file action configurations, consolidate them into ONE rule with all filter conditions combined. This ensures only one file action object manages each file.

Steps:

1. Create a new rule (e.g., "All Devices Combined")
2. Use Copy & Paste functions in the configuration client to combine filters from all existing rules:
    - For each existing rule:
        - Navigate to the rule
        - Go to Filters tab
        - Find the filter group for that rule
        - RIGHT-CLICK on the filter block (usually an AND or OR block)
        - Select "Copy"
    - Navigate to your new "All Devices Combined" rule
    - Go to Filters tab
    - RIGHT-CLICK on the top-level OR filter
    - Select "Paste" (or "Paste as child")
    - The entire filter block is now copied into your new rule
    - Repeat this process for all existing rules
3. Configure the file action once in the new combined rule
4. Delete the other rules so that only a single File Action remains

Result: Only ONE file action object manages each file, eliminating handle conflicts completely.

Option 2: Use Unique File Paths for Each Rule

If you need to keep separate rules for organizational purposes, ensure each rule writes to a unique file location:

- Organize logs into separate subdirectories by device type, rule name, or other categorization
- Use different filename patterns for each rule
- Ensure no two rules can write to the same physical file under any circumstances

Example Configuration:

- Rule 1: File Path: `log-directory\devices\type1\%timegenerated%`
- Rule 2: File Path: `log-directory\devices\type2\%timegenerated%`
- Rule 3: File Path: `log-directory\devices\type3\%timegenerated%`

Each rule writes to a completely separate directory structure, preventing any possibility of file handle conflicts.

Best Practices

- Each rule should write to a unique file location to avoid handle conflicts
- Consolidate rules with identical file action configurations into a single rule when possible
- Use the Copy & Paste functions in the configuration client to efficiently combine filter conditions from multiple rules
- When using “Create unique filenames” for daily rotation, ensure file paths are unique per rule
- Test file release behavior after configuration changes to verify files are released as expected
- Monitor file handles using Windows Resource Monitor or Process Explorer to verify proper release
- Verify that external batch scripts or archiving processes can access files after the timeout period

Verification

After implementing the solution:

1. Monitor file handles using Windows Resource Monitor or Process Explorer to confirm files are released after the CleanFileHandlesTimeout period
2. Verify configuration using the configuration client’s verification feature - it should report 0 errors related to duplicate filenames

If files are still not released after the timeout period, check for:

- Other file actions or rules that may be holding references to the same files
- Additional processes that may be accessing the files
- Configuration errors that may have been missed during the consolidation process

How to resolve performance issues on high-load systems?

This article explains how to resolve performance issues such as slow configuration reloads, extended service start/stop times, queue buildup, and potential timeouts during service operations on systems with high message volume.

Applies To

- WinSyslog
- MonitorWare Agent
- rsyslog Windows Agent

Problem

On systems with high message volume, these products may experience performance issues such as slow configuration reloads, extended service start/stop times, queue buildup, and potential timeouts during service operations. These issues are more likely to occur when the system is processing many messages with insufficient worker threads.

Symptoms

- Configuration reloads take longer than expected or appear to hang
- Service restart operations timeout with “Could not stop the service within 20 seconds” error

- Extended service start and stop times, especially when debug logging is enabled
- Queue buildup during high message volume periods
- Slow filter and action processing during peak load
- System appears unresponsive during configuration changes

Root Cause

Under high message load, these products need sufficient parallel processing capacity to handle incoming messages efficiently. When worker threads are too few relative to the CPU cores and message volume:

- Filters and actions cannot run in parallel effectively
- Queues drain slowly, causing message buildup
- Configuration reload windows stretch because in-flight work drains slowly
- Service start/stop operations take longer because the service must wait for in-flight work to complete

The default worker thread count may be insufficient for high-load systems with multiple CPU cores.

Solution

Primary Recommendation: Increase Worker Threads

The most important setting for high-load systems is the Worker Threads configuration:

For WinSyslog:

1. Open the WinSyslog Configuration Client
2. Navigate to **General Options > Queue Manager** section
3. Set **Number of worker threads** to at least **half the CPU core count**
    - Example: For an 8-core system, set to at least 4 worker threads
    - Example: For a 16-core system, set to at least 8 worker threads
4. Save the configuration
    - If automatic configuration reload is enabled, the service will reload automatically
    - If automatic configuration reload is disabled, manually restart the service

For MonitorWare Agent:

1. Open the MonitorWare Agent Configuration Client
2. Navigate to **General Options > Queue Manager** section
3. Set **Number of worker threads** to at least **half the CPU core count**
    - Example: For an 8-core system, set to at least 4 worker threads
    - Example: For a 16-core system, set to at least 8 worker threads
4. Save the configuration
    - If automatic configuration reload is enabled, the service will reload automatically
    - If automatic configuration reload is disabled, manually restart the service

For rsyslog Windows Agent:

1. Open the product configuration interface
2. Navigate to the **Queue Manager** or equivalent section (location may vary by product)
3. Set **Number of worker threads** to at least **half the CPU core count**
    - Example: For an 8-core system, set to at least 4 worker threads
    - Example: For a 16-core system, set to at least 8 worker threads
4. Save the configuration
    - If automatic configuration reload is enabled, the service will reload automatically
    - If automatic configuration reload is disabled, manually restart the service

Why this helps:

- Allows filters and actions to run in parallel

- Drains queues faster during high message volume
- Reduces configuration reload window duration under load
- Improves overall system responsiveness during peak periods

Additional Recommendations for High-Load Systems

Test Configuration Changes on Test System First

For busy production systems, avoid making large configuration changes directly:

1. Perform larger configuration changes on a test system first
2. Verify the changes work correctly on the test system
3. Import the verified configuration into the production system
4. If automatic configuration reload is enabled, the service will reload automatically after saving
5. If automatic configuration reload is disabled, manually restart the service from the Configuration Client or Windows Services Management Console
6. Monitor system performance after the change

Use Windows Services Management Console for Service Operations

If automatic configuration reload is disabled and you need to restart the service, or if the configuration client service restart fails or times out:

1. Open Windows Services Management Console (services.msc)
2. Locate the product service (WinSyslog, MonitorWare Agent, or rsyslog Windows Agent service)
3. Right-click and select **Restart** (or **Stop** then **Start**)
4. The Services Console provides more reliable service control under high load

Note: If automatic configuration reload is enabled, manual service restart is typically not needed after configuration changes.

Allow Sufficient Time for Operations

On high-load systems, allow adequate time for:

- Configuration reloads to complete
- Service restarts to finish
- Queue processing to catch up after changes

Avoid making multiple rapid configuration changes in succession.

Best Practices

- **Set Worker Threads to at least half the CPU core count** - This is the most critical setting for high-load systems
- **Test configuration changes on a test system first** - Reduces risk of issues on production systems
- **Monitor system performance** - Watch for queue buildup, slow processing, or extended operation times
- **Avoid debug logging on production systems** - Debug logging significantly increases processing overhead and extends operation times
- **Plan configuration changes during lower-traffic periods** - When possible, schedule major changes during maintenance windows
- **Monitor Event ID 126 (WinSyslog)** - Verify that configuration reloads complete successfully (“Configuration reload successfully done”)

Verification

To verify that worker thread settings are appropriate:

1. Check the current Worker Threads setting in QueueManager section
2. Determine your system’s CPU core count
3. Verify that Worker Threads is set to at least half the CPU core count
4. Monitor system performance during peak message volume:
    - Check for queue buildup

- Monitor service responsiveness
- Verify configuration reloads complete in reasonable time
- Check for timeout errors during service operations

If performance issues persist after adjusting worker threads, consider:

- Further increasing worker threads (up to the CPU core count)
- Reviewing filter and action complexity

Is MariaDB supported by the ODBC action?

This article explains MariaDB support in ODBC database actions.

Question

Is MariaDB supported by the ODBC action?

Answer

Yes, MariaDB is fully supported by the ODBC action and can be used as a direct replacement for MySQL.

Background

MariaDB is a free and open-source alternative to MySQL. It is a fork of MySQL, initiated by the original MySQL developers after Oracle acquired Sun Microsystems (the former owner of MySQL). MariaDB was designed to be binary-compatible with MySQL, which generally makes switching from MySQL to MariaDB very easy.

Key characteristics of MariaDB:

- **Open Source:** MariaDB is consistently Open Source under a license that guarantees free use and further development
- **Binary Compatibility:** Designed to be binary-compatible with MySQL, making migration straightforward
- **Independent Development:** Continuous, independent development separate from MySQL
- **Performance:** Often preferred as an alternative due to sometimes better performance characteristics

Configuration

To use MariaDB with the ODBC action:

1. **Install MariaDB ODBC Driver:** - Download and install the MariaDB Connector/ODBC driver from the official MariaDB website - Ensure you install the correct version (32-bit or 64-bit) to match your Adiscon product installation
2. **Configure System DSN:** - Open the ODBC Data Source Administrator (use the 32-bit version if your product runs in 32-bit mode) - Create a new System DSN - Select the MariaDB ODBC driver - Configure the connection settings (server, database, credentials)
3. **Configure Database Action:** - In your Adiscon product configuration, select the ODBC Database action - Choose the MariaDB System DSN you created - Test the connection using the “Verify Database” button - Create the database tables if needed using the “Create Database” button

Note: The configuration process is identical to configuring MySQL, as MariaDB uses MySQL-compatible drivers and protocols.

Modern Deployment Recommendations

For current MariaDB deployments, we recommend the following:

1. **Use a current MariaDB server and connector** - Use currently supported MariaDB server releases - Use a current MariaDB Connector/ODBC package from the official source
2. **Use a dedicated database account** - Create a dedicated user for the Adiscon product - Grant only the required privileges on the target database/schema
3. **Enable secure transport for remote database connections** - Use TLS between the Adiscon host and MariaDB server when traffic crosses networks - Configure certificate settings in the DSN/driver according to your security policy

4. **Use UTF-8 consistently** - Prefer UTF-8/`utf8mb4` settings for server, database, and connector - This prevents character conversion issues in international log messages
5. **Validate end-to-end before production rollout** - Use “Verify Database” in the ODBC action - Insert sample messages and verify they are written and readable as expected

Common Modern Troubleshooting Checks

If connection tests fail, verify:

- Driver architecture matches the product runtime (32-bit vs 64-bit)
- Host, port, database name, and credentials in the DSN are correct
- MariaDB user authentication method is supported by the installed connector
- TLS requirements (if enabled) match server and connector configuration
- Firewall rules allow database traffic

Additional Information

For more information about database actions, see the ODBC Database Options documentation in your product’s manual.

For MariaDB-specific information, visit the official MariaDB website.

Recommended Palo Alto Firewall Syslog Configuration

This article provides configuration recommendations for Palo Alto firewalls to ensure consistent and reliable syslog message parsing by your syslog server.

Question

What is the recommended syslog format configuration for Palo Alto firewalls when sending logs to a syslog server?

Answer

We recommend configuring Palo Alto firewalls to use IETF RFC 5424 **syslog format instead of BSD**

RFC 3164

format. The IETF format provides a structured, unambiguous message format that ensures consistent parsing regardless of Palo Alto firmware version or spacing differences in log messages.

Why Use IETF (RFC 5424) Format?

IETF format is recommended over BSD

RFC 3164

format for the following reasons:

1. **Structured format:** IETF format includes a required APP-NAME field that eliminates parsing ambiguity
2. **Consistent parsing:** The structured format ensures your syslog server parses messages consistently regardless of: * Palo Alto firmware version * Spacing differences in log messages * Future firmware updates that may change message formatting
3. **Better compatibility:** IETF format is the modern syslog standard and provides better support for SIEM systems and log analysis tools
4. **Prevents parsing issues:** BSD format relies on heuristics that can be affected by spacing changes, potentially causing fields like `version=` to be parsed incorrectly or missing from output

Note: If you’re experiencing issues where the `version=` field is missing from syslog output after a Palo Alto upgrade, this is typically caused by BSD format parsing ambiguity due to spacing changes. Switching to IETF format resolves this issue.

Configuration Steps

Step 1: Access Syslog Server Profile

1. Log in to the Palo Alto Networks firewall web interface
2. Navigate to: **Device > Server Profiles > Syslog**

   Reference: Palo Alto Documentation - Configure Syslog Monitoring
3. Either: * Edit an existing syslog server profile, or * Click **Add** to create a new profile

Step 2: Configure Syslog Server Settings

For each syslog server in the profile:

1. **Name:** Enter a unique name for the server (if creating new)
2. **Syslog Server:** Enter the IP address or FQDN of your syslog server
3. **Transport:** * **Important:** IETF format typically uses TCP or SSL (TLS) * Select **TCP** or **SSL** (not UDP) * If using SSL, ensure TLSv1.2 is supported

   Reference: Palo Alto Documentation - Configure Syslog Monitoring
4. **Port:** Enter the port number (default TCP syslog port is 514, but verify with your syslog server configuration)
5. **Format:** Select **IETF** (this is the key setting)

   Reference: Palo Alto Documentation - Configure Syslog Monitoring
6. **Facility:** Select the appropriate syslog facility value (default is LOG_USER)

Step 3: Verify The Syslog Service Supports RFC 5424

Before applying the changes, ensure:

1. The Syslog Service supports RFC 5424 format: Verify that RFC 5424 parsing is enabled

Ensure RFC 5424 parsing is enabled in the Syslog Server service configuration.

Step 4: Commit Configuration

1. Click **OK** to save the syslog server profile
2. Commit the configuration
3. Review the commit and click **Commit** again to confirm

   Reference: Palo Alto Documentation - Configure Syslog Monitoring

Step 5: Verify Configuration

After committing:

1. Check syslog messages on your syslog server
2. Verify the format: Messages should now appear in IETF format:

   ```
   <14>1 2025-10-30T13:13:04.000Z e26secgw02 paloalto - - [meta version="11.2.6"] version=11.2
   .6|subtype=general|...
   ```
3. Verify APP-NAME field: The `paloalto` field (APP-NAME) should be present and consistently parsed by your syslog server
4. Verify output format: Syslog server output should now consistently include the `version=` prefix

Expected Results

After configuring IETF format, you should see:

- **Consistent message format:** Messages appear in structured IETF format with the APP-NAME field (`paloalto`) consistently parsed

- **Reliable field extraction:** All fields, including `version=`, are reliably extracted regardless of Palo Alto firmware version
- **Future-proof configuration:** The structured format ensures consistent behavior even after firmware upgrades
- **Better log analysis:** The structured format provides better support for SIEM systems and log analysis tools

Benefits Summary

Using IETF (RFC 5424) format provides:

- **Eliminates parsing ambiguity:** The structured format with required APP-NAME field ensures consistent parsing
- **Prevents version-related issues:** Spacing changes in firmware updates won't affect message parsing
- **Industry standard:** IETF format is the modern syslog standard recommended for enterprise environments
- **Better integration:** Improved compatibility with SIEM systems, log analysis tools, and centralized logging solutions

Technical Reference

- RFC 3164 (BSD)
- RFC 5424 (IETF)
- Palo Alto Documentation - Configure Syslog Monitoring
- Palo Alto Documentation - Syslog Field Descriptions
- Palo Alto Documentation - Use Syslog for Monitoring

Additional Information

For more information about syslog server configuration and RFC 5424 support, see the Syslog Server documentation in your product's manual.

Protocols and integration

How Do Port, Address, and Transport Conflicts Work for Input Services?

Question

When I create multiple input services, which combinations can run at the same time and which ones conflict?

Answer

Treat each receive-side service as an input service. When a GUI field or older page says **listener**, it refers to the network side of that input service. In practice, the relevant settings are the transport protocol, the local IP address, and the local port.

Two input services can run side by side only when those settings do not conflict. Changing the transport, IP address, or port avoids the conflict. If two input services need the same combination, only one of them can use it.

TLS does not change that rule. A TLS-enabled input service still binds a TCP port, so plain TCP and TCP+TLS cannot both listen on the same IP address and port.

Details

Use this rule of thumb:

- Different transport protocols can coexist on the same port, for example UDP/514 and TCP/514.
- TCP and TCP+TLS cannot both use the same IP address and port, because both bind TCP at the socket level.
- Different ports can coexist, for example TCP/514 and TCP+TLS/1514.
- Different local IP addresses can also coexist, as long as the input type exposes that setting.

For most administrators, the simplest practical rule is this:

- Reusing the same port number is usually safe only when the transport differs, for example UDP versus TCP.

- Do not expect reuse to work when both services ultimately use TCP on the same local address, even if the higher-level protocol is different.
- TLS does not create a separate transport; it still runs on top of TCP.
- DTLS is a notable exception because it runs over UDP.

Short IP primer

The special address `0.0.0.0` means “all local IPv4 addresses” and `::` means “all local IPv6 addresses”. If one input service already uses `0.0.0.0` on a given transport and port, another input service with the same transport usually cannot reuse that port on one specific IPv4 address because the wildcard address already covers it.

GUI-specific differences

The exact UI fields depend on the input type:

- Some input services expose transport, IP address, and port directly.
- Some input services expose only part of that combination.
- Some input services support only one transport mode and therefore do not offer a transport choice at all.
- Some input services separate IPv4 and IPv6 into different services or settings.

The conflict rule still stays the same: one active input service per effective address, port, and transport combination.

In WinSyslog-oriented wording, that usually means one active network input service per effective address, port, and transport combination.

Concrete examples

These combinations are valid:

- UDP / `0.0.0.0` / `514`
- TCP / `0.0.0.0` / `514`
- TCP+TLS / `0.0.0.0` / `1514`

This combination conflicts:

- TCP / `0.0.0.0` / `514`
- TCP+TLS / `0.0.0.0` / `514`

Action path

1. Identify the transport, local IP address, and local port required by each input service.
2. Check whether any active input service already uses the same effective address, port, and transport combination.
3. If there is a conflict, change the port or bind to a different local IP address when that input type allows it.
4. If TLS is required in parallel with plain TCP, plan separate ports or addresses before configuring the senders.
5. After changing the input settings, update the senders so they use the new destination port or IP address.

Related information

- What do CA PEM, Certificate PEM, and Key PEM mean for TLS input services?
- Use the product-specific service reference page for the exact UI fields of the input type you are configuring.

What do CA PEM, Certificate PEM, and Key PEM mean for TLS input services?

Question

What do the `CA PEM`, `Certificate PEM`, and `Key PEM` fields mean for TLS-enabled input services such as `RELP Listener` or `SETP Server`?

Answer

For TLS-enabled input services:

- `CA PEM` is the CA bundle used to validate peer certificates.
- `Certificate PEM` is the certificate presented by the receiving service.
- `Key PEM` is the private key that matches that certificate.

The private key must be in PEM format and must not be protected by a passphrase.

Details

The `CA PEM` field is used when certificate validation is enabled for incoming TLS connections. The receiving service uses the certificates in this file to validate certificates presented by connecting clients.

The `Certificate PEM` field should contain the certificate that the product presents to connecting clients. If intermediate CA certificates are required so that clients can build the chain, include the service certificate first and then append the intermediate CA certificates in order toward the root CA.

The `Key PEM` field must contain the private key that belongs to that certificate. Use an unencrypted PEM key file. Passphrase-protected private keys are not supported in these fields.

If client certificates are issued through a CA chain, the `CA PEM` file can contain multiple CA certificates. Include the intermediate CA certificates first, followed by the root CA certificate.

Action path

1. Decide whether the input service should validate client certificates.
2. Prepare a PEM CA bundle for `CA PEM` if certificate validation is used.
3. Prepare a PEM certificate file for `Certificate PEM`. Include the intermediate chain if clients need it to validate the certificate.
4. Prepare the matching PEM private key for `Key PEM` and remove any passphrase protection before using it.
5. Load the files into the TLS configuration fields and test the connection.

Related information

See the product-specific TLS service reference page for the exact UI location of these fields.

Platform and compatibility

Do the configuration clients require .NET Framework, or is .NET Core or .NET 5+ enough?

Question

Can the Windows configuration clients run with only the newer .NET runtime installed, such as .NET Core, .NET 8, or .NET 10?

Answer

No. The Windows configuration clients require **Microsoft .NET Framework 4.7.2 or a newer .NET Framework 4.x release**.

`.NET Framework 4.x` is a Windows-only runtime family. `.NET Core` and `.NET 5+` are a different cross-platform runtime family.

`.NET 5+` continues the `.NET Core` line under a new name. It is not a newer version of `.NET Framework 4.x`.

Installing only `.NET Core` or `.NET 5+` does not satisfy a `.NET Framework` requirement.

Details

For these products, the requirement applies to the **Windows configuration client**. The background service is a separate component.

If you deploy only the background service on a target system, the Configuration Client is not required on that system. In that case, this `.NET Framework` requirement applies where the Configuration Client is installed and used, not to the service-only target.

The following satisfy this requirement:

- `.NET Framework 4.7.2`
- `.NET Framework 4.8`
- `.NET Framework 4.8.1`

The following do not satisfy this requirement on their own:

- `.NET Core 3.x`
- `.NET 5`
- `.NET 6`
- `.NET 8`
- `.NET 10`

Action path

1. Check whether the system has `.NET Framework 4.7.2` or a newer `.NET Framework 4.x` release installed.
2. If it is missing, install `.NET Framework` separately or allow the product installer to add the required Framework components.
3. If the system only has `.NET Core` or `.NET 5+`, do not assume that the configuration client can run.

Related information

- Microsoft documentation on .NET Framework versions and dependencies: https://learn.microsoft.com/en-us/dotnet/framework/install/versions-and-dependencies
- Microsoft documentation on installing .NET on Windows: https://learn.microsoft.com/en-us/dotnet/core/install/windows

Reference

Use this section for lookup material such as command-line behavior, shortcut keys, and low-level reference topics that support configuration work.

Product controls and local operation

Command Line Switches

There are several command line switches available for using MonitorWare Agent from the command line. To use these switches you need administrative rights.

- `-h` Show command line help
- `-v` Show version information and whether the service is installed
- `-i` Install service
- `-u` Remove (uninstall) service
- `-i <CustomServiceName>` Install service with a custom service name
- `-u <CustomServiceName>` Uninstall a service with a custom service name
- `-r` Run as console application
- `-r -o` Run once as console application

If you install the service, you can start and stop it with commands such as `net start`, `net stop`, `sc start`, `sc stop`, or PowerShell (`Start-Service` / `Stop-Service`). By using the `-r` switch, you run it only on the command line. When you close the command line, the program will stop working.

The `-v` switch gives you information about the version of the service.

Direct foreground configuration

This capability is available starting with **26.08**.

Foreground runs can use an ephemeral configuration without installing a service or creating a service `Parameters` key:

- `-r -fileconfig <path> [-datadir <path>]`
- `-r -accessmode file -fileconfig <path> [-datadir <path>]`
- `-r -accessmode registry [-regpath <path>]`

Direct options take precedence over service configuration only for that foreground process. `-fileconfig` implies file mode; file mode requires it, and `-datadir` cannot be used by itself. Do not combine file options with explicit registry mode. `-regpath` is available only with explicit registry mode. The existing `-i` installation configuration remains persistent and unchanged.

The first direct foreground run registers the product's canonical Windows Event Log provider using the executable message file. This does not create a service. Provider creation or an update can require one elevated first run; the command reports that requirement before startup.

Custom service name examples:

- `mwagent.exe -i CustomServiceName`
- `mwagent.exe -u CustomServiceName`

You can import configuration files via the command line as well. Use YAML (`.yaml`) for new imports. The legacy Adiscon Config Format (`.cfg`) remains supported for compatibility with existing files and support workflows. The syntax is quite easy: execute the MonitorWare Agent configuration client and append the name of the configuration file.

Sample:

mwclient.exe example.yaml

or

mwclient.exe “example.yaml”

After this is executed, you will see the splash screen of the configuration client and then the import dialogue, which you have to confirm manually.

For doing a silent import, the `/f` parameter has to be appended. This will look like this:

```
mwclient.exe "example.yaml" /f
```

Shortcut Keys

Use shortcut keys as an alternative to the mouse when working in the configuration client. Keyboard shortcuts may also make it easier for you to interact with the product. All these shortkeys are usually available in textboxes only. Listed below are the available short keys:

CTRL+S = Save

CTRL+X = Cut

CTRL+C = Copy

CTRL+V = Paste

CTRL+Z = Undo

Note: This is in synchronization with most major Windows applications.

User Interface changes

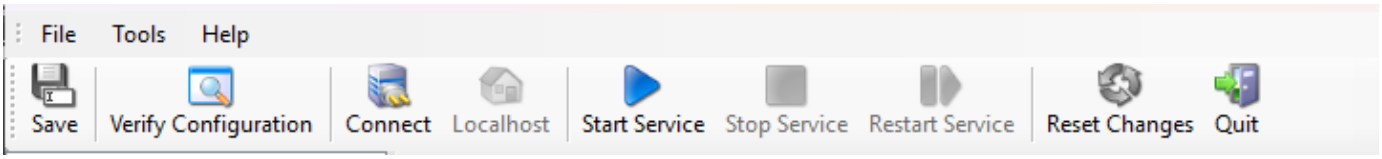
The **26.07** installer includes the established configuration client and the new user interface for this product:

- **Established configuration client** - the WinForms client documented in this manual and the primary reference for setup steps and screenshots.
- **MonitorWare Agent User Interface** - the newer WinUI-based interface (`adiscon-client-ng`) available alongside the established configuration client.

The established configuration client supports license file application and full configuration editing. See your product website's **Upgrade** article for the customer-facing description of the product-specific user interface.

Property window toolbar

When you open a service or action property window, the toolbar provides **Save**, **Verify Configuration**, **Connect**, **Start**, **Stop**, **Restart**, **Reset Changes**, and **Quit**. **Reset Changes** discards unsaved edits on the open form only; it does not restore factory defaults for the selected item.

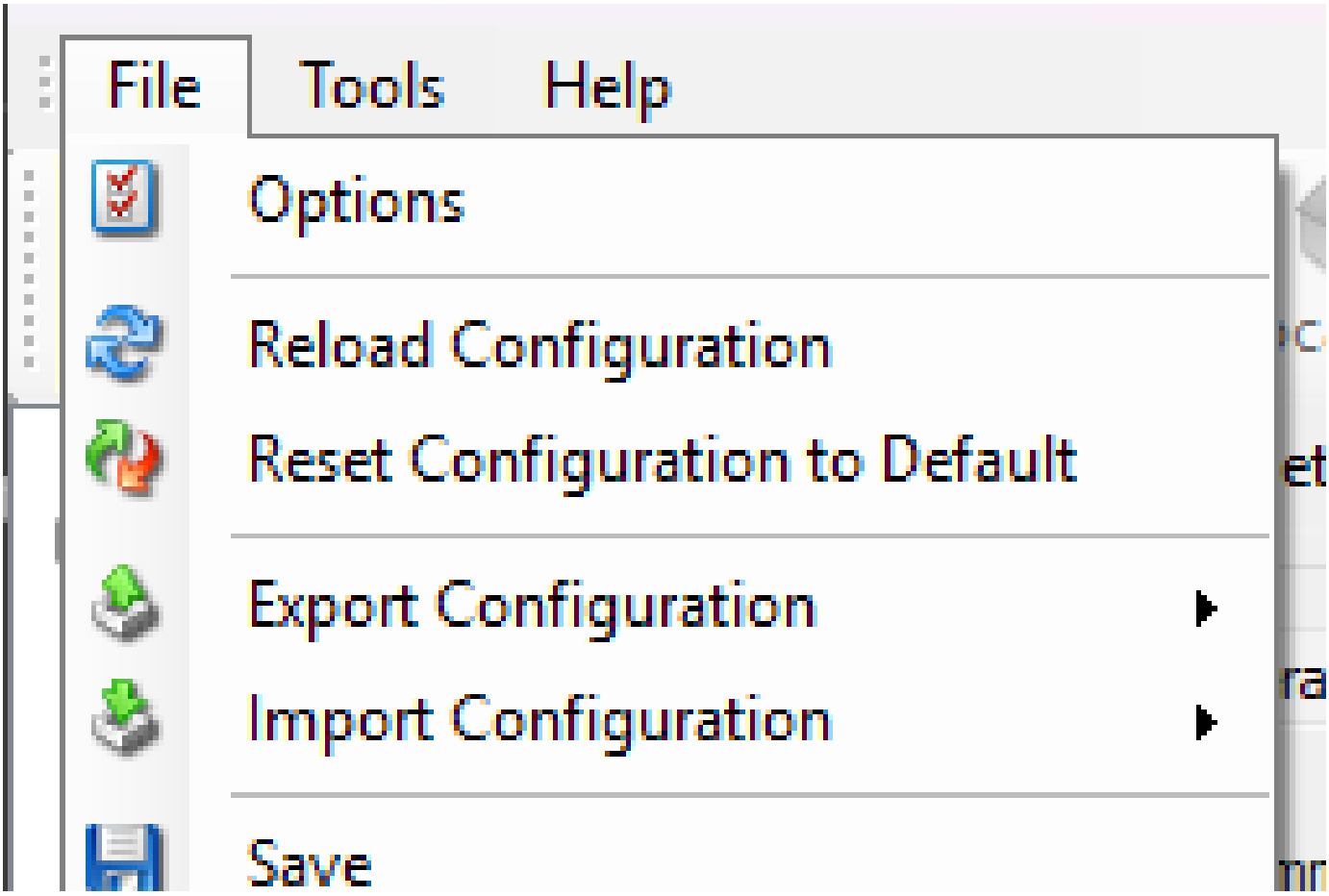


The **main window** (rules tree) has a separate toolbar with **Start**, **Stop**, **Restart**, **Kill**, and **Open Windows Services** for the background service. **Kill** ends an orphan process when the service manager state is inconsistent. **Open Windows Services** opens `services.msc` for Windows Service management.

When the service is **paused** during configuration reload, stop and restart may be disabled until reload completes.

Reset configuration to default

The **File** menu provides **Reset Configuration to Default**, which resets the whole deployed configuration:



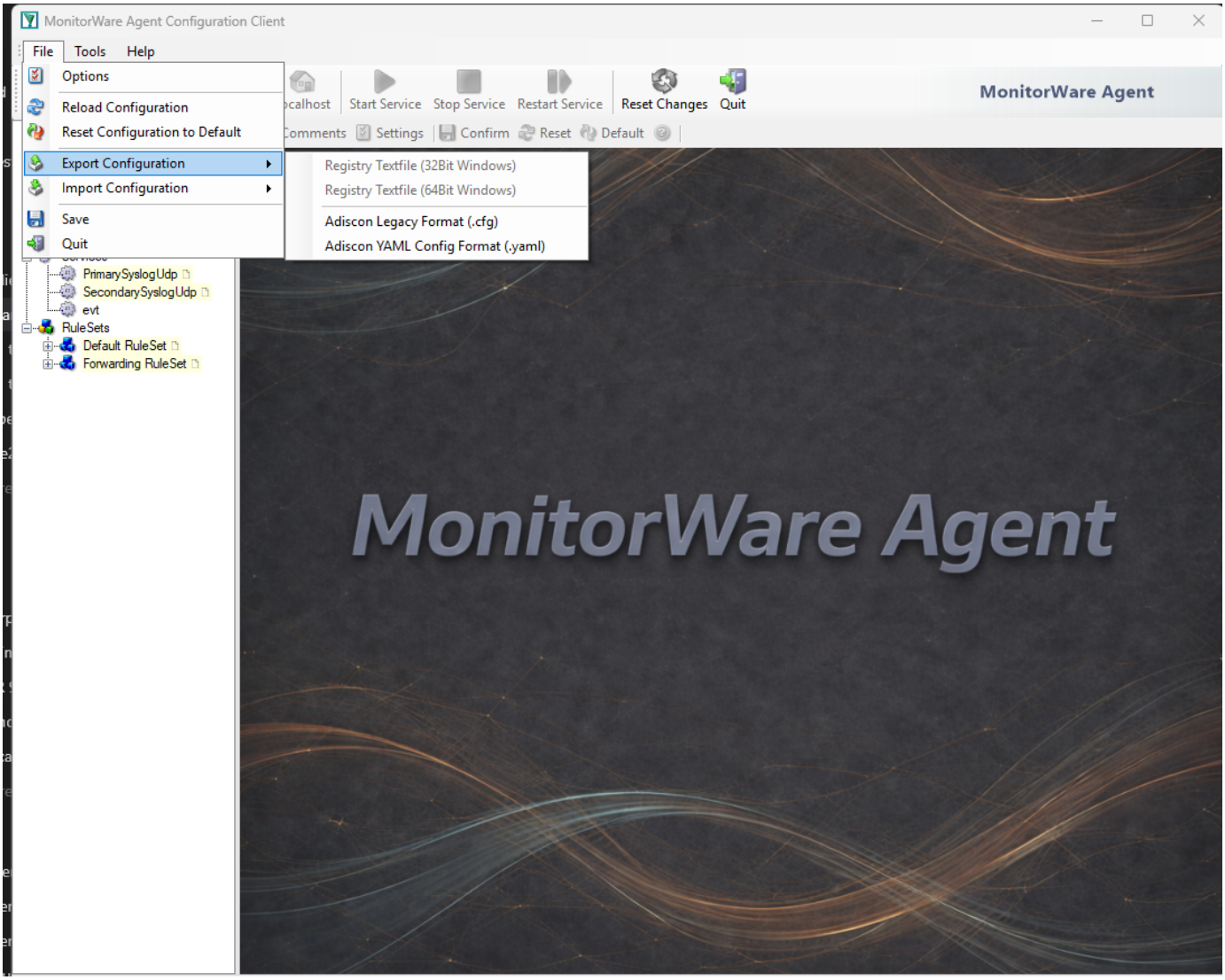
This is separate from **Reset Changes** on an open property form. It is also separate from the context menu or toolbar **Reset** command for a selected service or action, which restores only that selected item to factory defaults.

Event Viewer

After start, stop, or configuration reload, service-management events are prepended in the Event Viewer so recent control actions appear at the top.

File formats

The **File** menu supports:



MonitorWare Agent File menu with YAML import and export commands

- **Adiscon YAML Config Format** (`.yaml`) - import and export
- **Adiscon Legacy Format** (`.cfg`) - legacy text configuration

See the file-based configuration chapter in your product manual and What happens when the client opens a configuration with unsupported blocks?.

Related information

- Why did product versions jump to 26.07?

Technical lookup material

Comparison of properties

Available in MonitorWare Agent, EventReporter and WinSyslog

The property replacer is a reference. The actual properties available for an event depend on the product, the configured service, and in some cases the edition. For WinSyslog, Windows Event Log properties are available when the event is received through SETP from another Adiscon product.

Properties Available	MonitorWare Agent	WinSyslog	EventReporter
Standard Property	Yes	Yes	Yes
Windows Event Log	Yes	SETP	Yes
Syslog Message	Yes	Yes	
Disk Space Monitor	Yes		
File Monitor	Yes		
Windows Service Monitor	Yes		Yes
Ping Probe	Yes		
Port Probe	Yes		
Database Monitor	Yes		
Serial Port Monitor	Yes		
MonitorWare Echo Request	Yes		
System	Yes	Yes	Yes
Custom	Yes	Yes	Yes
NNTP Probe	Yes		
HTTP Probe	Yes		
FTP Probe	Yes		
SMTP Probe	Yes		
POP3 Probe	Yes		

`SETP` means that WinSyslog can use those properties when they are transported through SETP; it does not mean that WinSyslog collects Windows Event Logs locally.

Event Properties

Events have certain properties, for example the message associated with the event or the time it was generated. Each of this properties has an assigned name. The actual properties available depend on the type of event. The following sections describe both how to access properties as well as properties available.

Knowing about event properties is important for building complex filter conditions, customized actions as well as for integrating into a third-party system. Event properties provide a generic way to look at and process the events generated. Thus we highly recommend that you at least briefly read this reference section.

Accessing Properties

Properties are accessed by their name. The component used for this is called the “property replacer”. It is a generic component that allows you to merge properties from the event processed to e.g. the email subject line or a log file line. It is a central component that is used as often in the product as possible. The idea behind the property replacer is that there is often need to specify a value from the event processed.

The property replacer provides very powerful ways to access the properties: they cannot only be accessed as one full property. They can also be accessed as substrings and even be reformatted. As such, the property replacer provides a specific syntax to access properties:

`%property:fromPos:toPos:options%`

The percent-signs (“%”) indicate the start of a special sequence. The other parameters have the following meanings

FromPos and ToPos can be used to copy a substring from a lengthy property. The options allow to specify some additional formatting.

Within the properties, all time is based on UTC regardless if your preferred time is UTC or localtime. So if you want to display localtime instead of UTC, you have to use the following syntax: `%variable:::localtime%`

Property

This is the name of the property to be replaced. It can be any property that a given event possesses. If a property is selected that is empty for the event processed, an empty string is returned.

A property is either an event property, a custom property, a dynamic property or a system property.

If a property is selected that is not present, the result will always be an empty string, no matter which other options have been selected.

FromPos

If you do not want to use the full string from the property, you can specify a start position here. There are two ways to specify the start location:

Fixed Character position

If you know exactly on which position the string of interest begins, you can use a fixed location. In this case, simply specify the character position containing the first character of interest. Character positions are counted at 1.

Search Pattern

A search pattern is specified as follows:

/<search-pattern>/<options>

If a search pattern is specified, the property value is examined and the first occurrence of <search-pattern> is detected. If it is not found, nothing is returned. If it is found, the position where the pattern is found is the start position or, if the option “$” is specified, the position immediately after the pattern.

The search pattern may contain the “?” wildcard character, which represents any character. Other wildcards are not supported with the property replacer.

Please note that a slash inside the search pattern will terminate the search field. So pure slashes cannot be used. However, they can be escaped by prefixing them with a backslash (). The same applies to the ‘?’ character. For example, if you intend to search for `"http://"` inside a search pattern, you must use the following search string: `"/http:////"`.

Default Value

If the FromPos is not specified, the property string is copied starting at position 1.

ToPos

If you do not want to use the full string from the property, you can specify the highest character position to be copied here.

Absolute Position

Specify a simple integer if you would like to specify an absolute ending position.

Relative Position

This is most useful together with the search capabilities of FromPos. A relative position allows you to specify how many characters before or after the FromPos you would like to have copied. Relative positions are specified by putting a plus or minus (“+”/”-”) in front of the integer.

Please note: if you specify a negative position (e.g. -20), FromPos and ToPos will internally be swapped. That is the property value will not be (somehow) reversely copied but they will be in right order. For example, if you specify `%msg:30:-20%` actually character positions 10 to 30 will be copied.

Search Pattern

Search pattern support is similar to search pattern support in FromPos.

A search pattern is specified as follows:

/<search-pattern>/<options>

If a search pattern is specified, the property value is examined and the first occurrence of <search-pattern> is detected. The search is only carried out in the string that follows FromPos. If the string is not found, nothing is returned. If it is found, the position where the pattern is found is the ending position or, if the option “$” is specified, the position immediately after the pattern.

The search pattern may contain the “?” wildcard character, which represents any character. Other wildcards are not supported with the property replacer.

Please note that a slash inside the search pattern will terminate the search field. So pure slashes cannot be used. However, they can be escaped by prefixing them with a backslash (). The same applies to the ‘?’ character. For example, if you intend to search for `"http://"` inside a search pattern, you must use the following search string: `"/http:////"`.

Search Example

A common use case is to combine searches in ToPos and FromPos to extract a substring that is delimited by two other strings. To do so, use search patterns in both fields. An example is as follows: assume a device might generate message in the form `"... error XXX occurred..."` where “…” represents additional message text and XXX the actual error cause. You would like to extract the phrase `"error XXX occurred"`. To do so, use the following property replacer syntax: `%msg:/error/:/occurred/$/%`

Please note that the FromPos is used without the $-option, while in ToPos it is used. If it hadn’t been used in ToPos, only the part “error XXX “ would have been extracted, as the ToPos would point to the last character before the search string.

Similarly, if only “ XXX “ should be extracted, the following syntax might be used:

```
%msg:/error/$:/occurred/%
```

If you would also like to remove the spaces (resulting in just “XXX”), you must include them into the search strings:

```
%msg:/error /:/ occurred/$/%
```

Default

If not specified, the ending position will be the last character.

Options

Options allow you to modify the contents of the property. Multiple options can be set. They are comma-separated. If conflicting options are specified, always the last option will be in effect (e.g. specifying “uppercase,lowercase” will lead to lowercase conversion of the property value).

The following options are available with this release of the product:

lowercase

All characters in the resulting property extract will be converted to lower case.

uppercase

All characters in the resulting property extract will be converted to upper case.

uxTimeStamp

This is a special switch for date conversions. It only works if the extracted property value is an ISO-like timestamp (YYYY-MM-DD HH:MM:SS). If so, it will be converted to a Unix-like ctime() timestamp. If the extracted property value is not an ISO-like timestamp, no conversion happens.

uxLocalTimeStamp

This is the same as uxTimeStamp, but with local time instead of GMT.

date-rfc3339

This option is for replacing the normal date format with the date format from RFC3339.

date-rfc3164

This option is for replacing the normal date format with the date format from RFC3164.

date-rfc3164strict

Does the same as date-rfc3164 but when the date is below 10, two spaces will be added between Month and day (Which is defined in rfc3164).

escapecc

Control characters* in property are replaced by the sequence `##hex-val##`, where* hex-val is the hexadecimal value of the control character (at least two digits, may be more).

spacecc

Control characters* in the property are replaced by spaces. This option is most* useful when a message contains control characters (e.g. a Windows Event Log Message) and should be written to a log file.

compressspace

Compresses multiple consecutive space characters into a single one. The result is a string where all words are separated by just single spaces. To also compress control characters, use the compressspace and spacecc options together (e.g.``'%msg:::spacecc,compressspace%'). Please note that space compression happens on the final substring. So if you
use the FromPos and ToPos capabilities the substring is extracted first and
then the space compression applied. For example, you may have the msg string"1 2". There are two space between 1 and 2. Thus, the property replacer expression:``%msg:1:3:compressspace%

will lead to `"1  "` ('1' followed by two spaces). If you intend to receive
`"1 2"``('1' followed by one space, followed by '2'), you need to use ``%msg:1:4:compressspace%`

or

`%msg:1:/2/$:compressspace%`

In the second case, the exact length of the uncompressed string is not known, thus a search is used in topos to obtain it. The result is then space-compressed.

compsp

Exactly the same as compressspace, just an abbreviated form for those that like it brief.

csv

For example `%variable:::csv%`. This option will create a valid CSV string. For example a string like this:`this is a "test"!` becomes this `"this is a ""test""!"` where quotes are replaced with double quotes.

cef

Convert string content into valid McAfee CEF Format. This means that `=``will be replaced with=``` and `\` will be replaced with `\`. **convgermuml**

Converts German Umlaut characters to their official replacement sequence (e.g. "ö" –> "oe")

localtime

Now you can print the Time with localtime format by using``%variable:::localtime%``

nomatchblank

If this is used, the Property Replacer will return an empty string if the frompos or topos is not found.

replacepercent

This option replaces all `%` occurrences with a double `%%`, which is needed for the property replacer engine in case that a string is reprocessed. This is needed because the percent sign is a special character for the property replacer. Once the property is processed, the double``%%``become automatically one``%``. **toipv4address**

Property string will be converted into IPv4 Address format if possible.

toipv6address

Property string will be converted into IPv6 Address format if possible.

crlftovbar

Does the same as date-rfc3164 but when the date is below 10, two spaces will be added between Month and day (Which is defined in rfc3164).

removecc

Removes all control characters from 0x00 to 0x1F

replacechar

Replaces a single character with another single character.

How ASCII characters are being handled:

Sample:`%msg:$x:$y:replacechar%`

Broken down:

`%msg:$``<- Tells property replacer that a character is being expected (At the moment only for REPLACECHAR Option). ``x``<- The character to search for ``:`

`$``<- Tells property replacer that a character is being expected (At the moment only for REPLACECHAR Option). ``y``<- The character to replace with ``:`

`replacechar%`

How special characters are handled?

Sample: `%msg:$\n:$|:replacechar%`

`%msg:$` <- Tells property replacer that a character is being expected (At the moment only for REPLACECHAR Option). `\n` <- The character to search for special character, possible values: t for tab,

n for newline,

v for verticaltab,

f for formfeed,

r for carriage return

for an actual backslash.``:``

`$``<- Tells property replacer that a character is being expected (At the moment only for REPLACECHAR Option). ``|``<- The character to replace with ``:`

`replacechar%`

minlength=N

Pads the transformed output on the right with spaces until it contains at least `N` characters. For example, `%msg:1:3:minlength=10%` emits the first three message characters followed by seven spaces. Options compose: `%msg:1:3:uppercase,minlength=10%`.

* = control characters like e.g. carriage return, line feed, tab, …*

Important: All option values are case-sensitive. So “uxTimeStamp” works while “uxtimestamp” is an invalid option!

Simple Examples

A good example for this is the email subject line, which has severe length constraints. If you would like to have only the first 40 characters of the actual message text in the subject, you could use the replacer: `"%msg:1:40%"`. If you know the first 10 characters of the message are meaningless for you but you would like to see the full rest of the message (no matter how long it may be), you can use a sequence like `"%msg:11%"`.

If you would just like to see the plain message from beginning to end, you can simply omit frompos and topos: `"%msg"`. Of course, all of these sample not only work with the “msg” property, but also with all others like “facility”, or “priority”, or W3C-log header extracted property names.

More complex Examples

If you would like to extract the 50 characters from the message after the word DROP, you would use the following replacer string:`%msg:/DROP/$:+50%`

If you would like to have the first 40 characters in front of the string “- aborted” (including that string):

`%msg:/- aborted/$:-40%`

If you would like to receive everything starting from (and including) “Log:”:

`%msg:/Log/%`

If you would like to have everything between the string “FROM” and “TO” including NONE of the both searchstrings:

`%msg:/FROM/$:/TO/%`

If you would just like to log lowercase letters in your log messages:

```
%msg:::lowercase%
```

And if you would just like to have the first 50 characters (and these in lower case):

```
%msg:50:::lowercase%
```

If you need to change a timestamp to a UNIX-like timestamp, you could use this:

```
%datereceived:::uxTimeStamp%
```

Please see also the focused sample in the topos description.

A real world Sample

We use the following template to generate output suitable as input for MoniLog:

```
%timegenerated:1:10%,%timegenerated:12:19%,%source%,%syslogfacility%,%syslogprio rity%,EvntSlog
: %severity% %timereported:::uxTimeStamp%: %source%/%sourceproc% (%id%) - "%msg%"%$CRLF%
```

Please note: everything is on one line with no line breaks in between. This example is from the “write to file” action (with custom file format).**

System Properties

System properties are special sequences that can be helpful. They are available with all event types. They are:

$CRLF

A Windows newline sequence consisting in the characters CR and LF. If you just need CR, you can use `%$CRLF:1:1%` and if you need use LF you can use `%$CRLF:2:2%`

$TAB

An US-ASCII horizontal tab (HT, 0x09) character

$HT

same as $TAB

$CR

A single US-ASCII CR character (shortcut for `%$CRLF:1:1%`) **$LF**

A single US-ASCII LF character (shortcut for``%$CRLF:2:2%``) **$xNN**

A single character, whose value (in hexadecimal) is given by NN. NN must be two hexadecimal digits - a leading zero must be used if a value below 16 is to be represented. The value 0 (%x00) is invalid and - if specified - replaced by the “?” character.

As an example, $CR could also be expressed as %$x0d%.

Please note that only one character can be represented. If you need to specify multiple characters, you need multiple $xNN sequences. An example may be $CRLF which could also be specified as %$x0d%%$x0a% (but not as %$x0d0a%).

$NOW

Contains the current date and time in the format:`YYYY-MM-DD HH.MM.SS`

Please note that the time parts are delimited by `'.'` instead of `':'`. This makes the generated name directly suitable for file name generation.

If you need just parts of the timestamp, please use the property replacer’s substring functionality to obtain the desired part. Use``%$NOW:1:4% to get the year,``

`%$NOW:6:7% to get the month,`

…

`%$NOW:1:10% to get the full datestamp,`

`%$NOW:12:20% to get the full timestamp`

$NEWUUID

Creates a new UUID (Universally Unique Identifiers), a unique 128-bit integer represented as a 32 digit hexadecimal number.

Custom Properties

Users can create an unlimited number of custom properties. These can be created with for example the “PostProcess” action (if the product edition purchased supports this action).

Custom properties can theoretically have any name, but Adiscon highly recommends to prefix them with “u-” (e.g. “u-MyProperty” - “u” like “user”). This ensures that no compatibility problems will arise in current and future versions of the software. Adiscon guarantees that it will never use the “u-” prefix for Adiscon-assigned properties.

Custom properties can be used just like regular properties. Wherever you can specify a property, you can also specify a custom property.

Event-Specific Properties

Each network event is represented by a so-called “Event Record” (sometime also named an “InfoUnit”, an “Unit of Information”). Data obtained from all services will end up as an event. For example, Windows Event Log data, syslog data, and a file line obtained by the file monitor will all be an event. That kind of generalization make it easy to deal with all of these events in a consistent way.

Each event has a set of properties which in turn have values. For example, there is a property named “source” and it will always contain an indication of which system the event originated on. Obviously, not every event source does support all properties. For example, a syslog message does not contain a Windows Event ID - simply because there is no such thing as an event ID in syslog. So, depending on the type of event, it may contain different properties.

In order to make the product really generally useful, some few properties have been defined in a generic way and are guaranteed to be present in every event, no matter what type it may have. Sometimes this is a “natural” common property, like the “fromhost”. Sometimes, though, it may look a bit artificial. An example of the later is the “syslogfacility” property. It is guaranteed to be present in every event - but actually this is a syslog-only thing. The non- syslog event sources either emulate this property (in a consistent manner) or allow the user to configure a syslogfacility that should be used for all events generated by that service. At the bottom line, this will ensure that the property is available in all events and - given proper configuration - that can be extremely helpful for the administrators to set up things in a powerful and generic way.

Standard Properties

As outlined under Event Properties, these are properties present in all types of events. Some event types have only these standard properties. Others have additional properties. Those with additional properties are documented in the other sections. If there is no specific documentation for a specific event type, this means that it supports the standard properties, only.

msgPropertyDescribed

A human-readable representation of the message text. While this is generally available, the exact contents largely depends on the source of the information. For example, for a file monitor it contains the file line and for a syslog message it contains the parsed part of the syslog message.

source

The source system the message originated from. This can be in various representations (e.g. IP address or DNS name) depending on configuration settings.

localhostname

On service startup it is automatically set to the local system computer name. It is read only and can be used if source property is not usable. E.g. if the Source property cannot be translated to IP format because the event log entry was recorded with an old computer name that no longer exists.

resource

A user-assigned numerical value. Does not have any specific meaning. Primarily intended for quick filtering.

CustomerID

A user-assigned numerical value. Does not have any specific meaning. Primarily intended for quick filtering.

SystemID

A user-assigned numerical value. Does not have any specific meaning. Primarily intended for quick filtering.

timereported

The time the originator tells us when this message was reported. For example, for syslog this is the timestamp from the syslog message (if not configured otherwise). Please note that timereported eventually is incorrect or inconsistent with local system time - as it depends on external devices, which may not be properly synchronized.

For Windows Event Log events, timereported contains the timestamp from the event log record.

timegenerated

The time the event was recorded by the service. If messages are forwarded via SETP, this timestamp remains intact.

importance

Reserved for future use.

iut

Indicates the type of the event. Possible values are:

```
1- syslog message
2- heartbeat
3- Windows Event Log Entry
4- SNMP trap message
5- file monitor
8- ping probe
9- port probe
10- Windows service monitor
11- disk space monitor
12- database monitor
13- serial device monitor
```

iuvers

Version of the event record (info unit). This is a monitorware internal version identifier.

Windows Event Log Properties

id

Windows Event ID

severity

severity as indicated in the event log. This is represented in string form. Possible values are:

```
[INF] - informational
[AUS] - Audit Success
[AUF] - Audit failure
[WRN] - Warning
[ERR] - Error
[NON] - Success (called "NON" for historical reasons)
```

severityid

The severity encoded as a numerical entity (like in Windows API)

sourceproc

The process that wrote the event record (called “source” in Windows event viewer).

category

The category ID from the Windows Event Log record. This is a numerical value. The actual value is depending on the event source.

catname

The category name from the Windows Event Log record. This is a string value. The actual value is depending on the event source. This value is a textual representation from the Category ID. This property could contain line feeds, which can be removed by activating the option “Remove Control Characters from String Parameters” in the advanced options of the EventLog Monitor Service.

user

The user name that was recorded in the Windows Event Log. This is “NA” if no user was recorded.

NTEventLogType

The name of the Windows Event Log this event is from (for example “System” or “Security”).

bdata

Windows Event Log records sometimes contain binary data. The Event Log Monitor service can be set to include this binary data into the event, if it is present. If it is configured to do so, the binary data is put into the “bdata” property. Every byte of binary data is represented by two hexadecimal characters.

Please note that it is likely for bdata not to be present. This is because the binary data is seldom used and very performance-intense. (%id%) - “%msg%”%$CRLF%

Windows Event Log V2 Properties

id

Windows Event ID

severity

severity as indicated in the event log. This is represented in string form. Possible values are:

```
[INF] - informational
[AUS] - Audit Success
[AUF] - Audit failure
[WRN] - Warning
[ERR] - Error
[NON] - Success (called "NON" for historical reasons)
```

severityid

The severity encoded as a numerical entity (like in Windows API)

sourceproc

The process that wrote the event record (called “source” in Windows event viewer).

category

The category ID from the Windows Event Log record. This is a numerical value. The actual value is depending on the event source.

catname

The category name from the Windows Event Log record. This is a string value. The actual value is depending on the event source. This value is a textual representation from the Category ID. This property could contain line feeds, which can be removed by activating the option “Remove Control Characters from String Parameters” in the advanced options of the EventLog Monitor Service.

user

The user name that was recorded in the Windows Event Log. This is “NA” if no user was recorded.

nteventlogtype

The name of the Windows Event Log this event is from (for example “System” or “Security”).

channel

The channel property for event log entries, for classic Event logs they match the `%nteventlogtype%` property, for new event logs, they match the “Event Channel”.

sourceraw

This contains the full internal name of the event source for new event logs, for classic event logs it contains the same value as in %sourceproc%.

level

Textual representation of the event log level (which is stored as a number in `%severityid%`). This property is automatically localized by the system.

categoryid

Internal category id as number.

keyword

Textual representation of the event keyword. This property is automatically localized by the system.

user_sid

If available, contains the raw SID of the username (`%user%`) property.

recordnum

Contains the internal event record number. Please note that if the event log has been truncated before, it may not start with 0 or 1 but a higher number.

Syslog Message Properties

rawsyslogmsg

The message as it was received from the wire (unparsed).

syslogfacility

The facility of a syslog message. For non-syslog messages, the value is provided based on configuration. In essence, this is simply an integer value that can be used for quick filtering inside your rules.

syslogfacility_text

The facility of a syslog message. This property is automatically created by using the syslogfacility properly and set to these values: `"Kernel", "User", "Mail", "Daemons", "Auth", "Syslog", "Lpr", "News", "UUCP", "Cron", "System0", "System1", "System2", "System3", "System4", "System5", "Local0", "Local1", "Local2", "Local3", "Local4", "Local5", "Local6", "Local7"`

syslogpriority

The severity of a syslog message. For non-syslog messages, this should be a close approximation to what a syslog severity code means.

syslogpriority_text

The severity of a syslog message. This property is automatically created by using the syslogpriority properly and set to these values:
`"Emergency", "Alert", "Critical", "Error", "Warning", "Notice", "Informational", "Debug"`

syslogtag

The syslog tag value, a short string. For non-syslog messages, this is provided based on configuration. In most cases, this is used for filtering.

syslogver

Contains the syslog version number which will be one or higher if a rfc 5424 valid message has been received, or 0 otherwise

syslogappname

Contains the appname header field, only available if the Syslog message was in rfc 5424 format. Otherwise, this field will be emulated by the %syslogtag% property

syslogprocid

Contains the procid header field, only set if the Syslog message was in rfc 5424 format.

syslogmsgid

Contains the msgid header field, only set if the Syslog message was in rfc 5424 format.

syslogstructdata

Contains the structdata header field (in raw format), only set if the Syslog message was in rfc 5424 format.

syslogprifac

Contains combined syslog facility and priority useful to build your own custom syslog headers

Disk Space Monitor

currusage

The currently used disk space.

maxavailable

The overall capacity of the (logical) disk drive.

CPU/Memory Monitor

wmi_type

This variable is a string and can be one of the following variables: cpu_usage, mem_virtual_usage, mem_physical_usage, mem_total_usage.

cpu_number

Number of the current checked CPU.

cpu_load

The workload of the CPU as number, can be 0 to 100.

mem_virtual_load

How much virtual memory is used (MB).

mem_virtual_max

How much virtual memory is max available (MB).

mem_virtual_free

How much virtual memory is free (MB).

mem_physical_load

How much physical memory is used (MB).

mem_physical_max

How much physical memory is max available (MB).

mem_physical_free

How much physical memory is free (MB).

mem_total_load

How much total(Virtual+Physical) memory is used (MB).

mem_total_max

How much total(Virtual+Physical) memory is max available (MB).

mem_total_free

How much total(Virtual+Physical) memory is free (MB).

File Monitor

genericfilename

The configured generic name of the file being reported.

generatedbasefilename

Contains the generated file name without the full path.

Special IIS LogFile Properties

The Logfile Fields in IIS Logfiles are customizable, so there is no hardcoded command for their use.

The property-name depends on its name in the logfile. For example we take this Logfile:

```
#Software: Microsoft Internet Information Services 5.0
#Version: 1.0
#Date: 2005-10-27 14:15:25
#Fields: date time c-ip cs-username s-ip s-port cs-method cs-uri-stem
cs-uri-query sc-status cs(User-Agent)
2005-10-27 14:15:16 127.0.0.1 - 192.168.0.1 443 POST /eCommerce/asdf.php
2005-10-27 14:15:16 127.0.0.1 - 192.168.0.1 443 POST /eCommerce/asdf.php
2005-10-27 14:15:16 127.0.0.2 - 192.168.0.1 443 POST /eCommerce/asdf.php
2005-10-27 14:15:16 127.0.0.2 - 192.168.0.1 443 POST /eCommerce/asdf.php
```

As you can see, in our sample the fields are named: date, time, c-ip, cs-username, s-ip, and so on.

To use them as a Property inside our MonitorWareProducts, just use the names from your Logfile and add a “p-” before it:

p-date

The Date on which the Event occurs

p-time

The Time on which the Event occurs

p-c-ip

The IP address of the User which accessed

p-cs-username

The Username of the User which accessed

p-s-ip

The Server IP

p-s-port

The Server Port

p-cs-method

The Client-Server Method (POST,GET)

p-cs-uri-stem

The accessed File including its path

Windows Service Monitor

sourceproc

The name of the service whose status is being reported (from the Windows service registry).

Ping Probe

echostatus

Status returned for the echo request

The status value can be one of the following:

```
0 = IP_SUCCESS
11002 = IP_DEST_NET_UNREACHABLE
11003 = IP_DEST_HOST_UNREACHABLE
11010 = IP_REQ_TIMED_OUT
11013 = IP_TTL_EXPIRED_TRANSIT
11016 = IP_SOURCE_QUENCH
11018 = IP_BAD_DESTINATION
```

roundtriptime

Round trip time for the ping packet (if successful)

Port Probe

responsestatus

The status of the probe.

responsemsg

The response message received (if any)

Database Monitor

Database-Monitor created events are a bit different than other events. The reason is that the database fields themselves become properties - but obviously these are not fixed but depend on what you monitor.

All queried data fields are available as properties via their database field name **prefixed with “db-”**.

An example to clarify: we assume the following select statement is used for the database monitor:

select name, street, zip, city from addresses

There is also an ID column named “ID”. So the event generated by this database monitor will have the following specific properties:

- db-ID
- db-name
- db-street
- db-zip
- db-city

These properties will contain the field values as they are stored in the database. Please note that NULL values are translated into empty strings (“”), so there is no way to differentiate a NULL value from an empty string with this version of the database monitor.

Other than the custom “db-” properties, no specific database monitor properties exist.

Serial Monitor

portname

The name of the port that the data originated from (typical examples are COM1, COM2). The actual name is taken from the configuration settings (case is also taken from there).

MonitorWare Echo Request

responsestatus

The status of the echo request. Possible values:

```
0 - request failed (probed system not alive)
1 - request succeeded
```

If the request failed, additional information can be found in the * msg* standard property.

FTP Probe

ftpstatus

The status of the connection.

ftprespmsg

The response of the connection.

IMAP Probe

imapstatus

The status of the connection.

imaprespmsg

The response of the connection.

NNTP Probe

nntpstatus

The status of the connection.

nntprespmsg

The response of the connection.

SMTP Probe

smtpstatus

The status of the connection.

smtprespmsg

The response of the connection.

POP3 Probe

pop3status

The status of the connection.

pop3respmsg

The response of the connection.

HTTP Probe

httpstatus

The status of the connection.

httprespmsg

The response of the connection.

Complex Filter Conditions

The rule engine uses complex filter conditions.

Powerful boolean operations can be used to build filters as complex as needed. A boolean expression tree is graphically created. The configuration program is modeled after Microsoft Network Monitor. So thankfully, many administrators are already used to this type of Interface. If you are not familiar with it, however, it looks a bit confusing at first. In this chapter, we are providing some samples of how boolean expressions can be brought into the tree.

Example 1

In this example, the message text itself shall be checked. If it contains at least one of three given strings, the filter should become true. If none of the string is found, the boolean expression tree evaluates to false, which means the associated action(s) will not be executed.

In pseudo-code, the filter could be written like this:

```
If (msg  = "DUPADDRES") OR (msg = "SPANTREE") OR (msg = "DUPLEX_MISMATCH) then
    execute action(s)
end if
```

Please note: in the example, we have abbreviated “message” to just “msg”. Also note that for brevity reasons we use the equals (“=”) comparison operator, not the contains. The difference between the equals and the contains operator is that with “contains”, the string must just be part of the message.

In the filter dialog, this pseudo code looks as follows:

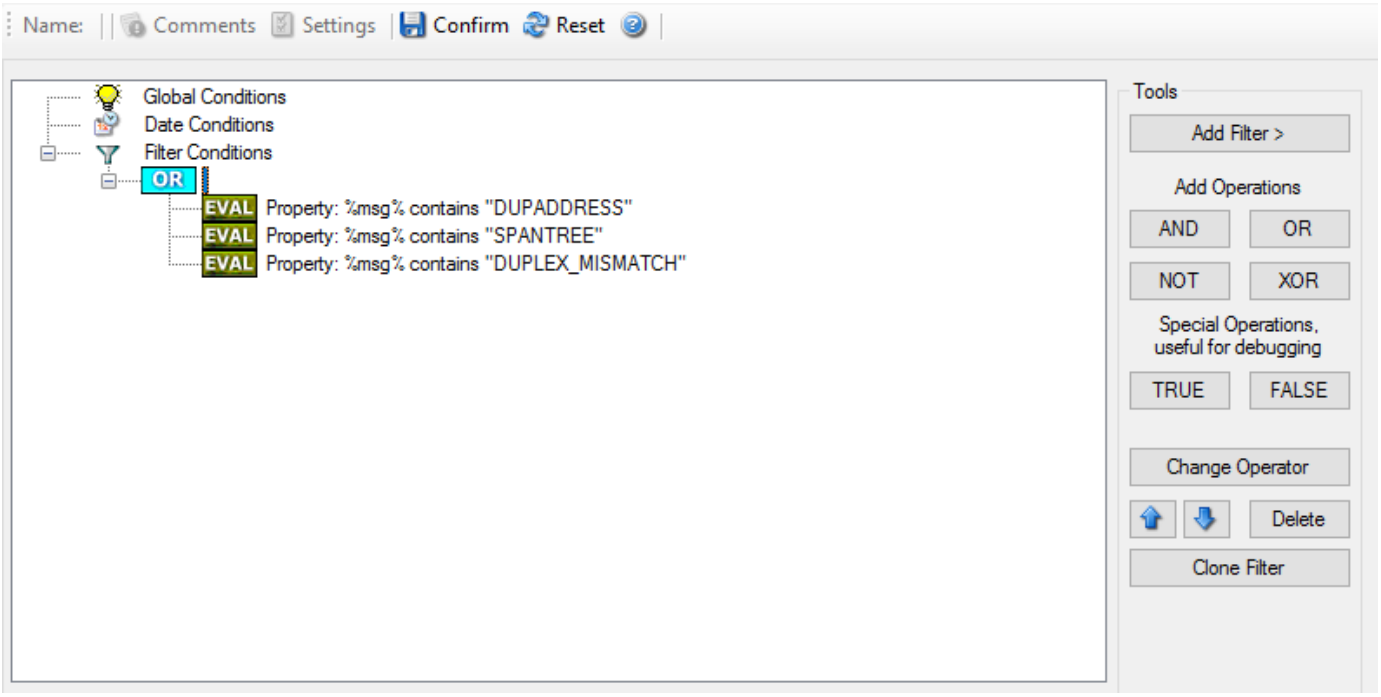


Figure 1 - Example 1

Example 2

Example 2 is very similar to example 1. Again, the message content is to be checked for three string. This time, all of these strings must be present in order for the boolean tree to evaluate to false.

The pseudo code would be as follows (under the same conditions outlined in example 1 above):

```
If (msg  = "DUPADDRES") AND (msg = "SPANTREE") AND (msg = "DUPLEX_MISMATCH) then
    execute action(s)
end if
```

In the filter dialog, this pseudo code looks as follows:

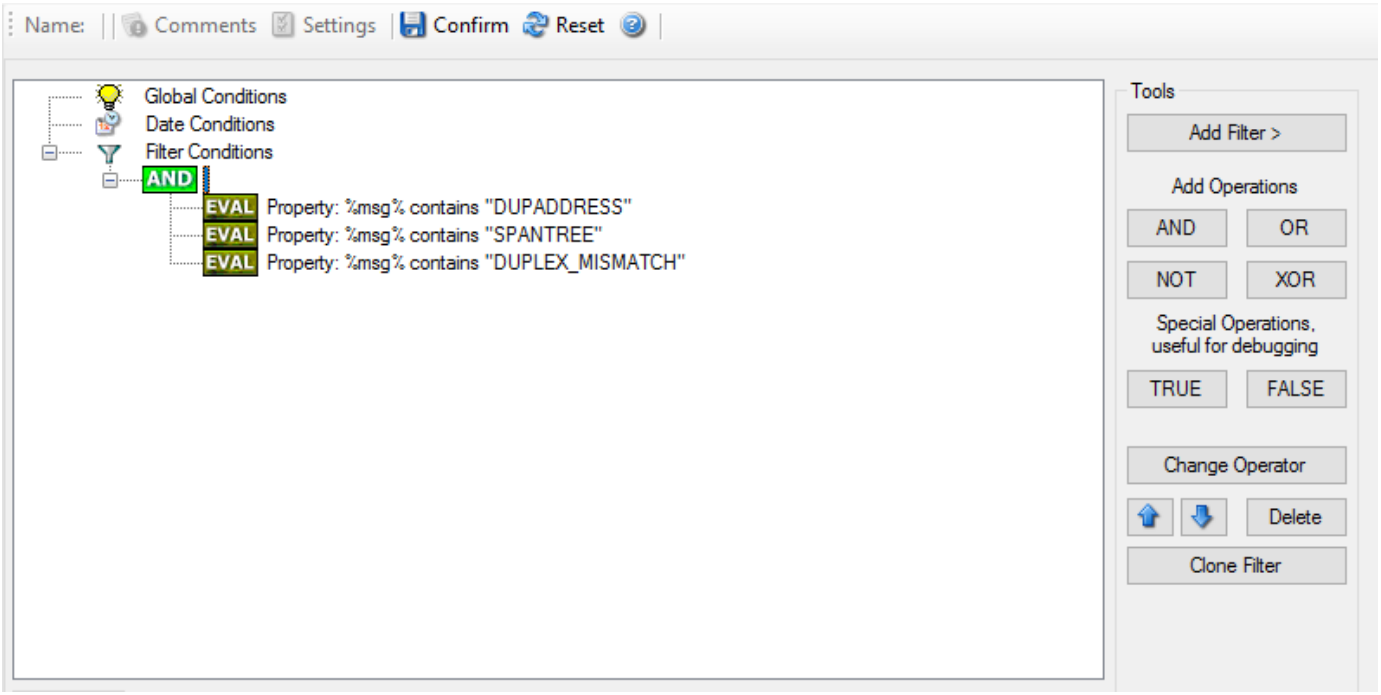


Figure 2 - Example 2

Example 3

This example is a bit more complex version of example 1. Again, the same message text filtering is done, that is if any one of the provided substrings is present, the filter eventually evaluates to true. To do so, the source system must also contain the string “192.0.2”, which can be used to filter on a device from a specific subnet.

An example like this can be used for a rule where the administrator of a specific subnet should be emailed when one of the strings indicate a specific event.

The pseudo code would be as follows (under the same conditions outlined in example 1 above):

```
If ((sourceSys = "192.0.2") And
       ((msg  = "DUPADDRES") OR (msg = "SPANTREE")
          OR (msg = "DUPLEX_MISMATCH))) then
    execute action(s)
end if
```

In the filter dialog, this pseudo code looks as follows:

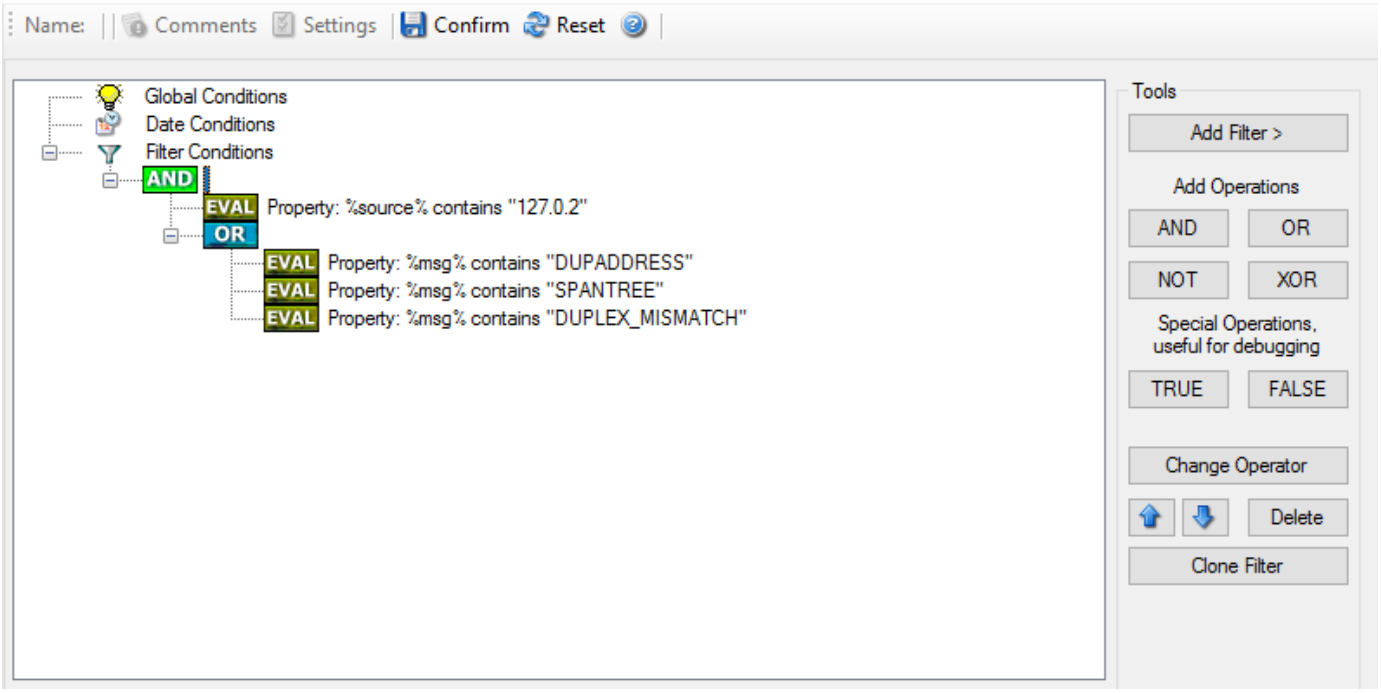


Figure 3 - Example 3

As a side note, you may want to use a range check instead of a simple include for the source system. With a range string check, you can specify that the string must be within a specified column range, in this case obviously at the beginning of the source system IP address.

Real-World Examples

To see some real-world examples of where boolean conditions inside filtering are used, please visit these web links:

- Detecting Password Attacks under Windows

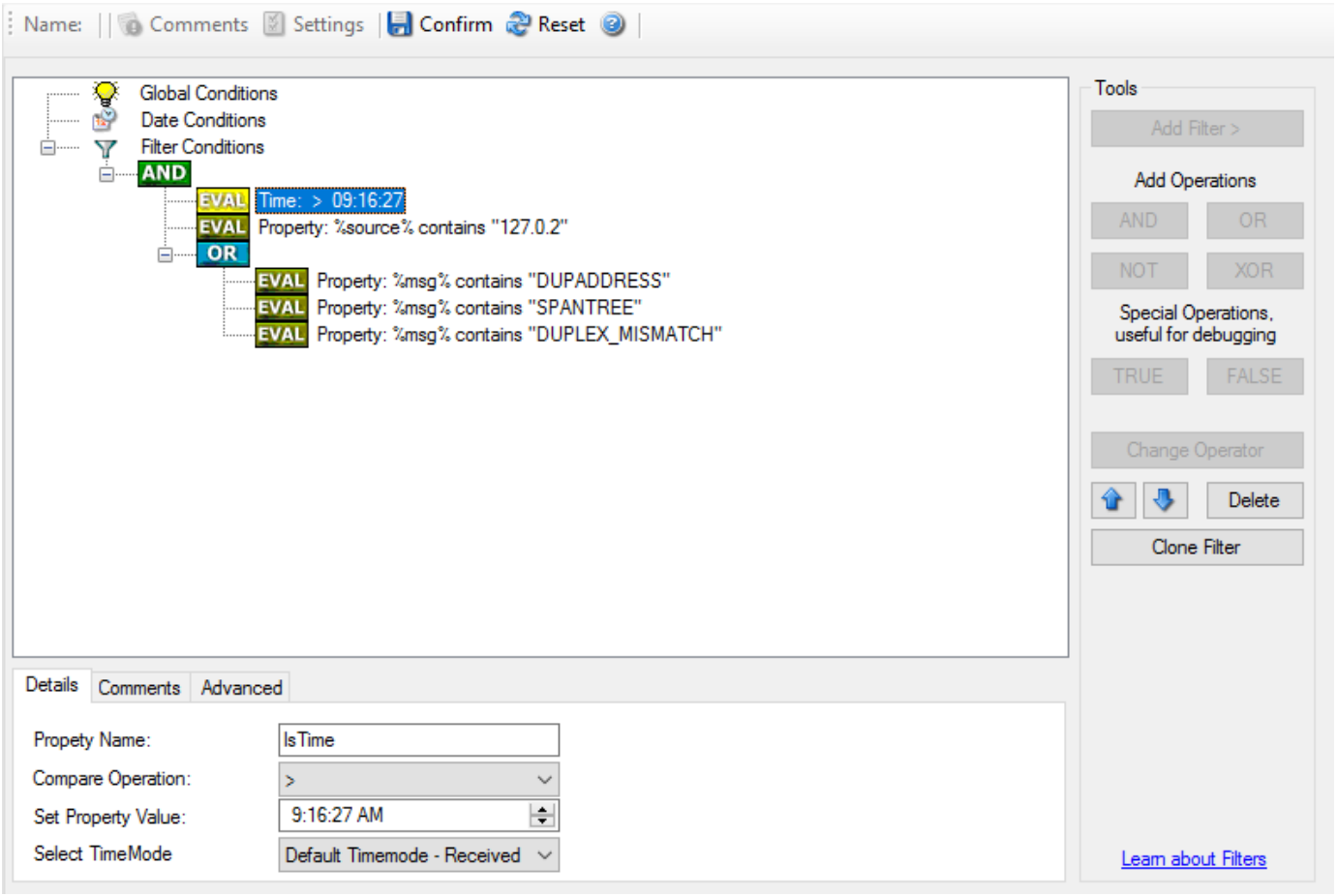
Example 4

In this example, the report is to be filtered in such a way that it shows information only in the case, if the time is greater then certain time with certain event source and one of two event ID's.

In pseudo-code, the filter could be written like this:

```
If (DeviceReportedTime is greater than {9:16:27} AND EventSource is equal to
{Print} AND [EventID is equal to {10} OR EventID is equal to {18}]]
```

In the filter dialog, this pseudo code looks as follows:



Custom Properties

Users can create an unlimited number of custom properties. These can be created with for example the “PostProcess” action (if the product edition purchased supports this action).

Custom properties can theoretically have any name, but Adiscon highly recommends to prefix them with “u-” (e.g. “u-MyProperty” - “u” like “user”). This ensures that no compatibility problems will arise in current and future versions of the software. Adiscon guarantees that it will never use the “u-” prefix for Adiscon-assigned properties.

Custom properties can be used just like regular properties. Wherever you can specify a property, you can also specify a custom property.

Property

This is the name of the property to be replaced. It can be any property that a given event possesses. If a property is selected that is empty for the event processed, an empty string is returned.

A property is either an event property, a custom property, a dynamic property or a system property.

If a property is selected that is not present, the result will always be an empty string, no matter which other options have been selected.

System Properties

System properties are special sequences that can be helpful. They are available with all event types. They are:

$CRLF

A Windows newline sequence consisting in the characters CR and LF. If you just need CR, you can use `%$CRLF:1:1%` and if you need use LF you can use `%$CRLF:2:2%`

$TAB

An US-ASCII horizontal tab (HT, 0x09) character

$HT

same as $TAB

$CR

A single US-ASCII CR character (shortcut for `%$CRLF:1:1%`) **$LF**

A single US-ASCII LF character (shortcut for``%$CRLF:2:2%``) **$xNN**

A single character, whose value (in hexadecimal) is given by NN. NN must be two hexadecimal digits - a leading zero must be used if a value below 16 is to be represented. The value 0 (%x00) is invalid and - if specified - replaced by the “?” character.

As an example, $CR could also be expressed as %$x0d%.

Please note that only one character can be represented. If you need to specify multiple characters, you need multiple $xNN sequences. An example may be $CRLF which could also be specified as %$x0d%%$x0a% (but not as %$x0d0a%).

$NOW

Contains the current date and time in the format:`YYYY-MM-DD HH.MM.SS`

Please note that the time parts are delimited by `'.'` instead of `':'`. This makes the generated name directly suitable for file name generation.

If you need just parts of the timestamp, please use the property replacer’s substring functionality to obtain the desired part. Use``%$NOW:1:4% to get the year,``

```
%$NOW:6:7% to get the month,
```

…

```
%$NOW:1:10% to get the full datestamp,
```

```
%$NOW:12:20% to get the full timestamp
```

$NEWUUID

Creates a new UUID (Universally Unique Identifiers), a unique 128-bit integer represented as a 32 digit hexadecimal number.

Glossary

Use the glossary to look up protocol and product terms used in the MonitorWare Agent manual.

Database

A database is a structural approach to data storage and retrieval. Database systems are optimized for quickly storing and retrieving data. In the MonitorWare products, databases are used to persistently store event data, enabling powerful filtering, searching, and reporting capabilities. MonitorWare supports various database systems including MySQL, MariaDB, Microsoft SQL Server, PostgreSQL, Oracle, and any other database with ODBC support. The database enables you to maintain a centralized repository of all your log data for compliance, forensics, and operational intelligence.

Engine Only Install

An **Engine Only Install** refers to a deployment method where only the core service executable (e.g., `winsyslg.exe`, `mwagent.exe`, `evtlog.exe`) and its essential dependencies are installed, without the full client application and user interface components. This type of installation is particularly useful for:

- **Mass deployments** where you want to minimize the installation footprint
- **Server environments** where GUI components are not needed
- **Automated deployments** where configuration is managed via registry files
- **Security-conscious environments** where you want to reduce the attack surface

In an engine-only install, the service runs with the configuration stored in the Windows Registry, which can be exported from a master installation and imported during deployment. This allows for consistent configuration across multiple systems without requiring the full installation package.

Key characteristics: - Smaller disk footprint (typically just a few MB) - No GUI components or client tools - Configuration via registry import/export - Suitable for headless/server deployments - Can be updated by simply replacing the executable files

This approach is commonly used in enterprise environments where hundreds or thousands of systems need to be monitored with consistent configuration.

IETF

The IETF is an important Internet standards body. IETF is a short name for “Internet Engineering Task Force”. The IETF is responsible for the creation of RFCs. Unlike other, formal standards bodies it is loosely organized. There is no specific membership to the IETF, anyone (knowledgeable) can become an IETF member just by participating on the IETF discussion mailing lists.

The IETF itself provides a good overview over itself at https://www.ietf.org/about/mission/.

IPv6

Adiscon Products officially support IPv6. The IPv6 support was introduced with the following versions:

- MonitorWare Agent 8.0
- WinSyslog 11.0
- EventReporter 12.0

Support for IPv6 is available in all network related facilities of the engine. All network related actions will automatically detect IPv6 and IPv4 target addresses if configured. You can also use DNS resolution to resolve valid IPv6 addresses. Network related Services can either use IPv4 or IPv6 as internet protocol. In order to support both protocols, you will need to create two services. The only exception is the RELP Listener, which uses IPv4 and IPv6 automatically if available.

Registry File

A **Registry File** (with .reg extension) is a text file that contains a snapshot of Windows Registry entries. In the context of Adiscon products (WinSyslog, EventReporter, MonitorWare Agent), registry files are used to export and import complete product configurations.

Registry files enable: - **Configuration backup** - Save your entire product configuration - **Mass deployment** - Apply the same configuration to multiple systems - **Configuration sharing** - Share configurations between team members - **Disaster recovery** - Quickly restore configurations after system failures

The registry file can be created through the product's client interface using the "Export Settings to Registry File" option, and imported silently using: `regedit.exe /s configuration.reg`

This makes registry files an essential tool for enterprise deployments and configuration management.

RELP

RELP is the “Reliable Event Logging Protocol”. It assures that no message is lost in transit, not even when connections breaks and a peer becomes unavailable. The current version of the RELP protocol has a minimal window of opportunity for message duplication after a session has been broken due to network problems. In this case, a few messages may be duplicated (a problem that also exists with plain tcp syslog).

RELP addresses many shortcomings of the traditional plain tcp syslog protocol. For some insight into that, please have a look at https://rainer.gerhards.net/2008/04/on-unreliability-of-plain-tcp-syslog.html. Please note that RELP is currently a proprietary protocol. So the number of interoperable implementations is limited.

Note that for reliable operation where messages should be preserved over a service shutdown, queue cache mode must be activated.

Repository

In the context of the MonitorWare product line, a repository typically means a database. You may also find this term used with products that use file based logging. Repository has some relation to a data warehouse or data mart as known by data mining professionals.

RFC 3164

RFC 3164 is a IETF document. It describes how syslog messages have been seen in traditional implementations. RFC 3164 is not a standard but rather a descriptive (“informational” in IETF terms) document. It does not demand a specific behavior but rather documents what has been seen. Some existing implementations of real-world syslog use different formats.

RFC 3164 is just the first step towards a newer and better syslog standard. A standard already produced by this working group is rfc 3195, which describes how syslog can be sent reliably over a tcp connection.

Adiscon supports RFC 3164 messages. There are a number of switches in each product to take care of those implementation that do it slightly different.

The formal specification for RFC 3164 can be found in the IETF RFC repository.

RFC 3195

RFC 3195 is an IETF standard. It specifies how syslog messages can reliably be transmitted via a tcp connection. RFC 3195 optionally allows for message encryption and authentication of sender and receiver. However, it has not receive any importance in practice. Servers are hard to find.

`adiscon's monitorware line of products` implement the core RFC 3195 protocol (actually, Adiscon was the first one to do this on the Windows platform). Under UNIX rsyslog and SDSC syslog are known to support RFC 3195. Our liblogging project enables your own applications to "talk" 3195.

The formal specification for RFC 3195 can be found in the IETF RFC repository .

During its creation, RFC 3195 was known as "syslog-reliable". Many people still use this name to refer to it.

RFC 5424

RFC 5424 is a IETF document.

This document describes the syslog protocol, which is used to convey event notification messages. This protocol utilizes a layered architecture, which allows the use of any number of transport protocols for transmission of syslog messages. It also provides a message format that allows vendor-specific extensions to be provided in a structured way.

A standard already produced by this working group is rfc 3195, which describes how syslog can be sent reliably over a tcp connection.

Adiscon supports RFC 5424 messages. There are a number of switches in each product to take care of those implementation that do it slightly different.

The formal specification for RFC 5424 can be found in the IETF RFC repository.

SETP

SETP is the “Simple Event Transfer Protocol”. SETP allows reliable delivery of events between SETP supporting systems. EventReporter, WinSyslog, and MonitorWare Agent support SETP. EventReporter works as SETP Client Only. As such, it can forward events generated and gathered by them to central or intermediary SETP servers. WinSyslog EnterPrise Edition works as SETP client and server, only. The MonitorWare Agent can operate both as a SETP server and client and as such also as a relay. It plays a vital role in a complex, distributed environment.

SETP was developed for MonitorWare. It allows synchronous communication between SETP clients and servers. With SETP, an event can be forwarded exactly as it was on the original event generating system. For example, if a syslog message is received on a remote system, that exact syslog message can be forwarded via as many SETP relays as is configured. During that relaying, no information from the original message is altered or lost. As such, each of the relays as well as the final SETP server will see the original source address, time stamps and message.

Furthermore, SETP guarantees reliable delivery. It is based on TCP, so each of the SETP peers know exactly that the communication partner can successfully receive and process the message. SETP guarantees that new events are only forwarded after the previous ones were successfully received and processed. SETP also checks for on the wire errors. Due to its characteristics, SETP can successfully be used in barely or occasionally connected environments like radio connected systems.

The SETP design is influenced by many industry standard movements, most notably the BEEP protocol and XML. However, SETP is optimized to have a very lightweight footprint. As such, it can be implemented even in low powered devices with little overhead.

SMTP

The “Simple Mail Transfer Protocol”. This is an Internet standard for sending email messages. Virtually all major email systems are either based on SMTP or at least offer gateways to SMTP capable systems.

SMTP is used for sending email. It cannot be used to pick up email messages. For this purpose, protocols like POP3 or IMAP4 are required.

SMTP is highly standardized. As such, a standard email client can work with all SMTP compliant servers. In the public Internet, almost all providers offer SMTP compliant mail servers for their customer’s use.

SNMP

SNMP stands for Simple Network Management Protocol. A set of standards for communication with devices connected to a TCP/IP network, like routers, hubs and switches. A device is said to be SNMP compatible if it can be monitored and/or controlled using SNMP messages.

SNMP messages are known as PDU’s - Protocol Data Units. Devices that are SNMP compatible contain SNMP ‘agent’ software to receive, send, and act upon SNMP messages. Software for managing devices via SNMP are available for every kind of commonly used computer and are often bundled along with the device they are designed to manage. Some SNMP software is designed to handle a wide variety of devices.

Syslog

Syslog is both a protocol and a system for logging messages in IP networks. Originally developed for Unix systems, it has become the de facto standard for system logging across multiple platforms. Syslog uses UDP port 514 by default (though TCP and TLS variants exist) and follows formats defined in RFC 3164 (traditional) and RFC 5424 (structured). Messages include facility, severity, timestamp, hostname, and message content. All Adiscon products support both sending and receiving syslog messages.

TCP

A reliable IP transport protocol. TCP communication ensures that no packets are lost in transit. As such, it is most useful in low-bandwidth or unreliable environments. Examples are slow WANs or packet radio networks.

Here you find information about Performance Tests and Results

UDP

A non-reliable IP transport protocol. It provides best effort delivery. Typically, in LAN environments UDP packets are never lost. However, in WAN scenarios or with heavily loaded LANs, UDP packets might be lost.

Here you find information about Performance Tests and Results

UTC

UTC is the so-called “universal coordinated time”. UTC was formerly referred to as “GMT” (Greenwich Mean Time) and is the basis of the international time zone system. For example, New York, USA is 5 hours behind UTC. So if it is 12 noon in New York, the UTC time is 5pm.

The MonitorWare line of products often uses UTC. UTC has the fast advantage of providing one consistent time notation, even if devices are across multiple time zones. This is extremely valuable if a central location is to consolidate events from senders in multiple time zones.

Using UTC might not be appropriate if a whole system is contained within a single time zone. As such, most time parameters inside the MonitorWare line of products can be configured to work with local time instead of UTC.

MonitorWare Agent product Event ID reference

Use this appendix to look up Windows Application Event Log entries generated by MonitorWare Agent. Each Event ID links to its meaning, immediate checks, exact procedures, and escalation evidence.

Scope

This reference covers product service diagnostics emitted by current supported builds. It does not cover Event IDs collected from other Windows applications or IDs chosen by an administrator in the Write to Windows Event Log action.

MonitorWare Agent Event ID troubleshooting procedures

Use these procedures from the applicable Event ID page. Each procedure includes commands, expected results, failure branches, recovery verification, and evidence collection.

- **`Collect an Event ID and neighboring product events`** — Preserve the complete event and the product events immediately before and after it.
- **`Collect evidence for an escalation-only runtime event`** — Capture a bounded reproducible support package without unsafe generic repair.
- **`Diagnose an action backlog or disk queue`** — Identify why queued work is not draining while preserving data.
- **`Diagnose log rotation and retention`** — Verify trigger, names, handles, destination access, and retention.
- **`Export configuration and collect a bounded debug log`** — Create a text configuration export and time-bounded debug capture, then disable debugging.
- **`Interpret a Windows or Winsock error code`** — Translate a numeric code without losing its operation or subsystem context.
- **`Repair the permitted-senders configuration`** — Authorize an intended sender without weakening the sender restriction.
- **`Resolve a destination and test its TCP port`** — Verify DNS, selected address, routing, and TCP establishment.
- **`Test an ODBC connection in the product context`** — Verify ODBC provider, architecture, authentication, connectivity, and a minimal query.
- **`Test an OLE DB connection in the product context`** — Verify OLE DB provider, architecture, authentication, connectivity, and a minimal query.
- **`Validate configuration and reload it safely`** — Back up, inspect, correct, and test the exact invalid configuration object.
- **`Verify a monitored remote service`** — Confirm resolution, transport, protocol, credentials, expected response, and timing.
- **`Verify a program or Windows-service control action`** — Check target, arguments, working directory, account rights, and positive result.
- **`Verify a UDP path without assuming delivery`** — Confirm receiver binding, firewall policy, and positive receipt for a paced sample.
- **`Verify an SNMP trap sender and receiver path`** — Confirm transport, endpoint, SNMP version, security/community, OIDs, and receipt.
- **`Verify Event Log channel access and bookmark state`** — Confirm channel existence, enablement, account access, and collection position.
- **`Verify File Monitor source state and encoding`** — Check source path, sharing, encoding, line endings, and read position.
- **`Verify file paths, permissions, and free space`** — Check expansion, existence, ACLs, service-account context, and storage.
- **`Verify listener binding and Windows Firewall rules`** — Confirm effective address, port, transport, owning process, and inbound policy.
- **`Verify Microsoft Message Queuing availability and access`** — Confirm feature, service, queue path, transaction mode, and send rights.
- **`Verify product license and feature entitlement state`** — Confirm product, version, validity, edition, and required feature without exposing license data.
- **`Verify sender, receiver, and queued-message recovery`** — Prove end-to-end recovery and backlog drainage.
- **`Verify service state, dependencies, and service account`** — Confirm service state, start mode, dependencies, account, and SCM errors.
- **`Verify SMTP connectivity and mail delivery`** — Separate DNS, TCP, TLS, authentication, relay, recipient, and downstream delivery.
- **`Verify TLS certificates, private keys, and permitted peers`** — Identify CA, certificate, private-key, trust-chain, and permitted-peer failures without exposing private key material.

Event ID index

Event ID	Meaning	Severity	Component
`100`	The service was installed	Information	Windows service lifecycle

101	The service was removed	Information	Windows service lifecycle
102	The service could not be removed	Error	Windows service lifecycle
103	The service control handler could not be installed	Error	Windows service lifecycle
104	The service initialization process failed	Error	Windows service lifecycle
105	The service was started	Information	Windows service lifecycle
106	The service received an unsupported control request	Error	Windows service lifecycle
108	The service was stopped	Information	Windows service lifecycle
118	Product license status reminder	Information	Licensing
11000	SETP connection closed by the receiver	Warning	SETP sender
11001	SETP TLS session closed	Warning	SETP sender
11002	SETP delivery delayed in the action cache	Warning	SETP sender
11003	SETP delivery failed	Error	SETP sender
11004	SETP session restored	Information	SETP sender
11005	Configured feature is not licensed	Warning	Licensing
11006	Call Ruleset action could not find its target ruleset	Error	Call Ruleset action
11007	Action configuration: required timer could not be created	Warning	Action configuration
11008	Action configuration: configured action feature is unavailable	Warning	Action configuration
11009	A queued action message could not be delivered	Warning	Action disk queue
11010	ODBC database action: database operation failed	Error	ODBC database action
11011	ODBC database action: database operation failed	Error	ODBC database action
11012	OLE DB action: database operation failed	Error	OLE DB action
11013	OLE DB action: OLE DB operation failed	Error	OLE DB action
11014	Action processing: action initialization failed	Error	Action processing
11015	Microsoft Message Queuing action: Microsoft Message Queuing operation failed	Error	Microsoft Message Queuing action
11016	An SNMP trap variable contains an invalid OID	Warning	Send SNMP Trap action
11017	Forward Syslog action: action initialization failed	Error	Forward Syslog action
11018	A queued Forward Syslog message could not be delivered	Warning	Forward Syslog disk queue
11019	Syslog Queue action has no queue name	Error	Syslog Queue action
11020	Control Windows Service action could not open Service Control Manager	Error	Control Windows Service action
11021	Action processing: configured action feature is unavailable	Warning	Action processing
11022	Action processing: action type is missing from configuration	Error	Action processing
11023	Action processing: invalid action type in configuration	Error	Action processing
11024	Configured action type is not recognized	Error	Rule engine action
11025	Action processing: invalid action type in configuration	Error	Action processing
11026	Configured action failed after its retries	Error	Rule engine action
11027	Configured action raised an unknown exception at its retry limit	Error	Rule engine action
11028	Configured action raised an unknown exception below its retry limit	Error	Rule engine action
11029	ODBC database action: database operation failed	Error	ODBC database action

11030	ODBC database action: database operation failed	Error	ODBC database action
11031	OLE DB action: database operation failed	Error	OLE DB action
11032	OLE DB action: OLE DB operation failed	Error	OLE DB action
11033	Post Process action ignored an unsupported parse type	Error	Post Process action
11034	SETP sender: TLS client initialization failed	Error	SETP sender
11035	SETP sender: SETP session initialization failed	Error	SETP sender
11036	RELP delivery failed and the message was queued	Warning	Send RELP action
11037	Send to Communications Port action could not write a byte	Error	Send to Communications Port action
11038	SNMP trap transmission failed	Error	Send SNMP Trap action
11039	Forward Syslog delivery failed and the message was queued	Warning	Forward Syslog action
11040	Forward Syslog delivery failed without queue protection	Error	Forward Syslog action
11041	Start Program action received an unexpected wait result	Error	Start Program action
11042	Write to File action has an invalid output format	Error	Write to File action
11043	A sender connection was refused by the permitted-senders limit	Error	Client connection licensing
11044	A sender connection exceeded the licensed client limit	Error	Client connection licensing
11045	File-based configuration: file-based configuration could not be loaded	Error	File-based configuration
11046	File-based configuration: file-based configuration could not be loaded	Error	File-based configuration
11047	Configuration: invalid host or IP address	Error	Configuration
11048	Network and TLS transport: unknown runtime error	Warning	Network and TLS transport
11049	TLS CA certificate file could not be loaded	Warning	TLS certificate loading
11050	TLS certificate or private key could not be loaded	Warning	TLS certificate loading
11051	TLS client certificate verification failed	Warning	TLS client certificate verification
11052	TLS client certificate identity is unavailable	Warning	TLS client certificate verification
11053	TLS client certificate does not match a permitted peer	Warning	TLS peer authorization
11054	TLS certificate-name authentication has no permitted peers	Warning	TLS peer authorization
11055	TLS client certificate fingerprint could not be computed	Warning	TLS peer authorization
11056	TLS certificate-fingerprint authentication has no permitted peers	Warning	TLS peer authorization
11057	Network and TLS transport: TLS server initialization failed	Warning	Network and TLS transport
11058	Filter engine: regular expression initialization failed	Error	Filter engine
11059	Monitoring service: service component initialization failed	Error	Monitoring service
11060	MonitorWare Echo service: MonitorWare Echo operation raised an exception	Warning	MonitorWare Echo service
11061	MonitorWare Echo service: MonitorWare Echo operation raised an exception	Error	MonitorWare Echo service
11062	MonitorWare Echo service: MonitorWare Echo operation raised an exception	Error	MonitorWare Echo service

11063	MonitorWare Echo service: MonitorWare Echo operation raised an unknown exception	Error	MonitorWare Echo service
11064	CPU Monitor service: CPU monitor raised an exception	Error	CPU Monitor service
11065	CPU Monitor service: CPU monitor raised an unknown exception	Error	CPU Monitor service
11066	Database Monitor service: database operation failed	Error	Database Monitor service
11067	Database Monitor service: database operation failed	Error	Database Monitor service
11068	Database Monitor service: database monitor ID field warning	Warning	Database Monitor service
11069	Database Monitor service: database operation failed	Error	Database Monitor service
11070	Database Monitor service: database operation failed	Error	Database Monitor service
11071	Disk Space Monitor could not complete a disk-space check	Error	Disk Space Monitor service
11072	DTLS listener: listener could not bind to its configured address	Error	DTLS listener
11073	DTLS listener stopped after an unknown exception	Error	DTLS listener
11074	File Monitor service: file monitoring warning	Warning	File Monitor service
11075	File Monitor service: configured file could not be opened	Error	File Monitor service
11076	File Monitor service: configured file could not be opened	Error	File Monitor service
11077	File Monitor service: file monitoring operation failed	Error	File Monitor service
11078	File Monitor service: file monitoring operation failed	Error	File Monitor service
11079	File Monitor service: configured file could not be opened	Error	File Monitor service
11080	File Monitor service: configured file could not be opened	Error	File Monitor service
11081	File Monitor service: file monitoring operation failed	Error	File Monitor service
11082	FTP Probe service: probe operation raised an exception	Error	FTP Probe service
11083	FTP Probe service: probe operation raised an unknown exception	Error	FTP Probe service
11084	Heartbeat service: heartbeat operation raised an exception	Error	Heartbeat service
11085	Heartbeat service: heartbeat operation raised an unknown exception	Error	Heartbeat service
11086	HTTP Probe service: probe operation raised an exception	Error	HTTP Probe service
11087	HTTP Probe service: probe operation raised an unknown exception	Error	HTTP Probe service
11088	IMAP Probe service: probe operation raised an exception	Error	IMAP Probe service
11089	IMAP Probe service: probe operation raised an unknown exception	Error	IMAP Probe service
11090	SETP listener stopped after a protocol server error	Error	SETP listener
11091	SETP receiver: SETP operation raised an exception	Warning	SETP receiver
11092	SETP receiver: SETP operation raised an exception	Error	SETP receiver

11093	SETP receiver: SETP operation raised an exception	Error	SETP receiver
11094	SETP receiver: SETP operation raised an unknown exception	Error	SETP receiver
11095	NNTP Probe service: probe operation raised an exception	Error	NNTP Probe service
11096	NNTP Probe service: probe operation raised an unknown exception	Error	NNTP Probe service
11097	Event Log Monitor service: Windows Event Log operation failed	Error	Event Log Monitor service
11098	Event Log Monitor service: Windows Event Log could not be opened	Error	Event Log Monitor service
11099	Event Log Monitor service: unknown runtime error	Error	Event Log Monitor service
11100	A corrupted Windows Event Log record was skipped	Warning	Event Log Monitor service
11101	Event reporter service	Error	Event Log Monitor service
11102	Event Log Monitor service: Windows Event Log record was unreadable	Error	Event Log Monitor service
11103	Event Log Monitor service: Windows Event Log clear target already exists	Error	Event Log Monitor service
11104	Event Log Monitor service: Windows Event Log could not be cleared	Error	Event Log Monitor service
11105	Event Log Monitor service: Windows Event Log clear retry succeeded	Information	Event Log Monitor service
11106	Windows Event Log cleared and saved	Information	Event Log Monitor service
11107	Windows Event Log cleared	Information	Event Log Monitor service
11108	Event Log Monitor service: Windows Event Log operation failed	Error	Event Log Monitor service
11109	Event Log Monitor service: Windows Event Log operation failed	Error	Event Log Monitor service
11110	Event Log Monitor service: licensed Event Log Monitor limit reached	Error	Event Log Monitor service
11111	Windows Service Monitor: Windows Service Monitor raised an exception	Error	Windows Service Monitor
11112	Syslog listener: service component initialization failed	Error	Syslog listener
11113	Syslog listener: service component initialization failed	Error	Syslog listener
11114	Syslog listener: listener could not bind to its configured address	Warning	Syslog listener
11115	Syslog listener: listener could not bind to its configured address	Error	Syslog listener
11116	Passive Syslog listener stopped after an unknown exception	Error	Passive Syslog listener
11117	Ping Probe service stopped after a reported runtime error	Error	Ping Probe service
11118	Ping Probe service stopped after an unknown exception	Error	Ping Probe service
11119	POP3 Probe service: probe operation raised an exception	Error	POP3 Probe service
11120	POP3 Probe service: probe operation raised an unknown exception	Error	POP3 Probe service
11121	RELP listener: listener could not bind to its configured address	Error	RELP listener
11122	RELP listener stopped after an unknown exception	Error	RELP listener

11123	Serial Port Monitor: serial port operation failed	Error	Serial Port Monitor
11124	Serial Port Monitor: serial port operation raised an exception	Error	Serial Port Monitor
11125	Serial Port Monitor: serial port operation raised an unknown exception	Error	Serial Port Monitor
11126	SMTP listener: SMTP listener raised an exception	Warning	SMTP listener
11127	SMTP listener: SMTP listener raised an exception	Error	SMTP listener
11128	SMTP listener: SMTP listener raised an exception	Error	SMTP listener
11129	SMTP listener: SMTP listener raised an unknown exception	Error	SMTP listener
11130	SMTP Probe service: probe operation raised an exception	Error	SMTP Probe service
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11132	SNMP Monitor service: SNMP operation raised an exception	Warning	SNMP Monitor service
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11142	Syslog listener: BEEP listener initialization failed	Error	Syslog listener
11143	Syslog listener: BEEP listener port could not be applied	Error	Syslog listener
11144	Syslog listener: listener could not bind to its configured address	Warning	Syslog listener
11145	Syslog listener: listener could not bind to its configured address	Error	Syslog listener
11146	Syslog listener stopped after an unknown exception	Error	Syslog listener
11147	Event Log Monitor V2 service: required timer could not be created	Warning	Event Log Monitor V2 service
11148	Event Log Monitor could not create its saved bookmark	Error	Event Log Monitor V2 service
11149	Event Log Monitor V2 service: general runtime error	Warning	Event Log Monitor V2 service
11150	Event Log Monitor V2 service: Windows Event Log operation failed	Error	Event Log Monitor V2 service
11151	Event Log Monitor V2 service: Windows Event Log operation failed	Error	Event Log Monitor V2 service
11152	A queued event has an unsupported information-unit type	Error	Event reconstruction

11153	Existing archive file was renamed before log rotation	Warning	Log rotation
11154	Log rotation was deferred because an archive destination could not be renamed	Warning	Log rotation
11155	Cross-volume archive copy succeeded but source cleanup failed	Warning	Log rotation
11156	Rotated log could not be moved to its archive destination	Warning	Log rotation
11157	Existing archive could not be renamed to prevent overwrite	Warning	Log rotation
11158	Empty log-rotation queue file could not be deleted	Warning	Log rotation queue
11159	Corrupt log-rotation queue file could not be quarantined	Warning	Log rotation queue
11160	Corrupt log-rotation queue file was quarantined	Warning	Log rotation queue
11161	Configuration reload kept the existing log-rotation workers	Warning	Log rotation
11162	Log-rotation jobs cannot be persisted because the data directory is unset	Warning	Log rotation queue
11163	Persisted log-rotation queue file could not be read	Warning	Log rotation queue
11164	Email action: invalid SMTP recipient address	Error	Email action
11165	Email action: SMTP recipient address is missing	Error	Email action
11166	OLE DB action: OLE DB operation failed	Error	OLE DB action
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11168	Runtime resource management: memory allocation failed	Error	Runtime resource management
11169	Individual Ping Probe stopped after an unknown exception	Error	Ping Probe
11170	Queue worker received an unexpected wake-up	Error	Main message queue
11171	Queue manager: unknown runtime error	Error	Queue manager
11172	Queue manager: unknown runtime error	Error	Queue manager
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11174	Queue manager: queue capacity condition	Information	Queue manager
11175	Queue manager: queue capacity condition	Warning	Queue manager
11177	Queue manager: queue capacity condition	Error	Queue manager
11178	Queue manager: disk queue cache operation failed	Error	Queue manager
11179	Queue manager: disk queue cache operation failed	Error	Queue manager
11180	Queue manager: disk queue cache operation failed	Error	Queue manager
11181	Queue manager: disk queue cache operation failed	Error	Queue manager
11182	Queue manager: disk queue cache operation failed	Error	Queue manager
11183	Configuration reload was skipped because the log-rotation scheduler did not stop	Warning	Configuration reload
11184	Service configuration: memory reserve could not be allocated	Warning	Service configuration
11185	No product input service is configured	Error	Service configuration
11186	The trial expired and the service was disabled	Error	Licensing
11187	A configured input service type is not recognized	Error	Service configuration
11188	Service configuration: configured service feature is unavailable	Warning	Service configuration
11189	Input service could not find its assigned ruleset	Error	Service configuration

11190	Service configuration: configured feature is unavailable	Warning	Service configuration
11191	Service configuration: log rotation is not licensed	Information	Service configuration
11192	No configured product input service could be started	Error	Service startup
11193	Service configuration: service configuration raised an unknown exception	Warning	Service configuration
11194	Product runtime: message compression failed	Warning	Product runtime
11195	Disk queue: runtime data error	Error	Disk queue
11196	Disk queue: runtime data error	Error	Disk queue
11197	Disk queue: runtime data error	Error	Disk queue
11198	TCP and TLS listener: TCP listener fatal error	Error	TCP and TLS listener
11199	TCP and TLS listener: TLS server initialization failed	Warning	TCP and TLS listener
11200	TCP and TLS listener: TCP listener fatal error	Error	TCP and TLS listener
11201	TCP and TLS listener: TCP listener fatal error	Error	TCP and TLS listener
11202	TCP listener could not assign an accepted socket	Error	TCP and TLS listener
11212	System exception while compiling an NT Event Log expression	Error	Event Log Monitor service
11213	System exception while compiling an NT Event Log category	Error	Event Log Monitor service
11214	System exception in the queue worker thread	Error	Queue manager
11215	A debug error was forwarded to the Windows Event Log	Warning	Diagnostic forwarding
11216	Control Windows Service action could not open the target service	Error	Control Windows Service action
11217	Control Windows Service action could not start the target service	Error	Control Windows Service action
11218	Control Windows Service action could not stop the target service	Error	Control Windows Service action
11219	Control Windows Service action could not pause the target service	Error	Control Windows Service action
11220	Control Windows Service action could not continue the target service	Error	Control Windows Service action
11221	Target service did not reach the requested state before timeout	Error	Control Windows Service action
11222	Consumed log-rotation queue file could not be deleted	Warning	Log rotation queue
11223	Protected service shutdown deadline expired	Error	Service shutdown
11224	Configuration reload shutdown incomplete	Error	Service shutdown
11225	RELP listener shutdown wake fallback	Warning	RELP listener
11226	SNMP listener shutdown wake fallback	Warning	SNMP trap listener
11227	Event rejected after shutdown intake closed	Warning	Main message queue
11228	Action disk queue flush failed during shutdown	Error	Action persistence
11229	Message Ringbuffer action is not registered	Error	Message Ringbuffer action

Known issues and errata

Known issues and errata

This section documents confirmed product behavior that can affect operation or the interpretation of collected data. Each notice identifies the affected products and service versions, the practical impact, available workarounds, and the planned or released correction.

Current errata

- ERR-2026-001: Incorrect source address for received SNMP traps
- ERR-2026-002: MonitorWare Agent update reports success but program files are not upgraded correctly

External reference

- Version History
- MonitorWare Agent 26.07 release notes

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We acknowledge using these following third party tools. Here are the download links:

Openssl-3.2.1: https://www.openssl.org/source/openssl-3.2.1.tar.gz **Liblogging 0.7.1:** https://github.com/Rsyslog/liblogging/archive/refs/tags/v0.7.1.tar.gz **Librelp 1.11.0:** https://github.com/Rsyslog/librelp/archive/refs/tags/v1.10.0.tar.gz **Libfastjson-0.99.8:** https://github.com/Rsyslog/libfastjson/archive/refs/tags/v0.99.8.tar.gz

Liblognorm 0.3.5 https://github.com/Rsyslog/liblognorm/archive/refs/tags/v0.3.5.tar.gz

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