



meshIQ Manage

User's Guide

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Chapter 1: Introduction

Welcome to the *meshIQ Manage User's Guide*. This guide will introduce the user to basic functionality and describe the dialog windows encountered while working with meshIQ Manage. Please review this guide carefully before installing the product.

1.1 How this Guide is Organized

- [Chapter 1:](#) Document information.
- [Chapter 2:](#) Contains a brief functional description of meshIQ Manage.
- [Chapter 3:](#) Information on system access.
- [Chapter 4:](#) Detailed information on how to use meshIQ Manage.
- [Appendix A:](#) Provides a list of all reference information.
- [Appendix B:](#) Contains a list of objects and their icons.
- [Appendix C:](#) Descriptions of object menu options.
- [Appendix D:](#) MQ Statistics table attributes listed.
- [Index:](#) Contains document index.

1.2 History of this Document

Table 1.2-A. History of this Document			
Release Date	Document Number	Product Version	Summary
January 2022	NN.10.021	10	Updated Message Commands, Message Criteria, and Load Messages Settings to reflect option to select a message criteria record or change default Message Descriptor properties. Added Load Messages Max loaded messages count. Updated Message Commands to add limitation on actions when the method of message selection is Message Position and multiple individual messages are selected. Renamed Inactivity section (now Updating the Configuration File) and reworked to remove obsolete content and add new configuration setting.
March 2022	NN.10.021	10	Dashboard Ownership Management; new User Settings for collapsed viewlets, minimum refresh interval; new global setting for session timeout; secondary column sorting in schemas; force refresh mode; Delete IIB Message Flows, Sub Flows, and Resources; attribute search in console.
April 2022	NN.10.021.1	10	Manage Filtered Columns, Manage Frozen Columns; Kafka Schema, Schema Subject, and Schema Subject Version viewlets; Solace viewlets
October 2022	NN.10.022	10	Navigator version 10.5 updates. Statistics report; Attribute filters applies at workgroup server; Dashboard Ownership Permissions columns; User Views renamed User Perspectives; Request History Export; New Queue Manager fields; Global Settings Bulk selection Max limits.

October 2023	MM.11.000	11	v10.x changes (Nov.- Dec 2022): Sorting behavior changes (v10.5.0.9); updated Reroute rights (v10.3.x fix). v11 changes: meshIQ Manage and meshIQ Security names, logo updates throughout; Multiple Workgroup servers (User Settings, Color Settings tab, Creating New / Temporary Viewlets); Create RabbitMQ Remote Manager, RabbitMQ Viewlets; Remote connection manager actions (copy as, undo, verify); Kafka encryption (SSL connections) and import properties, Confluent Platform Metadata Service (MDS) Setup; Attribute filter variables; Result Limit affects total objects label; Retrieving Messages from an Inoperable Cluster Queue; Shared Storage options for messages; other v11 changes.
June 2024	MMUG11.001	11.1	UI design changes in select areas; Put New message differentiation (IBM MQ, Kafka, and EMS/Solace/Rabbit); RabbitMQ Object Properties and status viewlets; manage Solace Remote Message VPNs; additional compare operations for attribute filters for custom attributes; Regex global setting to auto-apply DLQ Message Format.
October 2024	MMUG11.002	11.2	UI design changes in select areas: manage EMS ACL's; Force update (IBM MQ, Kafka, EMS, Solace, Rabbit and ACE); Solace client certificate rules, conditions and its attributes; Rename option for IBM MQ objects; Connection manager reconnect logic (IBM MQ, ACE, EMS, or RabbitMQ); Kafka MDS roles redesign.
August 2025	MMUG11.003	11.3	UI design changes in select areas; Introduced ActiveMQ as a new product section; RabbitMQ AMQP dialog enhancements (General and SSL tabs).

1.2.1 User Feedback

meshIQ encourages all Users and Administrators of meshIQ Manage to submit comments, suggestions, corrections, and recommendations for improvement of all documentation. Please send your comments via e-mail to: support@meshiq.com. You will receive a response, along with status of any proposed change, update, or correction.

1.3 Related Documents

The complete listing of related and referenced documents is listed in [Appendix A](#) of this guide.

1.4 Release Notes

See README files on installation media or the meshIQ Manage installation directory.

1.5 Intended Audience

This guide is intended for users of meshIQ Manage. There are three user groups defined for installation, use, and middleware management (diagnostics and administration):

- Middleware Team
- Application Support
- Development

1.6 Technical Support

If you need additional technical support, you can contact meshIQ by telephone or by e-mail. To contact technical support by telephone, call 800-963-9822 ext. 1. If you are calling from outside the United States, dial 001-516-801-2100. To contact meshIQ technical support by e-mail, send a message to mysupport@meshiq.com. To access the meshIQ automated support system (user ID and password required), go to <https://mysupport.meshiq.com/>. Contact your local meshIQ Manage Administrator for further information.

Chapter 2: About meshIQ Manage

2.1 meshIQ Manage

The purpose of this guide is to familiarize users with the meshIQ Manage application, introduce them to basic functionality, and describe all dialog windows that they can encounter when working with meshIQ Manage.

The system consists of two main parts:

- Server-side components that reside within an Apache-Tomcat JSP container or equivalent.
- Client application running in a browser using HTML pages, which are served by the server-side components.

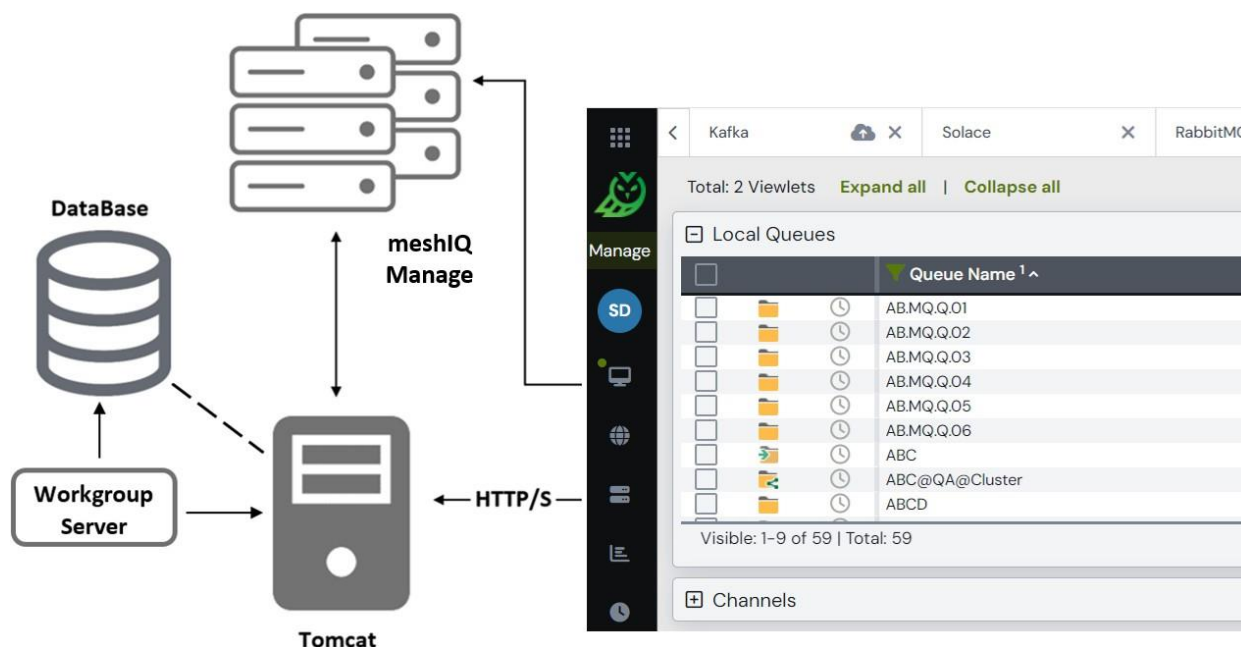


Figure 2.1-A. Message Management Flow Chart

meshIQ Secure must be installed and configured at a minimum to use meshIQ Manage.

meshIQ Manage supports IBM MQ, IIB, ACE, TIBCO EMS, Apache Kafka, Solace, and RabbitMQ objects.

For information on each platform, please see the following links:

- IBM MQ:
https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_9.0.0/com.ibm.mq.pro.doc/q003070_.htm
- IBM IIB and ACE:
<https://www.ibm.com/docs/en/app-connect/11.0.0?topic=app-connect-enterprise-software>
- TIBCO EMS:
<https://docs.tibco.com/pub/ems/8.6.0/doc/html/GUID-6248414D-9FCA-4224-BFC6-5E3D3780D7BD.html>
- Apache Kafka:
<https://kafka.apache.org/documentation/>

- Solace Pub/Sub
<https://docs.solace.com/>
- RabbitMQ
<https://www.rabbitmq.com/documentation.html>
- ActiveMQ
<https://activemq.apache.org/components/classic/documentation/>
<https://artemis.apache.org/components/artemis/documentation/>

Chapter 3: Accessing meshIQ Manage

3.1 System Access

After successful deployment, the web application can be accessed using the following URL:

```
http://<machine_name>:8080/manage/
```

meshIQ Manage uses workgroup server authentication when logging into the application. The login/password pair must be defined with appropriate group permissions.

Enter your assigned **User ID** and **Password**. Only specify the **Domain** if instructed to do so by your administrator. Click **LOGIN** to enter the application.

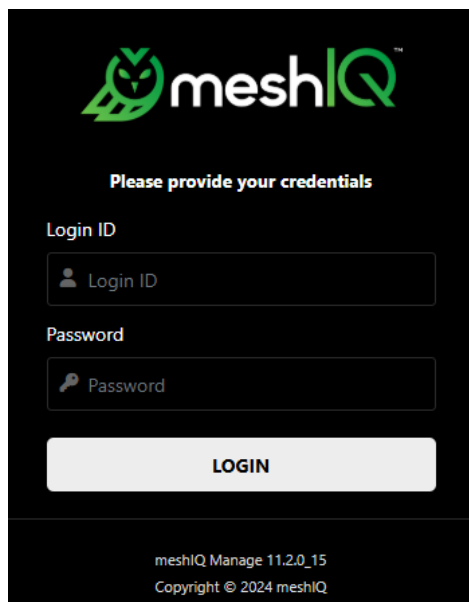


Figure 3.1-A. meshIQ Manage Login

3.2 Connecting to the Network

If this is the first time you are logging into meshIQ Manage and your Administrator has not yet assigned connections, the *Connect to WGS* window will appear. This is where you select the environments you want to log into.

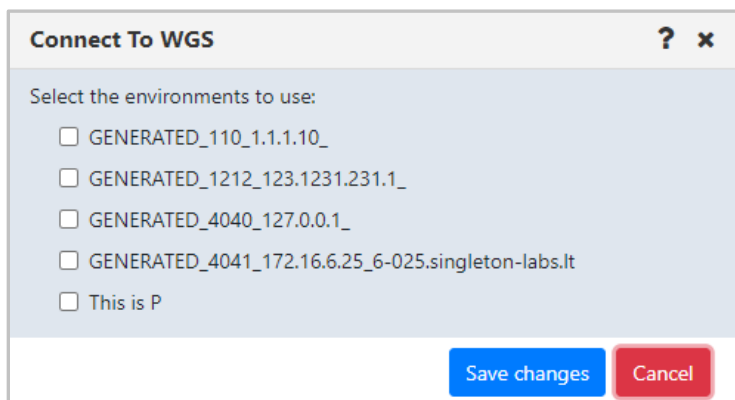



Figure 3.2-A. Connecting to a Workgroup Server selection

If there are issues logging into one of the selected environments, go to [Failed Connection](#), for more information.

3.2.1 Select Different Workgroup Server

Users can select different connection environments in which they want to work. Do this by clicking the **Add** button  located on the toolbar to the top-right of the *Workgroup servers* viewlet.

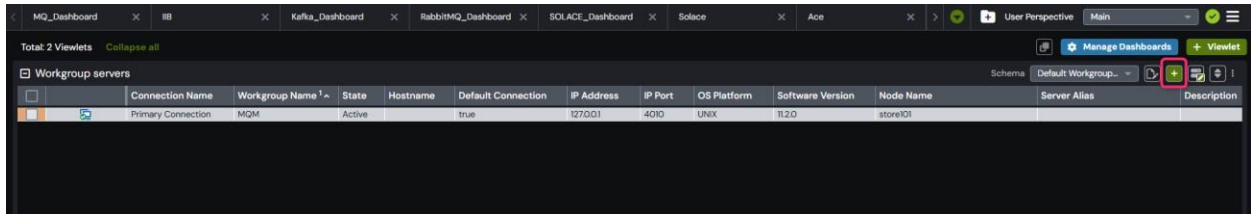


Figure 3.2.1-A. Workgroup Servers Viewlet

The *Connect to WGS* window opens (this is the same window displayed when logging in with no specified connections, as seen in section 3.2 above). All connections available to the user are displayed. The check mark represents environments the user is currently connected to. Select all desired connections and click **Save changes**. meshIQ Manage will now connect to the selected environments.

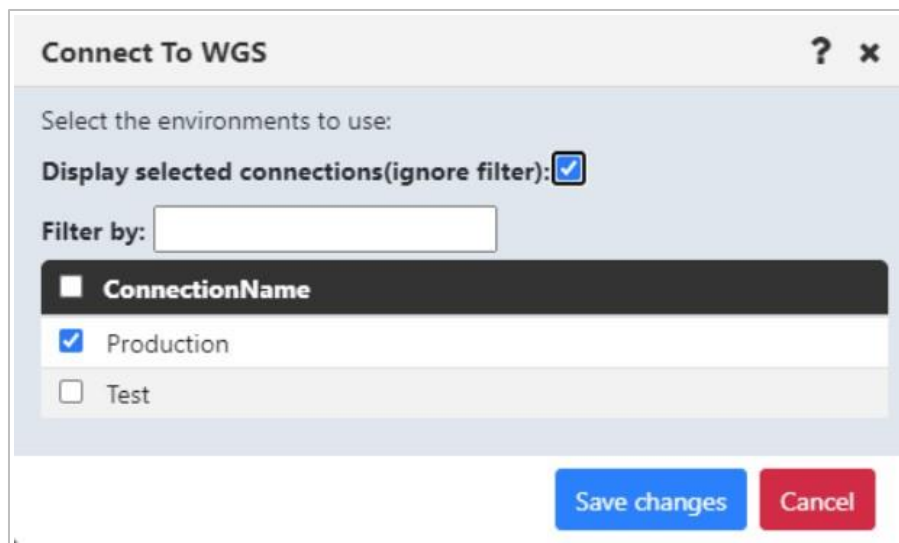


Figure 3.2.1-B. Workgroup Server Selection

3.3 Failed Connection

When logging in, if there are connection issues to the currently selected workgroup servers, the *Connection Selection* window displays listing all other available connections. On this window the user can select the connections to reconnect to. If the selected connections are successful, then they will be remembered as this user's selected connections.

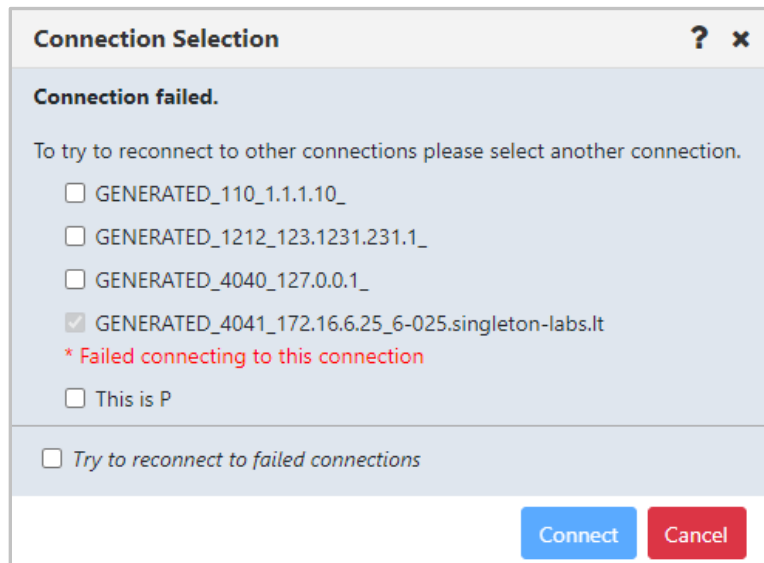


Figure 3.3-A. Connection Failed

If any of the connections return an error, a window will appear asking the user to re-enter their credentials.

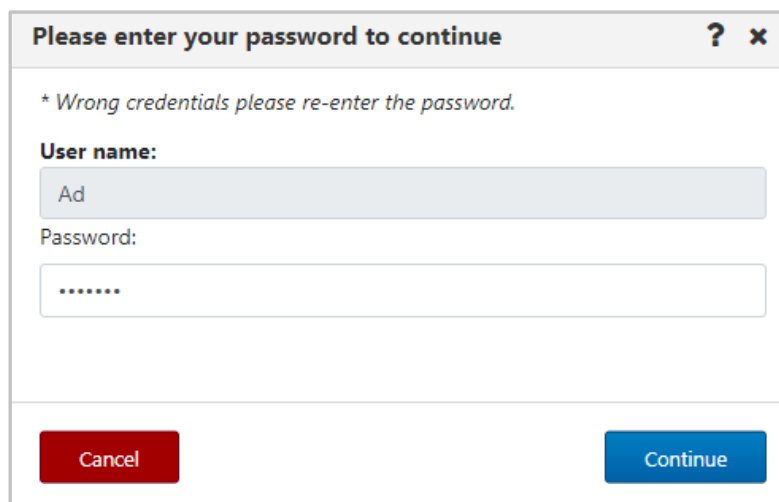


Figure 3.3-B. Reenter Credentials

Chapter 4: Using meshIQ Manage

4.1 General Features

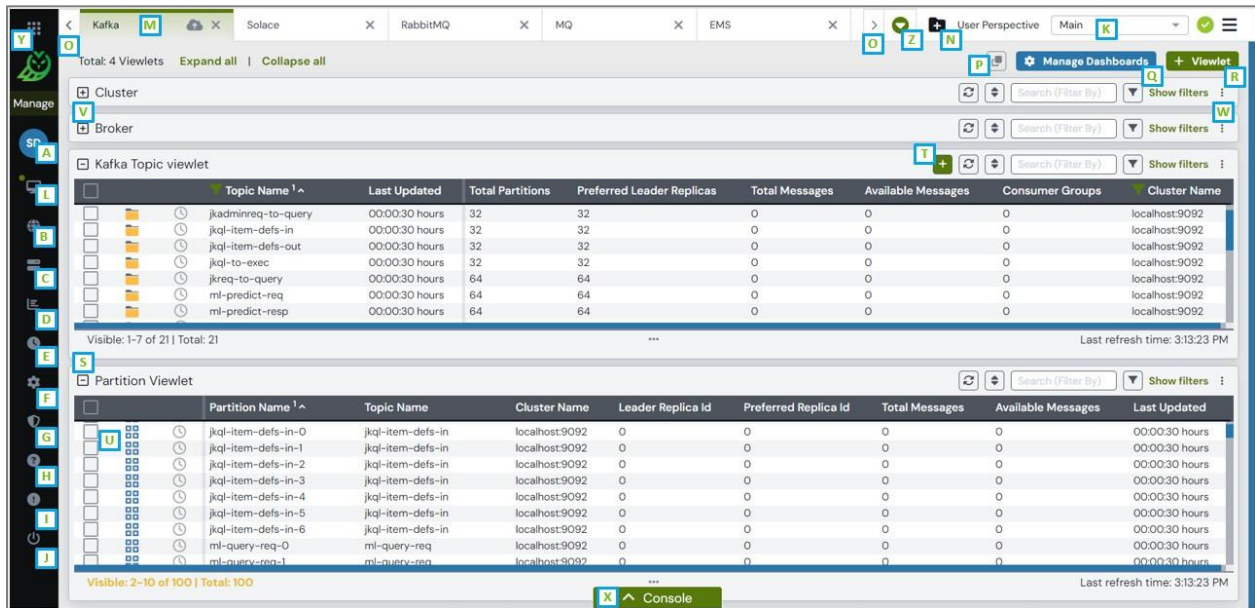


Figure 4.1-A. General Features

- A: Username of the user who is logged in.
- B: **Reconnect** button. Reconnects workgroup server connections (Section [4.4.1](#)).
- C: **Request History** button. Displays all running and completed tasks (Section [4.4.2](#)).
- D: Open the **Statistics Report** (Section [4.4.2](#)).
- E: Opens the **Schedules** window (Section [4.6](#)).
- F: Click to display **User/Global Settings** window (Section [4.4.5](#)).
- G: Opens the security application. See the Resource Center (link below) for more information.
- H: Opens the [Resource Center](#) or other online resource defined in your system's global settings (Section [4.3.9](#)).
- I: Displays the **version number**.
- J: **Log Out** button.
- K: **User Perspective list**. Group related dashboards into perspectives, or views (section [4.2.13](#)).
- L: **Workspace Dashboard**. The Workspace dashboard is the default dashboard. It shows your connections.
- M: **Dashboards**. Each tab represents a different dashboard. The dashboard with the green line is the default dashboard. You can change your default dashboard (see [Set Dashboard as Default](#)).
- N: **Create dashboard** button ([Create New Dashboard](#)).
- O: Navigation between dashboards ([Displaying Additional Dashboards](#)).
- P: **Paste** button: Used when copying objects ([Copy Objects](#)).
- Q: **Manage Dashboards** button: Used to add a shared dashboard ([Sharing](#)).
- R: Create a new viewlet ([Adding and Maintaining Viewlets](#)).
- S: **Collapse** button. Collapses a viewlet ([Collapse / Expand Viewlets](#)).

- T: **Add** button. Use the **Add** button to quickly create objects ([Create Objects](#)).
- U: Click the checkbox of an object in the viewlet to display the **Selected** menu. Hover your mouse over the menu or click it to view potential actions for the object ([Appendix C: Object Menus](#)).
- V: **Expand** button. Expand a viewlet ([Collapse / Expand Viewlets](#)).
- W: **Viewlet Menu** button ([Viewlet Menu](#)).
- X: **Console** panel ([Console Panel](#)).
- Y: **App switcher** ([App Switcher](#)).
- Z: **List of open dashboards** ([Displaying Additional Dashboards](#))

4.2 Dashboards

The interface's flexible design allows individual users to focus on the data that is most important to them. The tabs at the top of the screen represent dashboards.

4.2.1 What is a Dashboard?

A dashboard is a way to organize information. Each dashboard contains viewlets, which provide details about specific objects, such as queue managers, queues, connections, or topics.

Dashboards are composed of a summary panel above and a Console panel below (see [Console Panel](#)). The summary panel displays the main viewlets of the object. The Console panel displays viewlets containing additional object information, for example, messages, events, attributes, or object statuses.

4.2.2 Workspace Dashboard

The *Workspace* dashboard is the default dashboard; this will be the dashboard users see immediately after logging in. It is marked with a green dot. The default dashboard can be changed, please see [Set Dashboard as Default](#) for more information. To learn how to create dashboards, skip to [Create New Dashboard](#).

The *Workspace* dashboard consists of:

- *Workgroup Servers* viewlet: This is the first viewlet on the *Workspace* dashboard. It displays a list of workgroup servers that are currently configured, whether or not you are connected, and provides the information described in [Table 4.2.2.1-A](#).
- *MQM Node* viewlet: This is the second viewlet on the *Workspace* dashboard. It displays all nodes. Scroll down to view the objects of the *MQM Node* viewlet. Please see [Nodes](#) for more information on node viewlets.



NOTE

You can add viewlets to the *Workspace* dashboard, but they are always temporary (not saved when you close your session). See [Adding and Maintaining Viewlets](#) for more information.

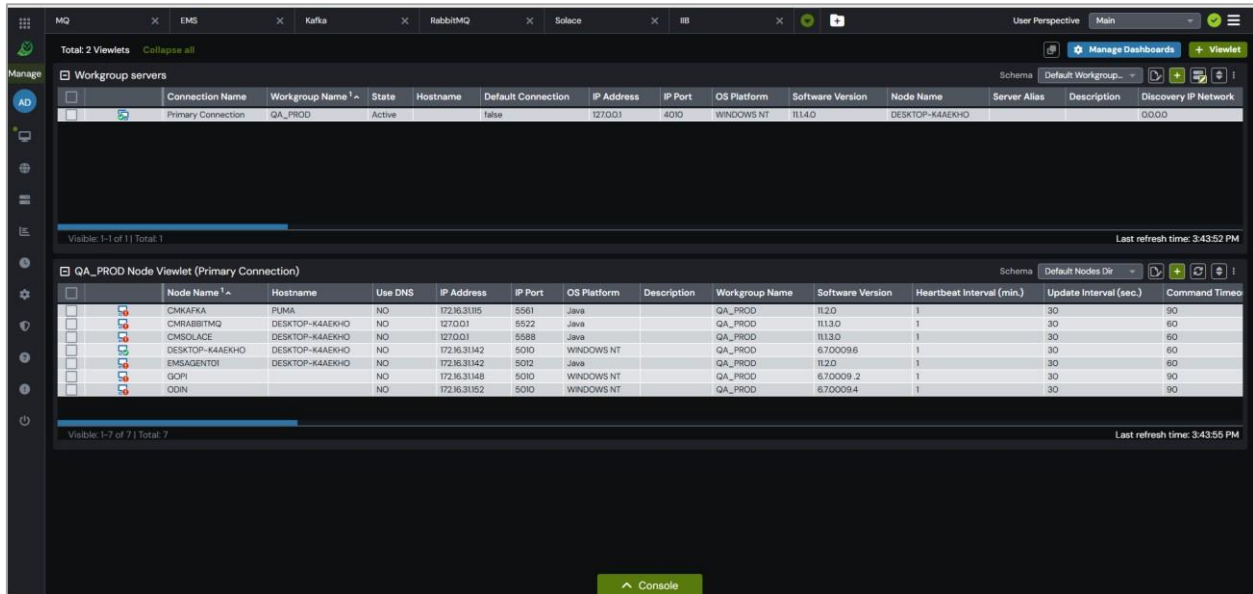




Figure 4.2.1-A. Workspace Dashboard

4.2.2.1 Workgroup Servers Viewlet

Connected workgroup servers are signified with a green check-mark symbol , and disconnected servers with a red exclamation point symbol . Scroll to the right to see all the workgroup server connection's properties and limits.

Select a workgroup server to display the **Selected** menu. Please see [Appendix C](#) for an explanation of the menu options.

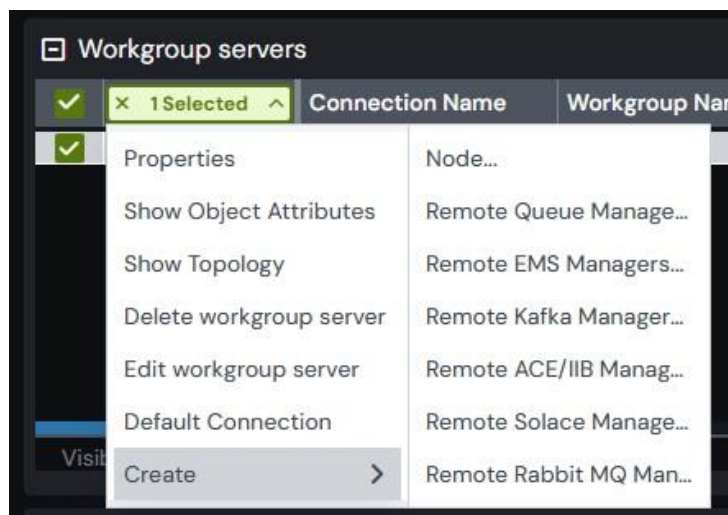


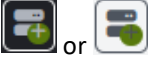

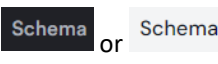




Figure 4.2.2.1-A. Workgroup Server Selected Menu

 **NOTE** Depending on your user permissions, your options may differ from the above figure.

The table below describes the functionality of the *Workgroup servers* viewlet toolbar.

Table 4.2.2.1-A. Workgroup Servers Viewlet Toolbar		
Field	Name	Description
	Add	Displays the Connect to WGS window (see Select Different Workgroup Server) to select different connections.
	Add Workgroup Server	Launches the Work Group Server Connections window to add, modify, delete or re-assign viewlets.
	Default Table Sorting	Click to go back to the viewlet's default sorting.
	Schema	The current schema that is in effect. Controls how the viewlet is displayed. See Schemas for more information.
	Manage Viewlet Schemas	To add new schemas or manage existing schemas. See Schemas for more information.
	Viewlet option	Export data to CSV. See section 4.3.1.6.5 .

4.2.2.1.1 Workgroup Server Properties

To view the Workgroup Server properties, select the required Workgroup server.

From the **Selected** menu, click **Properties**. A window similar to the following opens.

The screenshot shows a dialog box titled "Group Manager MQM Properties" with a help icon and a close icon in the top right corner. On the left side, there is a vertical list of tabs: "Workgroup Identity" (highlighted with a green arrow), "Discovery Policy", "Workgroup Limits", "Trace", "License", "Statistics", "Advanced", and "Performance". The main area of the dialog contains several fields:

- Name:** A text input field containing "MQM".
- Host name:** A text input field containing "cep-wgs-0".
- IP port:** A text input field containing "4010".
- OS platform:** A text input field containing "UNIX".
- Workgroup version:** A text input field containing "11.2.4".
- Alias:** An empty text input field with a blue border.
- Description:** A large, empty text area with a small icon in the bottom right corner.

At the bottom right of the dialog, there are two buttons: "Ok" (blue) and "Cancel" (red).

Figure 4.2.2.1.1-A. Workgroup server Properties – Workgroup Identity Tab

The screenshot shows a dialog box titled "Group Manager MQM Properties" with a help icon and a close icon in the top right corner. On the left side, there is a vertical list of tabs: "Workgroup Identity", "Discovery Policy" (which is highlighted with a green arrow icon), "Workgroup Limits", "Trace", "License", "Statistics", "Advanced", and "Performance". The main area of the dialog contains the following settings:

- IP network address: 0.0.0.0
- M6-WMQ agent port: 5010
- Discovery time (min): 1440
- Refresh interval (sec): 60
- Include authority records
- Full discovery on connect: ON

At the bottom right of the dialog, there are two buttons: "Ok" (blue) and "Cancel" (red).

Figure 4.2.2.1.1-B. Workgroup server Properties – Discovery Policy Tab

The screenshot shows a dialog box titled "Group Manager MQM Properties" with a help icon and a close button in the top right corner. On the left is a vertical sidebar with tabs: "Workgroup Identity", "Discovery Policy", "Workgroup Limits" (which is selected and highlighted with a green arrow), "Trace", "License", "Statistics", "Advanced", and "Performance". The main area of the dialog contains several configuration fields, each with a label and a text input box:

- Event log size: 1000
- Accounting log size: 5000
- Statistics log size: 5000
- Audit log size: 0
- Client pending command limit: 15000

Below these fields is a blue text warning: "The below changes will come into effect on server restart." This is followed by four more configuration fields:

- Max. number of clients: 200
- Max. number of nodes: 100
- Max. number of QMgr/node: 50
- Message browse limit: 10000

At the bottom right of the dialog are two buttons: "Ok" (blue) and "Cancel" (red).

Figure 4.2.2.1.1-C. Workgroup server Properties – Workgroup Limits Tab

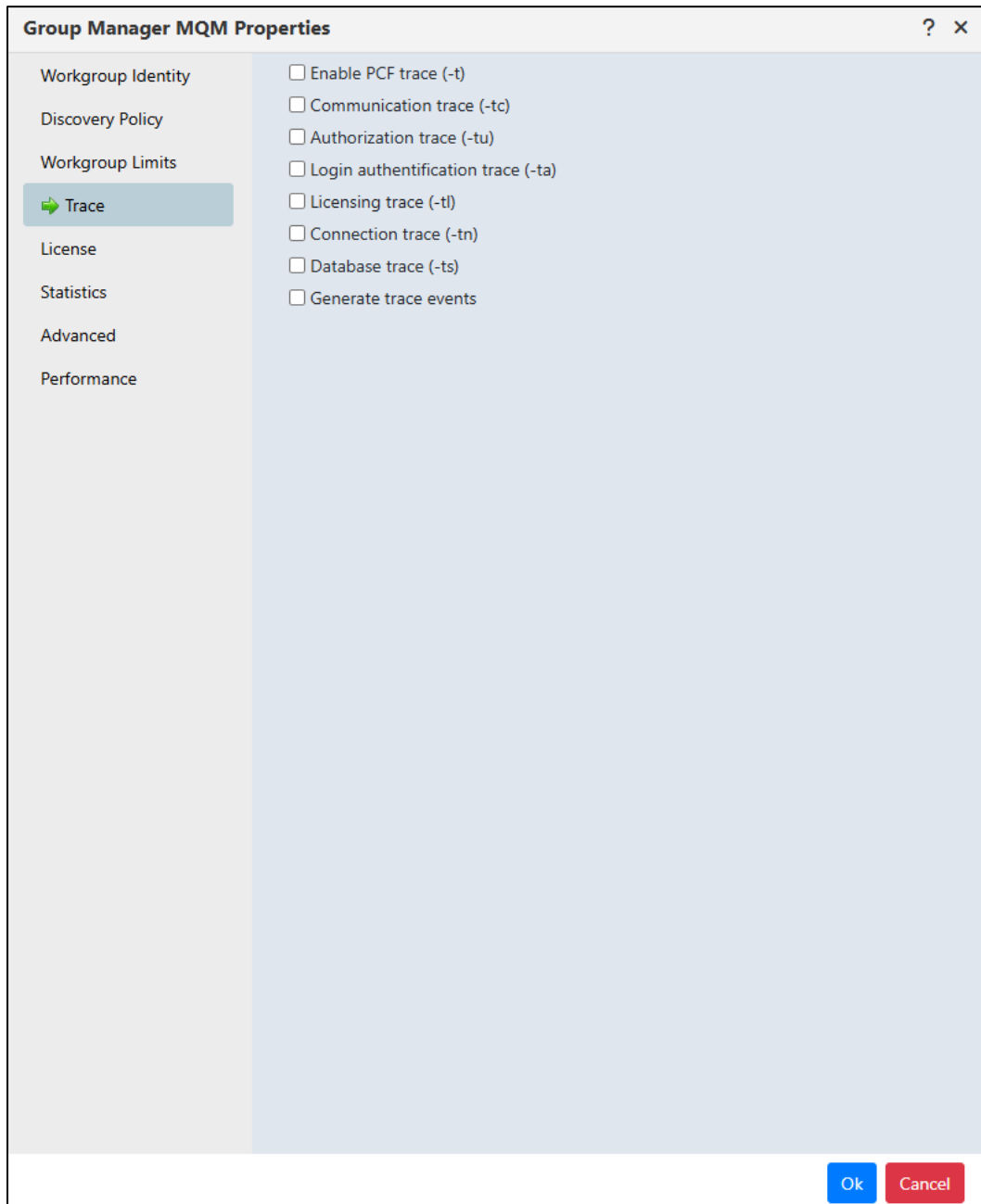


Figure 4.2.2.1.1-D. Workgroup server Properties – Trace Tab

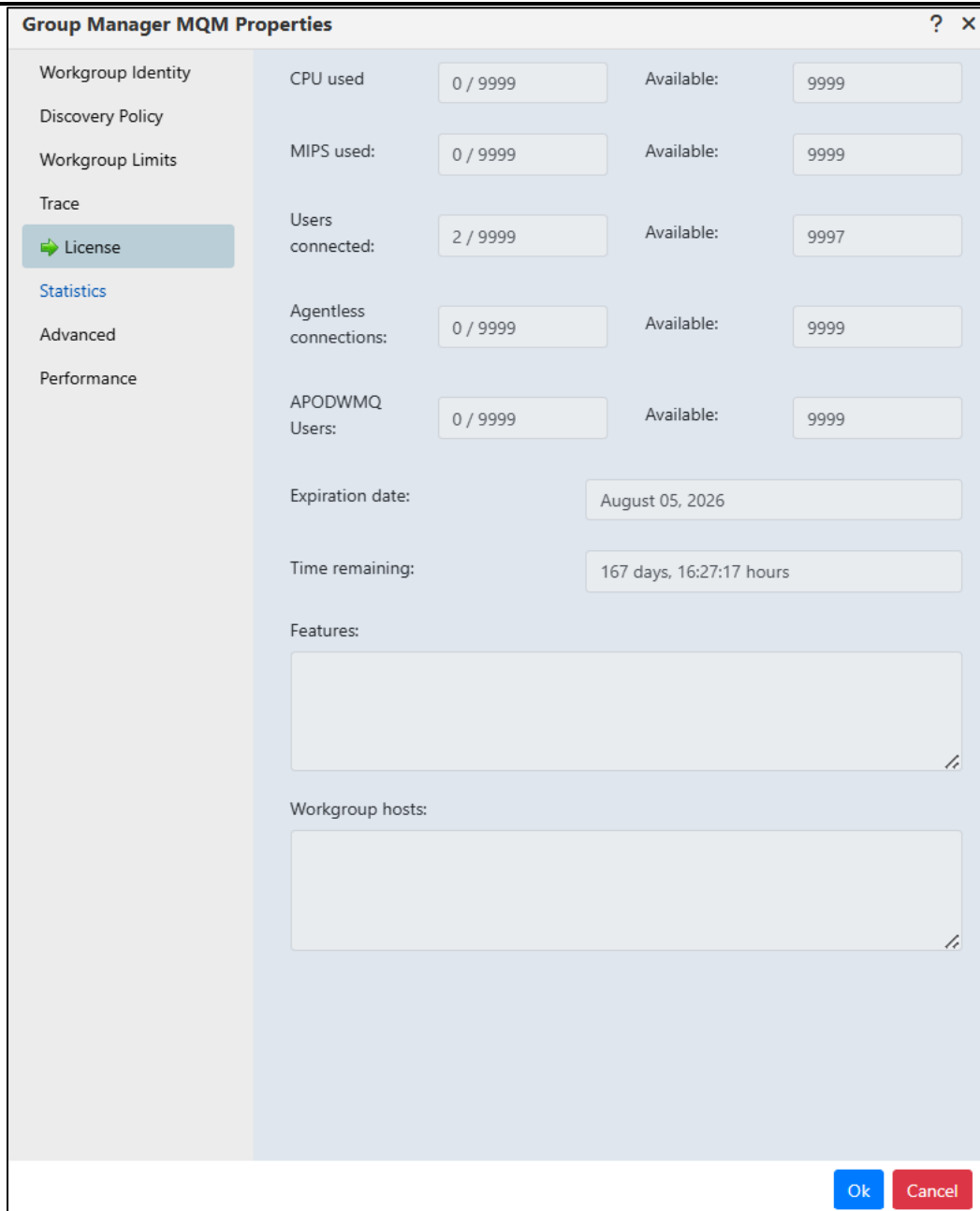


Figure 4.2.2.1.1-E. Workgroup server Properties – License Tab

Group Manager MQM Properties
? ×

<ul style="list-style-type: none"> Workgroup Identity Discovery Policy Workgroup Limits Trace License <li style="background-color: #e0f2f1; padding: 2px;">➔ Statistics Advanced Performance 	<div style="display: flex; justify-content: space-between;"> <div> <p>State: <input type="text" value="Active"/></p> <p>Process id: <input type="text" value="1"/></p> <p>Authorization: <input type="text" value="Enabled"/></p> <p>Start time: <input type="text" value="01/13/2026 10:27:50 AM"/></p> <p>Alteration: <input type="text"/></p> <p>Last event time: <input type="text" value="04/10/1970 11:23:08 PM"/></p> <p>Time since last update: <input type="text" value="35 days, 21:04:53 hours"/></p> <p>Time left until next discovery: <input type="text" value="00:00:30 hours"/></p> <p>Last action: <input type="text" value="0"/></p> <p>Database server info: <input type="text" value="DBMS: PostgreSQL; VER: 15.15 (Debian 15.15-1.pgdg13+1); DRVR: PostgreSQL; JDBC Driver: VER: 42.7.3"/></p> <p>System information: <input type="text" value="Linux Version: 5.15.0-311.185.9.el8uek.x86_64, Architecture: amd64, Virt.machine: OpenJDK 64-Bit Server VM v.11 11.0.25+9-LTS"/></p> </div> <div> <p>Client connections: <input type="text" value="2"/></p> <p>Agent connections: <input type="text" value="7"/></p> <p>Max. supported connections: <input type="text" value="32767"/></p> </div> </div>
--	---

Figure 4.2.2.1.1-F. Workgroup server Properties – Statistics Tab

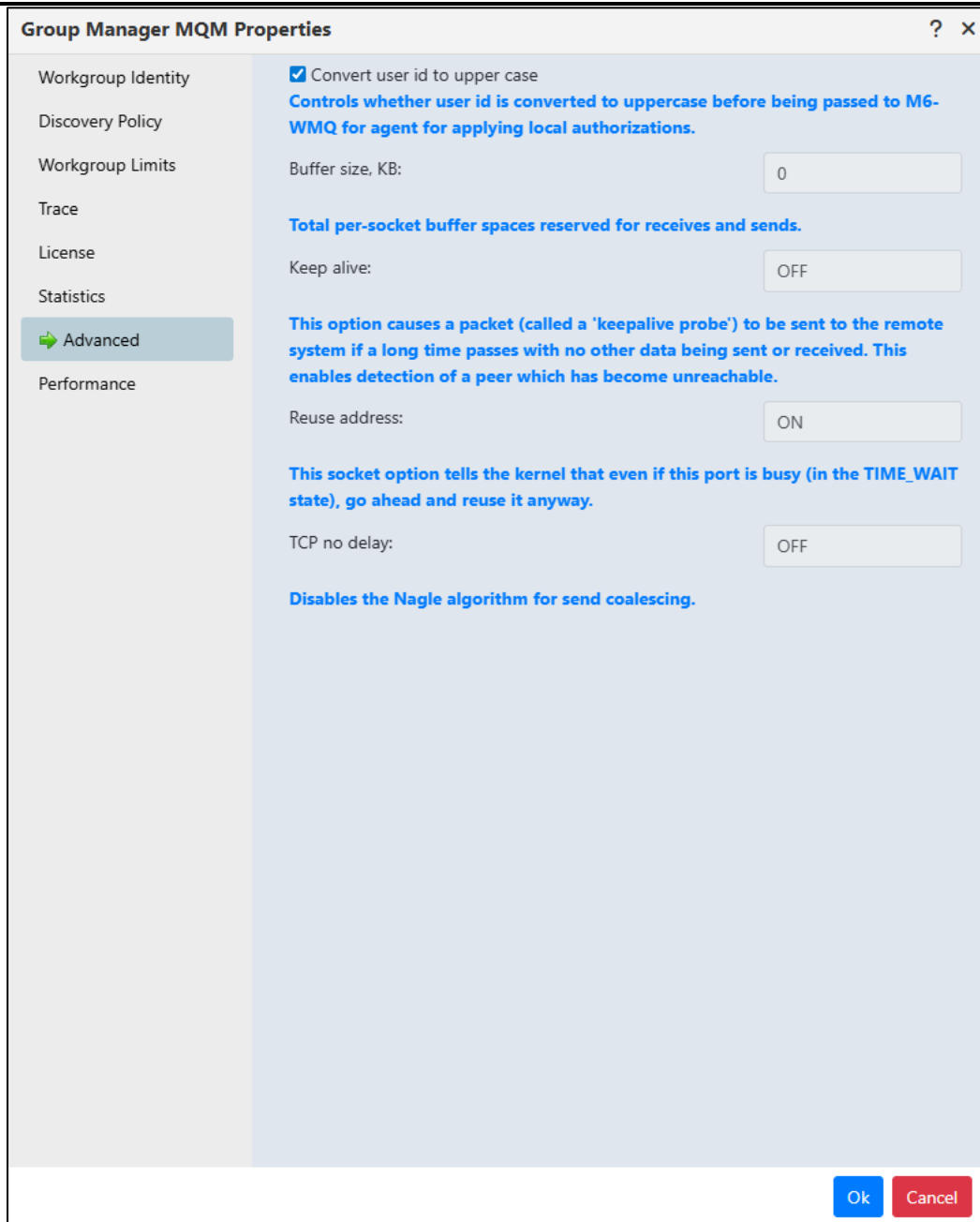


Figure 4.2.2.1.1-G. Workgroup server Properties – Advanced Tab

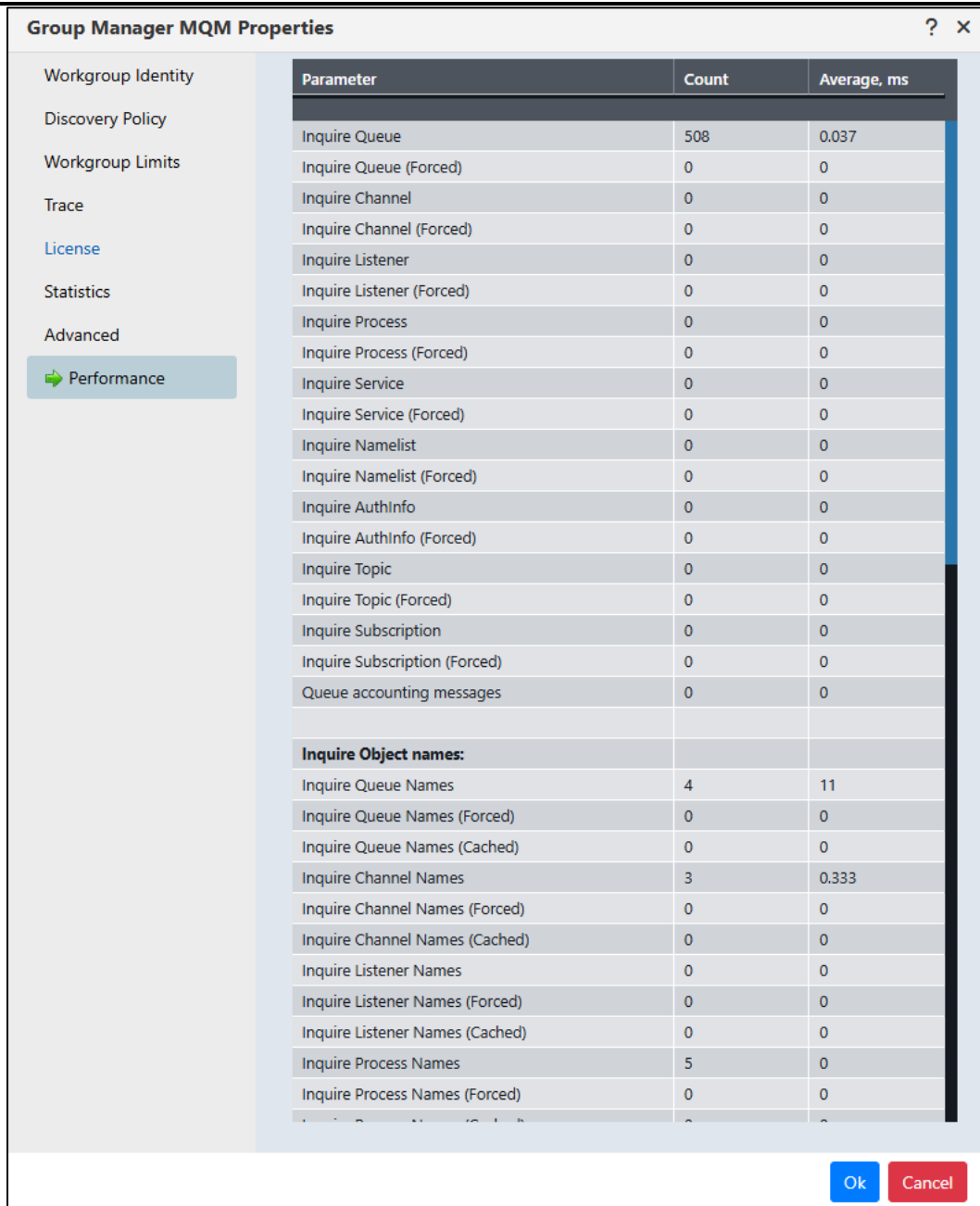


Figure 4.2.2.1.1-H. Workgroup server Properties – Performance Tab

Table 4.2.2.1.1-A. Workgroup Server Properties Window Attributes	
Field	Description
Workgroup Identity Tab	Figure 4.2.2.1.1-A
Name	Specifies the name of the Workgroup Server instance.
Host name	Specifies the server host name where WGS runs.
IP port	Specifies the port used by the Workgroup Server.
OS platform	Displays the operating system platform.

Table 4.2.2.1.1-A. Workgroup Server Properties Window Attributes

Workgroup version	Displays the installed WGS version.
Alias	Optional alias name for the Workgroup Server.
Description	Optional description of the Workgroup Server instance.
Workgroup Identity Tab	Figure 4.2.2.1.1-B
IP network address	Specifies the network address used for discovery (default: 0.0.0.0).
M6-WMQ agent port	Specifies the port used for agent communication (default: 5010).
Discovery time (min.)	Specifies the delay (in minutes) before the Workgroup Server starts auto-discovery of agent/CM nodes. Only non-negative values are allowed. A value of 0 disables auto-discovery. Default: 1440 minutes .
Refresh interval (sec.)	Specifies how often WGS refreshes object data. Default: 60 seconds .
Include authority records	Includes authority records during discovery when selected.
Full discovery on connect	Performs a complete discovery when an agent connects. Default: ON .
Workgroup Limits Tab	Figure 4.2.2.1.1-C
Event log size	Specifies the maximum size of the event log.
Accounting log size	Specifies the maximum size of the accounting log.
Statistics log size	Specifies the maximum size of the statistics log.
Audit log size	Specifies the maximum size of the audit log.
Client pending command limit	Specifies the maximum number of pending client commands allowed.
Max. number of clients	Specifies the maximum number of supported client connections (requires restart).
Max. number of nodes	Specifies the maximum number of managed nodes (requires restart).
Max. number of QMgr/node	Specifies the maximum queue managers allowed per node (requires restart).
Message browse limit	Specifies the maximum number of messages that can be browsed.
Trace Tab	Figure 4.2.2.1.1-D
Enable PCF trace (-t)	Enables PCF command tracing.
Communication trace (-tc)	Enables communication-level tracing.
Authorization trace (-tu)	Enables authorization tracing.
Login Authentication trace (-ta)	Enables login authentication tracing.
Licensing trace (-tl)	Enables license-related tracing.
Connection trace (-tn)	Enables connection tracing.
Database trace (-ts)	Enables database interaction tracing.
Generate trace events	Generates trace events for analysis.

Table 4.2.2.1.1-A. Workgroup Server Properties Window Attributes

License Tab	Figure 4.2.2.1.1-E The fields in this tab are read-only and cannot be modified in the UI.
CPU used / Available	Displays licensed CPU usage.
MIPS used / Available	Displays licensed MIPS usage.
Users connected / Available	Displays active and available user licenses.
Agentless connections	Displays usage of agentless connections.
APODWMQ Users	Displays APODWMQ user usage.
Expiration date	Displays license expiration date.
Time remaining	Displays remaining license duration.
Features	Lists enabled license features.
Workgroup hosts	Lists licensed Workgroup hosts.
Statistics Tab	Figure 4.2.2.1.1-F The fields in this tab are read-only and cannot be modified in the UI.
State	Displays WGS state (Active/Inactive).
Process id	Displays the WGS process ID.
Authorization	Indicates whether authorization is enabled.
Start Time	Displays the WGS start time.
Client connections	Displays the number of client connections.
Agent connections	Displays the number of agent connections.
Max. supported connections	Displays maximum supported connections.
Last event time	Displays timestamp of the last recorded event.
Time since last update	Displays time since last update.
Time left until next discovery	Displays countdown until next discovery cycle.
Last action	Displays the last executed administrative action.
Database server info	Displays database type and driver version.
System information	Displays OS and JVM information.
Advanced	Figure 4.2.2.1.1-G The fields in this tab are read-only and cannot be modified in the UI.
Keep alive	Sends periodic keepalive probes to detect unreachable peers.
Reuse address	Allows socket reuse when the port is in TIME_WAIT state.
TCP no delay	Disables Nagle algorithm for improved send performance.
Buffer size (KB)	Specifies per-socket buffer space.

4.2.2.1.2 Create a Node

To create a node, either:

- Select **Create > Node...** from the workgroup server's **Selected** menu within the *Workgroup servers* viewlet (see Figure [4.2.2.1-A](#)).

-or-

- Click the green **Add** button within a *Nodes* viewlet (see [Create Objects](#)).


A window similar to the following opens.

Figure 4.2.2.1.2-A. Node Properties – Identity Tab

Specify all node properties on this screen. Enable the **Use DNS** option to automatically populate the **IP Address** field when the **Host Name** is specified.

Switch the **Node Type** to create the desired type of node. Available types are **M6-WMQ Agent-managed MQ Node**, **EMS Agent-managed Node**, **Kafka Agent-managed Node**, **ACE/IIB Agent-managed Node**, **RabbitMQ Agent-managed Node**, and **Solace Agent-managed Node**.

Click **Ok** to create the node.



NOTE When creating a node, you're actually adding a new node reference. Only existing nodes can be added to your workgroup server. An identical node can be added with a different name (the Host Name and IP address would be the same). In this case, all actions performed within one of the nodes would also be applied to the identical node as well.

Table 4.2.2.1.2-A. Node Properties Window Attributes	
Field	Description
Identity Tab	Figure 4.2.2.1.2-A
Name	Name of the node, as defined in meshIQ Manage

Table 4.2.2.1.2-A. Node Properties Window Attributes

Field	Description
Host Name	The network name for the physical workstation on which the agent is installed
Use DNS	Select this checkbox if you want to use Domain Naming Service instead of WebSphere MQ node's IP address.
IP Address	WebSphere MQ node's IP address
Listening Port	Agent listening port number for this IP address
Platform	Operating system platform of the node (for example, Java, Unix, Linux, or Windows)
Description	Optional field to describe the node/agent
Node Type	The default Node Type is M6-WMQ Agent-managed MQ Node . Other Node Types are EMS Agent-managed Node, Kafka Agent-managed Node, and ACE/IIB Agent-managed Node.
Communication Policy	Figure 4.2.2.1.1-B
Heartbeat, min.	Heartbeat interval, in minutes, of the WMQ Agent. Default: 1 minute.
Update interval, sec.	Amount of time, in seconds, before the workgroup server updates information about the node's WebSphere MQ objects, such as queue managers, queues, and channels. Default: 30 seconds.
Request timeout, sec.	Command timeout period, in seconds. Sets amount of time workgroup server waits for a response from the WMQ Agent running on the node. Default: 60 seconds.
Command limit	Specifies the number of commands that can be issued by the workgroup server to the WMQ Agent without acknowledgement from the agent. A value of zero indicates that there is no command limit. Default: 5000 commands.
Send registration to GM period, sec.	Retry interval at which an agent should periodically send a registration request to the WGS. This is equivalent to an "I'm alive" message. Default: 0
DNS name to create fully qualified host name	Domain name, to be used to create a fully qualified host name (one that specifies all domain levels)
Discovery tab	Figure 4.2.2.1.1-C
Queue managers or Managers	Specifies which queue managers (for MQ, ACE/IIB) or EMS managers are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*). Example: LONDON*

Table 4.2.2.1.2-A. Node Properties Window Attributes

Field	Description
Model queues	Applies to MQ and ACE/IIB nodes. Specifies which model queues are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Namelists	Applies to MQ and ACE/IIB nodes. Specifies which namelists are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Local queues	Applies to MQ, ACE/IIB, EMS nodes. Specifies which local queues are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Remote queues	Applies to MQ and ACE/IIB nodes. Specifies which remote queues are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Authentication information	Applies to MQ and ACE/IIB nodes. Specifies which authentication information is to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Alias queues	Applies to MQ and ACE/IIB nodes. Specifies which alias queues are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Client connections	Applies to MQ and ACE/IIB nodes. Specifies which client connections are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Services	Applies to MQ and ACE/IIB nodes. Specifies which services are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Channels	Applies to MQ, ACE/IIB, EMS nodes. Specifies which channels are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Cluster queue managers	Applies to MQ and ACE/IIB nodes.

Table 4.2.2.1.2-A. Node Properties Window Attributes

Field	Description
	Specifies which cluster queue managers are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Clusters	Applies to Kafka nodes. Specifies which clusters are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Subscriptions	Applies to MQ and ACE/IIB nodes. Specifies which subscriptions are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Processes	Applies to MQ and ACE/IIB nodes. Specifies which processes are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Listeners	Applies to MQ and ACE/IIB nodes. Specifies which listeners are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Topics	Applies to MQ, ACE/IIB, EMS, Kafka nodes. Specifies which topics are to be automatically discovered by the workgroup server. This field accepts simple wildcards, meaning that characters can be followed by an asterisk (*).
Discovery period, min.	Time interval, in minutes, at which the WMQ Agent discovers MQ objects and reports any changes to the workgroup server. Default: 720 minutes.
Enable special name list discovery (-N)	Applies to z/OS. Use when there is a very large number of queues, channels, or any object type. Overcomes a z/OS command server limitation in creating MQCMD_INQUIRE_objectType_NAMES replies greater than 64KB. Default: Disabled
Force full discovery for initial discovery (-f)	When agent starts, force a discovery of all objects, versus only those that were altered since the last discovery time. Default: OFF
Statistics	Figure 4.2.2.1.1-D
Node Type	Node Type from the Identity tab
Software version	meshIQ MQ, EMS, Kafka, or ACE/IIB software version

Table 4.2.2.1.2-A. Node Properties Window Attributes

Field	Description
Status	Active or Unknown
System information	Operating system and version (for example, Microsoft Windows 7, 64-bit, Version 6.1.7601 Service Pack 1).
CPU Count	Number of licensed CPUs.
Authorization	Check if the User ID is authorized to execute the various possible object commands (for example, delete queue, alter manager) for the node type MQ, EMS, Kafka, IIB/ACE, Solace, or RabbitMQ. Default: Disabled.
Event counter	Number of workgroup events that the workgroup server has generated.
Last action	The last command applied to this node. Example: EXCMD_UNMANAGE_MQNODE
Last event time	The most recent time that an event was recorded for this node
Last updated	The most recent time that the view for this node was refreshed
Time since last update	The most recent time that the node was active
Advanced	Figure 4.2.2.1.1-E
Convert user id to upper case	Controls whether the user ID is converted to uppercase before being passed to M6-WMQ agent for checking authorizations
Buffer size, KB	Total per-socket buffer spaces reserved for receives and sends
Reuse address	If this socket option is ON, the kernel will reuse the port even if the port is busy (in the TIME_WAIT state)
TCP no delay	Disables the Nagle algorithm for send coalescing
Number of TCP/IP bind retries	Maximum number of attempts to retry binding the socket to the IP address
TCP buffering queue limit	Maximum number of items permitted in the TCP buffering queue
Max. wait time for socket r/w event, msec	Maximum number of milliseconds to wait for the socket read/write event

The screenshot shows a dialog box titled "Node Properties" with a help icon and a close icon in the top right corner. On the left side, there is a vertical navigation menu with the following items: "Identity", "Communication Policy" (which is highlighted with a blue background and a green arrow icon), "Discovery Policy", "Statistics", "Trace", and "Advanced". The main area of the dialog is light blue and contains several configuration fields:

- "Heartbeat, min.:" with a text input field containing the value "1".
- "Update interval, sec.:" with a text input field containing the value "30".
- "Request timeout, sec.:" with a text input field containing the value "60".
- "Command limit:" with a text input field containing the value "5000".
- "Send registration to GM period, sec.:" with a text input field containing the value "0".
- "DNS name to create fully qualified host name:" with an empty text input field.

At the bottom right of the dialog, there are two buttons: a blue "Ok" button and a red "Cancel" button.

Figure 4.2.2.1.2-B. Node Properties – Communication Policy Tab

Node Properties ? x

Identity

Communication Policy

Discovery Policy

Statistics

Trace

Advanced

Queue managers: *

Modal queues: *

Namelists: *

Local queues: *

Remote queues: *

Authentication information: *

Alias queues: *

Client connections: *

Services: *

Channels: *

Cluster queue managers: *

Subscriptions: *

Processes: *

Listeners: *

Topics: *

Discovery period, min.: 720

Enable special name list discovery (-N): ON

Force full discovery for initial discovery (-f): OFF

Ok Cancel

Figure 4.2.2.1.2-C. Node Properties – Discovery Policy Tab

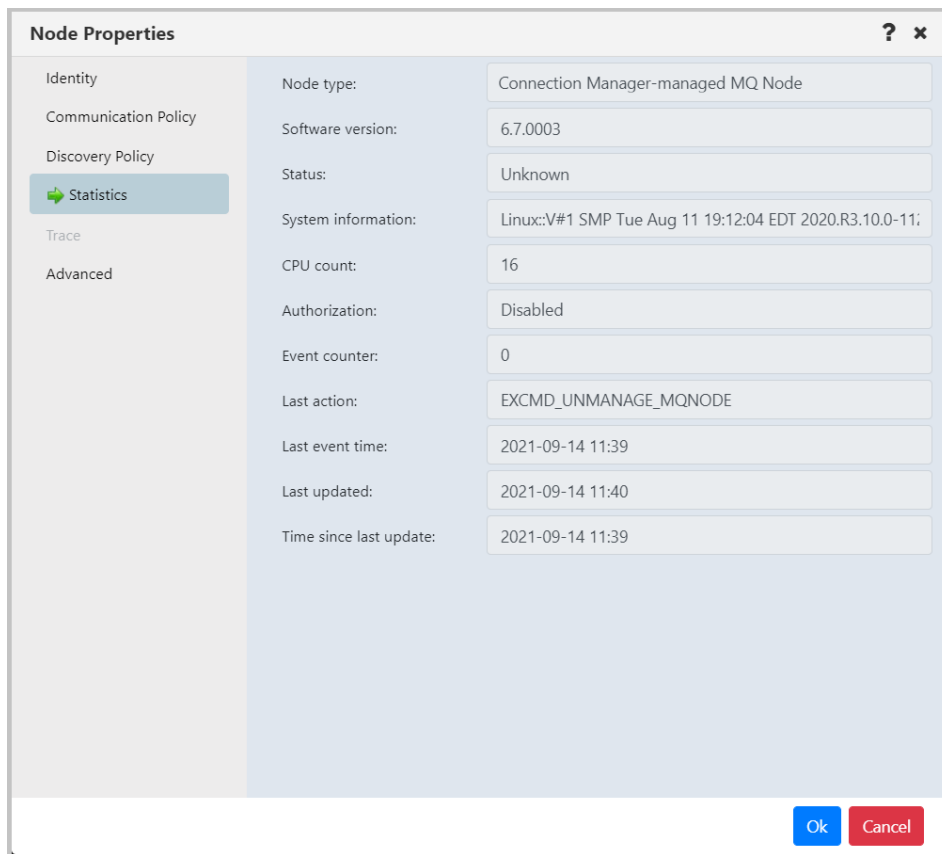


Figure 4.2.2.1.2-D. Node Properties – Statistics Tab

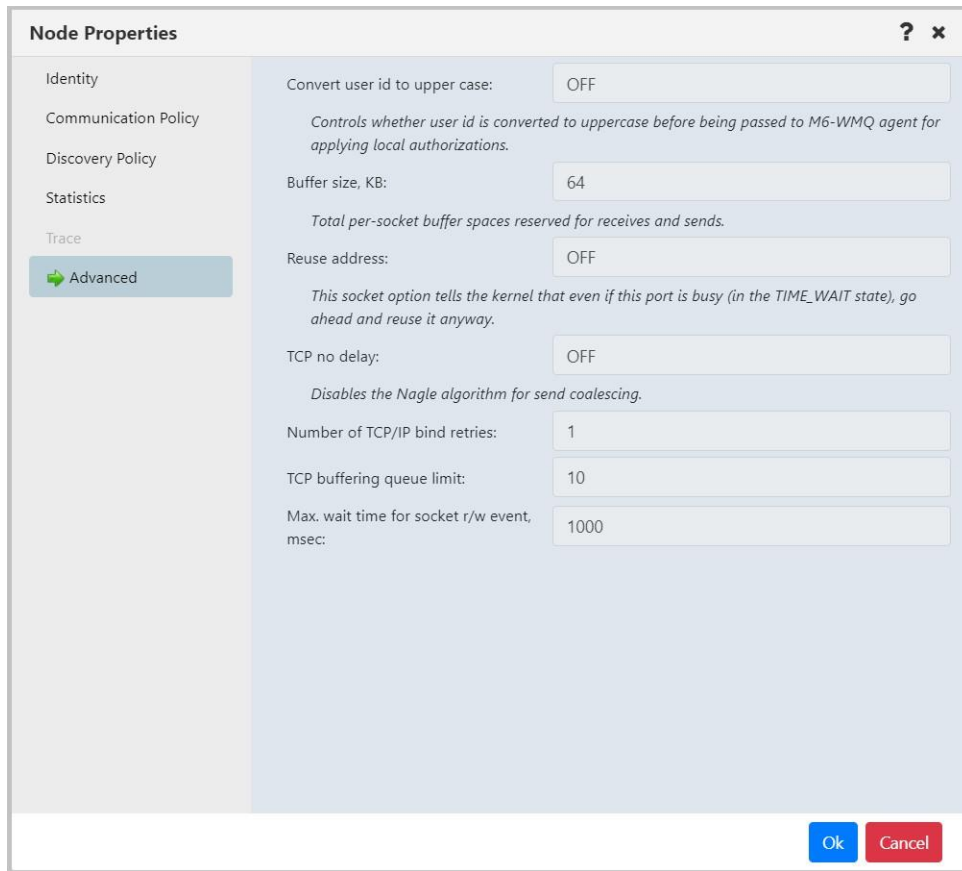


Figure 4.2.2.1.2-E. Node Properties – Advanced Tab

4.2.2.1.3 Create Remote Queue Managers

When **Create > Remote Queue Managers** is selected from the workgroup server's Selected menu ([Figure 4.2.2.1-A](#)), the *Remote Queue Manager Connections* window opens.

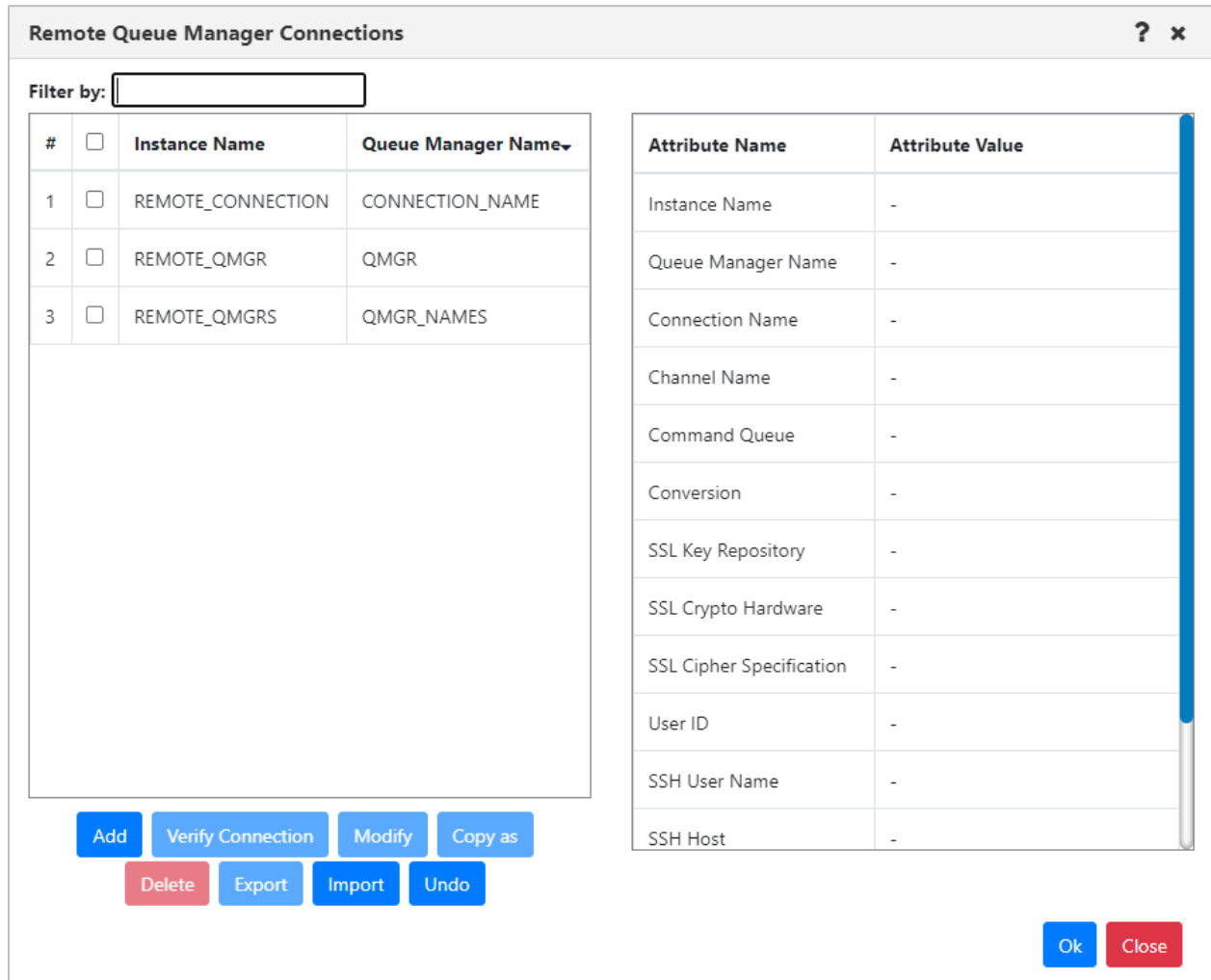


Figure 4.2.2.1.3-A. Remote Queue Manager Connections

Click the **Add** button to add a new remote queue manager connection. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#).

To update or delete existing remote queue managers, select them, and click either the **Modify** or **Delete** button. To learn how to import and export remote manager definitions, see [Importing and Exporting Remote Managers](#).



The **Undo** button may be available in the remote manager connections window immediately after you add, modify, copy, delete, or import a connection. Only the most recent action can be undone.

Hover over a remote queue manager to view its attributes on the right side of the window. The columns of the remote queue manager table on the left side of the window can be sorted alphabetically by simply clicking the column headers.

Table 4.2.2.1.3-A. Remote Queue Manager Connections Window Attributes

Field	Description
General Tab	Figure 4.2.2.1.3-B
Connection Manager Instance name	Enter the instance name. REMOTE_QMGRS is the default.
Queue Manager name	Enter the name of the queue manager to which your new remote queue manager will be linked. QMGR_NAME is the default.
Project name	Input disabled.
User ID	Specify a user identifier/name to connect to the queue manager using security parameters (available in WMQ v.8.0 and later) or leave it empty if user authentication is not required. User IDs may be case-sensitive, especially on z/OS. Check with your security/RACF administrator to be sure.
Password	Enter the user's password. Passwords may be case-sensitive, especially on z/OS. Check with your security/RACF administrator to be sure.
Communication tab	Figure 4.2.2.1.3-C
Connection name	<p>Enter the IP address(es) or host name(s) and IP port (in parentheses) as shown below to specify a name for the new connection.</p> <p>The Connection name supports multiple comma-separated URLs. If the connection between the connection manager and the remote connection is lost, the connection manager will automatically attempt to reconnect using the primary (first) followed by the subsequent URLs if multiple servers are added.</p> <p>Example:</p> <p>server1(1414)</p> <p>or, for replicated data queue managers:</p> <p>server1(1414),server2(1414),server3(1414)</p>
Command queue name	Select the name for the command queue from the drop-down menu. SYSTEM.ADMIN.COMMAND.QUEUE is the default.
Channel name	Enter the name of the server-connection (svrconn) channel to be used for connecting to the remote queue manager. SYSTEM.DEF.SVRCONN is the default.
Security Exit Name	Specifies the descriptive name of the channel security exit; this is a parameter of the MQCD channel definition structure which controls channel execution. It is passed to a channel that is called from a Message Channel Agent (MCA).
Security Exit Data	Specifies the Exit user area. It is specific to the expected data by channel security exit. This is a field that is available for the exit to use.
Command conversion (zOS systems)	Select if this is a connection to a z/OS queue manager, earlier than version 8.

Table 4.2.2.1.3-A. Remote Queue Manager Connections Window Attributes	
Field	Description
SSL tab	Figure 4.2.2.1.3-D
Key repository	Specify the key repository.
SSL certificate key	Specify the SSL certificate key.
SSL Key Store Password	Enter the password for your certificate.
Cipher specification	Select the cipher specification from the drop-down menu.
Cryptographic hardware	The applied encryption hardware is noted in the Cryptographic hardware field. Click the Settings button to specify cryptographic hardware settings (Figure 4.2.2.1.2-F).
SSH tab	Figure 4.2.2.1.3-F
User Name	Specify the User name
Password	Enter the password for your server
Host	Enter the Host name of the server
IP Address	Enter the IP address of the server
Port	Enter the TCP Port to connect

Add Queue Manager Connection ? x

General

Communication

SSL

SSH

Connection Manager Instance name:

Queue Manager name:

Project name:

Specify a user name and password to connect to the queue manager using security parameters (available in WMQ v.8.0 and later) or leave it empty if authentication is not required:

User ID:

Password:

Ok Schedule Cancel

Figure 4.2.2.1.3-B. Remote Queue Manager Connections – General Tab

Figure 4.2.2.1.3-C. Remote Queue Manager Connections – Communication Tab On the SSL

Figure 4.2.2.1.3-D. Remote Queue Manager Connections – SSL Tab

The following window displays after the **Settings** button is clicked. Make your selections and click **Ok**.

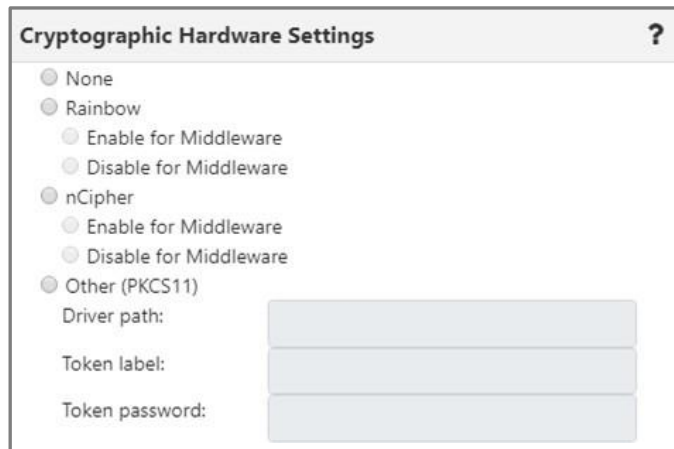


Figure 4.2.2.1.3-E. Remote Queue Manager Connections – Settings

On the SSH tab window, populate the fields as noted in [Table 4.2.2.1.2-A](#). Click **Ok** to save all changes.

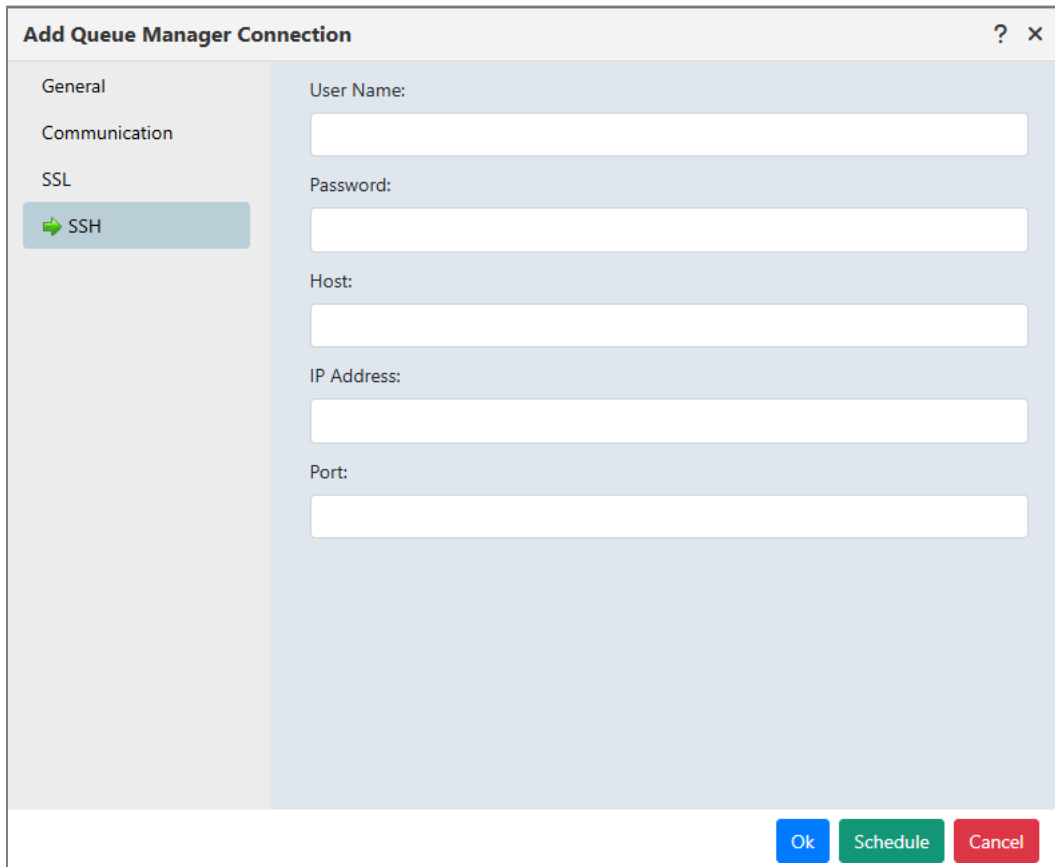


Figure 4.2.2.1.3-F Remote Queue Manager Connection-SSH Tab

4.2.2.1.4 Create Remote EMS Manager

To create a remote EMS manager connection, select a workgroup server from the Workgroup Server viewlet. From the Selected menu, select **Create > Remote EMS Managers**. The *Remote EMS Connections* window opens.

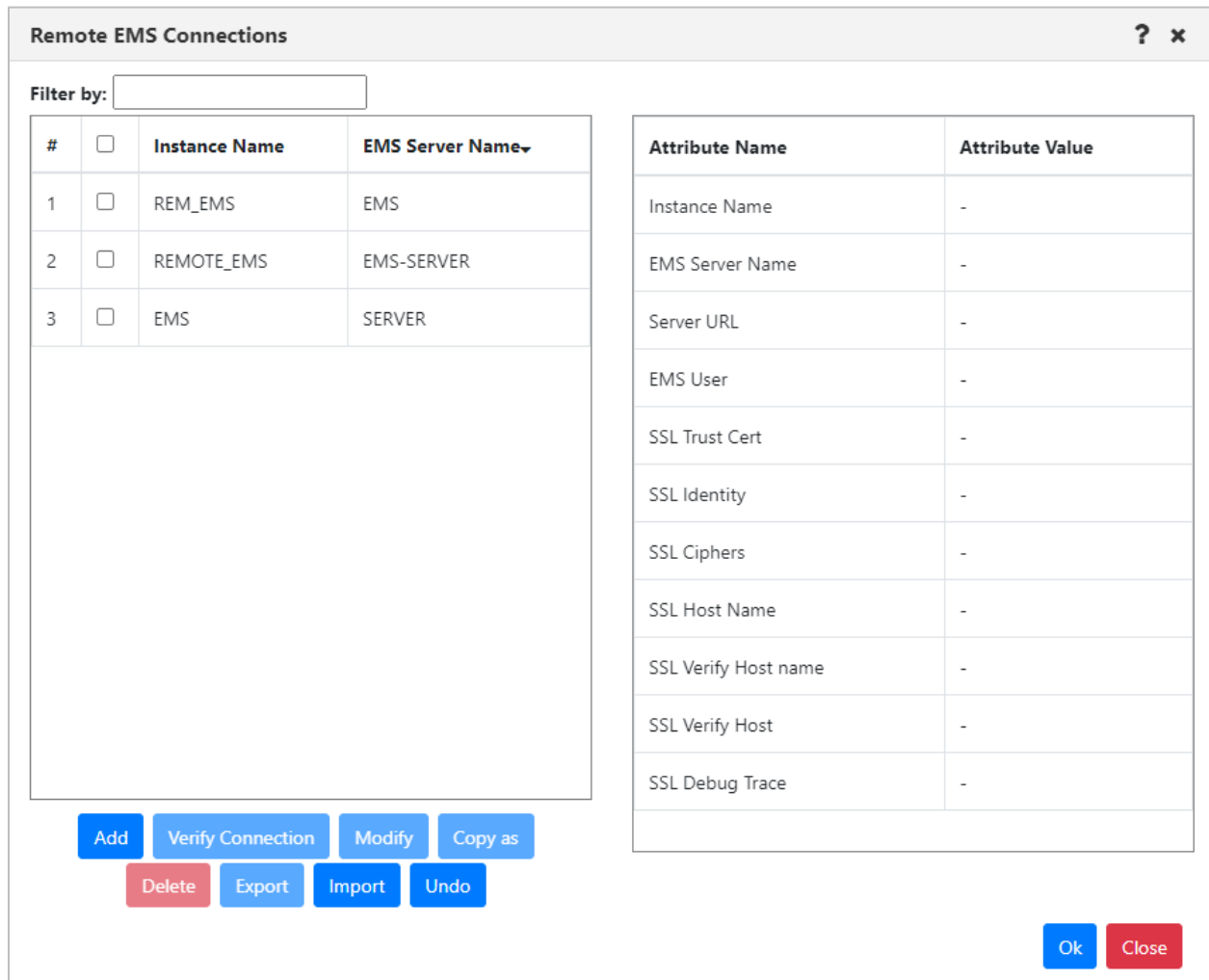


Figure 4.2.2.1.4-A. Remote EMS Connections Window

Click the **Add** button to create the new connection. The *Add EMS Manager Connection* window opens. See the table below for an explanation of this window's settings. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#).

To update an existing remote EMS queue manager, select the connection and click **Modify** (opens the same window as the **Add** button). To delete a connection, select it and click **Delete**. To learn how to import and export remote manager definitions, see [Importing and Exporting Remote Managers](#).



NOTE

The **Undo** button may be available in the remote manager connections window immediately after you add, modify, copy, delete, or import a connection. Only the most recent action can be undone.

Table 4.2.2.1.4-A. Add (Change) EMS Manager Connections Window Properties

Field	Description
General Tab	Figure 4.2.1.1.4-B
EMS Agent Instance Name (Node)	Enter the name of the EMS agent node the manager will connect to. REMOTE_EMS is the default.
EMS Server Name	Enter the EMS server name which will be displayed in an EMS manager viewlet. EMS-SERVER is the default.
EMS Server URL	Specify the EMS server URL. This is required. The URL field supports multiple comma-separated URLs. If the connection between the connection manager and the remote connection is lost, the connection manager will automatically attempt to reconnect using the primary (first) followed by the subsequent URLs if multiple servers are added. The structure of the EMS server URL is: <protocol>://<IP address>:<port>, i.e., tcp://172.16.6.48:7222
User ID	Specify the username to connect to the TIBCO EMS instance.
Password	Password is optional.
SSL tab	Figure 4.2.1.1.4-C
Trusted Certificate	Specify the full path and file name of the trusted certificate(s). Passed to tibemsadmin as: <code>-ssl_trusted filename</code>
Client Identity	Specify the full path and file name of the file containing the client certificate, extra issuer certificates (optional) and the private key. Passed to tibemsadmin as: <code>-ssl_identity filename</code>
Issuer	Specify the full path and file name of the file containing extra issuer certificate(s) for client-side identity. Passed to tibemsadmin as: <code>-ssl_issuer filename</code>
Password (PKCS12 password)	Enter the private key or PKCS#12 password if required. Passed to tibemsadmin as: <code>-ssl_password password</code>
Key repository	This is the SSL private key. Use the following to pass it to the EMS Administration Tool (tibemsadmin): <code>-ssl_key filename</code>
Cipher specification	Select a cipher specification from the drop-down menu. Select Custom to enable the Custom Cipher name field and enter a custom cipher name.

Table 4.2.2.1.4-A. Add (Change) EMS Manager Connections Window Properties


Field	Description
Vendor	Specify the full path and file name of the file containing extra issuer certificate(s) for client-side identity. Passed to tibemsadmin as: -ssl_issuer filename
Host name	Enter the name expected in the server certificate sent by the host. Passed to tibemsadmin as: -ssl_hostname name
SSL Options	Figure 4.2.1.1.4-D
Verify Host Name	Enables/disables whether EMS will verify the SSL hostname when connecting. Passed to tibemsadmin as: -ssl_noverifyhostname
Verify Host	Used when connecting to EMS.
SSL Trace	Show loaded certificates and certificates sent by the host. Passed to tibemsadmin as: -ssl_trace
SSL Debug Trace	Show additional tracing, which is useful for debugging. Passed to tibemsadmin as: -ssl_debug_trace.

Add EMS Manager Connection ? x

General
SSL
SSL Options

EMS Agent Instance Name (Node):
REMOTE_EMS

EMS Server Name:
EMS-SERVER

EMS Server URL:
 
Field is required

Specify a user name and password to connect to the EMS Server:

User ID:

Password:

Ok Schedule Cancel

Figure 4.2.2.1.4-B. Add EMS Manager Connection Window – General Tab

Add EMS Manager Connection ? x

General

SSL

SSL Options

Trusted Certificate (full path and filename):

Client Identity (full path and filename):

Issuer (full path and filename):

Password (PKCS12 password):

Key repository:

Cipher specification

NONE

Custom Cipher name:

Vendor:

Host name (Name expected in server certificate):

Ok Schedule Cancel

Figure 4.2.2.1.4-C. Add EMS Manager Connection Window – SSL Tab

Add EMS Manager Connection ? x

General

SSL

SSL Options

Verify Host Name
 Verify Host
 SSL Trace
 SSL Debug Trace

Figure 4.2.2.1.4-D. Add EMS Manager Connection Window – SSL Options Tab

4.2.2.1.5 Create Remote Kafka Manager

You have the option of creating a new remote Kafka manager by importing its properties. See [Import Remote Kafka Manager Properties for New Connections](#) for more information.

To create a remote Kafka manager connection, select a workgroup server from the Workgroup Server viewlet. From the Selected menu, select **Create > Remote Kafka Managers**.

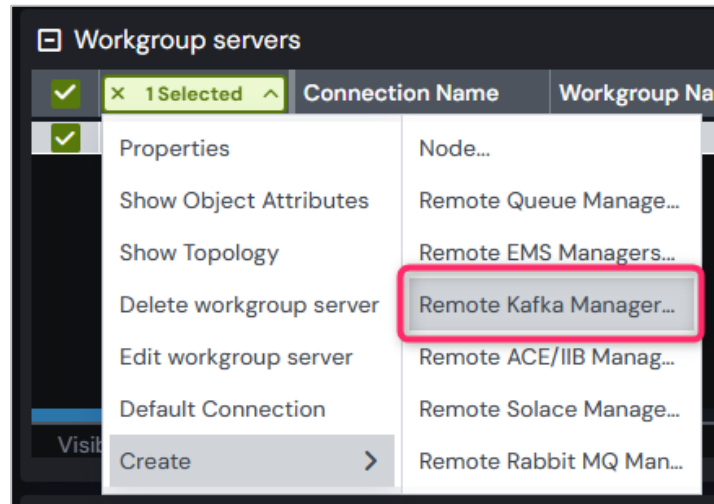


Figure 4.2.2.1.5-A. Add Remote Kafka Managers Option

The *Remote Kafka Manager Connections* window opens, where you can add a new Kafka connection manager. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#). You can also edit and delete existing connections from this screen. To learn how to import and export remote manager definitions, see [Importing and Exporting Remote Managers](#).



NOTE

The **Undo** button may be available in the remote manager connections window immediately after you add, modify, copy, delete, or import a connection. Only the most recent action can be undone.

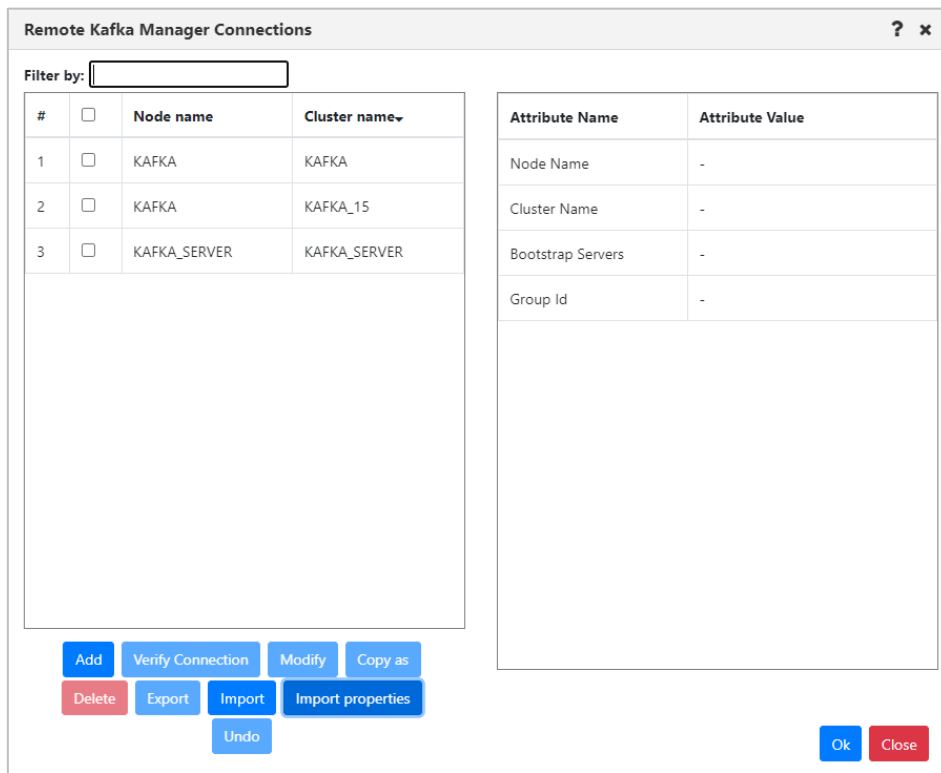


Figure 4.2.2.1.5-B. Remote Kafka Manager Connections Screen

Click **Add**. The *Add Kafka Manager Connection* window opens.

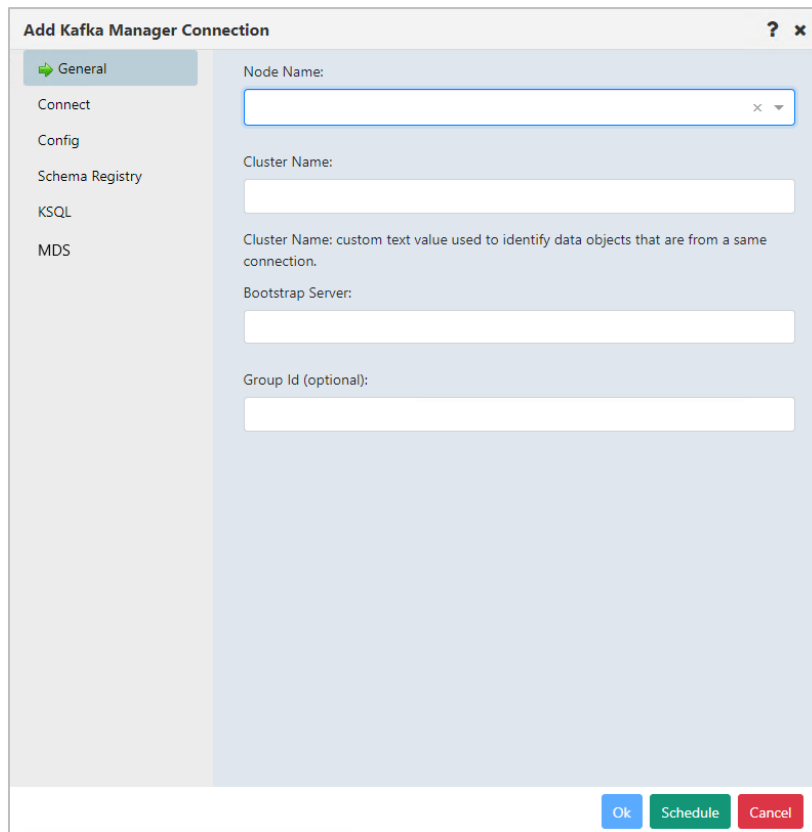


Figure 4.2.2.1.5-C. Add Kafka Manager Connection

Enter the configurations for the new Kafka connection manager. (See the following section for information about SSL connection configuration.)


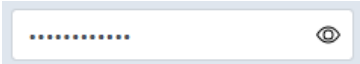
Click **Ok**.


SSL Connections



To establish an SSL connection to the Kafka bootstrap server, you can use the Kafka Manager Connection Config tab. On this tab, you can enter the same configuration parameters that you would in a Kafka client application properties file. (For information on configuring connections using the `nsqcmkafka.properties` file, refer to the Connection Manager for Kafka chapter in the *Components Installation Guide*.)

Due to the large number of possible Kafka configuration options, the configuration tab is provided to allow you to enter the specific parameters that are relevant to your environment.

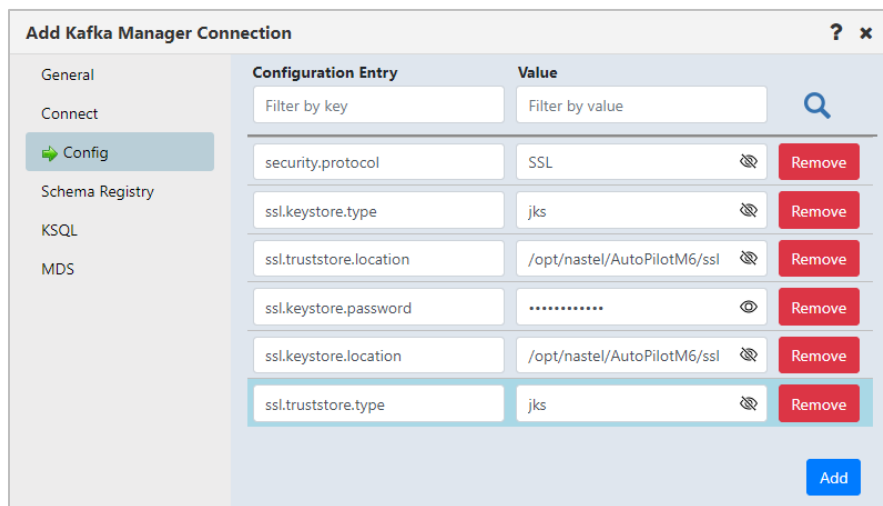
To configure parameters, enter each parameter name in the Configuration Entry field. Enter each parameter value in the Value field. Configuration value fields include icons for encrypting values and for showing unencrypted values. When the value is hidden, or masked, the value is treated as a password and is encrypted during transmission to Kafka, then decrypted so Kafka can read it.







- The encrypt icon  encrypts and masks the Configuration Value, as shown here: 

- The show unencrypted icon  shows the full value. See the important note below.

IMPORTANT!  After you use the encrypt icon  to encrypt a plain (unencrypted) value and save the connection, you will no longer be able to view the unencrypted value.

The configuration tab shown below is an example of parameters for setting up secure connections with SASL/SSL. These are only examples and do not reflect the actual parameters that would be needed in a specific customer environment.



Configuration Entry	Value	Icon	Action
security.protocol	SSL		Remove
ssl.keystore.type	jks		Remove
ssl.truststore.location	/opt/nastel/AutoPilotM6/ssl		Remove
ssl.keystore.password		Remove
ssl.keystore.location	/opt/nastel/AutoPilotM6/ssl		Remove
ssl.truststore.type	jks		Remove

Add

Figure 4.2.2.1.5-D. Remote Kafka Manager Connections Screen

Table 4.2.2.1.4-A shows the values from the example in text form.

Table 4.2.2.1.5-A. Example of SASL/SSL Connection Parameters	
Field	Description
security.protocol	SSL
ssl.keystore.type	jks
ssl.truststore.location	/opt/nastel/AutoPilotM6/ssl
ssl.keystore.password	
ssl.keystore.location	/opt/nastel/AutoPilotM6/ssl
ssl.truststore.type	jks

Confluent Platform Metadata Service (MDS) Setup

The MDS tab on the *Remote Manager Connection* dialog allows you to add multiple Kafka MDS nodes in one remote Kafka instance. See [Figure 4.2.2.1.5-E](#).

Click **Add** to add a new MDS node. See [Figure 4.2.2.1.5-F](#).

After an MDS node is set up, you can create an *MDS viewlet*. See [Kafka MDS Viewlets](#).

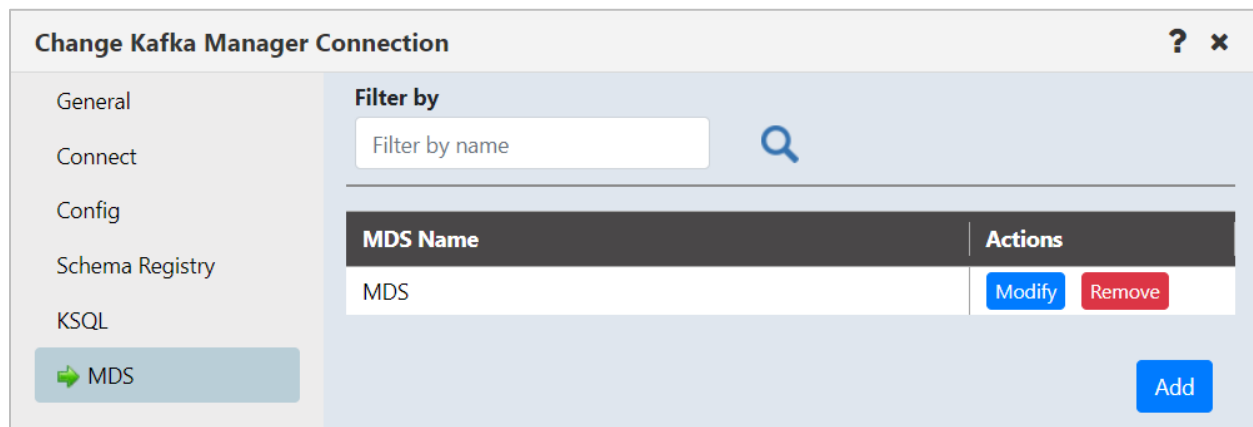


Figure 4.2.2.1.5-E. Metadata Service (MDS) Setup

Add Kafka MDS ? x

Name

URL

Security

Type None Basic Auth Bearer Token

Username

Password

HTTPS Configuration

Skip SSL validation

Key Store Path

Key Store Passphrase (optional)

Trust Store Path

Trust Store Passphrase (optional)

Figure 4.2.2.1.5-F. Add Kafka MDS

4.2.2.1.6 Create Remote ACE or IIB Manager

To create a remote ACE or IIB manager connection, select a workgroup server in the Workgroup Server viewlet. From the Selected menu, select **Create > Remote ACE/IIB Managers**.

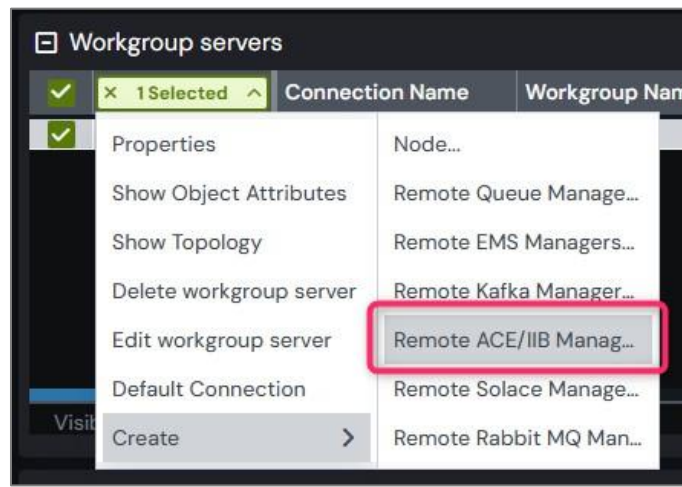


Figure 4.2.2.1.6-A. Create > Remote ACE/IIB Managers

The *Remote IIB/ACE Manager Connections* window opens where you can add a new IIB or ACE connection manager. You can also edit and delete existing connections from this screen. To learn how to import and export remote manager definitions, see [Importing and Exporting Remote Managers](#).



NOTE

The **Undo** button may be available in the remote manager connections window immediately after you add, modify, copy, delete, or import a connection. Only the most recent action can be undone.

Remote IIB/ACE Manager Connections
? x

Filter by:

#	<input type="checkbox"/>	Node Instance Name	Integration Node Alias
1	<input type="checkbox"/>	ACE_15	ACE
2	<input type="checkbox"/>	ACE_SERVER	ACE_SERVER
3	<input type="checkbox"/>	IIB_SERVER	IIB

Attribute Name	Attribute Value
Instance Name	-
Integration Node Alias	-
Type	-
Url	-
Username	-

Add
Verify Connection
Modify
Copy as

Delete
Export
Import
Undo

Ok Close

Figure 4.2.2.1.6-B. Remote IIB/ACE Manager Connections

Click the **Add** button. The *Add IIB/ACE Manager Connection* window opens. Enter the configurations for the new IIB or ACE connection manager on both the **General** and **SSL** tabs. Click **Ok** when finished. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#).

NOTE The URL field supports multiple comma-separated URLs. If the connection between the connection manager and the remote connection is lost, the connection manager will automatically attempt to reconnect using the primary (first) followed by the subsequent URLs if multiple servers are added.

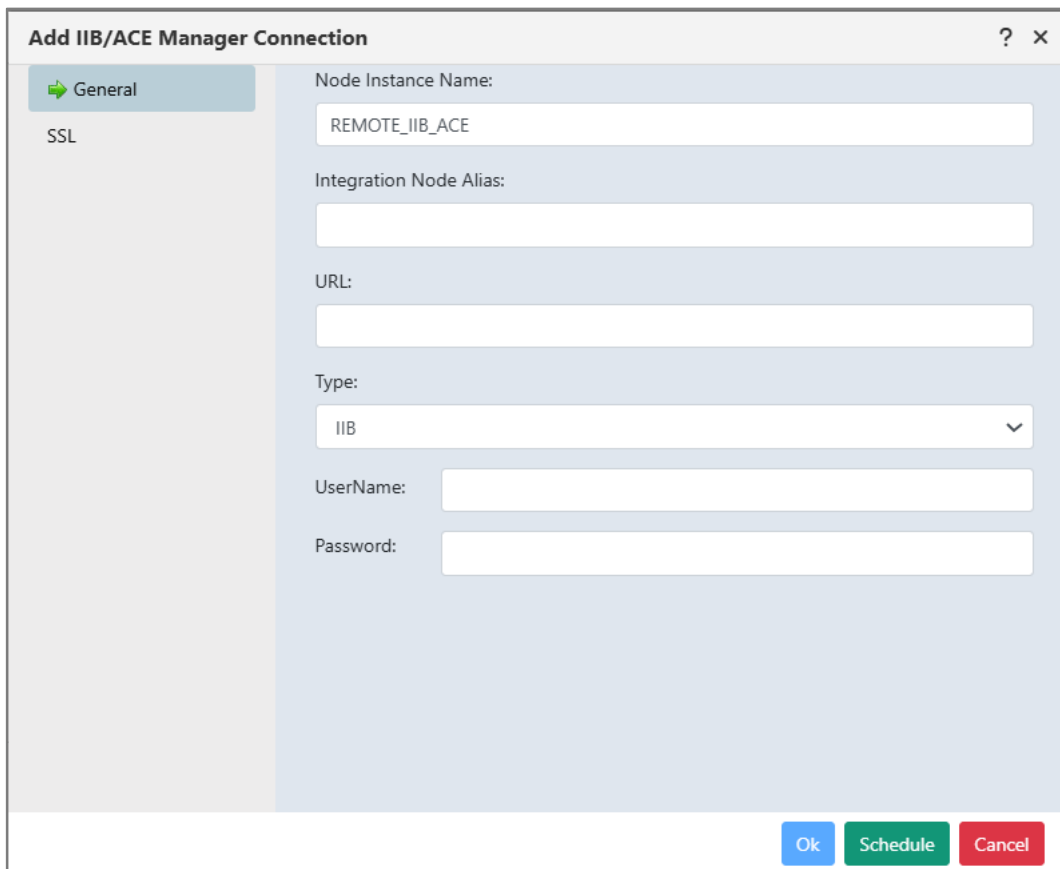


Figure 4.2.2.1.6-C. Add IIB/ACE Manager Connections

4.2.2.1.7 Create Remote Solace Manager

To create a remote Solace manager connection, select a workgroup server within the Workgroup Server viewlet. From the Selected menu, select **Create > Remote Solace Managers**.

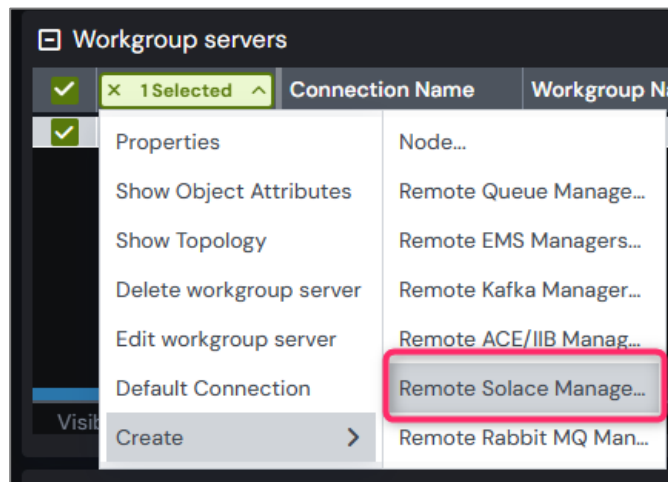


Figure 4.2.2.1.7-A. Add a Remote Solace Manager

The *Remote Solace Manager Connections* window opens.

Remote Solace Manager Connections
? x

Filter by:

#	<input type="checkbox"/>	Node Instance Name	Integration Node Alias
1	<input type="checkbox"/>	SOLACE	SOLACE
2	<input type="checkbox"/>	SOLACE_PC15	SOLACE_PC
3	<input type="checkbox"/>	SOLACE_SERVER	SOLACE_SERVER

Attribute Name	Attribute Value
Instance Name	-
Integration Node Alias	-
Url	-
Username	-

Add
Verify Connection
Modify
Copy as

Delete
Export
Import
Undo

Ok
Close

Figure 4.2.2.1.7-B Remote Solace Manager Connections

Click the **Add** button to create the new connection. The *Add Solace Manager Connection* window opens. Enter the configurations for the new Solace connection manager on the **General**, **Key**, and **JCSMP** tabs. For meshIQ Cloud users, in the **Trust Store Path** field on the **Key** tab, enter the path to the uploaded certificate file, as shown on the Certificates tab of your meshIQ Cloud subscription page. Click **Ok** when finished.

After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#). You can also modify or delete existing connections. To learn how to import and export remote manager definitions, see [Importing and Exporting Remote Managers](#).

The **Undo** button may be available in the remote manager connections window immediately after you add, modify, copy, delete, or import a connection. Only the most recent action can be undone.

Add Solace Manager Connection ? x

General
SSL
JCSMP

Node Instance Name:
REMOTE_SOLACE

Broker Name:

URL:

Paging Size:
100

Username:

Password:

Ok Schedule Cancel

Figure 4.2.2.1.7-C Add Solace Manager Connection

Figure 4.2.2.1.7-D Add JCSMP Tab

4.2.2.1.8 Create RabbitMQ Remote Manager

To create a remote Rabbit MQ manager connection, select a workgroup server within the Workgroup Server viewlet. From the Selected menu, select **Create > Remote Rabbit MQ Managers**. The *Remote Rabbit MQ Manager Connections* window opens where you can add a new Rabbit MQ connection manager.

Click the **Add** button. The *Add Rabbit MQ Manager Connection* dialog opens. Enter the configurations for the new Rabbit MQ connection manager.

On the **SSL** tab, configure SSL security (Trust Store and Key Store paths and passwords). For meshIQ Cloud users, in the **Trust Store Path** field on the **SSL** tab, enter the path to the uploaded certificate file, as shown on the **Certificates** tab of your meshIQ Cloud subscription page.

On the **AMQP** tab, you can add AMQP protocol configurations.

when you click **Add**, the *Add AMQP* dialog opens with two tabs: **General** and **SSL**.

In the **General** tab, you can define AMQP connection settings in one of the two modes:

- Full Definition (selected by default)
- URL Mode

In the **SSL** tab, you can optionally configure secure communication settings.

Click **Ok** when finished. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#).

To learn how to import and export remote manager definitions instead of entering them manually, see [Importing and Exporting Remote Managers](#).

The URL field supports multiple comma-separated URLs. If the connection between the connection manager and the remote connection is lost, the connection manager will automatically attempt to reconnect using the primary (first) followed by the subsequent URLs if multiple servers are added.

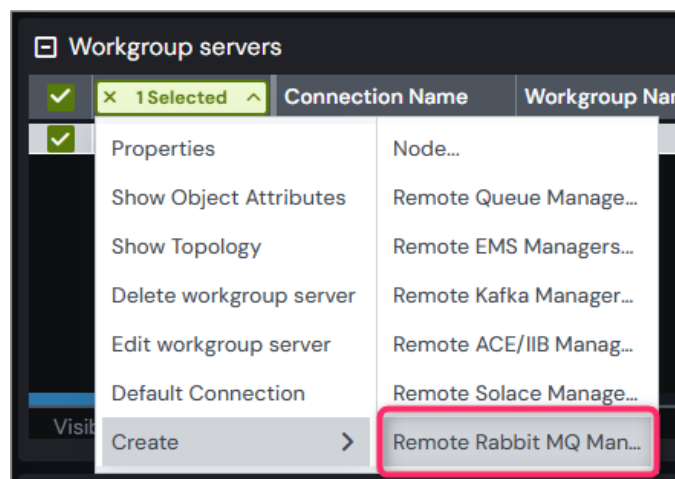


Figure 4.2.2.1.8-A. Add a Remote RabbitMQ Manager

Remote Rabbit MQ Manager Connections
? x

Filter by:

#	<input type="checkbox"/>	Node Instance Name	Integration Node Alias
1	<input type="checkbox"/>	RABBITMQCM	rabbit

Attribute Name	Attribute Value
Instance Name	-
Integration Node Alias	-
Url	-
Username	-

Add Verify Connection Modify Copy as

Delete Export Import Undo

Ok Close

Figure 4.2.2.1.8-B. Remote RabbitMQ Manager Connections

Add Rabbit MQ Manager Connection
? x

- ➔ General
- SSL
- AMQP

Node Instance Name:

Server Name:

URL:

Username:

Password:

Figure 4.2.2.1.8-C. Add RabbitMQ Manager Connection

MMUG11.003

55

© 2025 meshIQ

The screenshot shows a configuration form for the SSL tab. It is divided into two main sections: 'Key Store' and 'Trust Store'. Each section contains a 'Path:' label followed by a text input field, and a 'Password:' label followed by a text input field. Below these sections is a checkbox labeled 'Ignore SSL Certificate'.

Figure 4.2.2.1.8-D. RabbitMQ Connection SSL Tab

The screenshot shows the 'Add AMQP' dialog box with the 'General' tab selected. On the left, there is a sidebar with 'General' and 'SSL' options. The main area is titled 'Configuration' and contains the following fields: 'Type' with radio buttons for 'Full definition' (selected) and 'URL'; 'AMQP Name:' with a text input field; 'Virtual Host Name:' with a text input field; 'Host:' with a text input field; 'Port:' with a text input field containing the value '0'; 'User Name:' with a text input field; and 'Password:' with a text input field. At the bottom right, there are 'Ok' and 'Cancel' buttons.

Figure 4.2.2.1.8-E. RabbitMQ Connection AddAMQP – General Tab-Full Definition

Figure 4.2.2.1.8-F. RabbitMQ Connection Add AMQP – General Tab-URL

Figure 4.2.2.1.8-G. RabbitMQ Connection Add AMQP – SSL Tab

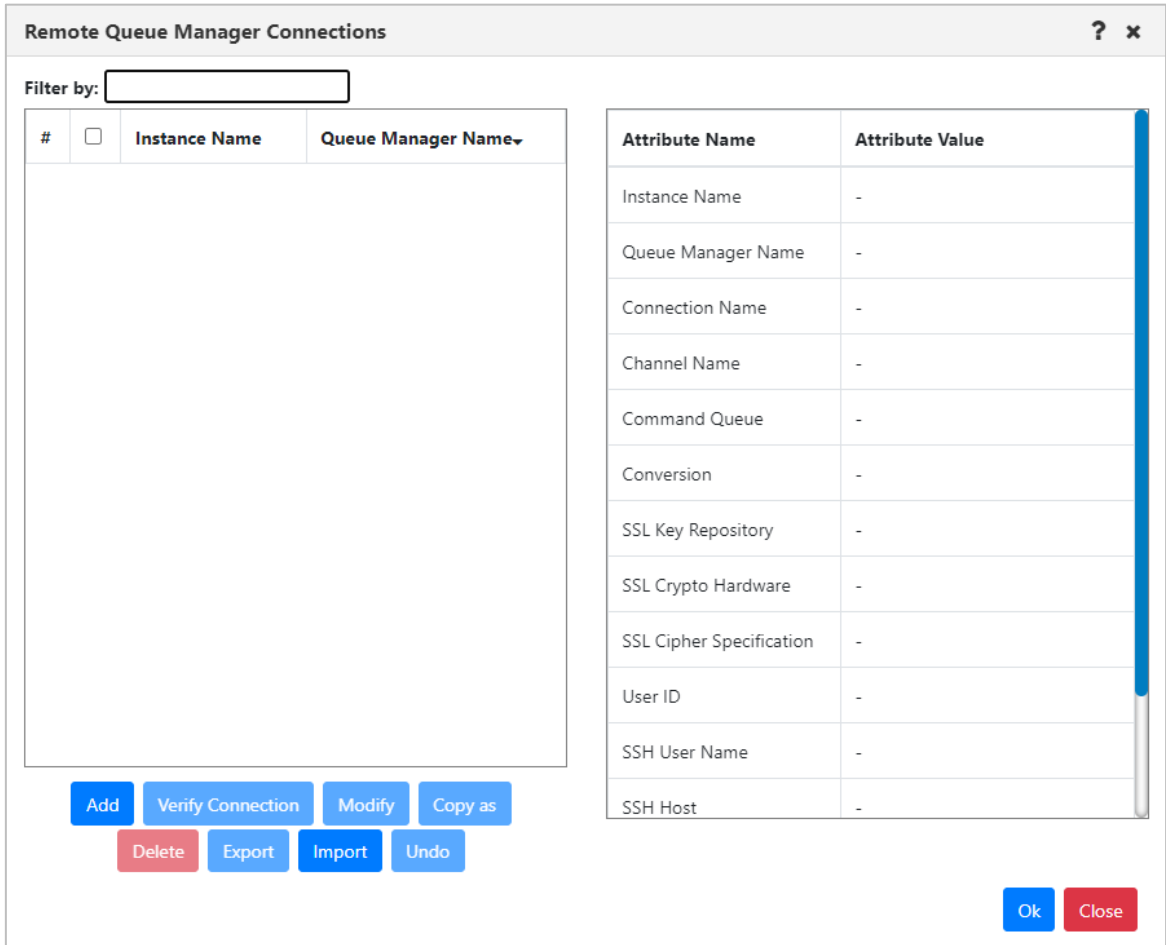
4.2.2.1.9 Importing and Exporting Remote Managers

You can export remote IBM MQ, TIBCO EMS, Kafka, ACE/IIB, Solace, and RabbitMQ connections to allow them to be imported later as needed. Consider using exporting and importing connections as a way to pass connections between people or make them available for new users.

Remote manager configurations are imported and exported from the remote manager connections window, in the form of .json files.

4.2.2.1.9.1 Import remote manager configurations

1. From the workgroup server's Selected menu, select **Create > Remote Queue Managers**. The *Remote Queue Manager Connections* window opens. The name of the menu option and window vary based on the product (IBM, Kafka, TIBCO EMS, IIB/ACE, Solace, or RabbitMQ).



2. Click **Import**. The *Import Remote Queue Manager Connections* dialog opens.



Import Remote Queue Manager Connections

Choose Import file:
Choose File No file chosen

Instance Name	Queue Manager Name
---------------	--------------------

Clear Import Close

3. Click **Choose File**.

**NOTE**

Import files must have the .json file name extension. You must import a remote manager definition file for the product that matches your selection on the workgroup server's Selected menu (IBM, Kafka, TIBCO EMS, IIB/ACE, or Solace).

4. Navigate to the .json file from which you want to import remote manager definitions. Double-click the file, or click it once and click **Open**. The file name is included on the dialog, and the

Instance Name and Queue Manager Name for each remote manager in the file are listed.

Import Remote Queue Manager Connections ? x

Choose Import file:
 exported_re...707368).json ● Loaded

<input checked="" type="checkbox"/>	Instance Name	Queue Manager Name	
<input checked="" type="checkbox"/>	REMOTE_CONNECTION	CONNECTION_NAME	<input type="button" value="Q"/>
<input checked="" type="checkbox"/>	REMOTE_QMGR	QMGR	<input type="button" value="Q"/>
<input checked="" type="checkbox"/>	REMOTE_QMGRS	QMGR_NAMES	<input type="button" value="Q"/>

5. Verify the managers that you want to import. You can click **Clear** to clear all selections, or select and clear checkboxes individually.

- Click **Import** to import all selected managers. The imported records are displayed on the remote managers dialog:

The screenshot shows a window titled "Remote Queue Manager Connections" with a search filter and two tables. The main table lists three connections, and the right table lists various attributes with their values.

#	<input type="checkbox"/>	Instance Name	Queue Manager Name
1	<input type="checkbox"/>	REMOTE_CONNECTION	CONNECTION_NAME
2	<input type="checkbox"/>	REMOTE_QMGR	QMGR
3	<input type="checkbox"/>	REMOTE_QMGRS	QMGR_NAMES

Attribute Name	Attribute Value
Instance Name	-
Queue Manager Name	-
Connection Name	-
Channel Name	-
Command Queue	-
Conversion	-
SSL Key Repository	-
SSL Crypto Hardware	-
SSL Cipher Specification	-
User ID	-
SSH User Name	-
SSH Host	-

- Click **OK** to close the window and return to the Workspace dashboard. You can also reverse the import process by clicking **Undo**.

4.2.2.1.9.2 Export remote manager configurations

In the export file, password fields are made null. See the "Importing and Exporting Remote Managers" article in the [Resource Center](#) for more information.

- From the workgroup server's Selected menu, select **Create > Remote Queue Managers**. The *Remote Queue Manager Connections* window opens. The name of the menu option and window vary based on the product (IBM, Kafka, TIBCO EMS, IIB/ACE, or Solace).

- Select the remote manager or managers that you want to export the definition of.

Remote Queue Manager Connections
? x

Filter by:

#	<input type="checkbox"/>	Instance Name	Queue Manager Name▼
1	<input type="checkbox"/>	REMOTE_CONNECTION	CONNECTION_NAME
2	<input checked="" type="checkbox"/>	REMOTE_QMGR	QMGR
3	<input type="checkbox"/>	REMOTE_QMGRS	QMGR_NAMES

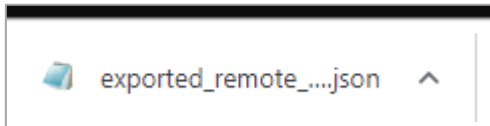
Attribute Name	Attribute Value
Instance Name	REMOTE_QMGR
Queue Manager Name	QMGR
Connection Name	IP ADDRESS(IP PORT)
Channel Name	SYSTEM.DEF.SVRCONN
Command Queue	SYSTEM.ADMIN.COMMAND.QUEUE
Conversion	DEFAULT
SSL Key Repository	
SSL Crypto Hardware	
SSL Cipher Specification	
User ID	Admin
SSH User Name	

Add Modify Copy as Delete Export

Import Undo

Ok Close

- Click **Export**.
- The export file is downloaded through your browser. It is named `exported_remote_queue_manager_connections(<unique identifier>).json`.



5. Double-click the file to open and view it:

```

exported_remote_queue_manager_connections(1678228450044).json - Notepad
File Edit Format View Help
{
  "version": "v10.5.0.7",
  "type": "mq",
  "remoteConnections": [
    {
      "name": "REMOTE_QMGR",
      "project": "DEFAULT",
      "qmgrName": "QMGR",
      "userName": "Admin",
      "password": "*****",
      "commandQ": "SYSTEM.ADMIN.COMMAND.QUEUE",
      "channelName": "SYSTEM.DEF.SVRCONN",
      "connName": "IP ADDRESS(IP PORT)",
      "sshHost": "",
      "sshIpAddress": "",
      "sshPassword": "",
      "sshPort": 0,
      "sshUserName": "",
      "sslKeyRepos": "",
      "sslCrypHrdw": "",
      "sslCipherSpec": "",
      "sslKeyPassPhrase": null,
      "sslKeyStorePassword": ""
    }
  ]
}
Ln 1, Col 1 | 100% | Unix (LF) | UTF-8
    
```

4.2.2.1.9.3 Import Remote Kafka Manager Properties for New Connections

You can import remote Kafka manager properties for new connections, instead of entering them manually. Refer to the table below for mapped properties.

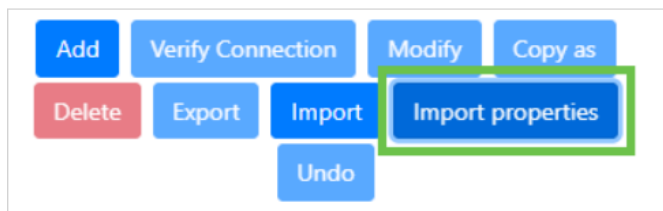
Table 4.2.2.1.9.3. Mapped Kafka Properties

Parameter in Add Kafka Manager Connection	Parameter in .properties file
	<i>(If multiple names for the same parameter are supported, they are shown separated by commas)</i>
Node Name	'node.name'
Cluster Name	'kafka.cluster.name', 'cluster.name'
Bootstrap Server	'kafka.bootstrap.servers', 'bootstrap.servers'
Group Id	'kafka.group.id', 'group.id'
Schema Name	'kafka.schema_registry.name', 'schema_registry.name'
Schema URL	'kafka.schema_registry.url', 'schema_registry.url'
Schema ('schema_registry'), Connect ('connect'), KSQL ('ksql') and MDS ('mds')	<p>These four share the same structure. In the syntax example below, replace the "configType" placeholder with the appropriate value:</p> <p>'schema_registry', 'schema.registry', 'schema'. <i>If more than one variant is present, the order of precedence is schema_registry > schema.registry > schema</i> 'connect'</p> <p>'ksql'</p>

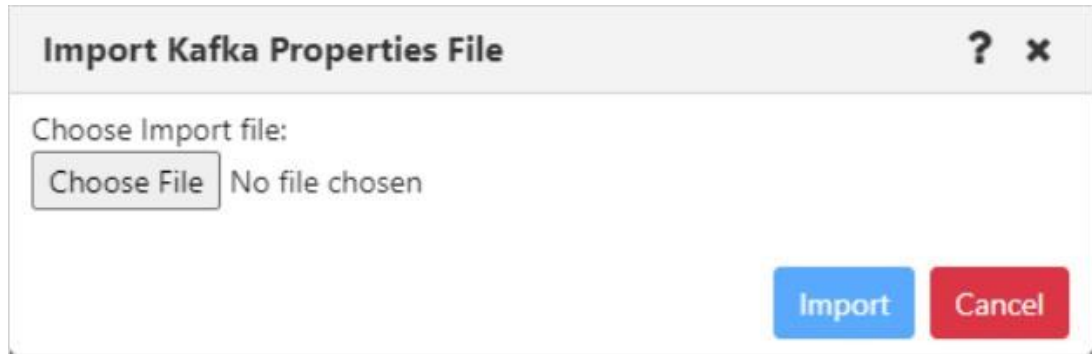
Table 4.2.2.1.9.3. Mapped Kafka Properties

Parameter in Add Kafka Manager Connection	Parameter in .properties file
	<i>(If multiple names for the same parameter are supported, they are shown separated by commas)</i>
	<p>'mds'</p> <p>Syntax example:</p> <p>Name: 'kafka."configType".url', "'configType".url'</p> <p>URL: 'kafka."configType".url', "'configType".url'</p> <p>When there is more than one Connect, KSQL or MDS instance, differentiate them by assigning a sequential number (N) to each instance:</p> <p>configType_N</p> <p>For example:</p> <p>kafka.connect_1.name=Connector1</p> <p>kafka.connect_1.url=http://172.16.6.44:8382/</p> <p>kafka.connect_2.name=Connector2</p> <p>kafka.connect_2.url=http://172.16.6.45:8382/</p>

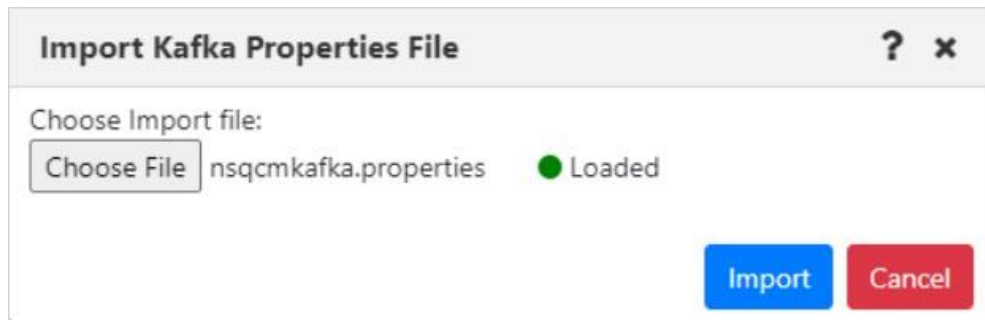
1. From the *Remote Kafka Manager Connections* dialog, click **Import properties**.



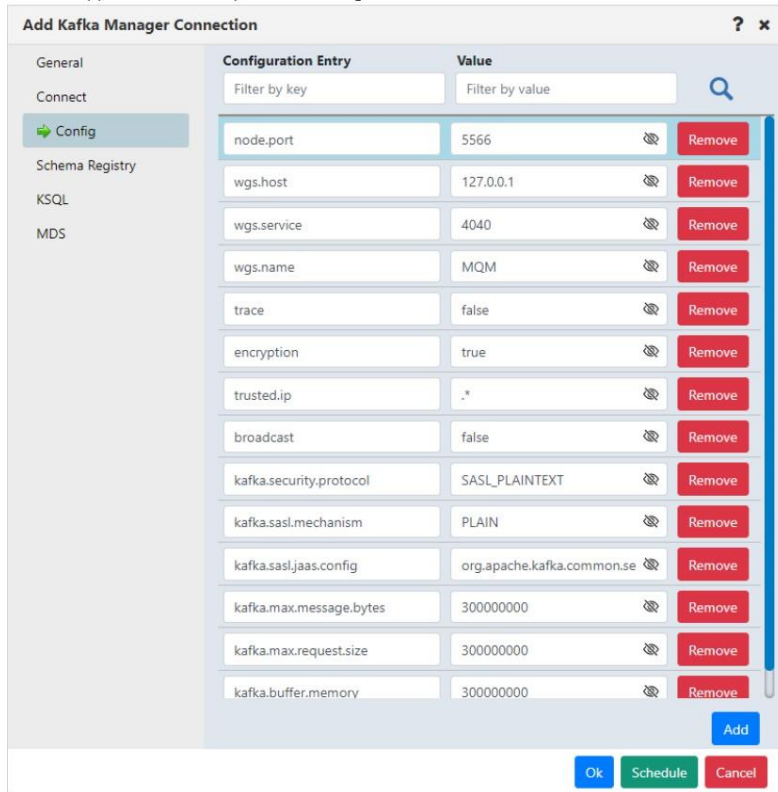
The *Import Kafka Properties File* dialog opens.



2. Choose a file:



3. Click **Import**. The *Add Kafka Manager Connection* dialog opens with the imported properties filled in where applicable. An example of the Config tab is shown below.

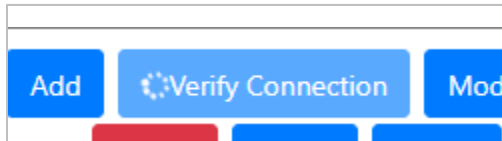


4.2.2.1.10 Verifying Remote Manager Connections

The remote manager connections dialogs for all products include a Verify Connection button.

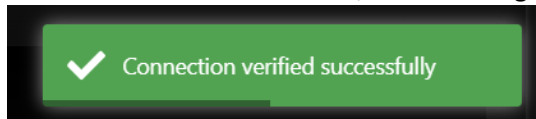


Select the connection you want to verify. Click Verify Connection. The button changes to indicate that the application is attempting to connect.

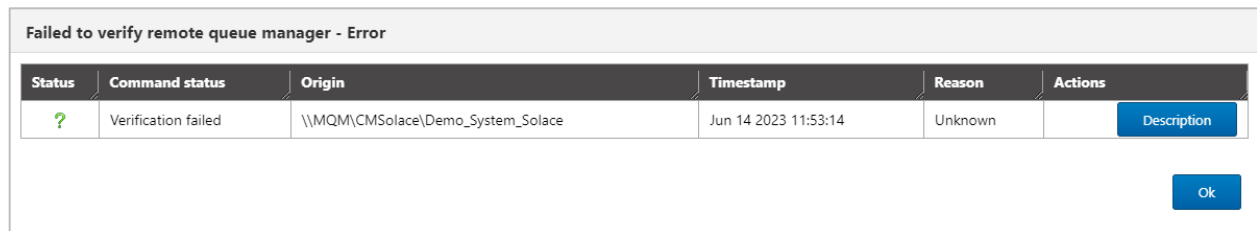


Results

If the connection is successful, the following message is displayed:



If it is unsuccessful, an error dialog similar to the one below is displayed.



4.2.2.1.11 Create Remote ActiveMQ Manager

To create a remote ActiveMQ manager connection, select a workgroup server within the Workgroup Server viewlet. From the Selected menu, select **Create > Remote ActiveMQ Managers**. The *Remote ActiveMQ Manager Connections* window opens where you can add a new ActiveMQ connection manager.

Click the **Add** button. The *Add ActiveMQ Manager Connection* dialog opens. Enter the configurations for the new ActiveMQ connection manager.

Click **Ok** when finished. After adding a new connection, you can verify it. See [Verifying Remote Manager Connections](#).

To learn how to import and export remote manager definitions instead of entering them manually, see [Importing and Exporting Remote Managers](#).

the URL field supports multiple comma-separated URLs. If the connection between the connection manager and the remote connection is lost, the connection manager will automatically attempt to

reconnect using the primary (first) followed by the subsequent URLs if multiple servers are added.

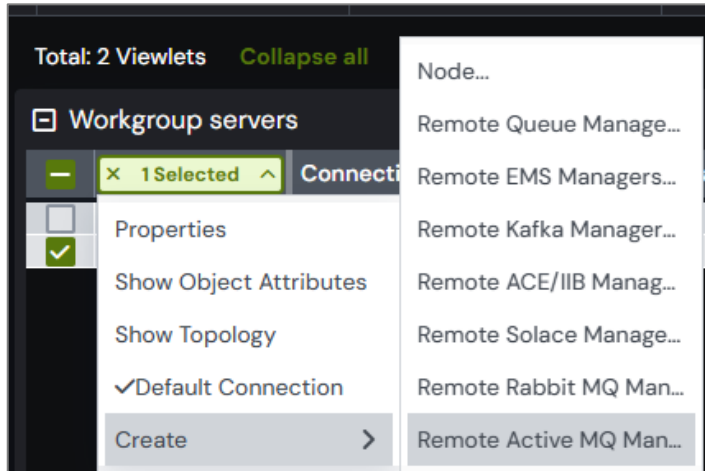
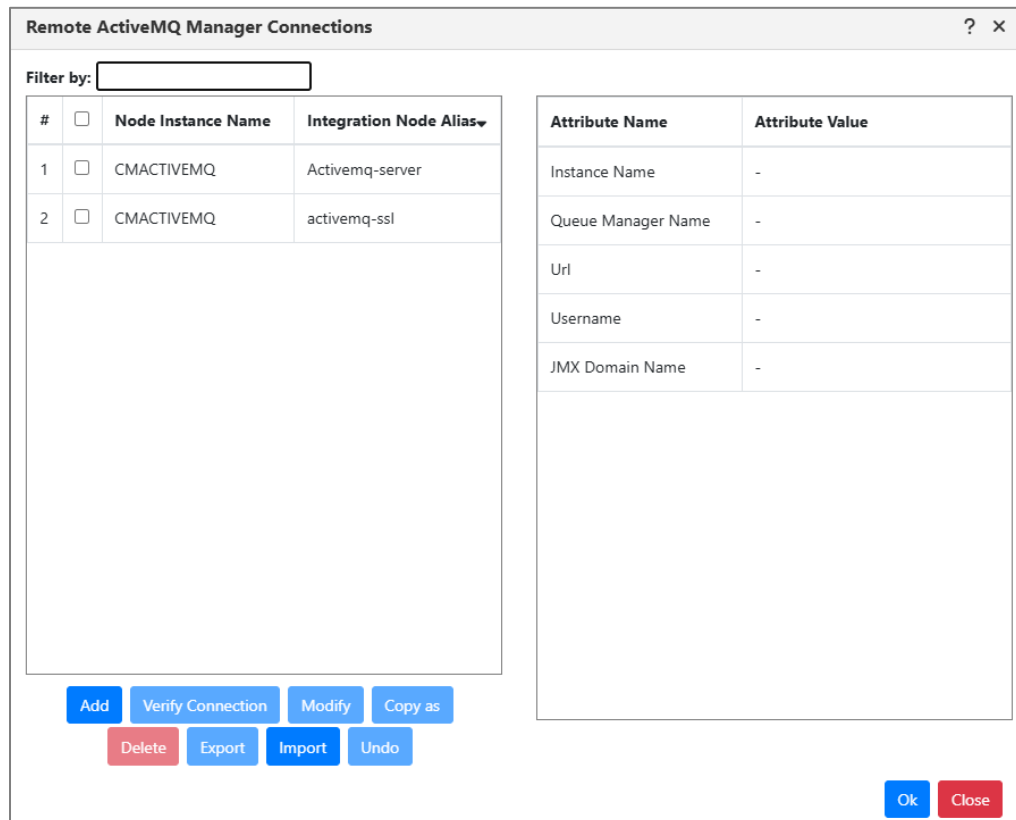
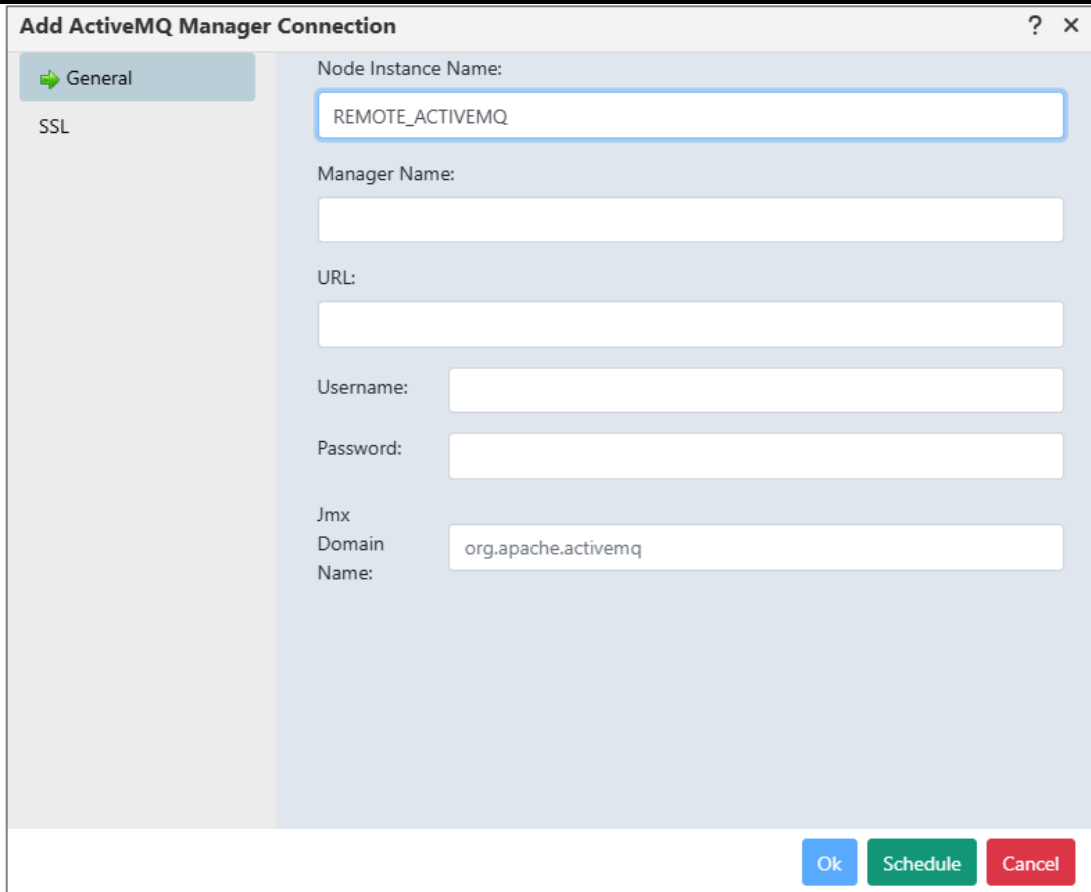


Figure 4.2.2.1.11-A. Add a Remote RabbitMQ Manager



4.2.2.1.11-B Remote ActiveMQ Manager Connection Window



Add ActiveMQ Manager Connection ? x

General

SSL

Node Instance Name:
REMOTE_ACTIVEMQ

Manager Name:

URL:

Username:

Password:

Jmx Domain Name:

Ok Schedule Cancel

Figure 4.2.2.1.11-C Add ActiveMQ Manager Connection-General Tab

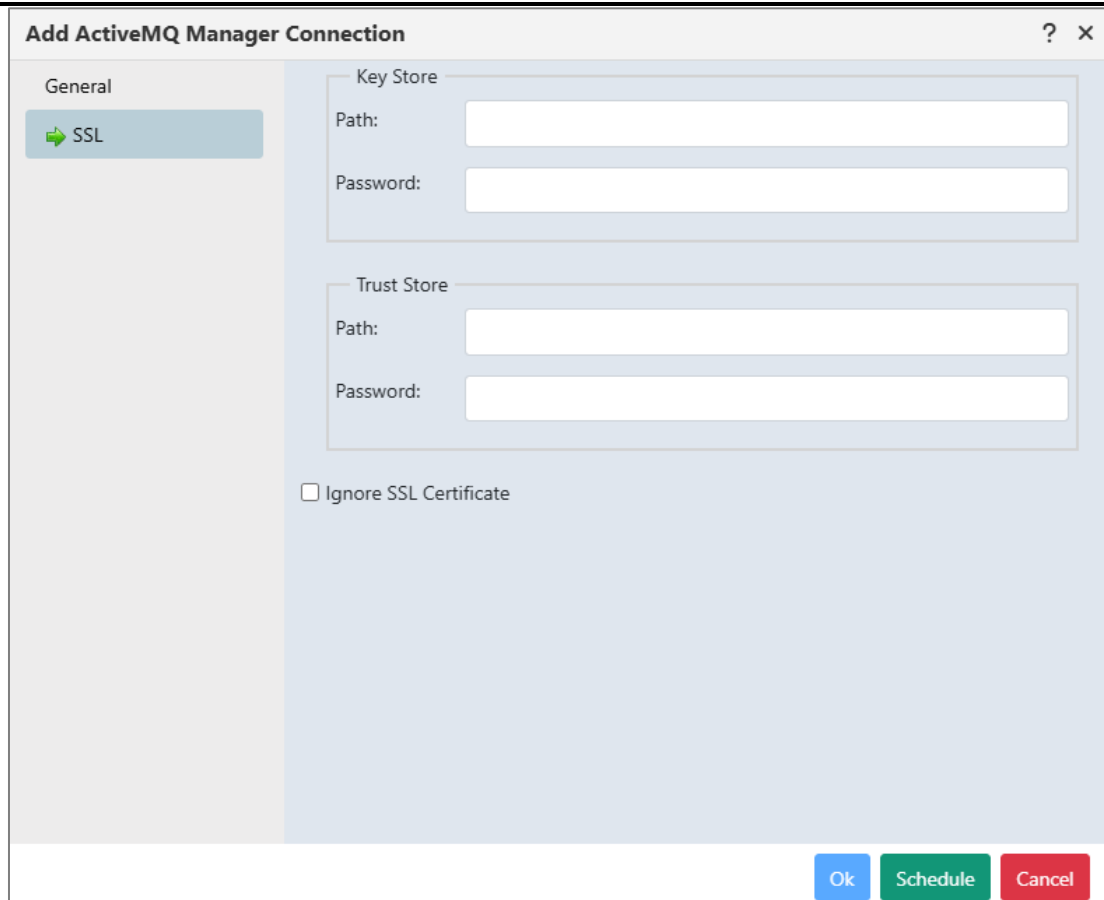


Figure 4.2.2.1.11-D Add ActiveMQ Manager Connection-SSL Tab

Table 4.2.2.1.9-A. ActiveMQ Remote Queue Manager Connections Window Attributes

Field	Description
General Tab	Figure 4.2.2.1.11-C
Node Instance Name	Enter the instance name. REMOTE_ACTIVEMQ is the default.
Manager name	Enter the name of the ActiveMQ manager to which your new remote queue manager will be linked.
URL	Enter the connection URL for the remote ActiveMQ manager.
User Name	Enter the user ID authorized to connect to the ActiveMQ manager.
Password	Enter the user's password. Passwords are case-sensitive on most systems, including z/OS. Confirm details with your security/RACF administrator.
Jmx Domain Name	Enter the JMX domain name used by the remote ActiveMQ manager for MBean registration. Default: org.apache.activemq.
SSL tab	Figure 4.2.2.1.11-D
Key Store: Path	Enter the full file system path to the key store file containing the client's private key and certificate.
Key Store: Password	Enter the password required to access the key store.
Trust Store: Path	Enter the full file system path to the trust store file containing the trusted CA certificates.

Trust Store: Password	Enter the password required to access the trust store.
-----------------------	--

4.2.3 Console Panel

The top of a dashboard displays the main viewlets of the objects. When object aspects are opened from the top panel, they appear in tabs located at the bottom of the screen in the Console panel. Queue and channel statuses, messages, attributes, and events are some of the object aspects that appear in the Console panel. To collapse/expand this section, click **Console**. You can also increase or decrease the height of the Console panel by clicking on the ellipses **...** and dragging it up or down.

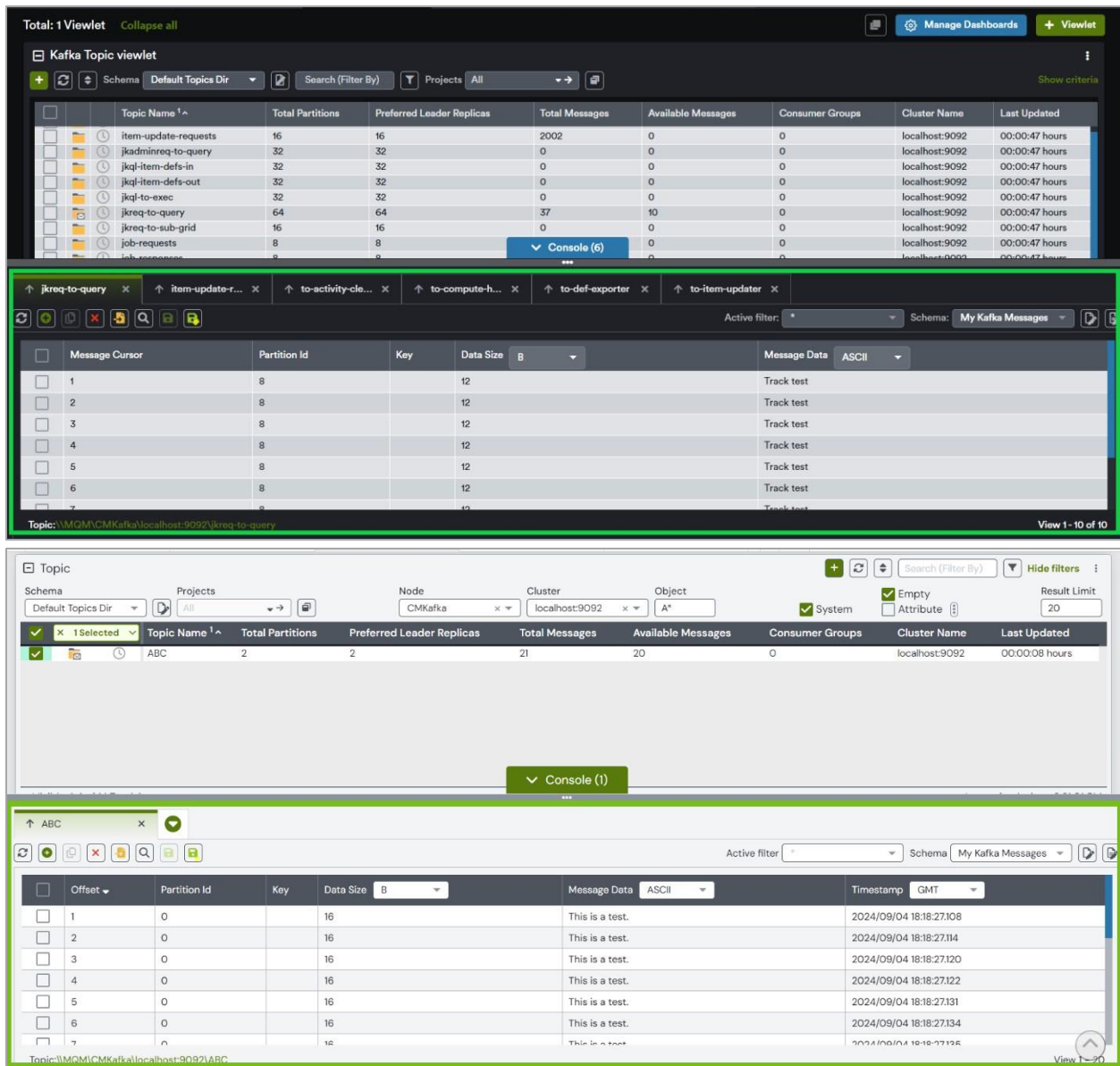


Figure 4.2.3-A. Console

You can click on the up arrow located on the left side of the tabs to jump to the originating viewlet which generated the Console tab. When the number of tabs exceeds the space available within the Console, you can use the left and right navigation buttons to easily scroll through them (see the red boxes in the figure below).

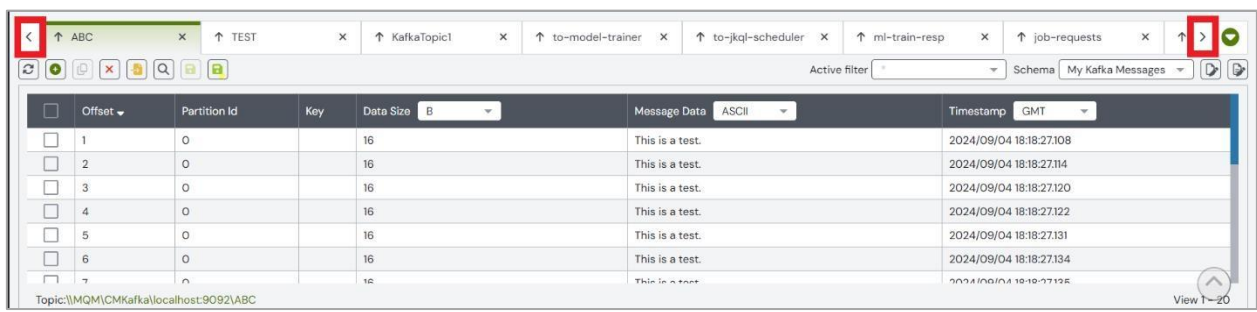


Figure 4.2.3-B. Viewing Console Tabs

Right-click on a Console tab to display options to close all Console tabs, or close all other tabs except for the tab you right-clicked on.

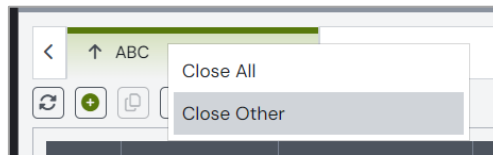


Figure 4.2.3-C. Close Tabs

4.2.4 Create New Dashboard

To add a new dashboard, do one of the following:

- Click the **Create dashboard** button  (or ) located immediately to the right of the dashboard tabs.
- Click **Manage Dashboards** to open the *Manage Dashboards* dialog, then click **+New**.

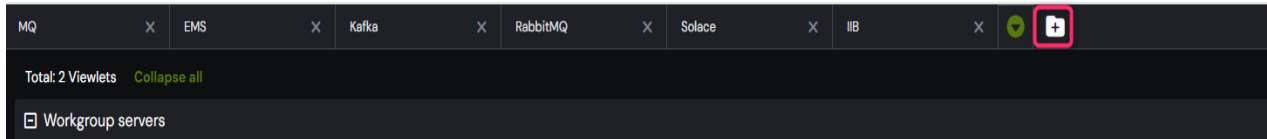


Figure 4.2.4-A. Create Dashboard Button

The *Create new Dashboard* dialog box opens. Enter a name for the new dashboard. Each dashboard must have a unique name.

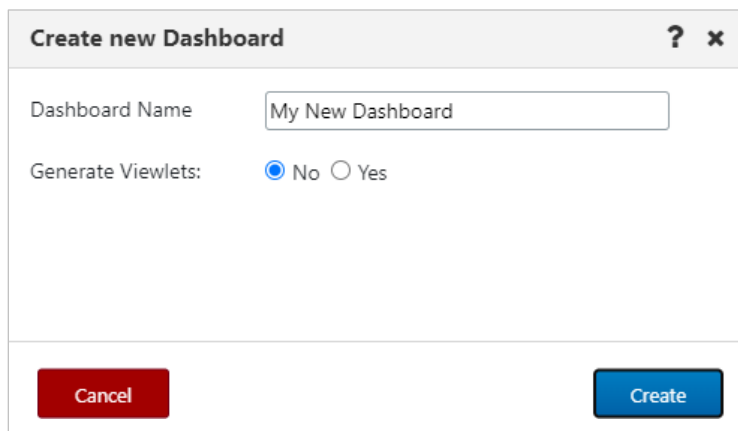

 A screenshot of the 'Create new Dashboard' dialog box. The dialog has a title bar with a question mark and a close button. The main content area contains a text input field for 'Dashboard Name' with the value 'My New Dashboard'. Below this is a 'Generate Viewlets' section with two radio buttons: 'No' (which is selected) and 'Yes'. At the bottom of the dialog, there are two buttons: a red 'Cancel' button on the left and a blue 'Create' button on the right.

Figure 4.2.4-B. Create New Dashboard

Select **Yes** to generate initial default viewlets in the new dashboard or **No** to create an empty dashboard. If you select **Yes**, the following additional fields display:

- **Viewlets template:** Select a template for your viewlet. This is optional.
- **Product:** Select the object product type for the initial viewlets that will be generated. Choose from the following options:
 - **IBM MQ:** Local queue and channel viewlets get generated.
 - **EMS:** Queue, route, bridge, and connection viewlets get generated.
 - **Kafka:** Topic viewlets get generated.
 - **IIB:** Broker, server, service, REST API and Application viewlets get generated.
 - **ACE:** Integration node, servers, applications, service, and REST API viewlets get generated.

- **SOLACE:** Brokers and Message VPNs viewlets get generated.
- **RABBITMQ:** Virtual Host and Queues viewlets get generated.
- **Workgroup server:** Select the workgroup server.
- **Use original path:** By default, the **Use original path** check box is selected, indicating that the new dashboard will use the Node and Queue manager of the selected dashboard template (from the Viewlets template list). To choose a different Node or Queue manager, clear this check box.
- **Node:** Select a specific node, or use an asterisk to include all objects from all nodes.
- **Queue Manager:** Select a specific queue manager, or use an asterisk to include all objects from all queue managers on the selected node(s).

Figure 4.2.4-C. Generating Initial Viewlets

Click **Create**. A new dashboard is added with initial viewlets, if applicable. New dashboards are added to the current User Perspective.

It will look similar to the following:

Topic Name	Total Partitions	Preferred Leader Replicas	Total Messages	Available Messages	Consumer Groups	Cluster Name	Last Updated
jkadminreq-to-query	32	32	0	0	0	localhost:9092	00:00:15 hours
jkql-item-defs-in	32	32	0	0	0	localhost:9092	00:00:15 hours
jkql-item-defs-out	32	32	0	0	0	localhost:9092	00:00:15 hours
jkql-to-exec	32	32	0	0	0	localhost:9092	00:00:15 hours
jkreq-to-query	64	64	0	0	0	localhost:9092	00:00:15 hours
jkreq-to-sub-grid	16	16	0	0	0	localhost:9092	00:00:15 hours
job-requests	8	8	0	0	0	localhost:9092	00:00:15 hours
job-responses	8	8	0	0	0	localhost:9092	00:00:15 hours
job-scheduler-events	8	8	0	0	0	localhost:9092	00:00:15 hours

Figure 4.2.4-D. New Dashboard with Initial Viewlets

If you selected **No**, an empty dashboard like the one below is created. This dashboard includes the same options that are available in the new viewlet dialog (see section [4.3.1, Adding and Maintaining Viewlets](#)).

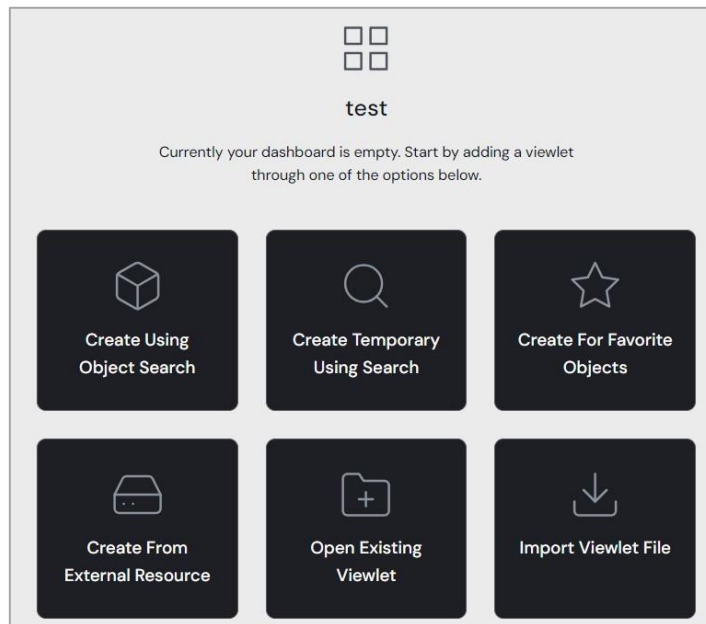


Figure 4.2.4-E. New Dashboard without Viewlets

4.2.5 Change the Order of Dashboards

The order in which dashboards are displayed can be changed. Click on the tab of the dashboard you would like to move and drag and drop it to a new position.

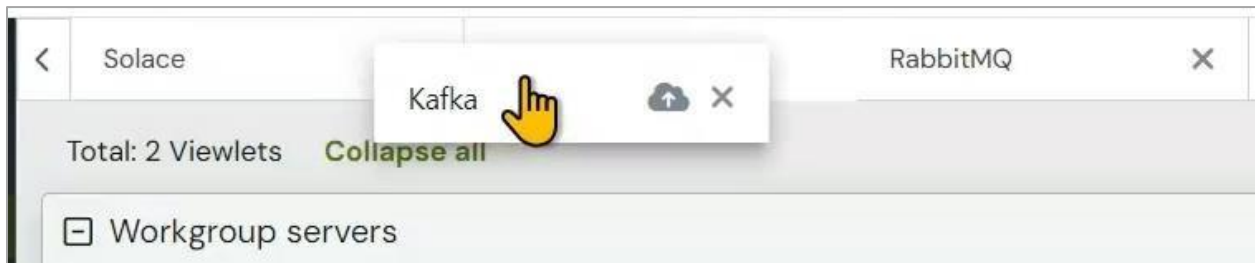


Figure 4.2.5-A. Moving a Dashboard

4.2.6 Displaying Additional Dashboards

In systems with several dashboards, all dashboard tabs will not display within the immediate view of the screen. To scroll through all available dashboards, click on the arrows located to the far left and far right of the dashboard tabs (see the red boxes in the image below) or hover over the dashboards and scroll the wheel of your mouse.

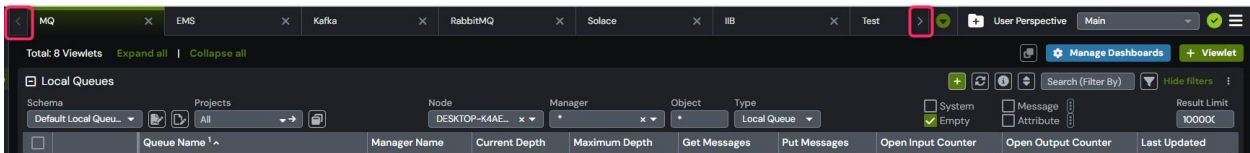

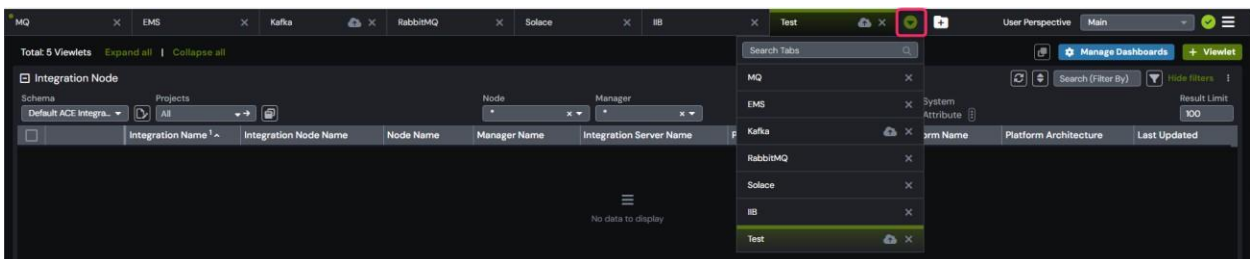


Figure 4.2.6-A. Displaying Additional Dashboards

Or

Click the down arrow icon  to view the list of dashboards. Select the required dashboard, and the window will display the selected dashboard. You can also use the **Search Tabs** to find a dashboard by name.



4.2.7 Rename a Dashboard

To rename a dashboard, do one of the following:

- Right-click the tab of the dashboard that you want to rename and select **Rename**.
- Click **Dashboards...** to open the *Manage Dashboards* dialog, select the checkbox for the dashboard in the **Dashboard Name** list, then click **Rename**.

The following dialog box appears. Enter a new name and click **OK**.

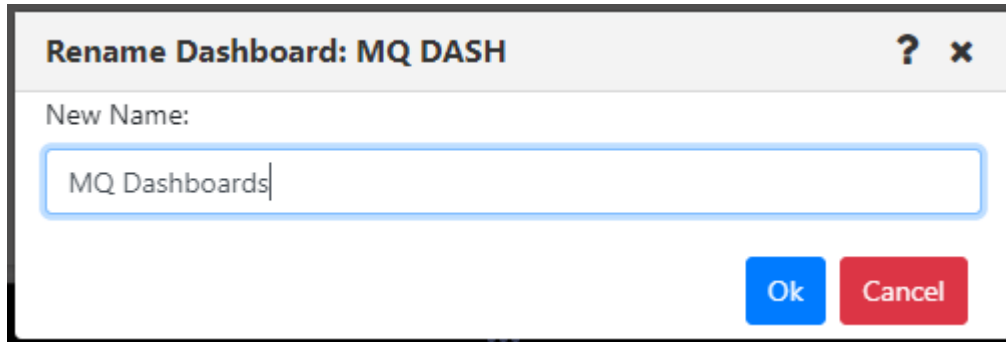


Figure 4.2.7-A. Rename Dashboard

4.2.8 Remove a Dashboard from the User Perspective

To remove a dashboard from the current User Perspective, click on the **X** within the tab of the dashboard. A confirmation prompt will appear asking you to confirm this action. Click **Yes** to remove the dashboard or **No** to cancel. For more information about User Perspectives, see the [User Perspectives](#) section.

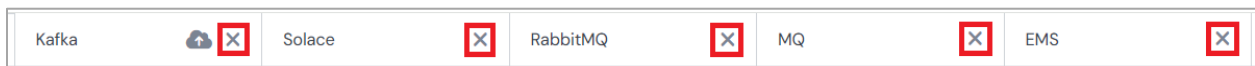


Figure 4.2.8-A. Remove Dashboards from the User Perspective

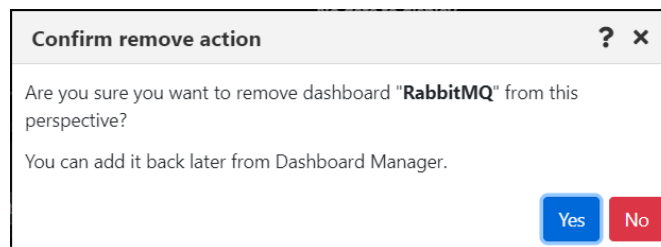


Figure 4.2.8-B. Dashboard Removal Confirmation

4.2.9 Delete Dashboards

To delete a dashboard, do one of the following:

- Right-click the tab of the dashboard that you want to delete and select **Delete Dashboard**.
- Click **Dashboards...** to open the *Manage Dashboards* dialog, select the checkbox for the dashboard or dashboards in the **Dashboard Name** list, then click **Delete**.

The following dialog appears. Click **Yes** to delete the dashboard or dashboards, or **No** to cancel.

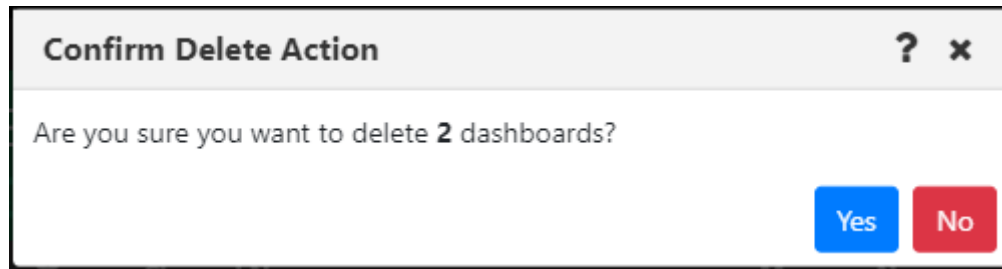


Figure 4.2.9-A. Confirm Delete Dashboards

4.2.10 Set Dashboard as Default

You can specify which dashboard you would like to view immediately after logging in. This dashboard is known as the default dashboard.

To set a dashboard as the default, right-click the dashboard tab and select **Set as default** from the dashboard menu.

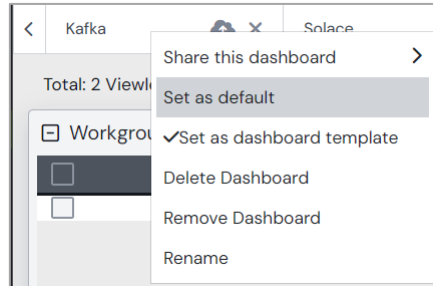


Figure 4.2.10-A. Set Dashboard as Default

A dashboard tab with a green dot is the default dashboard of the system.

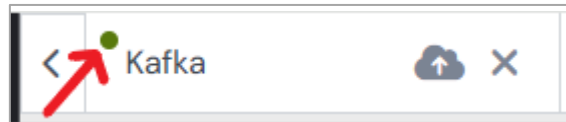


Figure 4.2.10-B. Default Dashboard

4.2.11 Dashboard Templates

Users can designate dashboards as dashboard templates. These templates can then be used when generating new dashboards. The new dashboards will automatically be populated with predefined viewlets from the template. Multiple templates can be created. When you designate a dashboard as a template, it is available to all other users.

To find out whether a dashboard has been set as a template, right-click its dashboard tab and look for a checkmark next to the **Set as dashboard template** option. In the example below, *Kafka* is a dashboard set as a template.

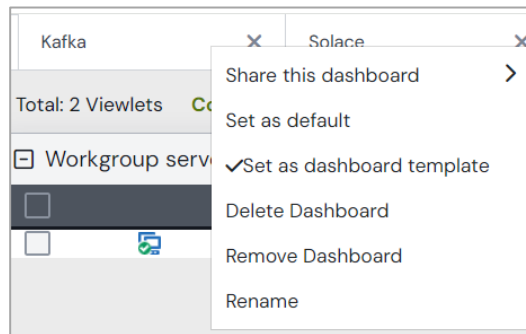


Figure 4.2.11-A. A Default Template Dashboard

To designate a dashboard as a template, follow the steps below:

1. Right-click on the dashboard tab that you want to set as a template:

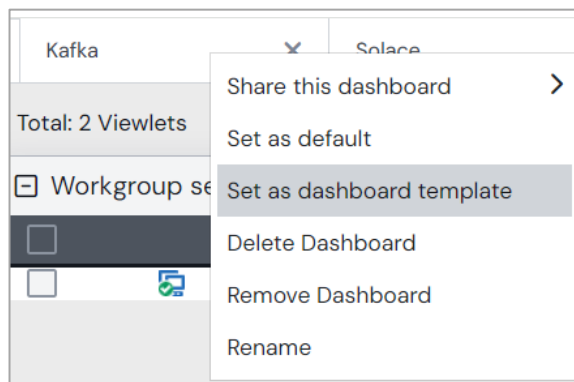


Figure 4.2.11-B. Set Dashboard as Dashboard Template

2. Select **Set as dashboard template**.

If a template from another user already exists with the same dashboard name, an error similar to the following will be displayed:



Figure 4.2.11-C. Dashboard Name Exists Error

3. From this point forward, the dashboard template will be available to all users. When adding a new dashboard, the template will be available from the **Viewlets template** drop-down:


Figure 4.2.11-D. Select Dashboard Template

4.2.12 Sharing

You can share dashboards with other users by making them available to groups. Consider using shared dashboards in cases like these:

- Create a series of dashboards that new users will get automatically when they log in.
- Share your dashboards with other members of your team.

1.1.1.1.1 How to share a dashboard

Right-click on the dashboard tab to share and select **Share this dashboard**. From the popup menu, click the read (eye) icon  next to the groups you want to share the dashboard with. The read icon changes to green for selected groups. A user will only be able to share with their own groups, unless they have the **Show All Groups for Shared Dashboards** right, which will allow sharing with all groups.

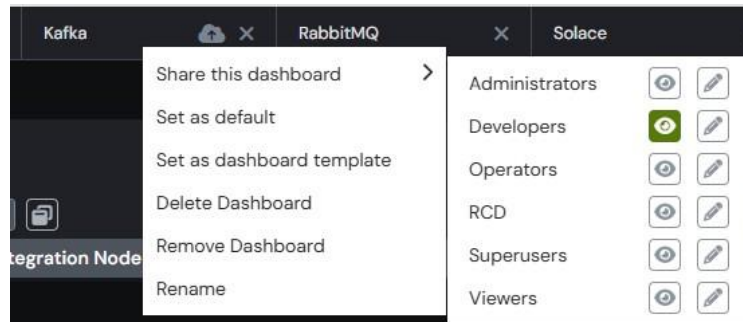





Figure 4.2.12-A. Sharing Dashboards

To allow a group to edit the shared dashboard, click the edit (pencil) icon . Both the read and edit icons will change to green  .

When a dashboard is shared, it will be displayed with the shared icon:



Figure 4.2.12-B. Shared Dashboard Tab

4.2.12.1 Share Dashboard via URL

You can also share dashboard via URL.

1. Share your dashboard by right-clicking the dashboard tab and selecting **“Share this dashboard”** from the pop-up menu. Add read and/or write permissions for the relevant groups.

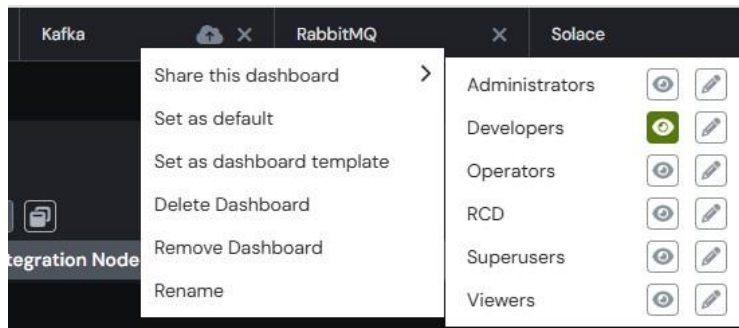


Figure 4.2.12.1-A Sharing Dashboard

2. Copy the URL from the address bar while viewing the dashboard.
3. Share the copied URL with the recipient.

See below to know how to access the Shared Dashboard from the URL

1.1.1.1.2 If you are already logged in:

Paste the URL into the browser's address bar and press Enter.

- If you don't have access to a specific dashboard, you'll see an error message in the bottom right corner. You can check if the dashboard is available by clicking on **Manage Dashboards** and turning on the **Shared Dashboards** slider.
- If the dashboard is already part of one of your existing perspectives, it will switch you to that perspective and highlight the dashboard.
- If you haven't added the dashboard to your perspectives yet, it will be added to your current view and highlighted for you to see.

1.1.1.1.3 If you are not logged in:

Click on the link or paste it into the browser's address bar and press Enter, log in with your credentials.

- If you don't have access to the dashboard, you'll see an error message.
- If the dashboard is already in one of your perspectives, a message will appear letting you know it's already there.

- If you haven't added the dashboard yet, it will be added to your default perspective, and a message will pop up to confirm this. However, the focus will remain on the default dashboard you've set, not the newly added one.

1.1.1.1.4 When creating shared dashboards, consider the following restrictions:

- What each user sees will depend on their rights. For example, an Administrator creates a dashboard with a queues viewlet and shares it with the Payments and the Credit teams. When creating the dashboard, the Administrator user sees all queues, but the Payment and Credit teams will only see their queues when using it.
- If you share a dashboard containing a favorite viewlet which contains objects the shared group is not allowed to see, they will still show up in the viewlet but with no attributes.
- A dashboard cannot be deleted by the owner if it is currently being shared with any other users.
- User settings such as showing empty queues do apply to shared dashboards, so resulting views may differ slightly.
- You cannot edit the schema of a shared dashboard.

4.2.12.2 Viewing shared dashboards

When a user logs on for the first time, all shared dashboards are visible automatically, based on the groups the user belongs to. However, dashboards that are shared after a user has already logged in are not visible right away. To view available dashboards, click **Manage Dashboards**.



If the shared dashboards you added do not display on the main tab bar, log out and log back in.

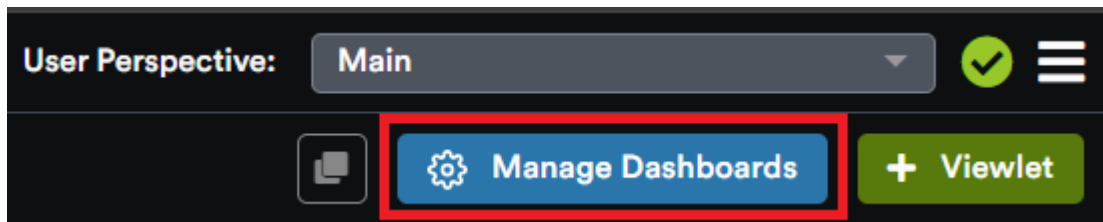


Figure 4.3.12.2-A Manage Dashboard Option

The *Manage Dashboards* dialog opens. Turn on the **Shared Dashboards** slider to view shared dashboards. To add the dashboard, select its checkbox and click **+ Add To Current Perspective**. Multiple dashboards can be selected at one time.

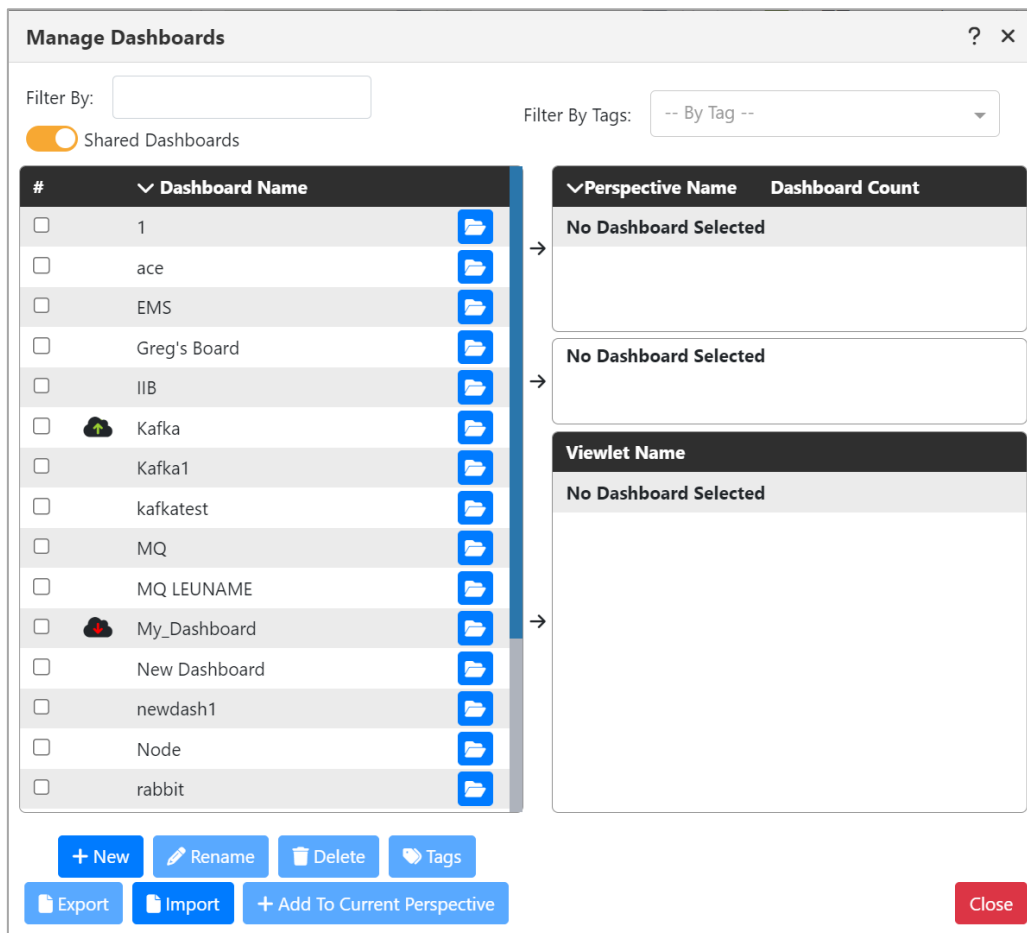
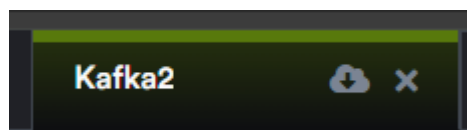


Figure 4.2.12.2-B Manage Dashboard

The selected dashboard is now displayed on the main tab bar. As seen in the figure below, a dashboard that has been shared by someone else has an icon with a downward-pointing arrow. Hover your mouse over the icon to see the owner of the dashboard.



1.1.1.1.5 When viewing shared dashboards created by someone else, the following restrictions apply:

- Viewlets within a shared dashboard can be minimized or maximized, but only for the current session; a viewlet's collapsed/expanded state will not be saved.
- Only the dashboard owner can add new viewlets to a shared dashboard. However, if the owner grants edit ("write") access when sharing the dashboard with a group, members of that group can edit the viewlets on the shared dashboard.
- The shared dashboard cannot be renamed.
- Schemas cannot be applied. The schema applied by the dashboard's owner is the only schema that will be used.

4.2.13 User Perspectives

User Views were renamed “User Perspectives” in version 10.5.

With User Perspectives, you can group related dashboards into perspectives, or views. You can switch between perspectives at any time. The Workspace dashboard is in all User Perspectives and cannot be removed.

4.2.13.1 What is a User Perspective?

A User Perspective is a container for a set of dashboards. Initially, each user starts with a single User Perspective called the “Main” one.

4.2.13.2 Add a User Perspective

To add a new User Perspective, click the User Perspective menu icon and select **+Add User Perspective**.

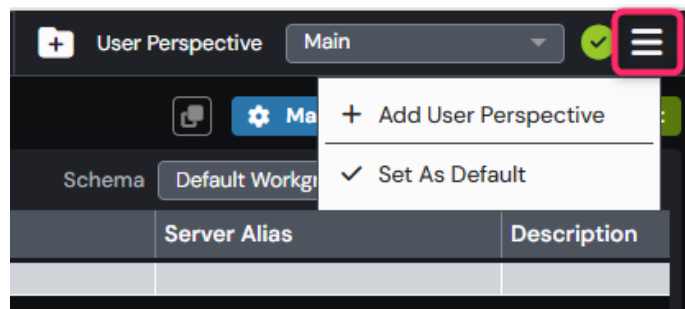


Figure 4.2.13.2-A. User Perspective Menu: Add Perspective

Enter a name for the new perspective:

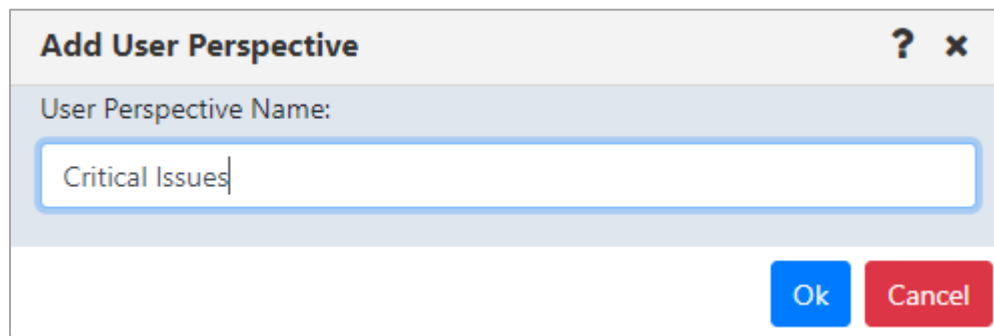
A screenshot of the 'Add User Perspective' dialog box. The dialog box has a title bar with a question mark and a close button. The main area contains the label 'User Perspective Name:' followed by a text input field containing 'Critical Issues'. At the bottom right, there are 'Ok' and 'Cancel' buttons.

Figure 4.2.13.2-B. Add User Perspective

Click **OK**. All current dashboards except the Workspace dashboard are cleared. From there, you can add, rename, or delete dashboards to update your new User Perspective. All changes you make are retained and are visible the next time you access the same perspective.

You can return to the Main perspective by selecting it from the User perspective list:

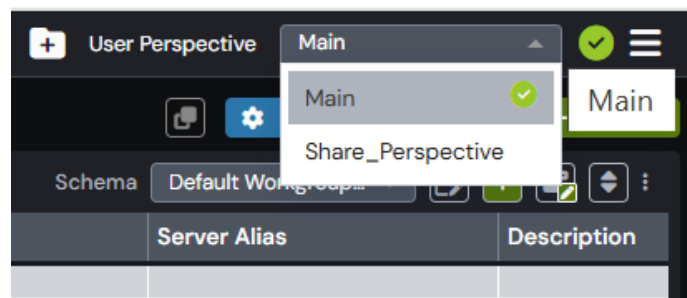


Figure 4.2.13.2-C. User Perspective List

4.2.13.3 Edit a User Perspective

You can edit a User Perspective by renaming it. Select the view from the User perspective list (Figure [4.2.13.2-C](#)) to view it. Then click the User Perspective menu icon and select **Edit User Perspective**.

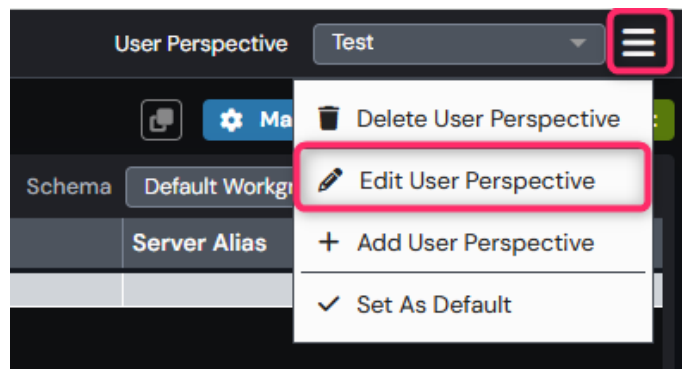


Figure 4.2.13.3-A. User Perspective Menu Icon

Enter a new name for the User Perspective and click **OK**.

The new name appears in the User perspective list.

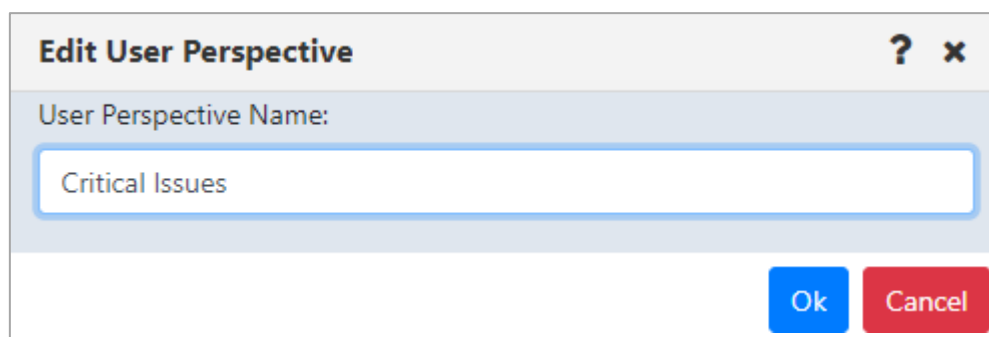


Figure 4.2.13.3-B. Edit User Perspective

4.2.13.4 Set a User Perspective as the Default

If you want a certain User Perspective to be displayed when you log on to the application, set that User Perspective as the default. First, switch to that User Perspective. Then, click the User Perspective menu icon (Figure [4.2.13.3-A](#).) and select **Set As Default**.

4.2.13.5 Delete a User Perspective

You can delete a User Perspective so it is no longer available. Select the perspective from the User perspective list to view it. Then click the User Perspective menu icon (Figure [4.2.13.3-A](#)) and select **Delete User Perspective**.

Click **Yes** to delete the User Perspective. As a result, your current User Perspective reverts to the Main perspective.

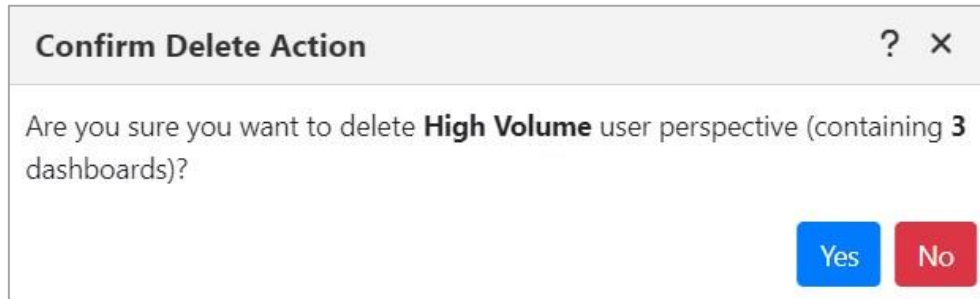


Figure 4.2.13.5-A. Confirm Delete Action: Delete User Perspective

4.2.14 Manage Dashboards

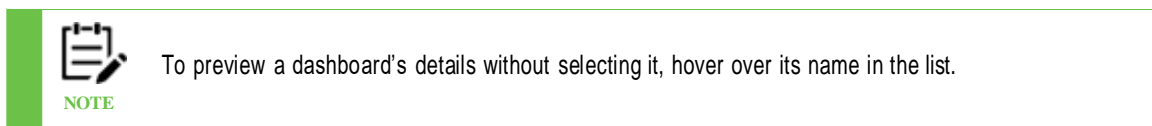
The *Manage Dashboards* dialog is a central location for many dashboard-related actions:

- viewing which user perspectives and viewlets are associated with a dashboard
- adding shared or imported dashboards to your current User Perspective
- finding a dashboard that you previously removed from a User Perspective and adding it back
- assigning tags to dashboards to keep them organized

From here you can also perform the basic functions of adding, renaming, and deleting dashboards.

Manage Dashboards also provides access to advanced features such as creating, editing, and deleting tags and exporting and importing dashboards.

When you click the name of a dashboard on the left side, its details are displayed. The right side of the dialog shows (from top to bottom) the User Perspectives that contain the selected dashboard (along with the number of dashboards in each one), any tags that have been assigned to the dashboard, and the dashboard's viewlets.



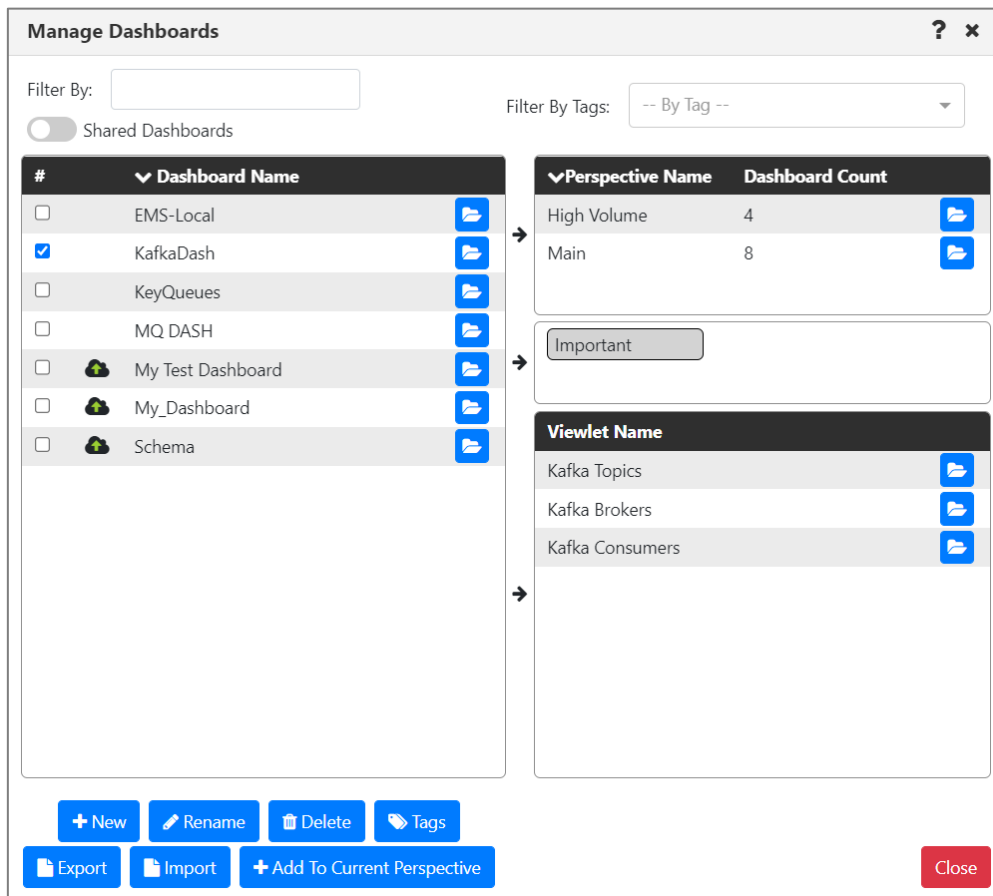


Figure 4.2.14-A. Manage Dashboards

4.2.14.1 Finding Dashboards

On the *Manage Dashboards* dialog, you can find dashboards in several ways:

Filter the Dashboard List

Use the Filter By field to find dashboards by three criteria. The Dashboard Name list is automatically filtered to include only dashboards that match any of these criteria, including partial matches:

- Dashboard name
- Name of a viewlet contained on the dashboard
- Name of a User Perspective that contains the dashboard

Search for Dashboards by Tags

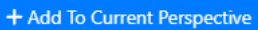
Use the Filter By Tags field to find dashboards that have been assigned certain tags. To be included in the results, a dashboard must have all the tags that have been added to the Filter By Tags field.

To add a tag to the Filter By Tags field, do one of the following:

- Click the Filter By Tags list arrow and select as many tags as you want to include in your search.
- If a tag is visible in the tag box (between the User Perspective and Viewlet boxes on the right side), click and drag it to the Filter By Tags field to add it to the criteria.


4.2.14.2 Adding Dashboards to the Current View




If you have found a dashboard (for example, a shared dashboard) that you want to add to your current perspective, select the checkbox for the dashboard in the Dashboard Name list and click

 **+ Add To Current Perspective**

. The Dashboard is immediately added to your current User Perspective.

4.2.14.3 Navigating to Dashboards, User Perspectives, and Viewlets

Open  buttons on the *Manage Dashboards* dialog can be used to navigate directly to the corresponding items. For example:

- Click Open  next to a User Perspective to open the selected dashboard in the selected User Perspective.
- Click Open  next to a Dashboard to open the selected dashboard. If the selected Dashboard is not part of the current User Perspective, it will be added to the User Perspective.
- Click Open  next to a Viewlet to open the selected viewlet within the selected dashboard. Again, if the selected Dashboard is not part of the current User Perspective, it will be added to the User Perspective.


4.2.14.4 Assigning Tags to Dashboards


Tags make finding dashboards easier. You can search for dashboards by the tags that are assigned to them.


To assign tags to dashboards, you must have the **Manage Tag Assignment to Dashboards** right in the security application.


Click **Dashboards...** to open the *Manage Dashboards* dialog. Select the checkbox for a dashboard or dashboards in the **Dashboard Name** list and click **Tags**.

The left column lists all tags that are available to be assigned to the dashboard. The right column lists any tags that are already assigned to the dashboard.

To add tags, on the Tag Name list on the left side, select the checkbox for each tag you want to add to the dashboard. Click the right arrow  to add the tag to the dashboard. The tag is moved to the right column.

To remove tags, on the right side, select the checkbox for each tag you want to remove from the dashboard. Click the left arrow  to remove the tag from the dashboard. The tag is moved back to the left column.

To add all tags to the dashboard, whether or not they are selected, click the double right arrow .

To remove all tags from the dashboard, click the double left arrow .

Click **Save**.

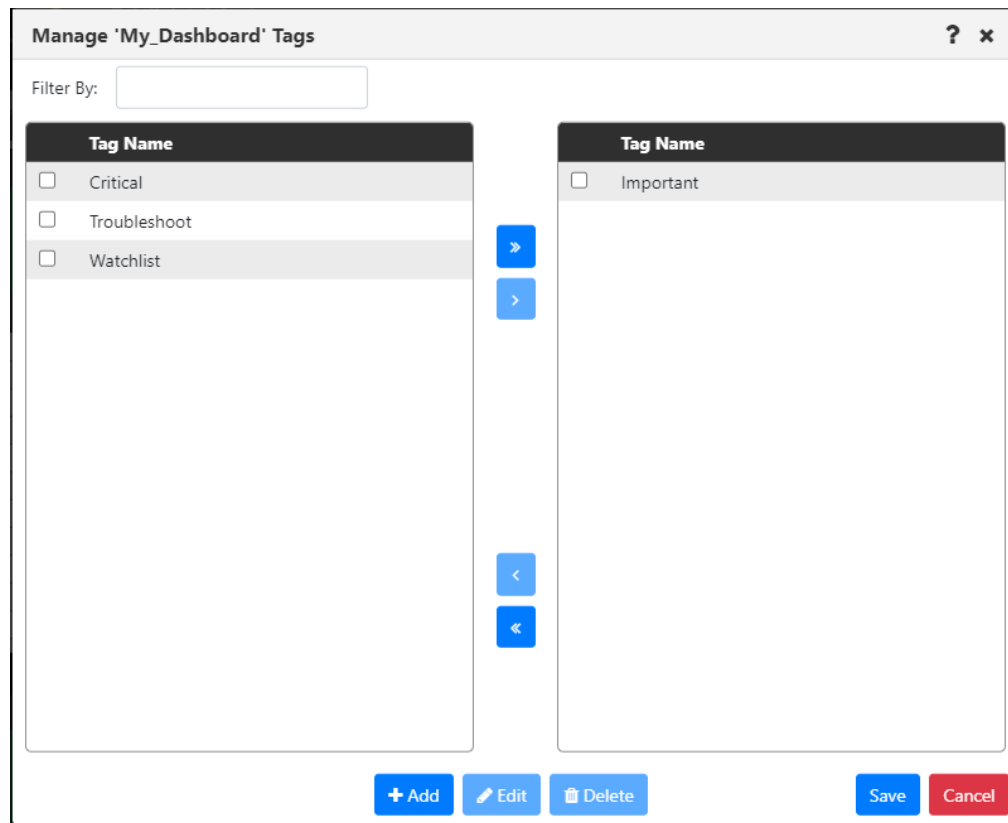


Figure 4.2.14.4-A. Manage Dashboard Tags

4.2.14.5 Advanced Dashboard Management Features

The *Manage Dashboards* dialog also provides access to several tools that are designed to be used by advanced users, such as administrators:

- Managing tags (adding, editing, and deleting the tags that are used to organize dashboards and make them easy to find)
- Importing and Exporting Dashboards
- Importing and Exporting Viewlets

The procedures below will begin from the *Manage Dashboards* dialog. To perform them, first click **Dashboards...** to open the *Manage Dashboards* dialog.

4.2.14.5.1 Managing Tags

To ensure control over the classification of dashboards, the ability to create, edit, and delete dashboard tags requires the **Manage Dashboards Tags Data** right to be granted in the security application.

To create a tag, on the *Manage Dashboards* dialog, select the checkbox for a dashboard or dashboards in the **Dashboard Name** list and click **Tags**. Click **+Add** to open the *Edit Tags* dialog. Enter the name of the new tag and click **+Add**. Repeat this process for as many new tags as you want to add. Then click **Save**.



Figure 4.2.14.5.1-A. Edit Tags

New tags are added to the bottom of the tag Name list.

To edit a tag, on the *Manage Dashboards* dialog, select the checkbox for a dashboard in the **Dashboard Name** list and click **Tags**. Select the checkbox or checkboxes for the tag or tags you want to edit and click **Edit**. Update the tag names as needed and click **Save**.

To delete a tag, on the *Manage Dashboards* dialog, select the checkbox for a dashboard in the **Dashboard Name** list and click **Tags**. Select the checkbox or checkboxes for the tag or tags you want to delete and click **Delete**. Click **Yes** to delete the selected tags or **No** to cancel.

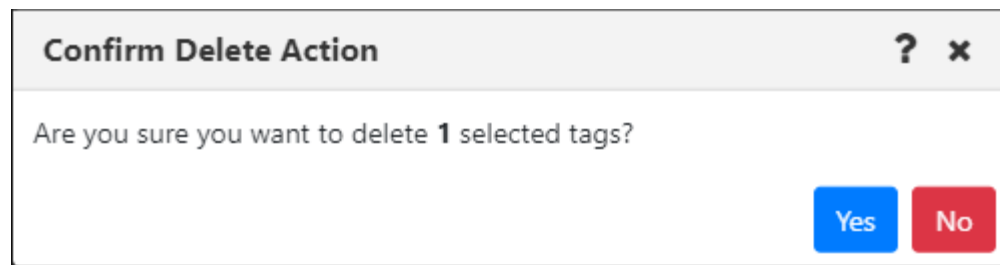


Figure 4.2.14.5.1-B. Confirm Delete Action: Tags

You can also delete a tag that you are editing by clicking the **Delete** button next to it in the *Edit Tags* dialog.

4.2.14.5.2 Importing and Exporting Dashboards

The Manage Dashboards window also allows you to export dashboards, along with their viewlets and tags, into files so that others can import them.

4.2.14.5.2.1 Export Dashboards

You can export dashboards that other users can import. Consider using exported and imported dashboards in cases like these:

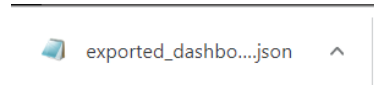
- Exporting is a way to save your dashboards for future re-import if, for example, the database that you are using will be replaced.
- Exporting and importing dashboard files is a way to pass dashboards between people or make them available for new users.
- Exporting and importing dashboards can be used to move dashboards from one environment to another.



When exporting dashboards, favorite viewlets are not included. Only external viewlets and data are included.

To export one or more dashboards from the *Manage Dashboards* dialog, select the dashboard or dashboards and click **Export**.

A file called `exported_dashboards[uniqueid].json` is generated and downloaded through your browser. The file can be saved or opened.



exported_dashbo...json ^

Other users can then use this file to import these dashboards through the import process described in the next section.

4.2.14.5.2.2 Import Dashboards

You can import a dashboard that you or someone else has exported. For example, an administrator might create a set of dashboards specifically for new users, export them to a file, and have a new user import that file.

From the *Manage Dashboards* dialog, click **Import** to open the *Import Dashboards* dialog. Under Choose Import file, click **Choose File**. Use the *Open* dialog to navigate to the dashboard file or files that you want to import. Double-click the file or files.

Dashboards from the file are listed on the left side of the dialog.

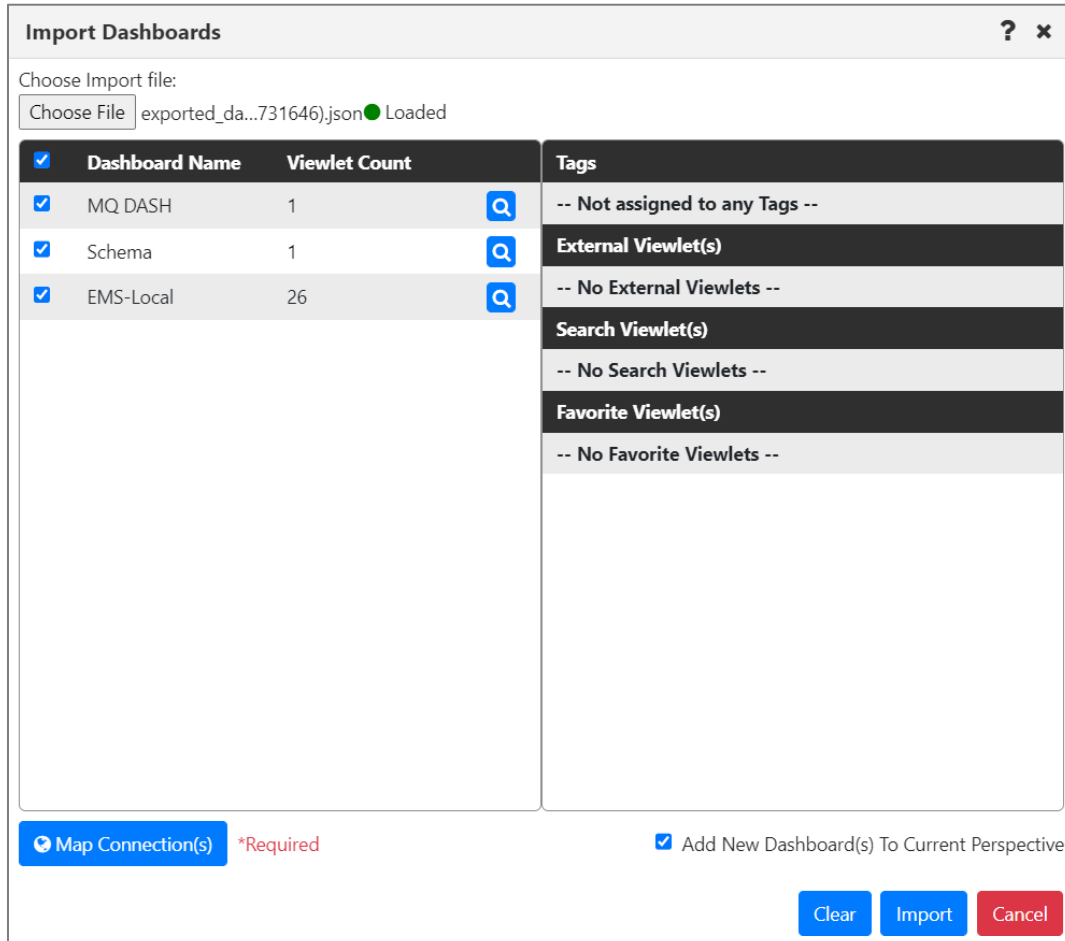


Figure 4.2.14.5.2.2-A. Import Dashboards


To view details about a dashboard, such as its tags and viewlets, click the magnifying glass icon .



Figure 4.2.14.5.2.2-B. Imported Tags and Viewlets

By default, importing connections are mapped to the first workgroup server connection that is in use. If a user has more than one connection in use, has permission to create connections at import, and wants to import the dashboards into a connection other than the default, the user can click **Map Connection(s)**. On the *Map Connection(s)* dialog, the user can select the connection that they want to use for the imported data. The **User Connection** list includes all connections that are in use.

A user who has the **Allowed Create Connection On Import** right can allow new connections to be added automatically at import, if needed. The user can select the *Add if not found in* option from the **User Connection** list. The user's connections are searched for those that have the same port and connection list as the importing connections, even if the names are different. If no such connections are found, a new connection is added.

Click **OK**.

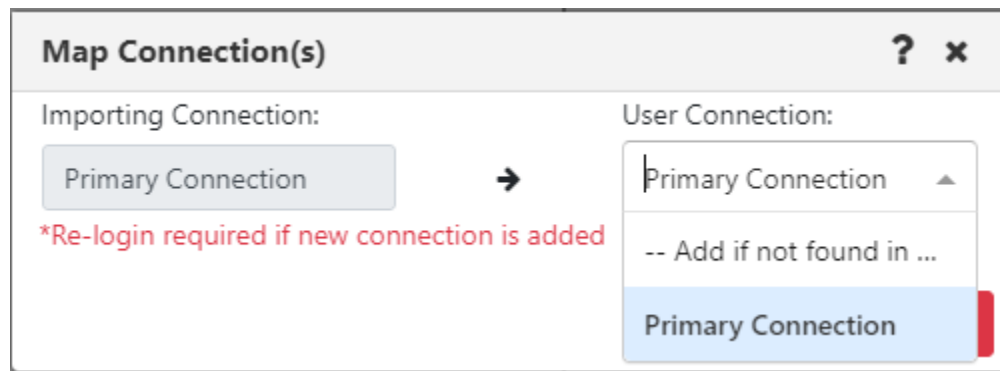


Figure 4.2.14.5.2.2-C. Map Connections

By default, the **Add New Dashboard(s) To Current Perspective** checkbox is selected, so that upon import, new dashboards will be added to the current user perspective. If you want to prevent this from happening, clear the checkbox.

Choose the specific dashboards that you want to import by selecting their checkboxes.

Click **Import**. The imported dashboard or dashboards are displayed. If you've chosen to import multiple dashboards, the first one is displayed.

If you already have a dashboard with the same name as one that you are importing, a (1) is appended to the imported dashboard's name.

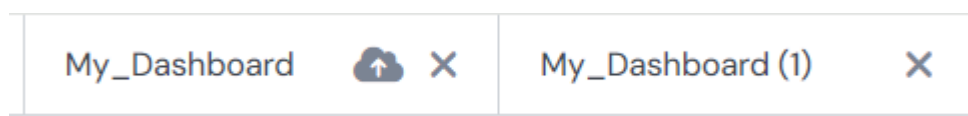


Figure 4.2.14.5.2.2-D. Treatment of Duplicate Dashboard Names

4.2.15 App Switcher

1. The app switcher icon allows you to switch between applications with one click. To use this feature, you need to configure it in the system. To learn how to configure it, click here for the [App Switcher Configuration Steps](#).
2. After completing the configuration, log into the application (Manage) to see the app switcher icon in the top left corner of the window.

- Click on the app switcher icon to see the options:
 - If you log in from **Manage**, you will see **Secure**, **Track**, and **meshIQ Support**.
- Click on an app to switch to it. Depending on your system configuration, the app will open either in the same tab or in a different tab. If it opens in the same window, pressing the back button on your browser will return you to the previous login page.
If SSO is enabled on your system, you may not need to log in.

**NOTE**

Your app switcher options may differ from those shown in the image below.

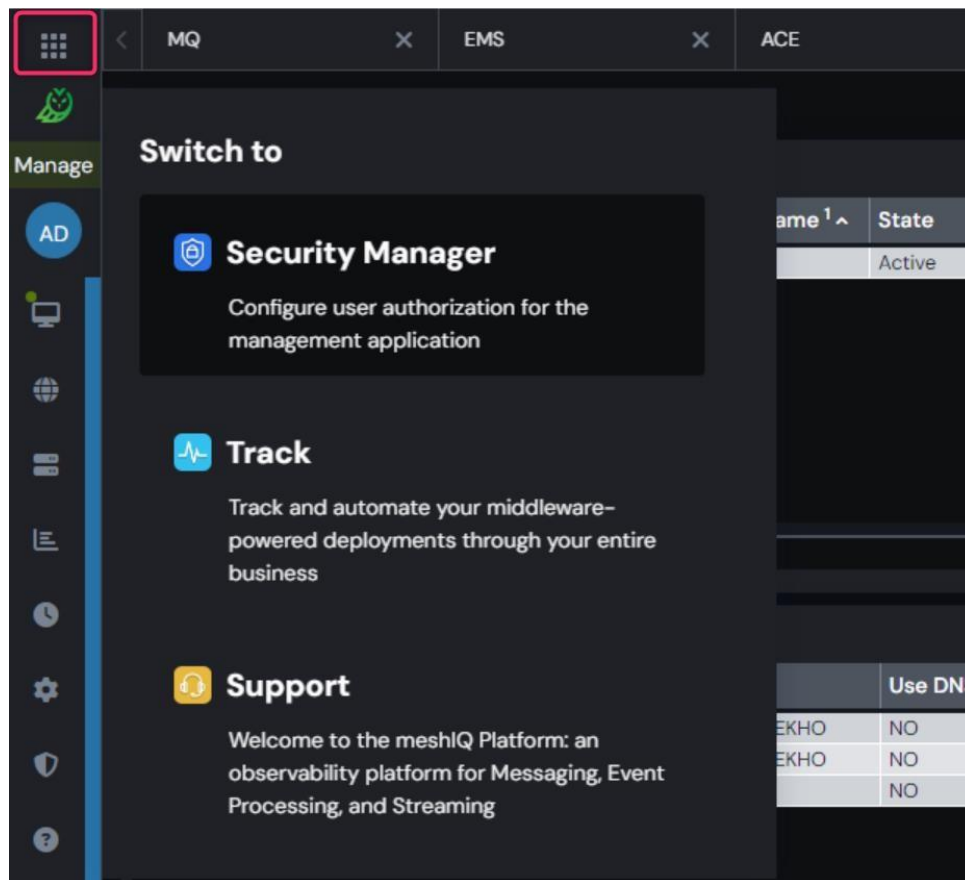


Figure 4.2.15-A App Switcher

4.2.15.1 App Switcher Configuration Steps

To access the App switcher feature, follow the configuration steps mentioned below.

Configuration Steps:

1. First, stop the Tomcat server.
2. Take the `app-switcher.xml.sample` file from the package and rename it to `app-switcher.xml`. You can have an `app-switcher.xml` file for each of your environments (for example, `prod-app-switcher.xml` or `test-app-switcher.xml`).
3. Update the URLs in the file with your own (the default URLs are set to localhost).
 - a. For each default app, choose whether you want to open in new browser tab or same tab by updating `<blank>`. **True** means the app will open in a new tab, while **False** means it will open in the same tab.
 - b. If you want to add your own app, create a new `<config>` element using your own values, including a unique ID, the name and description you want to display in your menu, the URL of your app, and the icon, Refer to the instructions on [Adding Icons to App Configuration](#).
4. Copy the file to a designated location (the default location is `[AUTOPILOT_HOME]/apache-tomcat/conf`)
5. Add the following property in the `context.xml` file located at `[AUTOPILOT_HOME]/apache-tomcat/conf`:

```
<Parameter name="appswitcher.manager.config"
value="/opt/meshiq/platform/apache-tomcat/conf/app-
switcher.xml"/>
```

If your XML file has a different name, make sure to update the same name in the parameter above.

6. Restart the Tomcat server.
7. After configuring, log into the application (Manage), and you will see the app switcher icon in the top left corner of the window.
8. Click on the app switcher icon to see the options:
 - If you log in from **Manage**, you will see **Secure**, **Track**, and **meshIQ Support**.
9. Click an app to switch to it. Depending on your system configuration, the app will open either in the same tab or in a different tab. Read this to find out more about the [App Switcher](#).

4.2.15.2 Adding Icons to App Configuration:

To add icons to the app configuration, follow the instructions below.

1. Use an online converter or shell command to convert your image file (e.g. SVG) into a Base64 string. For instance, if you have an SVG file, you can use the shell command to perform this conversion. For example, on Linux or macOS:
`base64 image.svg > image_base64.txt.`



NOTE


You can find various online tools to convert images to Base64.

2. Once you have the Base64 string, format it correctly. For an SVG, it should look like this:
`data:image/svg+xml;base64,<Base64-encoded-data>`
3. The `<Base64-encoded-data>` part will be the actual string generated in step 1 from your image.
4. Include the formatted string within the `<icon></icon>` tags in your XML configuration file.
For example:
`<icon>data:image/svg+xml;base64,<Base64-encoded-data></icon>`
5. After embedding the Base64 string, test your application in the relevant environment to ensure that it can render the icon correctly.

4.3 Viewlets

Viewlets allow you to view, sort, and filter the objects, messages, and events of the products in your integration infrastructure. Viewlets, organized within dashboards, are the user interface hub for managing and monitoring activities.

4.3.1 Adding and Maintaining Viewlets

The *Create Viewlet* dialog box is displayed when the **Viewlet** button  is clicked from the top right of the screen ([Figure 4.1-A](#)). Please note that when accessed from the *WorkSpace* dashboard, only the **Create a temporary viewlet using search** option is available.

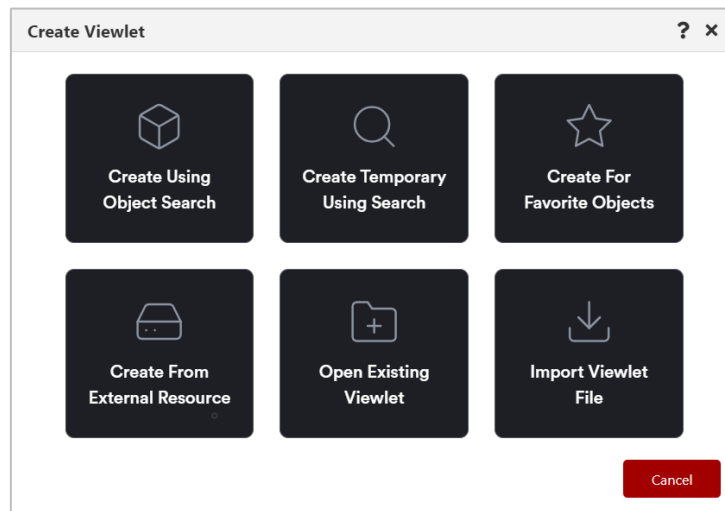


Figure 4.3.1-A. Create Viewlet

4.3.1.1 Creating New / Temporary Viewlets

The *Create new viewlet* window is displayed when **Create Using Object Search** or **Create Temporary Using Search** is selected from the *Create Viewlet* dialog ([Figure 4.3.1-A](#)). If **Create a Temporary Using Search** was selected, the viewlet will only be visible during this session.

Select the product and object type from the left side of the screen. On the right side of the screen, complete the fields as required. When selecting a Workgroup server connection, you can choose to show objects from multiple connections by selecting the **Multi-Selection** checkbox and selecting the individual Workgroup servers one at a time.

If Workgroup server connection groups have been created, and the User Settings **Display Grouping In Connection Selection** checkbox is selected, connection groups are included in Workgroup server lists, in addition to individual connections.

To make the viewlet temporary, enable the **Temporary** check box.

Use the **Project** drop-down to filter the viewlet by user group configurations. Viewlet results are filtered by the selected group's server (workgroup servers, nodes, and managers) and object group access permissions defined in the security application. If **All** is selected, the data displayed is according to all groups the user belongs to. For example, if the user belongs to both the *Administrators* and *Users*



groups, the viewlet will display data that meets the security application filters for *Administrator* or *Users* when **All** is selected.

The **Attribute filter** is useful to search for specific cases. See [Attribute Filter](#), for more info.

The **Custom Viewlet Color** option allows you to color code viewlets. See [Color Settings Tab](#), for more information.

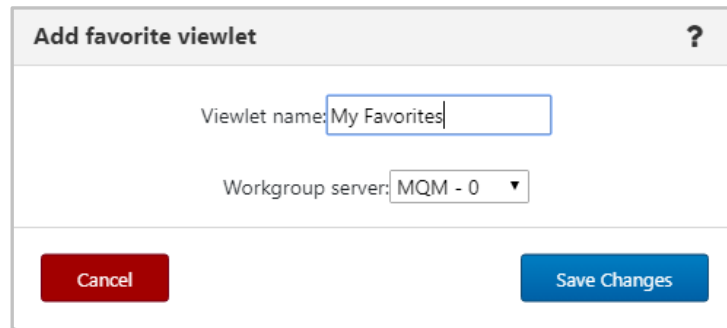
Click **Save Changes** when done. The viewlet will appear at the bottom of the current dashboard.

Figure 4.3.1.1-A. Create New Queue Viewlet

 **NOTE** If you notice a warning symbol  located at the top-right of the viewlet, it means that the queue manager is down.

4.3.1.2 Create a New Viewlet for Favorite Objects

The *Add favorite viewlet* dialog is displayed when **Create for a favorite objects** is selected from the *Create Viewlet* dialog ([Figure 4.3.1-A](#)). For more information on favorite viewlets, see [Favorites](#).



The dialog box titled "Add favorite viewlet" contains two input fields. The first field is labeled "Viewlet name:" and contains the text "My Favorites". The second field is labeled "Workgroup server:" and is a dropdown menu showing "MQM - 0". At the bottom of the dialog, there are two buttons: a red "Cancel" button on the left and a blue "Save Changes" button on the right.

Figure 4.3.1.2-A. Add Favorite Viewlet Dialog

4.3.1.2.1 Create a Favorite Viewlet

1. Enter a name for the viewlet within the **Viewlet name** field.
2. Select a server from the **Workgroup server** drop-down list.
3. Click **Save Changes**.
4. A viewlet for all favorite objects is now created. Scroll down to see the new viewlet. Favorite viewlets will have a star icon appearing immediately before the viewlet's name.

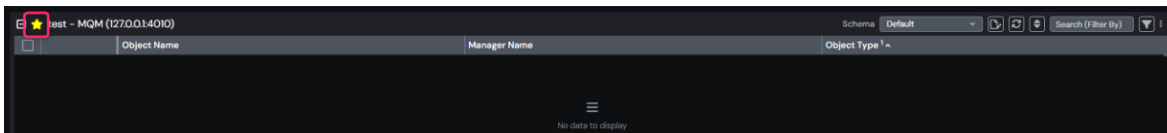



Figure 4.3.1.2-B. Favorites Viewlet

4.3.1.2.2 Edit / Delete a Favorites Viewlet

Click the viewlet menu  on the right side of the viewlet. Select **Edit viewlet** to rename the viewlet (Figure 4.3.1.2-D) or **Delete viewlet** (Figure 4.3.1.2-E) to remove the viewlet.

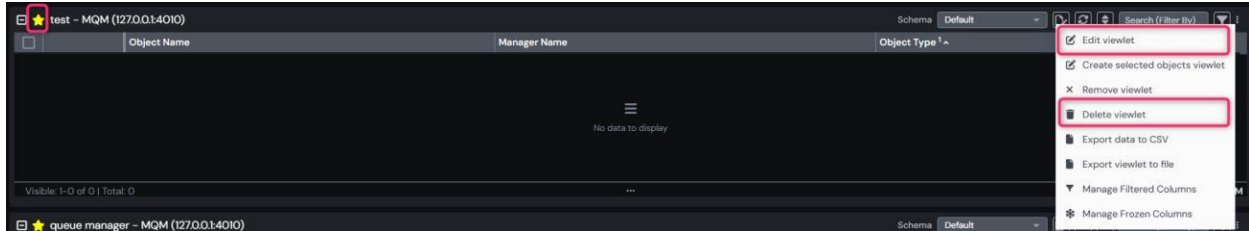


Figure 4.3.1.2-C. Edit / Delete Favorite Viewlet

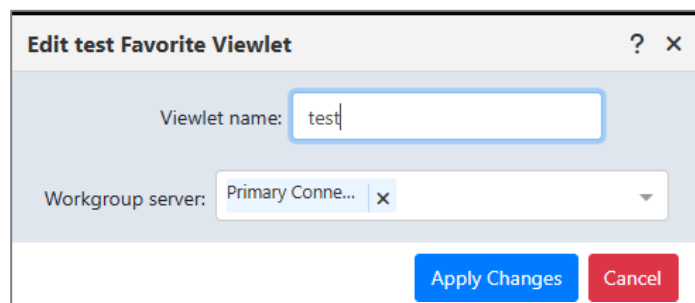


Figure 4.3.1.2-D. Edit Favorite Viewlet

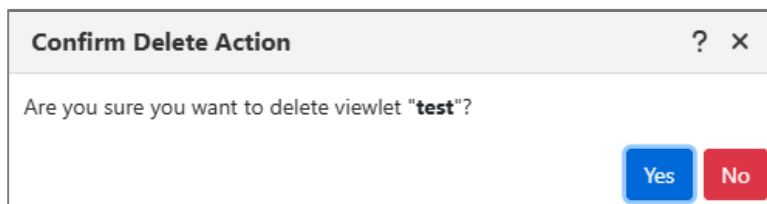



Figure 4.3.1.2-E. Delete Viewlet Confirmation

4.3.1.3 Create a New External Resource Viewlet

You can create a viewlet using an external resource. For example, you can display your company's intranet or a knowledge base so that it is easily viewed and accessible right within meshIQ Manage. If you utilize XRay, this feature allows for integration; you can view XRay viewlets from meshIQ Manage.

To create a viewlet using an external resource, select **Create From External Resource viewlet** from the *Create Viewlet* window (Figure 4.3.1-A). The below window opens. Enter a name for the viewlet and the URL to the external source. Select the workgroup server in the last field and click **Ok**. You can check the 'Multi-Selection' checkbox to select multiple workgroup servers. You can also select 'regex' to choose all grouped connections.



If you are adding an XRay viewlet, refer to [Can I publish a viewlet on a web page?](#) For information on how to share the viewlet and retrieve its URL.

Create New External Resource Viewlet ? x

Viewlet name:
 Field is required

External resource URL:
 Field is required

Workgroup server:
Primary Connection - (MQM) ▼
 Multi-Selection

Ok Cancel

Figure 4.3.1.3-A. Create New External Resource Viewlet

The viewlet will now appear on your dashboard. Below is an example.

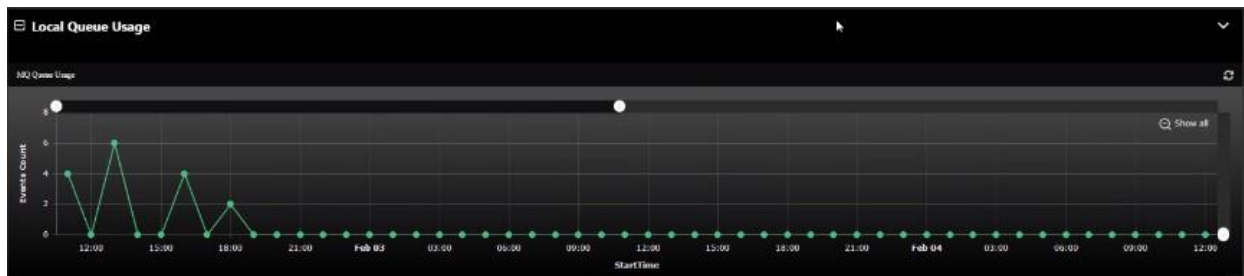


Figure 4.3.1.3-B. External Resource Viewlet

4.3.1.4 Import a Viewlet from a File

If you or another user has exported viewlet properties to a file (see [Export viewlet to file](#)), you can import that file to create a new viewlet. Select the **Import viewlet file** option from the *Create Viewlet* dialog ([Figure 4.3.1-A](#)).

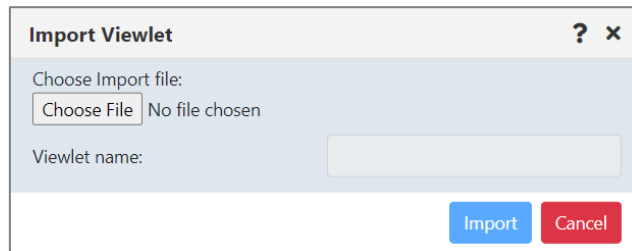


Figure 4.3.1.4-A. Import Viewlet

After you choose a file, the Viewlet Name is filled in, based on the file contents. Workgroup server connections are listed. A user who has the **Allowed Create Connection On Import** right can allow new connections to be added automatically at import, if needed. The user can select the *Add if not found in* option from the **User Connection** list. The user's connections are searched for those that have the same port and connection list as the importing connections, even if the names are different. If no such connections are found, a new connection is added.

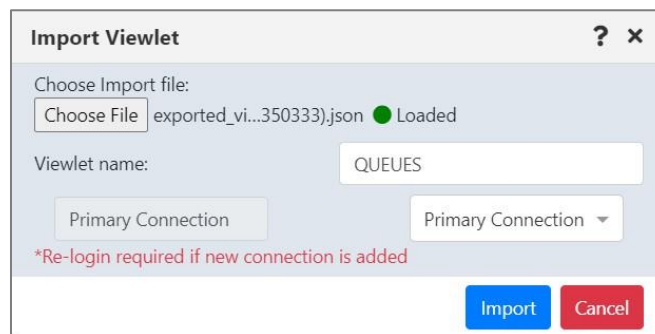


Figure 4.3.1.4-B. Import Viewlet with File

Click **Import** to import the viewlet into the dashboard. If a new connection has been added, log out and back in again to view it.

4.3.1.5 Open Existing Viewlet

To open an existing viewlet, select **Open Existing viewlet** from the *Create Viewlet* window ([Figure 4.3.1-A](#)). The *Add Existing Viewlet* window opens. This window displays all the existing viewlets available within the workgroup server, including those from all active connections. Select the viewlet and Click



to open existing viewlet. To find a viewlet in the list, use the **Filter by** field.

Add Existing Viewlet ? ×

Filter by:

<input type="checkbox"/>	Dashboard	Viewlet Title	Object Type	Object Subtype	Product	Workgroup Se
<input type="checkbox"/>	Subscription Verification	New Subscription Viewlet	Subscription			Primary Conn
<input type="checkbox"/>	Manager	Manager viewlet	Queue Manager			Primary Conn
<input type="checkbox"/>	Kafka_Dashboard	Kafka Clusters	Cluster			Primary Conn
<input type="checkbox"/>	SOLACE_Dashboard	SOLACE Brokers	Solace Broker			Primary Conn
<input type="checkbox"/>	Ace	Integration Node	ACE Integration Node			Primary Conn
<input type="checkbox"/>	Solace	Rest consumer	Solace Rest Consumer			Primary Conn
<input type="checkbox"/>	QueuesViewlet Verificatio	Local Queue	Queue	Local Queue		Primary Conn
<input type="checkbox"/>	IIB	Brokers	IIB Broker			Primary Conn
<input type="checkbox"/>	RabbitMQ_Dashboard	Server	Rabbit MQ Server			Primary Conn
<input type="checkbox"/>	IIB	Servers	IIB Server			Primary Conn
<input type="checkbox"/>	Kafka_Dashboard	Kafka Topics	Kafka Topic			Primary Conn

Total: 65 Visible: 65

Figure 4.3.1.5-A. Add Existing Viewlet

4.3.1.6 Viewlet Menu

Clicking the three vertical dots menu located at the top right corner of a viewlet opens the viewlet menu. Users have the option to edit, remove or delete viewlets. They can also export viewlet data or properties. See the sections immediately below for more information on these options.

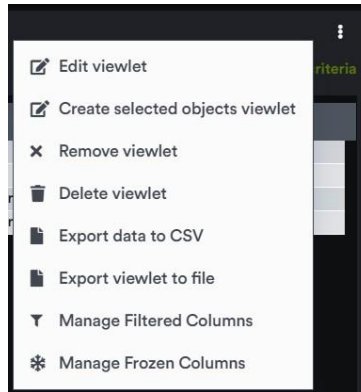


Figure 4.3.1.6-A. Viewlet Menu

4.3.1.6.1 Edit Viewlet

Select **Edit Viewlet** from the viewlet drop-down menu. The *Edit Viewlet* window opens. For more information on this screen, please see [Creating New / Temporary Viewlets](#).

4.3.1.6.1.1 Attribute Filter

The **Attribute filter** feature allows you to narrow down the number of records in a viewlet to display more relevant results. Attribute filters can be valuable when searching for specific use cases, such as queues that get disabled, queues with more than 1000 messages, or objects that do not have specific settings (default persistence). Users can specify multiple attributes for each filter. In versions 10.4.2 and earlier, attribute filters are applied to data that the workgroup server has already returned. In versions 10.5 and later, the workgroup server applies any active attribute filters to data before it is passed to the application server to be displayed in the browser.

Attribute filters can be applied on the *Create New Queue Viewlet* and *Edit Queue Viewlet* (section [4.3.1.6.1](#)) windows. See [Creating New / Temporary Viewlets](#). Once you create an attribute filter for a particular product and viewlet type, it becomes available for all viewlets for that product and type. For example, if an attribute filter is created for an IBM channel viewlet, it is available on other IBM channel viewlets.

The **Active attribute filtering** checkbox turns attribute filtering on and off for the viewlet. Select the checkbox to enable attribute filtering.



Whether attribute filtering is enabled or not, the specific attribute filters that you add will remain available for later use.

The screenshot shows the 'Create new IBM MQ Queue viewlet' dialog box. The 'Product' is set to 'IBM MQ'. The 'Viewlet name' is 'Temp_Queue_Viewlet_1'. The 'Workgroup server' is 'Default Connection - ...'. The 'Temporary' checkbox is checked. The 'Node' is set to '*' and the 'Manager' is set to '*'. The 'Queue' section is selected in the left sidebar. The 'Object name' is '*' and the 'Queue Type' is 'Local Queue'. The 'Custom Viewlet Color' checkbox is unchecked, and the 'Flat Color' checkbox is also unchecked. The 'Project' is set to 'All'. The 'Find messages' checkbox is unchecked. The 'Search criteria' field is empty, and the 'Search depth' is set to '10000'. The 'Result limit' is set to '100'. The 'Active attribute filtering' checkbox is checked and highlighted with a red box. The 'Attribute filter' field is empty, and the '+' and 'x' buttons are visible next to it. The 'Save changes' and 'Cancel' buttons are at the bottom right.




Figure 4.3.1.6.1.1-A. Attribute Filter Option

You must have the **Manage Private Attribute Filters** right to add, edit, copy, or delete attribute filters.

To add an attribute filter, click the  button immediately to the right of the field.

The *Attribute Filters* dialog box opens. If you created any filters in the past, they are included in the Filter Name list.

About Sharing Attribute Filters:

- Any filters that you have shared have a green Shared Filter  icon on the *Attribute Filters* dialog. You can view and use filters that others have shared by turning on the Shared Filters slider. Filters that others have shared have a red Shared Filter  icon.
- To share a filter with one or more groups, you must have both Manage Private Attribute Filters and Manage Shared Attribute Filters rights. Turn on the **Share Filter** slider for the filter in the *Attribute Filter Management* dialog (Figure [4.3.1.6.1.1-D](#)). From the popup menu, click the read icon  next to the groups you want to share the filter with. The read icon changes to green for selected groups.

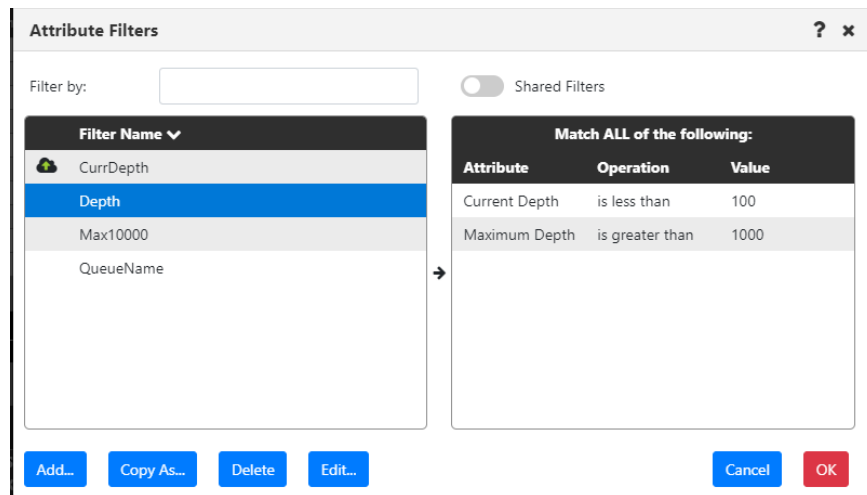


Figure 4.3.1.6.1.1-B. Attribute filters

You can search for a filter by entering part of its name in the **Filter by** field. The list is filtered automatically based on your entry.

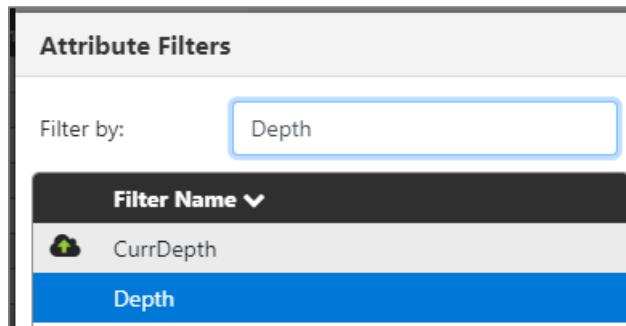


Figure 4.3.1.6.1.1-C. Attribute Filters: Filtering

To add a new filter, click the **Add** button. The *Attribute filter management* dialog box opens. Enter a name for the filter within the **Filter name** field.

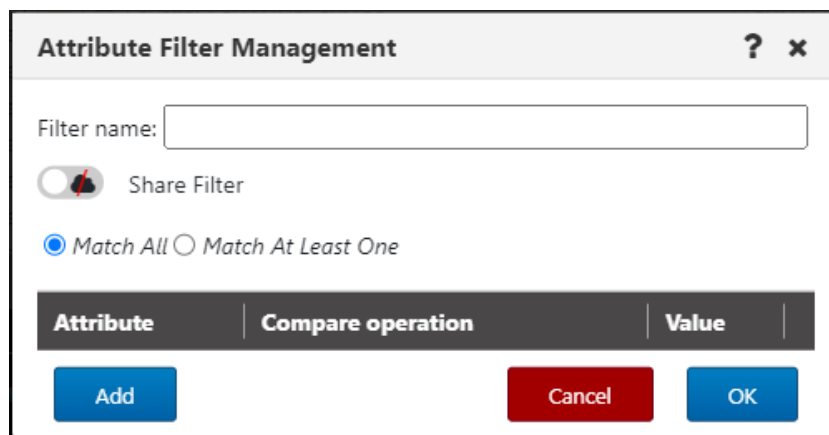


Figure 4.3.1.6.1.1-D. Add New Attribute Filter

Select one of the following option buttons:

- **Match All:** Objects with all attributes specified by the user will be found.
- **Match At Least One:** Objects with at least one of the attributes specified by the user will be found.

Click **Add** to add one or more attributes to the new filter.

The *Available attributes* window appears. Click on an attribute to select it. Multiple attributes can be added. The background color of a selected attribute will appear green.

There are two filter methods to locate attributes more easily:

- *Filter by name.* Use the **Enter filter value** search box to search by attribute name (part of the name can be entered).
- *Filter by category.* Use the drop-down list to select the category for the attribute you are looking for. Categories are specific to the viewlet's object type (for example, queue manager categories may include *Cluster* and *Communication*; channel categories may include *Statistics* and *Monitoring*).

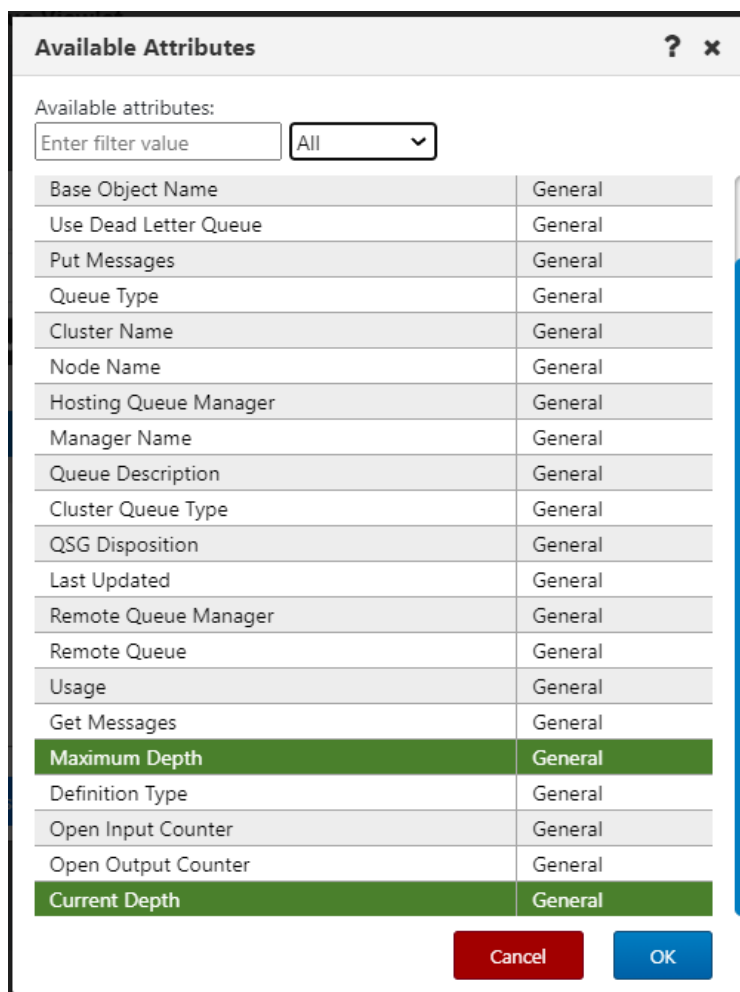
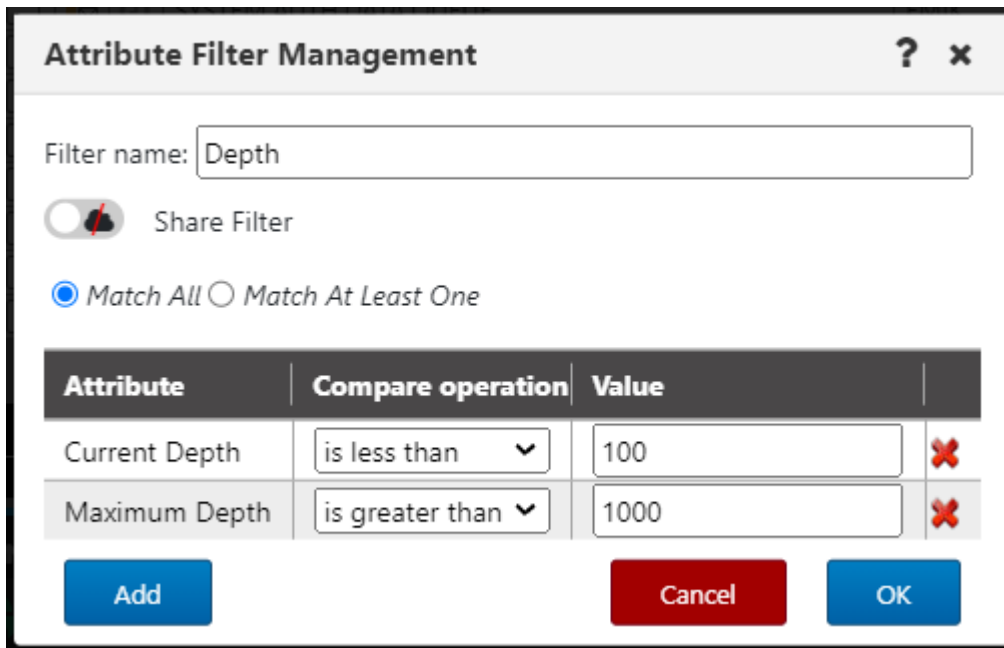


Figure 4.3.1.6.1.1-E. Available Attributes

Click **OK** to return to the *Attribute Filter Management* dialog. The selected attributes will need to be configured. For each attribute, select an option from the **Compare operation** drop-down. (Selections vary by data type. For example, numerical comparisons are as follows: *is equal*, *is less than*, *is greater than*, *is not equal*, *is empty*, and *is not empty*. Text comparisons are as follows: *is equal*, *is not equal*, *starts with*, *ends with*, *contains*, *does not contain*, *is blank*, *is not blank*, *matches pattern*. For custom

attributes, compare operations are as follows: *key exists*, *key does not exist*, *is equal*, *is not equal*, *starts with*, *ends with*, *contains*, *does not contain*, and *matches pattern*.) Then specify a **Value**. Figure 4.3.1.5.1.1-E below is an example. (To learn how to set attribute filter criteria on the fly with variable values, see [Attribute Filter Variables](#).)

To remove an attribute, simply click on the red X at the end of the attribute row. Click **OK** after all attributes have been configured.



Attribute	Compare operation	Value	
Current Depth	is less than	100	X
Maximum Depth	is greater than	1000	X

Figure 4.3.1.6.1.1-F. Configuring Attributes

The *Attribute filters* dialog box appears. The left side of the screen displays all created filters. Click on a filter to view that filter's attributes within the content box on the right side of the screen. If all attributes must be met, the text, **Match ALL of the following**, is displayed ([Figure 4.3.1.6.1.1-G](#)). If at least one attribute must be met, the text, **Match at least ONE of the following**, is displayed (Figure

[4.3.1.6.1.1-H](#)). This is specified when adding a new filter (Figure [4.3.1.6.1.1-D](#)) but can be updated when configuring attributes (Figure [4.3.1.6.1.1-F](#)).

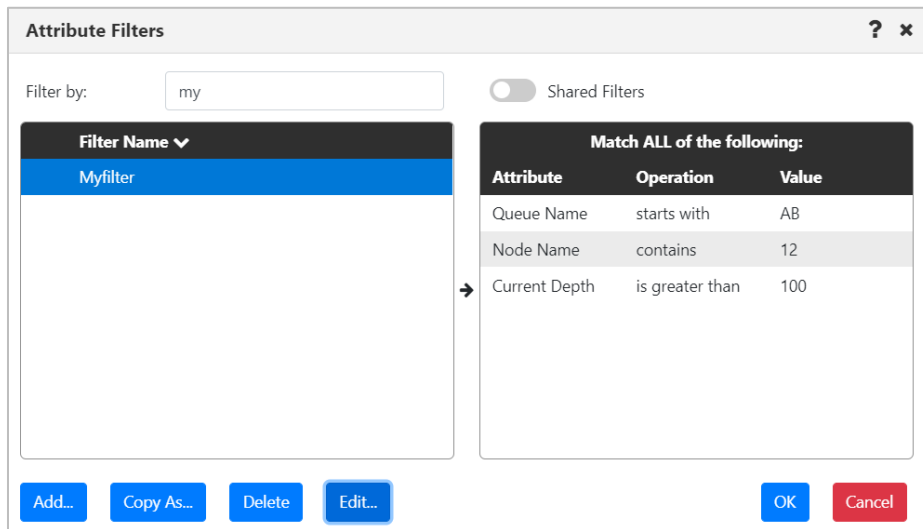


Figure 4.3.1.6.1.1-G. Attribute Filters – All Attributes

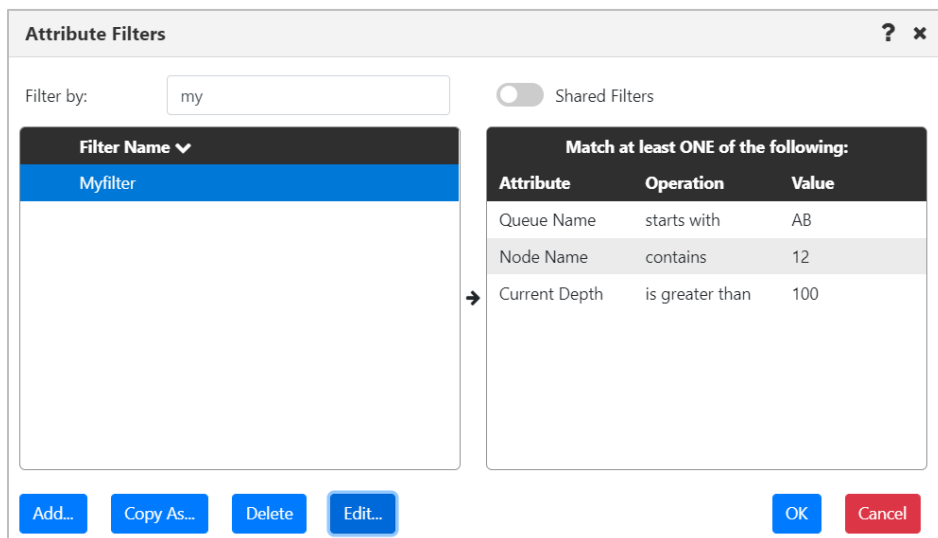



Figure 4.3.1.6.1.1-H. Attribute Filters – At Least One Attribute

To edit a filter, click **Edit** to open the *Attribute Filter Management* dialog, where you can add one or more new attributes, or modify or delete an existing attribute. Existing attributes can be deleted using the delete  button.

To create a new attribute filter by modifying an existing one, select the filter that you want to start with and click **Copy As...**. The *Attribute Management* dialog opens. You can modify the filter that you copied, give it a new name, and click **OK**.

To delete an attribute filter, select it and click **Delete**. Click **Yes** to delete the selected attribute filter or **No** to cancel.

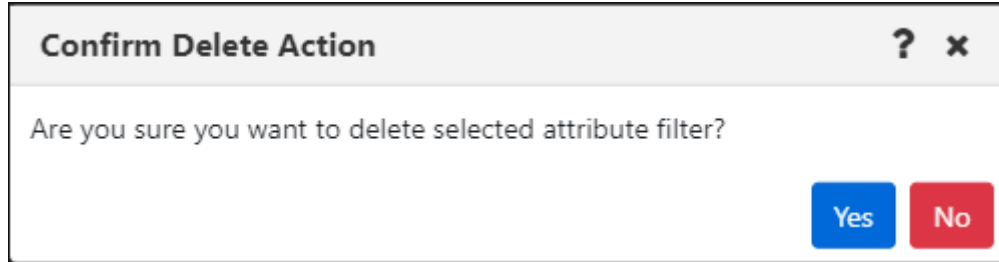


Figure 4.3.1.6.1.1-I. Confirm Delete Action

Users who have the **Manage Private Attribute Filters** right can view and manage the filters they have created by going to the User Settings Attribute Filters tab. Likewise, users with the **Manage Global Attribute Filters** right can manage global filters through the Global Settings Attribute Filters tab. See [Attribute Filter Tab](#) for more information.


If the WGS cannot retrieve any of the parameter values expected to display in the viewlet schema based on the attributes selected, a warning symbol  is displayed immediately next to the viewlet menu button.



Figure 4.3.1.6.1.1-J. Warning Sign

Click on the warning symbol to view the error description window.

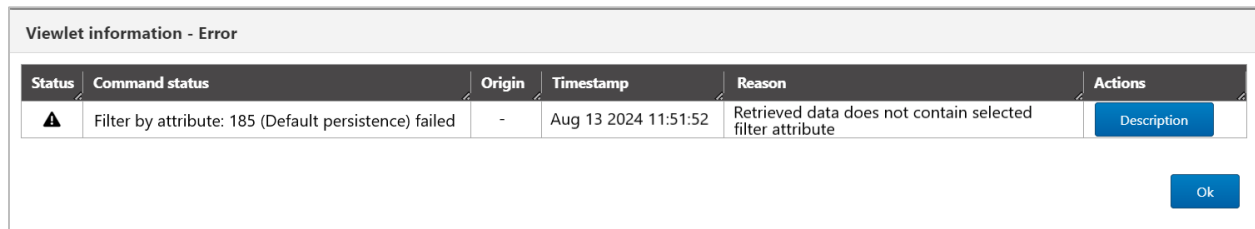


Figure 4.3.1.6.1.1-K. Error Description Window

Click on the **Description** button to view the error details. Click **Ok** to exit the window.




Figure 4.3.1.6.1.1-L. Error Details

4.3.1.6.1.1.1 Attribute Filter Variables

Set attribute filter criteria on the fly with variable values. Instead of using a hardcoded value that may need to be updated over time, you can set up a variable value in your attribute filter. Then set the variable value as needed, by clicking the Variable button on the user interface. In the example below, an attribute filter looks for channel names that match its criteria using a text-based variable.

When setting up the attribute filter, choose *Variable* under **Value Type**. (See [Figure 4.3.1.6.1.1.1-A.](#)) (For attributes such as Node Type, whose possible values are items in a list, this option is unavailable.)

Click  to manage the variable. Enter the name of a new variable, or choose an existing variable to use for this attribute filter. (See [Figure 4.3.1.6.1.1.1-B.](#)) Click **OK**. The name you entered is displayed in the Value column. (See [Figure 4.3.1.6.1.1.1-C.](#)) Click **OK** to save the new attribute filter.

To filter a viewlet by applying the variable that you have set up, first make sure that the attribute filter with the variable has been applied to the viewlet and that the viewlet's **Active attribute filtering** checkbox is selected. Then on the main interface, click the **Variables** button to set the criteria that the attribute filter will look for. In the example created earlier in this article, the variable is for text. (See [Figure 4.3.1.6.1.1.1-D.](#))

Enter the text in the *Modify Variables* dialog (see [Figure 4.3.1.6.1.1.1-E.](#)) Click **Save** to apply the variable. (See [Figure 4.3.1.6.1.1.1-F.](#))

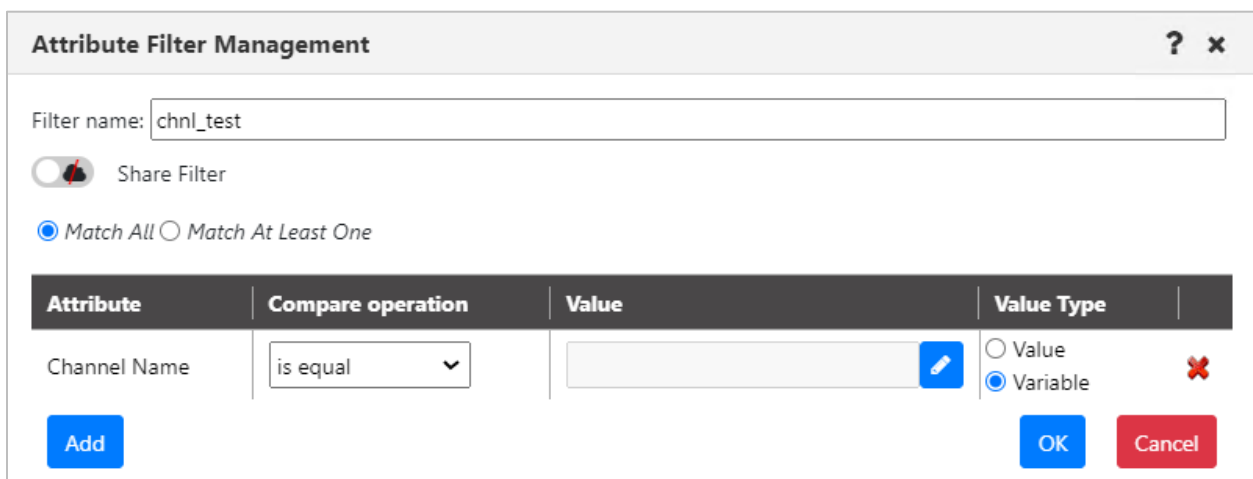


Figure 4.3.1.6.1.1.1-A Attribute Variable Option

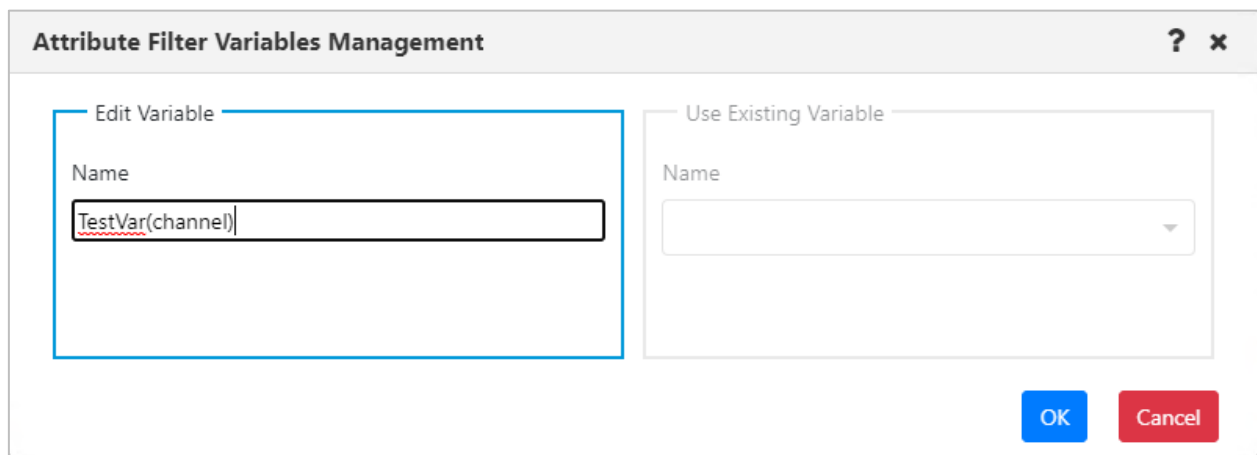


Figure 4.3.1.6.1.1.1-B. Attribute Filter Variables Management

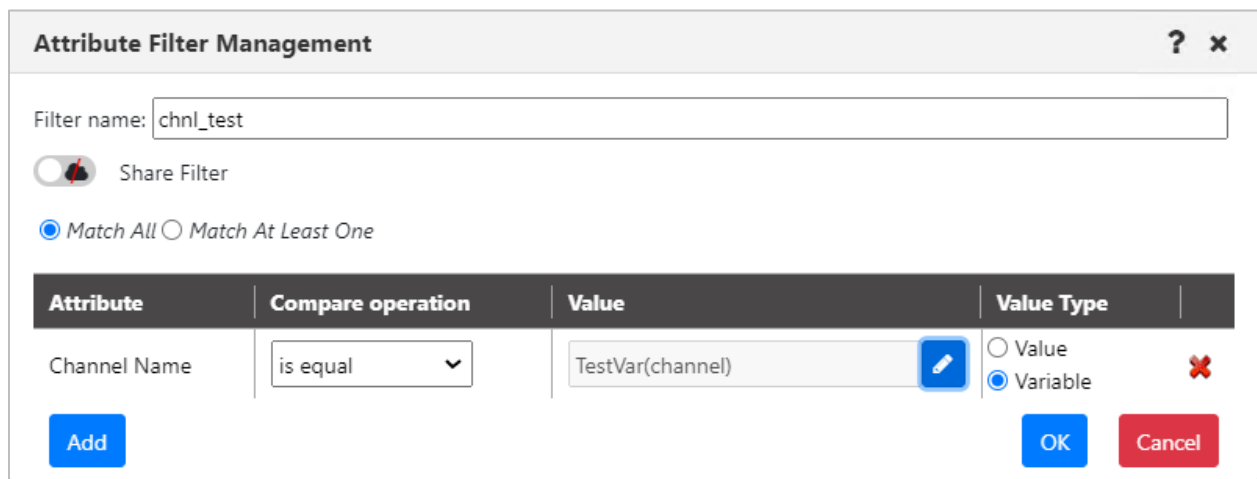


Figure 4.3.1.6.1.1.1-C. Attribute Filter Management with Variable Value

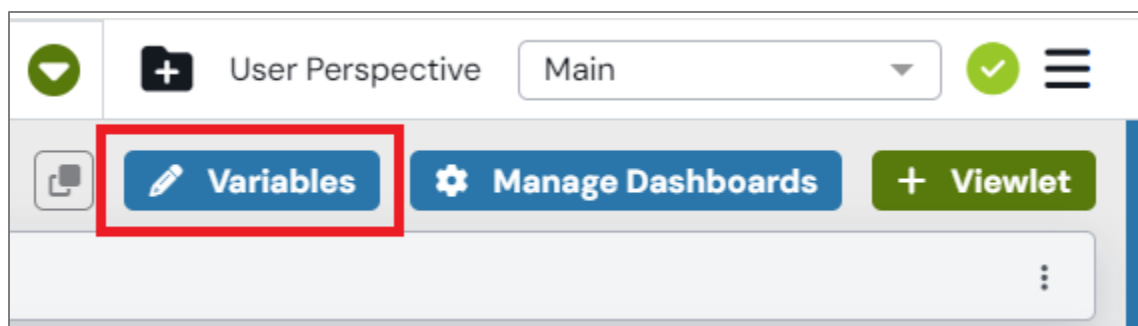


Figure 4.3.1.6.1.1.1-D. Attribute Filter Variable Button

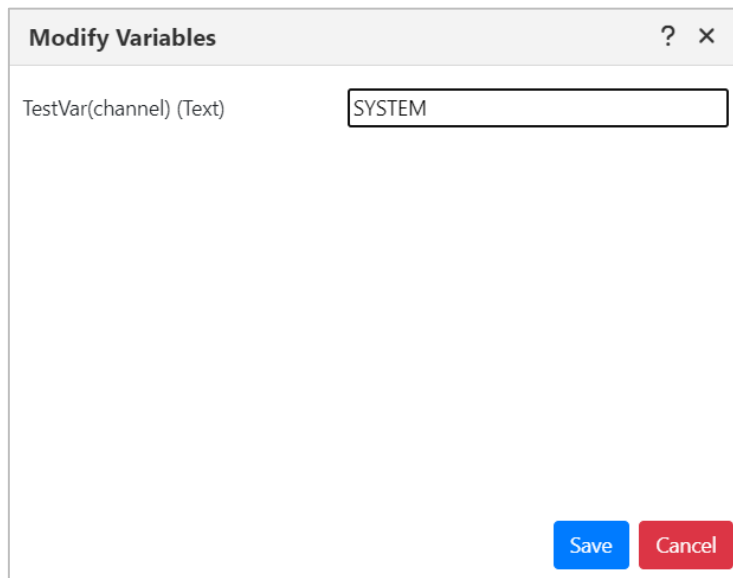


Figure 4.3.1.6.1.1.1-E. Modify Variables dialog

Channel

Schema: Default Channels Dir | Projects: All | Node: * | Manager: *

	Manager Name	Channel Name ¹ ^	Channel Type
<input type="checkbox"/>	EMIK	SYSTEM.AUTO.RECEIVER	Receiver
<input type="checkbox"/>	QA	SYSTEM.AUTO.RECEIVER	Receiver
<input type="checkbox"/>	LEUNAME	SYSTEM.AUTO.RECEIVER	Receiver
<input type="checkbox"/>	QA	SYSTEM.AUTO.SVRCONN	Server Connection
<input type="checkbox"/>	LEUNAME	SYSTEM.AUTO.SVRCONN	Server Connection
<input type="checkbox"/>	EMIK	SYSTEM.AUTO.SVRCONN	Server Connection
<input type="checkbox"/>	LEUNAME	SYSTEM.BKR.CONFIG	Server Connection
<input type="checkbox"/>	EMIK	SYSTEM.DEF.CLUSRCVR	Cluster Receiver
<input type="checkbox"/>	QA	SYSTEM.DEF.CLUSRCVR	Cluster Receiver
<input type="checkbox"/>	LEUNAME	SYSTEM.DEF.CLUSRCVR	Cluster Receiver
<input type="checkbox"/>	QA	SYSTEM.DEF.CLUSSDR	Cluster Sender
<input type="checkbox"/>	EMIK	SYSTEM.DEF.CLUSSDR	Cluster Sender
<input type="checkbox"/>	LEUNAME	SYSTEM.DEF.CLUSSDR	Cluster Sender
<input type="checkbox"/>	EMIK	SYSTEM.DEF.RECEIVER	Receiver
<input type="checkbox"/>	QA	SYSTEM.DEF.RECEIVER	Receiver

Visible: 2-15 of 19 | Total: 19

Figure 4.3.1.6.1.1.1-F. Filtered Channels Viewlet

4.3.1.6.1.2 Find Messages

Within the *Edit Queue ** viewlet window (or *Create New Queue Viewlet*, see [Figure 4.3.1.1-A](#)), users can filter queues by messages containing specific data.


The Find Messages feature has two components:

- Search criteria, which limit the results that will be returned from the workgroup server according to the contents of individual messages. Search criteria are saved for easy retrieval and can also be used for actions such as Put New, Copy All, Move All, and Delete All.
- The Find Messages checkbox, which applies the Search criteria, enabling the message search criteria at the source (that is, the workgroup server).

NOTE If you use the Find Messages option, it is recommended that you also use the fields provided to narrow results by Queue name (Object name), Project name, or other parameters. This makes your search more efficient by limiting the amount of data being searched.

The screenshot shows a dialog box titled "Create new IBM MQ Queue viewlet". On the left is a vertical sidebar with categories: Product, Node, Manager, Queue, Channel, Process, Topic, Listener, Namelist, Service, Auth info, Cluster QMgr, Subscription, Channel auth rec, and Comm Info. The main area contains several input fields and checkboxes. A red rectangular box highlights the "Find messages" checkbox, which is currently unchecked, and the "Search criteria" text input field below it. To the right of the "Search criteria" field are two small buttons: an ellipsis (...) and an "x" button. Other visible fields include "Viewlet name" (Temp_Queue_Viewlet_1), "Workgroup server" (Default Connection - ...), "Temporary" (checked), "Node" (*), "Manager" (*), "Object name" (*), "Queue Type" (Local Queue), "Project" (All), "Active attribute filtering" (checked), "Attribute filter" (empty), "Result limit" (100), and "Search depth" (10000). At the bottom right are "Save changes" and "Cancel" buttons.

Figure 4.3.1.6.1.2-A. Find Messages

To add, edit, and delete criteria records, you must have the **Manage Private Message Criteria** right in the security application. To add criteria, click the ellipses button  of the **Search Criteria** field. The following dialog opens.

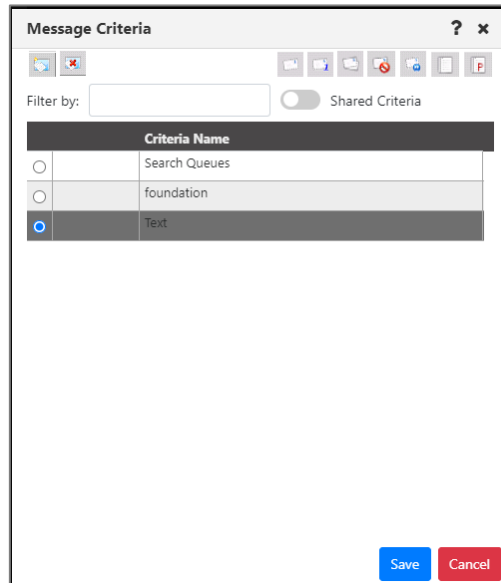




Figure 4.3.1.6.1.2-B. Message Criteria

To add new search criteria, click . A new search criteria row is added. Double-click the new row and enter a name for the record. Press **Tab** on your keyboard.

The data to search for will need to be added to the search criteria record created above. Make sure that the message criteria record is selected, then click the Data  button to specify the data.

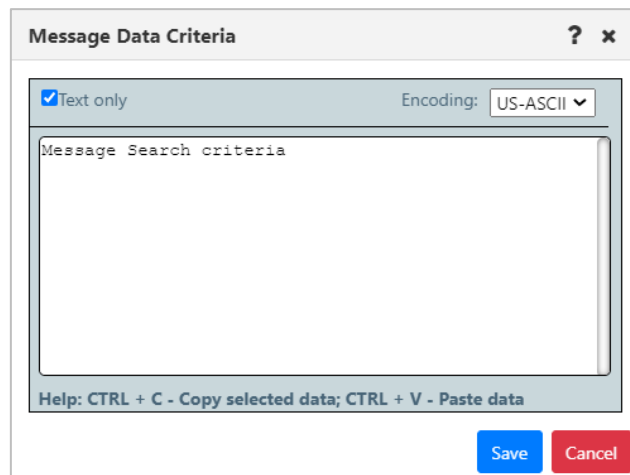





Figure 4.3.1.6.1.2-C. Enter Data

Click **Save**. Additional search criteria records can be added by repeating the previous step.

To share criteria records with groups, you must have both the **Manage Private Message Criteria** and the **Manage Shared Message Criteria** rights in the security application. To share any record with one or

more groups, double-click its name. The  Private icon is displayed in front of the name of the record.

Click the Private icon to share the record. The icon changes to a Shared  icon. From the popup menu, click the read icon  next to the groups you want to share the dashboard with. The read icon changes to green for selected groups.

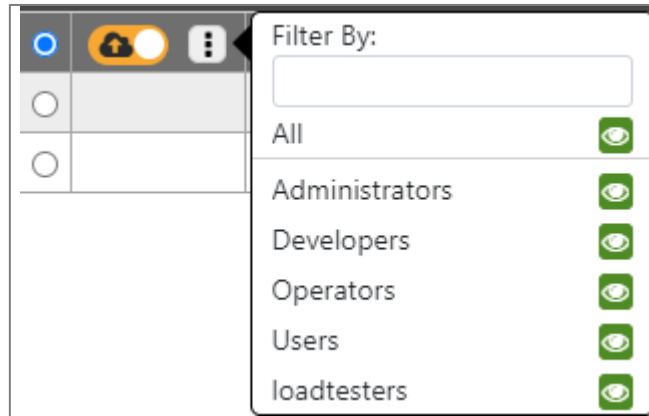



Figure 4.3.1.6.1.2-C. Filter By

To apply search criteria, select the search criteria record you want to use and click **Save**. (If you are accessing the *Message Criteria* dialog when editing a viewlet, you can view shared records by turning on the Shared Criteria slider.)

Back on the *Edit Queue viewlet* window, make sure that the Find messages checkbox is selected so that your search criteria take effect. The criteria record you selected is displayed in the Search Criteria box. Click **Apply Changes**. The viewlet will display only the queues with messages containing the data specified in the search criteria.

To limit the number of records that will be searched within each queue manager, you can specify a value within the **Search depth** field. Click **Apply Changes**. The Search Depth can be applied independently of the Search criteria, or alongside it.

To turn off the data message filter that is displayed, click the **X** to the right of the **Search Criteria** field. To completely disable filtering by message content, clear the **Find messages** checkbox.

To delete a search criteria record that you no longer need, select it on the Message Criteria window and click the delete  button.

4.3.1.6.2 Create selected objects viewlet

Selecting **Create selected objects viewlet** from the viewlet menu ([Figure 4.3.1.4-A](#)) will allow you to create new viewlet with selected objects.

4.3.1.6.3 Remove Viewlet

Selecting **Remove viewlet** from the viewlet menu ([Figure 4.3.1.4-A](#)) will remove the viewlet from your dashboard. It will still be available to add back at any time (see section, [Adding and Managing Viewlets](#), for information on adding an existing viewlet).

4.3.1.6.4 Delete Viewlet

To delete a viewlet select **Delete viewlet** from the viewlet menu ([Figure 4.3.1.4-A](#)). The following dialog opens to confirm the delete action.

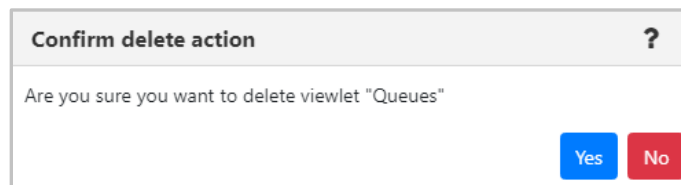


Figure 4.3.1.6.4-A. Confirm Delete Action

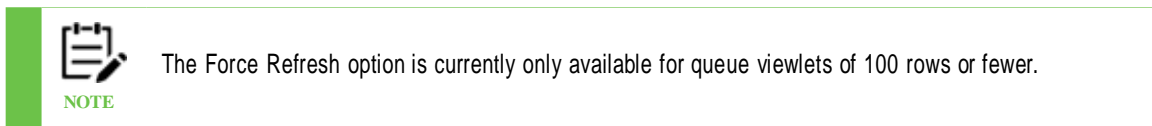
4.3.1.6.5 Export data to CSV

Selecting **Export data to CSV** from the viewlet menu ([Figure 4.3.1.4-A](#)) will export all data displayed in the viewlet to a CSV file. The file will automatically download. By default, the export file includes extra whitespace (from one to three spaces) after the Manager Name, Node Name, and other fields. When you choose the export option, a prompt is displayed to ask you whether you want to remove (strip) the extra whitespace. To remove it, click **Yes**.

4.3.1.6.6 Export viewlet to file

Selecting **Export viewlet to file** from the viewlet menu ([Figure 4.3.1.4-A](#)) will export all viewlet properties to a JSON file. The file will automatically download. You can then share this file with others, who can import it. See [Import a Viewlet from a File](#).

4.3.1.6.7 Force Refresh (Viewlet)



When you know you'll need to force a refresh of viewlet data several times in a row (for example, if a problem with the queues requires you to view the latest Current Depth right away), you can turn on Force Refresh mode by selecting **Enable Force Refresh** from the viewlet's menu. This mode allows you to force update the data in the entire viewlet, just as you would do for one queue or a few queues, but using a simpler, more efficient method.

In this temporary alternate mode, the regular refresh icon becomes a blue force refresh icon. Unlike the regular refresh icon, which refreshes the data from the cache, this force refresh icon obtains the latest data from the workgroup server.

You can use the blue Force Refresh icon as many as five additional times. After these additional refreshes (or after a browser refresh), the normal refresh mode and regular icon return. You can reinitiate Force Refresh mode by selecting **Enable Force Refresh** from the viewlet's menu again.

You can exit Force Refresh mode at any time by selecting **Disable Force Refresh** from the viewlet's menu.

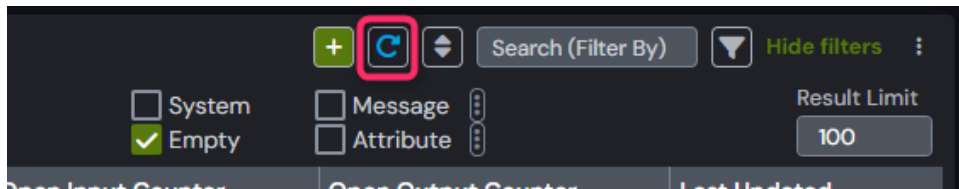


Figure 4.3.1.6.7-A. Force Refresh Button

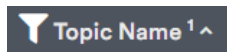
4.3.1.6.8 Manage Filtered Columns

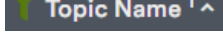
By managing filtered columns in a viewlet, you can tailor the use of the **Search (Filter by)** box to your specific needs. Instead of using it to filter viewlet data by all columns only (its default behavior), you can choose one or more specific columns to apply the filter to. For example, you can specify the Put column for filtering, so that a filter for “Allowed” returns only records for which the Put action is allowed.

To manage filtered columns, a user must either be the creator of the viewlet or, for viewlets on shared dashboards, have “write” permission for the viewlet. After filtered columns have been selected for a viewlet, all users of the viewlet can choose whether to filter by the selected columns or by all columns (see *Choose a filter method* below).


4.3.1.6.8.1 Manage filtered columns

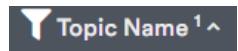
1. Select **Manage Filtered Columns** from the viewlet's menu to allow individual columns to be selected for filtering.
2. To indicate which columns you want the viewlet data to be filtered by, click the filter icons



next to the column headers. The icons turn green . When filtering viewlet data, users can still choose whether or not to use these columns exclusively. See *Choose a filter method* below.

4.3.1.6.8.2 Clear all column-specific filters


While in Manage Filtered Columns mode, to “reset” or clear the green filter icons from all columns, click the **Clear All Selected Filters**  button. The filter icons for all columns will turn white






4.3.1.6.8.3 Turn off individual column filtering

To stop managing which columns are filtered, select **Stop Managing Filtered Columns** from the viewlet's menu. Columns that have been selected for filtering retain the green icons. When filtering viewlet data, users can still choose whether or not to use these columns exclusively. See *Choose a filter method* below.

4.3.1.6.8.4 Choose a filter method

The filter icon  in front of the **Search (Filter by)** label allows you to toggle between filtering by all columns and filtering by selected columns:

- Click this  white filter icon to switch to **Filter by Chosen** mode. This icon now has a red border . Records are filtered by the values in the selected columns (those with the green filter icons) only.
- To revert to filtering by all columns, click the filter icon again. It becomes a white **Filter by All** icon . The **Search (Filter by)** box will apply to values in all columns.



Enter a filter value in the **Filter By** box to filter records as you type.

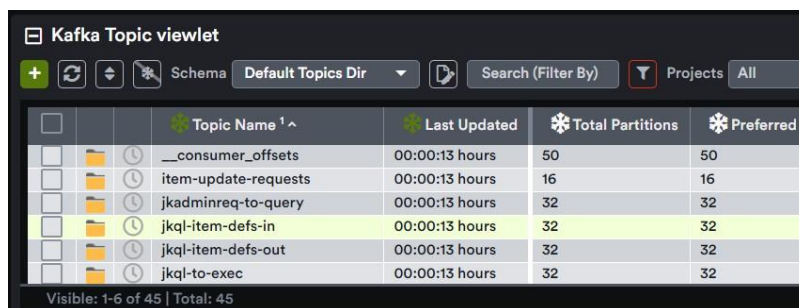
4.3.1.6.9 Manage Frozen Columns







By freezing columns in a viewlet, you can keep important columns on the left side of the viewlet no matter how far you scroll to the right, without changing your schema. Frozen columns will remain frozen (on the left side) until they are unfrozen.

To manage frozen columns, a user must either be the creator of the viewlet or, for viewlets on shared dashboards, have “write” permission for the viewlet.



4.3.1.6.9.1 Manage frozen columns

1. Select **Manage Frozen Columns** from the viewlet's menu to enable individual columns to be frozen or unfrozen.
2. Choose which columns you want to freeze or unfreeze.
 - To select a column to freeze, click the **Freeze pane** icon  next to its column header. The column moves to the left, and its icon becomes a green **Unfreeze pane** icon . To keep the leftmost column in place, make sure to freeze it.





	Topic Name ¹ ^	Last Updated	Total Partitions	Preferred L
	__consumer_offsets	00:00:13 hours	50	50
	item-update-requests	00:00:13 hours	16	16
	jkadminreq-to-query	00:00:13 hours	32	32
	jkql-item-defs-in	00:00:13 hours	32	32
	jkql-item-defs-out	00:00:13 hours	32	32
	jkql-to-exec	00:00:13 hours	32	32

Visible: 1-6 of 45 | Total: 45

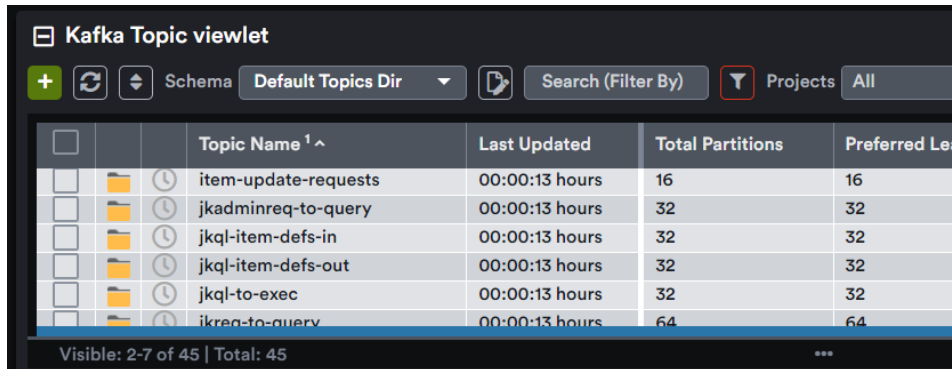
- To select a column to unfreeze, click the green **Unfreeze pane** icon  next to its column header. The column moves to its assigned position in the schema, and its icon becomes a white **Freeze pane** icon .

4.3.1.6.9.2 Clear all frozen columns

To clear all frozen columns, click the **Clear All Frozen Columns**  button. The frozen columns revert to their assigned based on the schema. All icons revert to white **Freeze pane**  icons.

4.3.1.6.9.3 Turn off frozen column management

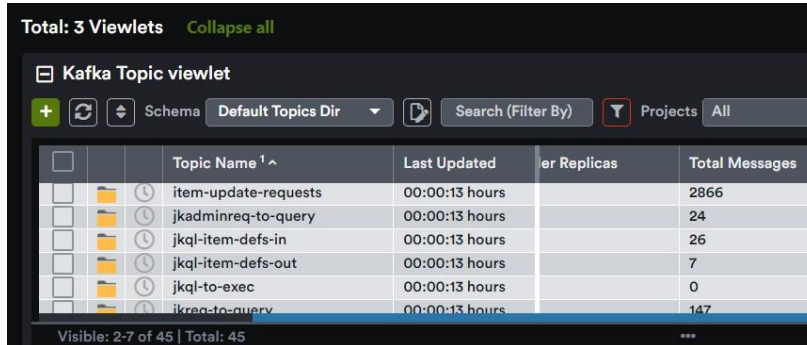
To turn off all frozen icons for individual columns, select **Stop Managing Frozen Columns** from the viewlet's menu. The **Freeze pane**, **Unfreeze pane**, and **Clear All Frozen Columns** icons are no longer available. After one or more frozen columns have been set for a viewlet, all users of the viewlet will see them on the leftmost side of the viewlet.



The screenshot shows the 'Kafka Topic viewlet' interface. At the top, there are navigation icons (plus, refresh, expand) and a 'Schema' dropdown set to 'Default Topics Dir'. A search bar is labeled 'Search (Filter By)' and a 'Projects' dropdown is set to 'All'. Below this is a table with the following columns: 'Topic Name ^', 'Last Updated', 'Total Partitions', and 'Preferred Lea'. The table contains six rows of data, each with a folder icon, a clock icon, and a topic name. The status bar at the bottom indicates 'Visible: 2-7 of 45 | Total: 45'.

		Topic Name ^	Last Updated	Total Partitions	Preferred Lea
<input type="checkbox"/>		item-update-requests	00:00:13 hours	16	16
<input type="checkbox"/>		jkadminreq-to-query	00:00:13 hours	32	32
<input type="checkbox"/>		jkql-item-defs-in	00:00:13 hours	32	32
<input type="checkbox"/>		jkql-item-defs-out	00:00:13 hours	32	32
<input type="checkbox"/>		jkql-to-exec	00:00:13 hours	32	32
<input type="checkbox"/>		ikreq-to-query	00:00:13 hours	64	64

Frozen columns remain in place, even when you scroll to the right:



The screenshot shows the 'Kafka Topic viewlet' interface with a different table layout. The columns are 'Topic Name ^', 'Last Updated', 'er Replicas', and 'Total Messages'. The table contains six rows of data, each with a folder icon, a clock icon, and a topic name. The status bar at the bottom indicates 'Visible: 2-7 of 45 | Total: 45'.

		Topic Name ^	Last Updated	er Replicas	Total Messages
<input type="checkbox"/>		item-update-requests	00:00:13 hours		2866
<input type="checkbox"/>		jkadminreq-to-query	00:00:13 hours		24
<input type="checkbox"/>		jkql-item-defs-in	00:00:13 hours		26
<input type="checkbox"/>		jkql-item-defs-out	00:00:13 hours		7
<input type="checkbox"/>		jkql-to-exec	00:00:13 hours		0
<input type="checkbox"/>		ikreq-to-query	00:00:13 hours		147

4.3.1.6.10 Force Update (Viewlet)

The Workgroup Server (WGS) stores much of the data it collects in a cache to improve performance. Most of the data you see comes from this cache. Since the cache updates at set intervals, the information might be slightly out of date.

The **Force Update** command tells the WGS to immediately refresh the cache using the latest data from the source. This can be useful if there's an issue with an object and you need its current status. Keep in mind, this process may take longer because it fetches live data.

Click the object and select **Commands > Force Update** from the Sselected menu.

It is also possible to set some viewlets to Force Refresh mode, which updates all displayed data. Refer to [Force Refresh \(Viewlet\)](#) for more information.

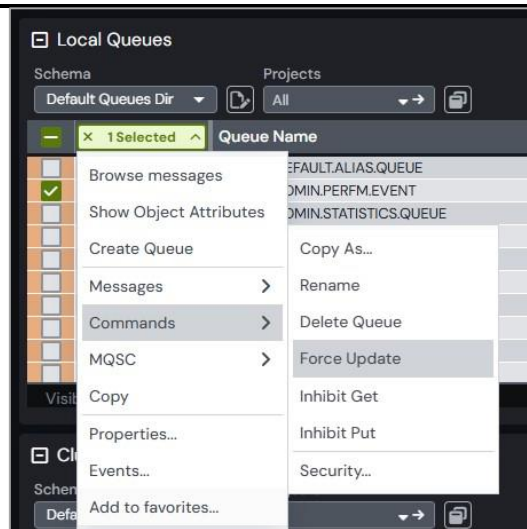


Figure 4.3.1.6.10-A. Force Update Option



4.3.1.6.11 Copy Objects (Viewlet)

Select the object(s) to copy and use one of the following methods:

- click **Copy** in the object(s) Selected menu

-or-

- use the keyboard shortcut keys, **Ctrl + C**

After performing one of the above actions, the **Paste** button  located at the top right corner of the screen becomes enabled and appears in white . Click this button to open the *Select object path* window and specify the workgroup server, node, and queue manager the selected object(s) should be copied to and click the **Paste** button. Refresh the viewlet to see the changes.



The copy option is available for queues, listeners, and processes.

NOTE

4.3.1.6.12 Copy As Command (Viewlet)

The **Copy As** option creates a new object based on the definition of the currently selected object. To use the Copy As option:

1. From the **Selected** menu, choose **Commands > Copy As**.
2. The **Copy Viewlet Object** dialog opens.

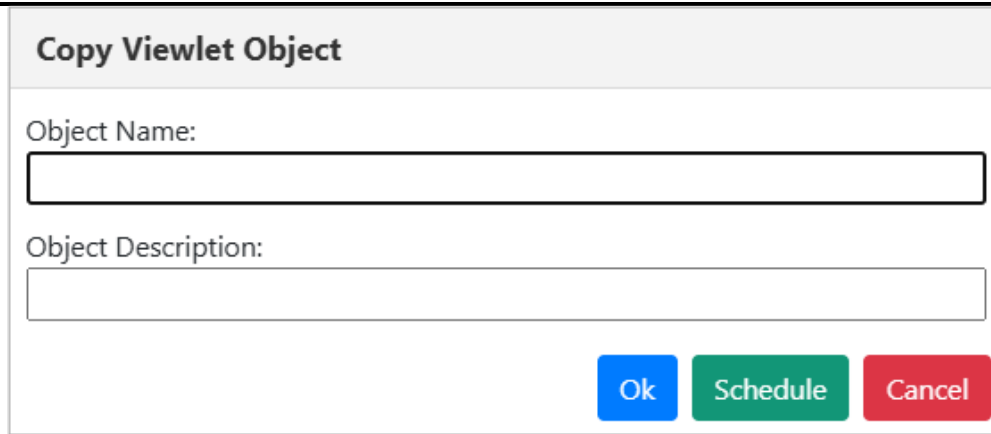


Figure 4.3.1.6.12-A Copy Viewlet Object

3. Enter a **Name** and **Description** for the new object
4. Click **Ok** to copy the object immediately, or **Schedule** to perform the action later.



NOTE

The **Copy As** feature is available only for IBM MQ.

4.3.1.6.13 View Object Status

You can view detailed status information for objects across all products by using the **Show Status** option from a viewlet's **Selected** menu.

For example, select an object in the **Channels viewlet** and choose **Show Channel Status** from the **Selected** menu.

Alternatively, you can click the **Status** value in the **Status** column (availability may vary depending on the viewlet type).

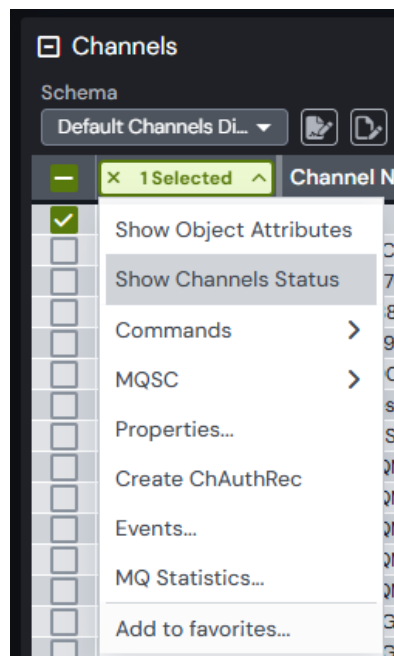
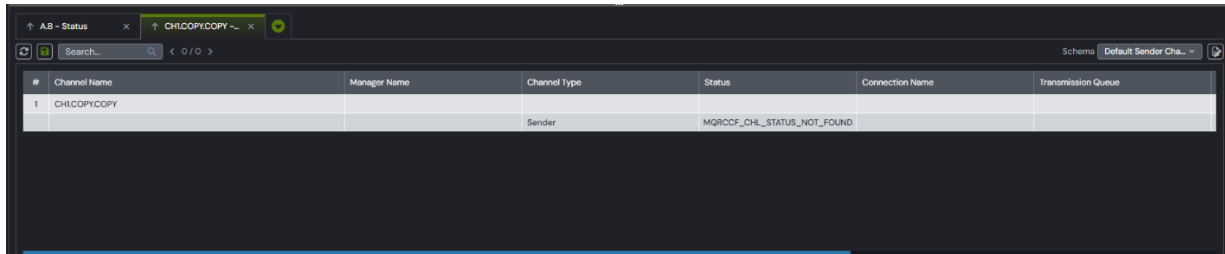


Figure 4.3.1.6.13-A Show Channel Status Option

The **Object Status** tab opens in the **Console**, displaying real-time operational details for the selected object.


You can also compare the status of multiple objects of the same type by selecting multiple objects and choosing **Show Status** from the Selected menu.

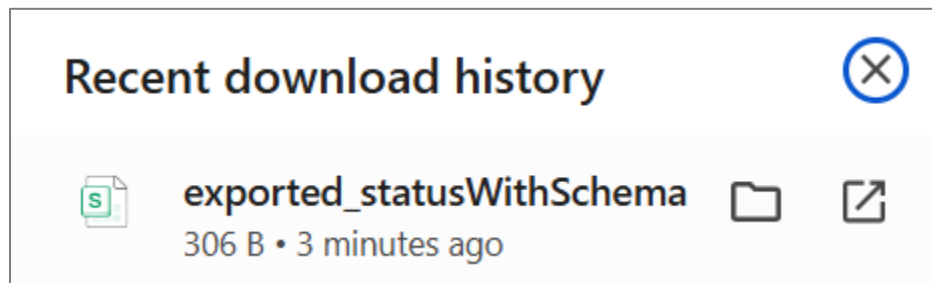


#	Channel Name	Manager Name	Channel Type	Status	Connection Name	Transmission Queue
1	CHICOPYCOPY		Sender	MQRCCF_CH_STATUS_NOT_FOUND		

Figure 4.3.1.6.13-B View Object Status

4.3.1.6.14 Exporting Object Details

To export the details of a selected object, click **Save Table as CSV**  within the Console. A CSV file is downloaded automatically — you can find it in your browser's Downloads folder.



4.3.1.7 Selected Menu

When you click on the check box immediately to the left of an object within a viewlet, the Selected menu becomes available. Hover your mouse over the menu or click it to view a list of potential actions for the object. Please see [Appendix C](#) for an explanation of these options. The box will remain checked until you collapse the viewlet, change dashboards, or click on the check box.

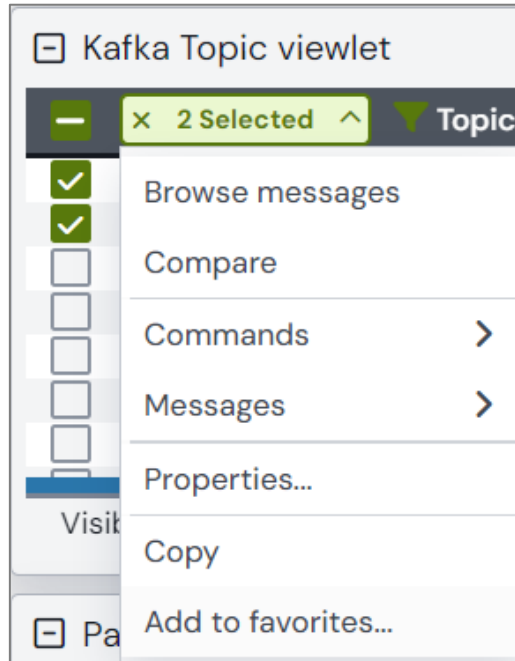


Figure 4.3.1.7-A. Selected Menu

Note that the menu is transparent when your mouse is not hovering over it. This makes it easier to view other objects when selecting multiple objects.

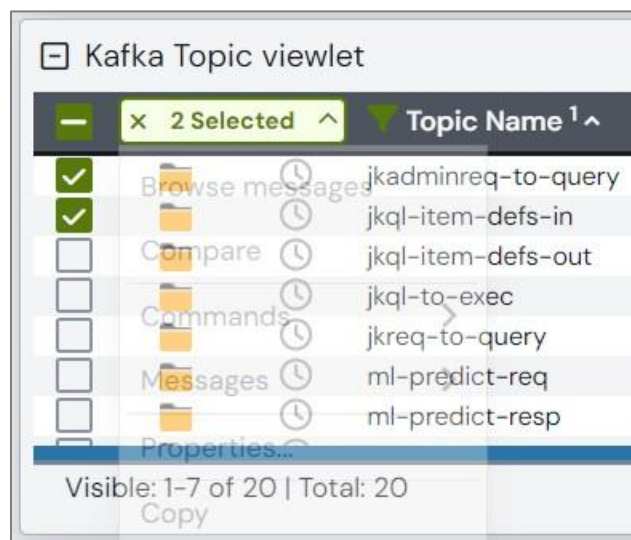


Figure 4.3.1.7-B. Transparent Menu

The menu becomes fully visible when your mouse is hovering over it.

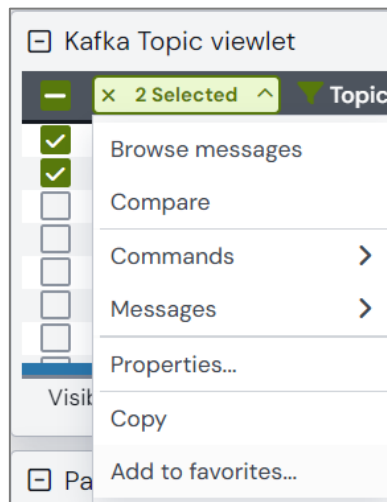





Figure 4.3.1.7-C. Fully Visible Menu

When multiple objects are selected, you can click twice on the  in the header to clear (uncheck) all selected objects.



You can check the header check box  to select all objects in the viewlet (a white checkmark  is displayed) and clear it to deselect all objects.




The header check box may not be available if there are too many objects in the viewlet. The number of queue managers that can be selected in this way is limited by the Bulk Select Max options: Restricted objects global user setting. The number of other objects in a viewlet that can be selected in this way is limited by the General objects setting.

4.3.2 Nodes

There can be multiple nodes in a workgroup server (see [Create a Node](#) for information on how to create a node). The nodes are the access points for the queue managers and EMS brokers. A workgroup server's nodes can be viewed on the **WorkSpace** dashboard. There will be a node viewlet for each workgroup server. You can create a new schema to add, remove, or rearrange displayed columns as you see fit. See [Schemas](#) for instructions.

A green circle with a white checkmark  shows that the node is active, and a red circle with an exclamation mark  means that the node is stopped, or its state is unknown.

The following screenshot displays the Selected menu options of node objects. Please see [Appendix C](#) for an explanation of these options.

 Your Selected menu options may differ according to your user permissions, which are managed by an admin.

NOTE

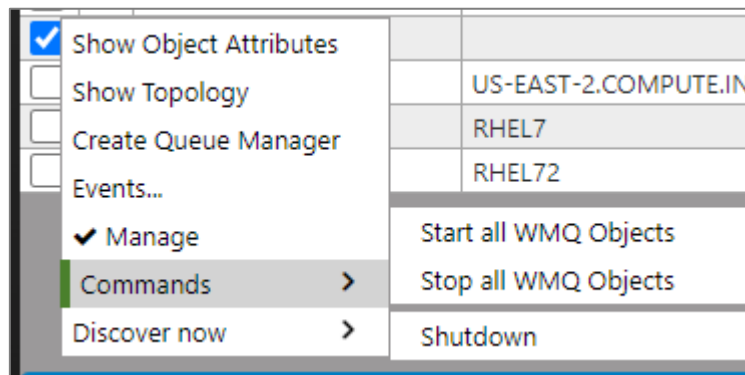


Figure 4.3.2-A. Nodes Selected Menu

4.3.2.1 Manage Nodes

The **Manage** option marks whether a node is managed. When a node is inactive, uncheck the **Manage** option in the Selected menu and check it again – this will start the inactive node. To stop a node, perform the opposite – uncheck the **Manage** option. When the node is not managed, it can be deleted, or its properties can be modified.

When the node is managed, it can also be discovered. See [Appendix C](#) for more information on discovery modes.

If you select multiple nodes, you are presented with the **Compare** option. Select this option to launch a viewlet displaying similarities and differences between the selected nodes (see the [Comparing Objects](#) section for more information). If you selected unmanaged nodes, you also have the option to delete the selected nodes.

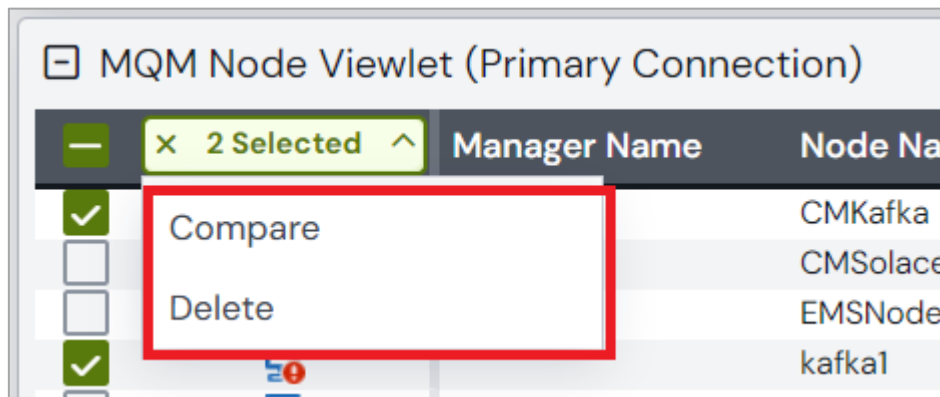


Figure 4.3.2-B. Multiple Nodes Selected

4.3.2.2 Starting / Stopping all WMQ Objects (Nodes)

To start or stop WMQ objects on nodes, or shut down a node, select **Commands > Start all WMQ objects** or **Stop all WMQ objects** from the selected node's **Selected** menu ([Figure 4.3.2-A](#)).

Start All WMQ Objects

To start the node's WMQ objects, select **Commands > Start all WMQ objects**.

You can select **Start channels**, **Start an instance of a multi-instance queue manager**, or both. Click **Yes** to continue, or **No** to cancel.

For more information on multi-instance queue managers, please go to the IBM Knowledge Center:

https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.con.doc/q018140.htm

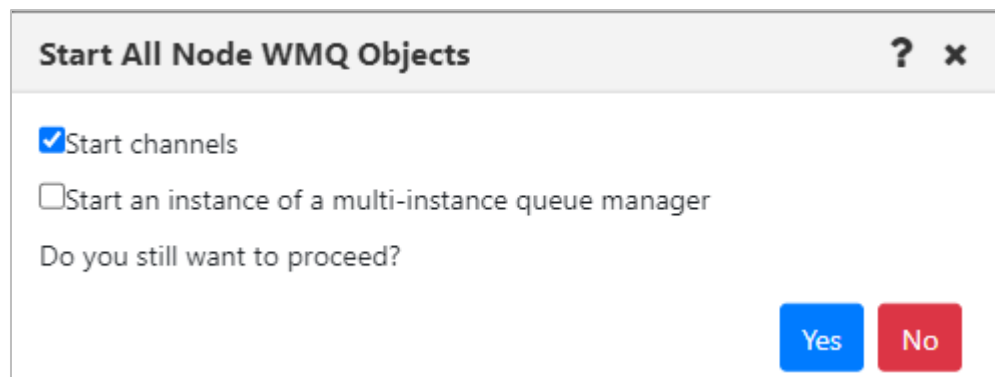


Figure 4.3.2.2-A. Start All Node WMQ Objects

Stop All WMQ Objects

To stop the node's WMQ objects, select **Commands > Stop all WMQ objects**. Click **Yes** to continue, or **No** to cancel.

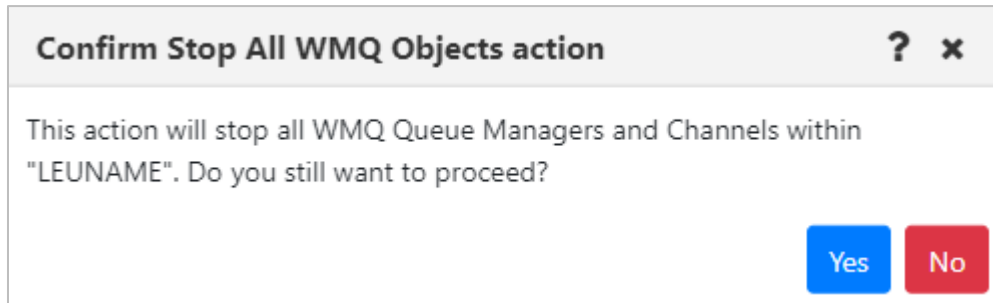


Figure 4.3.2.2-B Confirm Stop All Node WMQ Objects

Shut Down the Node

To fully stop the node, select **Commands > Shutdown**. Click **Yes** to continue, or **No** to cancel.

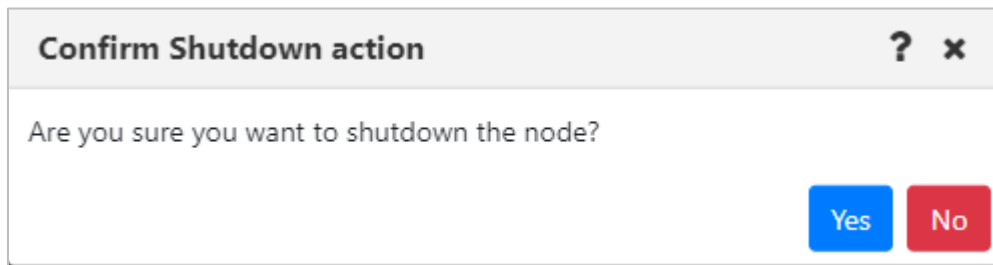


Figure 4.3.2.2-C Confirm Node Shutdown

4.3.2.3 Discover Now

Incremental

The workgroup server maintains the last discovery time for each queue manager and sends this time with each discovery command. Incremental discovery logic will work only if initial discovery is completed and queue managers are fully discovered.

Full

When the workgroup server starts up, it sends a query on every object to the agent. The workgroup server re-connects to each agent and sends an EXCMD_MQ_DISCOVER command. Since the agent thread or process for a given queue manager has just started, while servicing the discover command, the agent allows every inquire object reply from the IBM WMQ command server to be sent to the WGS.






NOTE

The Discover Now feature also applies to **Queue Managers** and works the same way as for **Nodes**.


4.3.3 Managers

4.3.3.1 Queue Managers

To view queue managers, create a viewlet (see [Adding and Maintaining Viewlets](#) for more information).

The viewlet toolbar includes a refresh viewlet button . It also includes **Default schema** drop-down options and the ability to create a new schema  or edit an existing schema . For more information on schemas, please see [Customizing Viewlets](#) (section [4.3.7](#)).

You can view a queue manager's path by hovering over its name. Select a queue manager to display the **Selected** menu. The menu options are described in [Appendix C](#).



Your menu options may differ according to your user permissions, which are managed by an admin.

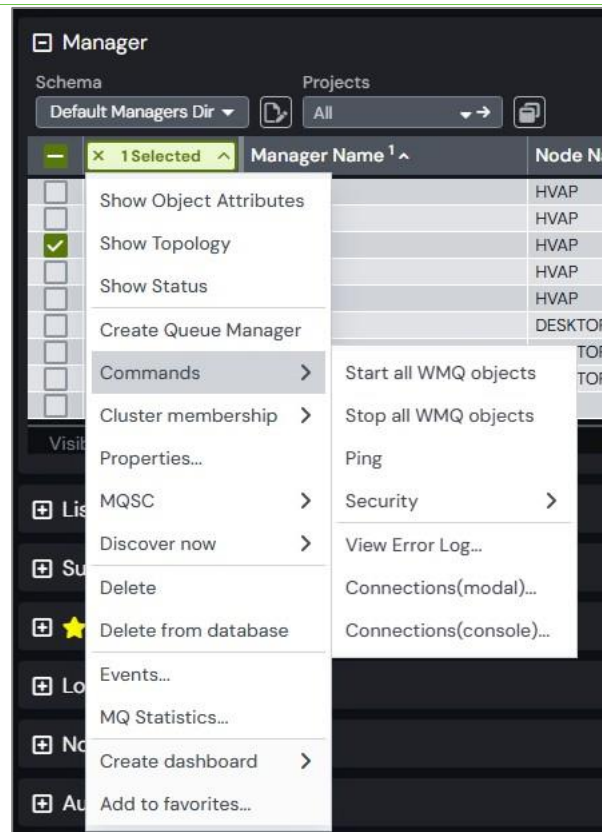


Figure 4.3.3.1-A. Queue Manager Viewlet

A queue manager's state is represented by the folder icon appearing before its name. Refer to the table below for the meaning of each folder icon. You can add the **Queue manager state** and **State** columns to the viewlet's schema to display a more detailed state (Figure 4.3.3.1-B).


Table 4.3.3.1-A. Queue Manager States	
Icon	Possible States
	<ul style="list-style-type: none"> Unknown state

Table 4.3.3.1-A. Queue Manager States	
Icon	Possible States
	<ul style="list-style-type: none"> Running / active Running as standby
	<ul style="list-style-type: none"> Ending immediately Ending preemptively Stopped
	<ul style="list-style-type: none"> Updating state
	<ul style="list-style-type: none"> Starting
	<ul style="list-style-type: none"> Status not available Ended normally Ended immediately Ended unexpectedly Ended preemptively
	<ul style="list-style-type: none"> Quiescing Running elsewhere

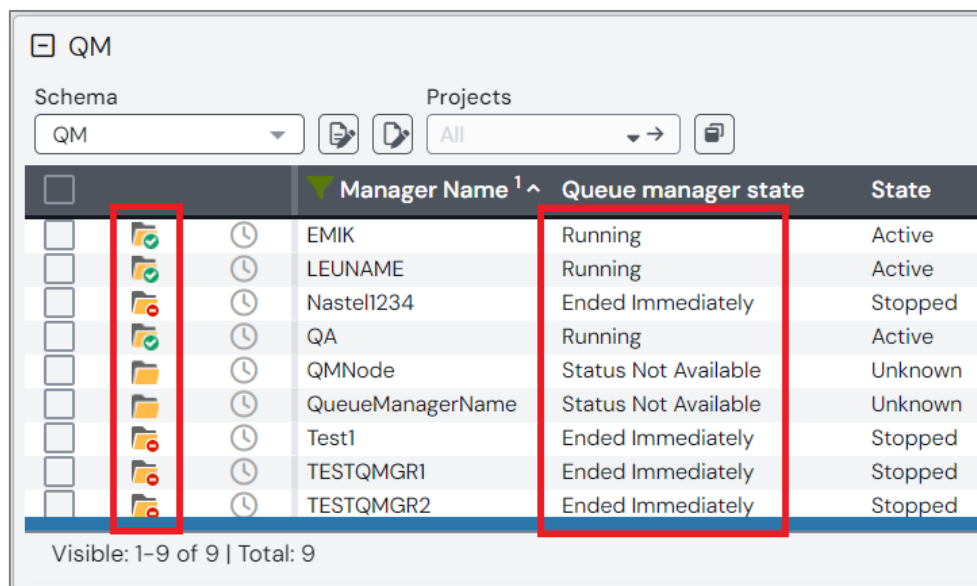





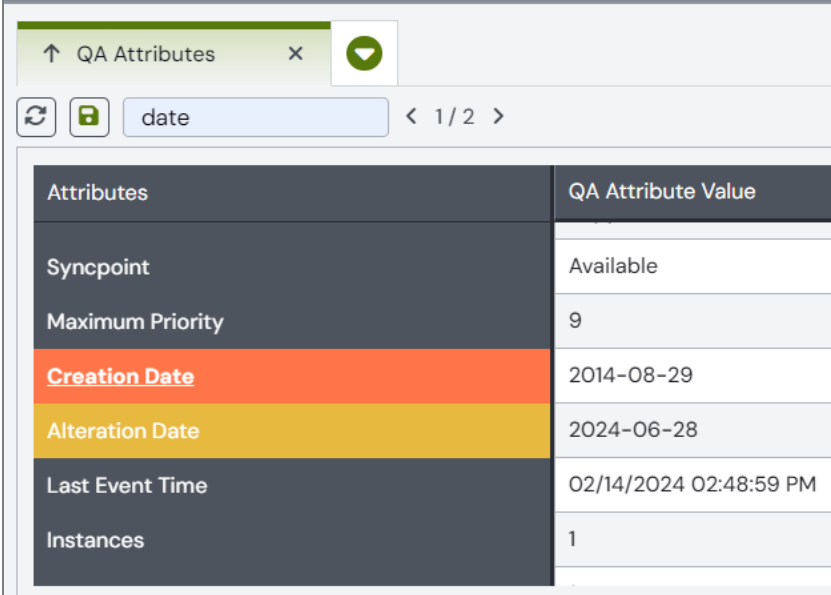
Figure 4.3.3.1-B. Queue Manager States

4.3.3.1.1 Attributes

When **Show Object Attributes** is selected from a queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)), the *Attributes* viewlet opens. This viewlet displays the attributes of the selected object. Scroll down to see additional attributes.

To export the attributes of the selected object, click the **Save Table as CSV**  button. A file called `exported_compare_attributes.csv` is generated and downloaded through your browser. The file can be saved or opened.

You can also search the list to find specific attributes or values. Enter part or all of the attribute name or value in the box provided. The first record that matches the value you entered is highlighted in orange. Additional matches are highlighted in yellow. You can then browse through matches using the right  and left  arrows.



Attributes	QA Attribute Value
Syncpoint	Available
Maximum Priority	9
Creation Date	2014-08-29
Alteration Date	2024-06-28
Last Event Time	02/14/2024 02:48:59 PM
Instances	1

Figure 4.3.3.1.1-A. Queue Manager Attributes

4.3.3.1.2 Starting / Stopping all WMQ Objects (Queue Managers)

To start or shutdown queue managers, select **Commands** > **Start all WMQ objects** or **Stop all WMQ objects** from the selected queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)).

Start Queue Manager

The following dialog is displayed when **Start all WMQ objects** is selected. You can select **Start channels** and/or **Start an instance of a multi-instance queue manager** by clicking the check boxes.

For more information on multi-instance queue managers, please go to the IBM Knowledge Center: https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.con.doc/q018140_.htm

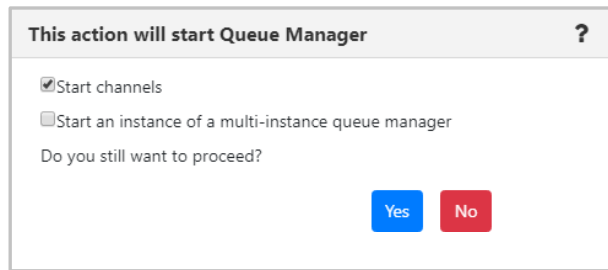


Figure 4.3.3.1.2-A. Start Queue Manager

Stop Queue Manager

When **Stop all WMQ objects** is selected, the following dialog is displayed where you can select the shutdown method.

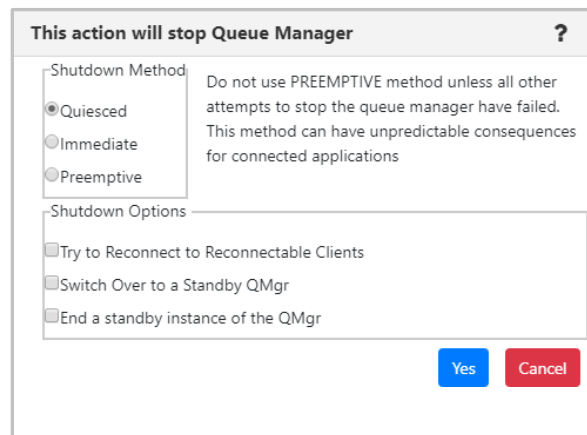


Figure 4.3.3.1.2-B. Stop Queue Manager

4.3.3.1.3 Properties

When **Properties** is selected from the queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)), the *Properties* window for the selected object is displayed. For detailed descriptions of the various input fields and tabs, go to the IBM Knowledge Center:

https://www.ibm.com/docs/en/ibm-mq/9.2?topic=properties-queue-manager#e_properties_qmanager

See [Custom Attributes](#) for information on adding custom attributes to a queue manager (done on the **Custom Attributes** tab).

Figure 4.3.3.1.3-A. Queue Manager Properties

4.3.3.1.4 Events

When Events is selected from the queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)), the Events viewlet opens. The viewlet displays events in real time. The **Event #** provides the event number within its category number. Click this number to display the Event Details window.

Event #	Date/Time	Category	Event ID	Object
90	12/10/2024 4:27:23 PM (UTC+05:30)	Queue Manager	Auto-Discovery Stopped	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr
13	12/10/2024 4:22:23 PM (UTC+05:30)	Queue Manager	Auto-Discovery Stopped	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr
968	12/10/2024 4:17:23 PM (UTC+05:30)	Queue Manager	Auto-Discovery Stopped	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr
965	12/10/2024 4:17:23 PM (UTC+05:30)	Alter	Object Changed	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr%ODIN%KTRANS.G1
963	12/10/2024 4:12:23 PM (UTC+05:30)	Alter	Object Changed	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr%ODIN%KTRANS.G1
922	12/10/2024 4:12:23 PM (UTC+05:30)	Queue Manager	Auto-Discovery Stopped	%QA_PROD%DESKTOP-K4AEKH0%aceqmgr

Figure 4.3.3.1.4-A. Events Viewlet

Clicking a blue event number will open the *Event details* window for the event. There are three tabs: **General** ([Figure 4.3.3.1.4-B](#)), **Diagnostic** ([Figure 4.3.3.1.4-C](#)) and **Detail** ([Figure 4.3.3.1.4-D](#)). The General tab provides context for the Receive Time that is shown. By default, the event date and time is converted to local time. The Coordinated Universal Time (UTC) offset is displayed. To view the date and time converted to GMT, click the GMT option button.

On the **Detail** tab, one or more attributes can be selected to restore the attribute's previous properties. Select the attribute to revert and click **Rollback Selected Changes** ([Figure 4.3.3.1.4-E](#)).



NOTE

Some attribute changes cannot be rolled back. For example, if you attempt to roll back an increase in partitions for a Kafka topic, the rollback action is not allowed because the number of partitions cannot decrease. If a change has been made that is not eligible for rollback, the relevant error is displayed.

Event details

General | Diagnostic | Detail

Event Time & Origin

Receive Time: 9/13/2024 12:51:21 PM
 GMT Local (UTC-04:00)

Category: Alter

Group Name: MQM

Node Name: LEUNAME

Qmgr Name: LEUNAME

Object: SYSTEM.CLUSTER.TRANSMIT.QUEUE

Description:
EXRC_CHANGED_OBJECT: An M6-WMQ Workgroup Server has found an object whose attributes have changed.
Corrective Action: None.

Close

Figure 4.3.3.1.4-B. Event Details – General Tab

Event details

General
Diagnostic
Detail

Event #:

Reason ID:

Reason Qualifier:

User ID:

Elapsed Time:

Error ID:

Name	Value
Workgroup Name	MQM
Node Name	LEUNAME
Queue Manager Name:	LEUNAME
Object Type	Local Queue
Object Name	SYSTEM.CLUSTER.TRANSMIT.QUEUE
Original User ID	SYSTEM
Last Event Time	00:26:09

Description:

Close

Figure 4.3.3.1.4-C. Event Details – Diagnostic Tab

Event details

General Diagnostic **Detail**

Attribute Name	Current Value	Previous Value
<input type="checkbox"/> Get Messages	Allowed	Inhibited
<input type="checkbox"/> Trigger Control	Enabled	Disabled
Time Since Reset	00:00:00 hours	00:10:00 hours
Alteration Time	12.42.57	12.36.54
Last Updated	00:00:00 hours	00:00:26 hours

Rollback Selected Changes

Close

Figure 4.3.3.1.4-C. Event Details – Details Tab

Event details

General | Diagnostic | **Detail**

Attribute Name	Current Value	Previous Value
<input checked="" type="checkbox"/> Put Messages	Allowed	Inhibited
Time Since Reset	00:00:00 hours	00:01:12 hours
Alteration Time	07.44.17	07.43.06
Last Updated	00:00:00 hours	00:01:12 hours

Figure 4.3.3.1.4-C. Event Details – Details Tab: Edit

4.3.3.1.5 Favorites

Instead of searching for a specific queue manager, you can add an entire queue manager (that is, the queue manager along with all of its subfolders) to a *Favorites* viewlet. Favorites are per workgroup server.



NOTE

A *Favorites* viewlet can be created for other objects as well. The objects which you can create a *Favorites* viewlet for are any of the objects which have the **Add to favorites...** option on their **Selected** menu.

Select **Add to favorites...** from the queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)) to open the *Add to selected favorite viewlet* window. If no favorite viewlets exist, you will see the following screen. For more information on adding a favorite viewlet, please see [Create a New Viewlet for Favorite Objects](#).

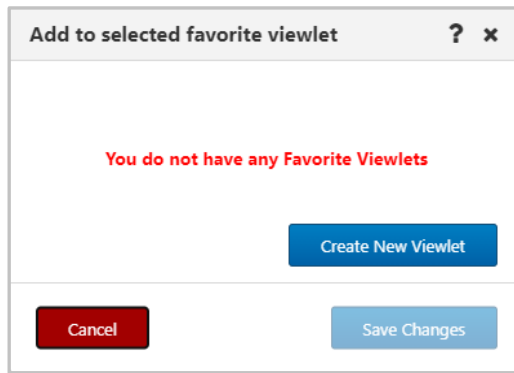


Figure 4.3.3.1.5-A. No Favorites Dialog

If favorite viewlets already exist, continue to the next section, *Add to Selected Favorite Viewlet*.

Add to Selected Favorite Viewlet

1. After selecting **Add to favorites...** from the queue manager's **Selected** menu ([Figure 4.3.3.1-A](#)), the *Add to Selected Favorite Viewlet* dialog is displayed.
2. Select the favorite viewlet from the drop-down list and click **Save Changes**.

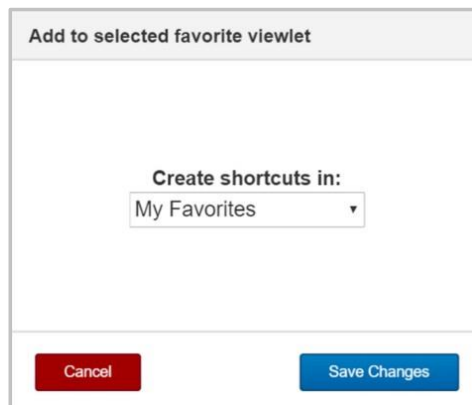


Figure 4.3.3.1.5-B. Add to Favorite Viewlet

4.3.3.1.6 MQSC Command Window

APPLY SCRIPT

Select **MQSC > Apply script** from a queue manager's Selected menu to open the command window where you can execute multiple commands using a script. Please see [Appendix C](#) for an explanation of the menu options.

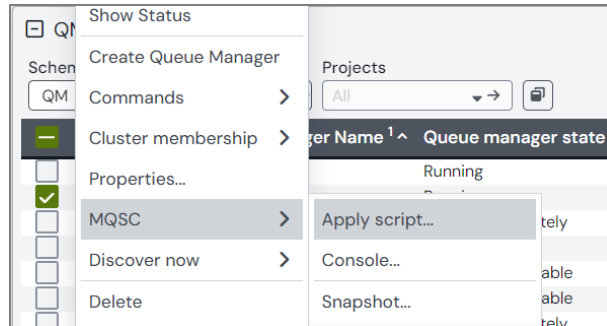


Figure 4.3.3.1.6-A. MQSC > Apply Script

You can either type the commands in the *Script* box located on the left side of the screen or click **Load from file** to import commands from a .txt file. Click **Submit** to execute the commands. The results are displayed on the right side of the screen in the *Response* box. Use the **Find** button located at the top-right of the window to easily search for details within the *Response* box. Clicking the **History** button gives you a list of what scripts you have run during the current session (the list will not be saved after the command window is closed).

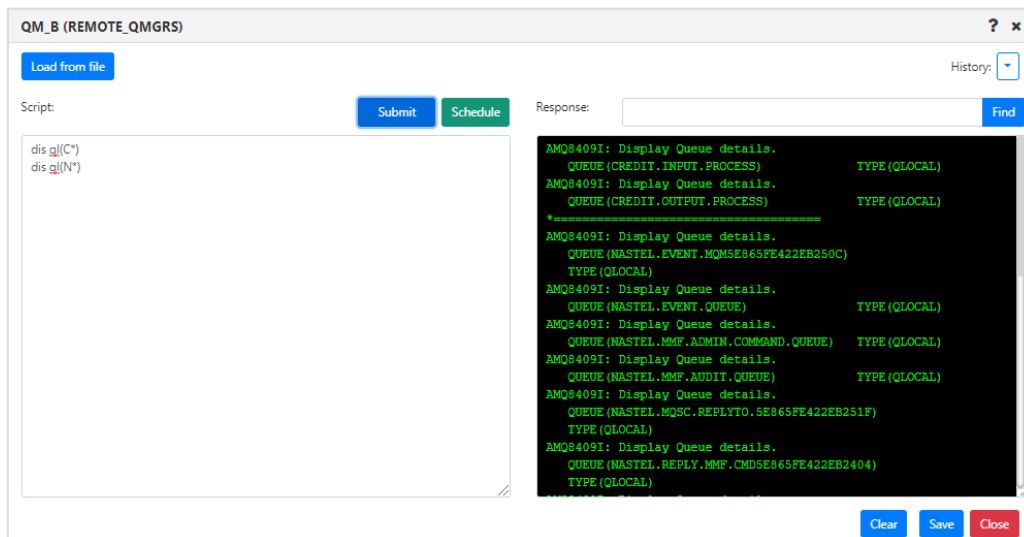


Figure 4.3.3.1.6-B. Apply Script Console

Click **Clear** to clear the response. Click the **Save** button to save the command window's contents as a .txt file.

The **Apply Script** command when applied to a connection manager node can also handle multiple MQSC commands, but the output will be slightly different (see figure below). The replies for each command will be separated by a dashed line, and a summary of commands processed, failed and valid, will appear at the end of the output, similar to a runmqsc command summary.

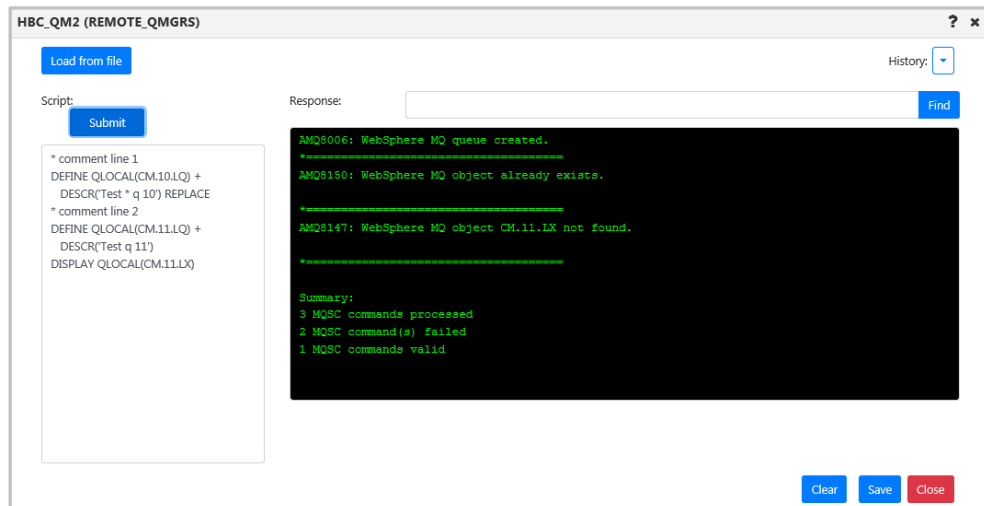



Figure 4.3.3.1.6-C Apply Script Console used with Connection Manager

CONSOLE

Select **MQSC > Console** from a queue manager's Selected menu to open the command window where you can execute a single command.



Please note that the node containing the selected queue manager must be active to have the ability to execute the commands (see Nodes for more information on node statuses).

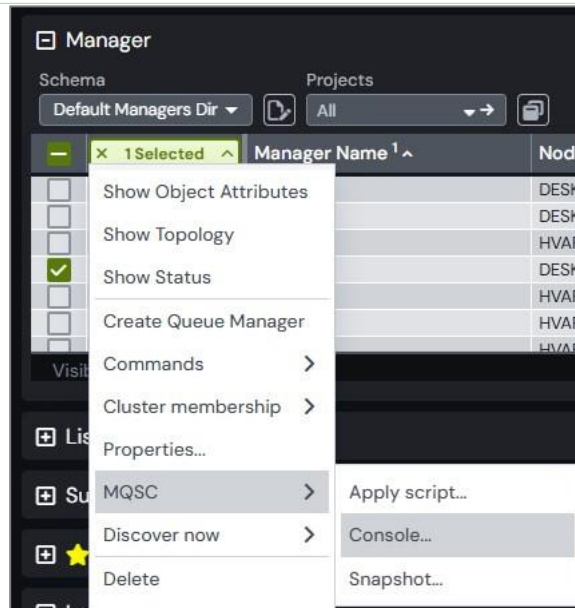


Figure 4.3.3.1.6-D. MQSC > Console

For information on MQSC commands, see the following IBM online Knowledge Center article: https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.adm.doc/q085130_.htm

Enter a command in the field located at the top and click **Submit** to execute it. You can use the drop-down menu located on the right side of the command field to browse through the most recent commands entered (exists only for this session, the list will not be saved after the command window is

closed). MQ's informational responses are returned in the MQSC Console. The console displays "Command completed with messages" and includes the informational message.

In the example below the command **DISPLAY QMGR** was entered and the selected queue managers' details displayed in the command window.

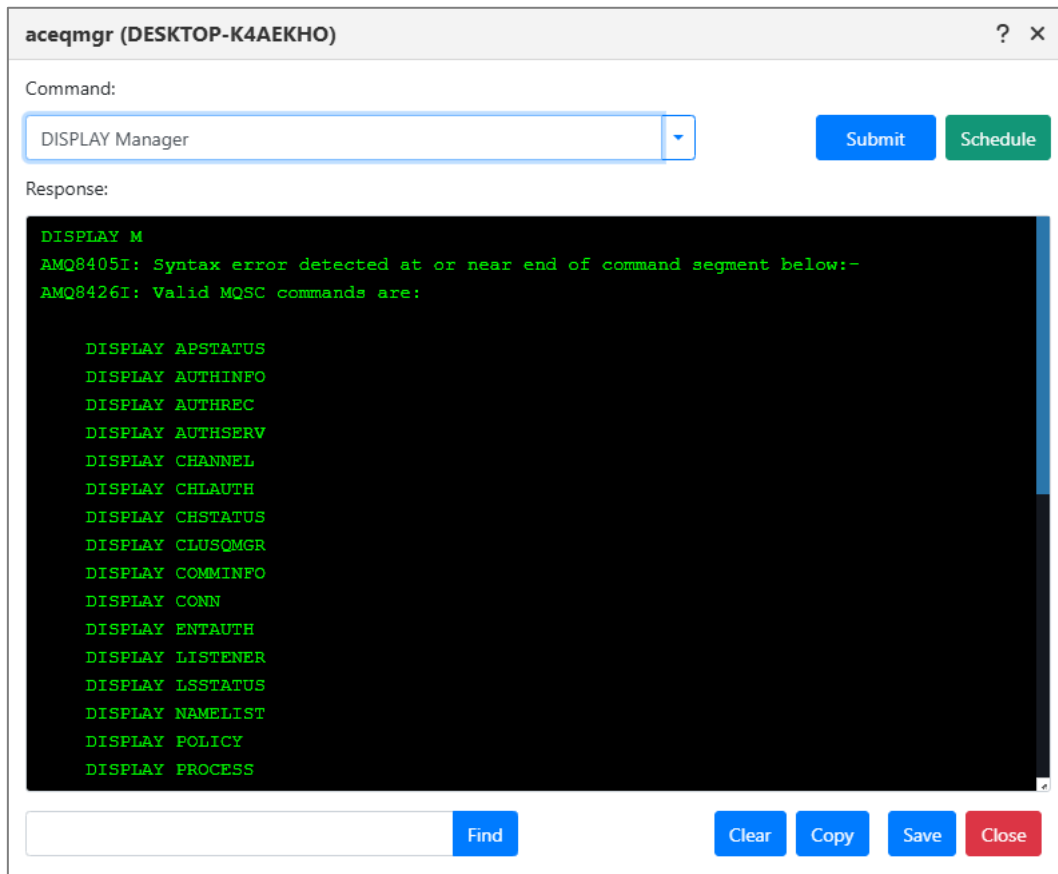


Figure 4.3.3.1.6-E. MQSC Command Window

Use the search field and **Find** button located at the bottom of the window to easily search for details within the response. Click **Clear** to clear the command window. Click the **Copy** button to copy the text of the command window. Click the **Save** button to save the command window's contents as a .txt file.

SNAPSHOT

Select **MQSC > Snapshot** from an object's Selected menu to view the definition of the object. This gives you the information needed to recreate the object. You can take a snapshot of any one object, such as a queue or channel, or of an entire queue manager, which can be used for queue manager backup or duplication.

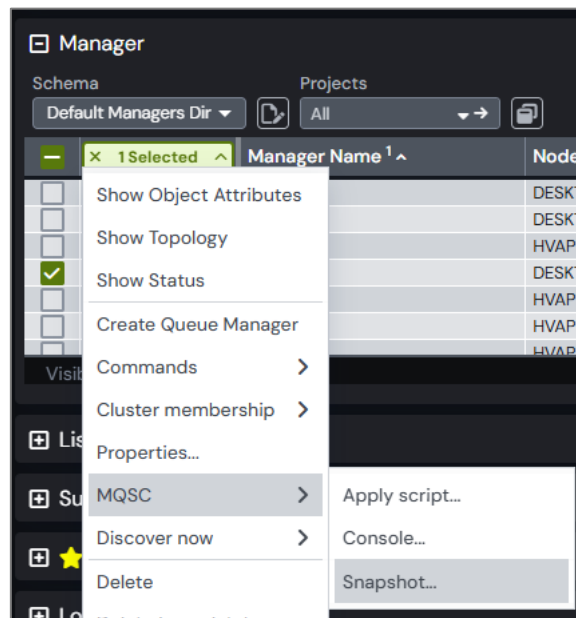


Figure 4.3.3.1.6-F. MQSC > Snapshot

After selecting **Snapshot**, a screen like the one below will appear.

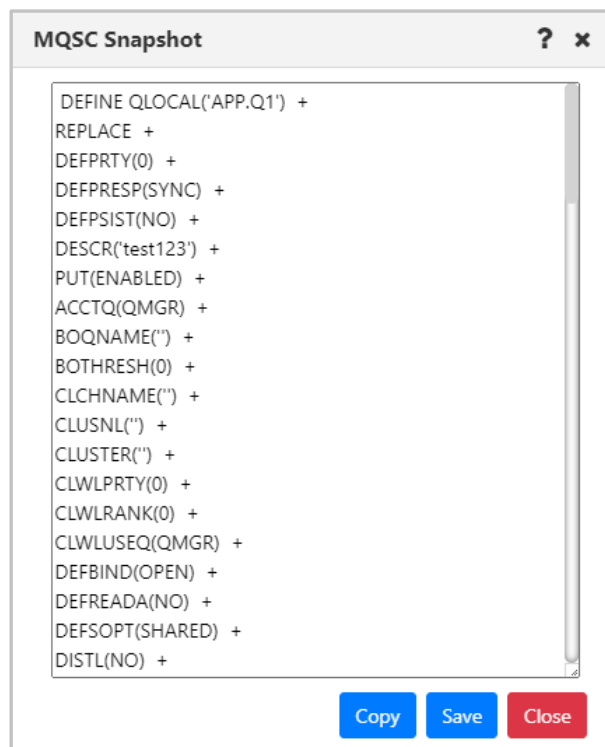


Figure 4.3.3.1.6-G. Snapshot Screen

Export this MQSC snapshot to a .txt file by clicking the **Save** button. You can then use the **MQSC > Apply Script** option ([see above for explanation](#)) to import the file and recreate the object.

z/OS REPORTS

Select **MQSC > Snapshot** from a z/OS queue manager's Selected menu to open the report window.

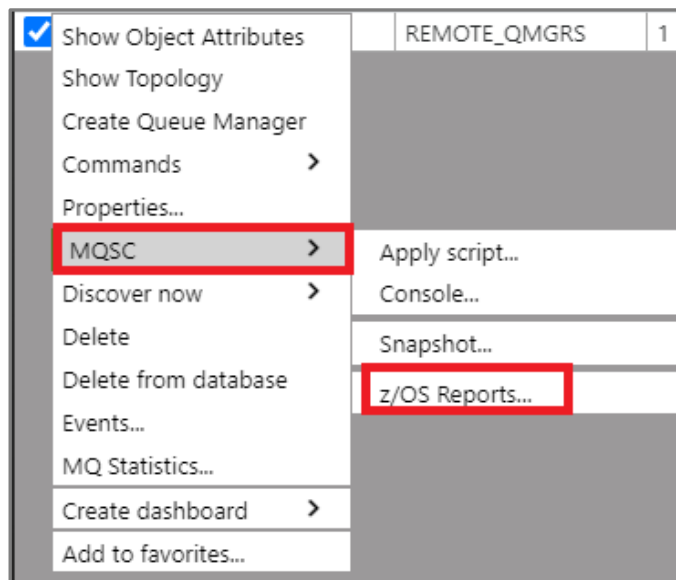


Figure 4.3.3.1.6-H. z/OS Reports Option

On the window that opens, there are tabs for each report type. Select the desired tab to run that report.

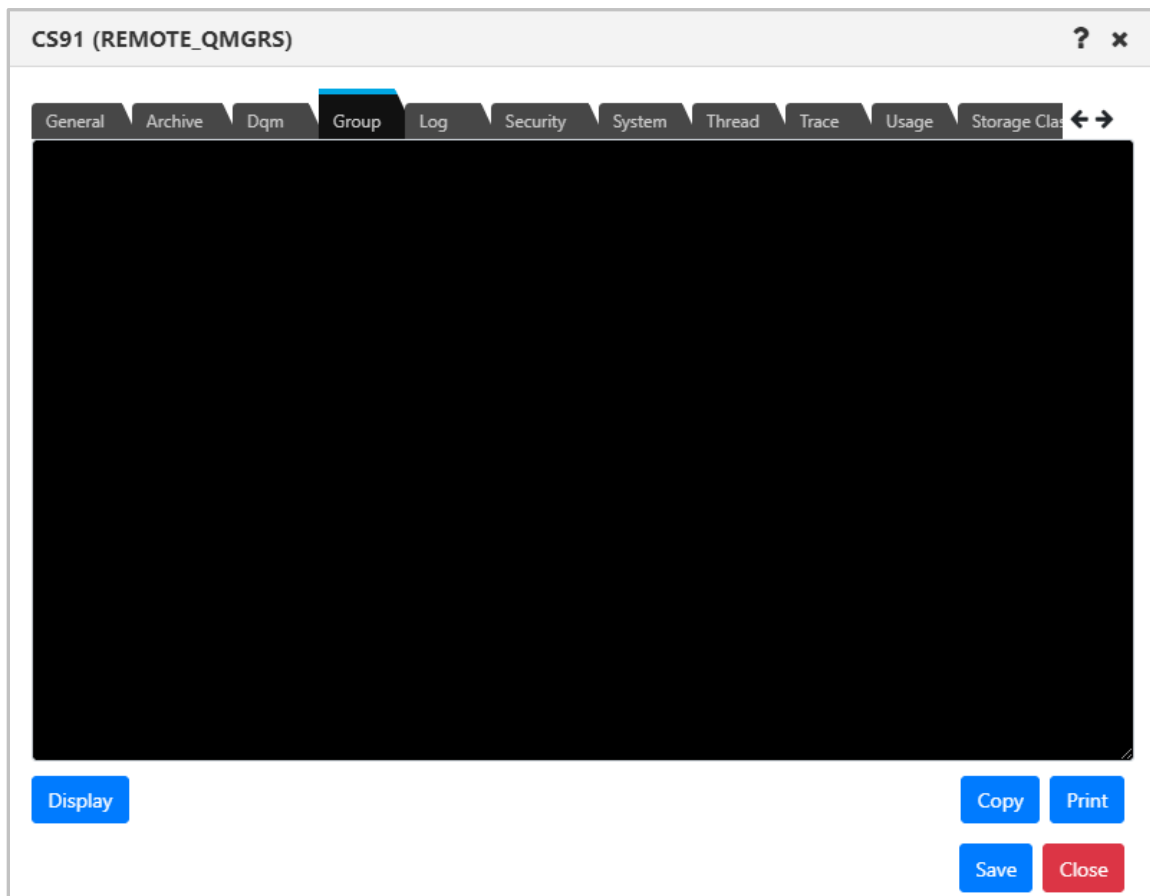


Figure 4.3.3.1.6-I. z/OS Reports

The **Display** button is available on all tabs except for the **General** tab. This button requests and displays the report.

On each tab you can copy the entire text block by clicking the **Copy** button. You can also print the report by clicking the **Print** button. The report will be printed with the queue manager's name, report date and type.

The below tabs have additional functionality:

- *Archive*: Use the **Set** button to set archive data. It will open a separate window where you specify configurations.
- *Dqm*:
 - *Start/Stop Channel Initiator*: Allows you to start initiators and specify jcp parameters. You can also stop initiators and specify when to restart the shared channel.
 - *Start/Stop Channel Listener*: Start or stop listeners and specify the max number of archive log volumes and dedicated tape units, the IP address and port, and lu62 name (for starting only).
- *Log*: Clicking the **Set** button opens a new window where you can set the command scope and manager, default parameters, compression, deallocation time, max number of archive log volumes and dedicated tape units, and number of output buffers. Clicking the **Archive** button opens a new window where you can select the command scope and manager, mode, and time.
- *Security*: Clicking **Set** will open a new window where you can specify properties. The **Refresh** and **Reverify** buttons allow you to select function properties to refresh or verify.
- *System*: Click the **Set** button to specify system settings.
- *Thread*: Select thread type and queue manager name for thread display.
- *Trace*: Specify start and stop trace options.
- *Usage*: Select usage type and pageSet ID for Display function.
- *Storage Class*: Select storage class and page set identifier for display function. You can select qsg disposition, command scope and manager by clicking the **Set** button.
- *Coupling Facility*: Select coupling facility name for display function.
- *SMDs*: Select queue manager and coupling facility names for display function.

4.3.3.1.7 Security

Display or Set Authority

Except for Cluster Queue Managers, users can view and change authorization settings for all IBM MQ objects.

To access this feature:

1. Select a queue manager in the Queue Manager viewlet.
2. From the **Selected** menu, navigate to:
Commands > Security > Display/Set Object Authority Records. The *Display Or Set Authority* window opens.

Figure 4.3.3.1.7-A. Display or Set Authority Modal Window

Select an **Object Type** and **Object Name**. The object's authority permissions are displayed and can be modified. Within the *Authorizations* section, enable/disable all desired options. To quickly clear all options, click the **Clear** button (updates to the **Principal Name** and **Service Component** fields are also cleared). Click the **Display** button to see the object's original authority settings. The **Refresh** button will perform a security refresh. To save changes, click **Set**. Clicking **Cancel** will close the window without saving changes.

Browse Authority Records

The **Browse Authority Records** feature allows you to view existing authority records that define which users or groups (entities) have access to specific IBM MQ objects.

To access this feature:

1. Select a queue manager in the Queue Manager viewlet.
2. From the **Selected** menu, navigate to:
Commands > Security > Browse Authority Records.

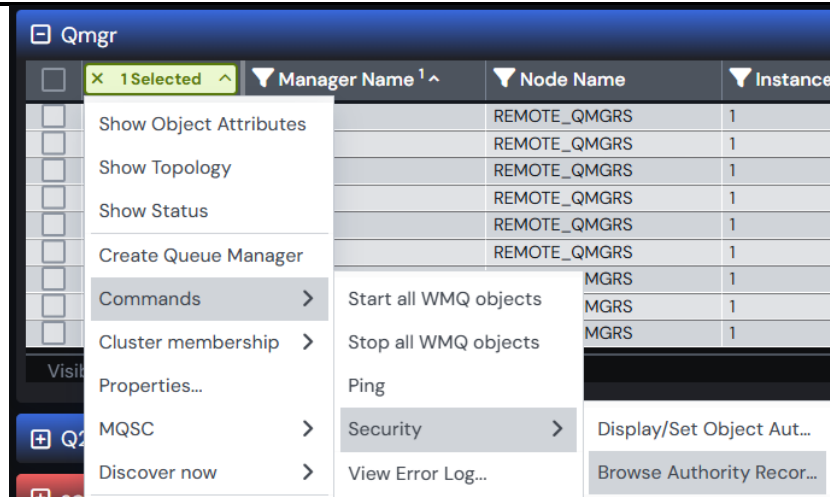


Figure 4.3.3.1.7-B. Select Browse Authority Records

The **Queue Manager Authority Records** dialog opens, displaying all authority records defined for the selected queue manager.

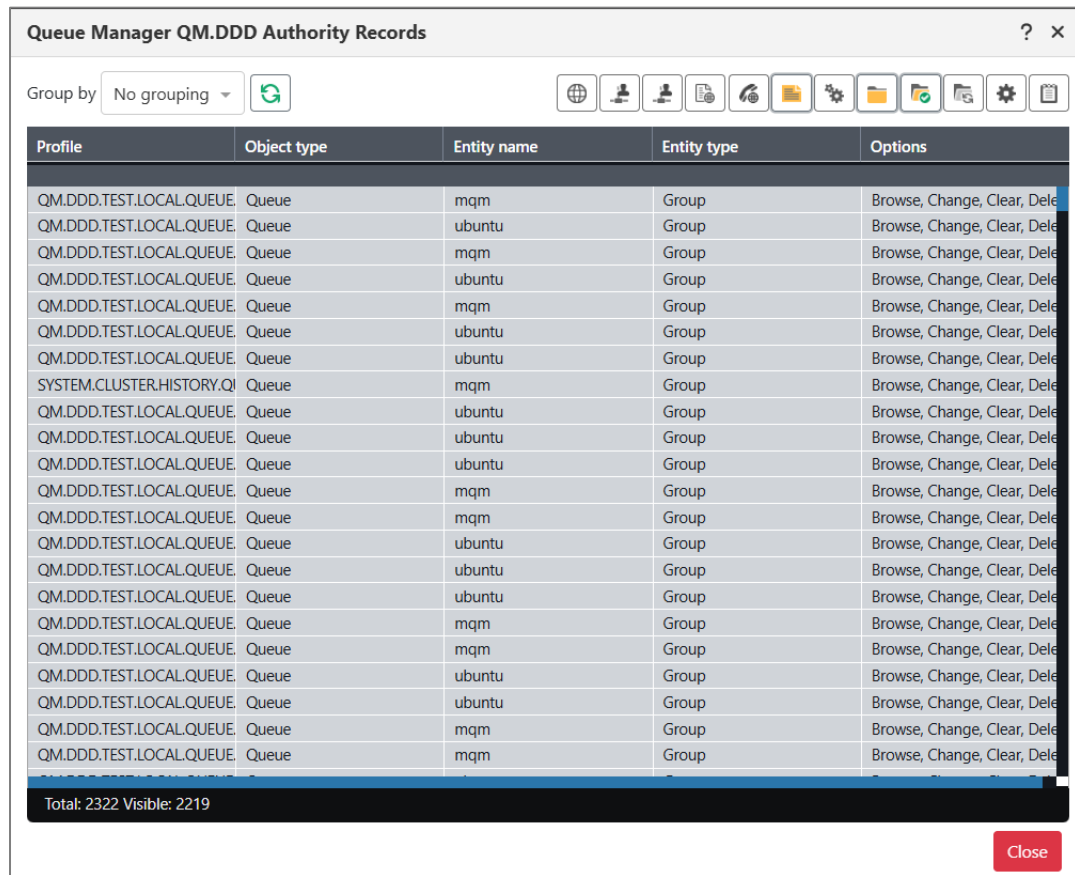


Figure 4.3.3.1.7-B. Queue Manager Authority Records Window

The toolbar at the top of the dialog provides several controls for managing how records are displayed:

- **Group by**
 - **No grouping** — Displays all records in a single list.
 - **Profile** — Groups records by the MQ object profile name.
 - **Object Type** — Groups records by MQ object type (e.g., Queue, Channel, Topic).


- **Entity Name** — Groups records by the user or group entity name.
- **Entity Type** — Groups records by entity type (Principal or Group).
- **Refresh** ()
Reloads the data from the selected queue manager to ensure the displayed authority records are up to date.
- **Object Type Filtering (top-right icons)**
A set of filter buttons allows you to narrow the view to specific MQ object types, such as authentication information, channels, client-connection channels, communication information, listeners, namelists, processes, queues, queue managers, remote queue managers, services, and topics.

Table Columns

The table displays authority record details across several columns:

- **Profile** — The name of the MQ object or resource profile associated with the authority record.
Example: QM.AAA, SYSTEM.DEF.SVRCONN, or @class.
- **Object Type** — Specifies the MQ object type for which the authority record applies, such as Queue, Channel, Topic, Queue Manager, or Namelist.
- **Entity Name** — Displays the user ID or group name that has been granted permissions on the object.
- **Entity Type** — Indicates whether the entity is a Principal (an individual user) or a Group.
- **Options** — Lists the authorities granted to each entity. The available authorities (such as Browse, Change, Delete, Get, or Put) vary depending on the MQ object type.

At the bottom of the dialog displays the total and visible number of authority records.

4.3.3.1.8 View Error Logs



The View Error Log function can only be used with an agent that is running on the node. It cannot be used with a connection manager.

To view queue manager error logs, select an active queue manager and select **Commands > View Error Log** from the drop-down menu. The *Log File Browse* window opens the error logs, and you can see the **Load Logs** option. Click it to view and download a log file, an FDC file, or an FFST summary (of the FDC files).

At the top of the *Log File Browse* window, the queue manager's location is displayed (workgroup server, node, and queue manager name). The Log type that you select will determine the options that are available in the file filter. Only the INI filter includes INI files.

As indicated in the table below, if the ALL or FDC filters are selected, the FFST Summary file `ffstsummary.FDC` is included in the file listing. A sample display of this file is shown below.

Table 4.3.3.1.8-A. Log Type Filters		
Filter	Queue Manager	WMQ System
LOG	LOG	LOG
FDC		FDC ffstsummary.FDC
INI	INI (of the queue manager, for example, qm.ini)	INI (of MQ: mqs.ini from /var/mqm/mqs.ini) (Agent level 6.7.7 or higher is required.)
All	LOG Includes any error log files from the queue manager error directories below. Windows C:\Program Files (x86)\IBM\WebSphere MQ\Qmgrs\ <qmgr_name>\errors\ Linux /var/mqm/qmgrs/<qmgr_name>/errors/</qmgr_name>	LOG Includes any error log files from the system error directories below. Windows C:\Program Files (x86)\IBM\WebSphere MQ\errors\ Linux /var/mqm/errors/ FDC ffstsummary.FDC

The table records can be sorted by clicking on the column headers. The location of the selected error log file is located at the bottom of the window within the grey field. Within the **Read** field, specify the amount of text lines to be displayed in the error log file. Enter a number in the **Lines, Starting From** field to specify the starting row to be exported; data will be exported starting from this line of the error log file. Click **Save** to download and open the file.

Log File Browse ? x

Location:

Log Type:

Filter by name:

Current log type selection: **WMQ SYSTEM / ALL**

File Name And Path	Last Modified
AMQ10096.0.FDC	2024-12-10 16:03
AMQ10140.0.FDC	2024-12-10 16:46
AMQ10212.0.FDC	2024-12-10 15:53
AMQ10312.0.FDC	2024-12-09 16:52
AMQ10356.0.FDC	2024-12-09 16:11
AMQ10372.0.FDC	2024-12-10 16:19
AMQ1040.0.FDC	2024-12-10 16:47
AMQ10400.0.FDC	2024-12-10 14:09
AMQ10584.0.FDC	2024-12-09 16:26
AMQ10596.0.FDC	2024-12-09 18:02
AMQ10940.0.FDC	2024-12-09 16:13
AMQ10980.0.FDC	2024-12-10 16:07
AMQ10992.0.FDC	2024-12-09 17:39
AMQ1100.0.FDC	2024-12-09 16:28
AMQ11048.0.FDC	2024-12-10 13:59
AMQ11080.0.FDC	2024-12-10 14:10
AMQ11128.0.FDC	2024-12-10 14:12
AMQ11196.0.FDC	2024-12-09 17:08
AMQ11244.0.FDC	2024-12-10 16:10

Total: 399 Visible: 399

Read: Lines, Starting From:

Figure 4.3.3.1.8-A Queue Manager's Logs

You can preview the file before exporting by clicking the **Preview** button located at the bottom-right of the window. The preview will look similar to the following:

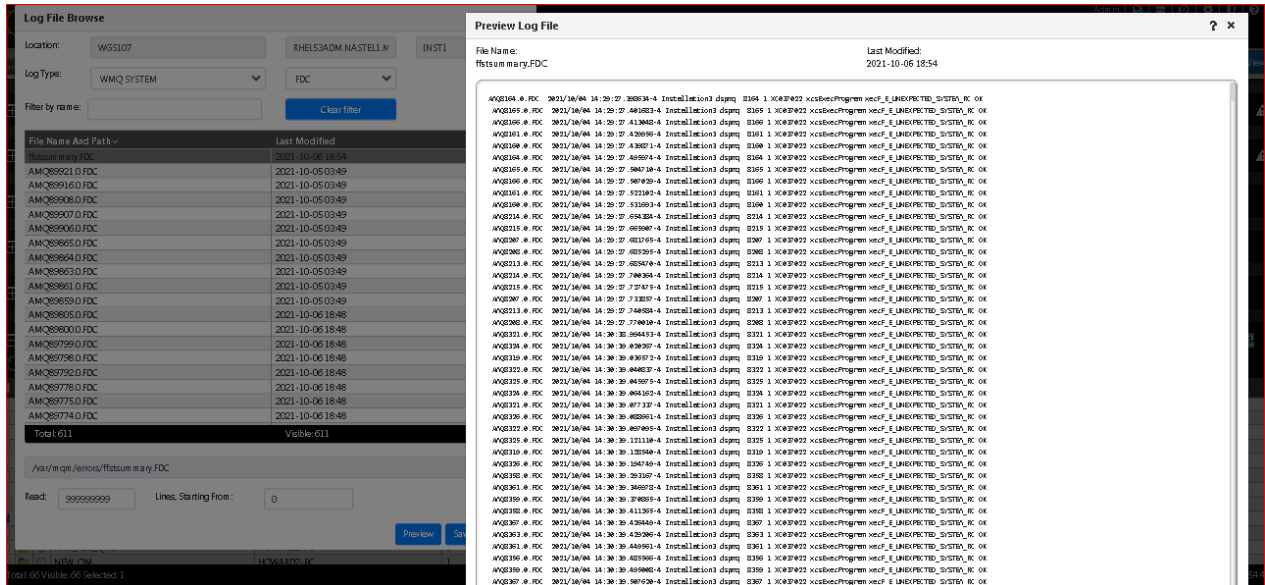


Figure 4.3.3.1.8-B. Preview Log File

4.3.3.1.9 Connections

You can view queue manager connections from the console pane or from a modal window.

4.1.1.1.1.1 View Connections

- To view connections in a modal window, select the checkbox for the queue manager in the viewlet, and select **Commands > Connections (modal)** from the **Selected** menu.
- To view connections in the console pane, select the checkbox for the queue manager in the viewlet, and select **Commands > Connections (console)** from the **Selected** menu.

4.1.1.1.1.2 Queue Manager Connections in Console Pane

In the Console pane, you can filter the list of connections, stop connections, view connection handles, and view connection object properties. A refresh  button is available to update the list.

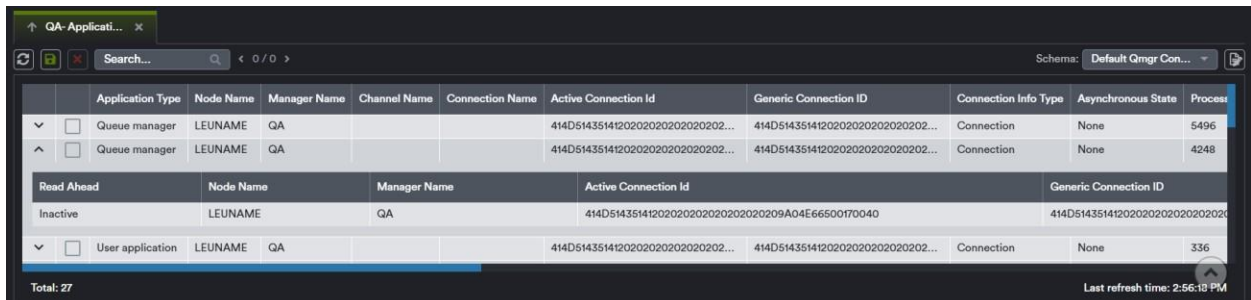




Figure 4.3.3.1.9.2-A. Queue Manager Connections in Console Pane

4.1.1.1.1.5 Stop Connections

Select the checkbox of a queue manager connection to perform an action on it. For example, you can stop one or more connections from here: select the checkbox for each connection, then select **Stop Connection(s)** on the **Selected** menu, or click the Stop Qmgr Connection  button.

4.1.1.1.1.6 View Connection Handles

Connection handle objects are listed for each connection record. Click  to expand each record in the console pane and show the individual connection handles.

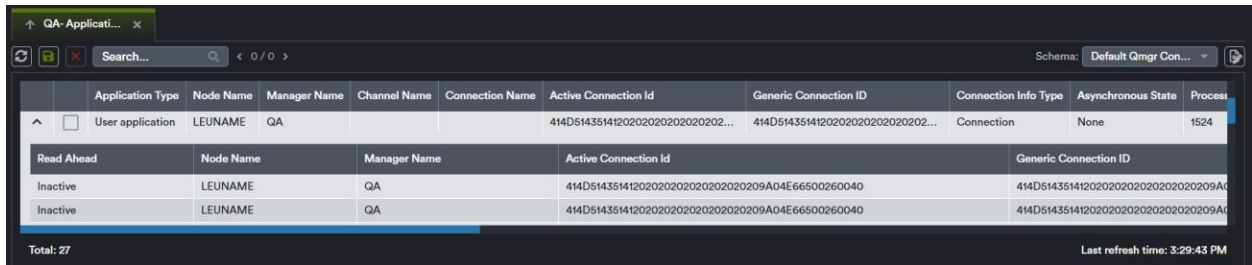


Figure 4.3.3.1.9.6-A. View Connection Handles

4.1.1.1.1.7 View Connection Object Properties

To view the properties of connections or connection handles, click the individual records.

You can also view connection properties by selecting the checkbox for a connection and selecting **Properties** on the **Selected** menu.

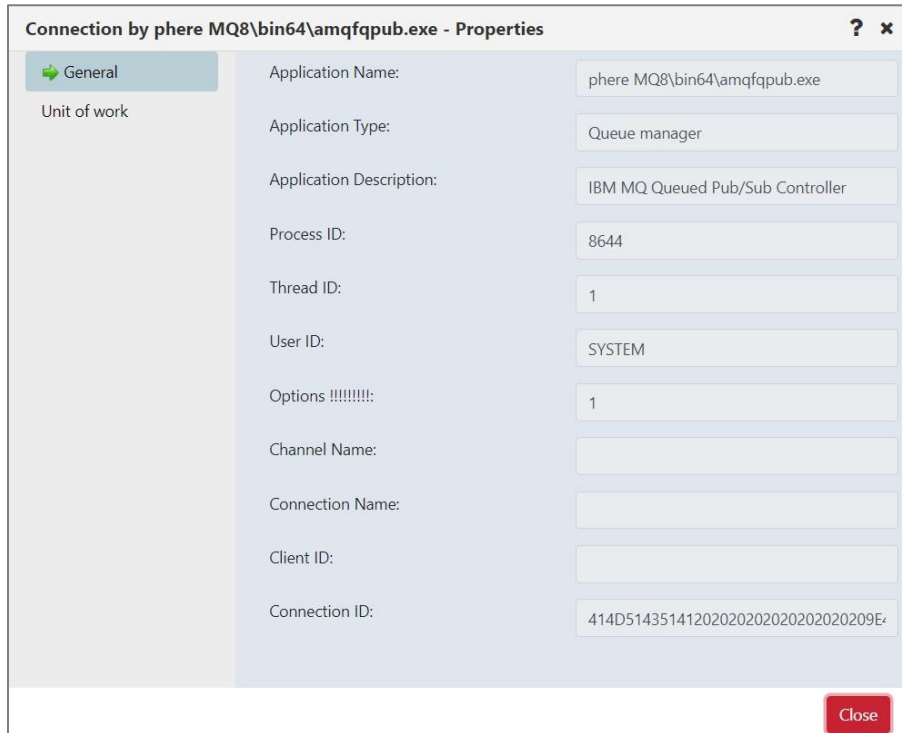


Figure 4.3.3.1.9.7-A. Queue Manager Connection Properties

Connection handle to QA - Properties	
General	Connection ID: 414D514351412020202020202020209E
	Object Name: QA
	Object Type: QMgr
	Open Options !!!!!!!!!!!!!: 32
	Handle State: None
	Asynchronous State: None
	Read Ahead: Inactive

Figure 4.3.3.1.9.7-B. Connection Handle Properties

4.3.3.1.10 Cluster Membership

A cluster is a group of at least two logically associated queue managers that can share information with each other. For example, messages can be transferred between any queue manager and queue within a cluster. Clusters are treated as MQ and Kafka objects and are viewed by creating a viewlet just like any other object (see [Adding and Maintaining Viewlets](#)).

4.1.1.1.1.8 Join Cluster

To join a queue manager to a cluster, select **Cluster membership > Join ...** from the queue manager's Selected menu. On the *Choose the action* window, select the **Join the existing cluster** option. Click **Next**.

Choose the action

Create a new cluster
Creates a new cluster containing two queue managers

Join the existing cluster
Joins current queue manager to the existing cluster

← Back Next → Schedule Finish Cancel

Figure 4.3.3.1.10.1-A. Choose to Create or Join a Cluster

On the following window, select the queue manager's repository type and click **Next**. In this example the **Partial repository** option was selected. Regardless of the option selected, the proceeding windows are the same.

Select Repository Queue Manager and Cluster ? x

Partial repository

Partial repository queue managers hold only cluster information about the MQ objects that they need to know about; for example, queues that they have sent messages to. When a partial repository needs extra cluster information, the queue manager requests this information from a full repository queue manager.

Full repository

Full repository queue managers hold cluster information about every MQ object that is shared in the cluster. Full repository queue managers communicate with other full repository queue managers to ensure that their information is current; they also communicate with partial repository queue managers in response to requests for information. Each cluster should have at least two full repository queue managers.

← Back Next → Schedule Finish Cancel

Figure 4.3.3.1.10.1.-B. Select Repository Queue Manager

On the following screen, select a cluster and click **Next**.

Select Cluster ? x

Cluster	Queue Managers
cluster	▼ Full Repositories QMC @ HVAP Partial Repositories

← Back Next → Schedule Finish Cancel

Figure 4.3.3.1.10.1.-C. Select Existing Cluster to Join

On the following window, the **Cluster-receiver channel name** field gets automatically populated but can be changed. Specify the **Cluster-receiver channel connection name** for the queue manager. Depending on the channel type, it can be defined as domain address, IP address (IPV6, IPV4), Luname, remote machine name. For more information on channel connection names, refer to the IBM documentation: https://www.ibm.com/support/knowledgecenter/en/SSFKJSJ_7.5.0/com.ibm.mq.ref.con.doc/q081820_.htm.

Click **Next**.

Define the cluster-receiver channel for the queue manager
? x

The joining queue manager will use a cluster-receiver to receive cluster information from the full repository queue managers.

Cluster-receiver channel name:

Cluster-receiver channel connection name:

← Back
Next →

Schedule
Finish
Cancel

Figure 4.3.3.1.10.1-D. Define Channel Connection Name

Select repositories on the *Select the full repository queue managers* window. Multiple queue managers can be selected. Click **Next**.

Select the full repository queue managers
? x

The queue manager must be able to send cluster information to at least one full repository queue manager in the cluster.

Select a full repository queue manager to send information to

Full repository queue manager	Cluster-receiver channel
QMC @ HVAP	TO.QMC

Select all
Select none

← Back
Next →

Schedule
Finish
Cancel

Figure 4.3.3.1.10.1-E. Select Full Repository Queue Manager(s)

Review the summary and click **Finish**.

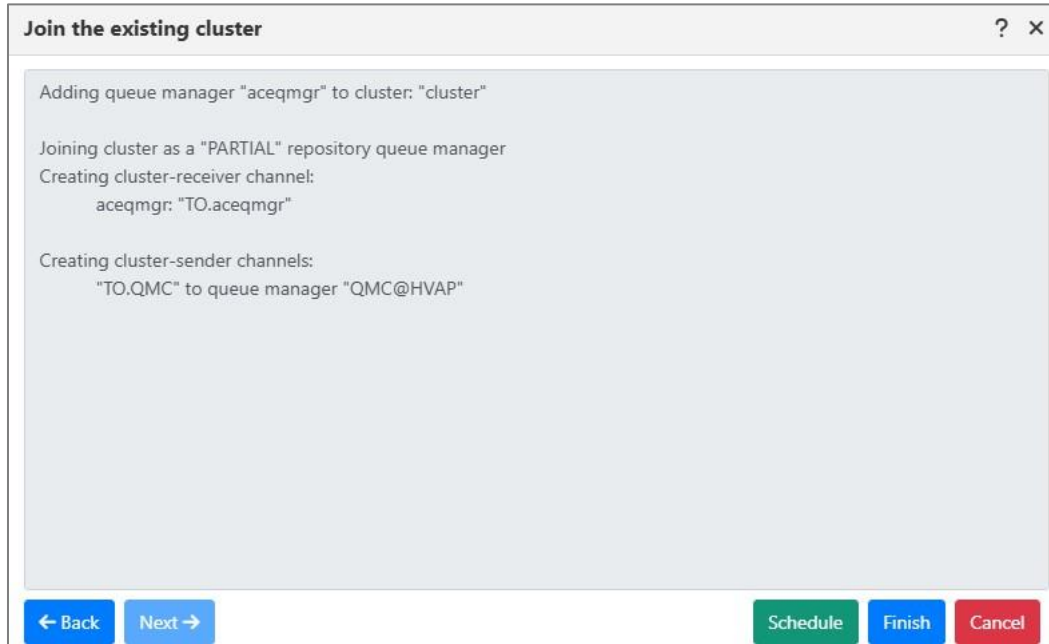


Figure 4.3.3.1.10.1-F. Join the Existing Cluster Summary

4.1.1.1.1.9 Create Cluster

Confirm the following pre-requisites are completed before creating a new queue manager cluster:

- Two queue managers, having full repositories for the cluster, are created
- The cluster's full repository queue managers have a running listener
- You are aware of the connection details; you will be asked to specify them during the creation process



NOTE

When full repository queue manager(s) already belong to another cluster, you cannot terminate the creation process and an error message will be displayed (Figure 4.3.3.1.9.2-E). If you still want to use the queue manager(s), the cluster will need to be configured using MQSC commands.

Steps to create a new cluster:

1. Select a queue manager and click **Cluster membership > Join ...** on the Selected menu.
2. Select **Create a new cluster** on the *Choose the action* window. Click **Next**.

The dialog box has a title bar with a question mark and a close button. The main content area contains the following text: "The queue manager must be able to send cluster information to at least one full repository queue manager in the cluster." Below this is the instruction "Select a full repository queue manager to send information to". There are two input fields: "Full repository queue manager" and "Cluster-receiver channel". At the bottom, there are four buttons: "Back", "Next", "Finish", and "Cancel".

Figure 4.3.3.1.10.2-A. Create New Cluster Option

3. Specify a unique name for the cluster and click **Next**.

The dialog box has a title bar with a question mark and a close button. The main content area contains the text "Type a name for the cluster:" followed by a large text input field. At the bottom, there are four buttons: "Back", "Next", "Finish", and "Cancel".

Figure 4.3.3.1.10.2-B. Specify Cluster Name

4. Information about the first selected queue manager to join the cluster is displayed on the *First full repository queue manager* window. Click **Next**.

The dialog box has a title bar with a question mark and a close button. The main content area contains the text "M6-WMQ agent name (MQ Node):" followed by a text input field containing "SLB19". Below this is the text "Select a queue manager to add to the cluster" followed by a text input field containing "T3". At the bottom, there are four buttons: "Back", "Next", "Finish", and "Cancel".

Figure 4.3.3.1.10.2-C. Selecting First Queue Manager

5. Select the second queue manager to join the new cluster. Click the **Next** button.

Figure 4.3.3.1.10.2-D. Selecting Second Queue Manager

NOTE If you select a full repository queue manager which already belongs to another cluster, you will be alerted with an error message.

Figure 4.3.3.1.10.2-E. Error Message for Already Belonging to Cluster Queue Manager

6. According to the instructions displayed on the *Creating cluster channels* window, define the cluster-receiver channel and channel connection name for both queue managers on the proceeding windows (Figures 4.3.3.1.9.2-G and H).

Creating cluster channels
?
×

Each full repository queue manager needs a cluster-receiver channel and a cluster-sender channel so that it can communicate with the other full repository.

The name of the cluster-receiver channel that you choose for each full repository is used as the name of the cluster-sender channel on the other full repository.

The channel names must not already exist.

← Back
Next →

Finish
Cancel

Figure 4.3.3.1.10.2-F. Creating Cluster Channels Instructions

Define the cluster-receiver channel for the queue manager
?
×

The joining queue manager will use a cluster-receiver to receive cluster information from the full repository queue managers.

Cluster-receiver channel name:

Cluster-receiver channel connection name:

Field is required

← Back
Next →

Finish
Cancel

Figure 4.3.3.1.10.2-G. Define Cluster-Receiver Channel for First Queue Manager

Define the cluster-receiver channel for the second queue manager
?
×

The joining queue manager will use a cluster-receiver to receive cluster information from the full repository queue managers.

Cluster-receiver channel name:

Cluster-receiver channel connection name:

Field is required

← Back
Next →

Finish
Cancel

Figure 4.3.3.1.10.2-H. Define Cluster-Receiver Channel for Second Queue Manager

7. Review the cluster summary and click **Finish**.

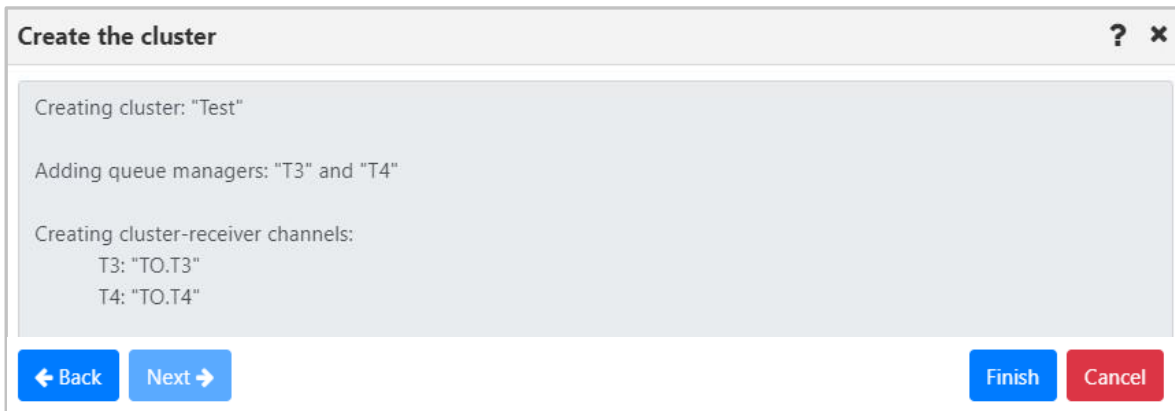


Figure 4.3.3.1.10.2-I. Cluster Creation Summary

8. To view the new cluster, populate the cluster queue manager's viewlet (see [Adding and Maintaining Viewlets](#)).

Hosting Queue Manager	Cluster Name	Queue Manager Type	Channel Name	Definition Type
T1	cluster_test	Repository		Cluster Receiver
SYSTEM.TEMPQMGR.t2_test_cluster	cluster_test	Repository		Explicit Cluster Sender
SYSTEM.TEMPQMGR.t1_test_cluster	cluster_test	Repository		Explicit Cluster Sender
T2	cluster_test	Repository		Cluster Receiver
T1	cluster_test	Repository		Cluster Receiver
SYSTEM.TEMPQMGR.t2_test_cluster	cluster_test	Repository		Explicit Cluster Sender
SYSTEM.TEMPQMGR.t1_test_cluster	cluster_test	Repository		Explicit Cluster Sender
T2	cluster_test	Repository		Cluster Receiver

Figure 4.3.3.1.10.2-J. Cluster Queue Managers Viewlet

4.1.1.1.10 Cluster Refresh

Select **Cluster membership > Refresh** from the selected queue manager's Selected menu. The **Refresh Cluster Information** window opens. From the *Cluster name* drop-down menu, select a cluster to refresh. Check off the **Refresh repository** checkbox and click **OK**.

Consult the IBM documentation for information on the Refresh Cluster command and repository refresh types:

[https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.adm.doc/q086470 .htm](https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.adm.doc/q086470.htm)

https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.con.doc/q082360 .htm

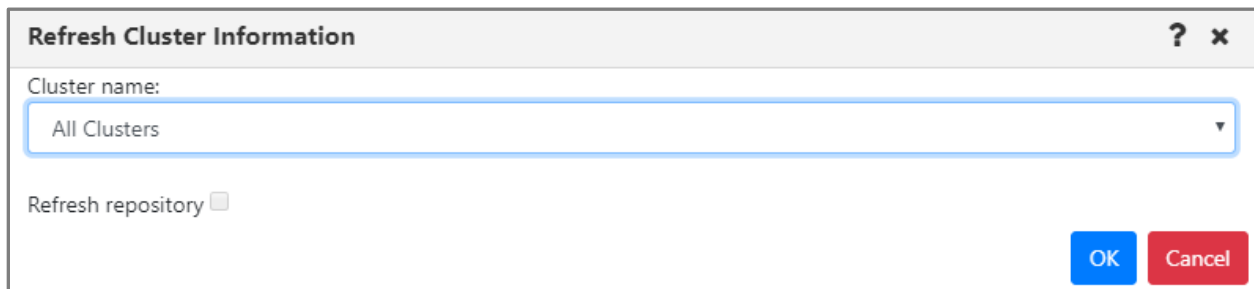


Figure 4.3.3.1.10.3-A. Cluster Refresh

4.1.1.1.11 Leave Cluster

To remove a queue manager from a cluster, select **Cluster membership > Leave** from the queue manager's Selected menu. The *Leave Cluster* window opens. Review the summary table, enable the desired delete options at the bottom of the screen and click **OK**.

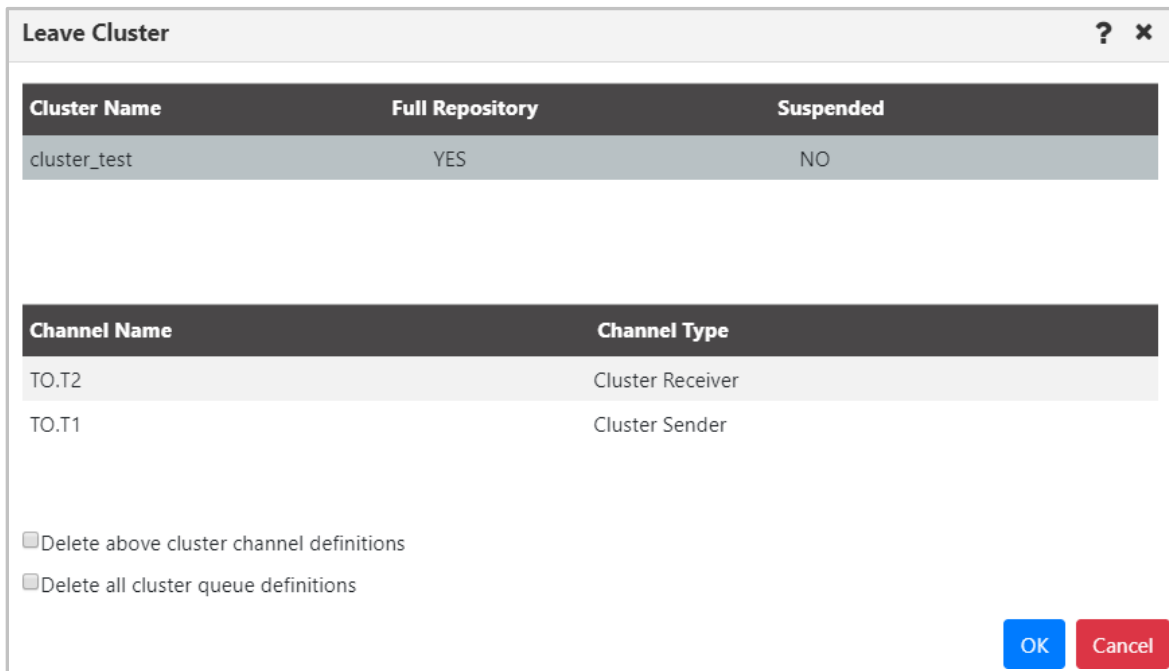


Figure 4.3.3.1.10.4-A. Leave Queue Managers Cluster

4.3.3.1.11 Ping

You can ping a queue manager to view its status. Do this by selecting **Commands > Ping** from the queue manager's Selected menu.

You will either see a *Success* message displayed at the bottom right of the window:



Figure 4.3.3.1.11-A. Successful Ping

or a failed detailed error will be displayed:

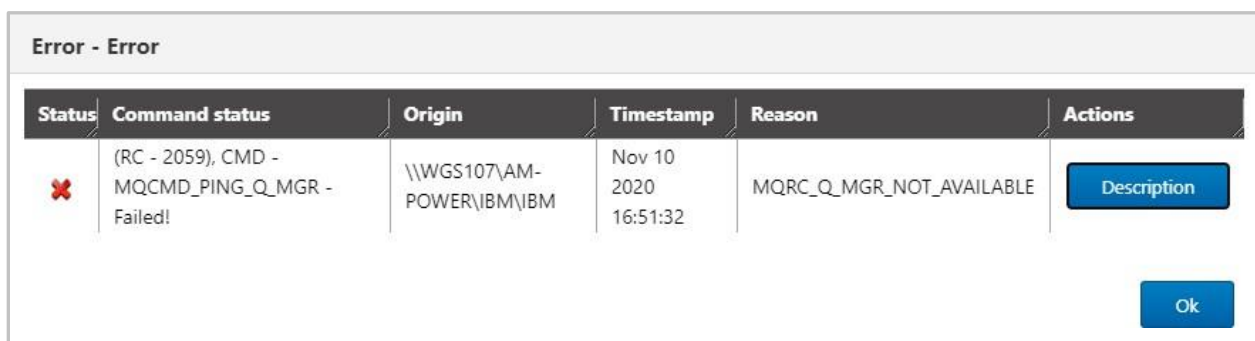


Figure 4.3.3.1.11-A. Failed Ping

4.3.3.1.12 Create Dashboard

You can create dashboard with default viewlets from queue manager by selecting **Create Dashboard > Default Viewlets** from the queue manager's **Selected** menu.

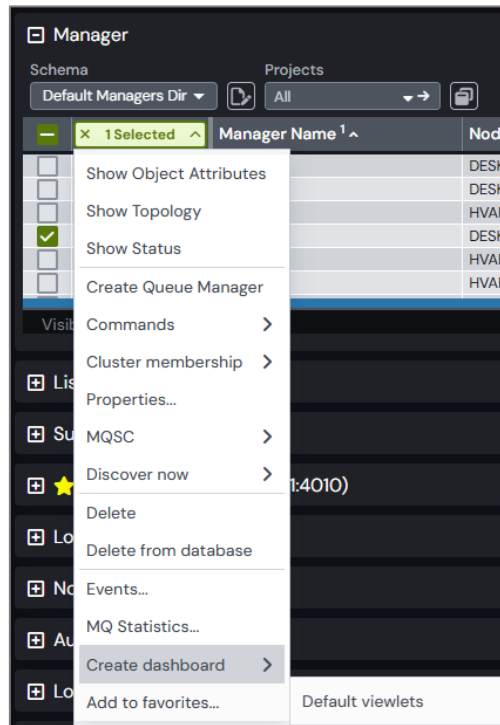


Figure 4.3.3.1.20-A. Create Dashboard

4.3.3.2 EMS Manager

An EMS manager has the following Selected menu options.

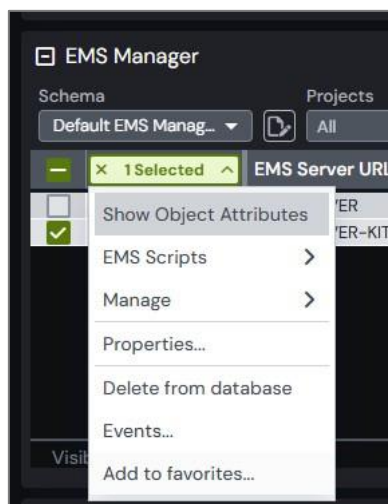
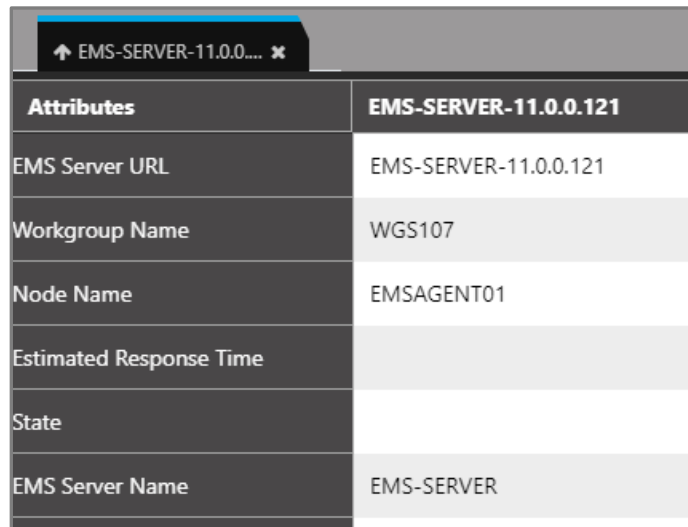


Figure 4.3.3.2-A. EMS Manager Selected Menu

4.3.3.2.1 Attributes

Select **Show Object Attributes** from an EMS manager's Selected menu to open the *Attributes* table on the Console panel.



Attributes	EMS-SERVER-11.0.0.121
EMS Server URL	EMS-SERVER-11.0.0.121
Workgroup Name	WGS107
Node Name	EMSAGENT01
Estimated Response Time	
State	
EMS Server Name	EMS-SERVER

Figure 4.3.3.2.1-A. EMS Manager Attributes

4.3.3.2.2 EMS Scripts Console

After selecting **EMS Scripts > Console** from EMS manager's Selected menu ([Figure 4.3.3.2-A](#)), the below command window opens. Type in a command in the field at the top of the window. Please consult TIBCO User's Guide for more information on EMS commands:

https://docs.tibco.com/pub/ems/8.4.0/doc/pdf/TIB_ems_8.4_users_guide.pdf

The functionality of the buttons and fields on this window is the same as described in section [4.3.3.1.6, MQSC Command Window](#).

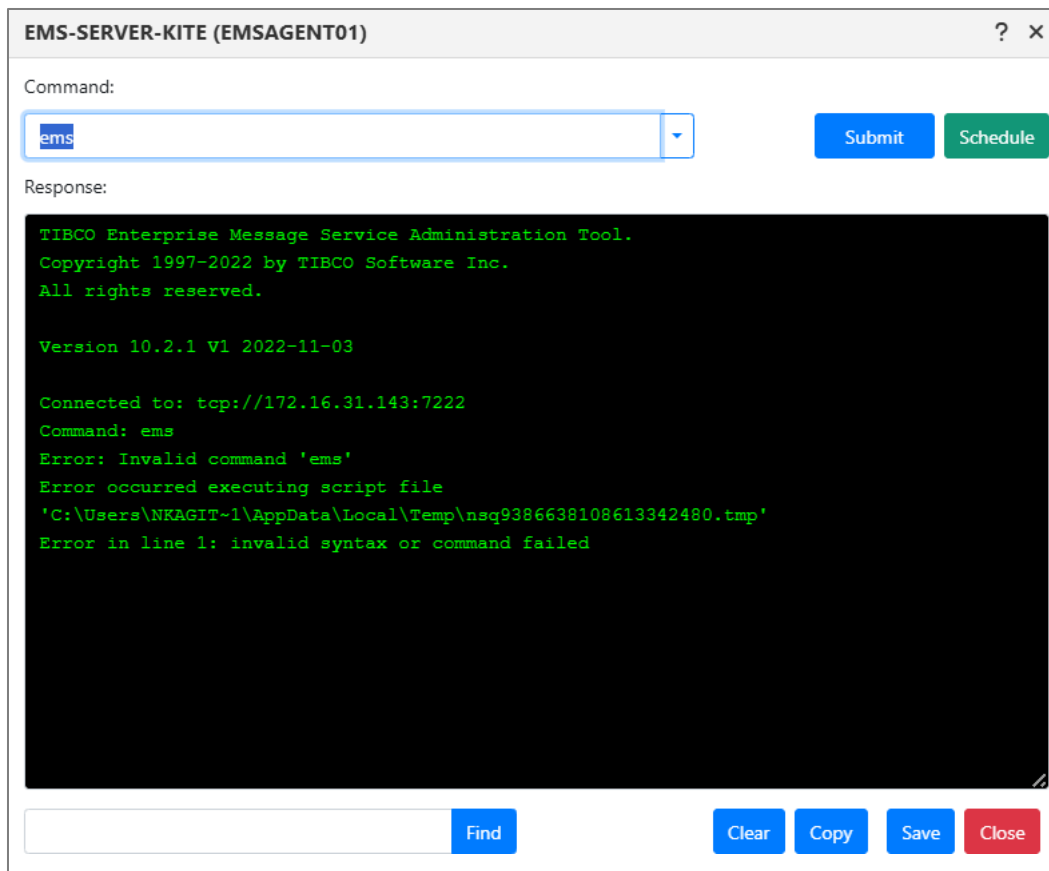


Figure 4.3.3.2.2-A. EMS Scripts Console

4.3.3.2.3 EMS Manage

In the **Queue Manager** section of **TIBCO EMS**, under the **Manage** option, you'll find features for managing **Users**, **User Groups**, and **ACLs**.

- **Users:** This will allow you to manage existing users and create new users for EMS.
- **User Groups:** You can organize users into predefined groups. You configure and manage these groups locally within **EMS**, making it easier to manage access and permissions for a large number of users.
- **ACLs (Access Control Lists):** ACLs define the permissions for both local and external EMS users and groups, specifying what actions they can perform.

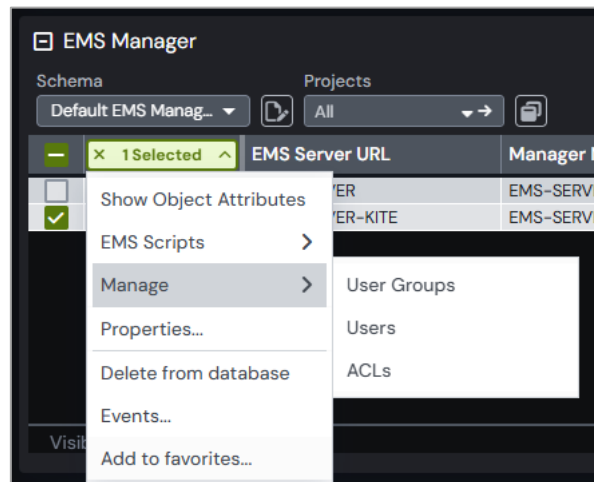


Figure 4.3.3.2.3-A. EMS Manage Options

To create users and user groups, select EMS Queue Manager and then choose **Manage > User Groups** from the Selected menu. The *EMS Server Management* window will open.

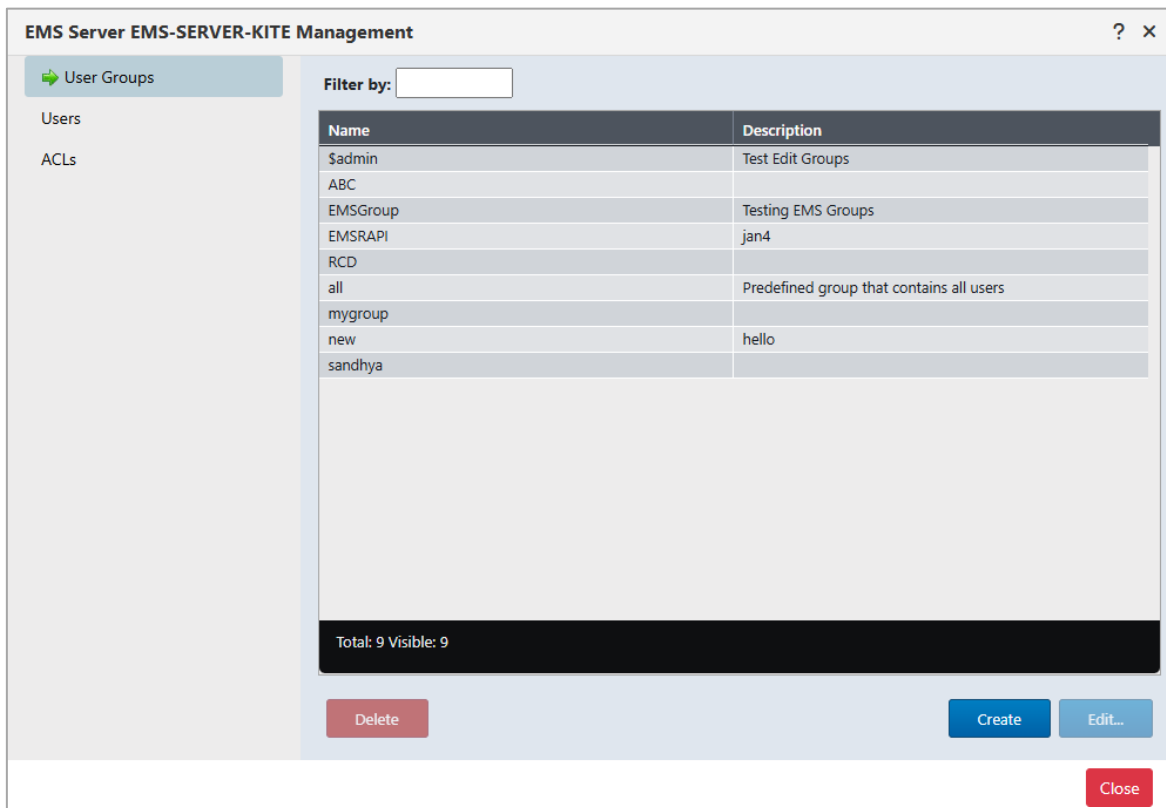


Figure 4.3.3.2.3-B. EMS Server Management

Click on **Create** to open *Create EMS server group* window. Enter name (required) and Description then click **Save**.

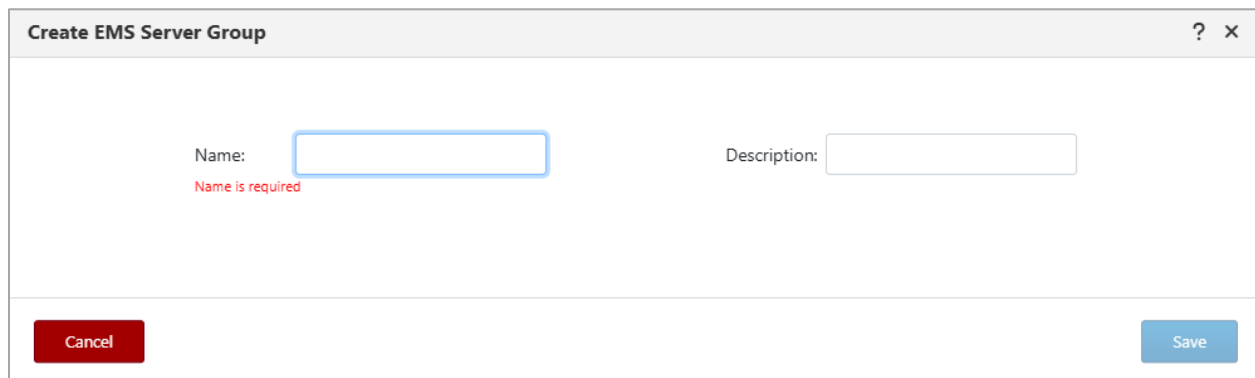


Figure 4.3.3.2.3-C. Create EMS Sever Group

To create a user, select **User** in the *EMS Server Management* window, click **Create** to open the **Create EMS Server User** window. Enter the Name, Password (required) and Description, then click **Save**.

Figure 4.3.3.2.3-D. Create EMS Sever User

You can also manage existing users and user groups by clicking the **Edit** option.

To assign permissions to users and user groups, click **ACLs** in the **EMS Server Management** window. Click on check box for the relevant permissions, then click **Save**.

Destination	Dest. Type	Principal	Pr. Type	<input checked="" type="checkbox"/> Send	<input checked="" type="checkbox"/> Receive	<input checked="" type="checkbox"/> Browse
123123.COPY	Queue	EMS-SERVER	User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1234	Queue	EMS-SERVER	User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AAA	Queue	RCD	User Group	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AAA	Queue	sandhya	User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ABC	Topic	ABC	User Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CITIQ1	Queue	EMS-SERVER	User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEW.Q3.TST	Queue	EMS-SERVER	User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEST_2000000	Queue	mygroup	User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
sample	Topic	RCD	User Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4.3.3.2.3-E. EMS Sever ACLs


You can also enter a value in the **Filter by** box to filter the list of results. To export ACLs to a .csv file, use the export button . A sample export file is shown below.

Destination	Dest. Type	Principal	Pr. Type	Send	Receive	Browse	Publish	Subscribe	Create Du	Use Durab	View	Create	Delete	Modify	Purge
123123.COPY	Queue	EMS-SERV	User	TRUE	TRUE	TRUE					FALSE	FALSE	FALSE	FALSE	FALSE
1234	Queue	EMS-SERV	User	TRUE	TRUE	TRUE					FALSE	TRUE	TRUE	FALSE	FALSE
AAA	Queue	RCD	User Group	TRUE	TRUE	TRUE					FALSE	TRUE	FALSE	FALSE	FALSE
AAA	Queue	sandhya	User	TRUE	TRUE	TRUE					TRUE	TRUE	TRUE	FALSE	FALSE
ABC	Topic	ABC	User Group				TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
CITIQ1	Queue	EMS-SERV	User	TRUE	FALSE	FALSE					FALSE	FALSE	FALSE	FALSE	FALSE

Figure 4.3.3.2.3-F. Sample .csv ACLs

4.3.4 Queues and Partitions

Select a queue to enable the **Selected** menu. Menu options are described in [Appendix C](#).



NOTE Your **Selected** menu options may differ according to your user permissions, which are managed by an admin. Please also note that different queue types have different menu options.

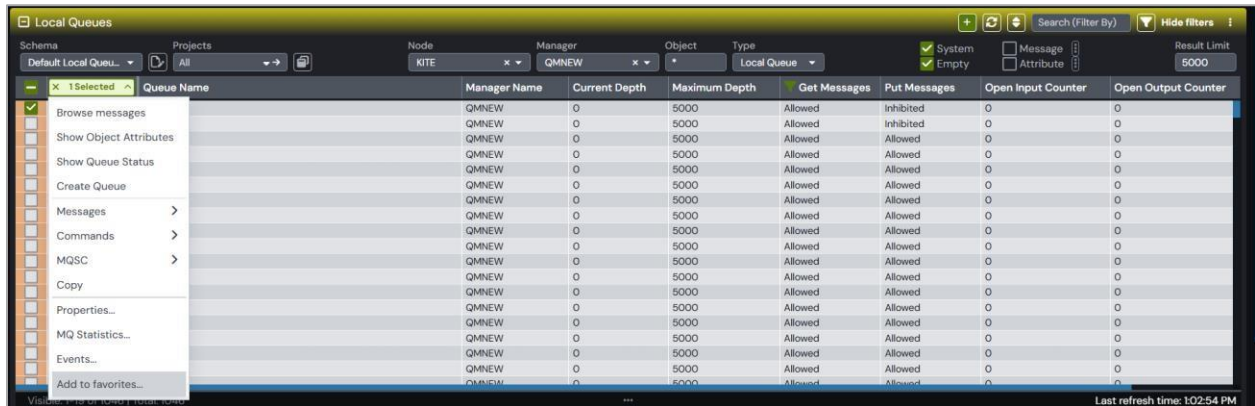



Figure 4.3.4-A. Queue Viewlet and Actions



TIP Clicking on a queue name will open the queue's attribute viewlet. Browse messages by clicking a cell within the **Current Depth** column. Clicking cells within **Open Input Counter** or **Open Output Counter** will display status tabs.

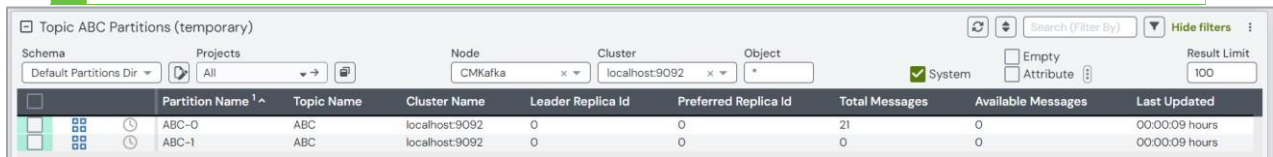


Figure 4.3.4-B. Partition Viewlet and Actions

At the top-right of the viewlet there is a **Project** drop-down which filters the viewlet by user group configurations (the user group's description is listed). Viewlet results are filtered by the selected group's server (workgroup servers, nodes, and managers) and object group access permissions defined in the security application. If **All** is selected, the data displayed is according to all groups the user belongs to. For example, if the user belongs to both the *Administrators* and *Users* groups, the viewlet will display data that meets the security application filters for *Administrator* or *Users* when **All** is selected.

4.3.4.1 Queue Status

After selecting **Show queue status** from an IBM MQ or EMS queue viewlet's **Selected** menu ([Figure 4.3.4-A](#)), the *Queue Status* viewlet is displayed.

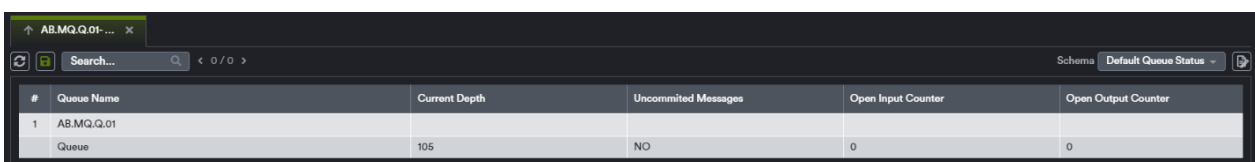


Figure 4.3.4.1-A. Show Queue Status

You can customize the status table by clicking the **Manage viewlet schemas** icon . See [Schemas](#).

4.3.4.2 Queue Properties

After selecting **Properties** from the queue's **Selected** menu ([Figure 4.3.4-A](#)), the *Properties* window for the local queue is displayed. For detailed descriptions of the various input fields and tabs, go to the IBM Knowledge Center:

<https://www.ibm.com/docs/en/ibm-mq/9.3?topic=properties-mq-queue>

See [Custom Attributes](#) for information on adding custom attributes to a queue (done on the **Custom Attributes** tab).

The screenshot shows a dialog box titled "Local Queues BANK.IN Properties". On the left is a sidebar with tabs: General (selected), Extended, Cluster, Triggering, Events, Storage, Monitoring, Statistics, and Custom Attributes. The main content area has the following fields:

- Queue Name: BANK.IN
- Description: (empty text box)
- Queue Usage: Normal (dropdown)
- Scope: Queue Manager (dropdown)
- Default Bind: On Open (dropdown)
- Default Persistence: Non Persistent (dropdown)
- Put Messages: Allowed (dropdown)
- Get Messages: Allowed (dropdown)
- Custom: (empty text box)
- Default Priority: 0 (text box)
- Force Changes: (checkbox, unchecked)

At the bottom right are three buttons: Ok (blue), Schedule (green), and Cancel (red).

Figure 4.3.4.2-A. Local Queues Properties

For detailed descriptions of the various input fields for EMS queues, go to the TIBCO Product Documentation for queues:

<https://docs.tibco.com/pub/ems/10.1.0/doc/html/GUID-EE423898-3C90-4F54-84D6-026F85ACD6E4.html>.

EMS Queues AB.Q.01 Properties
?
x

➔ General

Destination Info



Custom Attributes

<p>Queue Name: <input type="text" value="AB.Q.01"/></p> <p>Definition Type: <input type="text" value="Predefined"/></p> <p>From Queue Name: <input type="text"/></p> <p>Consumer Count: <input type="text"/></p> <p>Flow Control Max. Bytes: <input type="text" value="0"/></p> <p>In Transit Message Count: <input type="text" value="0"/></p> <p>Maximum Redelivery: <input type="text" value="0"/></p> <p>Pending Msg. Size: <input type="text" value="1090"/></p> <p>Pending Persist. Msg. Size: <input type="text" value="1090"/></p> <p>Redelivery Delay: <input type="checkbox"/> Enabled <input type="text" value="0"/></p> <p>Store Name: <input type="text" value="\$sys.nonfailsafe"/></p> <p>Max. Bytes: <input type="text" value="0"/></p> <p>Message Trace: <input type="text" value="None"/></p> <p><input type="checkbox"/> Exclusive <input type="checkbox"/> Global <input type="checkbox"/> Routed <input type="checkbox"/> Sender Name</p>	<p>GET Consumer Count: <input type="text" value="0"/></p> <p>Receiver Count: <input type="text" value="0"/></p> <p>To Queue Name: <input type="text"/></p> <p>Delivered Messages Count: <input type="text" value="0"/></p> <p>Expiry Override: <input type="text" value="0"/></p> <p>Maximum Messages: <input type="text" value="999999"/></p> <p>Overflow Policy: <input type="text" value="Default"/></p> <p>Pending Persist. Msg. Count: <input type="text" value="10"/></p> <p>Reroute Name: <input type="text"/></p> <p>Prefetch Count: <input type="text" value="5"/></p> <p>Pending Msg. Count: <input type="text" value="10"/></p> <p><input type="checkbox"/> Fail-safe <input type="checkbox"/> Route Connected <input type="checkbox"/> Secure <input type="checkbox"/> Sender Name Enforced</p>
--	---

Ok
Schedule
Cancel

Figure 4.3.4.2-B. EMS Queue Properties

4.3.4.3 Messages


Messages can be put and managed in Kafka topics and partitions and in queues (such as RabbitMQ, Solace, local, alias, and EMS queues). For queues containing messages that are represented by an envelope folder icon , a red line envelope icon  signifies that a queue is full, and new messages cannot be added. To display messages, do one of the following:

- Select **Browse messages** from the **Selected** menu ([Figure 4.3.4-A](#)) of a queue, topic, or partition with messages
- Click a value in the **Total Messages** or **Available Messages** columns for Kafka topics and partitions or the **Current Depth** column for local queues.


To perform an action on a message, select it and then click the appropriate icon described in [Table 4.3.4.3-A](#) below, or select an action from the **Selected** menu ([Figure 4.3.4.3-J](#)).

The **Active Filter** list at the top of the viewlet displays the **Message Criteria** that is currently enabled in settings (See [Message Commands Tab](#) for more information). You can change the **Message Criteria** by selecting a different configuration from the list, or you can type its name to easily search for one. The viewlet will display messages according to the new filter selected. To clear the filter and display all messages, click the **X** within the field. Please note that the changes made will only be applied to the current *Console Message* viewlet and will not override the existing **Message Criteria** that is enabled in settings.

To customize the Messages viewlet, see [Schemas](#).



NOTE

Sometimes after selecting “Browse messages” for a queue, messages will not appear within the messages tab in the Console panel. This is due to the system periodically refreshing the content of queues. To get the most recent status of the queues, click the **Refresh** button .

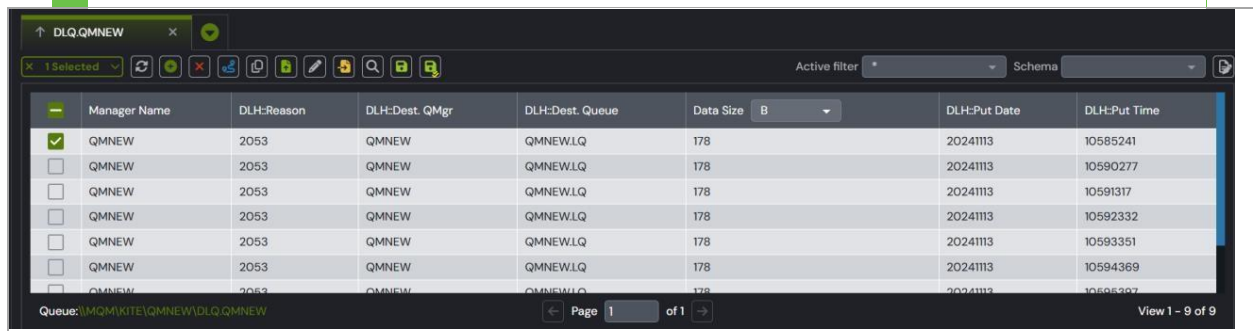


Figure 4.3.4.3-A. Messages Viewlet














Table 4.3.4.3-A. Message Viewlet Toolbar		
Icon	Name	Description
	Refresh	Refreshes the viewlet.
	Put New	Displays the Put New window (Figure 4.3.4.3.1-A) to create and put new message(s) into selected queue.
	Delete	Allows you to delete the message. (Not available for alias queue messages).

Table 4.3.4.3-A. Message Viewlet Toolbar

Icon	Name	Description
	Reroute	Reroute messages from one queue to another queue located within a different queue manager (section 4.3.4.3.9). (Not available for EMS or alias queue messages).
	Copy message	Displays the Copy messages window (Figure 4.3.4.3.5-A) where a user can define how and where messages should be copied. (Not available for alias queue messages).
	Move message	Displays the Move messages window (Figure 4.3.4.3.5-B). On this screen the queue to move the messages is specified. (Not available for alias queue messages).
	Edit message	Displays the Edit message window (Figure 4.3.4.3.6-A) where a user can edit message information and data. (Not available for EMS or alias queue messages).
	Load from File	If loading single or multiple messages from .mmf files, .txt files, or files created by the IBM dmpmqmsg utility (Figure 4.3.4.3.5-A), opens the <i>Command Settings</i> dialog to continue or configure settings. If loading messages from shared storage, opens the <i>Select Files</i> dialog.
	Browse Options	Opens the Message Commands tab of the User/Global Settings Window (Message Commands) to customize message browse options.
	Save selected messages	Exports selected message(s) to either an MMF or text file, or to shared storage. (Not available for alias queue messages.)
	Save all messages	Exports all messages to either an MMF or text file, or to shared storage. (Not available for alias queue messages.)

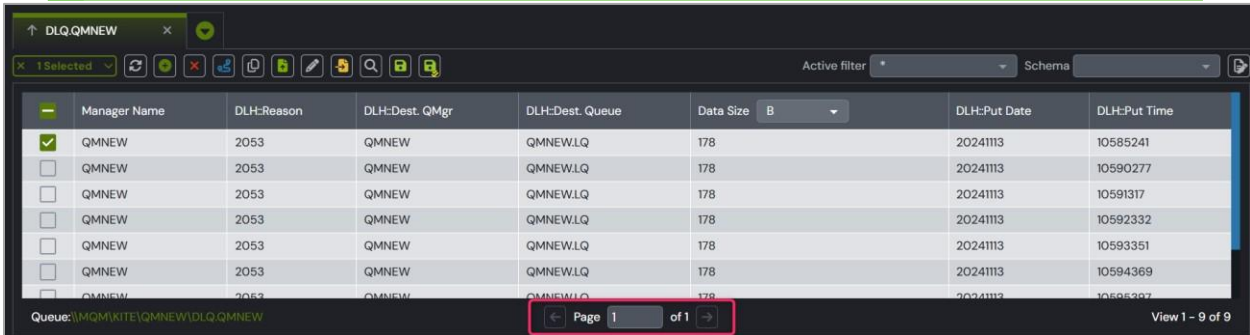
Load More Messages / Navigate to a Page

In the console pane, the list of messages is divided into "pages." The Message Count setting in the Browse settings section of the User Settings Message Commands tab determines the number of messages that are displayed per page. To load additional messages, use the previous  and next  buttons located at the bottom of the viewlet or type a page number within the **Page** field.



NOTE

When browsing Kafka messages in a *partition*, it is possible to page through additional messages in the partition. (When browsing messages at the *topic level*, paging is not supported.)



	Manager Name	DLH:Reason	DLH:Dest. QMgr	DLH:Dest. Queue	Data Size	DLH:Put Date	DLH:Put Time
<input checked="" type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10585241
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10590277
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10591317
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10592332
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10593351
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10594369
<input type="checkbox"/>	QMNEW	2053	QMNEW	QMNEW.LQ	178	20241113	10595387

Queue: \MQM\KITE\QMNEW\DLQ.QMNEW

Page 1 of 1

View 1 - 9 of 9

Figure 4.3.4.3-B. Load More Messages / Navigate to a Page

Viewing Messages

To view a message, click anywhere on the message row.

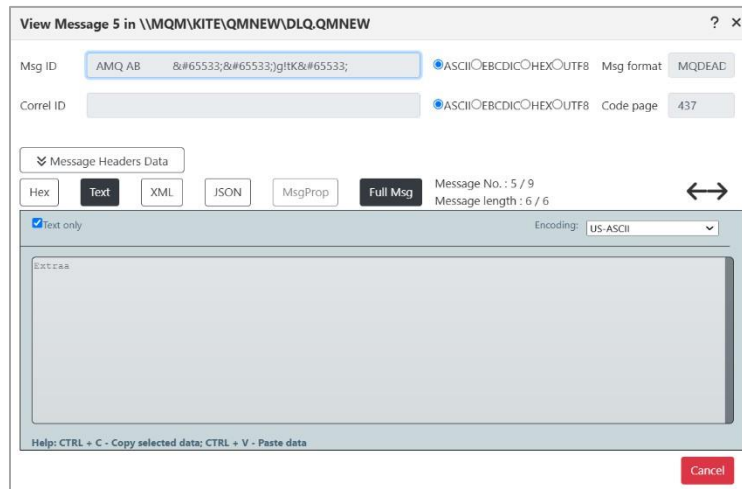


Figure 4.3.4.3-C. View Message: Kafka Example



TIP

To copy or paste data, select the data, then use keyboard functions **CTRL + C** or **CTRL + V**, respectively.

Depending on the message type, you can specify ASCII, EBCDIC, or Hexadecimal (Hex) for the Message ID (**Msg ID**) and Correlation ID (**Correl ID**).

To navigate between messages, use the navigation buttons, **←** and **→**.

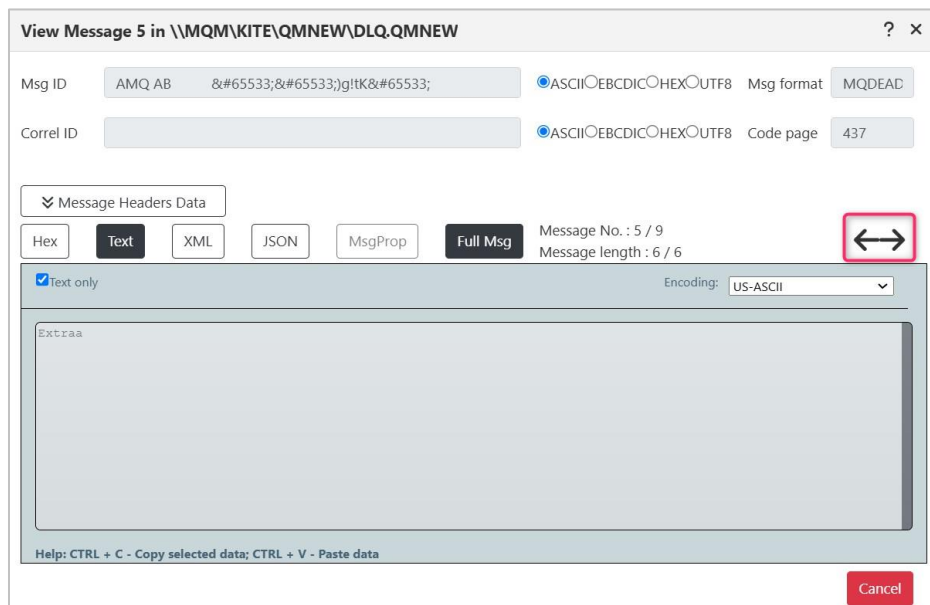


Figure 4.3.4.3-D. Navigate Between Messages

Click **Message Headers Data** (Figure 4.3.4.3-E) to view the header details, if applicable (Figure 4.3.4.3-F).

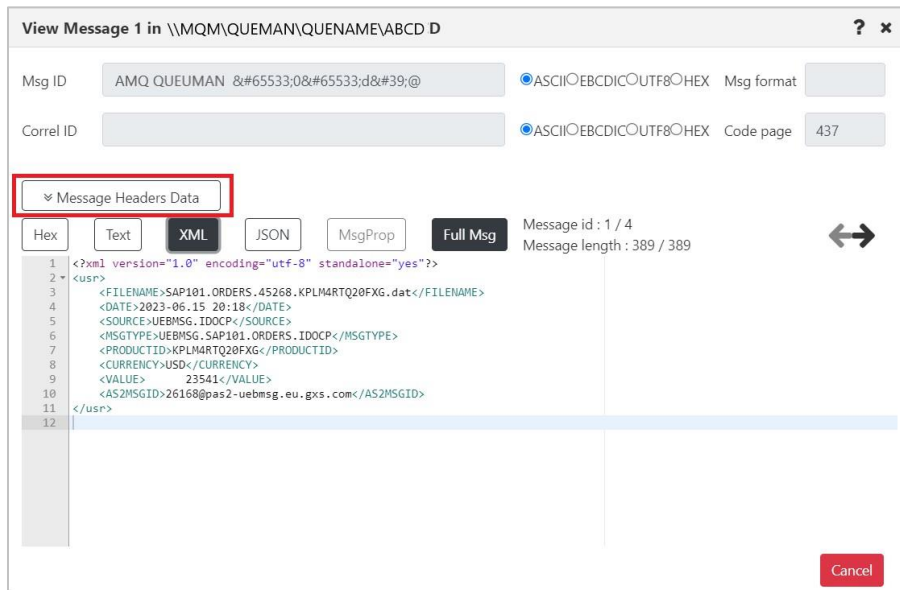


Figure 4.3.4.3-E. Message Headers Data Button

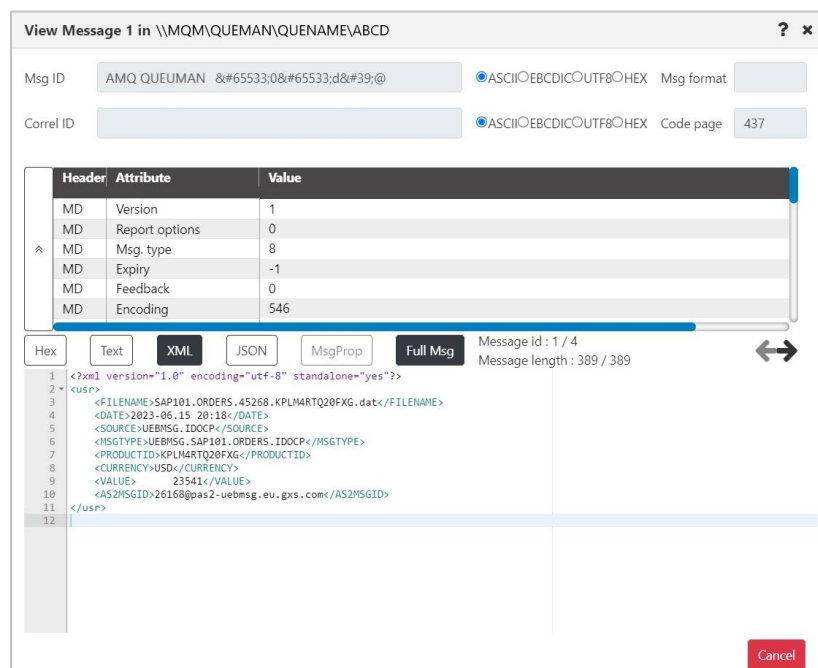


Figure 4.3.4.3-F. Message Headers

Depending on its type, the message may be able to be displayed in either hexadecimal, text, XML or JSON format. elect one of these formats or check the **Text only** check box to easily toggle between text and the other modes.

To view the entire message, click the **Full Msg** button. A prompt may be displayed to confirm this action. (Whether you receive a prompt depends on your **Prompt** selection on the Message Commands tab in User Settings (under **Load full msg. for XML/JSON**).

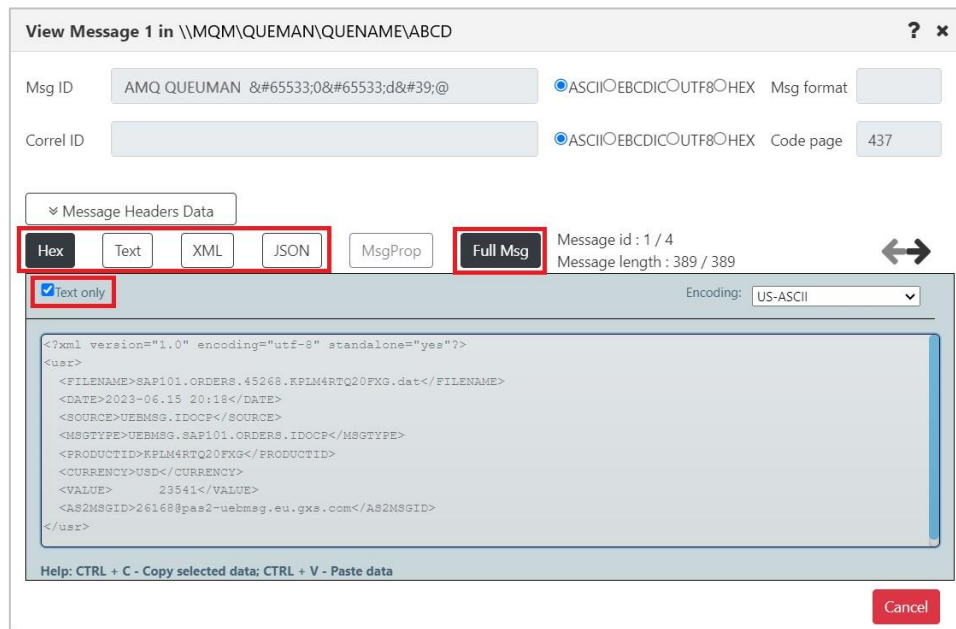


Figure 4.3.4.3-G. Hex or Text Message Mode / Full Message

You may be able to change the message encoding type using the **Encoding** list (for Kafka messages, US-ASCII encoding is always used). The UTF-8 encoding format (CCSID [coded character set identifier] 1208) may be available for selection. If so, supported actions include viewing messages and editing messages, loading messages from a file, and putting messages to a queue.

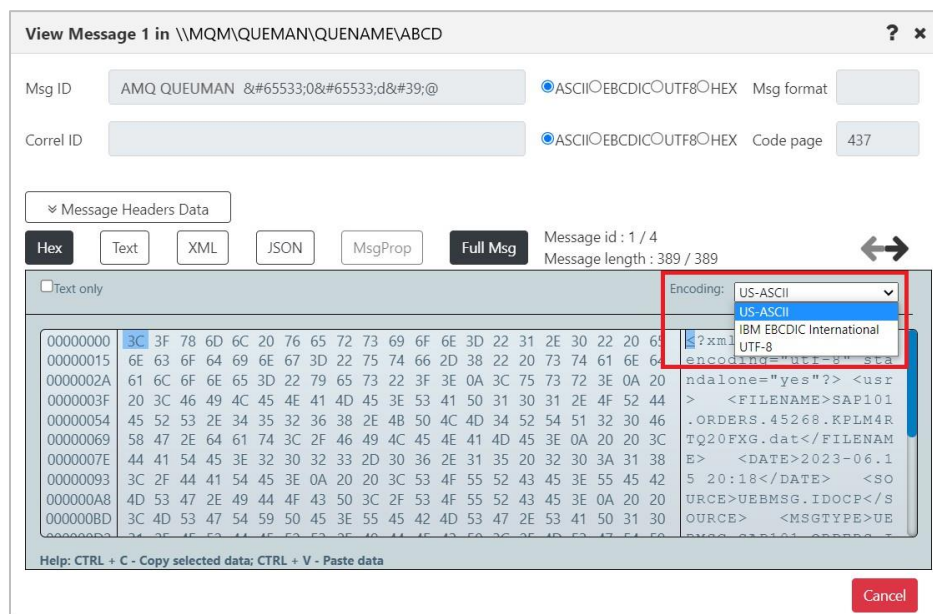


Figure 4.3.4.3-H. Message Encoding

To switch between decimal and hexadecimal mode for the address of the first byte, click anywhere in the address field.

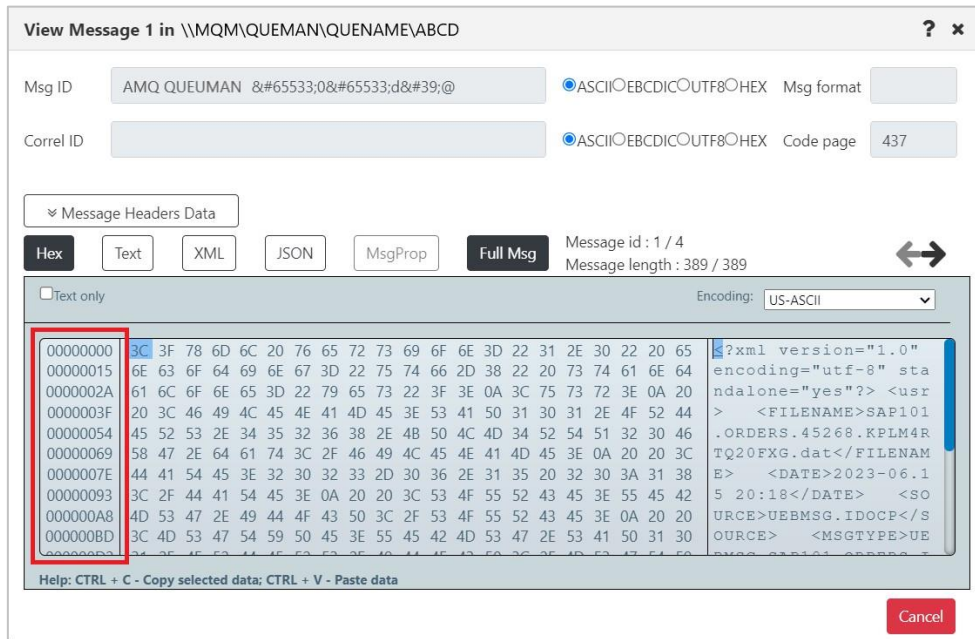




Figure 4.3.4.3-I. Address of First Byte

Message Selected Menu

The following Selected menu options are available when a single message is selected.



Figure 4.3.4.3-J. Message Selected Menu

If multiple or all messages are selected, the following Selected menu options are available. To select all messages, click the select all button  located on the left side of the viewlet. Click the same button, now green  to clear all message selections.

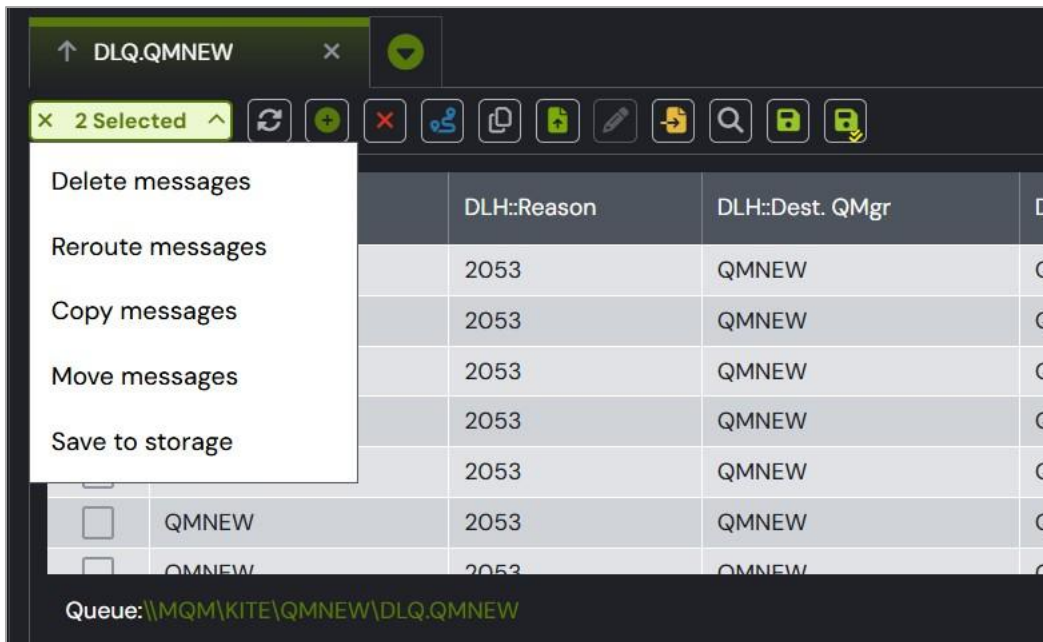



Figure 4.3.4.3-K. Selected Menu for Multiple Messages



The message Selected menu and viewlet toolbar options may differ due to the queue type. Please see [Table 4.3.4.3-A](#) for more information on the available options of each messages queue type.

4.3.4.4 Put New MQ messages

The *Put New* window is displayed when the **Put New** icon  is selected from the *Message* viewlet ([Figure 4.3.4.3-A](#)) or **Messages > Put New Message** is selected from the **Selected** menu options ([Figure 4.3.4-A](#)) when the queue is selected. It is used to create new messages and put them into one or more destination queues.

To control the properties of messages that are created during the Put New or Load from File processes, see [Message Commands Tab](#).

See [Table 4.3.4.3.1-A](#) for an explanation of options on the **General** tab.

Figure 4.3.4.3.1-A. Put New Window



TIP

To copy or paste data, select the data, then use quick keyboard functions CTRL + C or CTRL + V, respectively.

The message encoding type can be changed. This is selected from the **Encoding** list ([Figure 4.3.4.3.1-B](#)).

To switch between decimal and hexadecimal mode for the address of the first byte, click anywhere in the address field. See *Address of First Byte* ([Figure 4.3.4.3-1](#)) for an example.

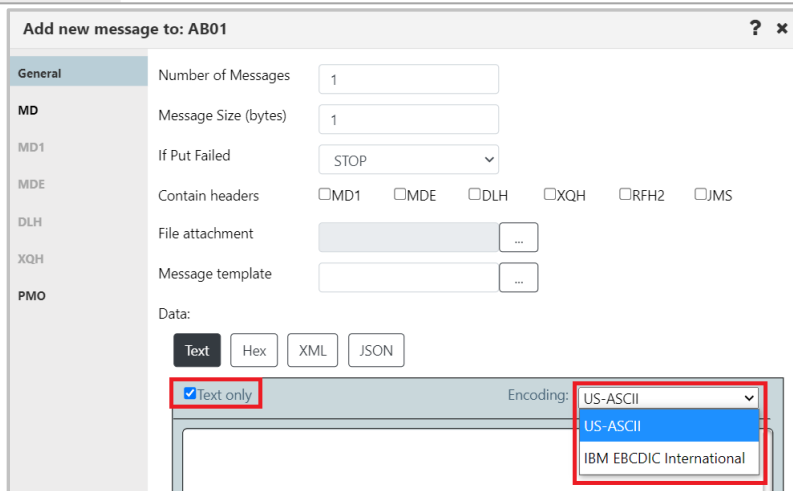
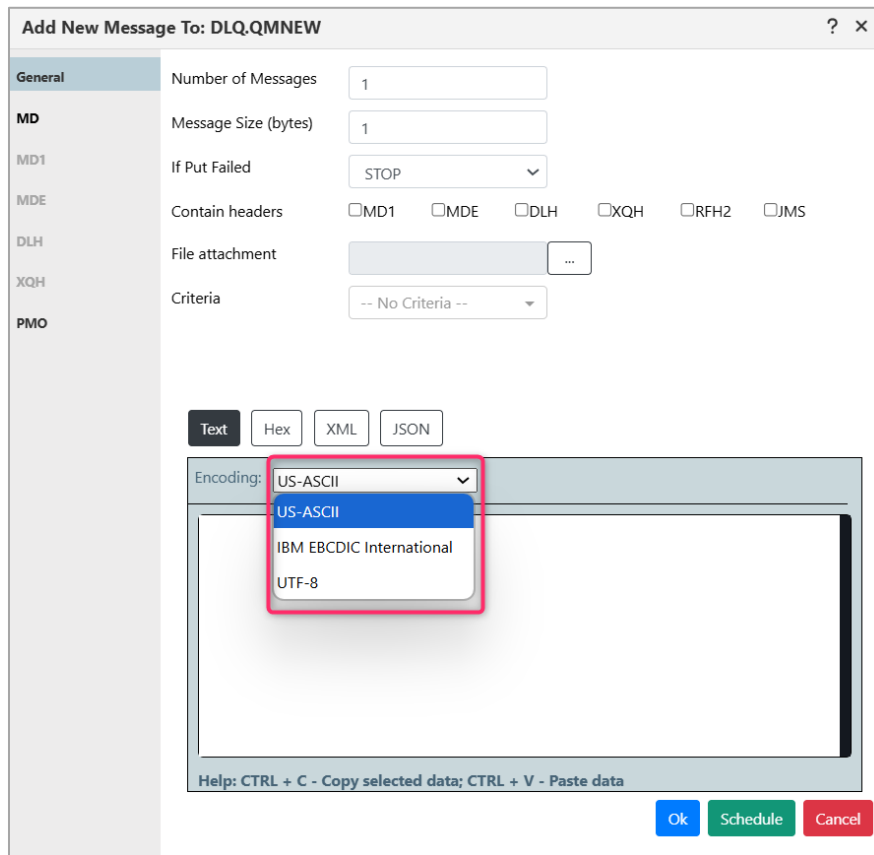



Figure 4.3.4.3.1-B. Put New Window – Encoding on General Tab

Table 4.3.4.3.1-A. Put New Message

Control	Description	States and Conditions
Number of Messages	Enter the number of messages to put into a queue.	Always enabled.
Message Size (bytes)	Displays the size of the message text being entered or created in the Data field.	

Table 4.3.4.3.1-A. Put New Message

Control	Description	States and Conditions
If Put Failed	Select the action that should be taken if Put command fails.	
Contains headers	The header(s) in the message. Select MD1, MDE, DLH, XQH, RFH2, JMS, or a combination of these. Please note that DLH and XQH cannot be selected together, and RFH2 and JMS cannot be selected together.	
File attachment	Enter the path of the file to attach to the message.	
File attachment button 	Displays the <i>Open File</i> dialog to select the file to attach to this message.	
Criteria	Create message criteria, to quickly set header values.	
RFH2 headers	Enter raw RFH2 header data.	Enabled only if RFH2 checkbox is selected.
JMS headers	Enter raw RFH2 header data. Your entry automatically includes <usr></usr> tags.	Enabled only if JMS checkbox is selected.
MD	Displays the Message Descriptor Properties window (Figure 4.3.4.3.1-C) where the user can edit the MD header of the message.	Enabled only if MD1 checkbox is not selected.
MD1	Displays the Message Descriptor Properties window (Figure 4.3.4.3.1-C) where the user can edit the MD1 header of the message.	Enabled only if MD1 checkbox is selected.
MDE	Displays the Message Descriptor Extension window (Figure 4.3.4.3.1-H) where the user can edit the MDE header of the message.	Enabled only if MDE checkbox is selected.
DLH	Displays the Dead Letter Queue Header window (Figure 4.3.4.3.1-I) where the user can edit the DLH header of the message.	Enabled only if DLH checkbox is selected.
XQH	Displays the Transmission Queue Header window (Figure 4.3.4.3.1-J) where the user can edit the XQH header of the message.	Enabled only if XQH checkbox is selected.
PMO	Displays the Message Put Options window (Figure 4.3.4.3.1-N) where the user can set put message options.	Always enabled.

Message Descriptor Properties

The **MD** and **MD1** tabs are used to view/edit MD and MD1 message headers.

General	General	Identity	Origin	Reports	Group
MD	Version	VERSION 1	Application message type	8	
MD1	Message type	DATAGRAM	Application feedback code	0	
MDE	Message format	NONE	Encoding546		
DLH	Feedback	NONE	CCSID0		
XQH	Expiry (1/10sec)	-1	Priority	-1	Backout count0
PMO	Persistent	As Queue			
	Put date				
	Put time				
	Reply to queue				
	Reply to QM				

Figure 4.3.4.3.1-C. Message Descriptor Properties – General

Table 4.3.4.3.1-B. Message Descriptor Properties – General

Control	Description	States and Conditions
Version	Select MD version from the list.	Always enabled.
Application message type	Input application message type.	Editable only if APPLICATION message type is selected from the Message Type drop-down menu.
Message type	Select message type from the list.	Always enabled.
Application feedback code	Input application feedback code.	Editable only if APPLICATION feedback code is selected from the Feedback drop-down menu.
Message format	Select message format from the list. If either the RFH2 or the JMS option is selected on the General tab, then the MQHRF2 list item is automatically selected in the Message format list on the Message Descriptor Properties tab. If either option is later unselected, the Message format is reset to its previous value.	Always enabled.
Encoding	Provides message data encoding.	Read only.
Feedback	Select message feedback code from the list.	Always enabled.
CCSID	Provides message coded character set identifier.	Read only.
Expiry	Input message expiry.	Always enabled.
Priority	Input message priority.	
Backout count	Provides backout counter.	Read only.
Persistent	Set message persistence.	Always enabled.
Put date	Provides date when message was put.	Always enabled.
Put time	Provides time when message was put.	
Reply to queue	Input name of a message queue to which the reply or report message should be sent.	
Reply to QM	Input name of the queue manager to which the reply or report message should be sent.	

Below are MDS **Identity** tab properties.

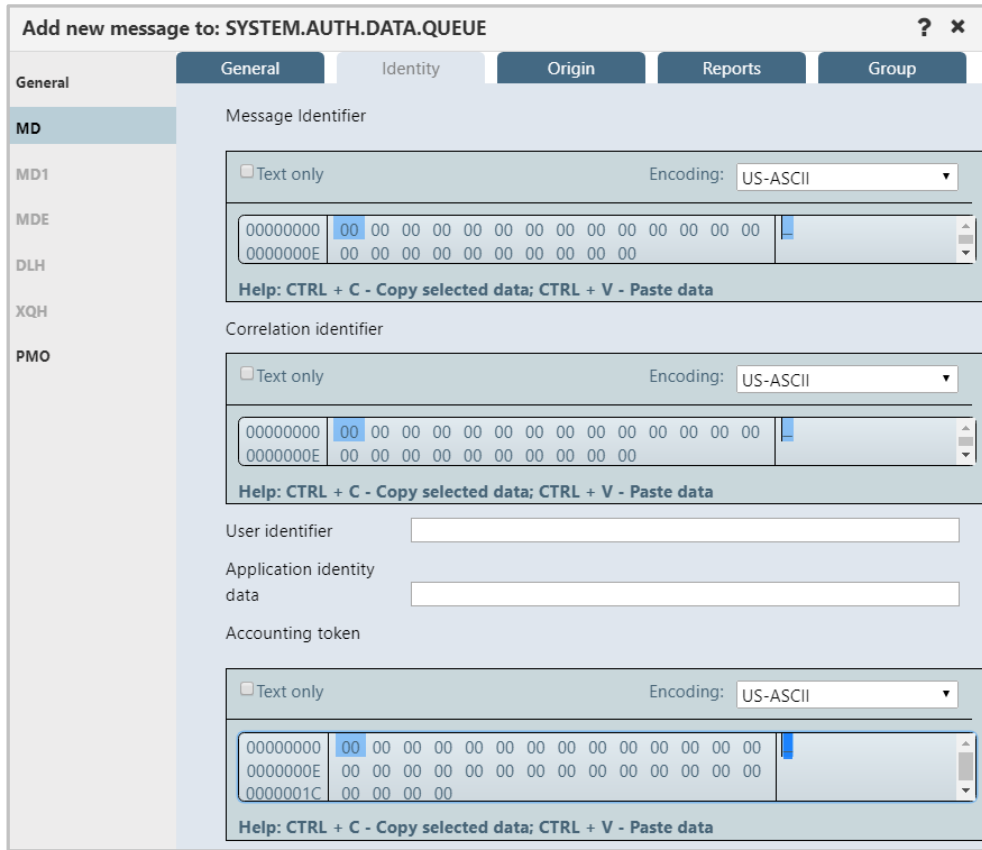


Figure 4.3.4.3.1-D. Message Descriptor Properties – Identity

Table 4.3.4.3.1-C. Message Descriptor Properties – Identity		
Control	Description	States and Conditions
Message identifier	Edit message identifier.	Always enabled.
Correlationidentifier	Edit message correlation identifier.	
User identifier	Enter user identifier.	
Application identity data	Enter application identity data.	
Accounting token	Edit message accounting token.	



Figure 4.3.4.3.1-E. Message Descriptor Properties – Origin

Table 4.3.4.3.1-D. Message Descriptor Properties – Origin		
Control	Description	States and Conditions
Put application type	Input put application type.	Always enabled.
Application origin data	Input application origin data.	
Application name	Input put application name.	



Figure 4.3.4.3.1-F. Message Descriptor Properties – Reports

Table 4.3.4.3.1-E. Message Descriptor Properties – Reports		
Control	Description	States and Conditions
Exception	Select an exception report message type from the list.	Always enabled.
Expiration	Select an expiration report message type from the list.	
Confirm on arrival	Select confirm on arrival report message type from the list.	
Confirm on delivery	Select confirm on delivery report message type from the list.	
Message ID	Specify how the Message ID of the report message (or the reply message) is to be set.	

Table 4.3.4.3.1-E. Message Descriptor Properties – Reports		
Control	Description	States and Conditions
Correlation ID	Specify how the Correlation ID of the report message (or the reply message) is to be set.	
Disposition options	Specify message disposition type when a message cannot be delivered to its destination queue.	

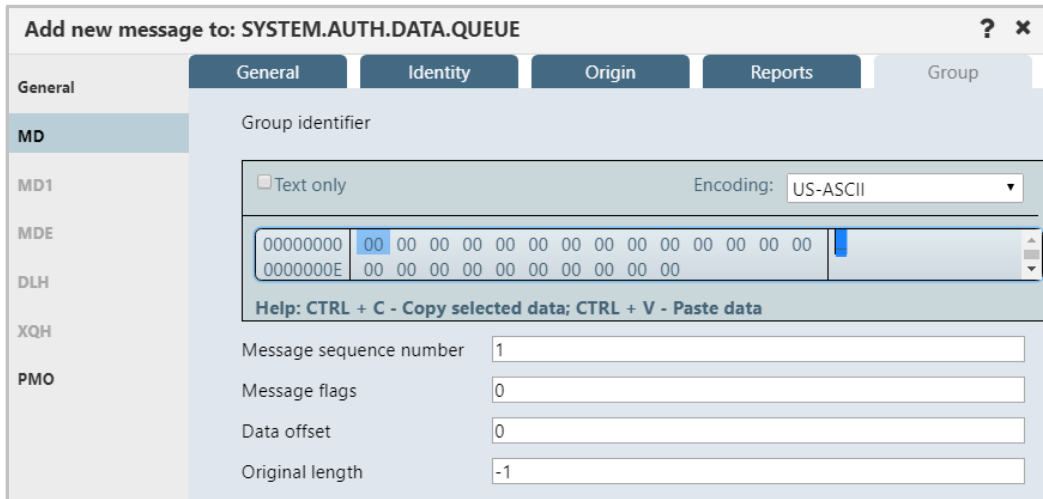


Figure 4.3.4.3.1-G. Message Descriptor Properties – Group


 **NOTE** If it is a MD1 or XQH header, then the **Group** tab is removed.

Table 4.3.4.3.1-F. Message Descriptor Properties – Group		
Control	Description	States and Conditions
Group identifier	Edit group identifier.	Always enabled.
Message sequence number	Input sequence number of the logical message within the group.	
Message flags	Input message flags.	
Data offset	Input offset of data in physical message from the start of the logical message.	
Original length	Input length of original message.	

Message Descriptor Extension Properties

The *Message Descriptor Extension Properties* window is displayed when the **MDE** button is clicked from *Put New* window ([Figure 4.3.4.3.1-A](#)). The *Message Descriptor Extension Properties* window is used to edit the MDE message header.

Add new message to: SYSTEM.AUTH.DATA.QUEUE ?

General	Version	VERSION 2 ▾
MD	Structure length	72
MD1	Encoding	546
MDE	Coded charset id	0
DLH	Format	NONE ▾
XQH	Flags	0
PMO	Group id	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
	Message sequence number	1
	Offset	0
	Message flags	0
	Original length	-1

Figure 4.3.4.3.1-H. Message Descriptor Extension

Table 4.3.4.3.1-G. Message Descriptor Extension

Control	Description
Version	Select version from the list.
Structure length	Specify structure length.
Encoding	Specify message data encoding.
Coded charset id	Specify message coded character set identifier.
Format	Select message format from the list.
Flags	Specify a value for flags.
Group id	Edit group identifier.
Message sequence number	Input sequence number of logical message within group.
Offset	Input offset of data in physical message from the start of the logical message.
Message flags	Input flags that specify attributes of the message.
Original length	Input length of original message.

Dead Letter Queue Header Properties

The *Dead Letter Queue Header* window is displayed, when the **DLH** button is clicked from *Put New* window ([Figure 4.3.4.3.1-A](#)). The *Dead Letter Queue Header* window is used to edit the DLH message header.

Add new message to: SYSTEM.RETAINED.PUB.QUEUE ? x

General	Version	VERSION 1 ▾
MD	Reason	0
MD1	Dest q name	<input type="text"/>
MDE	Dest q manager name	<input type="text"/>
DLH	Encoding	0
XQH	Coded chartset id	0
PMO	Format	NONE ▾
	Put appl type	0
	Put appl name	<input type="text"/>
	Put date	<input type="text"/>
	Put time	<input type="text"/>

Figure 4.3.4.3.1-I. Dead Letter Queue Header

Table 4.3.4.3.1-H. Dead Letter Queue Header	
Control	Description
Version	Select version from the list.
Reason	Input reason code.
Dest q name	Input name of destination queue.
Dest q manager name	Input name of destination queue manager.
Encoding	Specify message data encoding.
Coded chartset id	Specify message coded character set identifier.
Format	Select message format from the list.
Put appl type	Input put application type.
Put appl name	Input put application name.
Put date	Provides date when message was put.
Put time	Provides time when message was put.

Transmission Queue Header Properties

The *Transmission Queue Header* window is displayed, when the **XQH** button is clicked from *Put New* window ([Figure 4.3.4.3.1-A](#)). The *Transmission Queue Header* window is used to view/edit the XQH message header.

Figure 4.3.4.3.1-J. Transmission Queue Header – General

Table 4.3.4.3.1-I. Transmission Queue Header – General

Control	Description	States and Conditions
Remote q name	The name of the remote queue.	Always enabled.
Remote q manager name	The name of the remote queue manager.	
MD Version	Select the MD version from the list.	
Application message type	Input application message type.	Editable only if APPLICATION message type is selected in Message Type combo box.
Message type	Select message type from the list.	Always enabled.
Application feedback code	Input application feedback code.	Editable only if APPLICATION feedback code is selected in Feedback combo box.
Message format	Select message format from the list.	Always enabled.
Encoding	Provides message data encoding.	Read only.
Feedback	Select message feedback code from the list.	Always enabled.
CCSID	Provides message coded character set identifier.	Read only.
Expiry (1/10sec)	Input message expiry.	Always enabled.
Priority	Input message priority.	Always enabled.
Backout count	Provides backout counter.	Read only.

Table 4.3.4.3.1-I. Transmission Queue Header – General		
Control	Description	States and Conditions
Persistent	Select message persistence.	Always enabled.
Put date	Input date when message was put.	
Put time	Input time when message was put.	
Reply to queue	Input name of a message queue to which the reply or report message should be sent.	
Reply to QM	Input name of the queue manager to which the reply or report message should be sent.	

The screenshot shows a web-based interface for adding a new message. The title bar reads "Add new message to: SYSTEM.RETAINED.PUB.QUEUE". Below the title bar are four tabs: "General", "Identity", "Origin", and "Reports". The "Identity" tab is active. On the left, a sidebar lists controls: "General", "MD", "MD1", "MDE", "DLH", "XQH" (highlighted), and "PMO". The main area contains the following fields:

- Message Identifier:** A text box containing "AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA".
- Correlation identifier:** A text box containing "AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA".
- User identifier:** An empty text box.
- Application identity data:** A text box containing "AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=".
- Accounting token:** A text box containing "AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=".

Figure 4.3.4.3.1-K. Transmission Queue Header – Identity

Table 4.3.4.3.1-J. Transmission Queue Header – Identity		
Control	Description	States and Conditions
Message identifier	Edit message identifier.	Always enabled.
Correlationidentifier	Edit message correlation identifier.	
User identifier	Enter user identifier.	
Application identity data	Enter application identity data.	
Accounting token	Edit message accounting token.	



Figure 4.3.4.3.1-L. Transmission Queue Header – Origin

Table 4.3.4.3.1-K. Transmission Queue Header – Origin		
Control	Description	States and Conditions
Put application type	Input put application type.	Always enabled.
Application origin data	Input application origin data.	
Put application name	Input put application name.	

Additional options for XQH messages are available to configure.

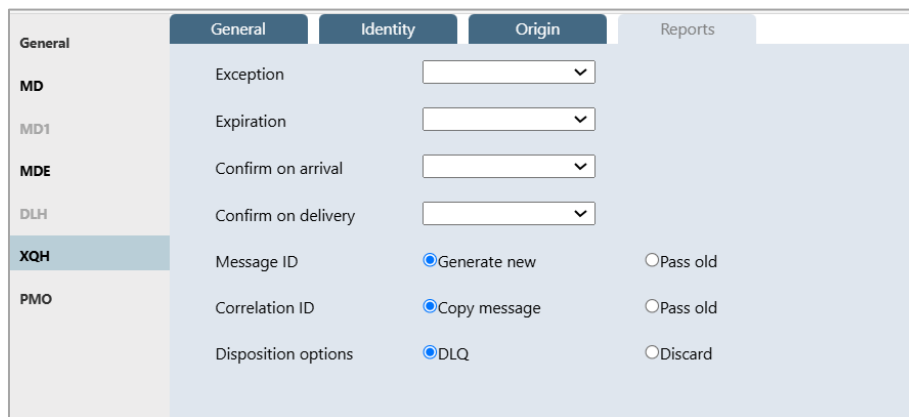


Figure 4.3.4.3.1-M. Transmission Queue Header – Reports

Table 4.3.4.3.1-L. Transmission Queue Header – Reports		
Control	Description	States and Conditions
Exception	Select an exception report message type from the list.	Always enabled.
Expiration	Select an expiration report message type from the list.	
Confirm on arrival	Select confirm-on-arrival report message type from the list.	
Confirm on delivery	Select confirm-on-delivery report message type from the list.	
Message ID	Specify how the Message ID of the report message (or the reply message) is to be set.	

Correlation ID	Specify how the Correlation ID of the report message (or the reply message) is to be set.
Disposition options	Specify message disposition type when a message cannot be delivered to its destination queue.

Message Put Options Properties

The *Message Put Options* window is displayed when **PMO** button on the *Put New* window ([Figure 4.3.4.3.1-A](#)) is clicked. The *Message Put Options* window is used to specify any options the user wants to use when putting a message onto a queue.

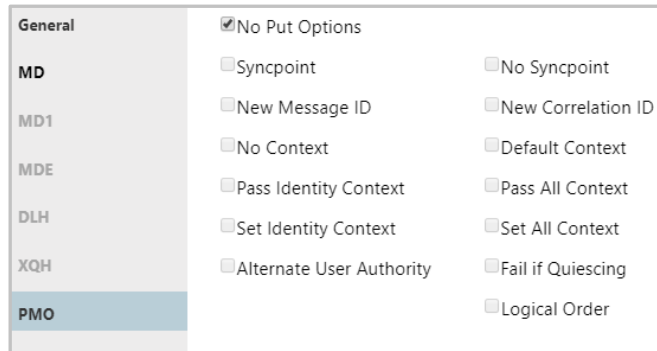


Figure 4.3.4.3.1-N. Message Put Options

Table 4.3.4.3.1-M. Message Put Options		
Control	Description	States and Conditions
No Put Options	Specifies that no options are used.	Disabled if another entry is selected.
Syncpoint	Operate within the normal unit-of-work protocols.	Enabled only when No Put Options is NOT selected.
No Syncpoint	Operate outside the normal unit-of-work protocols.	
New Message ID	Used to identify a new message identifier.	
New Correlation ID	Used to identify a new correlation identifier.	
No Context	Context field in MQMD are set to blanks, nulls, and zeros.	
Default Context	Message will have default context associated with it.	
Pass Identity Context	Passes identity context information from the original message to a new message.	
Pass All Context	Passes identity and origin context information from the original message to a new message.	
Set Identity Context	Sets identity context information from the original message to a new message.	
Set All Context	Sets identity and origin context information from the original message to a new message.	
Alternate User	User identifier to validate authority to messages on the	


Table 4.3.4.3.1-M. Message Put Options

Control	Description	States and Conditions
Authority	queue.	
Fail if Quiescing	Forces MQPUT or MQPUT1 call to fail if queue manager in quiescing state.	
Logical Order	Puts groups and segment information in logical order rather than physical order.	



4.3.4.4.1 Put New Kafka Messages

Adding messages to queues is performed on the *Add new message to* dialog.

You get to this window in one of two ways:

- Click the **Put New** button  from a Message viewlet.
- Or, select **Messages > Put New Message** from the **Selected** menu of a topic or partition.

The instructions below explain how to add a message from the Selected menu.

1. Within the topic or partition viewlet, select the topic or partition you want to put messages on.
From the **Selected** menu, select **Messages > Put New Message**.
2. On the General tab, Specify the **Number of Messages**.
3. The **Message Size (bytes)** is filled in as you enter the message text in the space provided. But you can also specify the message size.
4. If applicable, use the **File attachment** browse button  to locate a file to attach to the message.
5. (Optional.) Enter a **Message Key**. See the next step for more information.
6. When putting a message on a topic, a Kafka message is placed on a partition according to its key, by default. But you can also specify a **Partition** for the message to go to, overriding this default. (If you are putting a message to a Partition, the Partition is not shown.)
7. Within the **Data** section, enter the message body. You can check the **Text only** checkbox to display the message content as text, or leave it off to view message content as code.
8. Select the Headers tab. Add headers as Key-Value pairs:
 - a. Enter the **Header Name** and its corresponding **Value**.
 - b. Click .
9. Click **OK**.

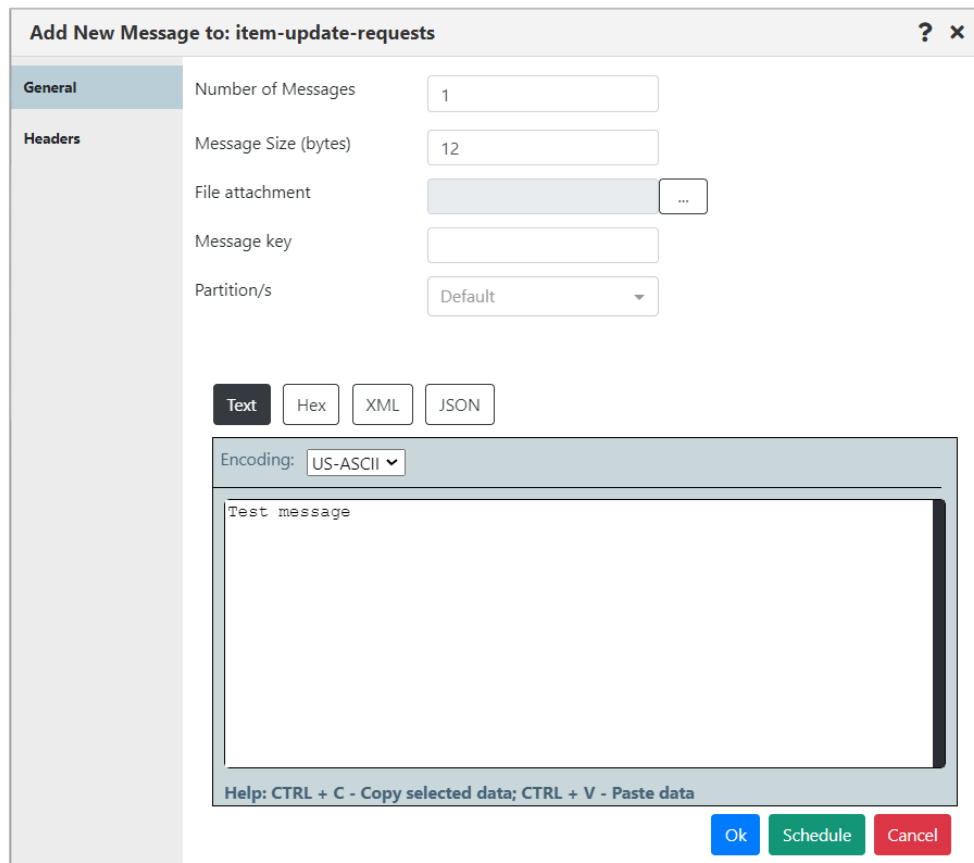


Figure 4.3.4.3.2-A Put New Kafka Message

Table 4.3.4.3.2-A. Message Properties: Kafka

Control	Description
Message size (bytes)	Displays size of message without headers.
File attachment	Name of file that is attached to this message.
Message Key	Message keys are used by Kafka for message placement. Messages with the same key will be placed in the same partition, maintaining the correct order of messages.
Partitions	Partition where the message is located.

4.3.4.4.2 Put New Solace, RabbitMQ, and TIBCO EMS Messages



Adding messages to queues is performed on the *Add new message to: queue_name* dialog.

You get to this window in one of two ways:

- Click the Put New button  from a Message viewlet.
- Or, select **Messages > Put New Message** from a queue's **Selected** menu.

The instructions below explain how to add a message from the queue's Selected menu.

1. Within the queue viewlet, select the queues you want to put messages on.

2. From the **Selected** menu, select **Messages > Put New Message**.
3. On the General tab of the *Add new message to: queue_name* dialog, enter the number of messages to put into a queue.
4. Message Size (bytes): Displays the size of the message text being entered or created in the Data field.
5. If applicable, use the **File attachment** browse button  to locate a file to attach to the message.
6. Data: Within the Data section, select the message data type (text, hex XML or JSON). Check the Text only checkbox to display the message content as text only. Unchecking Text only will display the message content with offsets which increases the load on the browser and should be used only for small messages. The message encoding type can be changed by using the Encoding list.
7. (TIBCO EMS messages.) Select the Headers tab. Add headers as Key-Value pairs:
 - a. Enter the **Header Name** and its corresponding **Value**.
 - b. Click  .
8. Click **Ok**.

Messages are now added to each of the selected queues.

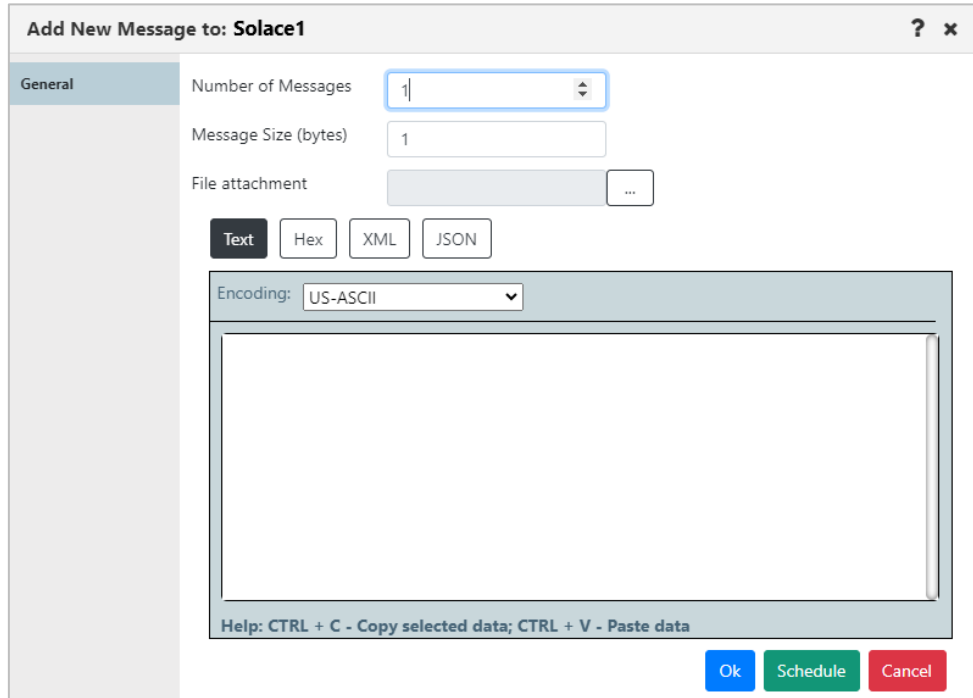


Figure 4.3.4.3.3-A Put New Solace Message

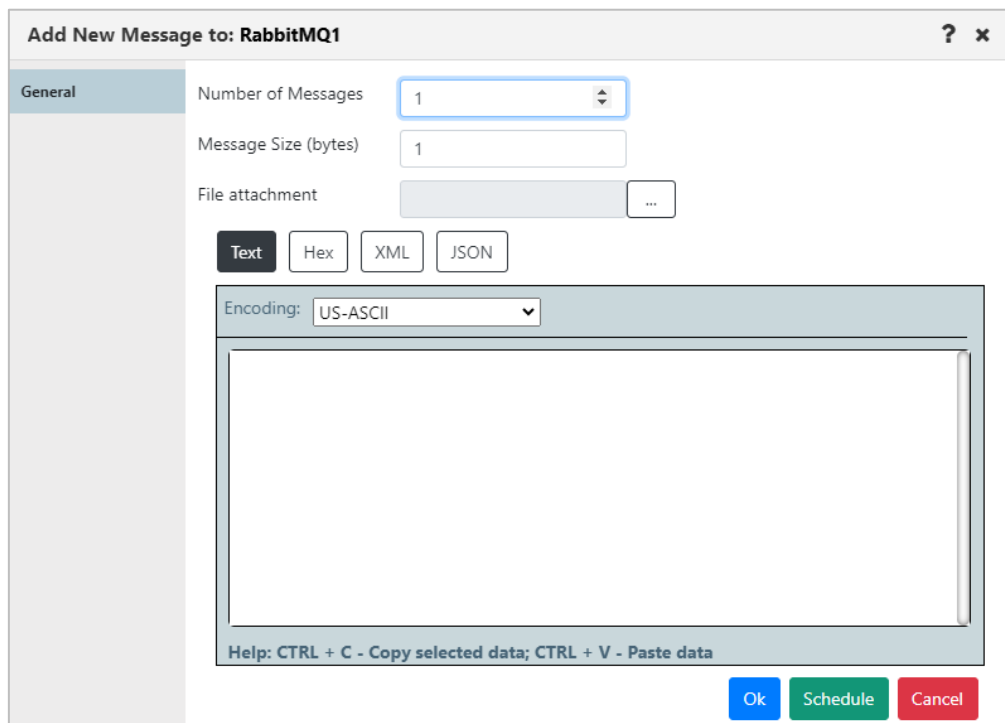


Figure 4.3.4.3.3-B Put New RabbitMQ Message

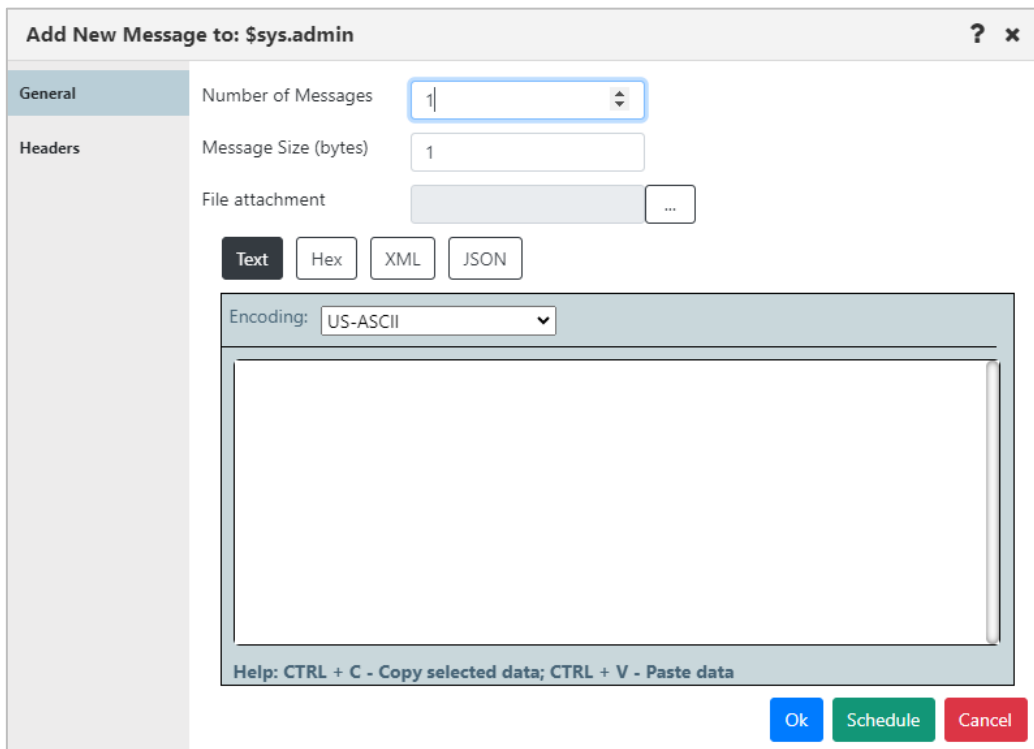




Figure 4.3.4.3.3-C Put New TIBCO EMS Message

Table 4.3.4.3.3-A. Message Properties: Solace, RabbitMQ, and TIBCO EMS	
Control	Description
Message size (bytes)	Displays size of message without headers.
File attachment	Name of file that is attached to this message.

4.3.4.4.3 Delete Messages

 **NOTE** If you have chosen to select messages by **Message Position** (on the **Message Commands** tab of the *User/Global Settings Window*), the delete icon will not be available when multiple individual messages are selected. You can still choose to delete all messages using the message(s) Selected menu.

The *Confirm delete action* dialog is displayed when one or more messages are selected and the **Delete** icon  is selected from the *Messages* viewlet (*Figure 4.3.4.3-A*) or **Delete message(s)** is selected from the message(s) **Selected** menu (*Figure 4.3.4.3-J* / *Figure 4.3.4.3-K*). It is used to delete messages from the queue, or the Kafka topic or partition. Kafka messages cannot be deleted individually. If you try to delete one or more Kafka messages, you will receive a prompt asking you to confirm whether you want to delete all messages. Click **Yes** to delete the selected messages or **No** to cancel.

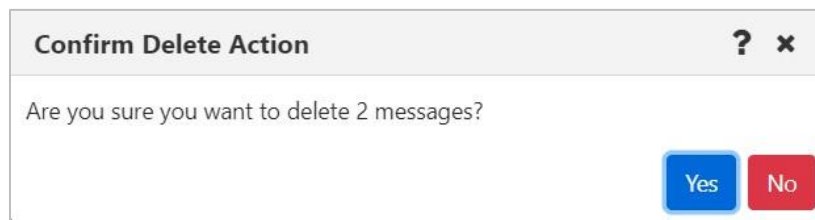



Figure 4.3.4.4.3-A. Delete Confirmation

To delete a range of messages using the **Delete Range** option in the Console tab. Select the **From** and **To** message numbers from the drop-downs, then click on **Delete**  button.

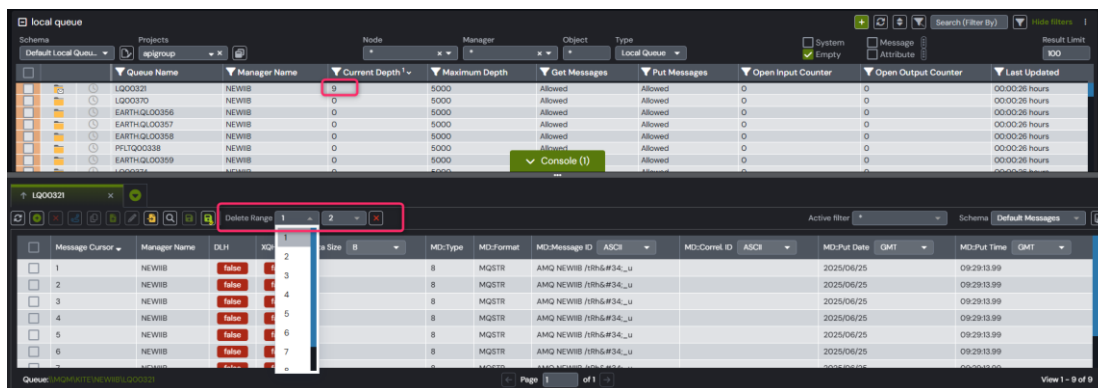


Figure 4.3.4.4.3-B. Select Delete Range

A **Confirm Delete Action** dialog appears. Click **Yes** to confirm the deletion, or click **No** to cancel the action. All messages within the selected range will be deleted.

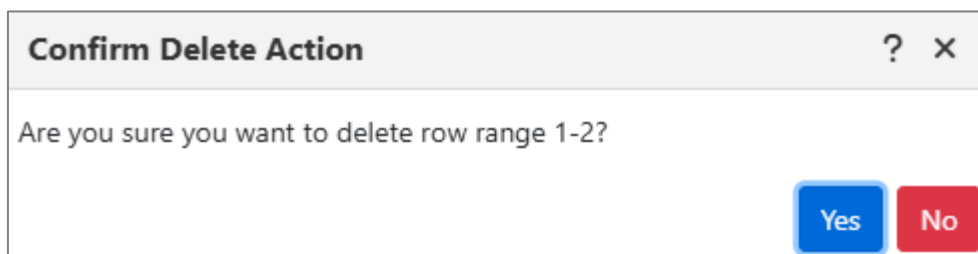


Figure 4.3.4.4.3-C. Delete Range Confirmation

The following window is displayed when **Messages > Delete All** is selected from the queue's **Selected**

menu in a queues viewlet ([Figure 4.3.4-A](#)). If you select a criteria record, messages will only be deleted if they meet the criteria specifications (see [4.4.5.1.2, Message Commands](#) for more information on message criteria).

Delete All Messages ? x

Selected objects:

Queue	Manager	Node	Workgroup
SYSTEM.CHANNEL.SYNCQ	QA	RMTQMGRS	MQM

Delete By Criteria: *

Delete all messages from: SYSTEM.CHANNEL.SYNCQ



Ok Cancel

Figure 4.3.4.4.3-D. Delete All

4.3.4.4.4 Copy / Move



If you have chosen to select messages by **Message Position** (on the **Message Commands** tab of the **User/Global Settings Window**), the copy and move icons will not be available when multiple individual messages are selected. You can still choose to copy or move *all* messages using the message(s) **Selected** menu.

The *Copy messages* or *Move messages* windows are displayed when one or more messages are selected and either the **Copy message** icon  or the **Move message** icon  are selected from the *Messages* viewlet, ([Figure 4.3.4.3-A](#)) or **Copy message(s)/Move message(s)** is selected from the message(s) **Selected** menu ([Figure 4.3.4.3-J](#) / [Figure 4.3.4.3-K](#)). Messages can be copied or moved into all queues available in the **Queue name** list.

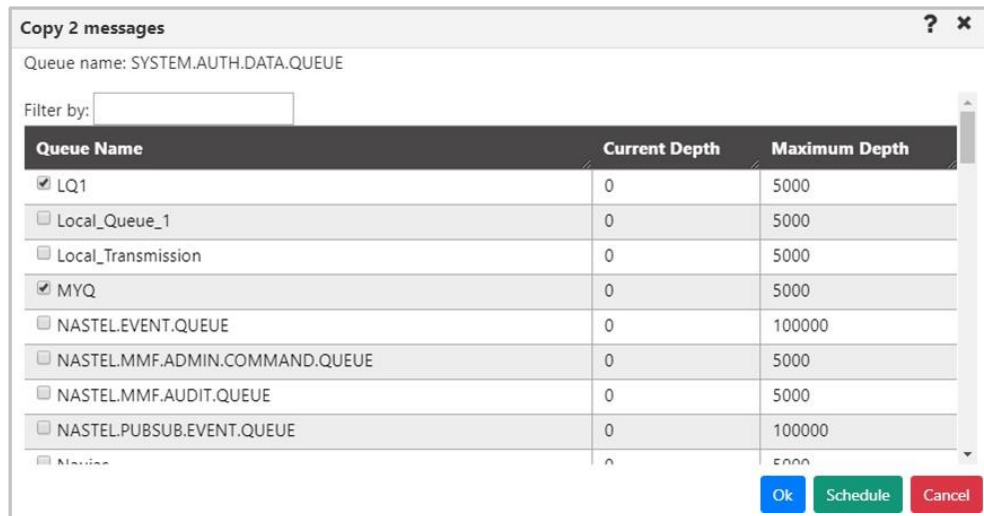


Figure 4.3.4.4.4-A. Copy Messages

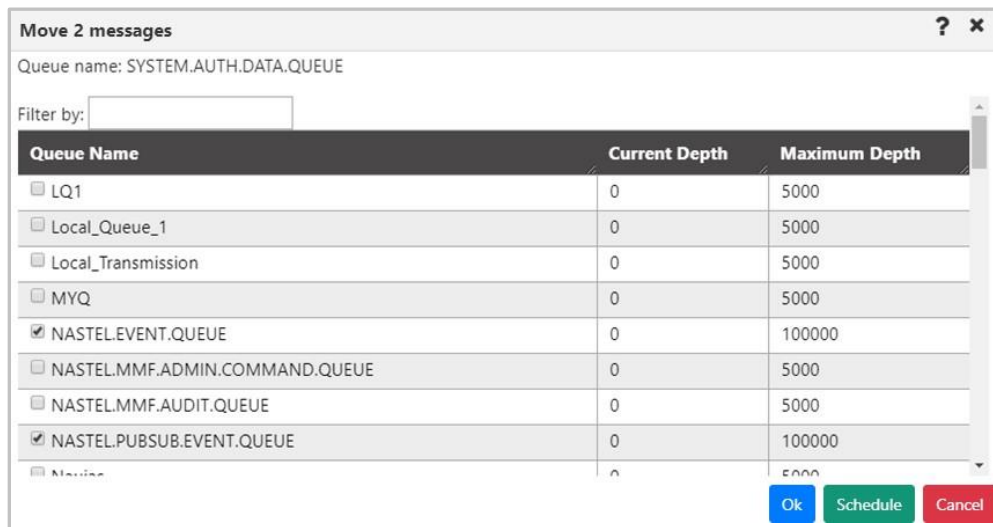


Figure 4.3.4.4.4-B. Move Messages

The following windows appear when **Messages > Copy All** or **Move All** is selected from the queue's **Selected** menu in a queues viewlet ([Figure 4.3.4-A](#)). If you select a message criteria record, messages will only be copied or moved if they meet the criteria specifications (see [Message Commands](#) for more information on message criteria).

The checkbox in the Queue Name column header Queue Name selects all visible queues (clearing the checkbox clears the selection). If a filter has been applied to the list before the checkbox is selected, then only items in the filtered list are selected.

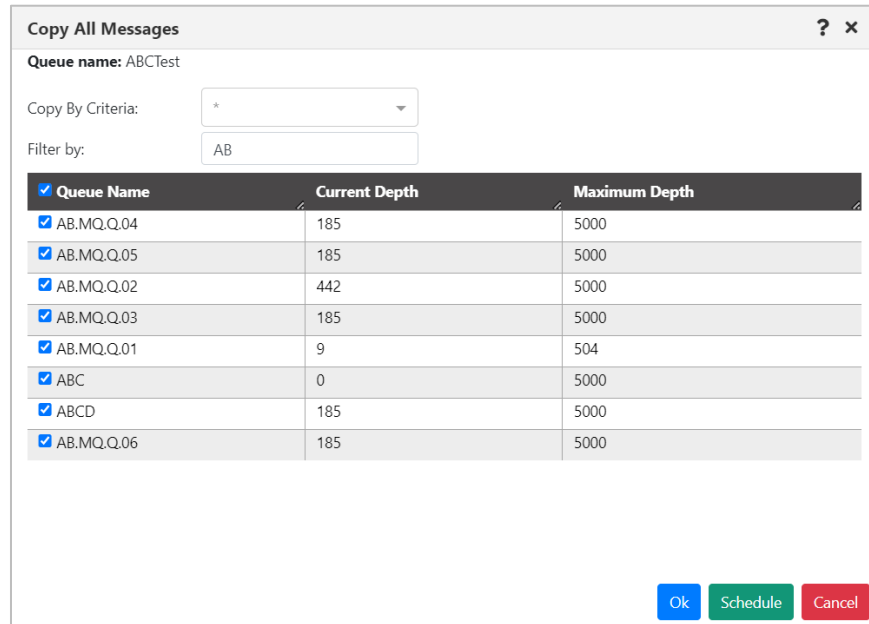


Figure 4.3.4.4.4-C. Copy All Messages

When the filter is removed, the selection is retained:

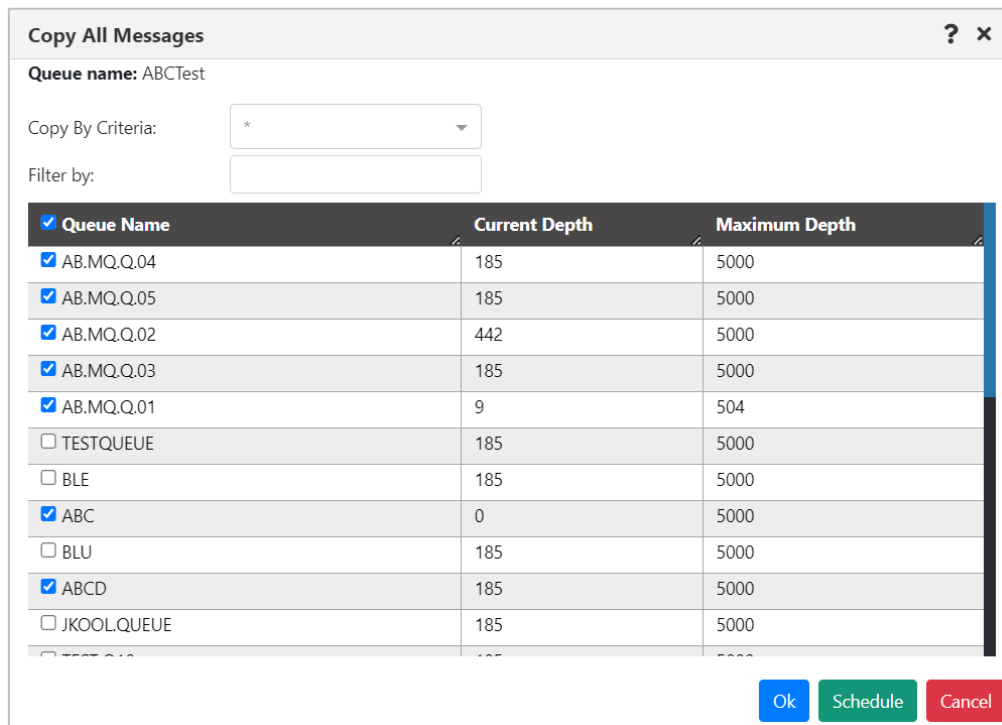


Figure 4.3.4.4.4-D. Copy All Messages

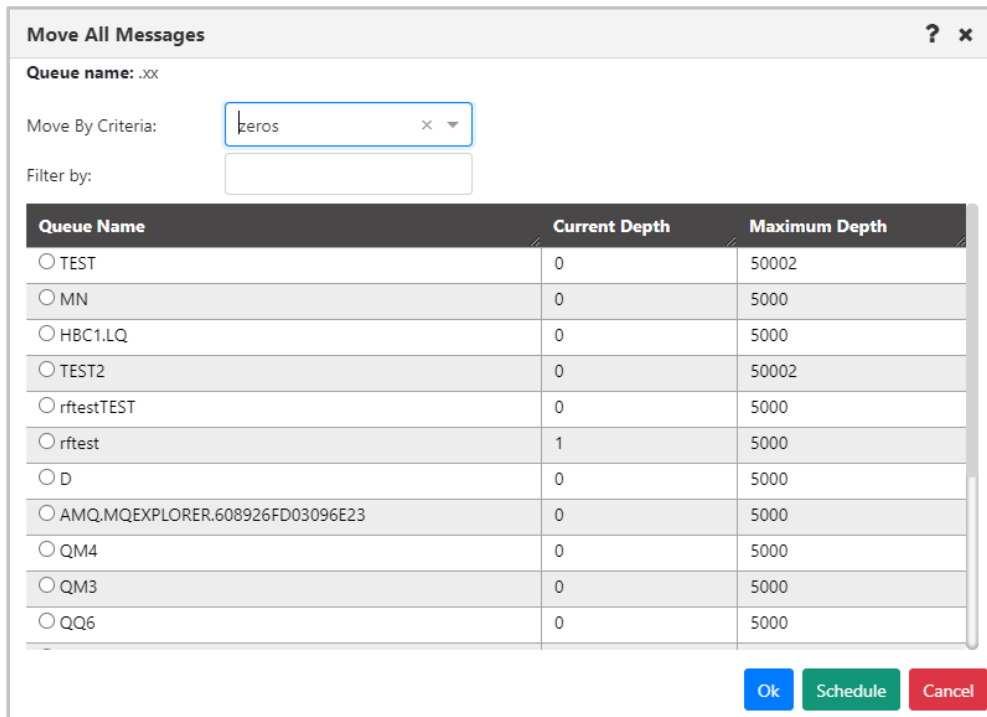



Figure 4.3.4.4-E. Move All Messages

4.3.4.4.5 Edit

The *Edit message* window is displayed by selecting **Edit** from the message's **Selected** menu ([Figure 4.3.4.3-J](#)) or by clicking the **Edit** icon  on the *Messages* viewlet ([Figure 4.3.4.3-A](#)). It is used to edit message information and data. For more information about edit options, please see *Put New* ([Section 4.3.4.3.1](#)).

Please note that Kafka, EMS, and alias queue messages cannot be edited.

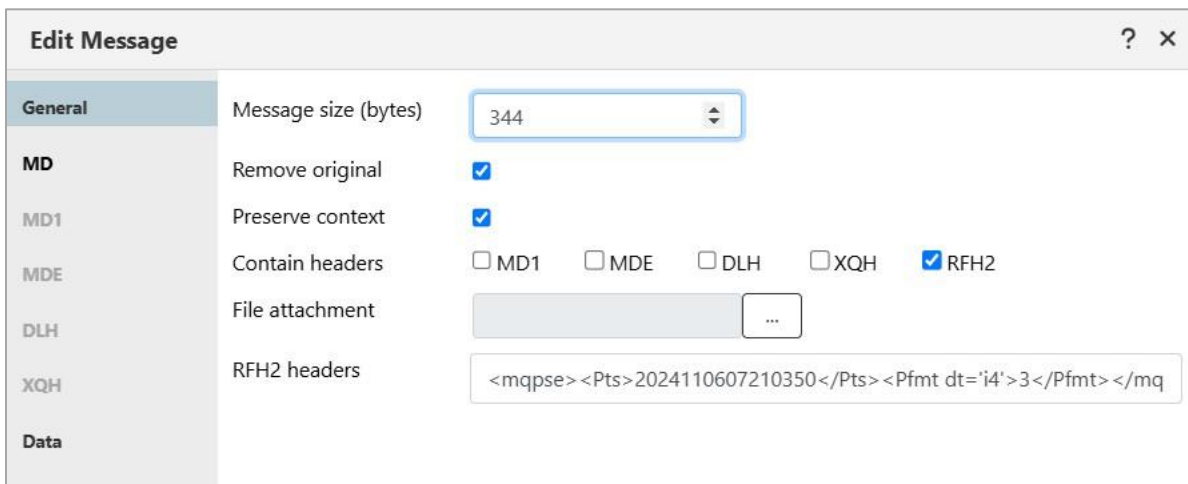


Figure 4.3.4.4.5-A. Edit Message

Table 4.3.4.4.5-A. Edit Message

Control	Description	States and Conditions
Message size (bytes)	Displays size of message without headers.	Always enabled.
Remove original	If checked, removes all original message headers when submitted.	
Preserve context	If checked, preserves message context.	
Contains headers	Selects which header(s) will be available in the message.	
MD button	Displays Message Descriptor Properties window where user can view/edit MD header of message (Figure 4.3.4.3.1-C).	Enabled only if MD1 checkbox is not selected.
MD1 button	Displays Message Descriptor Properties window where user can view/edit MD1 header of message (Figure 4.3.4.3.1-C).	Enabled only if MD1 checkbox is selected.
MDE button	Displays Message Descriptor Extension window where user can edit MDE header of message (Figure 4.3.4.3.1-H).	Enabled only if MDE checkbox is selected.
DLH button	Displays Dead Letter Queue Header window where user can view/edit DLH header of message (Figure 4.3.4.3.1-I).	Enabled only if DLH checkbox is selected.
XQH button	Displays Transmission Queue Header window where user can view/edit XQH header of message (Figure 4.3.4.3.1-J).	Enabled only if XQH checkbox is selected.
File attachment	Input file name to attach to this message.	Always enabled.
RFH2 headers	Edit raw RFH2 or JMS header data.	Enabled only if RFH2 checkbox is selected. (Also allows you to edit messages that were created using the JMS checkbox.)
Data button	Displays Message Data window where user can view/edit message data (Figure 4.3.4.3.4-B).	Always enabled.

The *Message Text Data* window is displayed when the **Data** button is clicked on the *Edit Message* window ([Figure 4.3.4.3.6-A](#)). It is used to view/edit the message data. **Text only** is the default option for displaying message text data.

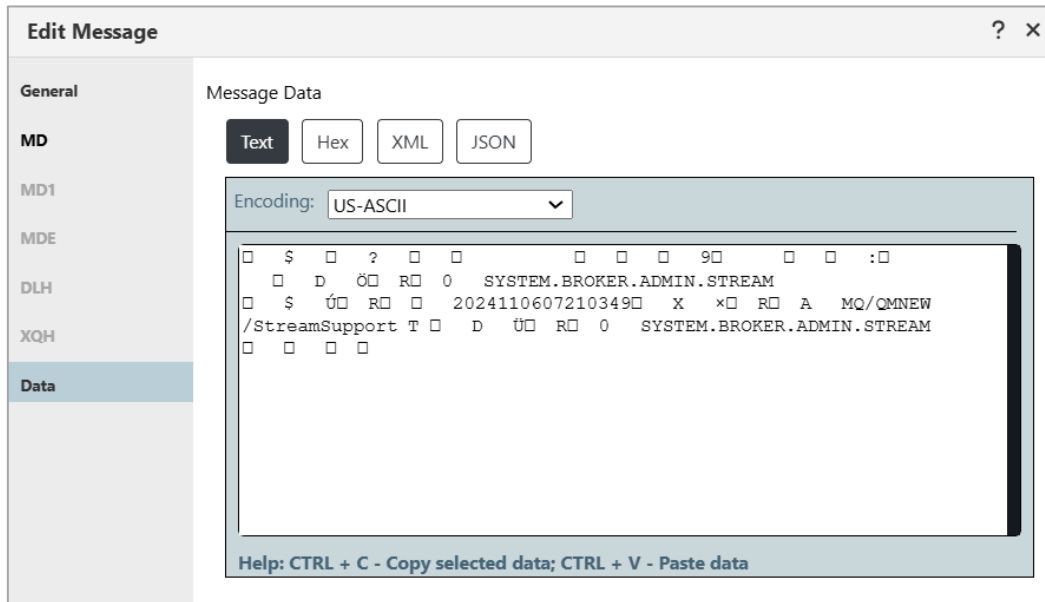



Figure 4.3.4.4.5-B. Message Text Data

4.3.4.4.6 Load Messages from a File or Shared Storage

You can choose to load messages from one of several sources. The load procedure will vary depending on the source you choose.

4.1.1.1.1.12 Messages from .mmf files, .txt files, or files created by the IBM dmpmqmsg utility

Load single or multiple messages from .mmf files, .txt files, or files created by the IBM dmpmqmsg utility. Select **Load from File**  from the *Messages* viewlet ([Figure 4.3.4.3-A](#)) or **Load from File** from the Queue Viewlet Messages **Selected** menu options ([Figure 4.3.4-A](#)). The *Command settings* dialog for loading messages is displayed. Make file format and encoding selections before proceeding.

Choose the file format you're loading from. Choices are as follows:

- **Text/binary.** Choose this option for plain text format.
- **MMF.** The MMF option is meshIQ's Message Management File format. Please be aware that when this file type is selected, extra data, such as headers, will be saved.
- **Dmpmqmsg.** This option indicates a character-encoded binary file that was produced by the IBM dmpmqmsg utility, which saves messages from a queue into a file.

Use the list on the right to choose between US-ASCII and IBM EBCDIC International encoding. The encoding method in the list will be reflected in the Message Headers Data. If you select the **Force Encoding** checkbox, not only the message headers, but the message encoding type (in the Encoding list) and message data itself will also reflect your selection. When loading Kafka messages from a file, the Encoding is set to *US-ASCII* and cannot be changed (the **Force Encoding** option is not available).

Click **Yes** to load a file.

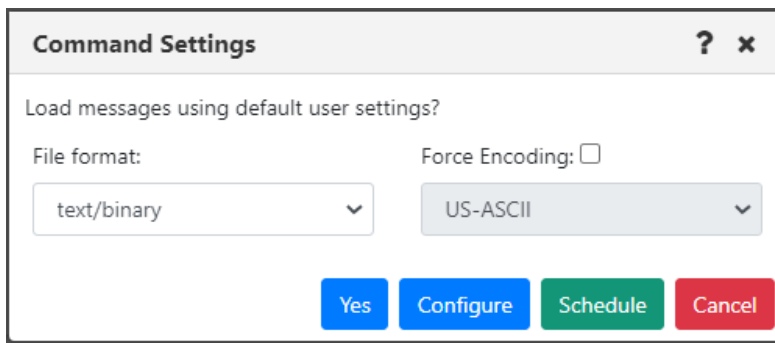


Figure 4.3.4.4.6.1-A. Load from File Command Settings

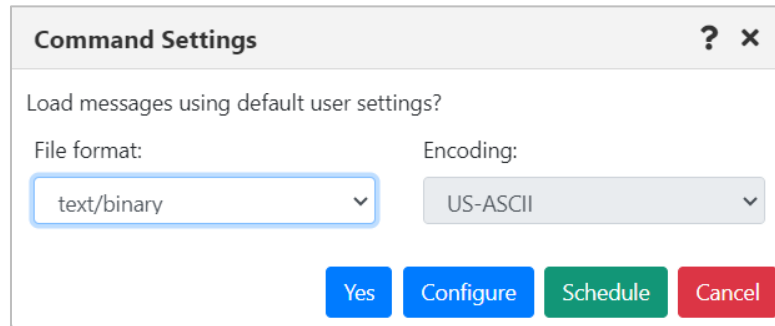


Figure 4.3.4.4.6.1-B. Load from File Command Settings: Kafka

Clicking **Configure** will open the *Load Message* settings window (section 4.4.5.1.3), where you can specify settings for the new messages, such as the delimiter used.

If a file is loaded containing more messages than the queue's maximum depth, an error message similar to the following will be displayed:

Status	Command status	Origin	Timestamp	Reason	Actions
▲	(RC - 2053), CMD - EXCMD_MG_NEW - Failed!	\\MQM\DESKTOP-GQ6QDV1\TEST\4.4.2	Nov 16 2020 09:40:02	MQRC_Q_FULL	Description

Ok


Figure 4.3.4.4.6.1-C. Max Depth Load Error

4.1.1.1.1.13 Load messages from Shared Storage

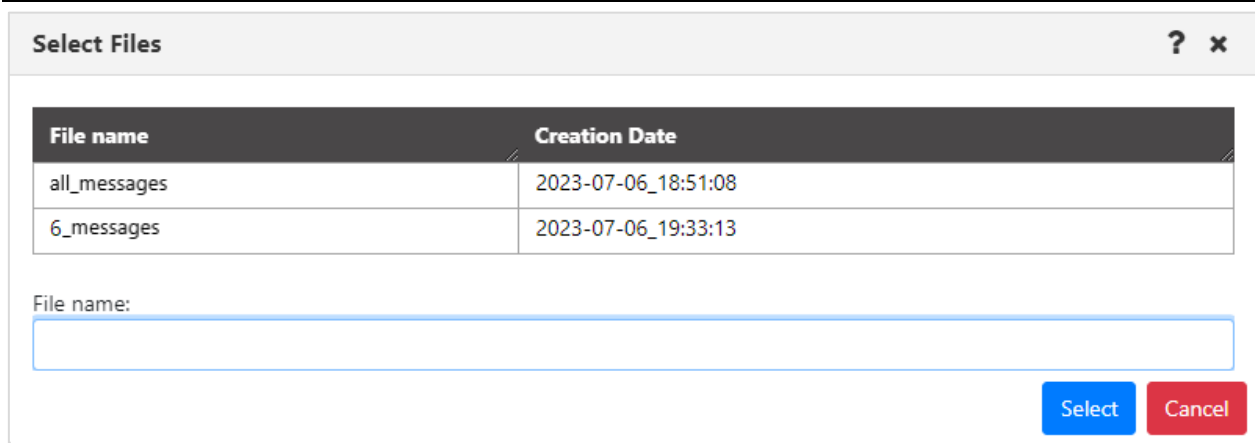


The ability to save or export files to shared storage requires that you enter a valid path in the *Enterprise Manager MQM Properties* dialog's MMF Shared Storage tab, in the Directory to be used for MMF Shared Storage field. This option is available for IBM MQ queues, Solace queues, Kafka topics and partitions, and EMS durables and queues.

Choose one of two methods for loading messages from storage:

- Select the queue into which you want to load messages. On the **Selected** menu, select **Messages > Load from Shared Storage**.
- While browsing messages, select the Load from  button, then select **Load from Shared Storage**.

The *Select Files* dialog includes all message files. Choose a file by clicking it.



4.3.4.4.7 Export All Messages



The ability to save or export files to shared storage requires that you enter a valid path in the *Enterprise Manager MQM Properties* dialog's MMF Shared Storage tab, in the **Directory to be used for MMF Shared Storage** field. This option is available for IBM MQ queues, Solace queues, Kafka topics and partitions, and EMS durables and queues.

To export all messages in a queue, topic, or partition, select **Messages > Export All Messages > .MMF, .TXT, or To Shared Storage** from the **Selected** menu options ([Figure 4.3.4.4-A](#)). If you chose **.MMF** or **.TXT**, the *Command settings* dialog box for exporting messages appears. Click **Yes** to export the messages. Clicking **Configure** will open the *Save Messages* settings window. See *Save Messages* (section [4.4.5.1.4](#)) for more information.

If you chose **To Shared Storage**, the *Write File Name* dialog opens. Enter a file name. Click **OK**.

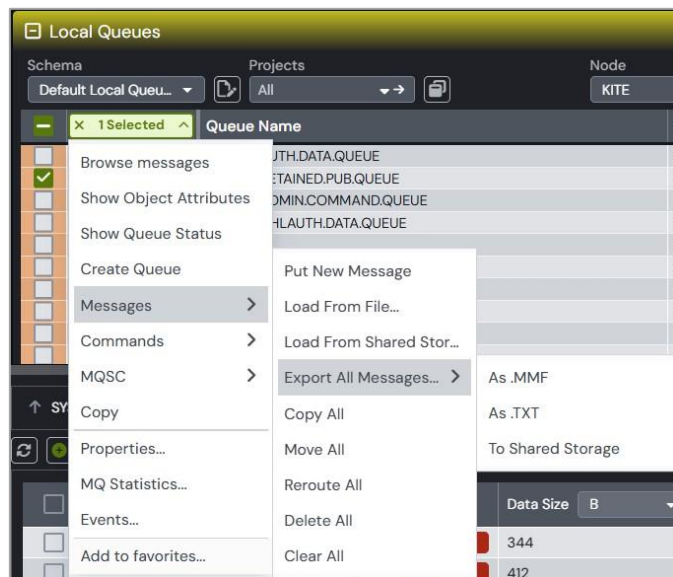


Figure 4.3.4.4.7-A. Export All Messages

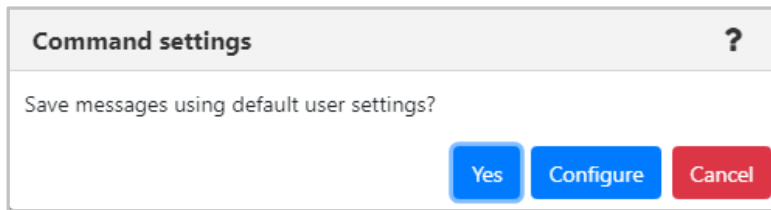


Figure 4.3.4.4.7-B. Export all Messages Command settings

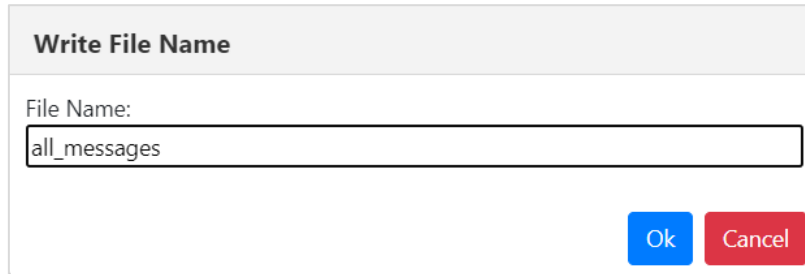


Figure 4.3.4.4.7-C. Write File Name Dialog (Shared Storage)

4.3.4.4.8 Message Rerouting

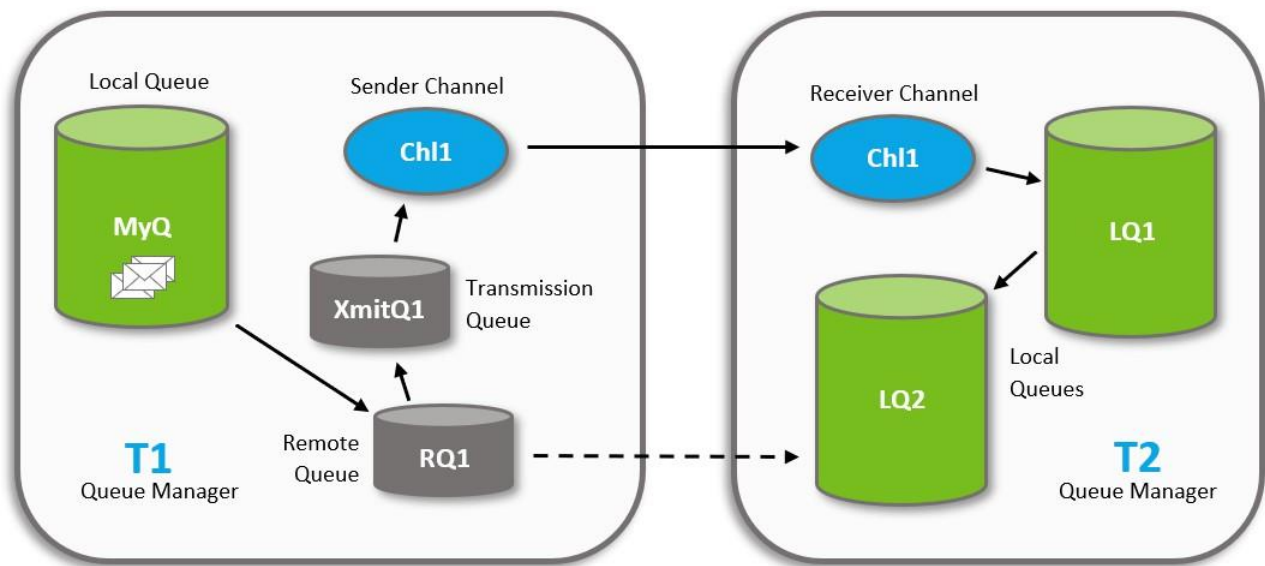


Figure 4.3.4.4.8-A. Message Rerouting Process

The reroute feature transmits messages from one queue manager to another, for example, sending messages from queue manager T1 to a local queue (LQ2) on remote queue manager T2. This feature works by dynamically altering definitions to enable the messages to be transmitted.


4.1.1.1.1.14 Rerouting Requirements

Rerouting messages requires the following:

1. **Channels:** Create a sender and receiver channel on each of the queue managers. This feature works by dynamically altering the definitions to enable the messages to be transmitted. The channels are one directional and must have the same name, for example:

Sender Channel (on T1): Ch11
Receiver Channel (on T2): Ch11

2. **Transmission Queue:** Create a transmission queue on the sending queue manager (T1), for example:
Transmission Queue: XmitQ1
3. **Remote Queue: Create** a remote queue on the sending queue manager (T1). It will need to point to the local queue (LQ2) receiving the messages (located on the receiving queue manager T2). For example:
Remote Queue: RQ1
4. **User Rights:** Users who will be rerouting messages need security rights to make definition changes to the objects listed above. These objects will need to be defined with special security rules, allowing them to be altered by users with the reroute rights.

The Reroute button  in the console panel is only active for users with the Reroute Messages right (even though all users with the Show Queue Manager Attributes right can see it).

The set of rights required to perform the reroute messages action itself depends on the version you are using:

- Prior to version 10.4, the following rights were required: **Change Channel, Change Queue, Move Messages, Start Channel, Stop Channel, and Refresh Queue Runtime.**
- In versions 10.4.0 and later, in addition to the **Reroute Messages** right that makes the button available, you must also have the **Move Messages** right for both the queue you are moving the message from and the queue you are moving the message to. Moreover, if you are rerouting messages from one queue manager to another and channels are used, you must also have the **Start Channel, Stop Channel, and Change Channel** rights.

4.1.1.1.15 The Rerouting Process

Using the diagram above, the meshIQ components dynamically update the object definitions to reroute messages from MYQ on queue manager T1 to local queue LQ2 on queue manager T2 as follows:

- 1) Alter the remote queue (RQ1) on T1 to:
 - a. Point to the target local queue (LQ2) on T2.
 - b. Use T1's transmission queue (XmitQ1).
- 2) Alter the sending channel (Ch11) on T1 to:
 - a. To point at the connection for T2.
 - b. To use the transmission queue (XmitQ1).
- 3) Start the sending channel (Ch11).
- 4) Move the messages from MYQ to RQ1 on T1. This causes them to be placed on the transmission queue, picked up by the channel, transmitted to T2 and placed on LQ2.

Second Example: To move messages from MYQ to LQ1, the process is the same except RQ1 will need to point to LQ1 instead of LQ2. All other steps are the same and the same objects are used, pointing at LQ2 instead of LQ1.

Third Example: To move messages from MYQ to LQ1 on T3, the process is the same except the channel will be directed at T3 instead of T2. T3 needs a receiving channel Ch1 as well.

4.1.1.1.1.16 Reroute Configuration



NOTE

If you have chosen to select messages by **Message Position** (on the **Message Commands** tab of the *User/Global Settings Window*), the reroute icon will not be available when multiple individual messages are selected.

Perform the following to reroute messages:


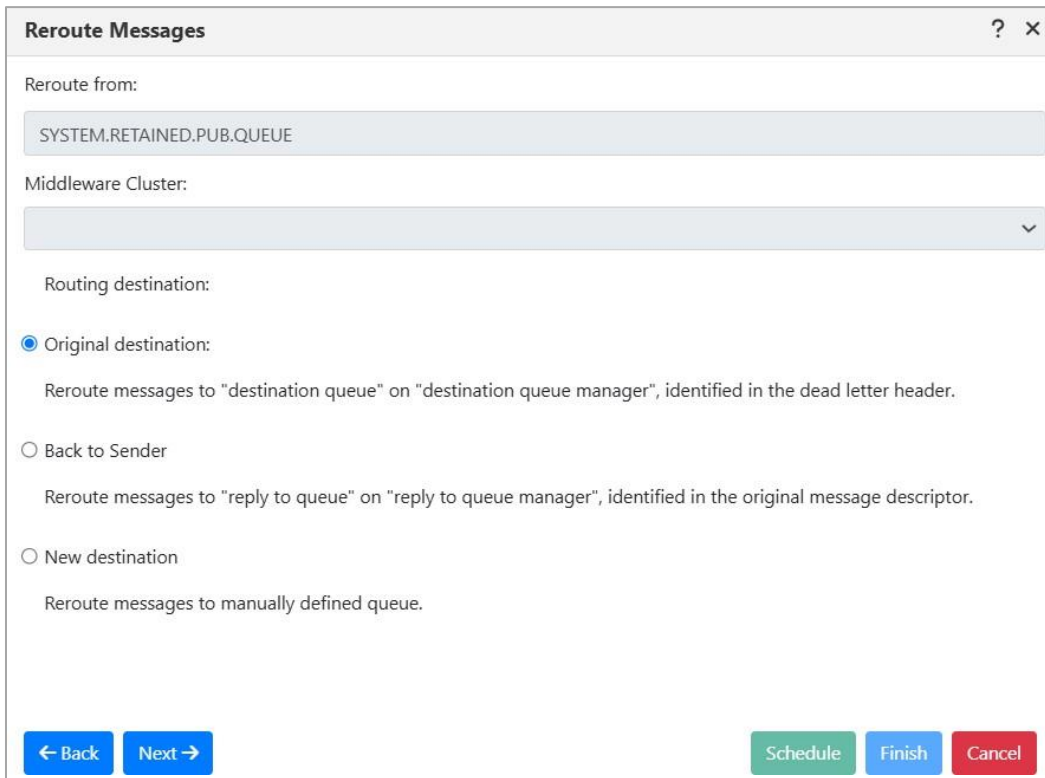
1. Open the messages to be rerouted in the Console panel. See [Messages](#) (section [4.3.4.3](#)) for information on viewing a queue's messages). Select the message(s) to be rerouted and click the **Reroute** button  from the Message Viewlet toolbar (see [Figure 4.3.4.3-A](#)). The *Reroute Messages* window opens.

Figure 4.3.4.4.8.3-A. Reroute Messages – Routing Scope

2. The **Reroute from** and **Current queue depth** fields display the name of the messages' queue and the queue's depth. Please note that these fields are always inactive.
3. Select a **Routing template** from the list. To create a new template instead, enter a template name in the **Routing template** field and press the **Enter** key on your keyboard. To delete a template, select it and click the **Delete Template** button.
4. Select a **Routing Scope** (a description of each option appears immediately below the option name). It will be used when there is a need to reroute messages into a location not defined in message headers.

- Click **Next** to continue configuring the reroute properties. The *Reroute Messages* window opens. Select a **Routing destination** option and click **Next**.



The screenshot shows a dialog box titled "Reroute Messages" with a close button (X) and a help button (?). The dialog contains the following fields and options:

- Reroute from:** A text field containing "SYSTEM.RETAINED.PUB.QUEUE".
- Middleware Cluster:** A dropdown menu.
- Routing destination:** Three radio button options:
 - Original destination:** Reroute messages to "destination queue" on "destination queue manager", identified in the dead letter header.
 - Back to Sender:** Reroute messages to "reply to queue" on "reply to queue manager", identified in the original message descriptor.
 - New destination:** Reroute messages to manually defined queue.

At the bottom of the dialog, there are four buttons: "Back" (with a left arrow), "Next" (with a right arrow), "Schedule" (green), "Finish" (blue), and "Cancel" (red).

Figure 4.3.4.4.8.3-B. Reroute Messages – Routing Destination

- If either **Original destination** or **Back to Sender** were selected for the **Routing destination**, the following window will open. By default, both transmission-queue (XQH) and dead-letter (DLH) headers are stripped from messages during rerouting (based on the Strip message headers STRIP

ALL selection). But you can choose to strip only XQH headers (STRIP XQH), only DLH headers (STRIP DLH), or neither (LEAVE ALL).

The screenshot shows a 'Reroute Messages' dialog box with the following fields and options:

- Reroute from:** SYSTEM.RETAINED.PUB.QUEUE
- If command failed:** STOP ALL
- Strip message headers:** STRIP ALL
- Message batch:** 1000
- Delete original messages:** ON POSITIVE RESPONSE
- Request completion report:** ONLY IF FAILED
- Report queue:** (empty dropdown)

At the bottom, there are buttons for 'Back', 'Next', 'Schedule', 'Finish', and 'Cancel'.

Figure 4.3.4.4.8.3-C. Reroute Messages – Additional Options

7. Click **Next**.
8. A summary of the reroute plan for the selected messages displays. If everything is correct, click Finish.

The screenshot shows a 'Reroute Messages' dialog box with a summary of the reroute plan:

- Reroute 1 messages from:**
 - MQ Node - KITE,
 - QMGR - QMNEW,
 - Queue - SYSTEM.RETAINED.PUB.QUEUE .
- Reroute to:** Original destination.

At the bottom, there are buttons for 'Back', 'Next', 'Schedule', 'Finish', and 'Cancel'.

Figure 4.3.4.4.8.3-D. Reroute Messages – Summary

9. If **New destination** was selected for the **Routing destination** (Figure 4.3.4.3.7.3-B above, this option is used to reroute messages from one queue to another, which belong to different queue managers), a window similar to the below will open. Select a **Destination Queue name** from the list.
10. Click **Next** for additional options. Specify the properties and click **Next** to view the reroute summary.
11. A summary of the reroute plan for the selected messages displays. If everything is correct, click Finish.

Figure 4.3.4.4.8.3-E. Reroute Messages – Set Destination

4.3.4.4.9 Retrieving Messages from an Inoperable Cluster Queue

This section pertains to IBM MQ messages only.

Within a [cluster](#), you can move messages from a put-inhibited queue on one queue manager to another queue of the same name on another queue manager. This functionality is only for put-inhibited queues that are shared within a cluster.

Prerequisites

- Both queue managers have joined the same cluster.
- The two queues (one on each queue manager) have the same name.
- On the properties of the two queues, the Cluster tab must indicate *Shared in a cluster*.
- The queue you are moving messages from must be “Put Inhibited” and the other must be “Put Allowed.”

To see this functionality, verify that all criteria listed in the prerequisites section have been met. Then:

1. Select the checkbox for the put-inhibited queue and make sure that the **Messages** submenu includes the **Distribute to Cluster** item. This option indicates that messages put to this queue

can be moved to another queue of the same name on a different queue manager. (See [Figure 4.3.4.3.10-A](#).)

2. Click **Distribute to Cluster**.
3. A list of potential destinations is displayed, along with a confirmation message. See [Figure 4.3.4.3.10-B](#).
4. Click **Continue**. If messages have been moved successfully, a Success message is displayed in the lower right corner of the window.
5. Wait for the queues to be moved and for the viewlet data to be refreshed, or refresh the viewlet manually. The messages will be included on the second (Put Allowed) queue. See [Figure 4.3.4.3.10-C](#).

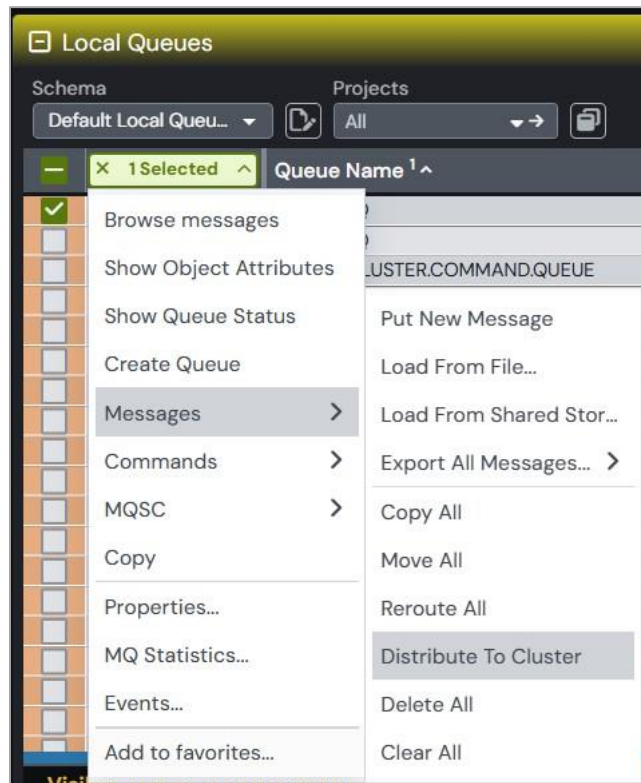


Figure 4.3.4.4.9-A. Distribute to Cluster Menu

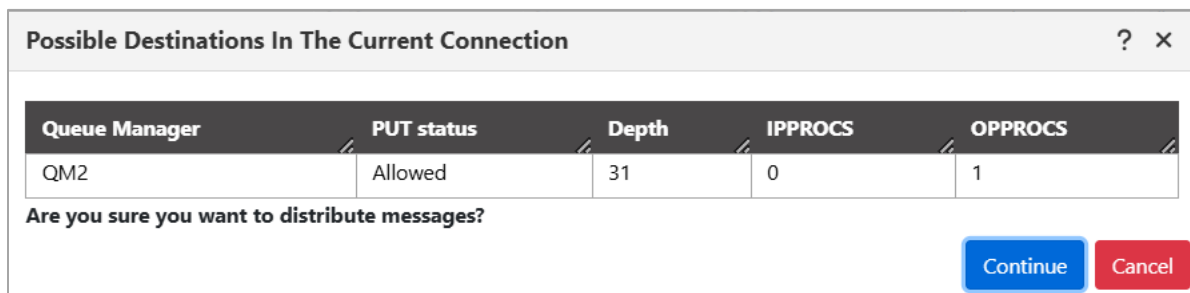


Figure 4.3.4.4.9-B. Possible Destinations

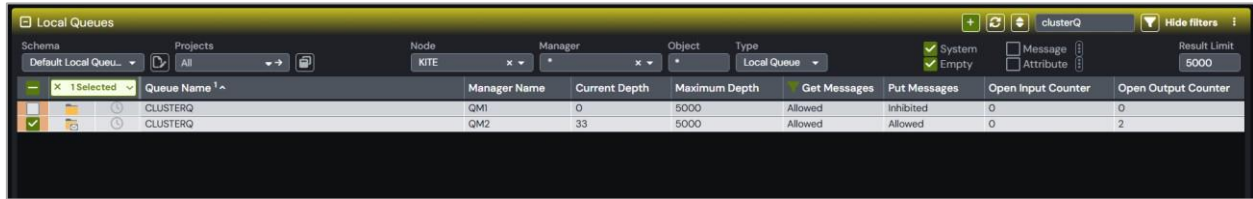


Figure 4.3.4.4.9-C. Messages Moved Successfully

4.3.4.4.10 Clear All

To clear all messages within the object, select the object, then go to **Messages > Clear All**.

The *Confirm clear all messages Action* dialog will appear. Click **Yes** to clear all messages.

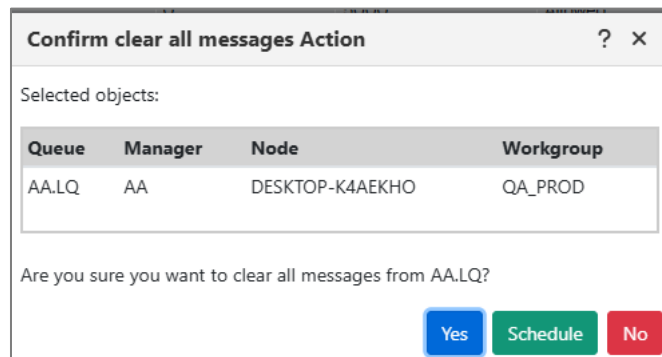



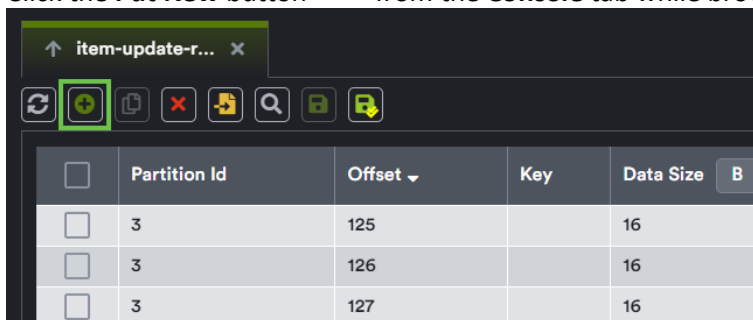
Figure 4.3.4.4.10-A. Clear all Messages Action

4.3.4.4.11 Put New Messages to EMS Queues

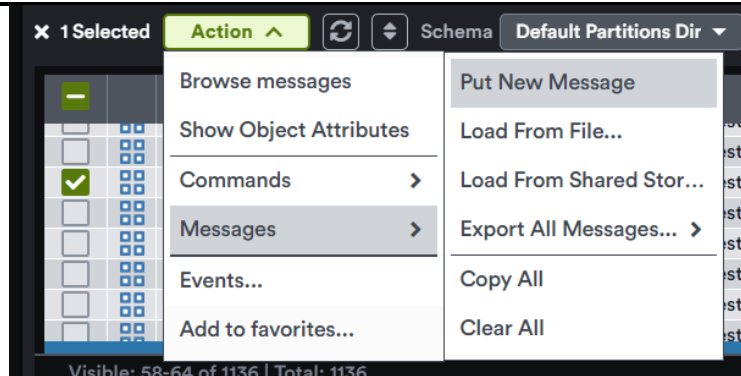
Adding messages to queues is performed on the Add new message to queue_name dialog.

You get to this window in one of two ways:

- Click the **Put New** button  from the **Console** tab while browsing messages.



- From a **Queue viewlet**, open the **Selected** menu and choose **Messages > Put New Message**. The *Add New Message To: queue_name* dialog opens.



The instructions below explain how to add a message in the Add New Message

To: queue_name dialog.

1. On the **General** tab, enter the following details:

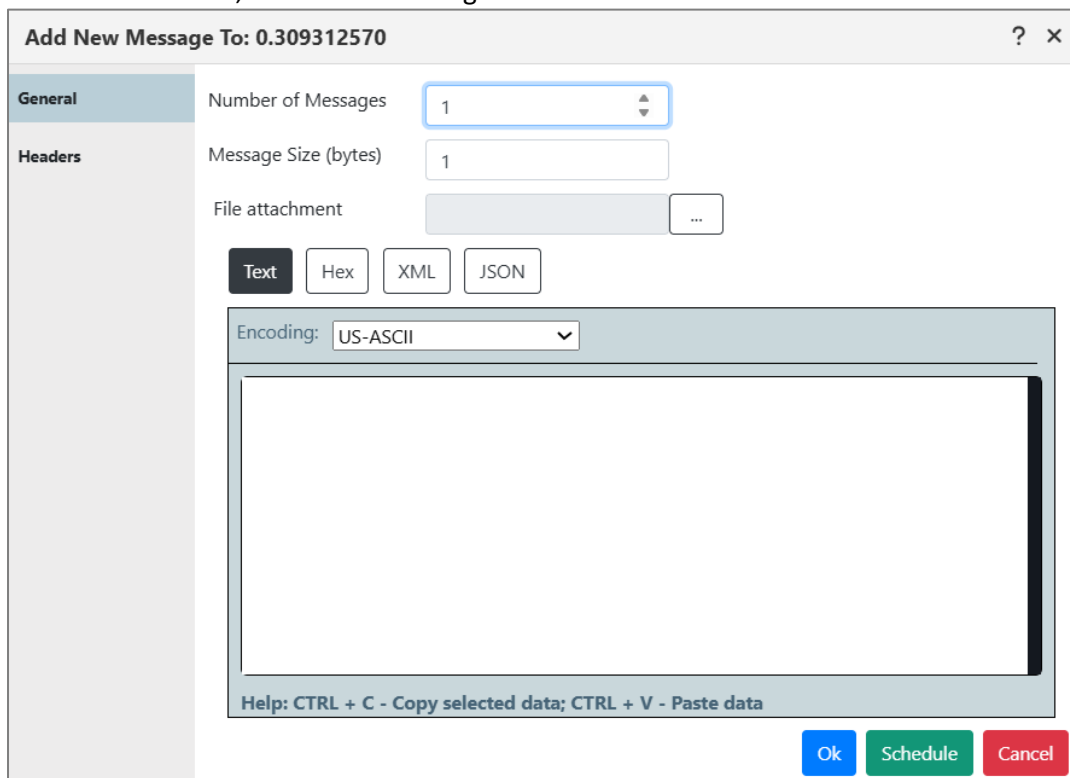
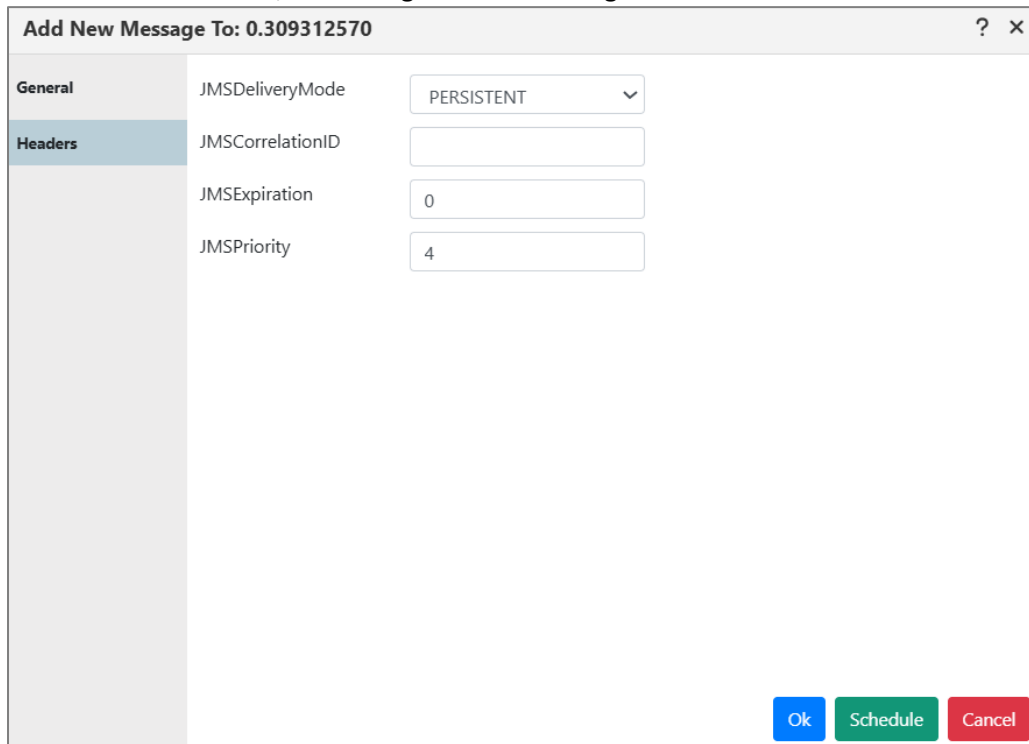


Figure 4.3.4.4.11-A Add New Message Dialog- General Tab

- **Number of Messages:** Enter the number of messages to put into a queue. In the example below, “Sample test message” is entered as the message and a quantity of ten will be added to both queues.
- **Message Size (bytes):** Displays the size of the message text being entered or created in the Data field.
- **File attachment:** If needed, click , then locate and select the file to attach.
- **Data:** Within the Data section, select the message data type (Text, Hex, XML or JSON). The message encoding type can be changed by using the **Encoding** list.

2. Select the **Headers** tab, and configure the following fields:



The screenshot shows a dialog box titled "Add New Message To: 0.309312570". It has a sidebar with two tabs: "General" and "Headers". The "Headers" tab is selected. The main area contains four fields:

Field Name	Value
JMSDeliveryMode	PERSISTENT
JMSCorrelationID	
JMSExpiration	0
JMSPriority	4

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.3.4.4.11-B Add New Message Dialog- Headers Tab

- **JMS Delivery Mode:** Select the delivery mode for the message. Options typically include PERSISTANT, NON_PERSISTANT or RELIABLE.
 - **JMS Correlation ID:** Enter a correlation identifier to link this message with another, such as in request-reply messaging patterns.
 - **JMS Expiration:** Set the time-to-live (TTL) in milliseconds. A value of 0 means the message will not expire.
 - **JMS Priority:** Specify a priority level from 0 (lowest) to 9 (highest). The default is typically 4, which represents normal priority.
3. Click **Ok** to add the message immediately, or click **Schedule** to add it later.
 4. Messages are now added to the selected queues.

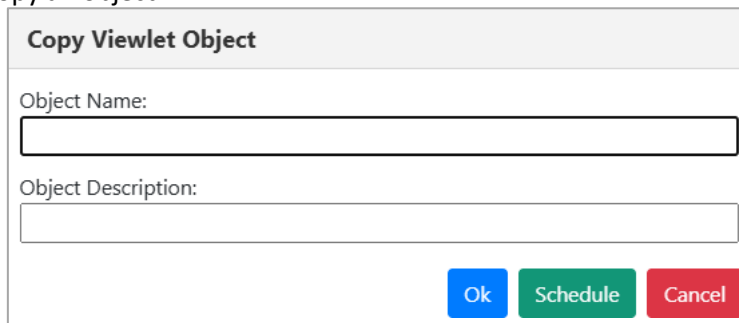
4.3.4.5 Commands

The Commands submenu is accessed from the queue's **Selected** menu. **Copy As**, **Rename Delete Queue**, **Force Update**, **Allow/Inhibit Get/Put Messages** and [Security](#) are the options available.

Copy As

The **Copy As** option creates a new object based on the definition of the currently selected object. When clicked from the **Commands** submenu of the queue's **Selected** menu options ([Figure 4.3.4-A](#)), the *Copy viewlet object* dialog opens.

1. Enter a name and description
2. Click **Ok** to copy an object.



The image shows a dialog box titled "Copy Viewlet Object". It contains two text input fields: "Object Name:" and "Object Description:". Below the input fields are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.3.4.5-A. Copy Viewlet Object

Rename Objects

This section pertains to IBM MQ objects only.

To use this feature, select one of the following valid IBM MQ objects:

- Queue
- Channel
- Listener
- Namelist
- Process
- Service
- Subscription
- Select the checkbox next to the object you want to rename.

Then, go to **Commands > Rename** in the **Selected** menu. The **Object Rename** dialog will open.

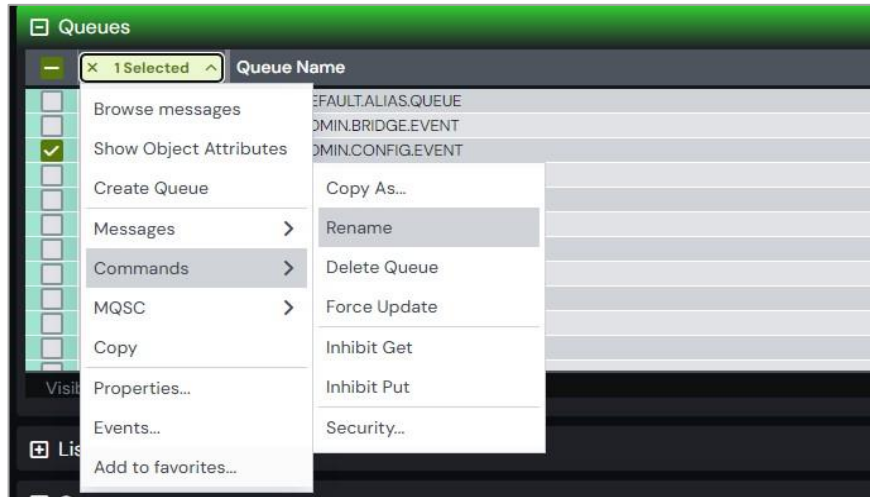


Figure 4.3.4.4-B. Rename Option



Renaming a queue object will purge the queue's messages.

NOTE

Enter the new name and click **Ok**. The object will be renamed.

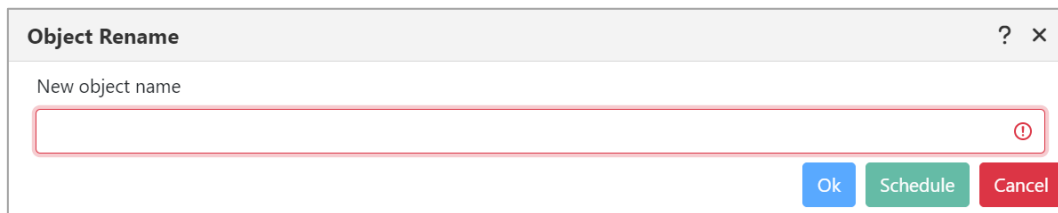


Figure 4.3.4.5-C. Object Rename

Delete Queue

The **Delete Queue** option allows users to delete the queue. When selected from the **Commands** submenu of the queue's **Selected** menu options ([Figure 4.3.4-A](#)), the below dialog appears.

Please note that there are no delete options for EMS queues. All EMS queues and their messages will be deleted.

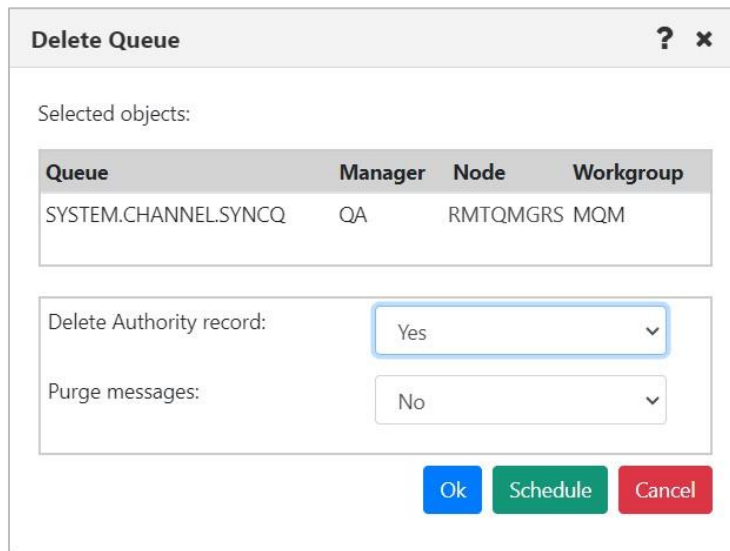


Figure 4.3.4.5-D. Delete Queue

Specify if you would like the authority record deleted. When a queue contains messages, select **Yes** from the **Purge messages** option to delete both the queue and the messages it contains. If the queue contains messages and **No** is selected, an error notification similar to the below screenshot will appear. The **Description** button can be clicked for more details.

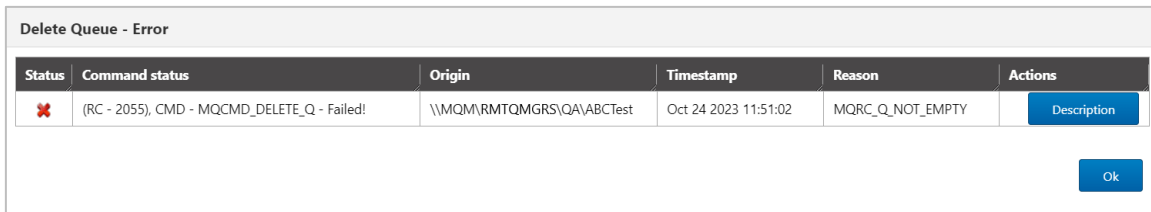


Figure 4.3.4.5-E. Delete Queue – Error

Force Update

The data in the WGS is cached and only periodically updated. Selecting the **Force Update** option will trigger the WGS to retrieve the most recent copy of the data. Select no more than 20 items to minimize impact on the WGS.

Allow or Inhibit Get and Put Messages

The ability to change the Get Messages and Put Messages attributes for a queue using the object menu requires the **Change Queue Extended** right in the security application.

The menu actions that are available depend on the queue type.

Queue Type:

- Local Queues and Alias Queues
- Remote Queue

Available Actions:

- Inhibit/Allow Get and Put
- Inhibit/Allow Put

If Get is *Inhibited*, you cannot browse the queue.

If Put is *Inhibited*, you cannot perform message-related operations.

Model Queues

Allow Get or Put

There is no option to inhibit Put or Get from the Commands menu; instead, this can be done from properties.

The Get and Put Messages columns indicate the current state, or mode, of each queue when it comes to get and put message operations:

- If Get Messages is *Allowed* for a queue, then messages are allowed to be gotten from the queue. If Get Messages is *Inhibited*, then messages are prevented from being gotten from the queue.
- If Put Messages is *Allowed* for a queue, then messages are allowed to be put on the queue. If Put Messages is *Inhibited*, then messages are prevented from being put on the queue.

You can change these attributes for a single queue or multiple queues.

When you select a single queue, options shown are to change the current mode: for a queue with Get Messages *Allowed*, the menu option is **Inhibit Get**. For a queue with Get Messages *Inhibited*, the menu option is **Allow Get**.

When you select more than one queue, options shown are based on the current mode of the first queue that you select. The action applies to all selected queues.

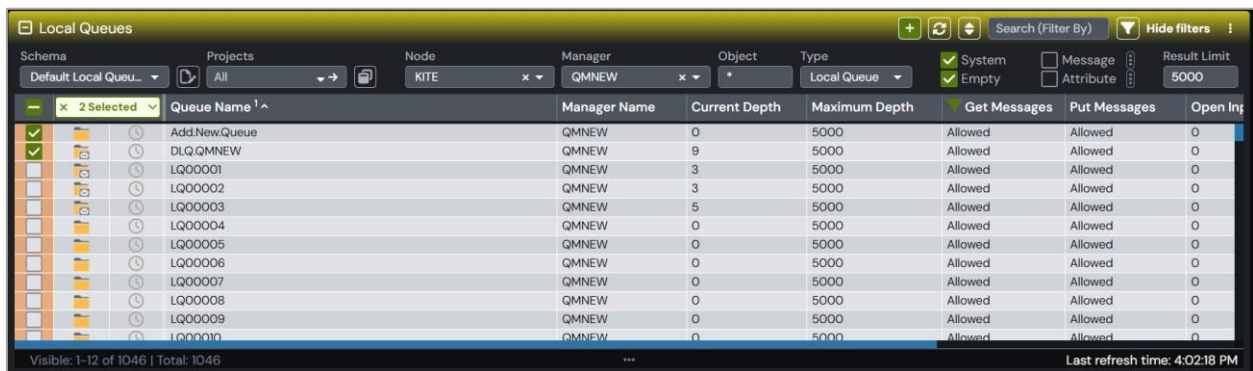


Figure 4.3.4.5-F Message Queue Before Inhibit Put

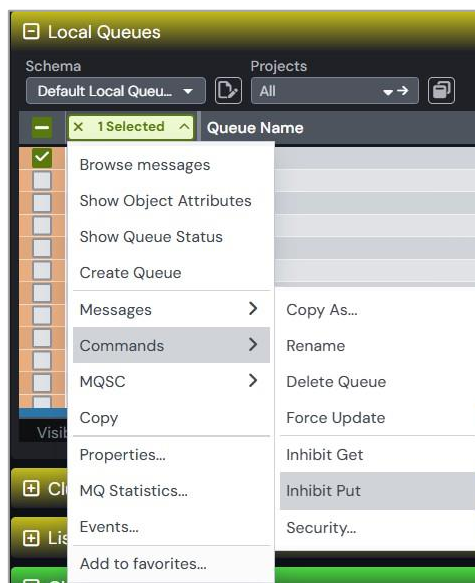


Figure 4.3.4.5-G Inhibit Put Command

The screenshot displays the 'Local Queues' management interface. At the top, there are filter controls for Schema (Default Local Queue...), Projects (All), Node (KITE), Manager (QMNEW), Object (*), and Type (Local Queue). On the right, there are checkboxes for System (checked), Message, Empty (checked), and Attribute, along with a Result Limit of 5000. The main table lists various queues, with 'DLQ.QMNEW' selected. The table columns are: Queue Name, Manager Name, Current Depth, Maximum Depth, Get Messages, Put Messages, and Open In. The status of 'Get Messages' and 'Put Messages' is shown as 'Allowed' or 'Inhibited'.




Queue Name	Manager Name	Current Depth	Maximum Depth	Get Messages	Put Messages	Open In
Add.New.Queue	QMNEW	0	5000	Allowed	Inhibited	0
DLQ.QMNEW	QMNEW	9	5000	Inhibited	Inhibited	0
LQ00001	QMNEW	3	5000	Allowed	Allowed	0
LQ00002	QMNEW	3	5000	Allowed	Allowed	0
LQ00003	QMNEW	5	5000	Allowed	Allowed	0
LQ00004	QMNEW	0	5000	Allowed	Allowed	0
LQ00005	QMNEW	0	5000	Allowed	Allowed	0
LQ00006	QMNEW	0	5000	Allowed	Allowed	0
LQ00007	QMNEW	0	5000	Allowed	Allowed	0
LQ00008	QMNEW	0	5000	Allowed	Allowed	0
LQ00009	QMNEW	0	5000	Allowed	Allowed	0
LQ00010	QMNEW	0	5000	Allowed	Allowed	0

Visible: 1-12 of 1046 | Total: 1046
Last refresh time: 4:05:29 PM

Figure 4.3.4.-H Inhibit Put Results

4.3.5 Channels

A channel viewlet displays all related information to channels. The icons represent the status of the channels:

- Active Channel: 
- Inactive Channel: 
- Changing State: 
- Stopped Channel: 

A Selected menu appears when a channel's check box is checked. See [Appendix C](#) for an explanation of these options. Clicking on a channel name will open the *Attribute* viewlet ([section 4.3.5.1](#)). Clicking on a channel status will open the *<channel_name> Status* viewlet ([section 4.3.5.2](#)).



NOTE

Your Selected menu options may differ according to your user permissions, which are managed by an admin.

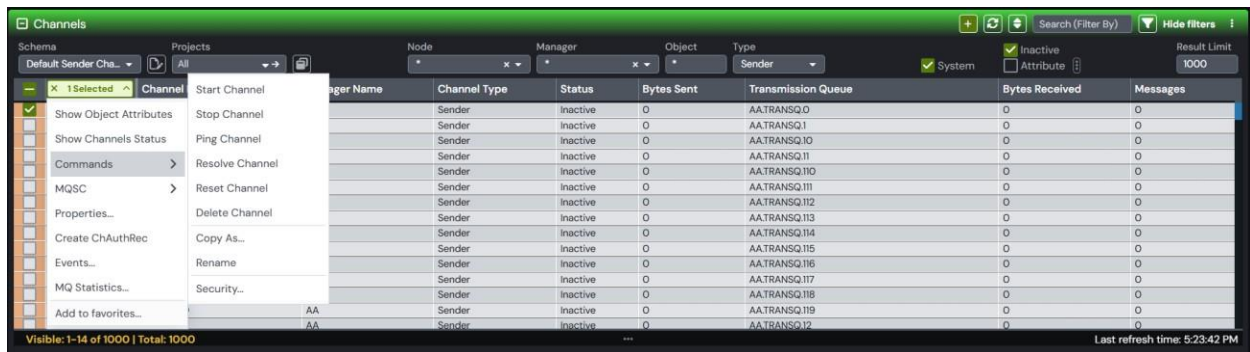


Figure 4.3.5-A. Channel Selected Menu



TIP

If your *Channel* viewlet is empty, check if the **Show inactive channels** option is selected in the **User Settings** window > **User Settings** tab (see [User Settings Tab](#)).

4.3.5.1 Channel Attributes

Selecting **Show Object Attributes** from the channel's Selected menu ([Figure 4.3.5-A](#)) will display the channel's *Attributes* viewlet.

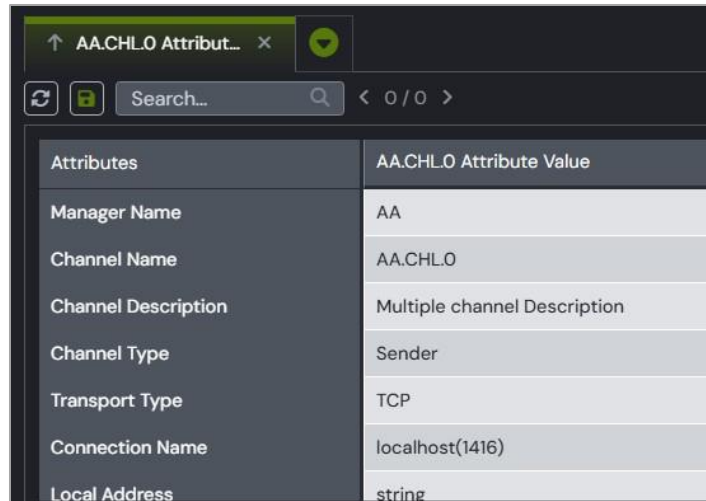



Figure 4.3.5.1-A. Channel Attributes

4.3.5.2 Channel Status

Selecting **Show Channel Status** from the channel's Selected menu ([Figure 4.3.5-A](#)) or clicking the channel status within the **Status** column of the viewlet will display the *Status* viewlet of the channel. The following statuses are signified with specific colors: running (green), retrying (orange) and stopped (red).

The columns displayed in this viewlet can be customized by clicking the **Table** icon .

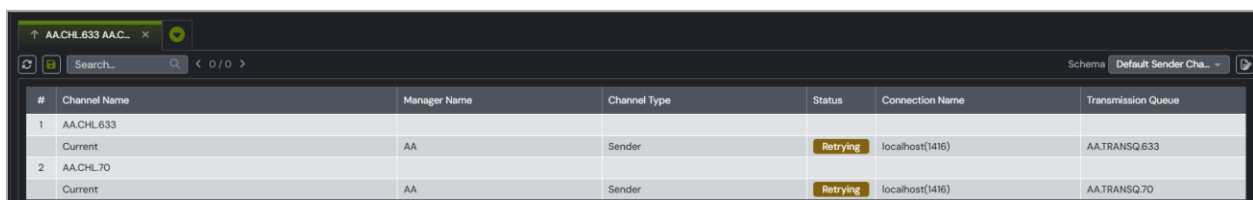


Figure 4.3.5.2-A. Channel Status

Status	Description
Inactive	Channel is not active.
Binding	Channel is negotiating with the partner.
Starting	Channel is waiting to become active.
Running	Channel is transferring or waiting for messages.
Stopping	Channel is in process of stopping.
Retrying	Channel is reattempting to establish connection.

Status	Description
Stopped	Channel is stopped.
Requesting	Requester channel is requesting connection.
Paused	Channel is paused.
Disconnected	Channel is disconnected.
Initializing	Channel is initializing.
Switching	Channel is switching transmission queues.

4.3.5.3 Channel Commands

The **Commands** submenu accessed from the channel's **Selected** menu ([Figure 4.3.5-A](#)) gives the option to start, stop, ping, resolve or reset channels. These options can differ depending on the channel type.

Start Channel

After selecting **Start Channel**, the *Start Channel* window opens. Within the **Channel Disposition** section, you can specify to include **Private**, **Shared** or **Shared-Linked** channel dispositions. Check the box and select the desired option from the drop-down menu. You can also specify the **Command scope** if needed. For more information on these options, please see the IBM online documentation:

https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.adm.doc/q088420.htm

Click **Ok** to start the channel, or click **Schedule** to create a task to start the channel at a specified time (see [Scheduling](#)). The **Schedule** button will not appear if your WGS is not configured for scheduling.

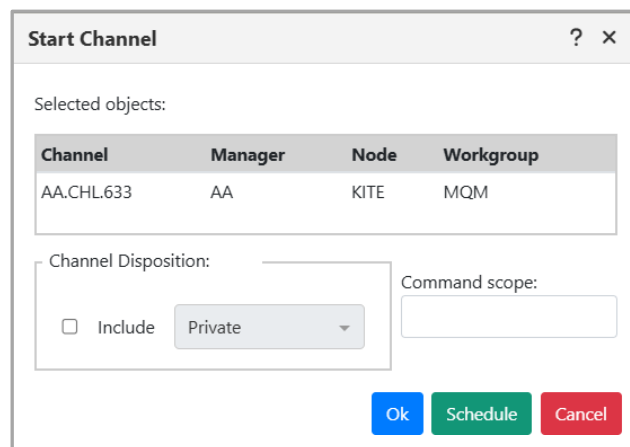



Figure 4.3.5.3-A. Start Channel Dialog

After selecting **Start Channel** the status will initially display as **Initializing** with  a changing icon. It will then change to **Running** if the channel starts successfully. If there are issues with starting channel, the status will show as **Stopped** or **Inactive** or **Retrying**.

Stop Channel

After selecting **Stop Channel**, the *Stop Channel* dialog appears. The stop options are selected on this screen.

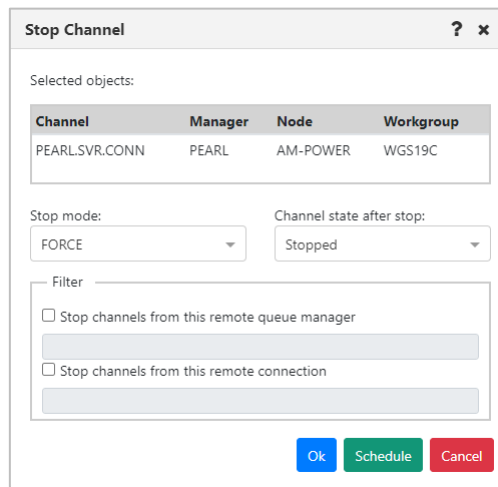


Figure 4.3.5.3-B. Stop Channel

When you stop a specific channel instance, the two checkboxes (Stop channels from this remote queue manager and Stop channels from this remote connection) are selected, and the queue manager and remote connection are filled in if they exist, since they are necessary to identify the particular channel instance.

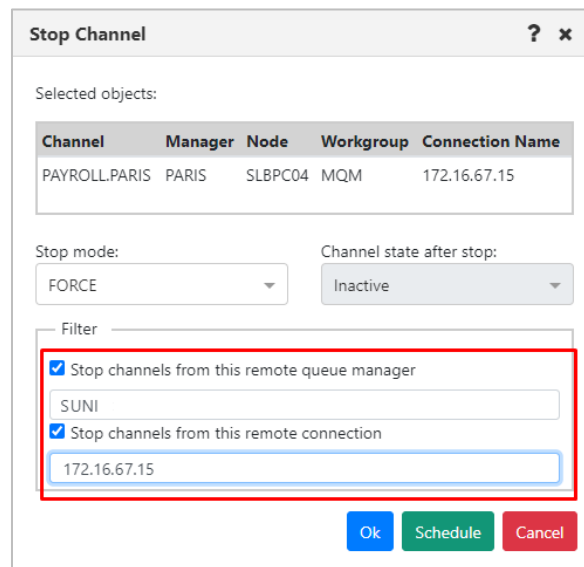


Figure 4.3.5.3-C. Stop Channel (with Remote Queue Manager and Connection)

Ping Channel

After selecting **Ping Channel**, the *Ping Channel* dialog appears.

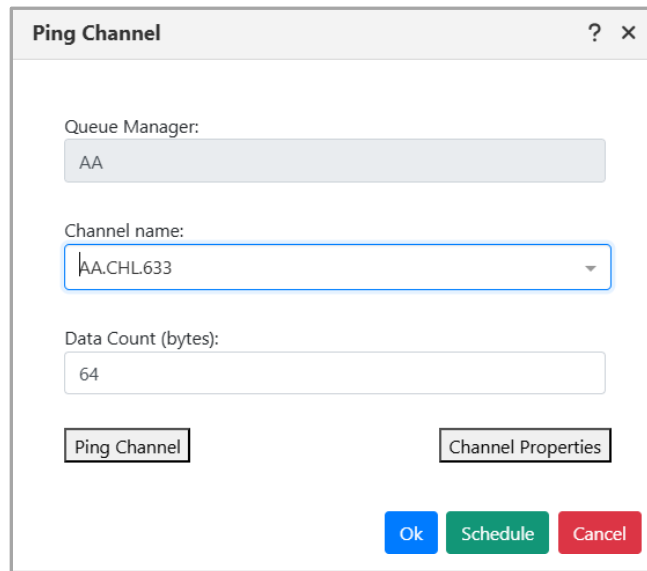


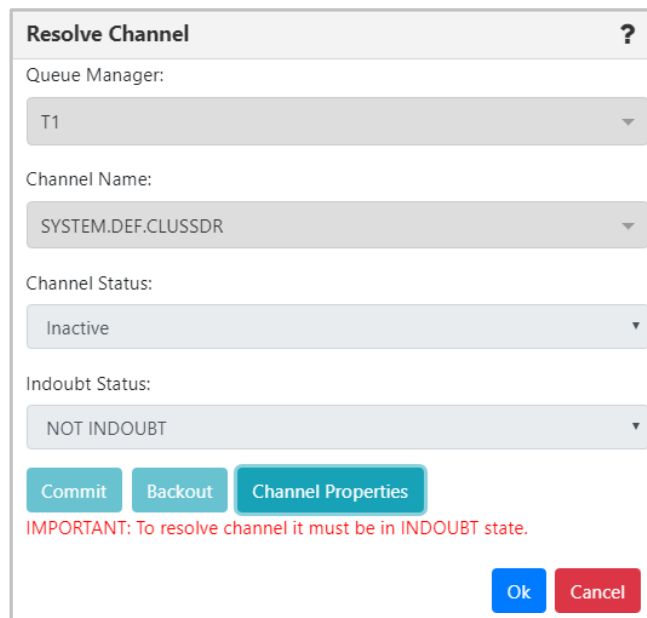
Figure 4.3.5.3-C. Ping Channel

Resolve Channel

After selecting **Resolve Channel** (only Sender or Cluster Sender channels have this option available in their *Commands* menu), the *Resolve Channel* dialog appears. Use this option when the link fails during the confirmation period and the connection cannot be reestablished.

The following buttons appear at the bottom of the dialog. The **Commit** and **Backout** buttons are only available when the channel is in INDOUBT state. This means that the channel's sending end does not know if messages were received.

- **Commit:** The in-doubt messages will be deleted from the transmission queue.
- **Backout:** The in-doubt messages are returned to the transmission queue.
- **Channel Properties:** Update the channel's properties. See [section 4.3.5.4, *Channel Properties*](#), for more information.



The **Resolve Channel** dialog box contains the following fields and controls:

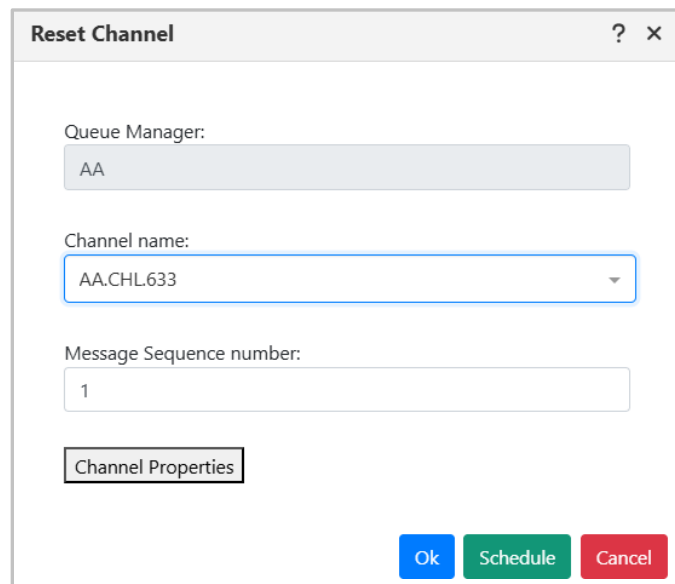
- Queue Manager:** T1
- Channel Name:** SYSTEM.DEF.CLUSSDR
- Channel Status:** Inactive
- Indoubt Status:** NOT INDOUBT
- Buttons:** Commit, Backout, Channel Properties, Ok, Cancel
- Message:** IMPORTANT: To resolve channel it must be in INDOUBT state.

Figure 4.3.5.3-D. Resolve Channel

Click **Ok** when finished.

Reset Channel

Select **Reset Channel** to reset the message sequence number for an IBM MQ channel. The *Reset Channel* dialog appears. Optionally, a sequence number can be specified within the **Message Sequence number** field to be used when the channel is started.



The **Reset Channel** dialog box contains the following fields and controls:

- Queue Manager:** AA
- Channel name:** AA.CHL.633
- Message Sequence number:** 1
- Buttons:** Channel Properties, Ok, Schedule, Cancel

Figure 4.3.5.3-E. Reset Channel

Delete Channel

To delete a channel, go to the selected menu and select **Commands > Delete Channel**.

A **Delete Channel** window opens. Click **OK** to delete the channel.

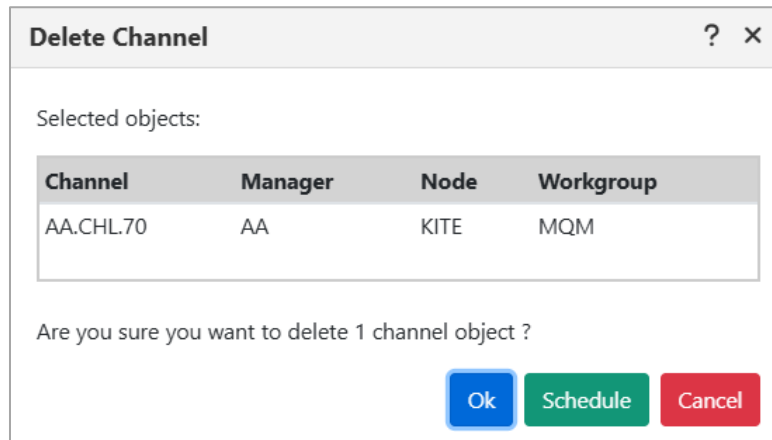


Figure 4.3.5.3-F. Delete Channel

Copy As Channel

The **Copy As** option creates a new channel based on the definition of the currently selected channel. When clicked from the **Commands** submenu of the Channel's **Selected** menu options ([Figure 4.3.4-A](#)), the *Copy channel* dialog opens.

1. Enter a name and other configurable properties
2. Click **Ok** to copy a channel.

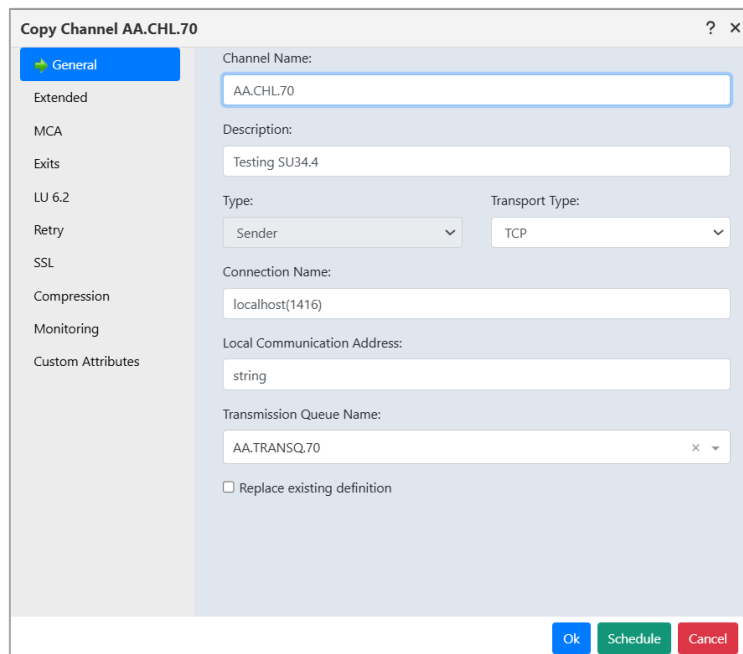


Figure 4.3.5.3.E Copy Channel

Rename Channel

For instructions on using this feature, refer to the [Rename Objects](#).

Security Channel

To display or set authority to the channels, refer to the [Security](#).

4.3.5.4 Channel Properties

Clicking **Properties** from the channel's **Selected** menu ([Figure 4.3.5-A](#)) will open the channel's *Properties* window.

For more information on the properties of channels, please go to the IBM Knowledge Center:

https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.explorer.doc/e_properties_channels.htm

See [Custom Attributes](#) for information on adding custom attributes to a channel (done on the **Custom Attributes** tab).

The screenshot shows a dialog box titled "Sender SENDER.ICON1 Properties". On the left is a sidebar with tabs: General (selected), Extended, MCA, Exits, LU 6.2, Retry, SSL, Compression, Monitoring, Statistics, and Custom Attributes. The main area contains the following fields:

- Channel Name: SENDER.ICON1
- Description: Multiple channel Description
- Type: Sender (dropdown)
- Transport Type: TCP (dropdown)
- Connection Name: localhost(1413)
- Local Communication Address: (empty text box)
- Transmission Queue Name: SYSTEM.CLUSTER.TRANSMIT.QUEUE (dropdown with a close button)

At the bottom right are three buttons: Ok (blue), Schedule (green), and Cancel (red).

Figure 4.3.5.4-A. Channel Properties

4.3.5.5 Channel Events

Clicking **Events** from a channel's **Selected** menu ([Figure 4.3.5-A](#)) will display the *Events* viewlet of the channel.

Event #	Date/Time	Category	Event ID	Object
224	11/22/2024 12:54:18 PM (UTC+05:30)	Channel	Channel Started	\\MQM\KITE\AA\AA.CHL.255
221	11/22/2024 12:54:17 PM (UTC+05:30)	Channel	Channel Started	\\MQM\KITE\AA\AA.CHL.255
137	11/22/2024 12:38:26 PM (UTC+05:30)	Channel	Channel Started	\\MQM\KITE\AA\AA.CHL.255
127	11/22/2024 12:38:26 PM (UTC+05:30)	Channel	Channel Started	\\MQM\KITE\AA\AA.CHL.255
79	10/18/2024 3:11:01 PM (UTC+05:30)	Channel	Channel Started	\\MQM\KITE\AA\AA.CHL.255

Object name: \\MQM\KITE\AA\AA.CHL.255 Total number of events: 5

Figure 4.3.5.5-A. Channel Events

Clicking a blue event number will open the *Event details* window for the event. There are three tabs: **General** ([Figure 4.3.5.5-B](#)), **Diagnostic** ([Figure 4.3.5.5-C](#)) and **Detail** ([Figure 4.3.5.5-D](#)).

On the **Detail** tab, an attribute can be selected to restore the attribute's previous properties. Select the attribute to revert and click **Rollback Selected Changes** ([Figure 4.3.5.5-D](#)).

Event details

General Diagnostic

Event Time & Origin

Receive Time: 11/22/2024 12:54:18 PM
 GMT Local (UTC+05:30)

Category: Channel

Group Name: MQM

Node Name: KITE

Qmgr Name: AA

Object: AA.CHL.255

Description:
MQRC_CHANNEL_STARTED: One of the following has occurred: -An operator has issued a Start Channel command. -An instance of a channel has been successfully established. This condition is detected when Initial Data negotiation is complete and resynchronization has been performed where necessary such that message transfer can proceed.
Corrective Action: None. This reason code is only used to identify the corresponding event message.

Close

Figure 4.3.5.5-B. Event Details – General Tab

Event details

General **Diagnostic**

Event #: User ID:

Reason ID: Elapsed Time:

Reason Qualifier: Error ID:

Name	Value
Workgroup Name	MQM
Node Name	KITE
Queue Manager Name:	AA
Object Type	Channel
Object Name	AA.CHL.255
Original User ID	
Last Event Time	00:39:55

Description:
MQRC_NONE: Reason code is zero and signifies a successful completion. When occurs in events, signifies that no further qualification of the event is available.
Corrective Action: None

Close

Event details

General **Diagnostic** Detail

Event #: User ID:

Event ID: Elapsed Time:

Reason: Error ID:

Name	Value
Workgroup Name	MQM
Node Name	SLB19
Queue Manager Name	T2
Object Type	Channel
Object Name	SYSTEM.AUTO.SVRCONN
Original User ID	SYSTEM
Last Event Time	4

Description:
MQRC_NONE: Reason code is zero and signifies a successful completion. When occurs in events, signifies that no further qualification of the event is available.
Corrective Action: None

Close

Figure 4.3.5.5-C. Event Details – Diagnostic Tab

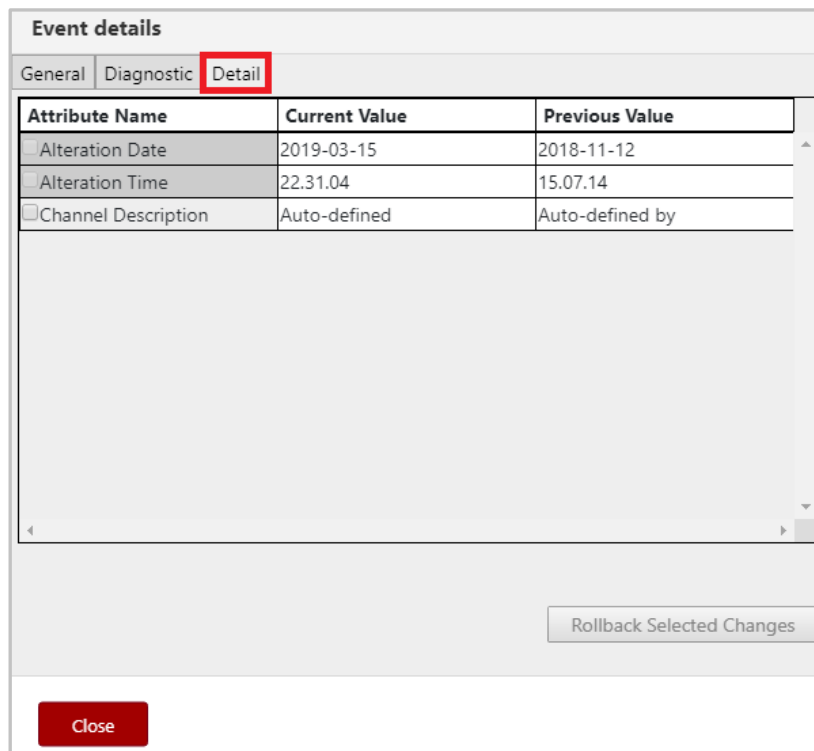


Figure 4.3.5.5-D. Event Details – Detail Tab

4.3.5.6 Add Channel to Favorites

Channels can be added to a *Favorites* viewlet. For more information on adding a favorites viewlet, please see [Create a New Viewlet for Favorite Objects](#).

4.3.6 Comparing Objects

Objects can be compared within a viewlet. To compare objects, either select all objects (by clicking on the Select All check box) or select multiple objects. Click **Compare** on the Selected menu. A compare table appears in the *Console* panel at the bottom of the screen.

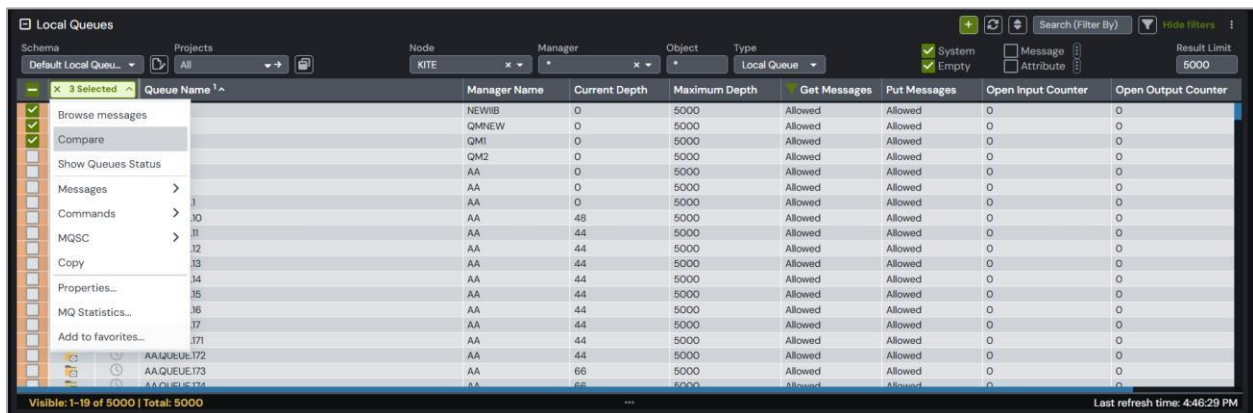


Figure 4.3.6-A. Compare Option



When comparing channels, only channels of the same type can be compared; the **Compare** option will only appear when the **Channel Type** is the same for all selected channels.

Within the comparison table, by default, the **Compare** option (*Figure 4.3.6-B*) is enabled. Attributes that are identical for all objects are displayed in black font. Attributes that are different are displayed in red font.

Attributes	Add.New.Queue Attribute Value	DLQ.QMNEW Attribute Value	LQ00001 Attribute Value
Manager Name	QMNEW	QMNEW	QMNEW
Queue Name	Add.New.Queue	DLQ.QMNEW	LQ00001
Queue Description	Test the Queue		LoadTest
Usage	Normal	Normal	Normal
Scope	Queue Manager	Queue Manager	Queue Manager
Default Bind	On Open	On Open	On Open
Default Persistence	Non Persistent	Non Persistent	Non Persistent

Figure 4.3.6-B. Compare Option Enabled

To only view objects with differences, turn on the **Differences Only** option (*Figure 4.3.6-C*).

Attributes	Add.New.Queue Attribute Value	DLQ.QMNEW Attribute Value	LQ00001 Attribute Value
Queue Name	Add.New.Queue	DLQ.QMNEW	LQ00001
Queue Description	Test the Queue		LoadTest
Creation Date	2024-11-08	2024-11-13	2024-11-07
Creation Time	12.32.12	15.59.56	11.09.40
Alteration Date	2024-11-18	2024-11-18	2024-11-07
Alteration Time	16.10.50	16.10.49	11.09.40
Open Inout Counter	0	1	0

Figure 4.3.6-C. Differences Only Option Enabled

When the Compare option is turned off, all objects are displayed in black font.

Attributes	Add.New.Queue Attribute Value	DLQ.QMNEW Attribute Value	LQ00001 Attribute Value
Manager Name	QMNEW	QMNEW	QMNEW
Queue Name	Add.New.Queue	DLQ.QMNEW	LQ00001
Queue Description	Test the Queue		LoadTest
Usage	Normal	Normal	Normal
Scope	Queue Manager	Queue Manager	Queue Manager
Default Bind	On Open	On Open	On Open
Default Persistence	Non Persistent	Non Persistent	Non Persistent

Figure 4.3.6-D. Compare Option Turned off

4.3.7 Customizing Viewlets

The way a viewlet is displayed can be changed by using schemas, sorting, and filtering. Viewlets can also be customized by changing the width of the columns. Hover over the column headers until you see a double arrow, then click and drag to increase or decrease the column width.

4.3.7.1 Schemas

Schemas control how a viewlet is displayed; the attribute columns and the order in which they appear are controlled by the schema currently in effect. Each viewlet type has a default schema, but you can create your own custom schema to specify the attributes you want to view and their order.

By default, the **Manager Name** column appears as the second column in most of the viewlets even though it does not appear in the Available attributes list ([Figure 4.3.7.1-C](#)). To remove the **Manager Name** column, uncheck the **Show Manager for default schemas** option in *User Settings* (section [4.4.5.1](#)).

To change a viewlet's display, select a schema from the **Default schema** drop-down list. All available schemas will appear in this list.

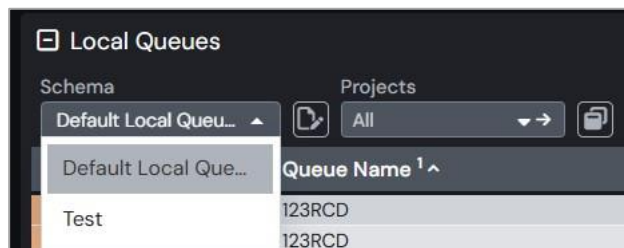


Figure 4.3.7.1-A. Default Schema

To create a schema, click the **Manage Viewlet Schemas** button.

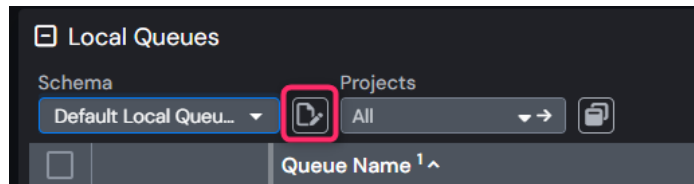


Figure 4.3.7.1-B. Manage Viewlet Schemas Button

The *Manage Schemas* window appears. Click **Add** to add a new schema. You can also copy an existing schema by clicking the **Copy As** button.

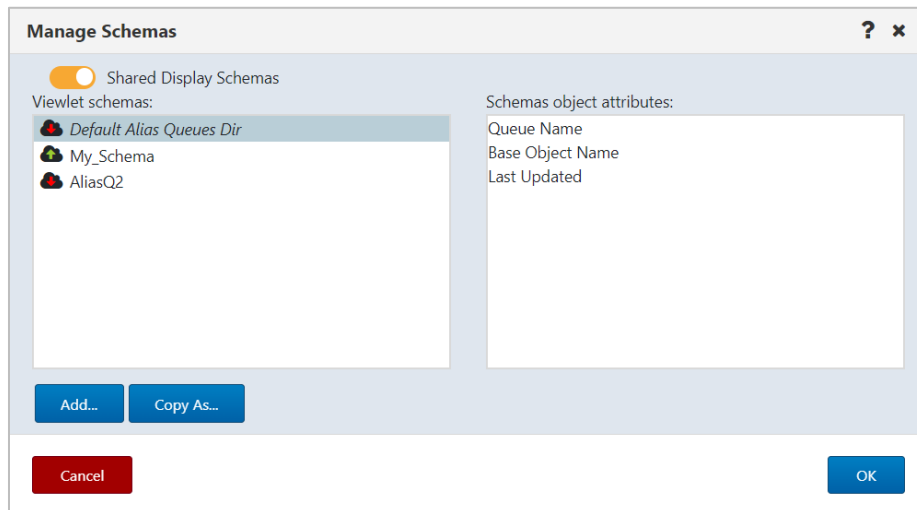


Figure 4.3.7.1-C. *Manage Schemas – Adding a New Schema*

The *Edit Schema* window opens.

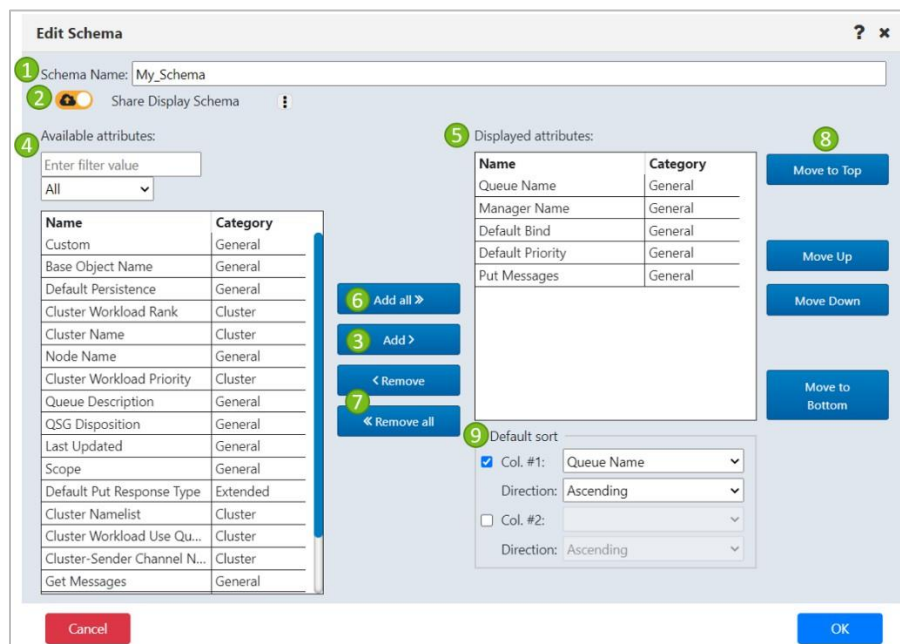


Figure 4.3.7.1-D. *Edit Schema*

Add a name for the new schema in the field provided (1). Using the **Add all** (6) and **Add** (3) buttons, select attributes from the **Available attributes** table (4) on the left side of the screen. They will now appear in the **Displayed attributes** table (5) on the right side of the screen. Easily find attributes in the **Available attributes** table by using the filter (4) immediately above the table.

To remove attributes from the **Displayed attributes** table, use the **Remove** and **Remove all** buttons (7).

The order the attributes appear within the **Displayed attributes** table is the order in which the attributes will appear in the viewlet. To change this order, select an attribute and use the **Move to Top**, **Move Up**, **Move Down** and **Move to Bottom** buttons (8).

The manner in which the viewlet's data will be sorted is specified within the **Default sort** section at the bottom right of the screen (9). Enable the **Col #1** checkbox and select the attribute to sort by. Select **Ascending** or **Descending** from the **Direction** drop-down list. To sort by a secondary column, perform the same steps for the **Col. #2** checkbox.

Click **OK** to add the new schema.

The schema will now appear on the *Manage Schemas* window. On this screen, users can add, copy, edit or delete existing schemas.

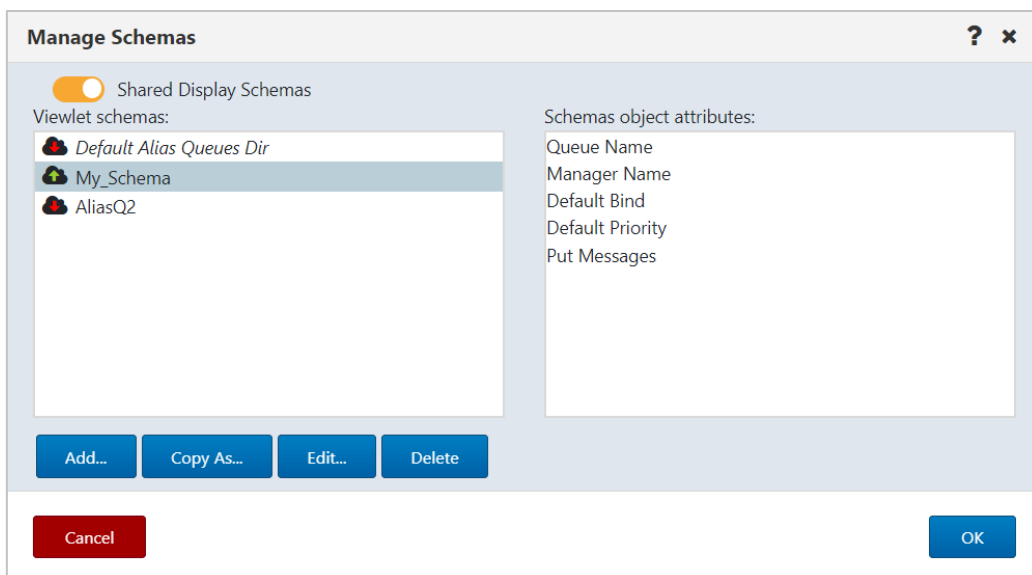



Figure 4.3.7.1-E. Manage Schemas

The **Edit Schema** button  now appears allowing you to edit your new schema.

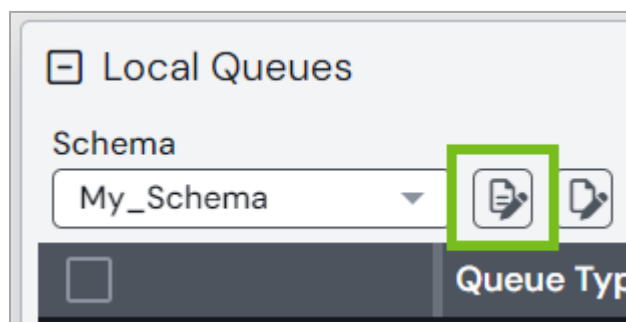


Figure 4.3.7.1-F. Edit Schema Button

To customize messages viewlets, create a new schema or apply an existing one by clicking the **Manage viewlets schemas** or **Edit current schema** button as described above.

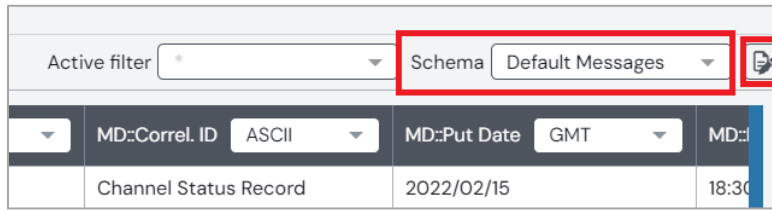


Figure 4.3.7.1-G. Schemas for Messages Viewlet

When you click the **Edit current Schema** button, the *Edit Schema* window opens. Within the *Available Attributes* list, there are several message attributes to select from. Perform the same steps as explained above to create or edit a schema.

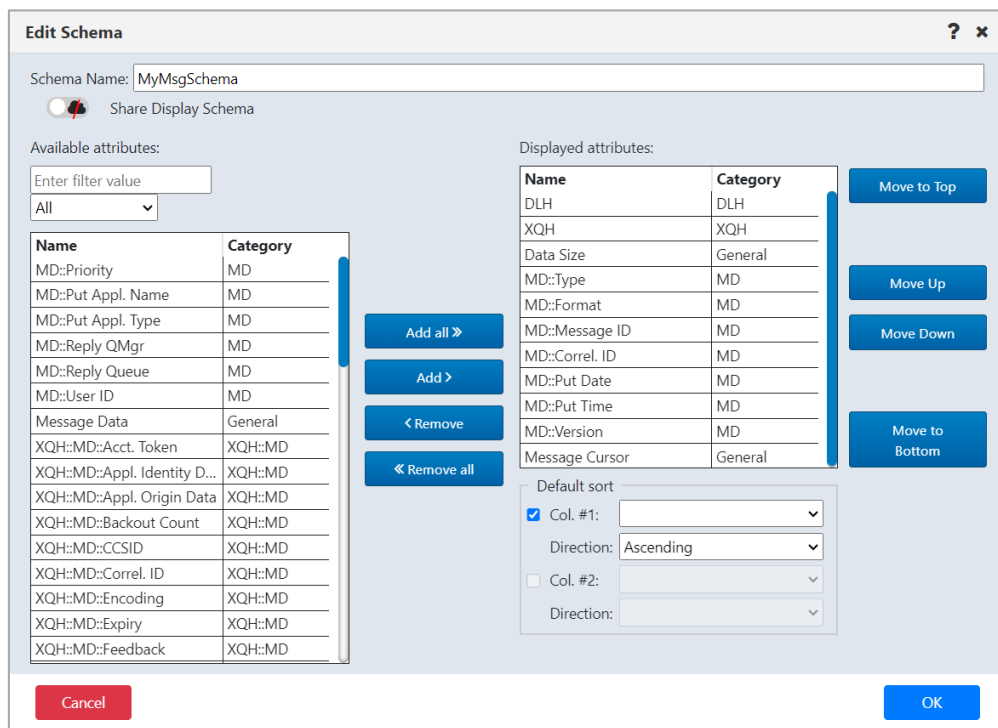





Figure 4.3.7.1-H. Edit Schema

To share a schema, turn on the **Shared Display Schema** slider (2) . Its color changes to orange. Click the vertical ellipsis icon that is now displayed next to the **Shared Display**

Schema label  Share Display Schema .

Click the eye icon  next to each group you want to share the dashboard with. The eye icon changes to green for selected groups. Hover your mouse over the vertical ellipse icon to view a list of the groups with which a schema is shared.

On the *Manage Schemas* window, look for the following icons:



Indicates a schema that has been shared with your group.



Indicates a schema that you have shared. After you edit a schema that you have shared with one or more groups, the users in those groups will have access to the updated version of the schema.

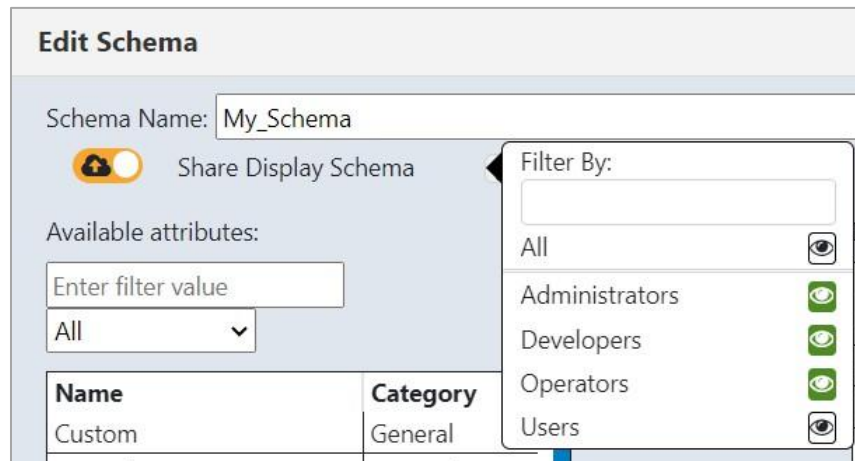


Figure 4.3.7.1-I. Share Schema

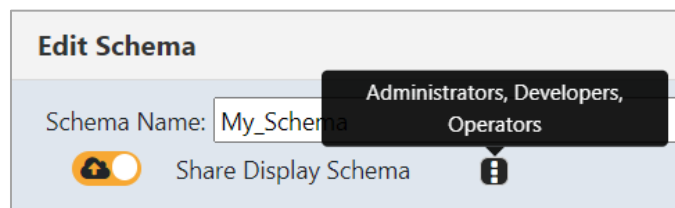



Figure 4.3.7.1-J. Shared Schema

4.3.7.2 Sorting

By default, a viewlet reflects the sort method set up in the selected schema. The primary and secondary sort methods are denoted by the numbers 1 and 2 next to the column labels. The arrow at the right of the column header name indicates whether the data is sorted in ascending (up arrow ^) or descending (down arrow v) order. To go back to the viewlet's default sort method, click the **Default table sorting** button .

If the viewlet's schema includes both primary and secondary sort methods, numbers and arrows are displayed in both column headers. To change the primary and secondary sort methods:

1. Click the header of the new column that you want to use for the primary sort method. The number 1 is added to denote the primary sort method.

- Control-click (or Alt-click) the header of the column that you want to use for the secondary sort method. The number 2 is added to denote the secondary sort method.

After completing the steps above, if you remove the sort from one of the columns, data is sorted by the remaining column.

As stated above, to revert to the viewlet's default sort method, click the **Default table sorting** button



You can also turn off all sorting by repeatedly Control-clicking or Alt-clicking each column header that has an arrow until its arrow is removed.

In versions prior to 10.5.0.1, sorting functionality was different from that described above.

In version 10.5.0, if a viewlet is sorted by two columns (whether based on a schema or set manually), then clicking on a third column turns off the primary sort column. If a viewlet is sorted by one column (whether based on a schema or set manually), then when you click a second column, it is used as a secondary sort method.

Before version 10.5.0, the first time you clicked a column header other than one already used for sorting, the column that was clicked would be used for the secondary sort. You could turn off the secondary sort to revert to the primary sort method.

NOTE

The example below shows a primary sort by Manager Name and a secondary sort by Channel Type.

Manager Name ¹ ^	Channel Type ² ^
LEUNAME	Cluster Receiver
LEUNAME	Cluster Sender
LEUNAME	Sender
LEUNAME	Sender
LEUNAME	Server Connection
QA	Cluster Receiver
QA	Cluster Sender

Figure 4.3.7.2-A. Column Sorting (Primary and Secondary)

4.3.7.3 Filtering

Use the **Filter by** field to key in any string of characters to filter objects within a viewlet. The filter applies to all of the viewlet's attributes.

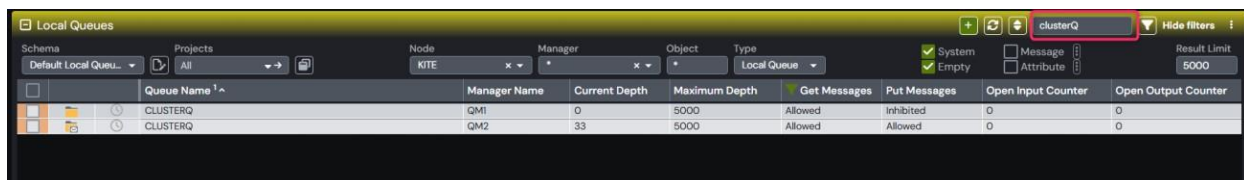




Figure 4.3.7.3-A. Filter By

4.3.7.4 Collapse / Expand Viewlets

Use the minus button  to collapse and the plus button  to expand viewlets.

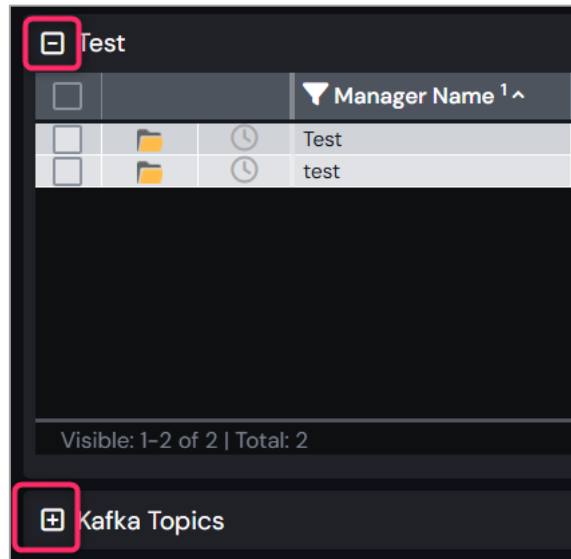


Figure 4.3.7.4-A. Collapse / Expand Viewlets

With one click you can easily expand or collapse all viewlets on your dashboard. Simply right-click on any viewlet's expand/collapse button. A dashboard will have 'Expand all' / 'Collapse all' on the top left of the dashboard window, where you can select to expand or collapse all viewlets.

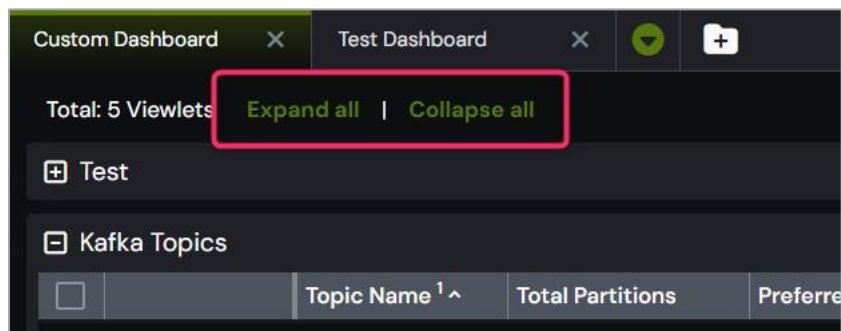


Figure 4.3.7.4-B. Collapse / Expand All Viewlets

4.3.7.5 Moving Viewlets

To move a viewlet up or down, click the top of it and drag and drop it to a new position.

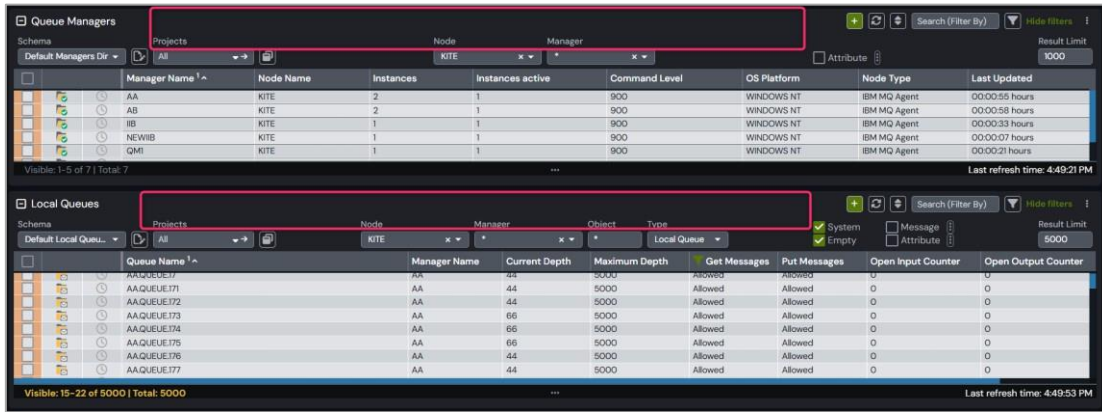




Figure 4.3.7.5-A. Moving Viewlets

4.3.7.6 Resize Viewlets

The height of viewlets can be resized. The updated size will be retained from session to session until the viewlet is resized again.

To update a viewlet's height, hover your mouse within the black bottom portion of a viewlet until your cursor changes to the resize symbol  . Click and hold the mouse while dragging up to decrease or down to increase the viewlet's size.

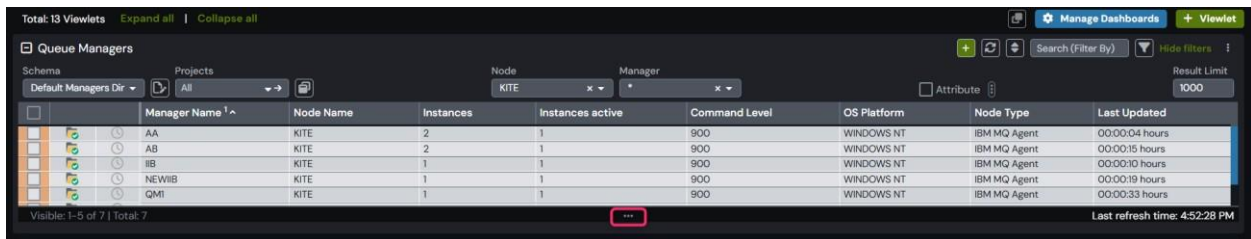


Figure 4.3.7.6-A. Resize Viewlets

4.3.8 Topology

The Topology feature allows you to view an animated graphic representation of queue relationships. The object structure and hierarchy are displayed. The below figure is an example:

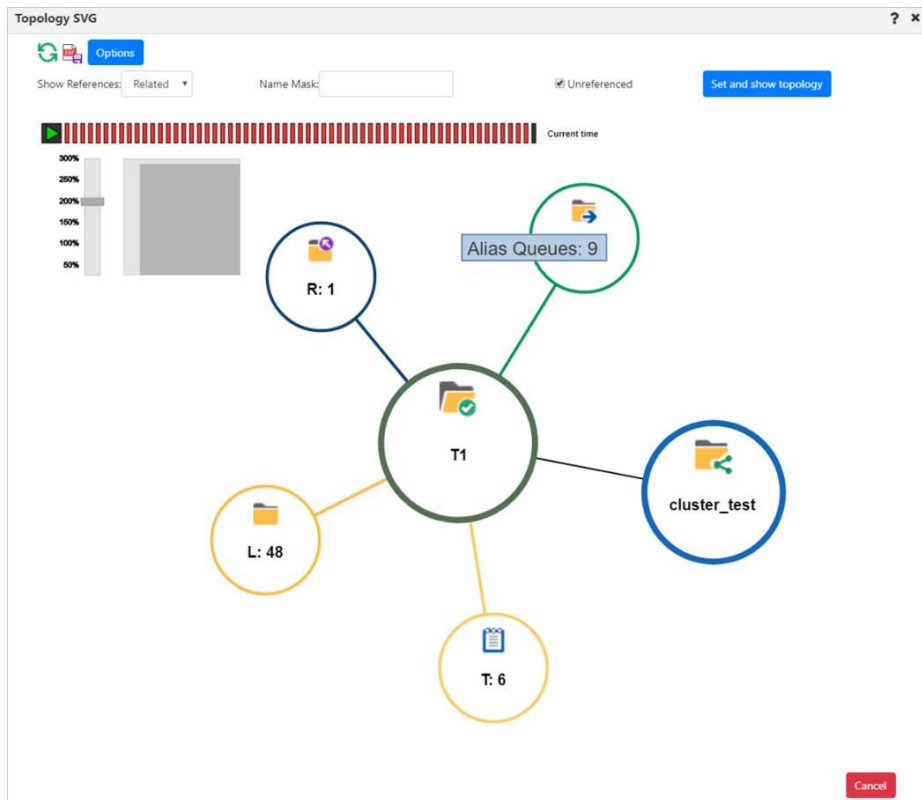


Figure 4.3.8-A. Topology Diagram

4.3.8.1 How to Display a Topology

From a queue manager or node Selected menu (for IBM MQ, TIBCO EMS or Apache Kafka), select **Show Topology**. Please note, you can select multiple queue managers belonging to the same node.

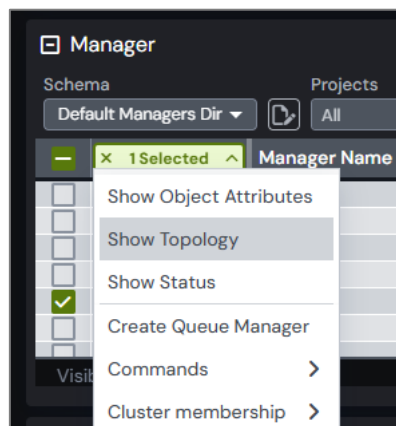


Figure 4.3.8.1-A. Show Topology

The *Topology SVG* window opens.

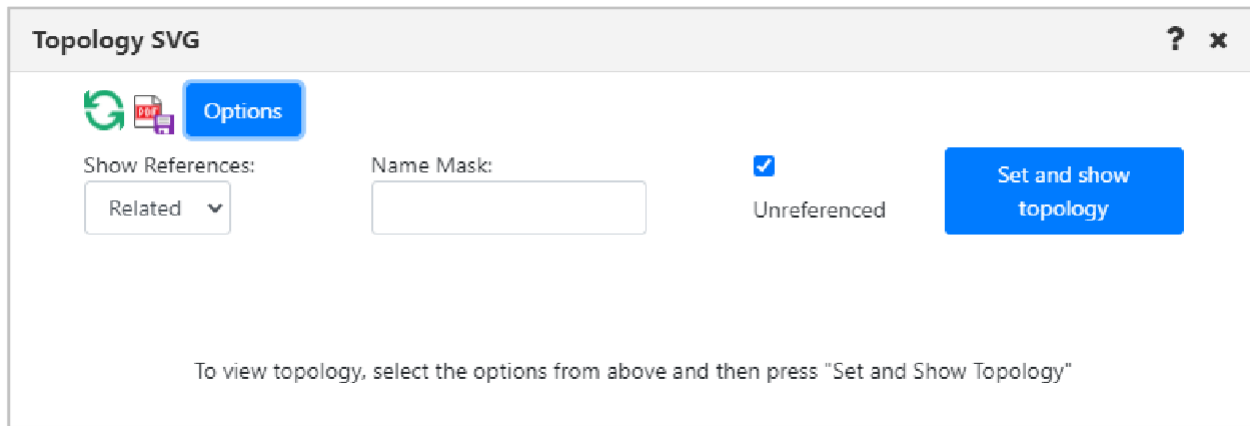


Figure 4.3.8.1-B. Topology SVG

From the **Show References** drop-down, select the type of references (**Related**, **All** or **Invalid**) the topology should display.

Use the **Name Mask** field to filter the topology by the lowest hierarchical object level. The default value of this field is an asterisk "*", which means everything. You can search using the asterisk, QAB* or enter the object's exact name. In the example below **QABC** was entered within the **Name Mask** field to display this exact queue.

Use the Unreferenced check box to specify whether or not to display unreferenced objects.

Click the blue **Set and show topology** button after you have specified your options to display the topology diagram and animation. The objects are signified with A (alias queue), L (local queue), R (remote queue) or T (topics) and the number of queues or topics. The default configuration for topology is to show queue manager relationships, including remote queues, transmission queues, channels, and clusters. The key element is to verify setup and discover inconsistencies. For example, in the diagram below, a remote queue "aname" is actually a point to a remote queue on the local queue manager.

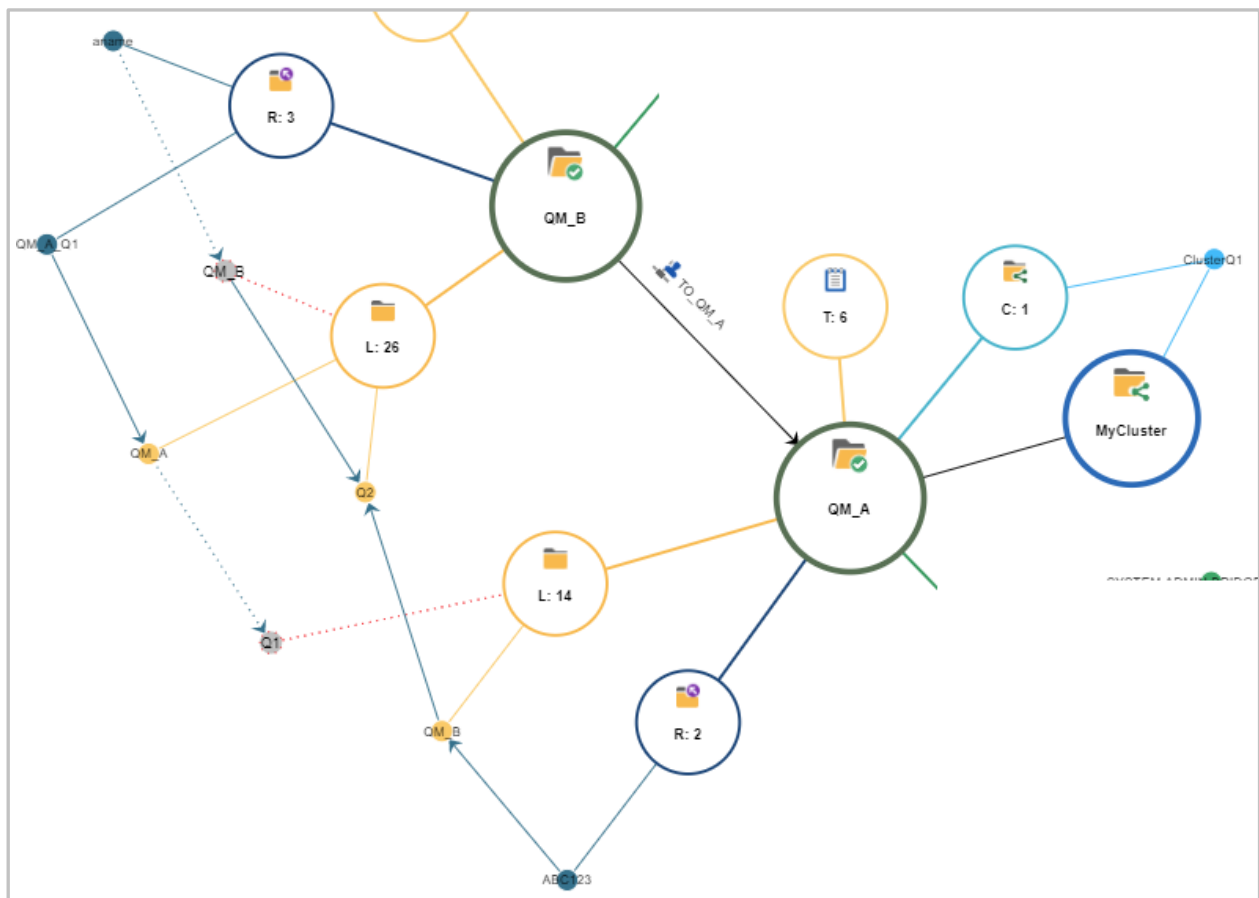


Figure 4.3.8.1-C. Customized Topology

Hover over the topology circles to view object names.

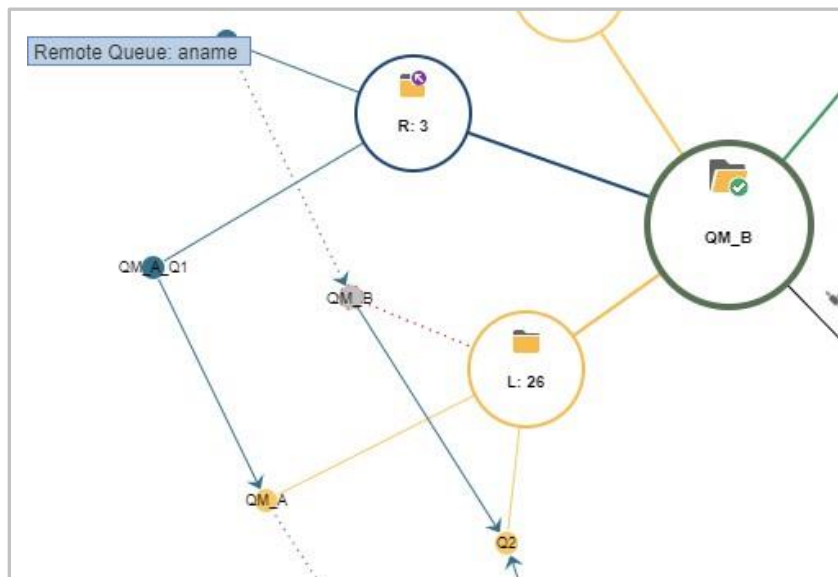



Figure 4.3.8.1-D. Display Object Names

Zoom in or out by scrolling your mouse scroll button or by dragging the size slider located on the left side of the window. Change a topology's location on the screen by clicking the topology and drag and dropping it to a new position.

Click the refresh  button or Set and Show Topology to refresh the topology.

Another topology view is **All**. This includes all local queues whether they are in a relation or not. To reduce the amount of data presented, this only includes queue objects with message by default (see exception in animation below).

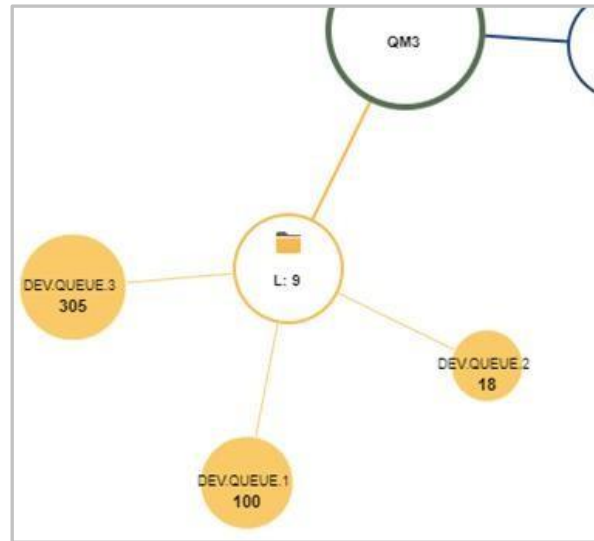



Figure 4.3.8.1-E. Show References: All

You can click the **Export Topology to PDF** button  to download a PDF of the topology. The downloaded file will have the object's name for which the topology is created, time generated and reference type. The PDF page will adapt its size to the displayed data but will not exceed 9000x9000 (maximum topology size). Please note that to download a PDF file, it is not required that the topology be displayed in the current SVG window.

4.3.8.2 Diagram Options

To customize the diagram, click the **Options** button located at the top-left of the *Topology SVG* window. The *Topology animation options* window opens.



Figure 4.3.8.2-A. Options Button

The topology diagram data can be animated over a specified time range. This extracts data from the IBM MQ statistics and can take some time to complete. To activate, enable **Animate Queue Statistics**.

Use the following drop-down menu options to customize your selection:


- **Time frame:** Specify the date range for the animation. Select from **Last hour**, **Last 3 hours**, **Last 6 hours** or **Range**.
- **Animated Queue Property:** Specify what to animate. Select from **Max. queue depth**, **Puts count** (messages arrived), **Put get delta** (difference between the messages read and the messages arrived).
- **Animation Speed:** Specify the speed for the animation. Choose from **Fast (6 seconds)**, **Normal (12 seconds)** or **Slow (20 seconds)**.

Enable the **Show current queue depth** option to display queue depth values when animation is not active.

The **Maximum Topology Object Amount** field is used to determine the maximum amount of topology objects to represent. The default value is 1000. The **Maximum Topology Child Node values Amount** field is used to determine the maximum number of queues to represent in the topology. The default value is 500.

Topology Options		?	x
Animate Queue Statistics	<input type="checkbox"/>	Note: Requires database access which increases time to collect	
Time frame		Last hour	
Animated Queue Property		Max. queue depth	
Animation Speed		Fast (6 seconds)	
<hr/>			
Show current queue depth	<input checked="" type="checkbox"/>		
<hr/>			
Maximum Topology Object Amount (1 - 10000)		1000	
Maximum Topology Child Node values Amount (1 - 500)		500	
		Ok	Cancel

Figure 4.3.8.2-B. Topology Animation Options

Click **Ok** to save your changes. Back on the *Topology SVG* window, click the **Play** button  to start the animation.

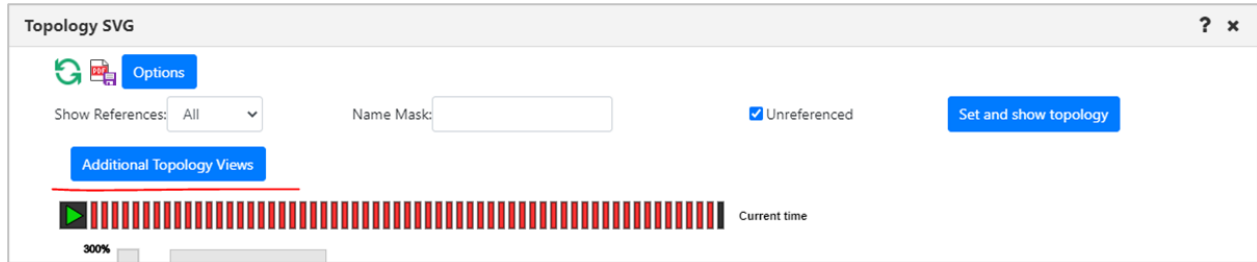


Figure 4.3.8.2-C. Start Animation

If the graph to be generated includes more objects than the specified **Maximum Topology Object Amount**, an error message will be displayed, and the graph is not generated.

If **All** is selected from the **Show References** dropdown, the topology will not represent queues if the queues amount in the queue manager exceeds the **Maximum Topology Child Node values Amount** (specified on the *Topology Options* screen). These queues are displayed in an additional view which is launched by clicking the **Additional Topology Views** button. In the new window that opens, select the manager, object, and diagram page number for which you want to view the results.

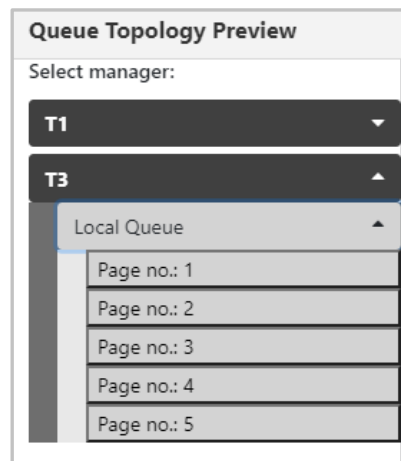


Figure 4.3.8.2-D. Queue Topology Preview

All overflowed objects will be displayed in multiple graphs (each graph will have a maximum of 100 queue objects), with each graph displayed on its own page. To navigate between the pages, use the list on the left side of the window or the arrow buttons located above the graph.

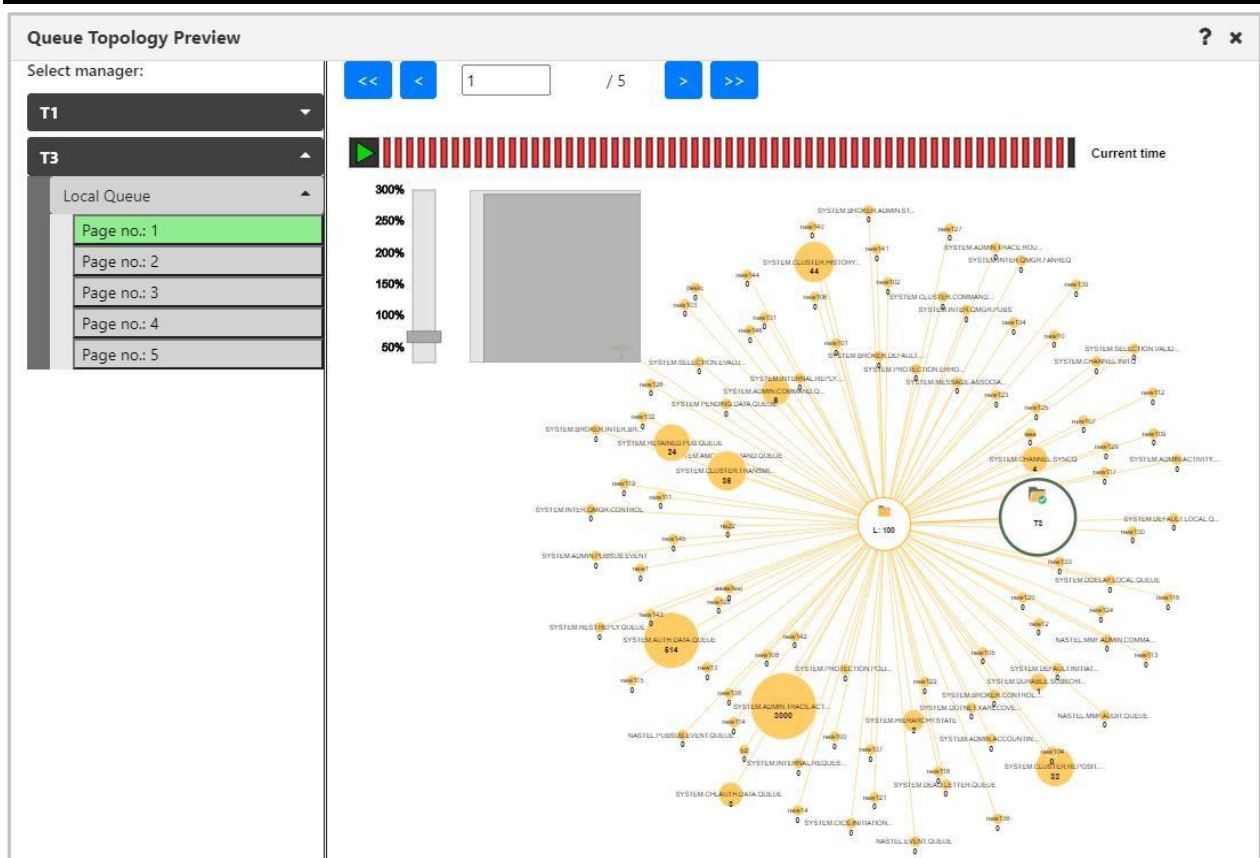


Figure 4.3.8.2-E. Graphs of Overflowed Objects

4.3.8.3 Kafka Nodes

Kafka node types can be displayed. The brokers (displayed in the orange boxes below) and topics (displayed in the red boxes below) are displayed. If **All** is selected for **Show References**, all topics are displayed as well (displayed in the blue box below).

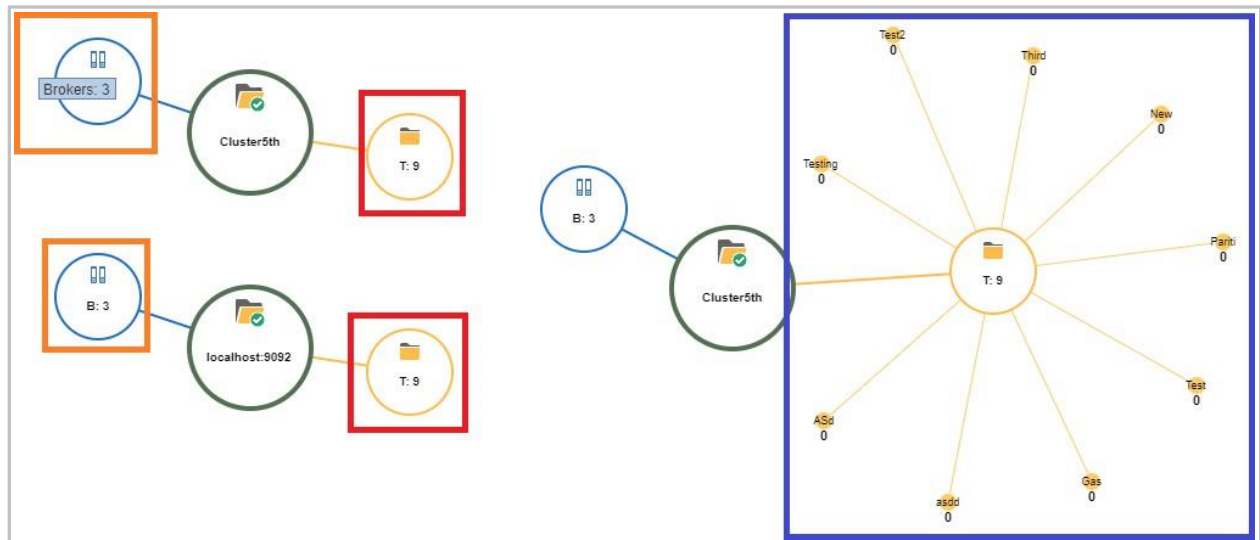


Figure 4.3.8.3-A. Kafka Nodes

4.3.9 Help Button

There is a help button located at the top right corner of various windows. Click this button to get to the [Resource Center](#).

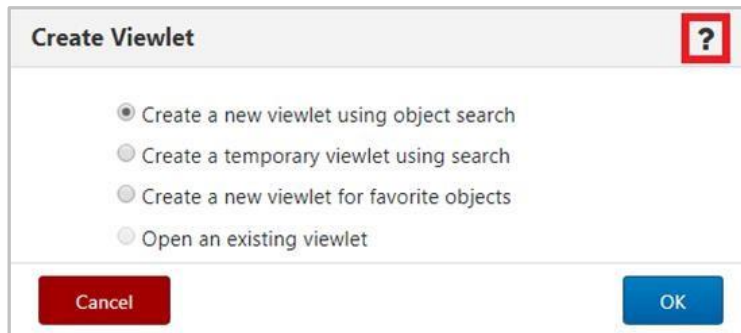



Figure 4.3.9-A. Help Option

You can also reach the [Resource Center](#) or other online resource defined in your system's global settings by selecting the **Help** button  from the toolbar (see [Toolbar Options](#)).

4.3.10 MQ Statistics Viewlet

MQ statistics viewlets display all attributes of local MQ queues, channels, and queue managers. The attributes displayed in these viewlets are determined by SQL queries created by you. The SQL queries are saved as schemas for easy retrieval for future use.

4.3.10.1 Viewing an MQ Statistics Viewlet

Multiple objects can be displayed in an MQ statistics viewlet. To view statistics for object(s), select them from a queue, channel, or queue manager viewlet. Select MQ Statistics from the Selected menu that appears.

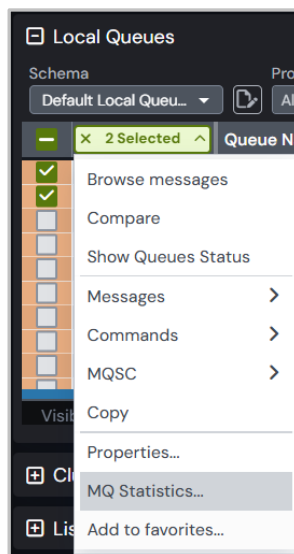




Figure 4.3.10.1-A. MQ Statistics Option on the Object's Menu

The SQL viewlet opens in the Console panel with all of the selected objects' attributes displayed. Be sure to scroll to the right to view all fields.

You can update the date range using the **Date mode** list: *Last 24 hours, Last 48 hours, Last 7 days, Custom Days Count* (enter the number of previous days), or *User Date Range* (select a date range). When switching back and forth between the *User Date Range* and the *Custom Days Count*, the date range is updated. For example, if you view records after selecting a *Custom Days Count* of 14, then switch to the *User Date Range*, the range shows the past 14 days.

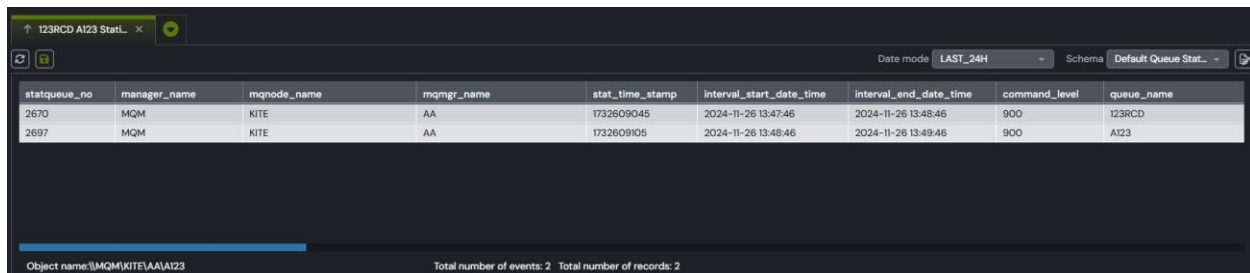
The data can be sorted by clicking the column headers. Click the **Refresh** button  to confirm that viewlet is up to date. You can save the viewlet table to a CSV file by clicking the **Save Table As CSV** button .



NOTE

If you receive a message of "No data to display," check the following:

- a) Confirm that there is data for the time range specified.
- or-
- b) Statistical data collection may not be enabled. This is required to populate MQ Statistics viewlets. Speak to your administrator to confirm that the feature is enabled



statqueue_no	manager_name	mqnode_name	mqmgr_name	stat_time_stamp	interval_start_date_time	interval_end_date_time	command_level	queue_name
2670	MQM	KITE	AA	1732609045	2024-11-26 13:47:46	2024-11-26 13:48:46	900	123RCD
2697	MQM	KITE	AA	1732609105	2024-11-26 13:48:46	2024-11-26 13:49:46	900	A123



Object name: \[MQM]KITE\AA\A123
Total number of events: 2 Total number of records: 2

Figure 4.3.10.1-B. MQ Statistics Viewlet

4.3.10.2 Changing the Data Displayed

The management of statistics schemas is governed by the **Manage Global Display Schemas** and **Manage Private Display Schemas** rights.

The data displayed is controlled by the schema selected from the **Default schema** drop-down located at the top right of the viewlet. This is the schema that was selected during your previous session and will remain in effect until you select a different schema.

To change your view, select a different schema from the **Default schema** dropdown. You can also create a new schema by editing the current one  (please note that you cannot edit the **Default Queue Status Query** schema) or creating a completely new schema . After selecting one of these options to edit or create a new schema, the *Manage Statistics Schemas* window opens. This is where you specify the query to determine the attributes displayed.



NOTE

When creating a new schema, it is recommended to make a copy of an existing schema and use that as a starting point (instead of overwriting an existing schema).

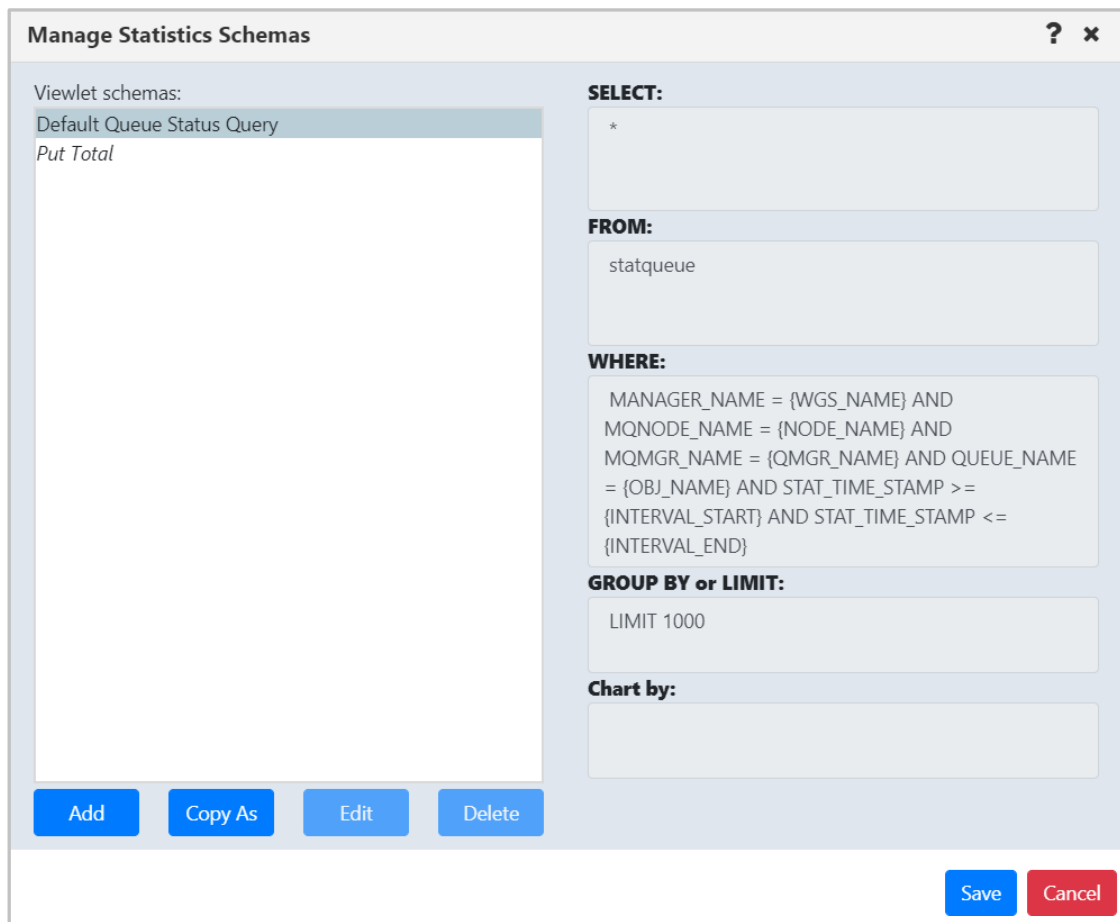


Figure 4.3.10.2-A. Manage Statistics Schemas Window

The left side of the window displays the existing schemas. Select a schema to view its query on the right side of the window. The queries will have slight differences depending on the database you utilize.

See below for an explanation of the schema fields.

- **SELECT** statement: The attributes to display in the viewlet are specified within the **SELECT** statement. The **Default Queue Status Query** schema selects all attributes. You can change this by entering all desired attributes and separating them with a comma.



TIP

You can copy and paste attribute names from viewlet column headers right into the **Select** field of the query.

The column header names within the viewlet can be customized by using “as <ColumnTitle>” to change the column header names. Attributes containing numeric values can also be added together using +. As seen in the below examples, the put count fields were added together and display in one column titled “TOTALPUT.”



NOTE

Refer to [Appendix D](#) for a listing of all available statistic attributes.

Figure 4.3.10.2-B. Adding Fields and Changing Display Names

MANAGER	MQNODE	MQMANAGER	TOTALPUT
MQM	HPENVY0113	V910Test	12
MQM	HPENVY0113	V910Test	12
MQM	HPENVY0113	V910Test	12
MQM	HPENVY0113	V910Test	12
MQM	HPENVY0113	V910Test	12

Figure 4.3.10.2-C. Using Views

- **FROM** statement: Defines the table name.
- **WHERE** statement: contains query conditions. It can have defined or dynamic parameters. Dynamic parameter values are filled automatically according to the selected object. Possible dynamic parameters:
 - {WGS_NAME} – workgroup server name
 - {NODE_NAME} – node name
 - {QMGR_NAME} – queue manager name
 - {OBJ_NAME} – object name
 - {INTERVAL_START} – interval start time Unix timestamp
 - {INTERVAL_END} – interval end time Unix timestamp
- **GROUP BY** or **LIMIT** statement: defines the sorting and/or the limiting of the column values (limit of record rows). For example, Group by MQNODE_NAME asc LIMIT 1000 (the definition depends on database vendor).
- **Chart by** field: specify a data field to display the results as a graph. See [Viewing a Statistics Graph](#).

If you have no SQL experience: As you can see, the *Manage Statistics Schemas* window is very advanced and requires knowledge of SQL. Ask your administrator for assistance. They can send you queries you can copy and paste into the *Manage Statistics Schemas* window.

An even easier method is to utilize Views. Views are queried tables saved in the database created by your administrator. Multiple views can be created. The View name will need to be specified within the **FROM** statement, as seen below. The **WHERE** statement remains the same.

Manage Statistics Schemas

Viewlet schemas:

Default Queue Status Query

View1

Add Copy As Edit Delete

SELECT:

*

FROM:

view1

WHERE:

MANAGER_NAME = {WGS_NAME} AND
MQNODE_NAME = {NODE_NAME} AND
MQMGR_NAME = {QMGR_NAME} AND
STAT_TIME_STAMP >= {INTERVAL_START} AND
STAT_TIME_STAMP <= {INTERVAL_END} AND
ROWNUM <= 1000

GROUP BY or LIMIT:

Chart by:

Save Cancel

Figure 4.3.10.2-D. Using Views

4.3.10.2.1 Example of MySQL Query

Two queues from different nodes (MQM/NODE1/T1/LQ1) and (MQM/NODE2/T2/LQ2) were selected. The local time specified in the statistics viewlet gets converted to a Unix timestamp:

start time (2019-08-21 10:00 AM) 1566370800,
end time (2019-08-21 11:15 PM) 1566418500

The following schema was used for the queue:

Figure 4.3.10.2-E. MySQL Query Example

Actual query:

```
SELECT * FROM statqueue WHERE
(
    MANAGER_NAME = 'MQM' AND MQNODE_NAME = 'NODE1' AND MQMGR_NAME = 'T1'
AND QUEUE_NAME = 'LQ1' AND STAT_TIME_STAMP >= 1566370800 AND STAT_TIME_STAMP
<= 1566418500
)
OR
(
    MANAGER_NAME = 'MQM' AND MQNODE_NAME = 'NODE2' AND MQMGR_NAME = 'T2'
AND QUEUE_NAME = 'LQ2' AND STAT_TIME_STAMP >= 1566370800 AND STAT_TIME_STAMP
<= 1566418500
)
LIMIT 1000
```

Queries are run using the 'nastel_apwmq' database.



The schemas are very flexible and different queries can be run. This includes queries not related to MQ statistics. The syntax is dependent on your SQL database; that is. Queries for the MySQL database can be different from the Postgre database.

4.3.10.3 Viewing a Statistics Graph

Statistics viewlets can be displayed as a graph by specifying the data field within the **Chart by** field. For example, to view message backout count (messages withdrawn from a queue due to transaction problems), enter the data field name, **BACKOUT_COUNT** within **Chart by**.

Manage Statistics Schemas ? x

Statistics schema name:
Statistics graph

SELECT:
*

FROM:
statmqi

WHERE:
MANAGER_NAME = {WGS_NAME} AND MQNODE_NAME = {NODE_NAME} AND MQMGR_NAME = {QMGR_NAME}
AND STAT_TIME_STAMP >= {INTERVAL_START} AND STAT_TIME_STAMP <= {INTERVAL_END}

GROUP BY or LIMIT:
LIMIT 1000

Chart by:
BACKOUT_COUNT

Save Cancel

Figure 4.3.10.3-A. Specify Column

Your viewlet will now display as a graph, displaying the dynamics of the backed-out messages during the specified time period.

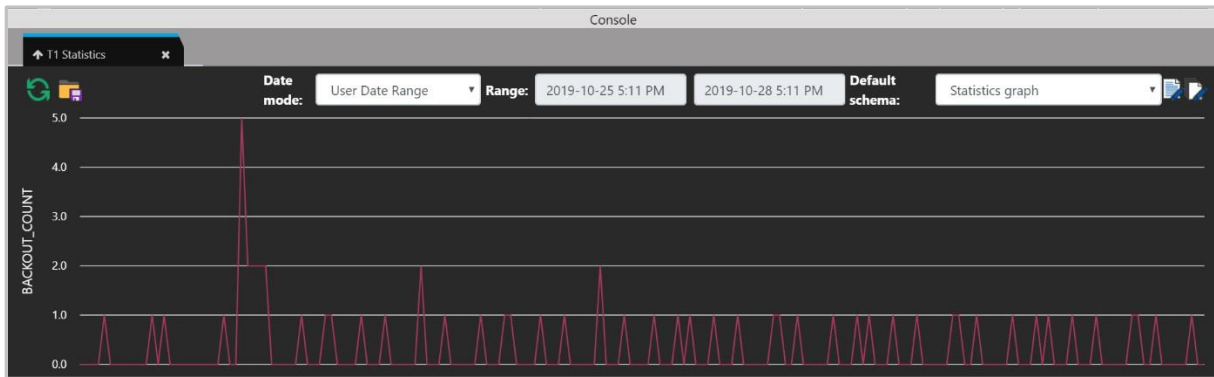


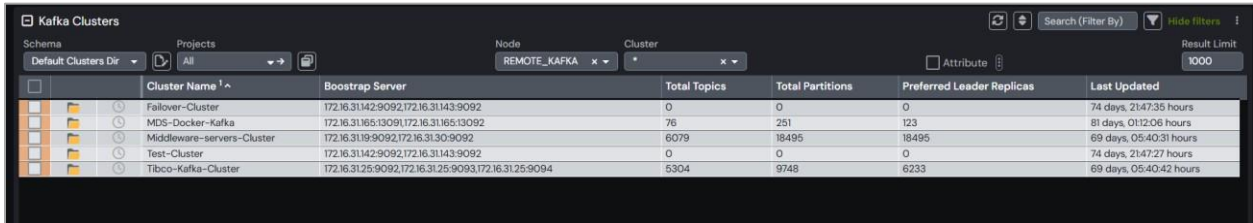
Figure 4.3.10.3-B. Statistics Graph

4.3.11 Kafka Viewlets

Manage all your Kafka instances in meshIQ Manage. You can create viewlets for Kafka nodes, clusters, brokers, topics, partitions, consumers, and connectors. You can also create viewlets for schemas, schema subjects, schema subject versions, KSQL and MDS.

4.3.11.1 Kafka Clusters

Displays the overall context of the clusters connected. This summary information is gathered from the collective brokers and services.



Cluster Name	Bootstrap Server	Total Topics	Total Partitions	Preferred Leader Replicas	Last Updated
Fallover-Cluster	172.16.31.142:9092,172.16.31.143:9092	0	0	0	74 days, 21:47:35 hours
MDS-Docker-Kafka	172.16.31.165:13091,172.16.31.165:13092	76	251	123	81 days, 01:12:06 hours
Middleware-servers-Cluster	172.16.31.19:9092,172.16.31.30:9092	6079	18495	18495	69 days, 05:40:31 hours
Test-Cluster	172.16.31.142:9092,172.16.31.143:9092	0	0	0	74 days, 21:47:27 hours
Tibco-Kafka-Cluster	172.16.31.25:9092,172.16.31.25:9093,172.16.31.25:9094	5304	9748	6233	69 days, 05:40:42 hours


Figure 4.3.11.1-A. Kafka Clusters

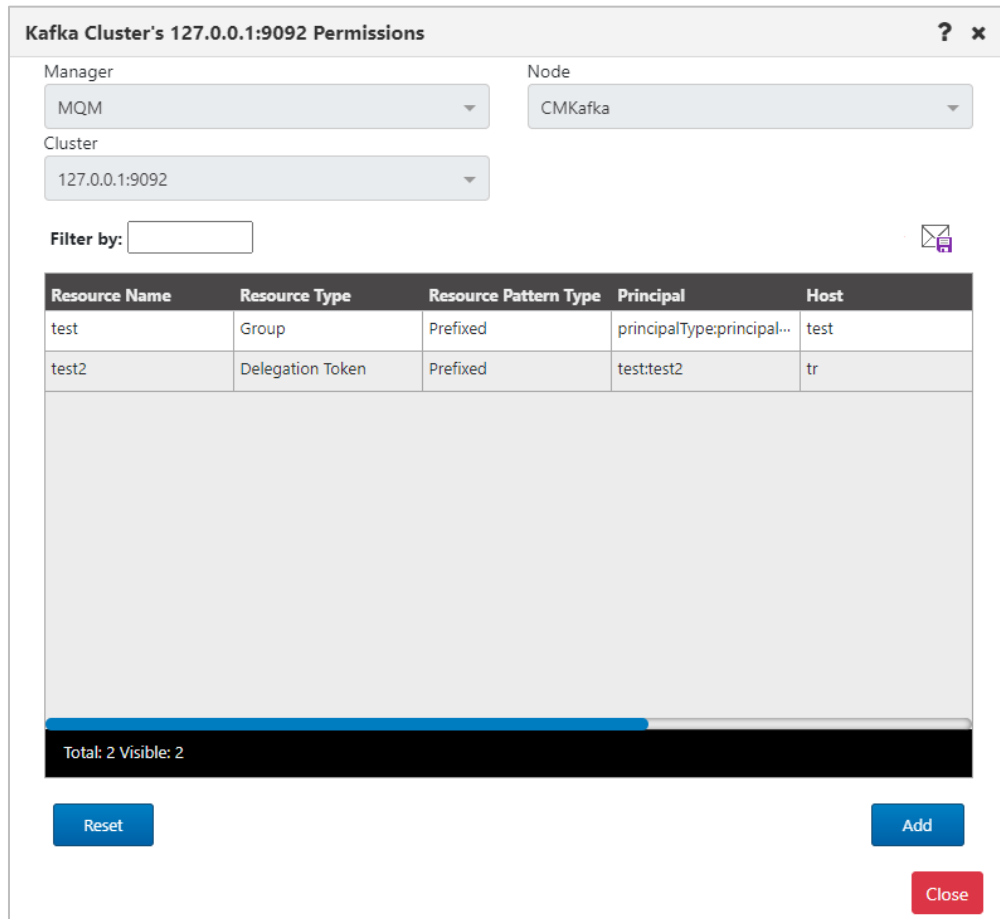
4.3.11.1.1 Manage ACLs

From the **Selected** menu of a Kafka Cluster, select **Commands > Manage ACLs** to open the Permissions dialog for the Kafka cluster. From the *Permissions* dialog, you can view, add, or export a list of Kafka ACLs.

To view ACLs, select the **Manager**, **Node**, and **Cluster** for which you want to view them.

You can also enter a value in the **Filter by** box to filter the list of results.

To export ACLs to a .csv file, use the export button . A [sample export file](#) is shown below.



Kafka Cluster's 127.0.0.1:9092 Permissions

Manager: MQM | Node: CMKafka | Cluster: 127.0.0.1:9092

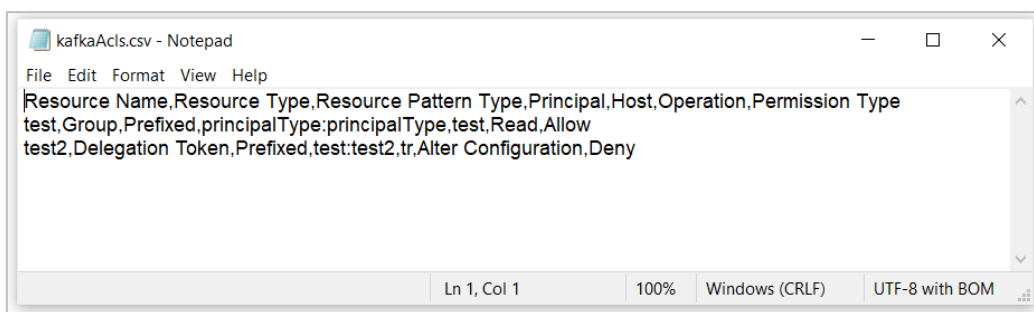
Filter by:

Resource Name	Resource Type	Resource Pattern Type	Principal	Host
test	Group	Prefixed	principalType:principal...	test
test2	Delegation Token	Prefixed	test:test2	tr

Total: 2 Visible: 2

Buttons: Reset, Add, Close

Figure 4.3.11.1.1-A. Manage Kafka ACLs



kafkaAcls.csv - Notepad

File Edit Format View Help

```
Resource Name,Resource Type,Resource Pattern Type,Principal,Host,Operation,Permission Type
test,Group,Prefixed,principalType:principalType,test,Read,Allow
test2,Delegation Token,Prefixed,test:test2,tr,Alter Configuration,Deny
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8 with BOM

Figure 4.3.11.1.1-B. Kafka ACL Export File

4.3.11.2 Kafka Brokers

Displays Kafka brokers across clusters and operational information. Allows for control of cluster properties which can be configured.

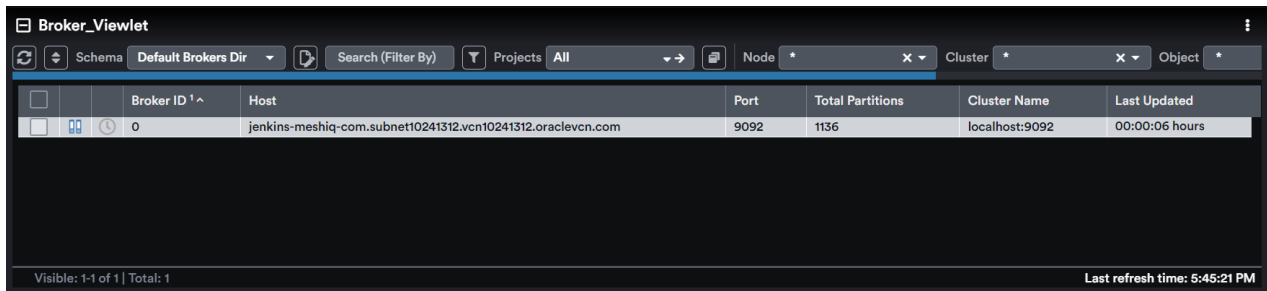


Figure 4.3.11.2-A. Kafka Brokers

4.3.11.3 Kafka Topics

Displays the topics defined across the clusters and current usage. On-the-fly updates, such as changing the number of partitions, are supported. Messages can be opened from this screen to view associated details.

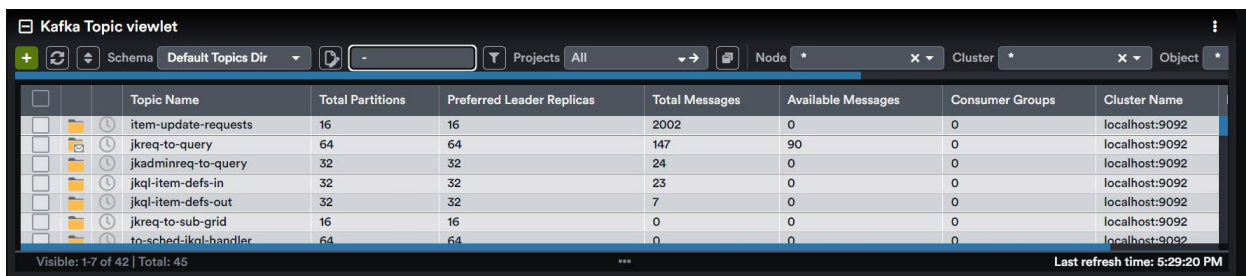


Figure 4.3.11.3-A. Kafka Topics

Users can create and delete topics, change topic attributes such as partition and replication, and compare topic definitions, including across clusters.

4.3.11.3.1 Kafka Messages

Messages are accessed by drilling down from a topic or partition. They can be filtered by partition, content, or offset, or can tail a given topic. Messages can be read from most recent to least recent.

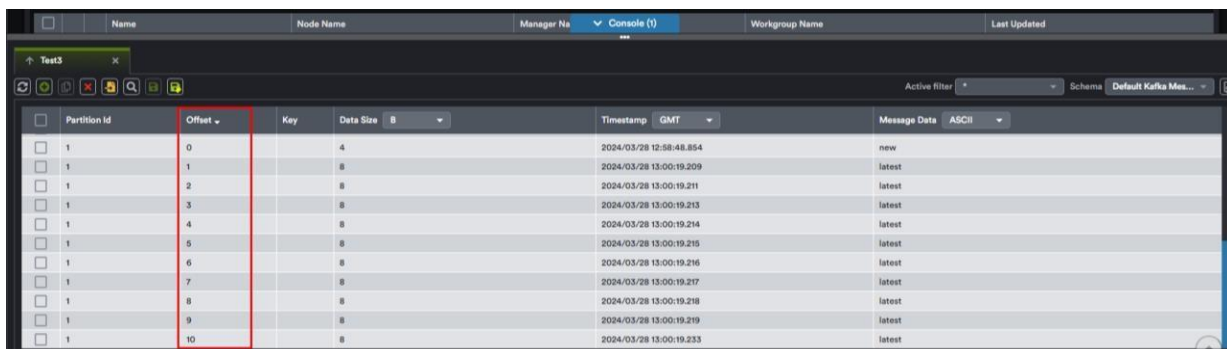


Figure 4.3.11.3.1-A. Kafka Messages

Users can add messages, load files to topics and save topics to a file. See section [4.3.4.3, Messages](#).

4.3.11.4 Kafka Sample Viewlets

You can create viewlets for these Kafka items. Some examples are shown below.

1.1.1.1.6 Kafka Schema

Workgroup Name	Node Name	Cluster Name	Name	Url	Mode	Compatibility Level	Schema Type	Last Updated
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	http://172.16.31.19:8081	READWRITE	BACKWARD	JSONPROTOBUFVAVRO	00:00:11 hours

Figure 4.3.11.4-A. Kafka Schema

1.1.1.1.7 Kafka Schema Subject

To learn how to create a Kafka connector, refer to section [4.7.28](#).

Node Name	Cluster Name	Name	Subject Name	Mode	Compatibility Level	Last Updated
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:2217			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:76			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:790			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:1003			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:2209			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:975			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:1303			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:2789			00:00:43 hours
PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-schema-registry	test.topic:210			00:00:43 hours

Figure 4.3.11.4-B. Kafka Schema Subject

1.1.1.1.8 Kafka Schema Subject Version

Workgroup Name	Node Name	Cluster Name	State	Object Path
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:1118
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:244
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:1119
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:1116
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:244
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:1117
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:244
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Active	\\MQM\PUMA_KAFKA\MiddlewareserversCluster1\Middlewareschema-registry\test.topic:1598

Figure 4.3.11.4-C. Kafka Schema Subject Version

1.1.1.1.9 Kafka Partition

Partition Name	Topic Name	Cluster Name	Leader Replica Id	Preferred Replica Id	Total Messages	Available Messages	Last Updated
1234-0	1234	Confluent-Kafka-Middleware-VMs	2	2	23	1	00:00:05 hours
1234-1	1234	Confluent-Kafka-Middleware-VMs	1	1	1277	26	00:00:05 hours
5678-0	5678	Confluent-Kafka-Middleware-VMs	1	1	2632	0	00:00:04 hours
__confluent-command-0	__confluent-command	Confluent-Kafka-Middleware-VMs	1	1	18	1	00:00:04 hours
__confluent-ksqj-default_command-topic-0	__confluent-ksqj-default_command-topic	Confluent-Kafka-Middleware-VMs	2	2	2	2	00:00:04 hours
__confluent-telemetry-metrics-0	__confluent-telemetry-metrics	Confluent-Kafka-Middleware-VMs	2	2	256183982	4213903	00:00:04 hours
__confluent-telemetry-metrics-1	__confluent-telemetry-metrics	Confluent-Kafka-Middleware-VMs	1	1	258447011	4248451	00:00:04 hours
__confluent-telemetry-metrics-10	__confluent-telemetry-metrics	Confluent-Kafka-Middleware-VMs	2	2	25717413	4228036	00:00:04 hours
__confluent-telemetry-metrics-11	__confluent-telemetry-metrics	Confluent-Kafka-Middleware-VMs	1	1	259374541	4202929	00:00:04 hours

Figure 4.3.11.4-D. Kafka Partition

1.1.1.1.10 Kafka Consumer

Channel Name	Cluster Name	Channel Type	Status	Bytes Sent	Transmission Queue	Bytes Received	Messages
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						
Confluent-Kafka-Middleware-VMs	Confluent-Kafka-Middleware-VMs						

Figure 4.3.11.4-E. Kafka Consumer

1.1.1.1.11 Kafka Connector

To learn how to create a Kafka connector, refer to section [4.7.29](#).

Connect Name ^	Cluster Name	Class	Type	Topics	State	Task Count	Running Task Count
Middleware-Heartbeat-Connector-12	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		PAUSED	1	0
Middleware-Heartbeat-Connector-14	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-15	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-16	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-17	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-18	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-19	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1
Middleware-Heartbeat-Connector-20	Middleware-servers-Cluster1	org.apache.kafka.connect.mirror.MirrorHeartbeatConnector	source		RUNNING	1	1

Figure 4.3.11.4-F. Kafka Connector

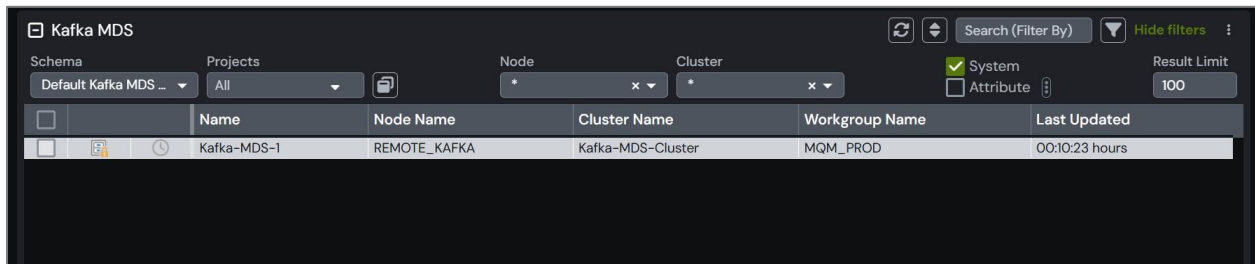
1.1.1.1.12 Kafka KSQL

Workgroup Name	Node Name	Cluster Name	Name ^	Status	Url	Version	Cluster ID	Service ID	Last Updated
MQM	PUMA_KAFKA	Middleware-servers-Cluster1	Middleware-KSQL	RUNNING	http://172.16.31.19:8088	7.2.0	FTnZNZ7pRNC274pZv1Yug	default_	00:00:48 hours

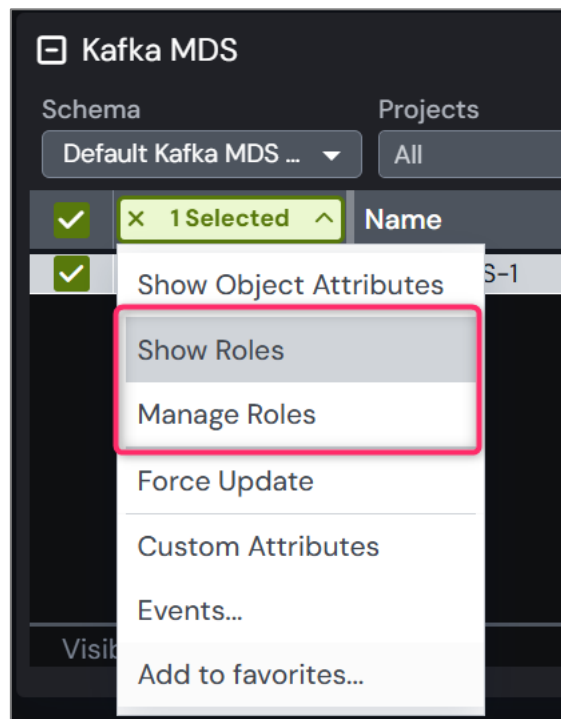
Figure 4.3.11.4-G. Kafka KSQL

4.3.11.5 Kafka MDS Viewlets

After an MDS node is set up (see [Confluent Platform Metadata Service \(MDS\) Setup](#)), you can create an MDS viewlet.



Using the Kafka MDS viewlet's **Selected** menu, you can use the Show Roles and Manage Roles actions to view and change aspects of Role-Based Access Control (see [Show Roles](#) and [Manage Roles](#)). For example, you can assign a role to a resource type, view the principals that a role is bound to, or add or delete principals.



4.3.11.5.1 Show Roles

The Show Roles action opens MDS Roles tab in the console pane.

For Role-Based Access Control, each role is displayed in a column in the console. For each role, the following information is provided:

- The Scope Type is the level at which the role is assigned: Cluster (access to all resources in a cluster) or Resource (access to specific resources).
- The allowed operations, which are divided into two rows. In both rows, you can scroll through values using the horizontal scroll bar provided.
 - The Resource Type that the operation (action) is performed on
 - The Role Operations that can be performed by users who are assigned the role

The comma-separated values in the Resource Types row correspond directly to the comma-separated values in the Role Operations row. For example, the AuditAdmin role shows Resource Types “Cluster, Cluster” and Role Operations “DescribeConfigs, AlterConfigs”. These values indicate that users with this role can perform two operations on Clusters: DescribeConfigs and AlterConfigs.

Roles	AuditAdmin	ClusterAdmin	DeveloperManage	DeveloperRead	DeveloperWrite	Operator	ResourceOwner
Scope Type	Cluster	Cluster	Resource	Resource	Resource	Cluster	Resource
Resource Type	Cluster	ControlCenterAlerts	Subject	TransactionalId	Subject	ClusterRegistry	Subject
Role Operations	DescribeConfigs AlterConfigs	Read Write	ReadCompatibility WriteCompatibility	Describe	Write ReadCompatibility	Describe	Read Write Delete ReadCompatibility AlterAccess WriteCompatibility DescribeAccess

Figure 4.3.11.5.1-A. MDS Roles

4.3.11.5.2 Manage Roles

Manage Roles opens the Manage Roles tab in the console pane. Use this tab to assign roles to resources. See [Figure 4.3.11.7.2-A](#).

12. Click the resource that you want to assign a role to. The *Select Role Name* dialog opens. See [Figure 4.3.11.7.2-B](#).
13. Select the Role Name that you want to assign to the resource.
14. Click Select. Details for the role that you selected are displayed, including its Attributes (Scope Type, Resource Types, and Role Operations) and the Principals it is bound to. See [Figure 4.3.11.7.2-C](#).
15. You can choose among the following options:
 - Add a new principal for this role
 - View details for the principal (if applicable)
 - Remove the principal from the role

To add a new principal for this role, click **Add New Principal**, enter a **Principal Name**, and select its **Principal Type** (*User* or *Group*). Then click **Create** (See [Figure 4.3.11.7.2-D](#).) You can follow the steps below to open the new principal and view the roles that are bound to it (Principal Roles), Visible Clusters (based on the Resource you originally selected), and Principal Resources.

To view details for the principal, including Principal Roles, Visible Clusters, and Principal Resources, select a principal from the list and click **Open Principal**. See [Figure 4.3.11.7.2-E](#).

To remove a principal from a role, select a principal for the role and click **Delete Principal**. Click **Yes** to confirm the action.

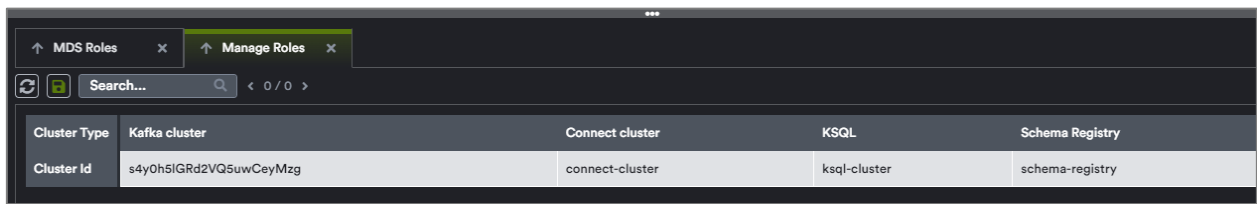


Figure 4.3.11.5.2-A. Manage Roles Tab

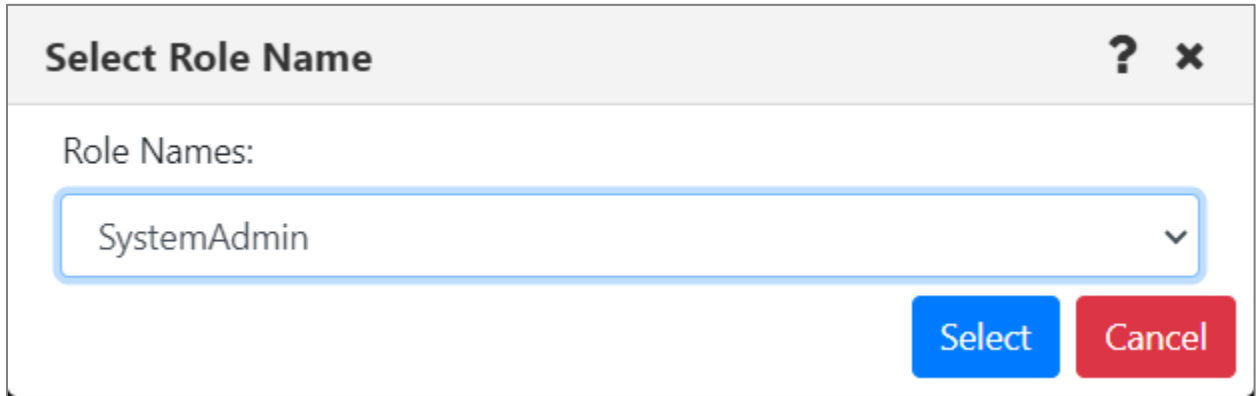


Figure 4.3.11.5.2-B. Select Role Name

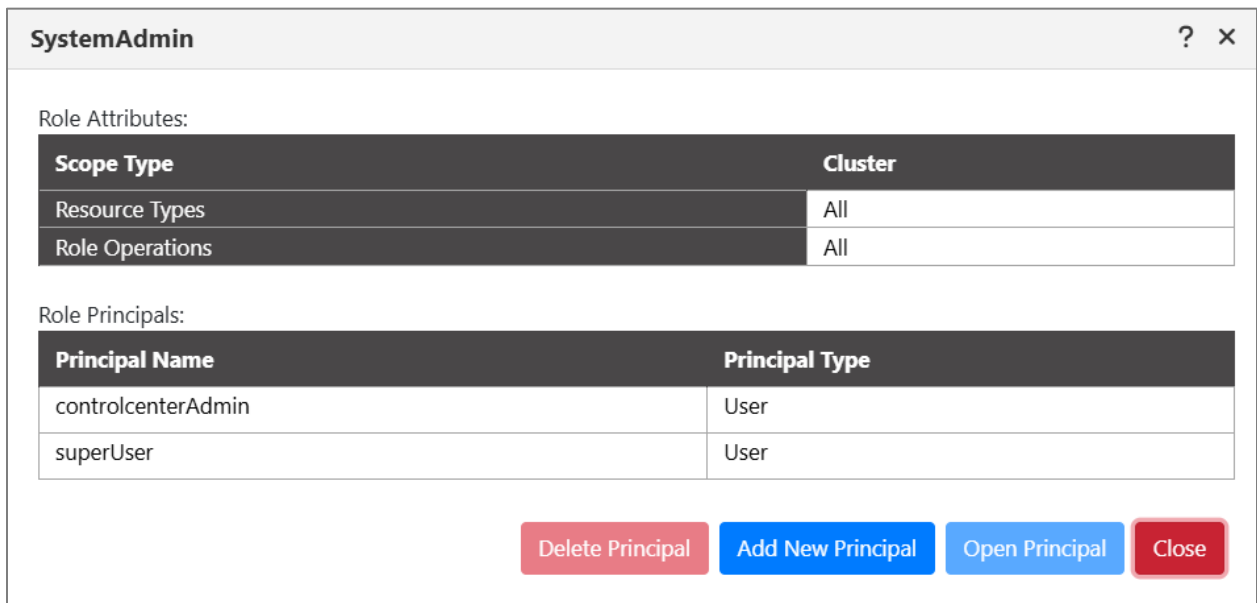


Figure 4.3.11.5.2-C. Role Details

Add New Principal
? ×

Principal Name:

Principal Type:

Create
Cancel

Figure 4.3.11.5.2-D. Create Principal

Test
? ×

Principal Roles:

Role Name
SecurityAdmin
SystemAdmin

Visible Clusters:

Kafka Cluster Id	Connect Cluster Id	Sch Reg Cluster Id	Ksql Cluster Id
ekgXfCT5RZi7ycT34IyFVQ			

Principal resources:

Role Name	Resource Type	Pattern Type	Resource Name
SecurityAdmin			
SystemAdmin			

Close

Figure 4.3.11.5.2-E. Principal Details

4.3.12 Viewing Properties of Multiple Objects

To view properties of multiple objects within a viewlet, select the objects and then click **Properties** from the **Selected** menu. The *Properties* window opens.

A blue tooltip box appears on the bottom right corner of the screen (as seen below) instructing you to hover over fields to display the values. Simply hover over any of the fields with a blue line appearing on the left side of the field box; these are the fields which contain multiple values.

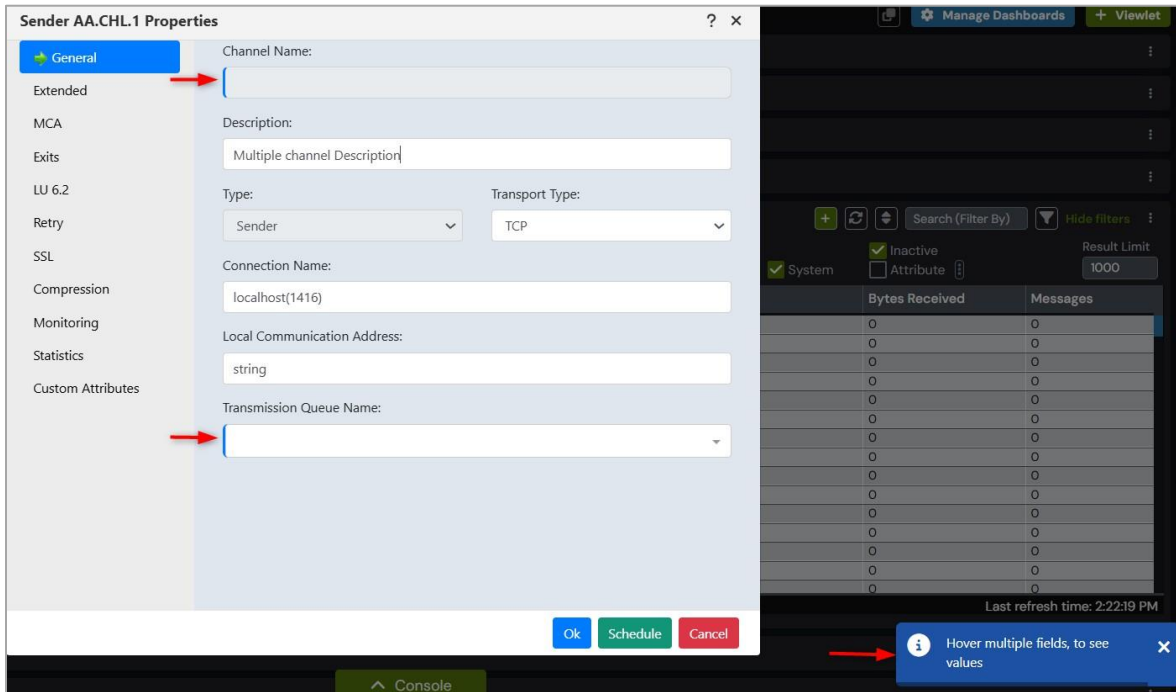


Figure 4.3.12-A. Properties of Multiple Channels

After hovering over the fields, a black box will appear displaying all of the field's values.

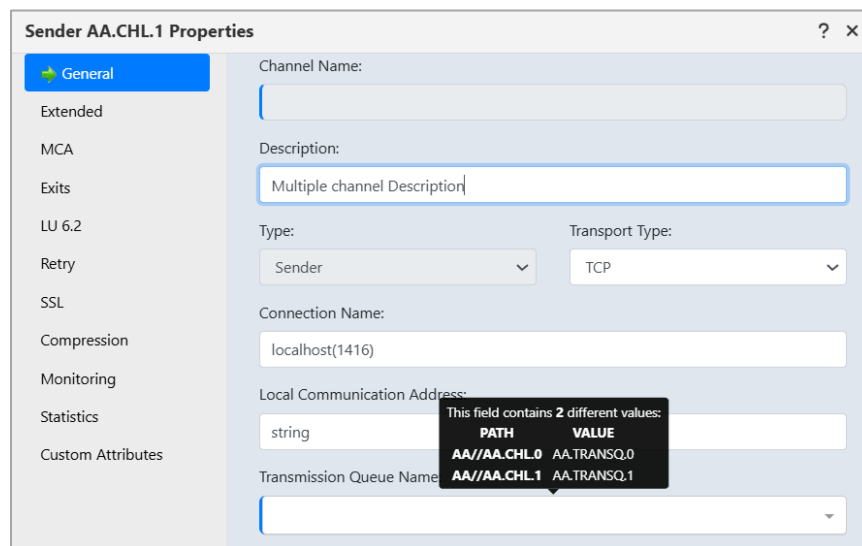


Figure 4.3.12-B. Multiple Properties Tooltip Box

4.3.13 Custom Attributes

You can add custom attribute fields to a variety of objects in meshIQ Manage. Your viewlets can be filtered and sorted by custom attributes, and multiple custom attributes can be added to each viewlet. The following objects support custom attributes:

IBM MQ	Manager, Queue, Channel, Topic
EMS	Manager, Queue, Topic
Kafka	Cluster, Broker, Topic, Schema, Schema Subject, Schema Subject Version
IIB	Broker, Server, Application, Service, Message Flow, Sub Flow
ACE	Integration Node, Server, Application, Service, Message Flow, Sub Flow
Solace	All objects

4.3.13.1 Add a New Custom Attribute

To add a custom attribute, select **Properties** from the Selected menu of a queue manager or queue.

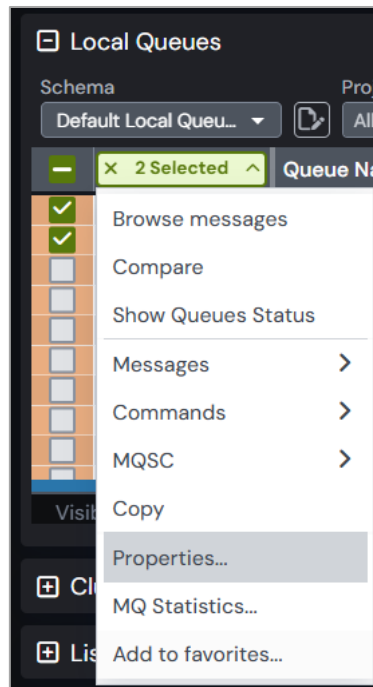


Figure 4.3.13.1-A. Properties

The *Properties* window opens. Go to the **Custom Attributes** tab and click the **Add** button.



Figure 4.3.13.1-B. Custom Attributes Tab

In the **Key** field, enter the name of the attribute you are adding and its value for this object in the **Value** field.

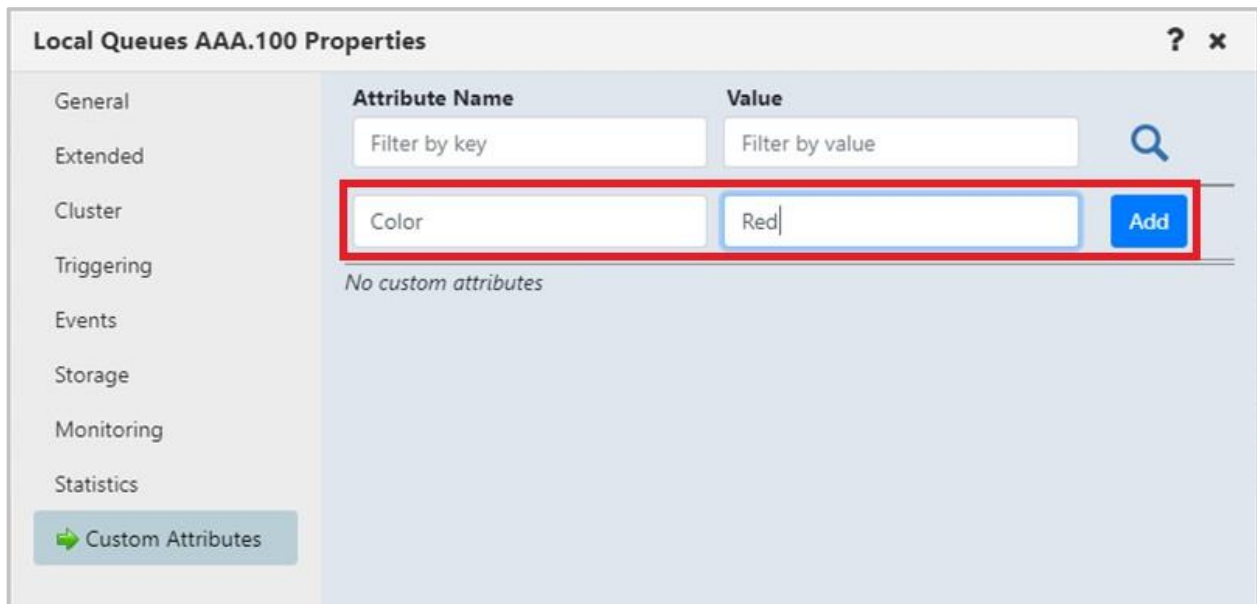


Figure 4.3.13.1-C. Add Custom Attribute

Click the **Add** button. The custom attribute is now added to this object and will appear in a new row.

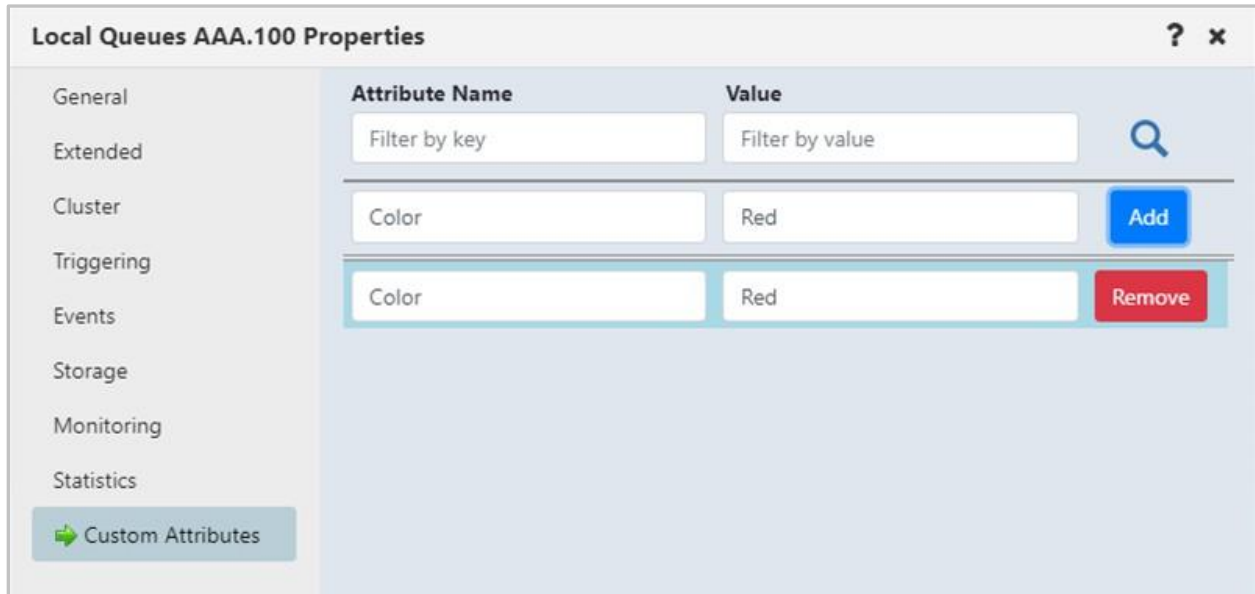


Figure 4.3.13.1-D. Custom Attribute Added

Multiple custom attributes can be added. Simply repeat the steps above to add additional attributes.

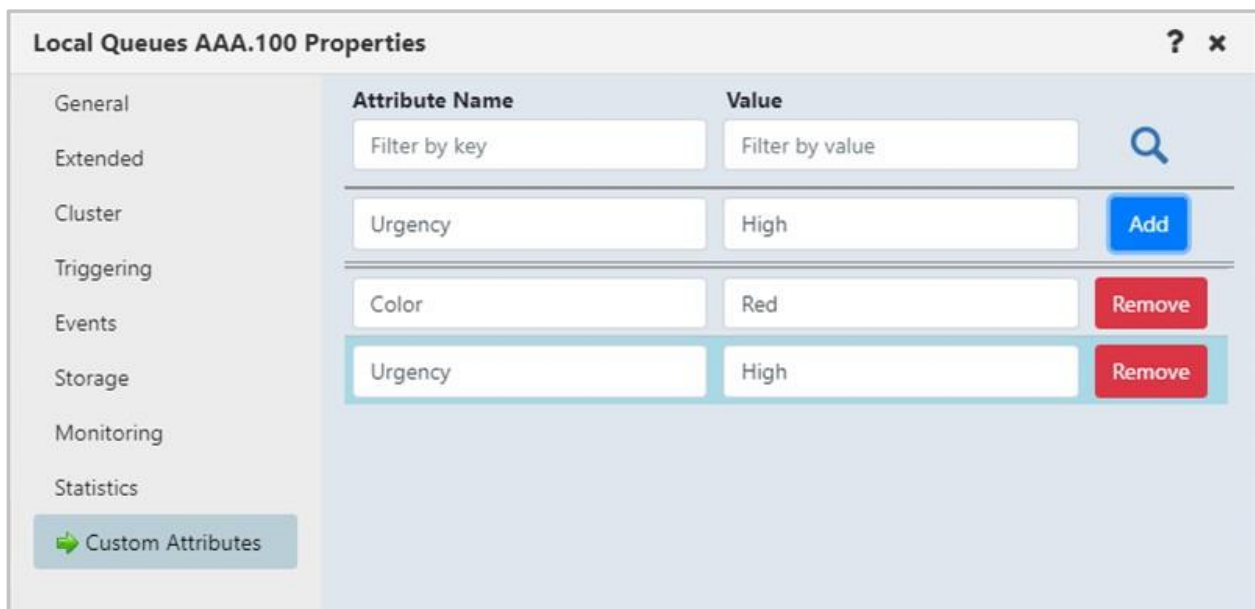


Figure 4.3.13.1-E. Adding Multiple Custom Attributes

4.3.13.2 Display Custom Attributes

To display the custom attributes in your viewlets, you will need to add them to your viewlet's schema (see [Schemas](#) for more information). Click the **Manage Viewlet Schemas** button.

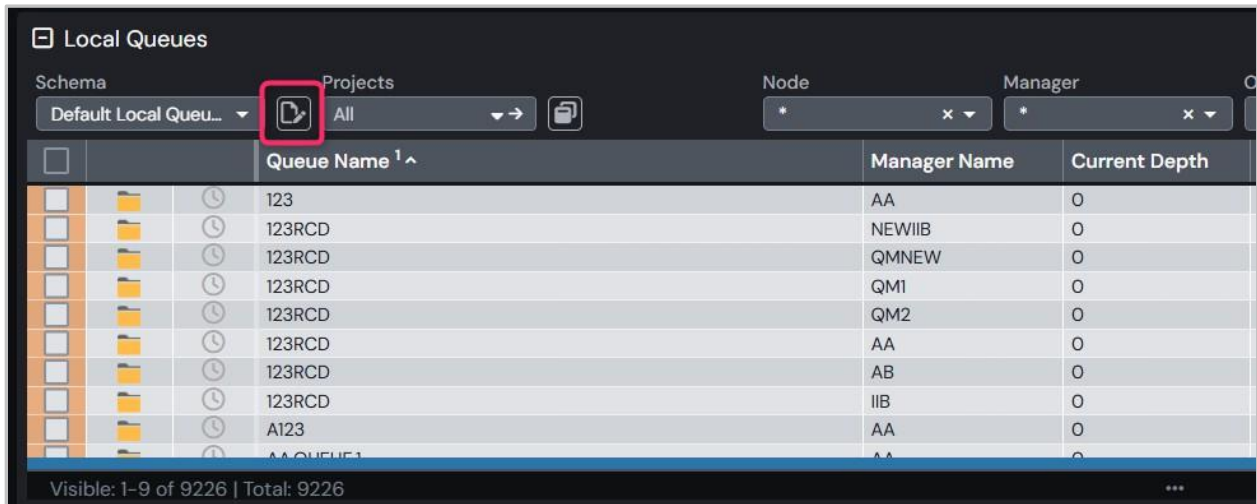


Figure 4.3.13.2-A. Manage Viewlet Schemas Button

The *Manage Schemas* screen opens. Select the desired schema and click **Edit**.

Please note, you cannot edit the default schema. If you do not have any schemas other than the default, see [Schemas](#) for information on how to add a new schema.

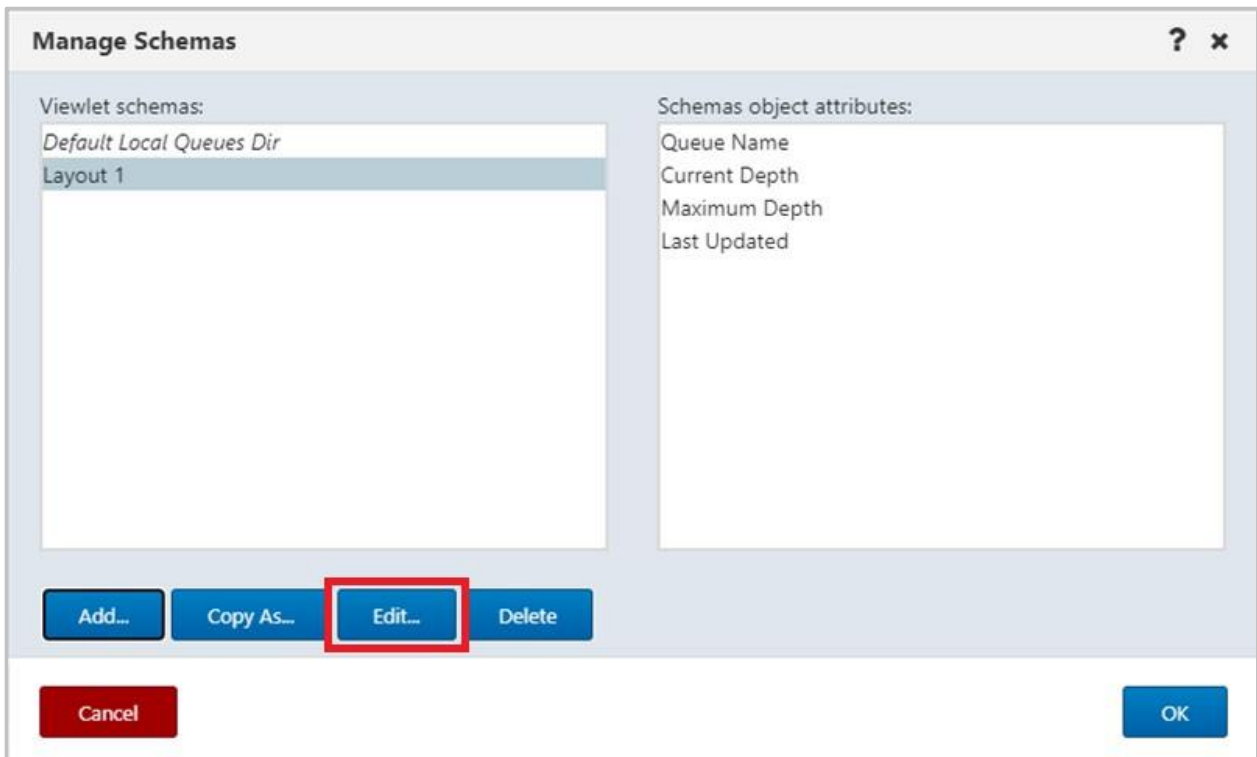


Figure 4.3.13.2-B. Edit Selected Schema

On the *Edit Schema* screen, select **Custom attributes** from the filter drop-down to display all custom attributes that exist for this viewlet. From the left side of the screen select the custom attributes you want to add to the schema and click the **Add** button (or click **Add all** to add all of the custom attributes).

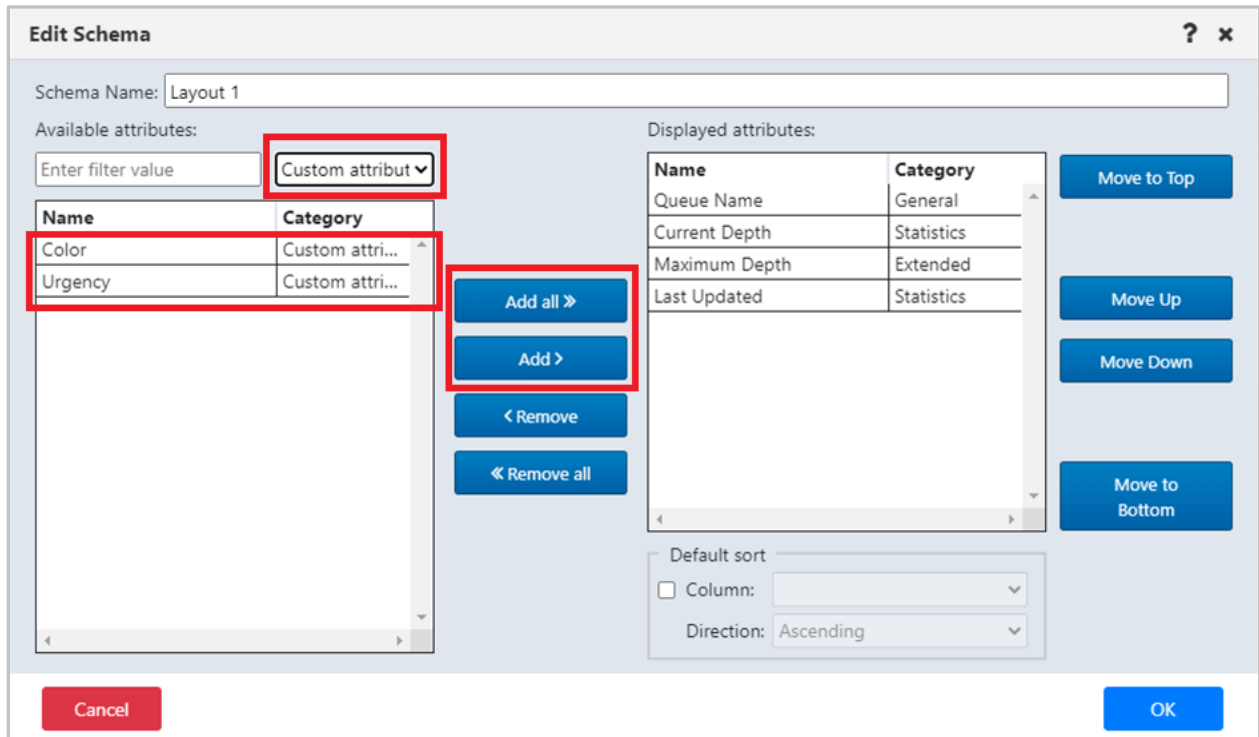


Figure 4.3.13.2-C. Edit Selected Schema

You can sort the viewlet by the custom attribute field.

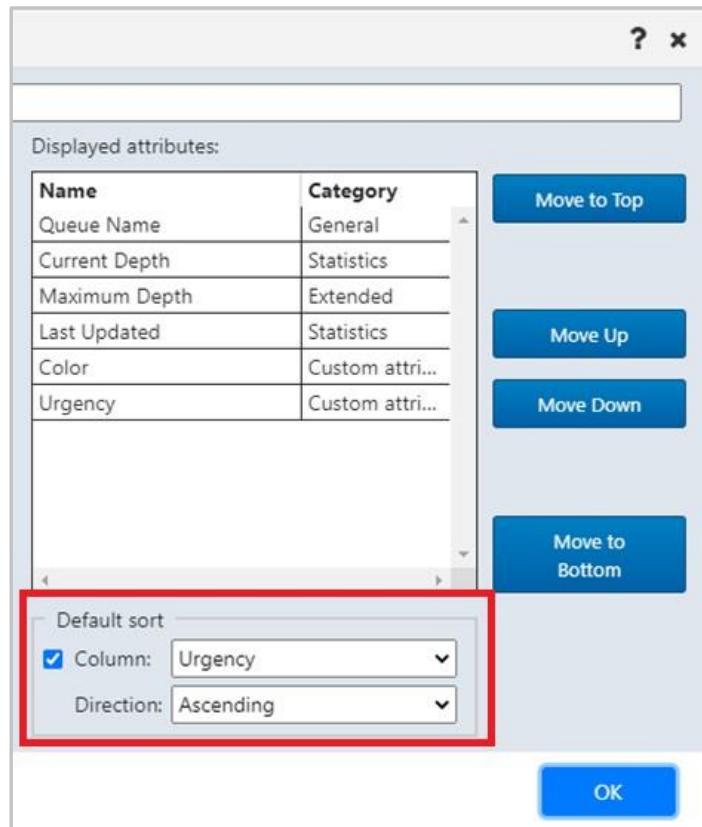


Figure 4.3.13.2-D. Default Sort

Click **OK** when finished on this screen and then on the *Manage Schemas* screen. Your viewlet will now display the custom attribute fields and their values.

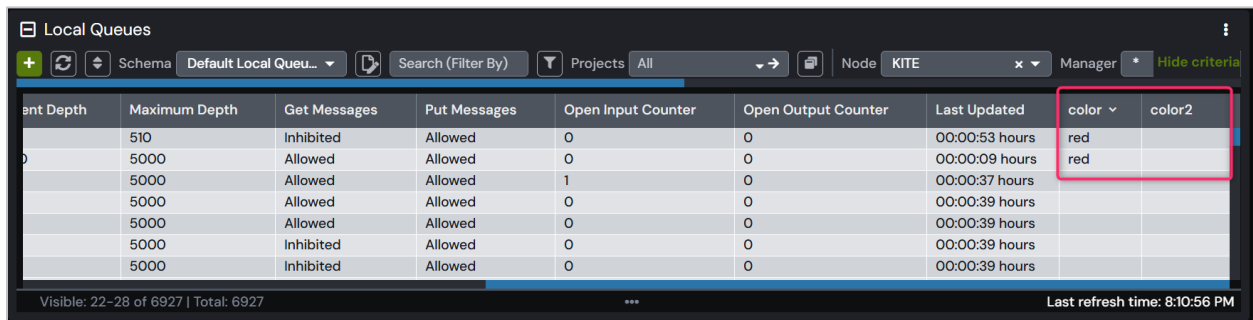


Figure 4.3.13.2-E. Custom Attributes Displayed in Viewlet

4.3.13.3 Filter by Custom Attributes

You can use the **Filter by** field located at the top of the viewlet to display only rows containing the custom attribute value entered.

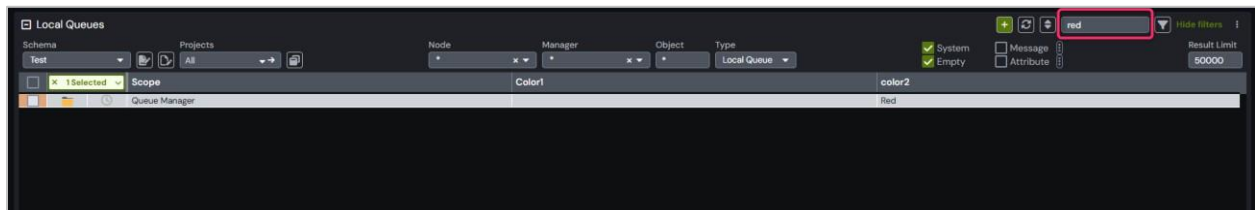


Figure 4.3.13.3-A. Filter By

You can also use custom attributes when creating new viewlets. See [Attribute Filter](#) for more information.

4.3.14 Advanced Viewlet Filtering

When the advanced viewlet filtering feature is enabled, all of the *Add/Edit Viewlet* screen filters ([Edit Viewlet](#)) are displayed by default at the top of each viewlet. In the figures below, the fields in the green box are all viewlet filtering options.

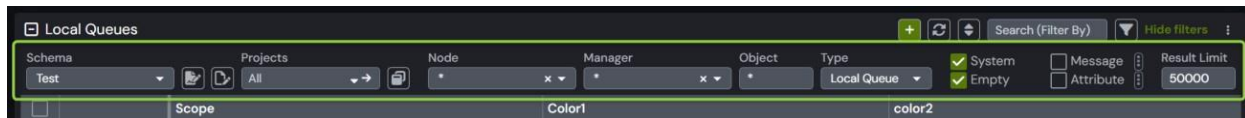


Figure 4.3.14. Advanced Viewlet Filtering Options

This feature allows users to quickly apply filters right from the viewlet instead of having to open the *Edit Viewlet* screen.

4.3.14.1 Setup

To enable quick access to advanced filtering features for all viewlets by default, turn on the **Show advanced viewlet filtering** option on the **User Settings** tab of the *User/Global Settings* window.

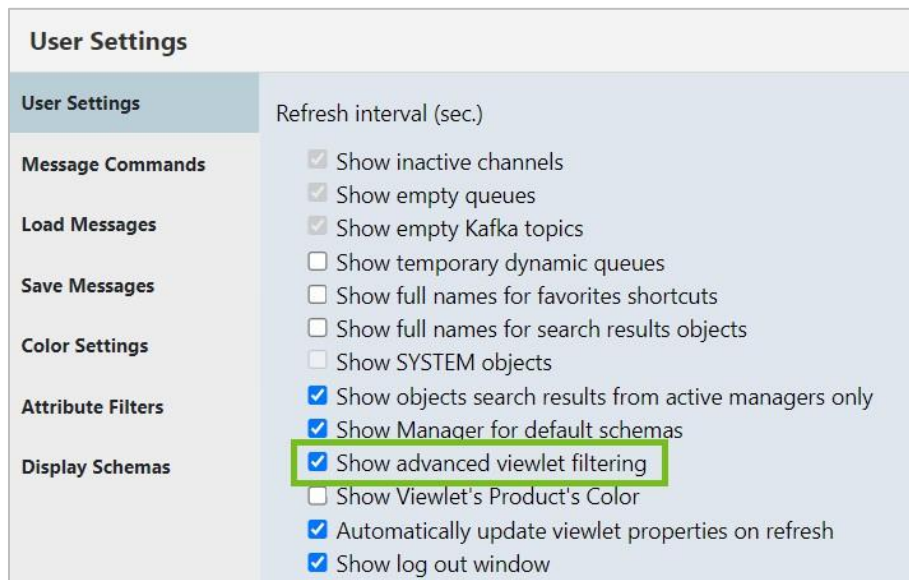


Figure 4.3.14.1-A. Setting

Note that when this option is enabled, the **Show inactive channels**, **Show empty queues**, **Show empty Kafka topics**, and **Show SYSTEM objects** options are automatically disabled because these options are included in the advanced viewlet filtering options.

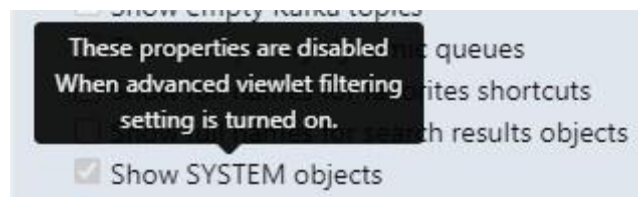


Figure 4.3.14.1-B. Disabled Settings

4.3.14.2 Use




NOTE

The advanced filtering options cannot be used with viewlets that display server-generated nodes, workgroup servers, or external resources.

When the option above is enabled, or when you click the Show filters label, you will see the filter options located at the top of each viewlet that you can use to select or enter the following properties:


- Schemas and Projects. Schemas control which attributes are displayed for the objects in the viewlet, and in what order. The Projects list controls the scope of the objects that you can see, according to the user group whose permissions you are simulating. When you use the list. See section [4.3.7.1, Schemas](#), for instructions related to schemas. See section [4.3.1.1, Creating New/Temporary Viewlets](#), for more information about the Projects list.
- Criteria (box #1 in Figure [4.3.14.2-C](#) below)

- Node
- Queue manager/cluster
- Object
- Object type.



NOTE

In versions 10.4 and later, the number of objects returned is controlled by the Result Limit, which applies to each type of object (for queues: local, remote, model, alias, and cluster; for channels: MQ channels, AMQP, MQTT, and client connections). See the Result Limit definition under the Results bullet below for more information.

- Filters (box #2 in Figure 4.3.14.2-C below)
 - Attribute: enable or disable the attribute filtering setting. You can click on the ellipses button  immediately to the right of the checkbox to open the *Attribute filters* window where you can edit, add, delete, or copy filters. See [Attribute Filter](#) for more information.

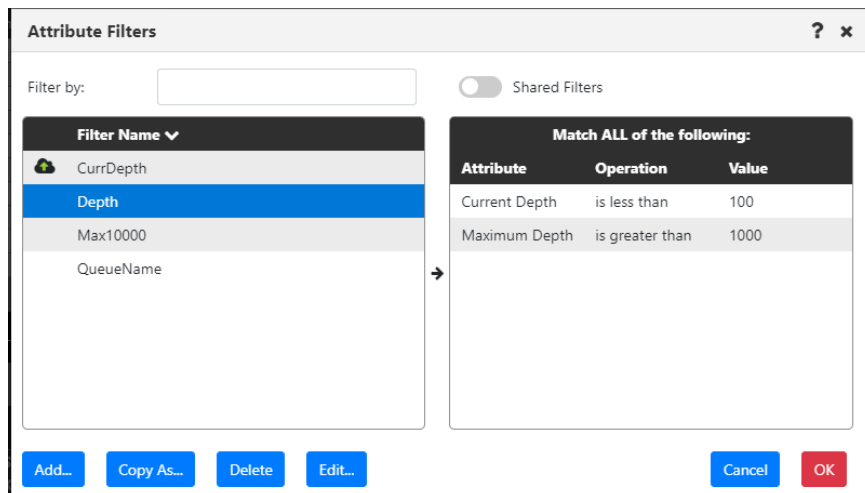


Figure 4.3.14.2-A. Attribute Filters

You can hover over the Attribute filter to view the selected filter in a tool tip. If no filter is selected, then “No filter selected” is displayed.

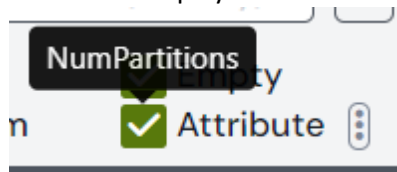


Figure 4.3.14.2-B. Selected Filter Tool Tip

- Message (shown when applicable): enable or disable the **Find Messages** setting.
 - Empty: enable or disable the **Show empty queues/topics** setting.
 - System: enable or disable the **Show system objects** setting.
- Results (box #3 in figure below)

- Result limit: The maximum number of results that can be displayed in a viewlet. For new viewlets, the default value is defined by the global or user Result Limit setting. For queue and channel viewlets, this limit is per queue type and per channel type, as described above in the Object type note. (The “total” (or maximum) number of items that can be returned is the Result Limit multiplied by the number of object types.)
- In versions 10.5 and later, attribute filters are applied by the workgroup server before results are returned. If you consistently notice that the number of records in your viewlets matches the Result Limit (in versions 11 and later, the Visible/Total labels are orange in this case), then either adjust the Result Limit or consider fine-tuning the viewlet's attribute filters to return a more relevant set of results from the workgroup server.

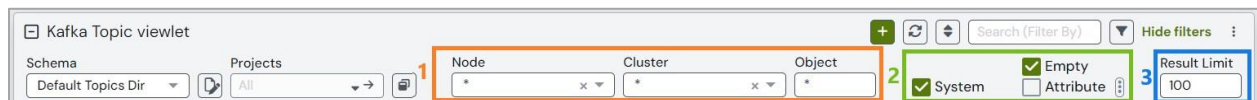


Figure 4.3.14.2-C. Advanced Filtering Options

The *Criteria* and *Filters* options (box 1 and 2 above) are available depending on the viewlet's object type. For example, if a viewlet's object type is IBM channels, all criteria options and only **Attribute** and **System** filters are displayed. For a node viewlet, only the **Node** criteria option and **Attribute** checkbox in the *Filters* group are displayed.

4.3.15 IIB Viewlets

4.3.15.1 Connect to IIB Server

To connect an IIB server, you will need to add a node as type **ACE/IIB Agent-managed Node**.

The screenshot shows the 'Create Node' dialog box. On the left is a sidebar with the following items: Identity (selected), Communication Policy, Discovery Policy, Statistics, and Trace. The main area contains the following fields:

- Name: CMACEIIB
- Host Name: [Empty field] Use DNS
- IP Address: 127.0.0.1
- Listening Port: 5577
- Platform: UNKNOWN
- Description: [Empty text area]
- Node Type: ACE/IIB Agent-managed Node (highlighted with a red box)

At the bottom right are 'Ok' and 'Cancel' buttons.

Figure 4.3.15.1-A. Create Node

Create a viewlet as you normally would (see [Adding and Maintaining Viewlets](#)). For **Product**, select **IIB**.

The screenshot shows a dialog box titled "Create New IIB Server Viewlet". On the left is a sidebar with categories: Product, Broker, Server, Application, Service, REST API, Library, Shared Library, Message Flow, Sub Flow, and Resource. The "Product" category is selected, and a dropdown menu shows "IIB" highlighted with a red box. The main area contains several input fields and checkboxes: "Viewlet name" (Temp_Server_Viewlet_1), "Workgroup server" (Primary Connection - ()), "Temporary" (checked), "Multi-Selection" (unchecked), "Node" (*), "Manager" (*), "Object name" (*), "Custom Viewlet Color" (checked), "Flat Color" (unchecked), "Project" (All), "Active attribute filtering" (unchecked), "Attribute filter" (+, x), and "Result limit" (100). At the bottom right are "Save changes" and "Cancel" buttons.

Figure 4.3.15.1-B. Select IIB Product Type

4.3.15.2 IIB Viewlet Types

View your IIB objects in meshIQ Manage. The below viewlets are the IIB viewlet types you can create. See [Appendix C](#) for menu options.

You can create viewlets for these IIB items:

- Broker
- Server
- Application
- Service
- Rest API
- Library
- Shared Library
- Message Flow
- Sub Flow
- Resource

Some examples are shown below.

Broker Viewlets: display IIB Integration brokers (nodes)

Integration Node Name	Node Name	Version	Manager Name	Admin Security	Run Mode	Long Description	Last Updated
NEWIBNODE	REMOTE_ACE	10003	NEWIBNODE	false	Unknown		34 days, 08:09:25 hours

Figure 4.3.15.2-A. IIB Broker Viewlets

Server Viewlets: display IIB integration servers

Integration Server Name	Node Name	Run Mode	Manager Name	UUID	Long Description	Services Count	REST APIs Count	Applications Count	Libraries Count	Shared Libraries Count	Message Flows Co
default	CMACE	running	LOstNode	586b1255-7692-4132-b6d9-e77366815fd5		1	0	1	0	0	0
default	CMACE	running	SecondNode	9035246e-fd31-4d5d-a35a-67ea895cb1ea		0	1	2	2	0	0
newServer	CMACE	running	SecondNode	253cc564-71dc-4d22-8938-908739371dcd		0	0	0	1	1	0
secondsServer	CMACE	running	SecondNode	b516ba20-0387-4466-b810-0b96e21df33		1	1	1	0	1	0

Figure 4.3.15.2-B. IIB Server Viewlets

Application Viewlets: display IIB deployed applications

Application Name	Node Name	Version	Manager Name	UUID	Start Mode	Running	Java Isolation	Short Description	Run Mode	Last Updated
NEW_APPLICATION	CMACE		NEWIBNODE	3290c206-4e02-4ab8-9fa7-a28ccb295fac	Maintained	true	true		running	00:00:08 hours
QuoterequestFlow	CMACE		NEWIBNODE	9fbcd43d-0b44-401b-9d11-6e0f5624ee8c	Maintained	true	true		running	00:00:08 hours
RESTAPIAPP	CMACE		NEWIBNODE	7c2b9bf1-f2ef-4090-aa37-1bb27f7bba40	Maintained	true	true		running	00:00:08 hours

Figure 4.3.15.2-C. IIB Application Viewlets

Services Viewlets: display IIB deployed services

Service Name	Node Name	Integration Server Name	Manager Name	Run Mode	UUID	Running	Start Mode	Short Description	Last Updated
NewIntegrationService	CMACE	My Integration server	NEWIBNODE	running	53e13a6f-0c43-4953-9ede-2c526b769073	true	Maintained		00:00:28 hours
serviceAPI	CMACE	My Integration server	NEWIBNODE	running	b3cf5c7b-cdf1-47e3-87af-99896329e25f	true	Maintained		00:00:28 hours

Figure 4.3.15.2-D. IIB Services Viewlets

REST API Viewlets: display deployed IIB Rest APIs

Rest API Name	Node Name	Integration Server Name	Manager Name	Run Mode	UUID	Running	Start Mode	Version	Short Description	Last Updated
deftestapi	CMACE	default	SecondNode	running	40726cae-0951-403b-ab9d-3444b4ab33b6	true	Maintained			00:06:43 hours
RESTAPI_Blob_Blob	CMACE	secondsServer	SecondNode	running	292d5bcd-4302-476c-913f-408b94477891	true	Maintained			00:06:43 hours

Figure 4.3.15.2-E. IIB REST API Viewlets

Library Viewlets: display deployed IIB Libraries

Library Name	Node Name	Integration Server Name	Manager Name	Application Name	Service Name	Rest API Name	UUID	Version	Short Description	Last Updated
Library	CMACE	My Integration server	NEWIBNODE				421ba34f-9348-4e57-b23d-98aekd86e6af			00:00:20 hours

Figure 4.3.15.2-F. IIB Library Viewlets

Shared Libraries viewlets: display deployed IIB Shared libraries

Shared Library Name	Node Name	Integration Server Name	Manager Name	Application Name	Service Name	Rest API Name	UUID	Type	Version	Short Descr
SHARED LIBRARY	CMACE	My Integration server	NEWIBNODE				ff174b0c-5db5-4ce2-63db-6f3d2195c800	Shared_library		

Figure 4.3.15.2-G. IIB Shared Libraries Viewlets

Message Flow Viewlets: display deployed IIB Message flows

Message Flow Name	Node Name	Integration Server Name	Manager Name	Service Name	Rest API Name	Library Name	Run Mode	UUID	Running	Start
genNewIntegrationService	CMACE	My Integration server	NEWIBNODE	NewIntegrationService			stopped	e4597b07-a4d1-422b-a323-d5415a63d009	false	Maint
gen.serviceAPI	CMACE	My Integration server	NEWIBNODE	serviceAPI			running	20424929-df99-4f16-b050-4e7c7c62784	true	Maint
NEW_MESSAGE_FLOW	CMACE	My Integration server	NEWIBNODE				running	af7c07996-a8c3-404b-8ba2-783f1754ebc	true	Maint
rnf	CMACE	My Integration server	NEWIBNODE				running	7c222d85-feeb-4ff8-8924-56cf54efcfc	true	Maint
QuoteRequestMessageFlow	CMACE	My Integration server	NEWIBNODE				running	00720276-8df2-4d2d-b584-1245eb82699c	true	Maint

Figure 4.3.15.2-H. IIB Message Flow Viewlets

Sub Flows viewlets: display IIB deployed sub flows

Node Name	Manager Name	Sub Flow Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Shared Library Name	UUID
CMACE	NEWIBNODE	genNewIntegrationServiceInputCatchHandler	My Integration server		NewIntegrationService				/f8e
CMACE	NEWIBNODE	genNewIntegrationServiceInputFailureHandler	My Integration server		NewIntegrationService				/f8e
CMACE	NEWIBNODE	genNewIntegrationServiceOutputHTTPTimeoutHandler	My Integration server		NewIntegrationService				/f8e
CMACE	NEWIBNODE	gen.serviceAPIInputCatchHandler	My Integration server		serviceAPI				/f8e
CMACE	NEWIBNODE	gen.serviceAPIInputFailureHandler	My Integration server		serviceAPI				/f8e
CMACE	NEWIBNODE	gen.serviceAPIOutputHTTPTimeoutHandler	My Integration server		serviceAPI				/f8e

Figure 4.3.15.2-I. IIB Sub Flows Viewlets

Resource viewlets: display IIB resources

Resource Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Shared Library Name	UUID
IBMdefined/org/w3/www/xml/1998/namespace/xml.xsd	My Integration server		serviceAPI				IBMdefined/org/w3/www/xml/
IBMdefined/org/w3/www/xml/1998/namespace/xml.xsd	My Integration server		NewIntegrationService				IBMdefined/org/w3/www/xml/
IBMdefined/org/xmisoap/schemas/soap/envelope/soapenv11.xsd	My Integration server		serviceAPI				IBMdefined/org/xmisoap/sche
IBMdefined/org/xmisoap/schemas/soap/envelope/soapenv11.xsd	My Integration server		NewIntegrationService				IBMdefined/org/xmisoap/sche
IBMdefined/soap.xsd	My Integration server		serviceAPI				IBMdefined/soap.xsd
IBMdefined/soap.xsd	My Integration server		NewIntegrationService				IBMdefined/soap.xsd
NewIntegrationService.wsdl	My Integration server		NewIntegrationService				NewIntegrationService.wsdl
NewIntegrationService.xsd	My Integration server		NewIntegrationService				NewIntegrationService.xsd
NewIntegrationService_inlineSchema2.xsd	My Integration server		NewIntegrationService				NewIntegrationService_inlineS

Figure 4.3.15.2-J. IIB Resource Viewlets



After IIB commands are completed, the viewlet may require you to select **Force update** from the Selected menu of each object to view the updates quickly.

4.3.15.3 IIB Broker Admin Logs

Load all IIB broker logs by selecting **Admin logs** from the Selected menu of a broker.

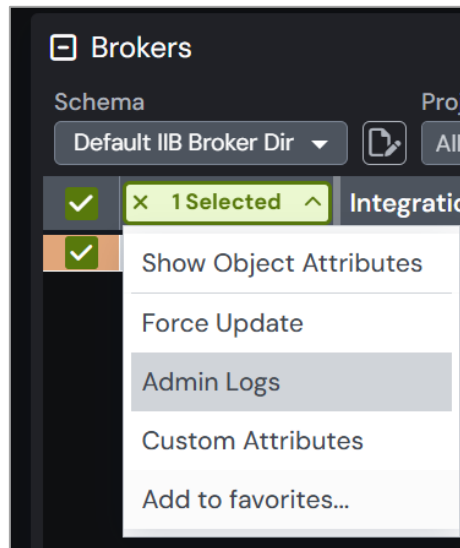



Figure 4.3.15.3-A. Select Broker > Admin Logs

The Bip number, timestamp, source, and message are displayed for each log. You can filter the results using these columns by typing a value in the box immediately below the column header. To clear a filter, you can either backspace the text or click on the  button.

Bip Number	Timestamp	Source	Message
BIP2880	1616390458625	Change Notification	BIP2880: The property 'processId' has char 'ExecutionGroup' with parent 'localNode' o
BIP2880	1616390459744	Change Notification	BIP2880: The property 'processId' has char 'ExecutionGroup' with parent 'localNode' o
BIP2871	1616391341736	Administration Request	BIP2871: The request made by user 'SYSTE 'WebUser' on parent 'WebAdmin' of type '\
BIP2871	1616392057230	Administration Request	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2871	1616392072422	Administration Result	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2880	1616392072450	Change Notification	BIP2880: The property 'object.runstate' has 'secondsServer' of type 'ExecutionGroup' w
BIP2880	1616392072460	Change Notification	BIP2880: The property 'processId' has char 'ExecutionGroup' with parent 'localNode' o
BIP2871	1616392089355	Administration Request	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2880	1616392092197	Change Notification	BIP2880: The property 'processId' has char 'ExecutionGroup' with parent 'localNode' o
BIP2880	1616392092197	Change Notification	BIP2880: The property 'object.runstate' has 'secondsServer' of type 'ExecutionGroup' w
BIP2871	1616392092203	Administration Result	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2871	1616392135812	Administration Result	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2871	1616392148534	Administration Result	BIP2871: The request made by user 'SYSTE 'ExecutionGroup' on parent 'localNode' of f
BIP2871	1616393093233	Administration Request	BIP2871: The request made by user 'SYSTE 'Application' on parent 'default' of type 'Ex

Figure 4.3.15.3-B. IIB Broker Admin Logs for Two Brokers

Broker admin logs can be loaded for multiple brokers, as seen in the figure immediately above. Additional brokers appear on separate tabs.

4.3.15.4 IIB Server Deploy Function

You can deploy content on servers using a bar file. Select **Deploy** from the Selected menu of a server.

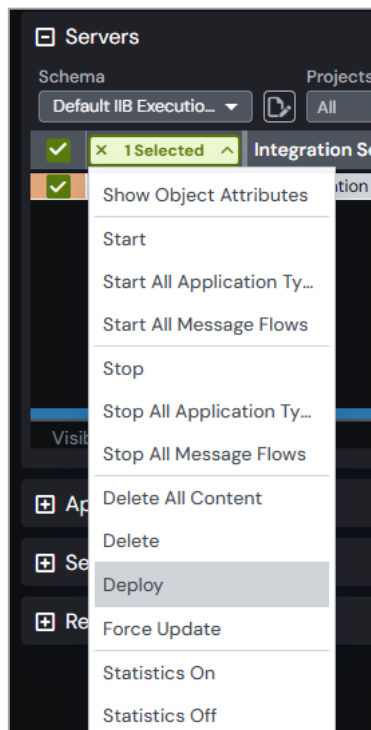


Figure 4.3.15.4-A. Select Server > Deploy

A window similar to the below appears. Click **Choose File** to select the import file. When the file is finished loading the **Deploy** button becomes available and *Loaded* is displayed. Click the **Deploy** button to import the file.

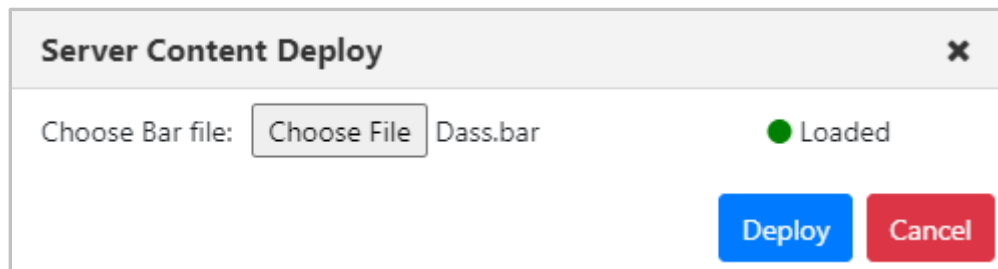


Figure 4.3.15.4-B. Server Content Deploy Window

When the file is finished being imported, it is recommended to refresh/discover the node.

4.3.15.5 IIB Message Flow Activity Logs

Load all IIB message flow activity logs by selecting **Activity Logs** from the Selected menu of a message flow object.

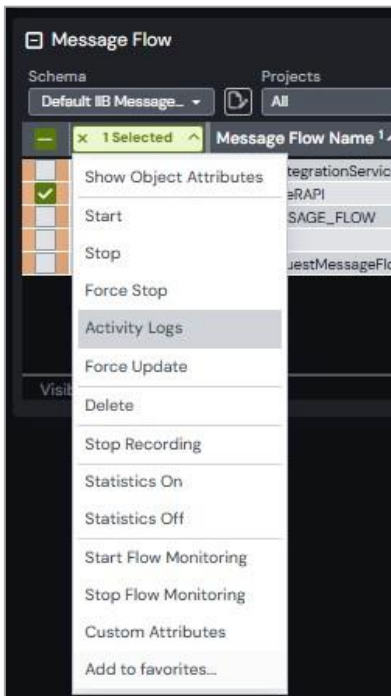



Figure 4.3.15.5-A. Select Message Flow > Activity Logs

The Bip Number, Timestamp, Tag, Tag Name, Source, Thread Id, Thread Sequence No., Message and Detailed Message are displayed for each log. You can filter the results using these columns by typing a value in the box immediately below the column header. To clear a filter, you can either backspace the text or click on the  button.

The screenshot shows the 'IIB Message Flow Activity Logs' window. It features a table with the following columns: Bip Number, Timestamp, Tag, Tag name, Source, Thread id, Thread Sequence No, Message, and Detailed Message. Each column has a search filter box below it. The table contains several rows of log entries, alternating between 'Rolled back a local transaction' and 'Committed a local transaction' messages. At the bottom right, there are 'Clear Filters' and 'Close' buttons.

Bip Number	Timestamp	Tag	Tag name	Source	Thread id	Thread Sequence No	Message	Detailed Message
BP11507W	1618291730000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198735	BP11507W: Rolled back a local transaction.	A local transaction has been rolled back for work done on the message flow thread.
BP11506I	1618291730000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198736	BP11506I: Committed a local transaction.	A local transaction has been committed for work done on the message flow thread.
BP11507W	1618291732000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198737	BP11507W: Rolled back a local transaction.	A local transaction has been rolled back for work done on the message flow thread.
BP11506I	1618291732000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198738	BP11506I: Committed a local transaction.	A local transaction has been committed for work done on the message flow thread.
BP11507W	1618291734000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198739	BP11507W: Rolled back a local transaction.	A local transaction has been rolled back for work done on the message flow thread.
BP11506I	1618291734000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198740	BP11506I: Committed a local transaction.	A local transaction has been committed for work done on the message flow thread.
BP11507W	1618291736000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198741	BP11507W: Rolled back a local transaction.	A local transaction has been rolled back for work done on the message flow thread.
BP11506I	1618291736000	IIMS Input_M_flow_App	NODEMSGFLOW	BPMsgs	26572	1198742	BP11506I: Committed a local transaction.	A local transaction has been committed for work done on the message flow thread.

Figure 4.3.15.5-B. Message Flow Activity Logs

You can view activity logs for multiple message flows on separate tabs.

4.3.15.6 Delete IIB Message Flows, Sub Flows, and Resources



You can only delete Message Flows, Sub Flows, and Resources that have been created directly on the server.

To delete an IIB Message Flow, Sub Flow, or Resource, click **Delete** on the object's **Selected** menu.

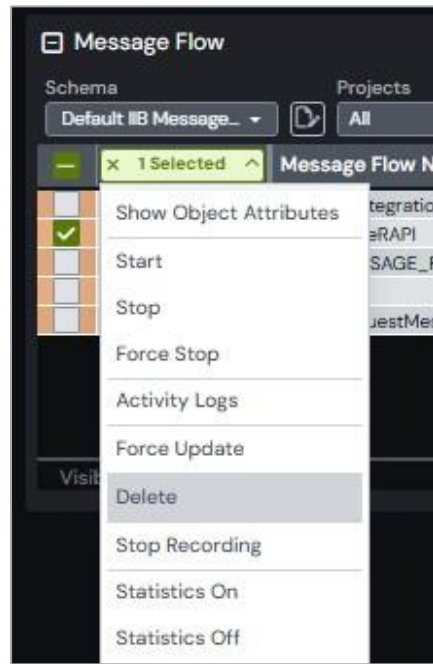


Figure 4.3.15.6-A. Delete IIB Message Flows

4.3.15.7 Performing Statistics Commands

The **Statistics Commands** feature in an IIB/ACE integration server allows you to enable or disable runtime statistics collection at both the flow and resource levels. These controls help you gather performance insights, debug issues, and analyze runtime behavior efficiently.

Flow Statistics On — Enables detailed execution statistics for message flows running on the server. Useful for performance analysis and troubleshooting.

Flow Statistics Off — Disables flow-level statistics collection to reduce overhead when detailed monitoring is no longer needed.

Resource Statistics On — Activates statistics monitoring for system resources such as CPU, threads, heap usage, and other internal runtime metrics.

Resource Statistics Off — Turns off collection of resource-level statistics when monitoring is not required.

Performing Statistics Commands

To manage statistics settings for an integration server:

1. In the **Server** viewlet, select the integration server you want to configure.

2. From the **Selected** menu, choose **Statistics Commands**.

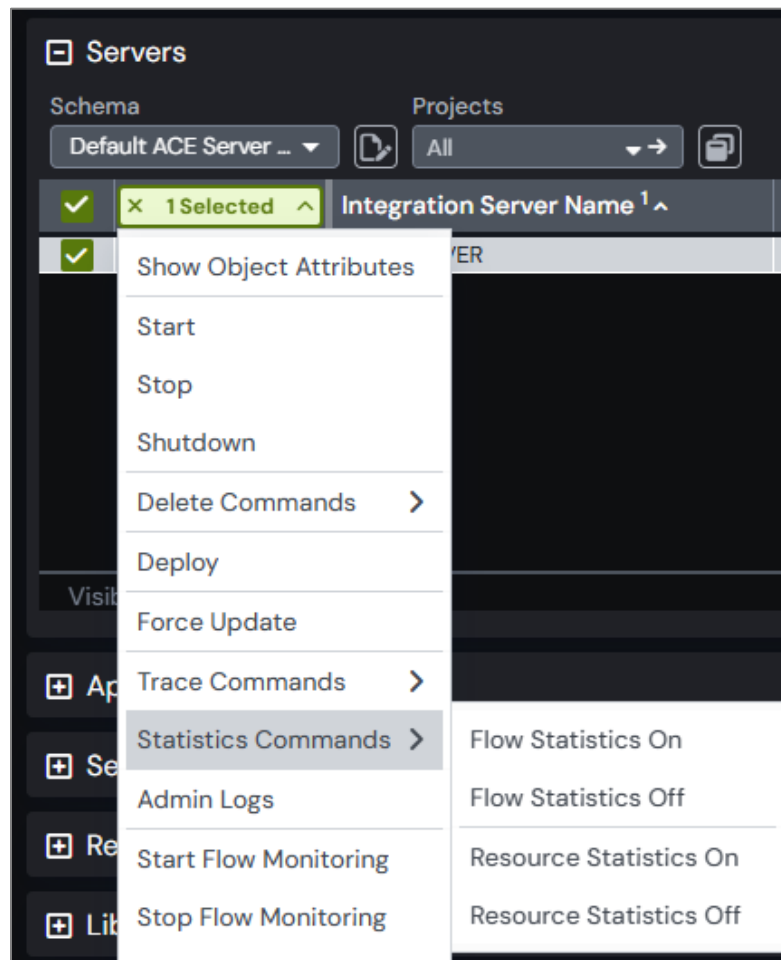


Figure 4.3.15.7-A. IIB Statistics Commands

3. Choose one of the available options:

- Flow Statistics On
- Flow Statistics Off
- Resource Statistics On
- Resource Statistics Off

Actions are applied immediately, and a success notification appears at the bottom of the window once the action is completed.

4.3.15.8 Performing Trace Commands

The Trace Commands option in an IIB/ACE integration server allows administrators and developers to enable, reset, and stop tracing at both the service and user levels. These traces help diagnose system-level issues or debug application-level message flows. Each trace type can be controlled independently using the Start, Reset, and Stop commands.

Service Trace

Service trace captures deep internal processing of the integration server, including system calls, runtime components, and broker operations. It is typically used for advanced troubleshooting or when directed by IBM Support.

- **Start Service Trace:** Initiates system-level tracing.
- **Reset Service Trace:** Clears existing trace logs to begin a fresh trace session.
- **Stop Service Trace:** Stops system-level tracing and finalizes the trace file for analysis.

User Trace

User trace captures application-level debugging details, including message flow execution paths and node-level behavior. It is mainly used by developers during testing or debugging.

- **Start User Trace:** Begins user-level trace logging.
- **Reset User Trace:** Clears previous user trace data before new trace activity is captured.
- **Stop User Trace:** Ends user-level tracing and prepares trace data for review.

Performing Trace Commands

To access trace commands for an integration server:

1. In the Server viewlet, select the integration server.
2. From the Selected menu, choose Trace Commands.

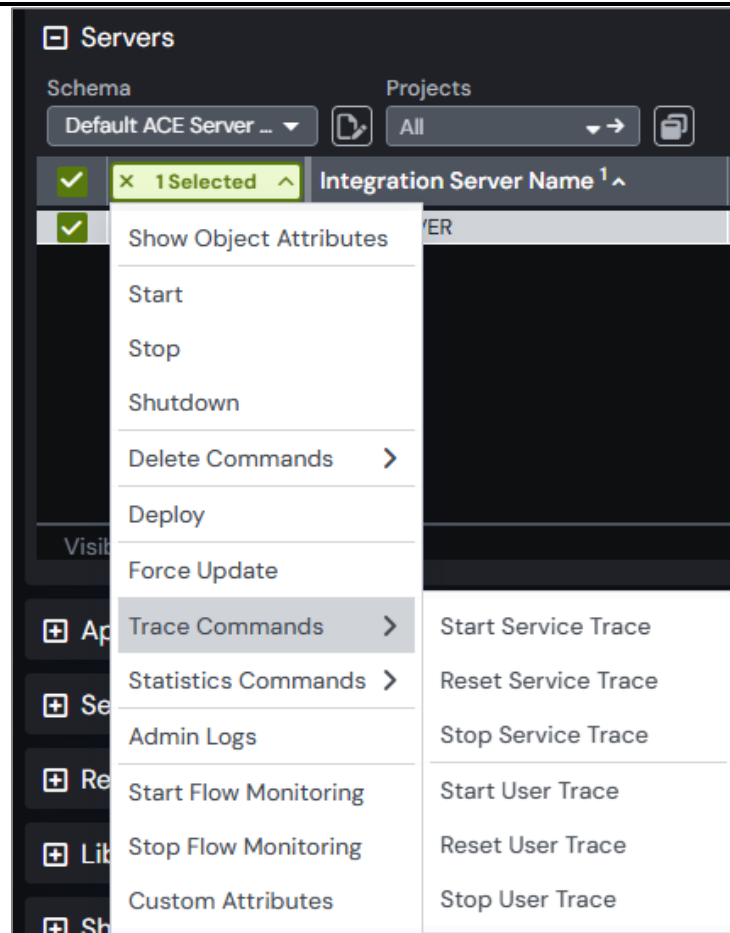


Figure 4.3.15.8-A. IIB Trace Commands

3. Select the desired option:

- **Service Trace** → Start / Reset / Stop
- **User Trace** → Start / Reset / Stop

Actions are applied immediately, and a success notification appears at the bottom of the window once the action is completed.

4.3.16 ACE Viewlets

4.3.16.1 Connect to ACE Server

To connect an ACE server, you will need to add a node as type **ACE/IIB Agent-managed Node**.

The screenshot shows the 'Create Node' dialog box. On the left is a sidebar with the following options: Identity (selected), Communication Policy, Discovery Policy, Statistics, and Trace. The main area contains the following fields:

- Name: CMACEIIB
- Host Name: [Empty field] Use DNS
- IP Address: 127.0.0.1
- Listening Port: 5577
- Platform: UNKNOWN
- Description: [Empty text area]
- Node Type: ACE/IIB Agent-managed Node (highlighted with a red box)

At the bottom right are 'Ok' and 'Cancel' buttons.

Figure 4.3.16.1-A. Create Node

Create a viewlet as you normally would (see section [Adding and Maintaining Viewlets](#)). For **Product**, select **ACE**.

Figure 4.3.16.1-B. Select ACE Product Type

4.3.16.2 ACE Viewlet Types

View your ACE objects in meshIQ Manage. The below viewlets are the ACE viewlet types you can create. See [Appendix C](#) for menu options.

You can create viewlets for these ACE items:

- Integration Node
- Server
- Application
- Service
- Rest API
- Library
- Shared Library
- Message Flow
- Sub Flow
- Resource
- Link

Some examples are shown below.

Integration Node viewlets: Display ACE Integration Nodes

Integration Name	Integration Node Name	Node Name	Manager Name	Integration Server Name	Product Name	Version	Platform Name	Platform Architecture	Last Updated
ACENODE	ACENODE	CMACE	ACE	IBM App Connect Enterprise	12.0.10	Windows 10 Pro	AMD64		00:00:17 hours

Figure 4.3.16.2-A. ACE Integration Node Viewlets

Server viewlets: Display ACE Integration Servers

Integration Server Name	Node Name	Manager Name	Product Name	Version	Platform Name	Platform Architecture	Last Updated
IntegrationServer2	CMACE	ACE	IBM App Connect Enterprise	12.0.10	Windows 10 Pro	AMD64	00:00:03 hours
IntegrationServer3	CMACE	ACE	IBM App Connect Enterprise	12.0.10	Windows 10 Pro	AMD64	00:00:03 hours
MyIntegrationServer	CMACE	ACE	IBM App Connect Enterprise	12.0.10	Windows 10 Pro	AMD64	00:00:03 hours

Figure 4.3.16.2-B. ACE Server Viewlets

Application viewlets: Display ACE Deployed Applications

Application Name	Node Name	Manager Name	Integration Server Name	Java Isolation: Active Value	Monitoring	Running	Last Updated
Application	CMACE	ACE	IntegrationServer2	1	inactive	true	00:00:21 hours
IntegrationServer2_DefaultApplication	CMACE	ACE	IntegrationServer2	1	inactive	true	00:00:21 hours

Figure 4.3.16.2-C. ACE Application Viewlets

Services viewlets: Display ACE deployed Services

Service Name	Node Name	Manager Name	Integration Server Name	Java Isolation: Active Value	Monitoring	Running	Last Updated
MyService	CMACE	ACE	IntegrationServer2	1	inactive	true	00:00:08 hours

Figure 4.3.16.2-D. ACE Services Viewlets

REST API viewlets: Display deployed ACE Rest APIs

Rest API Name	Node Name	Manager Name	Integration Server Name	Java Isolation: Active Value	Monitoring	Running	Last Updated
RESTAPI	CMACE	ACE	IntegrationServer2	1	inactive	true	00:00:28 hours

Figure 4.3.16.2-E. ACE REST API Viewlets

Library viewlets: Display deployed ACE Libraries

Library Name	Node Name	Manager Name	Integration Server Name	Application Name	Service Name	Rest API Name	Last Updated
StaticLibrary	CMACE	ACE	IntegrationServer2	IntegrationServer2_DefaultApplication			00:00:11 hours

Figure 4.3.16.2-F. ACE Library Viewlets

Shared Libraries viewlets: Display deployed ACE Shared libraries

Shared Library Name	Node Name	Manager Name	Integration Server Name	Last Updated
MyLiberty	CMACE	ACE	IntegrationServer2	00:00:27 hours

Figure 4.3.16.2-G. ACE Shared Library Viewlets

Message Flow viewlets: Display deployed ACE Message flows

Message Flow Name	Node Name	Manager Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Running	Last Updated
gen.MyService	CMACE	ACE	IntegrationServer2		MyService			true	00:00:16 hours
gen.RESTAPI	CMACE	ACE	IntegrationServer2			RESTAPI		true	00:00:16 hours
Secondmsg	CMACE	ACE	IntegrationServer2	Application				true	00:00:16 hours
Third	CMACE	ACE	IntegrationServer2	Application				true	00:00:16 hours

Figure 4.3.16.2-H. ACE Message Flow Viewlets

Sub Flow viewlets: Display ACE deployed sub flows

Sub Flow Name	Node Name	Manager Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Shared Library Name	Last Updated
gen.MyServiceInputCatchHandler	CMACE	ACE	IntegrationServer2		MyService				00:01:01 hours
gen.MyServiceInputFailureHandler	CMACE	ACE	IntegrationServer2		MyService				00:01:01 hours
gen.MyServiceInputHTTPTimeoutHandler	CMACE	ACE	IntegrationServer2		MyService				00:01:01 hours

Figure 4.3.16.2-I. ACE Sub Flows Viewlets

Resource viewlets: Display ACE resources

Resource Name	Node Name	Manager Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Shared Library Name
IBMdefined/org.w3c.www.xml_1998/namespaces/xml.xsd	CMACE	ACE	IntegrationServer2		MyService			
IBMdefined/org.w3c.xmlsoap.schema/soap/envelop/soapenv:tl.xsd	CMACE	ACE	IntegrationServer2		MyService			
IBMdefined/soap.xsd	CMACE	ACE	IntegrationServer2		MyService			
MyService.xsd	CMACE	ACE	IntegrationServer2		MyService			
MyService_xmlns:chermal.xsd	CMACE	ACE	IntegrationServer2		MyService			
openapi.json	CMACE	ACE	IntegrationServer2			RESTAPI		
Third_Compute.asd	CMACE	ACE	IntegrationServer2	Application				

Figure 4.3.16.2-J. ACE Resource Viewlets

Link viewlets: Display ACE links

Link Name	Node Name	Manager Name	Integration Server Name	Application Name	Service Name	Rest API Name	Library Name	Shared Library Name	Link Type	Link From	Link To	Last Updated
A_sh_lib_q	CMACE	ACENode	ACE_TEST_SERVER		Service				SharedLibraryReference	sharedLibrary	sharedLibrary	00:00:31 hours
A_sh_lib_q	CMACE	A_Second	ACE_second		Service				SharedLibraryReference	sharedLibrary	sharedLibrary	00:00:30 hours

Figure 4.3.16.2-K. ACE Link Viewlets

4.3.16.3 ACE Integration Node Admin Logs

Load all ACE integration node admin logs by selecting **Admin logs** from the Selected menu of an integration node.

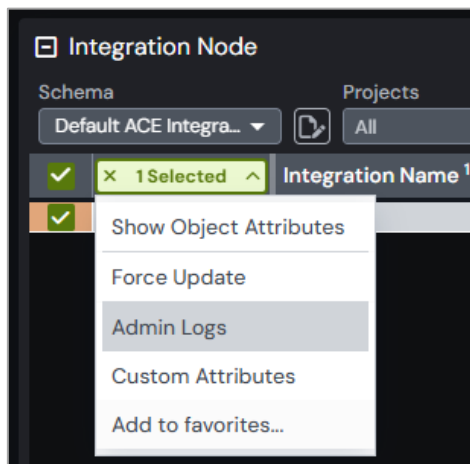



Figure 4.3.16.3-A. Select Integration Node > Admin Logs

The BIP number, timestamp, tag, tag name, source, message, and detailed message are displayed for each log. You can filter the results using these columns by typing a value in the box immediately below the column header. To clear a filter, you can either backspace the text or click on the  button.

ACE Integration Node Admin Logs			
No.	Bip Number	Timestamp	Tag
26	BIP20021I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .POST,/apiv2/deploy .200 .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar
27	BIP20041I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar
28	BIP20037I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar .Service
29	BIP20032I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar .Service
30	BIP20031I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar .Service
31	BIP20036I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar .A_sh_lib_q
32	BIP20032I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar
33	BIP20031I	1618485898468	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar
34	BIP20031I	1618485898216	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar .Service
35	BIP20031I	1618485898215	SLBPC21\Edvinas.<no-auth-role> .20210415112458166929-toolkit-0 .A_sh_lib_qproject.generated.bar

Logs per page: 25 | 26 - 50 of 97 items | 2 of 4 Pages | Clear Filters | Close

Figure 4.3.16.3-B. ACE Integration Node Admin Logs

You can view admin logs for multiple integration nodes on separate tabs. Admin logs are loaded by page. You can specify the amount displayed per page by changing the **Logs per page** number located at the bottom-left of the window. Navigate between the pages using the page arrows located at the lower right, or select a specific page number from the drop-down to immediately jump to that page.

4.3.16.4 ACE Integration Server Deploy Function

You can deploy content on servers using a bar file. Select **Deploy** from the Selected menu of an ACE integration server.

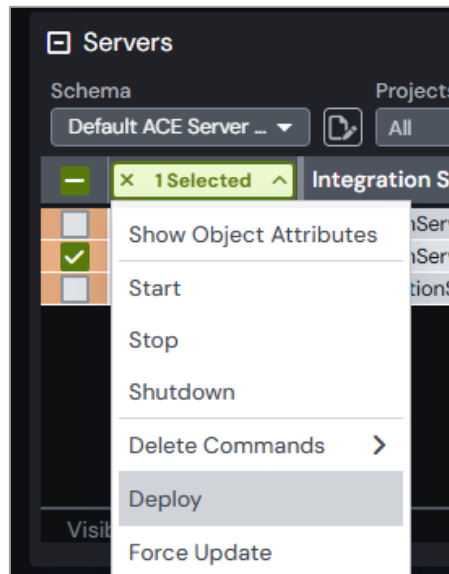


Figure 4.3.16.4-A. Select Integration Server > Deploy

A window similar to the below appears. Click **Choose File** to select the import file. When the file is finished loading the **Deploy** button becomes available and *Loaded* is displayed. Click the **Deploy** button to import the file.

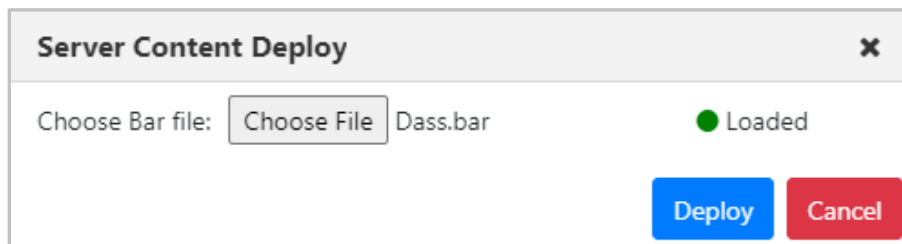


Figure 4.3.16.4-B. Server Content Deploy Window

When the file is finished being imported, it is recommended to refresh/discover the node.

4.3.17 Solace Viewlets

Manage your Solace events and messages in meshIQ Manage. You can create viewlets for these Solace items:

- Node
- Broker
- Message VPN
- Queue
- Queue Template
- Topic Endpoint
- Topic Endpoint Template
- Bridge
- Client Profile
- ACL Profile
- Client UserName
- JNDI Connection Factory
- JNDI Queue
- JNDI Topic
- Client Certificate Authority
- Client
- MQTT Session
- RDP
- Rest Consumer
- Distributed Cache
- Cache Cluster
- Cache Instance
- DMR Cluster
- CSPF Neighbor

For more information about Solace, refer to <https://docs.solace.com/>.

Solace Node

Node Name	Hostname	Use DNS	IP Address	IP Port	OS Platform	Description	Workgroup Name	Software Version	Heartbeat Interval (min.)	Update Interval (sec.)	Command Timeout (sec.)
AGENT		NO	172.16.31142	5010	WINDOWS NT		MQM	6700098	1	30	90
PUMA_SOLACE	PUMA	NO	172.16.31115	5588	Java		MQM	11.2.0	1	30	90
REMOTE_SOLACE	apm6-cep2	NO	172.0.0.1	5588	Java		MQM	11.2.0	1	5	60

Solace Brokers

Manager Name	Workgroup Name	Node Name	Platform	Semp Version	Last Updated
HVAP	MQM	REMOTE_SOLACE	VMR	soft/10_0_VMR	00:00:06 hours

Solace Message VPNs

Message VPN Name	Manager Name	Message VPN State	Replication Enabled	DMR Enabled	Endpoints Count	Client Connections Rest Incoming	Service SMF Routing Control Port	Last Updated
ABC	HVAP	Up	false	true	5	0		00:00:23 hours
default	HVAP	Up	false	true	2	0		00:00:23 hours
MSG_VPN_1	HVAP	Up	false	true	8	0		00:00:23 hours

Solace Queues

SOLACE Queues

Queue Name	Message VPN Name	Manager Name	Incoming Enabled	Outgoing Enabled	Access Type	Message Spool	Message Count	Message Spool Usage	Consumers Count	Replay State	Durabi
#mqqt/Session/28	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
New	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
Q1	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
TESTQ1	MSG_VPN_1	HVAP	true	false	Exclusive	2	192	0	0	N/A	true
TESTQ2	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
testt2	ABC	HVAP	false	false	Exclusive	0	0	0	0	N/A	true
test4	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
test_Q	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
testDefault	default	HVAP	true	true	Exclusive	4	241	0	0	N/A	true
testPuma	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
XYZ	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true

Solace Queue Templates

SOLACE Queue Templates

Queue Template Name	Message VPN Name	Manager Name	Endpoint Name Filter	Last Updated
Queue1	ABC	HVAP		00:05:42 hours
QueueTemplate	MSG_VPN_1	HVAP		00:05:42 hours
Template	MSG_VPN_1	HVAP		00:05:42 hours
TemplateTest	default	HVAP		00:05:42 hours
xyz	ABC	HVAP		00:05:42 hours
xyz	default	HVAP		00:05:42 hours
xyz	MSG_VPN_1	HVAP		00:05:42 hours

Topic Endpoint

SOLACE Topic Endpoint

Topic Endpoint Name	Message VPN Name	Manager Name	Incoming Enabled	Outgoing Enabled	Access Type	Selector Present	Message Spool	Message Count	Message Spool Usage	Message Spool Us
testTopic	default	HVAP	false	false	Exclusive	false	0	0	0	5000
testTopic	MSG_VPN_1	HVAP	false	false	Exclusive	false	0	0	0	5000
testTopic	ABC	HVAP	false	false	Exclusive	false	0	0	0	5000

Topic Endpoint Template

SOLACE Endpoint Templates

Topic Endpoint Template Name	Message VPN Name	Manager Name	Endpoint Name Filter	Last Updated
Topic1	ABC	Solace_41		00:00:24 hours
Topic2	MSG_VPN_1	Solace_41		00:00:24 hours
Topic3	MSG_VPN_1	Solace_41		00:00:24 hours
Topic4	default	Solace_41		00:00:24 hours

Bridge

SOLACE Bridges

Bridge Name	Redundancy Role	Message VPN Name	Manager Name	Remote Message VPN Name	Remote Router Name	Bridge Enabled	Establisher	Last Updated
test	1	MSG_VPN_1	HVAP			false	NotApplicable	00:00:12 hours
test	1	ABC	HVAP			false	NotApplicable	00:00:12 hours
test	1	default	HVAP			false	NotApplicable	00:00:12 hours

Client Profile

SOLACE Client Profiles

Client Profile Name	Message VPN Name	Manager Name	Last Updated
#client-profile	MSG_VPN_1	HVAP	00:06:19 hours
#client-profile	ABC	HVAP	00:06:19 hours
#client-profile	default	HVAP	00:06:19 hours
#retain-cache	ABC	HVAP	00:06:19 hours
#retain-cache	default	HVAP	00:06:19 hours
default	ABC	HVAP	00:06:19 hours
default	default	HVAP	00:06:19 hours
default	MSG_VPN_1	HVAP	00:06:19 hours

ACL Profile

SOLACE ACL Profiles

ACL Profile Name	Message VPN Name	Manager Name	Client Connect Default Action	Publish Topic Default Action	Subscribe Topic Default Action	Subscribe Share Name Default Action	Last Updated
#acl-profile	ABC	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours
#acl-profile	default	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours
#acl-profile	MSG_VPN_1	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours
Client	default	HVAP	Disallow	Disallow	Disallow	Allow	00:00:07 hours
Client	MSG_VPN_1	HVAP	Disallow	Disallow	Disallow	Allow	00:00:07 hours
default	ABC	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours
default	default	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours
default	MSG_VPN_1	HVAP	Allow	Allow	Allow	Allow	00:00:07 hours

Client UserName

SOLACE Client UserNames

Client UserName Name	Message VPN Name	Manager Name	Client Profile Name	ACL Profile Name	Client UserName Enabled	Subscription Manager Enabled	Dynamic	Last Updated
#client-username	ABC	HVAP	#client-profile	#acl-profile	true	false	false	00:00:36 hours
#client-username	MSG_VPN_1	HVAP	#client-profile	#acl-profile	true	false	false	00:00:36 hours
#client-username	default	HVAP	#client-profile	#acl-profile	true	false	false	00:00:36 hours
#rdp/RDP1	MSG_VPN_1	HVAP	default	#acl-profile	false	false	false	00:00:36 hours
#rdp/RDP2	default	HVAP	default	#acl-profile	false	false	false	00:00:36 hours
#rdp/RDP3	ABC	HVAP	default	#acl-profile	false	false	false	00:00:36 hours
#retain-cache	default	HVAP	#retain-cache	#acl-profile	false	false	false	00:00:36 hours
#retain-cache	ABC	HVAP	#retain-cache	#acl-profile	true	false	false	00:00:36 hours
Client	default	HVAP	default	default	false	false	false	00:00:36 hours
Client	MSG_VPN_1	HVAP	default	default	false	false	false	00:00:36 hours
Client	ABC	HVAP	default	default	true	false	false	00:00:36 hours
default	default	HVAP	default	default	true	false	false	00:00:36 hours

Visible: 1-12 of 18 | Total: 18 | Last refresh time: 7:35:40 PM

JNDI Connection Factory

SOLACE JNDI Connections

JNDI Connection Factory Name	Message VPN Name	Manager Name	Last Updated
Client	ABC	HVAP	00:01:03 hours
Client	default	HVAP	00:01:03 hours
Client	MSG_VPN_1	HVAP	00:01:03 hours
JMS	ABC	HVAP	00:01:03 hours

JNDI Queue

SOLACE JNDI Queues

JNDI Queue Name	Message VPN Name	Manager Name	Physical Name	Last Updated
JNDIQueue	ABC	HVAP		00:02:43 hours
JNDIQueue1	MSG_VPN_1	HVAP		00:02:43 hours
JNDIQueue2	MSG_VPN_1	HVAP		00:02:43 hours
Queue1	ABC	HVAP		00:02:43 hours

JNDI Topic

SOLACE JNDI Topics

Queue Name	Message VPN Name	Manager Name	Incoming Enabled	Outgoing Enabled	Access Type	Message Spool	Message Count	Message Spool Usage	Consumers Count	Replay State	Durable
#mqmt/Session/28	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
New	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
Q	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
Q1	MSG_VPN_1	HVAP	true	false	Exclusive	2	192	0	0	N/A	true
TESTQ1	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
TESTQ2	MSG_VPN_1	HVAP	false	false	Exclusive	0	0	0	0	N/A	true
Test12	ABC	HVAP	false	false	Exclusive	0	0	0	0	N/A	true
Test4	ABC	HVAP	true	true	Exclusive	0	0	0	0	N/A	true
Test_Q	MSG_VPN_1	HVAP	true	true	Exclusive	0	0	0	0	N/A	true

Visible: 1-9 of 12 | Total: 12 | Last refresh time: 7:38:18 PM

Client Certificate Authority

SOLACE Client Cert Authority

Client Certificate Authority Name	Manager Name	Revocation Check Enabled	CRL Up	Last Updated
ClientCert	Solace_d1	false	false	00:00:25 hours
SHS	Solace_d1	false	false	00:00:25 hours
test01	Solace_d1	false	false	00:00:25 hours
testClientAuthority	Solace_d1	false	false	00:00:25 hours
xyz	Solace_d1	false	false	00:00:25 hours

Client

SOLACE Client

Client Name	Message VPN Name	Manager Name	Username	Subscription Count	Total Incoming Flows	Total Outgoing Flows	Address	Slow Subscriber	Last Updated
#bridge/local/test/16534209a34c/320/0	ABC	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#bridge/local/test/16534209a34c/320/1	MSG_VPN_1	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#bridge/local/test/16534209a34c/320/2	default	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#client	MSG_VPN_1	HVAP	#client-username	6	0	0	127.0.0.159950	false	00:00:29 hours
#client	ABC	HVAP	#client-username	6	0	0	127.0.0.159946	false	00:00:29 hours
#client	default	HVAP	#client-username	6	0	0	127.0.0.159948	false	00:00:29 hours
#mqtt/primary/MQTTSession	MSG_VPN_1	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#mqtt/primary/Session	ABC	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#mqtt/primary/Session1	MSG_VPN_1	HVAP	#client-username	0	0	0	N/A	false	00:00:29 hours
#rdp/RDP1	MSG_VPN_1	HVAP	#rdp/RDP1	0	0	0	N/A	false	00:00:29 hours
#rdp/RDP2	default	HVAP	#rdp/RDP2	0	0	0	N/A	false	00:00:29 hours
#rdp/RDP3	ABC	HVAP	#rdp/RDP3	0	0	0	N/A	false	00:00:29 hours

MQTT Session

SOLACE MQTT Session

Session Client Id	Redundancy Role	Message VPN Name	Manager Name	Session Enabled	Owner	Clear Start	Durable	Expire Time	Last Updated
MQTTSession	1	MSG_VPN_1	HVAP	true	admin	0	true	0	00:00:19 hours
Session1	1	MSG_VPN_1	HVAP	false	admin	0	true	0	00:00:26 hours
Session	1	ABC	HVAP	false	admin	0	true	0	00:00:26 hours

RDP

SOLACE RDP

RDP Name	Message VPN Name	Manager Name	Vendor	Service	Enabled	State Up	Time Connections Blocked	Last Updated
RDP1	MSG_VPN_1	HVAP			false	false	0	00:00:16 hours
RDP2	default	HVAP			false	false	0	00:00:19 hours
RDP3	ABC	HVAP			false	false	0	00:00:19 hours

Rest Consumer

SOLACE Rest Consumer

Rest Consumer Name	RDP Name	Message VPN Name	Manager Name	Enabled	State Up	Outgoing Connection Count	Last Updated
ABC	RDP3	ABC	HVAP	false	false	3	00:00:16 hours
Rest1	RDP1	MSG_VPN_1	HVAP	false	false	3	00:00:16 hours
Rest2	RDP3	ABC	HVAP	false	false	3	00:00:16 hours
Rest3	RDP1	MSG_VPN_1	HVAP	false	false	3	00:00:16 hours

Distributed Cache

SOLACE Distributed Cache

Distributed Cache Name	Message VPN Name	Manager Name	Distributed Cache Enabled	Last Messages	Last Updated
#retain-cache-16534209a34c	ABC	HVAP	true	false	00:07:27 hours
#retain-cache-16534209a34c	default	HVAP	true	false	00:07:27 hours
Cache1	ABC	HVAP	false	false	00:07:27 hours
Cache2	MSG_VPN_1	HVAP	false	false	00:07:27 hours
Cache3	default	HVAP	false	false	00:07:27 hours
xyz1	ABC	HVAP	false	false	00:07:27 hours
xyz1	MSG_VPN_1	HVAP	false	false	00:07:27 hours
xyz2	ABC	HVAP	false	false	00:07:27 hours

Cache Cluster

SOLACE Cache Cluster

Schema: Default Solace Cac... Projects: All Node: * Manager: *

System Attribute: System Attribute

	Cache Clustered Name	Distributed Cache Name	Message VPN Name	Manager Name	Enabled	Lost Messages	Last Updated
	Cluster5	Cache1	ABC	HVAP	false	false	00:07:58 hours
	#retain-cache-cluster	#retain-cache-16534209a34c	default	HVAP	true	false	00:07:58 hours
	Cluster1	Cache1	ABC	HVAP	false	false	00:07:58 hours
	Cluster2	Cache2	MSG_VPN_1	HVAP	false	false	00:07:58 hours
	Cluster4	Cache1	ABC	HVAP	false	false	00:07:58 hours
	#retain-cache-cluster	#retain-cache-16534209a34c	ABC	HVAP	true	false	00:07:58 hours

Cache Instance

SOLACE Cache Instance

Schema: Default Solace Cac... Projects: All Node: * Manager: *

System Attribute: System Attribute

	Cache Instance Name ^	Cache Clustered Name	Distributed Cache Name	Message VPN Name	Manager Name	Enabled	State	Auto Start Enabled	Stop On Lost Messages Enabled	Lo
	#retain-cache-instance-16534209a34c-backup	#retain-cache-cluster	#retain-cache-16534209a34c	default	HVAP	true	NotAvail	true	false	fa
	#retain-cache-instance-16534209a34c-backup	#retain-cache-cluster	#retain-cache-16534209a34c	ABC	HVAP	true	NotAvail	true	false	fa
	#retain-cache-instance-16534209a34c-primary	#retain-cache-cluster	#retain-cache-16534209a34c	ABC	HVAP	true	NotAvail	true	false	fa
	#retain-cache-instance-16534209a34c-primary	#retain-cache-cluster	#retain-cache-16534209a34c	default	HVAP	true	NotAvail	true	false	fa
	CacheInstance1	Cluster1	Cache1	ABC	HVAP	true	NotAvail	false	true	fa
	CacheInstance2	Cluster2	Cache2	MSG_VPN_1	HVAP	false	NotAvail	false	true	fa
	CacheInstance3	Cluster2	Cache2	MSG_VPN_1	HVAP	false	NotAvail	false	true	fa

DMR Cluster

SOLACE DMR Cluster

Schema: Default Solace DMR... Projects: All Node: * Manager: *

System Attribute: System Attribute

	Manager Name	DMR Cluster Name ^	Enabled	State Up	Link Count	Topology Issue Count	Last Updated
	Solace_41	DMR_Cluster	true	true	1	0	00:00:15 hours

CSPF Neighbor

SOLACE CSPF Neighbor

Schema: Default Solace CSP... Projects: All Node: * Manager: *

System Attribute: System Attribute

	CSPF Neighbor Name ^	Manager Name	Last Updated
	CSPFNeighbor	Solace_41	00:00:22 hours

4.3.17.1 Manage Solace Remote Message VPNs

You can view, create, modify, and delete Remote Message VPNs from Solace Bridge viewlets.

Select the check box for the Solace bridge and select the **Selected** menu. Choose **Remote Msg Vpns....**

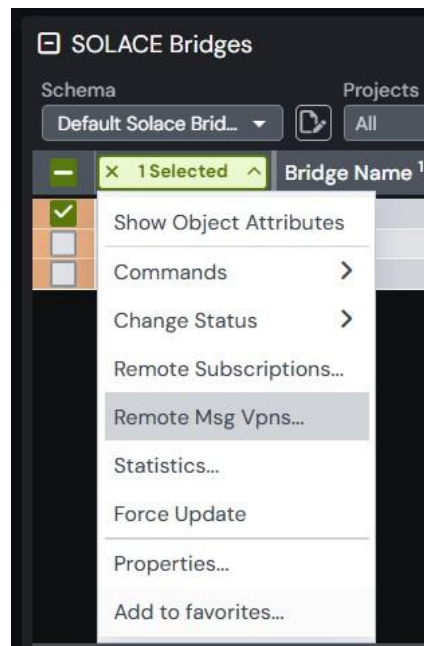


Figure 4.3.17.1-A. Solace Bridge Selected Menu


A list of Remote Message VPNs is displayed in the console panel.

 A screenshot of the console panel displaying a table of Remote Message VPNs. The table has columns for Message VPN Name, Message VPN Location, The Physical Interface, Enabled, Client Username, Client Username Password, Compression Enabled, and TLS Enabled. Two rows are visible: 'secondary' and 'new_m'.

	Message VPN Name	Message VPN Location	The Physical Interface	Enabled	Client Username	Client Username Password	Compression Enabled	TLS Enabled
<input type="checkbox"/>	secondary	127.0.0.1:55555		true			false	false
<input type="checkbox"/>	new_m	127.0.0.1:55556		false	meow		false	false

 Below the table, there is a pagination control showing 'Page 1 of 1' and 'View 1 - 2 of 2'.

Figure 4.3.17.1-B. Solace Remote Message VPNs in Console

To create a new Remote Message VPN, click .

You can modify or delete a disabled Remote Message VPN.

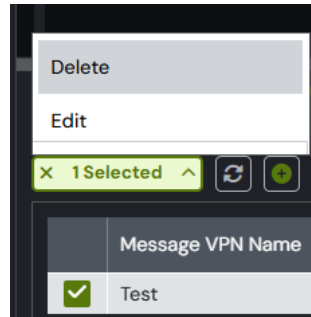
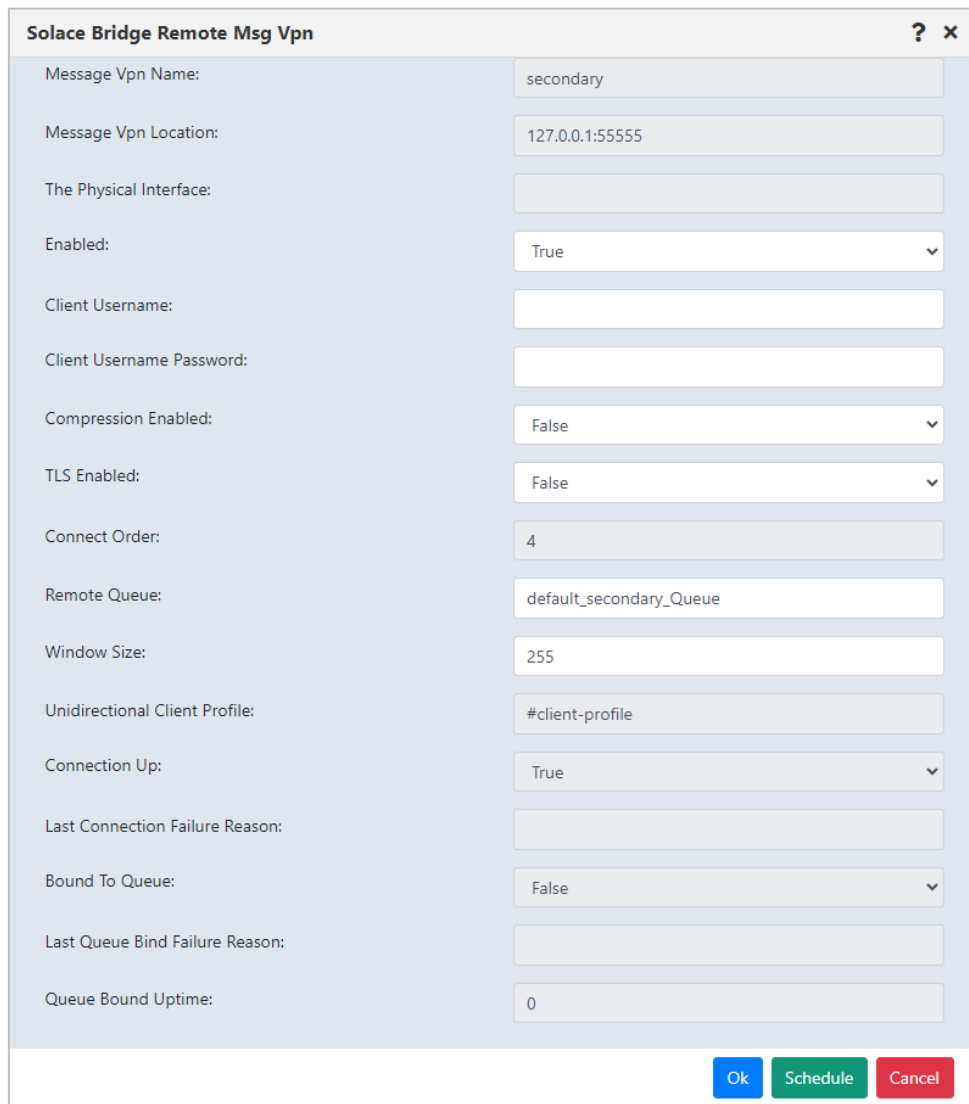


Figure 4.3.17.1-C. Solace Remote Message VPNs Console Selected Menu

- To modify a disabled Remote Message VPN, select its check box, then select **Edit** from the **Selected** menu. The *Solace Bridge Remote Msg VPN* properties dialog opens (see the figure below).
- To delete a disabled Remote Message VPN, select its check box, then select **Delete** from the **Selected** menu.



Property	Value
Message Vpn Name:	secondary
Message Vpn Location:	127.0.0.1:55555
The Physical Interface:	
Enabled:	True
Client Username:	
Client Username Password:	
Compression Enabled:	False
TLS Enabled:	False
Connect Order:	4
Remote Queue:	default_secondary_Queue
Window Size:	255
Unidirectional Client Profile:	#client-profile
Connection Up:	True
Last Connection Failure Reason:	
Bound To Queue:	False
Last Queue Bind Failure Reason:	
Queue Bound Uptime:	0

Figure 4.3.17.1-D. Solace Remote Message VPNs Properties Dialog

4.3.17.2 Add Client Certificate Rules, Conditions and Attributes

1. Select the Message VPN within the Message VPN viewlet.
2. Click on **Client Certificate Rules** from the Selected menu. (Refer to this to learn how to [Create Solace Message VPN.](#))

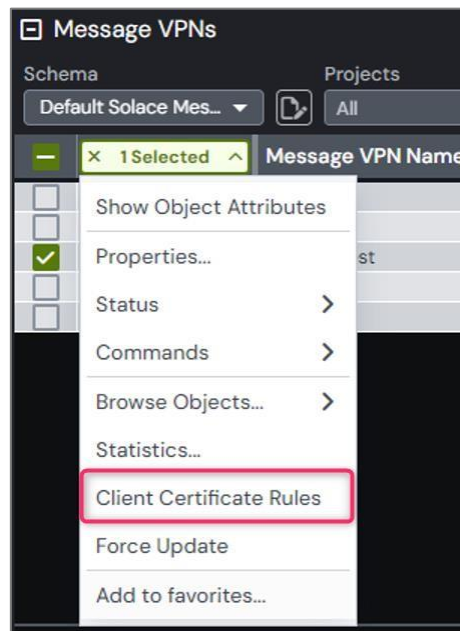



Figure 4.3.17.2-A Client Certificate Rules Option

3. The client certificate rules panel will display in the Console panel. Click the  icon to open the **Solace Client Matching Rule** dialog. Enter the details and click **OK**.
4. You can name the Client Matching Rule anything you choose (e.g., the organization name).

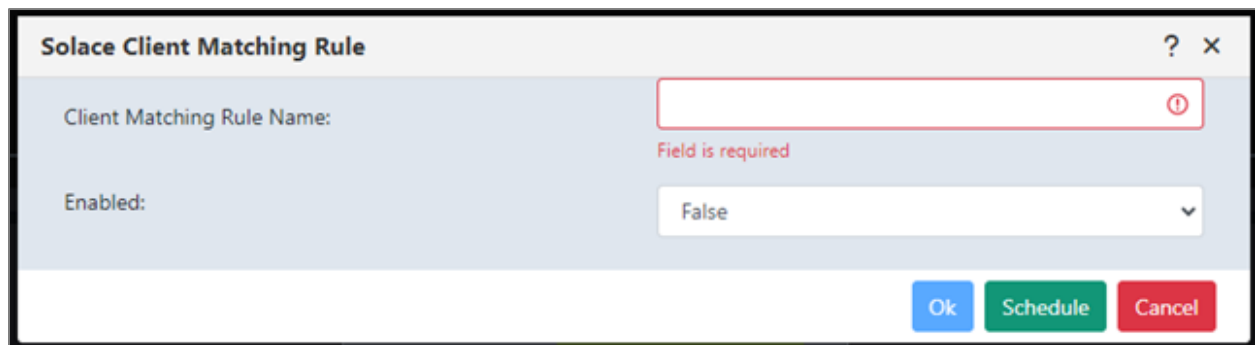


Figure 4.3.17.2-B Solace Client Certificate Rules Window


5. Once you create the matching rule, select the checkbox for the rule in the Console panel and click on **Conditions** from the Selected menu to set the conditions.
6. A new tab will open for setting a condition. Click the  button to open the **Solace Matching Rule Condition** dialog. Select the conditions from the dropdown options and click **OK**.



Figure 4.3.17.2-C Solace Matching Rule Condition Window


7. Select the checkbox for the rule in the Console panel, then click on **Attribute Filters** from the Selected menu to set the filters.
8. A new tab will open to create attribute filters. Click the  button to open the **Solace Matching Rule Attribute Filter** dialog. Enter the details and click **OK**.



Figure 4.3.17.2-D Solace Matching Rule Attribute Filter Window

9. After creating the conditions and attributes, select the client certificate rule and click **Turn On** from Selected menu to enable the matching rule. A confirmation dialog will appear; click **Yes** to enable the matching rule.

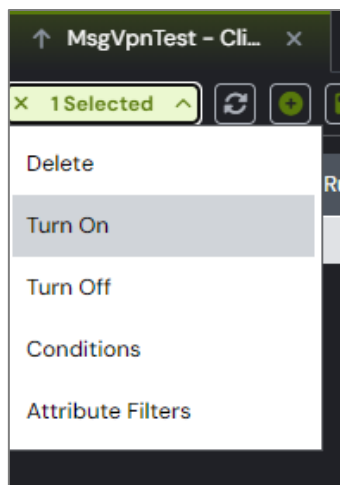


Figure 4.3.17.2-E Turn On/Off Option

10. You can also disable the rule by clicking **Turn Off** from the Selected menu.

4.3.17.2.1 Modify an Attribute

You can modify the attributes of a Message VPN Client Certificate Matching Rule.

To modify attribute filters, select its checkbox and then choose **Edit** from the Selected menu.

The **Matching Rule Attribute Filter Filter properties** dialog will open. Modify the options and click **Ok**.

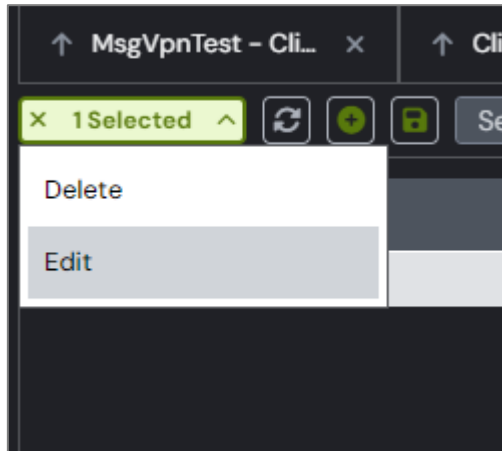


Figure 4.3.17.2.1-A Edit Attribute

4.3.17.2.2 Delete a Client Certificate Rule, Condition or Attribute

To delete a Message VPN client certificate matching rule, condition, or attribute filter, select its checkbox and then choose **Delete** from the Selected menu. A confirmation dialog will open, click **Yes** to confirm the deletion.

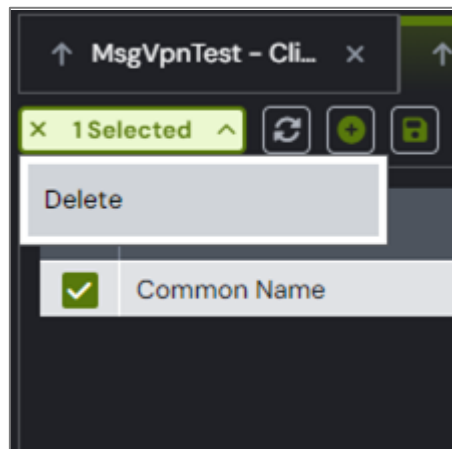


Figure 4.3.17.2.2-A Delete Option

4.3.18 RabbitMQ Viewlets

View your RabbitMQ objects in meshIQ Manage. You can create viewlets for these RabbitMQ items:

- Node
- Server
- Remote Node
- Virtual Host
- Connection
- Channel
- Consumer
- Exchange
- Queue
- User
- Component
- Policy
- Operator Policy

Some examples are shown below.

Node

Node Name	Hostname	Use DNS	IP Address	IP Port	OS Platform	Description	Workgroup Name	Software Version	Heartbeat Interval (min.)	Update Interval (sec.)	Command Timeout (sec.)
AGENT		NO	172.16.31.142	5010	WINDOWS NT		MQM	6.70009.6	1	30	90
CMRABBITMQ	PUMA	NO	172.16.31.115	5591	Java		MQM	RL2.0	1	30	90
REMOTE_RABBITMQ	apm6-cep2	NO	127.0.0.1	5599	Java		MQM	RL2.0	1	30	60

Server

You can change the RabbitMQ server cluster name. See [Change RabbitMQ server cluster name.](#)

Manager Name	Node Name	Product Version	Rates Mode	Connections	Channels	Exchanges	Queues	Consumers	Messages	Last Updated
RABBIT_SERVER	CMRABBITMQ	4.0.3	basic	0	0	14	10	0	1	00:00:20 hours

Remote Node

Remote Node Name	Manager Name	User ID	Is Running	Uptime	FD Used	FD Total	Sockets Used	Sockets Total	Erlang Proc. Used	Erlang Proc. Total	Mem. Calculation Strategy	Mem. Used
rabbit@Middleware3	RABBIT_SERVER	rabbit@Middleware3	true	25:46:98641	49	32768	0	0	422	1048576	rss	121679872

Virtual Host

Virtual Host Name	Manager Name	Cluster State Map	Messages Ready	Messages Unacked	Messages	Returned Unrouted Messages Rate	Unrouted Dropped Messages Rate	Published Messages
/	RABBIT_SERVER	rabbit@Middleware3	0	0	0	-9999	-9999	-9999
rabbit_vhost	RABBIT_SERVER	rabbit@Middleware3	1	0	1	-9999	-9999	-9999

Connection

Connection

Connection Name ^	Manager Name	Virtual Host Name	User	State	SSL	Protocol	Copyright	Receive Count	Send Count	Last
172.16.31.142:49870 -> 172.16.31.142:5672	Rabbit	MY_HOST	Admin	running	false	AMQP 0-9-1	Copyright (c) 2007-2024 Broadcom Inc. and/or its subsidiaries.	16	16	00:00

Channel

Channel

Channel Name ^	Manager Name	Virtual Host Name	User	Confirmed Messages	Transactional	State	Messages Unconfirmed	Global Prefetch Count	Prefetch Count	Message
172.16.31.142:49870 -> 172.16.31.142:5672 (1)	Rabbit	MY_HOST	Admin	-9999	false	running	0	0	0	0

Consumer

Consumer

Consumer Tag ^	Manager Name	Queue Name	Channel Name	Ack. Required	Prefetch Count	Active	Argument Map	Last Updated
amq.ctag--amqGVWUqQ9HU-fzUQ	Rabbit	RQ	172.16.31.142:49870 -> 172.16.31.142:5672 (1)	true	0	true		00:00:41 hours

Exchange

Exchanges

Manager Name	Exchange Name ^	Virtual Host Name	Exchange Type	Publish In Rate	Publish Out Rate	Last Updated
RABBIT_SERVER	amq.default	rabbit_vhost	direct	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.direct	rabbit_vhost	direct	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.direct	/	direct	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.fanout	/	fanout	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.fanout	rabbit_vhost	fanout	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.headers	rabbit_vhost	headers	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.headers	/	headers	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.match	/	headers	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.match	rabbit_vhost	headers	-9999	-9999	00:00:33 hours
RABBIT_SERVER	amq.rabbitmq.trace	/	topic	-9999	-9999	00:00:33 hours

Queue

Queues

Queue Name ^	Manager Name	Virtual Host Name	Queue Type	Queue State	Messages Ready	Messages	Messages Unacked	Goten Delivered Messages Rate	Acknowledgment Messages Rate
Classic_Queue	RABBIT_SERVER	/	classic	running	0	0	0	-9999	-9999
Classic_Queue1	RABBIT_SERVER	rabbit_vhost	classic	running	0	0	0	-9999	-9999
Queue1	RABBIT_SERVER	rabbit_vhost	classic	running	1	0	0	-9999	-9999
Queue3	RABBIT_SERVER	rabbit_vhost	classic	running	0	0	0	-9999	-9999
Queue4	RABBIT_SERVER	rabbit_vhost	classic	running	0	0	0	-9999	-9999
Queue5	RABBIT_SERVER	rabbit_vhost	classic	running	0	0	0	-9999	-9999
Queue6	RABBIT_SERVER	rabbit_vhost	classic	running	0	0	0	-9999	-9999
Quorum_Queue	RABBIT_SERVER	/	quorum	running	0	0	0	-9999	-9999
Quorum_Queue1	RABBIT_SERVER	rabbit_vhost	quorum	running	0	0	0	-9999	-9999
Quorum_Queue1	RABBIT_SERVER	rabbit_vhost	quorum	running	0	0	0	-9999	-9999

User

Users

User Name ^	Manager Name	Password Set	Hashing Algorithm	Tags	Last Updated
Admin	RABBIT_SERVER	true	rabbit_password_hashing_sha256	administrator	00:00:04 hours
guest	RABBIT_SERVER	true	rabbit_password_hashing_sha256	administrator	00:00:04 hours

Components

Components

Schema: Default Rabbit MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute | Search (Filter By) | Hide filters | Result Limit: 100

Component Name	Manager Name	Component Type	Virtual Host Name	Component Parameter Type	Last Updated
limits	RABBIT_SERVER	vhost-limits	rabbit_vhost	max-queues=100000;max-connections=1000	00:00:34 hours
rabbit_operatorpolicy1	RABBIT_SERVER	operator_policy	rabbit_vhost	pattern="*";definition=[max-length:10000];priority=0;apply-to="queues"	00:00:34 hours
rabbit_operatorpolicy2	RABBIT_SERVER	operator_policy	rabbit_vhost	pattern="*";definition=[max-length-bytes:100000];priority=0;apply-to="queues"	00:00:34 hours

Policies

Policies

Schema: Default Rabbit MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute | Search (Filter By) | Hide filters | Result Limit: 100

Policy Name	Manager Name	Virtual Host Name	Pattern	Apply To	Definition Map	Priority	Last Updated
rabbit_policy1	RABBIT_SERVER	rabbit_vhost	*	queues	max-length=10000	0	00:00:04 hours
rabbit_policy2	RABBIT_SERVER	rabbit_vhost	*	all	max-length=100000	0	00:00:04 hours

Operator Policies

Operator Policies

Schema: Default Rabbit MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute | Search (Filter By) | Hide filters | Result Limit: 100

Operator Policy Name	Manager Name	Virtual Host Name	Pattern	Apply To	Definition Map	Priority	Last Updated
rabbit_operatorpolicy1	RABBIT_SERVER	rabbit_vhost	*	queues	max-length=10000	0	00:00:19 hours
rabbit_operatorpolicy2	RABBIT_SERVER	rabbit_vhost	*	queues	max-length-bytes=100000	0	00:00:19 hours

4.3.18.1 RabbitMQ Status viewlets

You can view status information for RabbitMQ channels, connections, exchanges, consumers, nodes, queues, servers, and virtual hosts. For example, you can select Show Exchange Status from a queue viewlet's **Selected** menu (or click the status value within the Status column of the viewlet) to display a Status viewlet for the queue, as shown in the figures below.

You can also compare the status of multiple objects of the same type by selecting the objects and selecting **Show Status** from the **Selected** menu. See Figure 4.3.18.1.1-I below.



Figure 4.3.18.1.1-A. RabbitMQ Node Status Viewlet



Figure 4.3.18.1.1-B. RabbitMQ Server Status Viewlet



Figure 4.3.18.1.1-C. RabbitMQ Remote Node Status Viewlet

Attributes	Value
Manager Name	RabbitServer
Workgroup Name	MGM
Node Name	CMRABBIT
Estimated Response Time	1000
Messages	340
Messages Rate	0
Messages Ready	340
Messages Ready Rate	0
Messages Unacked	0
Messages Unack Rate	0
Published Messages	1950
Published Messages Rate	0
Confirmed Messages	0
Confirmed Messages Rate	0
Delivered Messages No Acknowledgment	0
Delivered Messages No Acknowledgment Rate	0

Figure 4.3.18.1.1-D. RabbitMQ Virtual Host Status Viewlet

Attributes	Value
Manager Name	RabbitServer
Workgroup Name	MGM
Node Name	CMRABBIT
Estimated Response Time	1000
Channels	1
State	running
OCT Received	487
OCT Received Rate	0
OCT Send	663
OCT Send Rate	0
Connection Name	172.17.0.1:56388 -> 172.17.0.2:5672
Reductions	21782
Reductions Rate	173.2
Receive Count	8
Send Count	8
Send Description	0

Figure 4.3.18.1.1-E. RabbitMQ Connection Status Viewlet

Attributes	Value
Manager Name	RabbitServer
Workgroup Name	MGM
Node Name	CMRABBIT
Estimated Response Time	1000
Published Messages	-9999
Published Messages Rate	-9999
Confirmed Messages	-9999
Confirmed Messages Rate	-9999
Delivered Messages No Acknowledgment	-9999
Delivered Messages No Acknowledgment Rate	-9999
Delivered Messages Acknowledgment	-9999
Delivered Messages Acknowledgment Rate	-9999
Gotten Delivered Messages	-9999
Gotten Delivered Messages Rate	-9999
Acknowledgment Messages	-9999
Acknowledgment Messages Rate	-9999

Figure 4.3.18.1.1-F. RabbitMQ Channel Status Viewlet



Figure 4.3.18.1.1-G. RabbitMQ Consumer Status Viewlet



Figure 4.3.18.1.1-H. RabbitMQ Exchange Status Viewlet



Figure 4.3.18.1.1-I. RabbitMQ Queue Status Viewlet

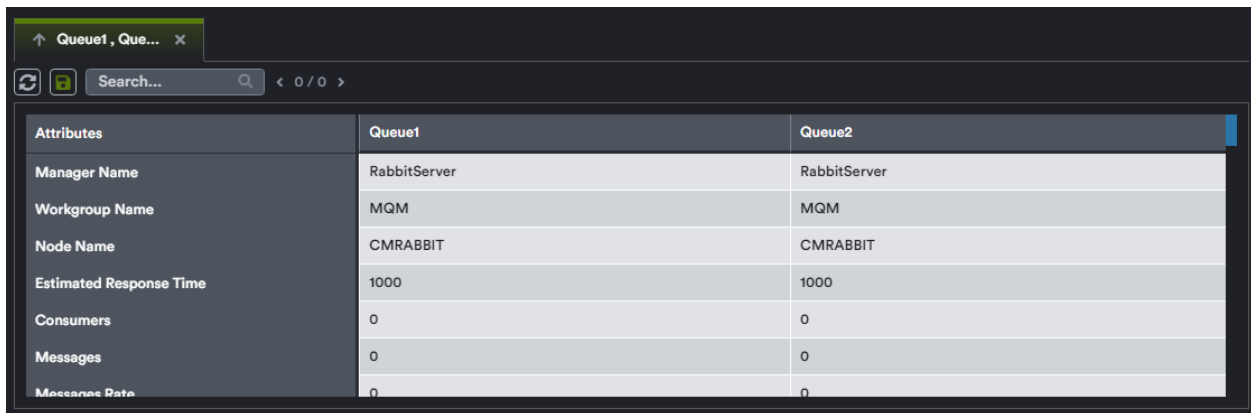


Figure 4.3.18.1.1-J. Compare Status of RabbitMQ objects

4.3.18.2 Change RabbitMQ server cluster name

By default, the RabbitMQ server cluster name is derived from the name of the first node in the cluster, but you can change it. Doing so changes the name of the cluster only, not the name of any objects within it.

To change a server cluster name:

1. Select the check box for the server and select **Set Cluster Name** from the **Selected** menu.
2. Enter the new name.
3. Click **OK**.

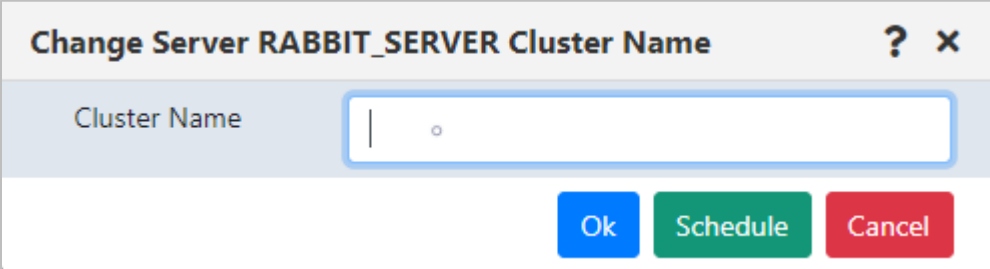


Figure 4.3.18.2-A. Change RabbitMQ Server Cluster Name

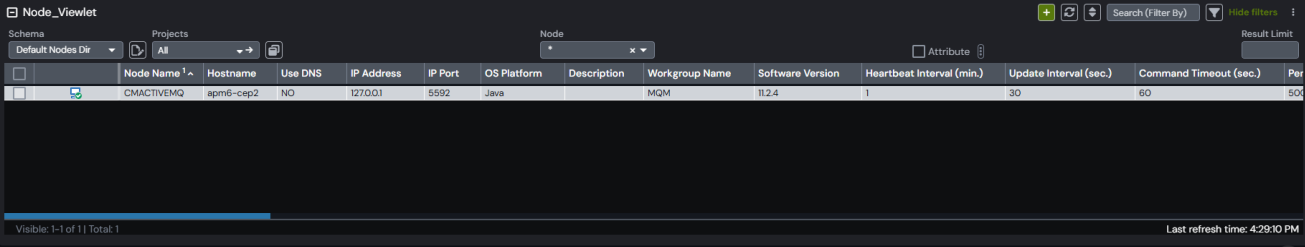
4.3.19 ActiveMQ Viewlets

View your ActiveMQ objects in meshIQ Manage. You can create viewlets for these ActiveMQ items:

- Node
- Manager
- Broker
- Queue
- Topic
- Producer
- Dynamic Producer
- Consumer
- Connection

Some examples are shown below.

Node



Node Name	Hostname	Use DNS	IP Address	IP Port	OS Platform	Description	Workgroup Name	Software Version	Heartbeat Interval (min)	Update Interval (sec)	Command Timeout (sec)	Per
CMACTIVEMQ	apm6-cep2	NO	127.0.0.1	5592	Java	MQM		11.2.4	1	30	60	50

Manager

Manager

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Workgroup Name	Node Name	Manager Name ^	Manager Type	Manager ID	Last Data Update Timestamp
MQM	CHACTIVEMQ	ActiveMQ-server	jolokia	172.16.31.15-10390-03e308b5-serverlet	00:00:00 hours
MQM	CHACTIVEMQ	activemq-ssl	jolokia	172.16.31.25-67025-7d7f1fd-serverlet	00:00:00 hours

Visible: 1-2 of 2 | Total: 2 | Last refresh time: 4:14:15 PM

Broker

Brokers

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Broker Name ^	Manager Name	Broker Version	Memory Limit	Store Limit	Job Scheduler Store Limit	Slave	Data Directory	Uptime	Total Connections Count	Total Enqueue Co
activemq-broker	activemq-ssl	6.16	751619277	35934606249	0	false	/opt/ActiveMQ/apache-activemq-6.16/data	3 days 2 hours	22	140
DemoBroker	ActiveMQ-server	6.16	751619277	16293648053	0	false	/opt/ActiveMQ/apache-activemq-6.16/data	13 days 5 hours	17	103

Visible: 1-2 of 2 | Total: 2 | Last refresh time: 4:14:08 PM

Queue

Queues

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Queue Name ^	Manager Name	Memory Limit	Producer Flow Control	DLQ	Enqueue Count	Dequeue Count	Forward Count	In Flight Count	Expired Count	Consumers Count	Queue Size	Memor
ABC	ActiveMQ-server	751619277	true	false	0	0	0	0	0	0	0	0
ABC123	ActiveMQ-server	751619277	true	false	15	5	0	0	0	0	10	0
ActiveQ	activemq-ssl	751619277	true	false	1	0	0	0	0	0	1	0
ActiveQ1	activemq-ssl	751619277	true	false	10	0	0	0	0	0	10	0
ActiveQueue1	activemq-ssl	751619277	true	false	11	0	0	0	0	0	11	0
ActiveQueue2	activemq-ssl	751619277	true	false	0	0	0	0	0	0	0	0
ActiveQueue3	activemq-ssl	751619277	true	false	0	0	0	0	0	0	0	0
ActiveQueue4	activemq-ssl	751619277	true	false	0	0	0	0	0	0	0	0
AP	activemq-ssl	751619277	true	false	0	0	0	0	0	0	0	0

Visible: 1-9 of 32 | Total: 32 | Last refresh time: 4:14:27 PM

Topic

Topic

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Topic Name ^	Manager Name	Memory Limit	DLQ	Enqueue Count	Dequeue Count	Consumers Count	Queue Size	Producers Count	Last Data Update Timestamp
ABC	ActiveMQ-server	751619277	false	0	0	0	0	0	00:04:08 hours
ABC123	ActiveMQ-server	751619277	false	2	0	0	0	0	00:04:08 hours
Active-topic1	activemq-ssl	751619277	false	0	0	1	0	0	00:00:22 hours
Active-topic2	activemq-ssl	751619277	false	0	0	0	0	0	00:00:22 hours
ActiveMQAdvisoryConnection	activemq-ssl	751619277	false	44	0	0	0	0	00:00:22 hours
ActiveMQAdvisoryConnection	ActiveMQ-server	751619277	false	34	0	0	0	0	00:04:08 hours
ActiveMQAdvisoryConsumerQueue.ActiveQ	activemq-ssl	751619277	false	4	0	0	0	0	00:00:22 hours
ActiveMQAdvisoryConsumerQueue.Test123	activemq-ssl	751619277	false	6	0	0	0	0	00:00:22 hours
ActiveMQAdvisoryMasterBroker	ActiveMQ-server	751619277	false	1	0	0	0	0	00:04:08 hours

Visible: 1-8 of 23 | Total: 23 | Last refresh time: 4:18:18 PM

Producer

Producer

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Producer Name ^	Manager Name	User Name	Producer Blocked	Total Time Blocked	Last Data Update Timestamp
IDVlnay-PC-52480-1760437677126-1111	Cloudactmq		false	0	00:02:06 hours
IDVlnay-PC-52480-1760437677126-1112	Cloudactmq		false	0	00:02:06 hours

Visible: 1-2 of 2 | Total: 2 | Last refresh time: 5:37:52 PM

Dynamic Producer

Producer

Schema: Default Active MQ | Projects: All | Node: * | Manager: * | Object: *

System Attribute

Result Limit: 100

Producer Name ^	Manager Name	User Name	Producer Blocked	Total Time Blocked	Last Data Update Timestamp
IDVlnay-PC-52480-1760437677126-1111	Cloudactmq		false	0	00:02:06 hours
IDVlnay-PC-52480-1760437677126-1112	Cloudactmq		false	0	00:02:06 hours

Visible: 1-2 of 2 | Total: 2 | Last refresh time: 5:37:52 PM

Consumer

Consumer Name	Manager Name	Selector	Enqueue Counter	Dequeue Counter	Prefetch Size	Exclusive	Slow Consumer	Last Data Update Timestamp
NOTSET-Q-1	activemq-ssl	Test2	0	0	0	false	false	00:01:22 hours

Connection

Connection Name	Manager Name	Remote Address	Active	Consumers Count	Producers Count	Last Data Update Timestamp
DurableClient	Cloudactmq	tcp://0.0.0.0:22341019	true	3	0	00:02:04 hours
IDVlnay-PC-52480-1760437677126-01	Cloudactmq	tcp://0.0.0.0:2231812	true	4	2	00:02:04 hours

4.3.19.1 ActiveMQ Broker Commands

The **ActiveMQ Broker** viewlet provides multiple actions for managing and monitoring brokers. The **Commands** menu provides broker-specific operations as defined in ActiveMQ management capabilities. These include actions to control broker runtime behavior, manage statistics, and perform maintenance operations.

To access broker viewlet commands menu, select a broker and click the **Selected** menu to view the available options.

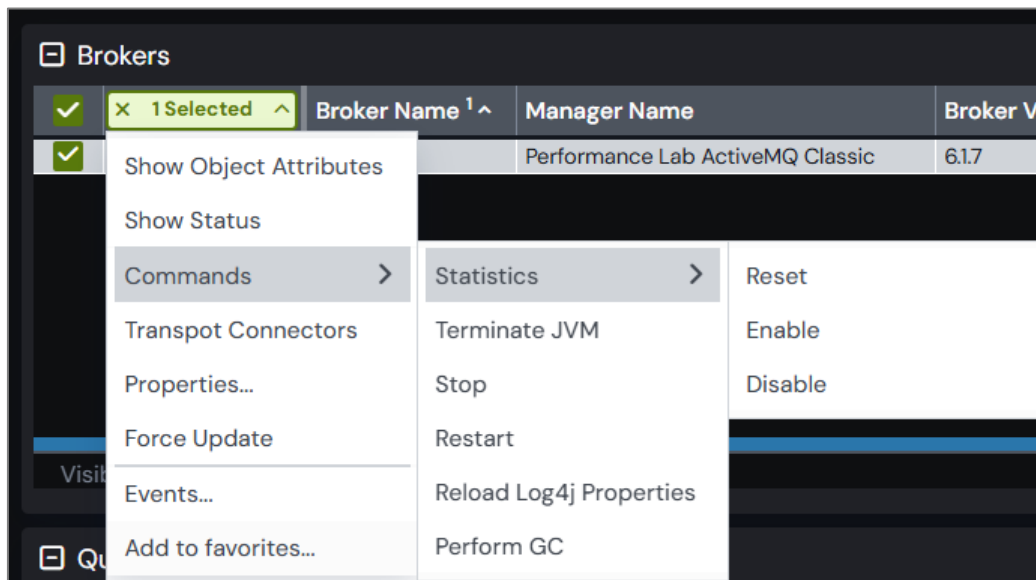


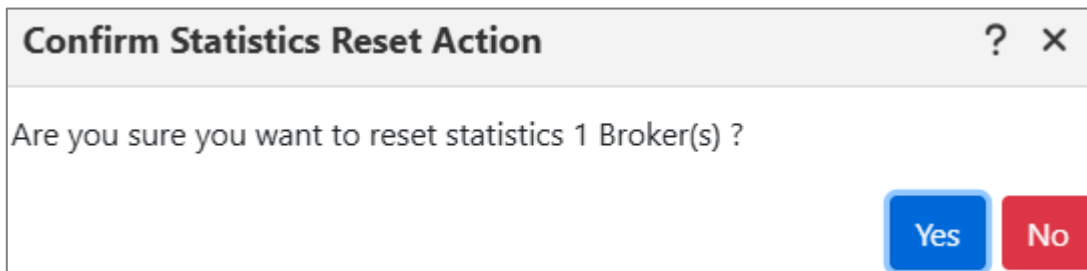
Figure 4.3.19.1-A. ActiveMQ Broker Commands Menu

Statistics Submenu

The **Statistics** submenu under **Commands** is used to manage and monitor broker-level performance metrics such as message rates, connection counts, and throughput.

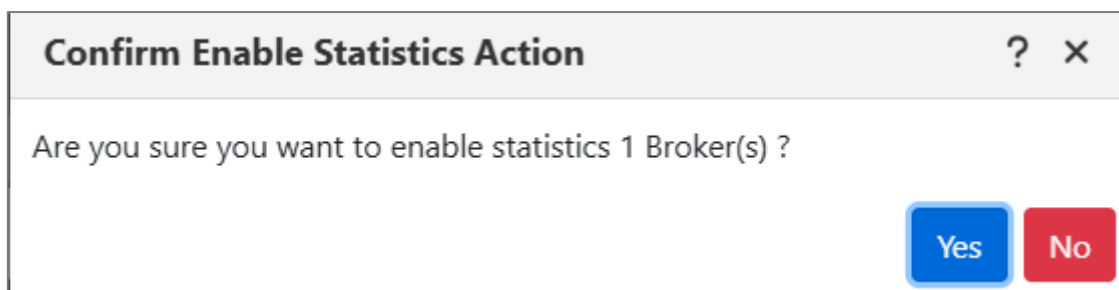
Reset

Select **Commands > Statistics > Reset**. The **Confirm Statistics Reset Action** dialog opens. Click **Yes** to reset all broker statistics counters, including message counts, connection data, and throughput metrics.



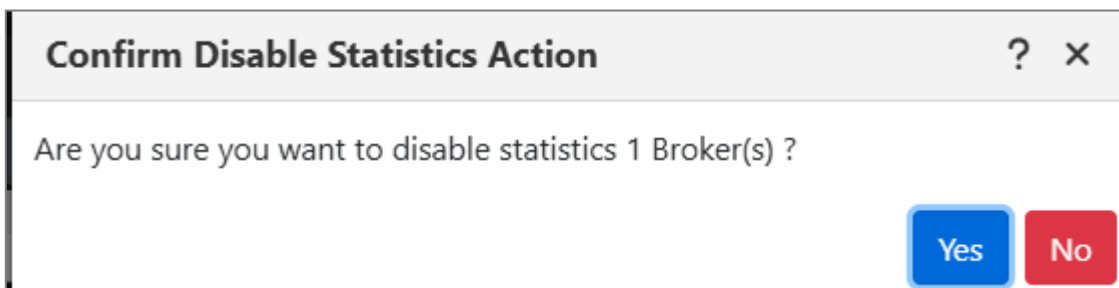
Enable

Select **Commands > Statistics > Enable**. The **Confirm Enable Statistics Action** dialog opens. Click **Yes** to enable the collection of broker statistics if it was previously disabled.



Disable

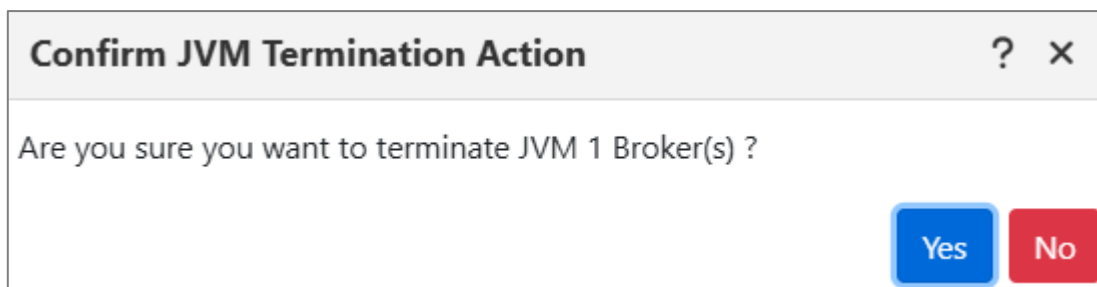
Select **Commands > Statistics > Disable**. The **Confirm Disable Statistics Action** dialog opens. Click **Yes** to disable broker statistics collection, pausing metric tracking until it is re-enabled.



Terminate JVM

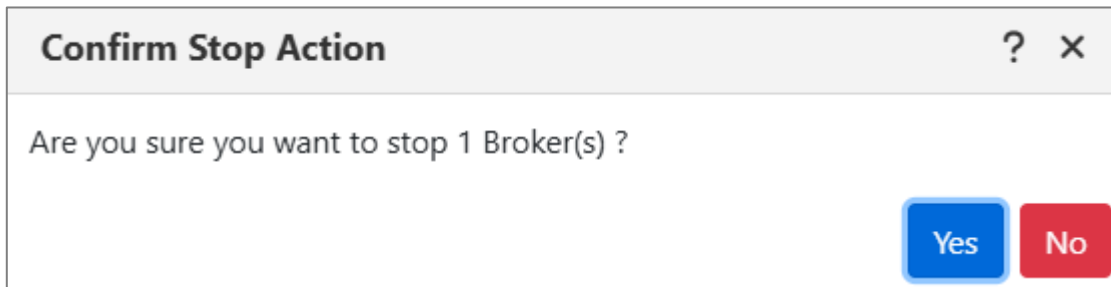
Select **Commands > Terminate JVM**. The **Confirm JVM Termination Action** dialog opens. Click **Yes** to terminate the Java Virtual Machine (JVM) instance running the selected ActiveMQ broker.

Use this option with caution, as it immediately stops all broker processes.



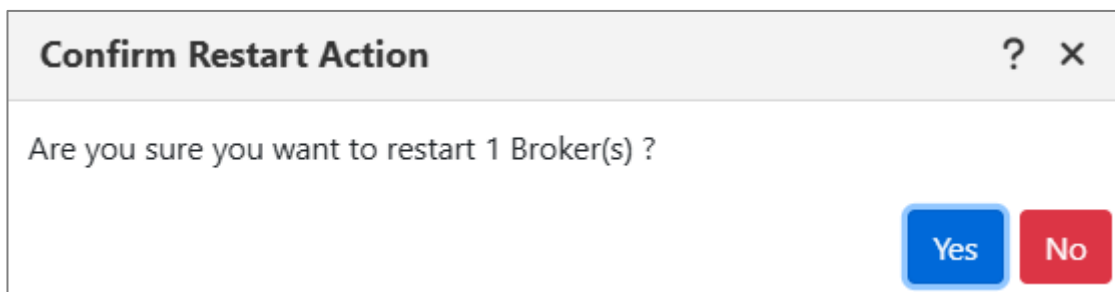
Stop

Select **Commands > Stop**. The **Confirm Stop Action** dialog opens. Click **Yes** to stop the selected ActiveMQ broker gracefully, allowing connected clients to disconnect and pending messages to finish processing before shutdown.



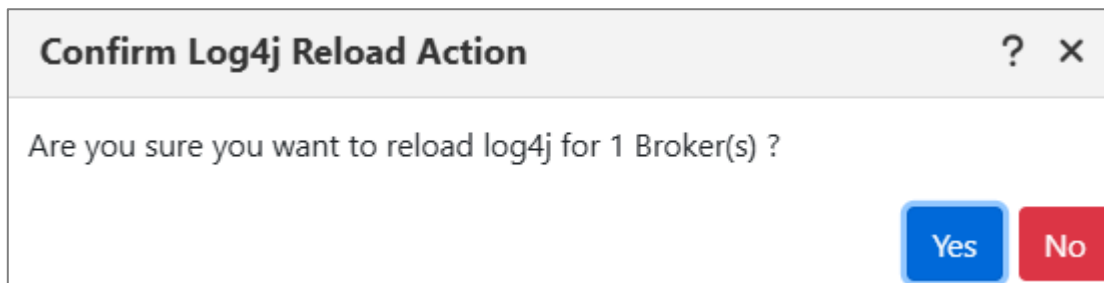
Restart

Select **Commands > Restart**. The **Confirm Restart Action** dialog opens. Click **Yes** to restart the selected ActiveMQ broker. This action stops the broker and immediately starts it again, applying any configuration changes.



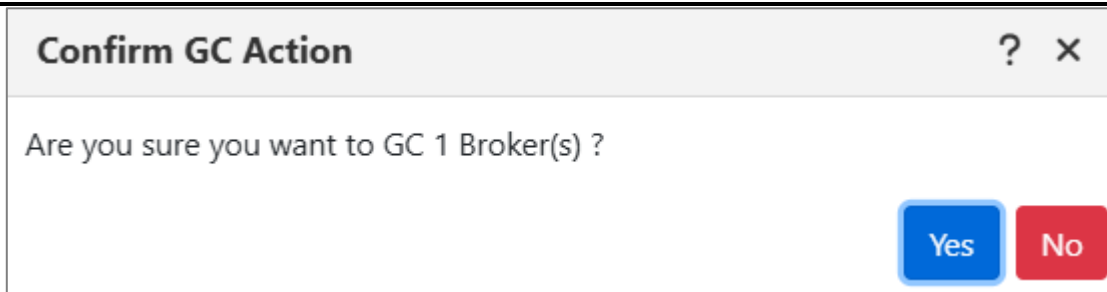
Reload Log4j Properties

Select **Commands > Reload Log4j Properties**. The **Confirm Log4j Reload Action** dialog opens. Click **Yes** to reload the Log4j configuration file for the broker without requiring a restart. This allows you to to apply new logging settings dynamically.



Perform GC

Select **Commands > Perform GC**. The **Confirm GC Action** dialog opens. Click **Yes** to initiate a Java Garbage Collection (GC) cycle on the broker's JVM, reclaiming unused memory resources.



Transport Connectors

Select **Transport Connectors** from the **Selected** menu. The **Transport Connectors** tab opens in the Console, displaying details of the transport protocols and ports configured for the selected broker. This view allows you to review how clients connect to the broker.


The screenshot shows the "Transport Connectors" tab in the meshIQ Manage console. It displays a table with two columns: "Connector Name" and "Address". The table lists five connectors: openwire, amqp, mqtt, stomp, and ws, each with its corresponding address. The interface includes a search bar, a table with 50 objects per page, and a page indicator showing "Page 1 of 1".

Connector Name	Address
openwire	tcp://9e637fe05d2e:61616?maximumConnections=1000&wireFormat.maxFrameSize=104857600
amqp	amqp://9e637fe05d2e:5672?maximumConnections=1000&wireFormat.maxFrameSize=104857600
mqtt	mqtt://9e637fe05d2e:1883?maximumConnections=1000&wireFormat.maxFrameSize=104857600
stomp	stomp://9e637fe05d2e:61613?maximumConnections=1000&wireFormat.maxFrameSize=104857600
ws	ws://9e637fe05d2e:61614?maximumConnections=1000&wireFormat.maxFrameSize=104857600

4.3.19.2 Put New Messages to ActiveMQ Queues and Topics

The instructions below explain how to add a message to an ActiveMQ queue or topic.

1. In the queue or topic viewlet, select the queue or topic where you want to put messages.
2. From the **Selected** menu, choose **Messages > Put New Message**.

(Alternatively, click the **Put New**  button from the Console tab while browsing messages.)

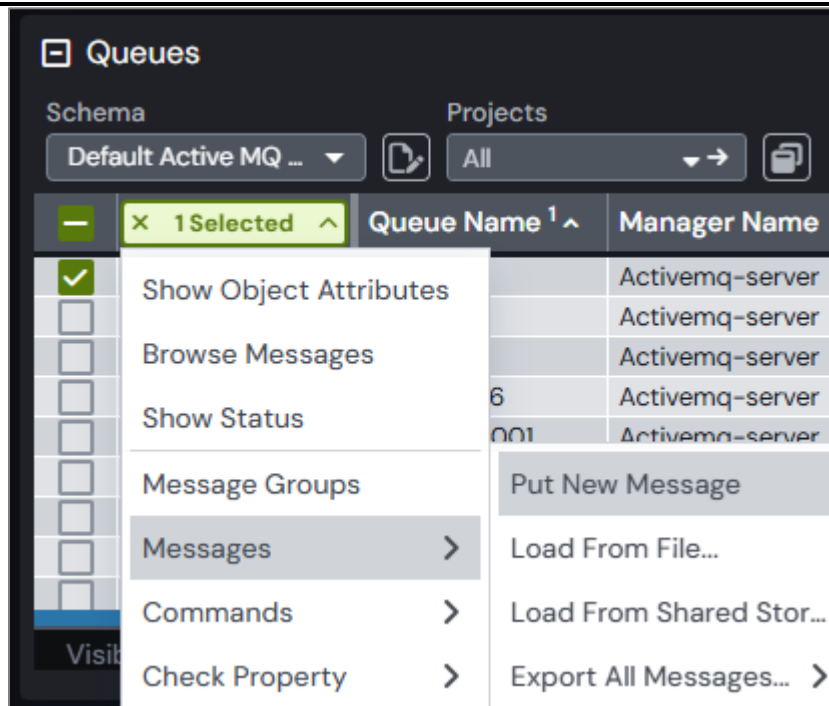


Figure 4.3.19.2-A. Put New Message Option

3. The **Add New Message To** dialog opens.

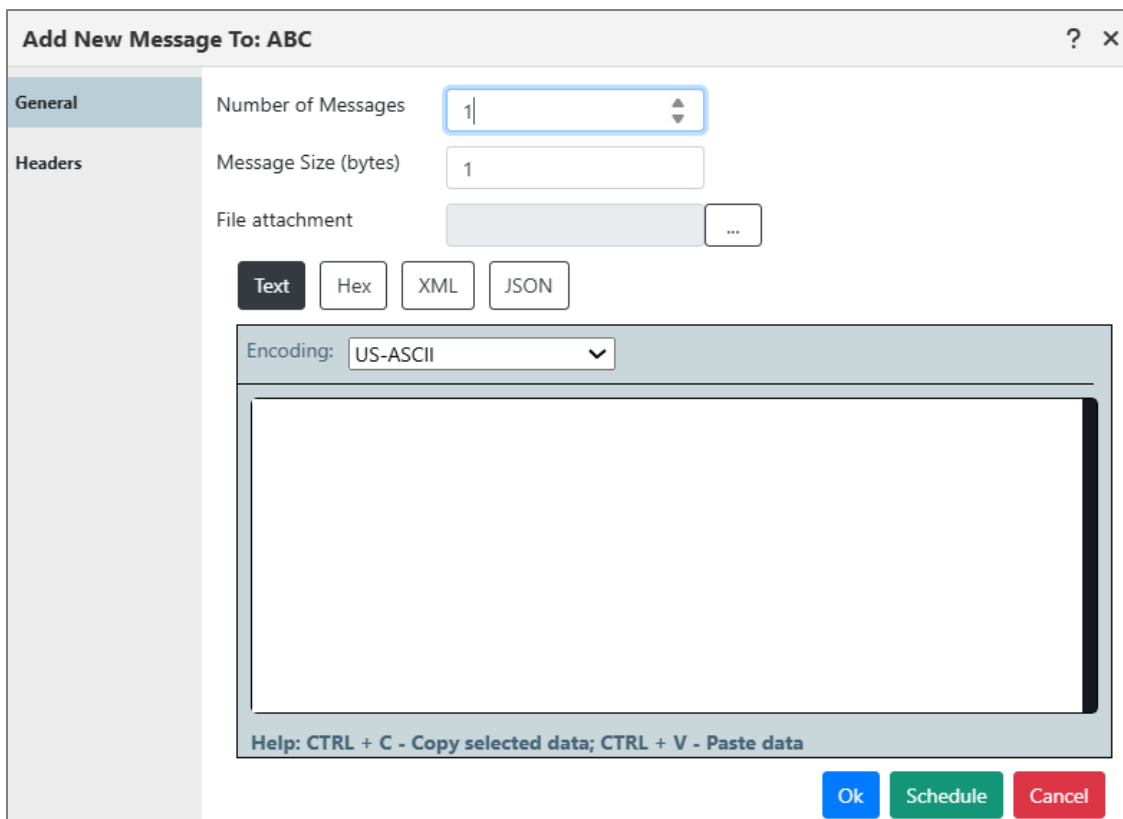



Figure 4.3.19.2-B. Add New Message To-General Tab

General Tab

- **Number of Messages** – Specify the number of messages you want to put.
- **Message Size (bytes)** – Specify the size of messages you want to put.
- **File Attachment** – (Optional) Use the browse  button to locate a file to attach to the message.
- **Message Key** – (Optional) Enter a message key. By default, an ActiveMQ message is placed on a queue according to its key.
- **Format** – Select a format in which to write the message: Text, Hex, XML, or JSON. The message content will appear in the selected format.
- **Encoding** – Choose the encoding type from the drop-down list.

Headers Tab

You can specify additional JMS header properties for the message:

- **JMSDeliveryMode** – Select the delivery mode for the message. Options:
 - PERSISTENT – The message is stored until delivered.
 - NON_PERSISTENT – The message is not stored and may be lost if a failure occurs.
 - RELIABLE – Ensures messages are delivered reliably, balancing performance and durability depending on broker implementation.
- **JMSCorrelationID** – Enter an identifier to link this message with another message. Commonly used for request–reply scenarios.
- **JMSExpiration** – Specify the time-to-live value (in milliseconds). A value of 0 means the message does not expire.
- **JMSPriority** – Define the priority level of the message (0 = lowest). The default value is 4.
- **JMSType** – (Optional) Enter a message type identifier to categorize the message.
- **JMSGroupID** – (Optional) Provide a group identifier if the message should belong to a specific message group. This ensures related messages are processed in sequence.

After completing the required fields and headers, click **Ok** to put the message immediately, or click **Schedule** to send it at a later time.

The screenshot shows a dialog box titled "Add New Message To: ABC" with a help icon and a close icon in the top right corner. The dialog is divided into two tabs: "General" and "Headers". The "Headers" tab is currently selected and highlighted in blue. Under the "Headers" tab, there are six input fields:

- JMSDeliveryMode: A dropdown menu showing "PERSISTENT" with a downward arrow.
- JMSCorrelationID: An empty text input field.
- JMSExpiration: A text input field containing the value "0".
- JMSPriority: A text input field containing the value "4".
- JMSType: An empty text input field.
- JMSGroupID: An empty text input field.

At the bottom right of the dialog, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

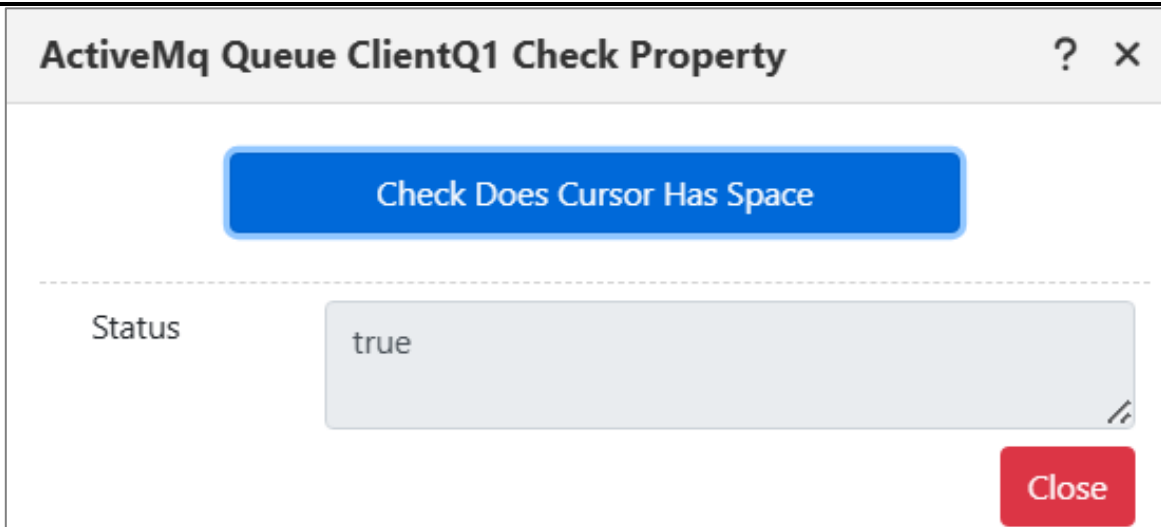
Figure 4.3.19.2-C. Add New Message To-Headers Tab

4.3.19.3 ActiveMQ Queue Check Property

Select **Check Property** > **Cursor Has Space** from the **Selected** menu. The *ActiveMQ Queue Check Property* dialog opens. Click **Check Does Cursor Has Space** to verify whether the queue's internal cursor has available space for storing additional messages.

The screenshot shows a dialog box titled "ActiveMq Queue ClientQ1 Check Property" with a help icon and a close icon in the top right corner. The dialog contains a large blue button with the text "Check Does Cursor Has Space" in the center. Below this button, there is a horizontal dashed line. In the bottom right corner of the dialog, there is a red button with the text "Close".

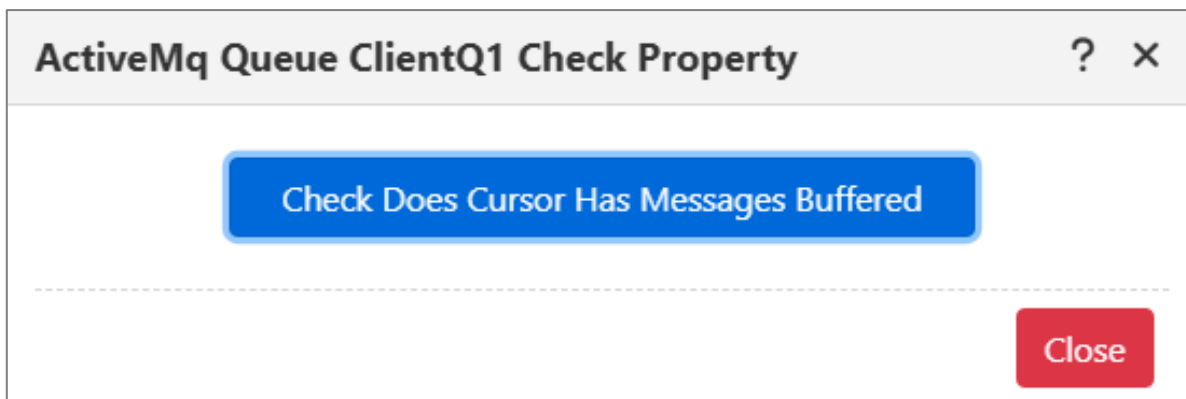
If space is available, the **Status** field displays *true*; otherwise, it shows *false*.



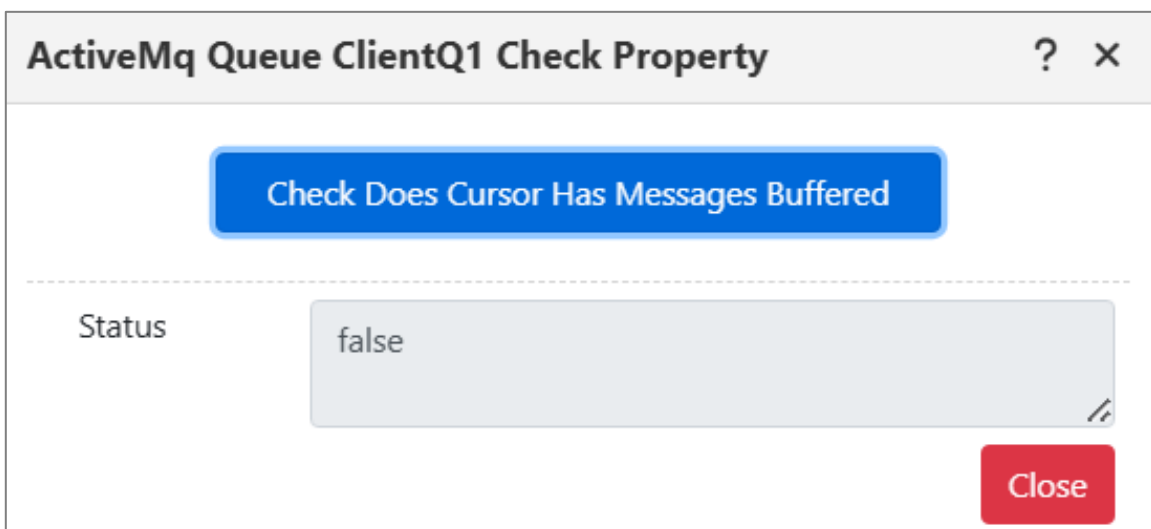
Cursor Has Messages Buffered

Select **Check Property** > **Cursor Has Messages Buffered** from the **Selected** menu.

The *ActiveMQ Queue Check Property* dialog opens. Click **Check Does Cursor Has Messages Buffered** to verify whether the queue's internal cursor currently has any messages buffered in memory.

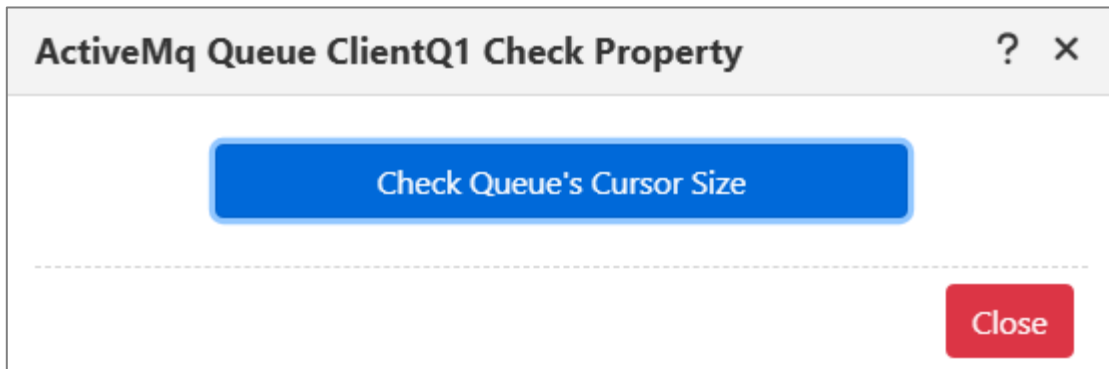


If messages are buffered, the **Status** field displays *true*; otherwise, it shows *false*.

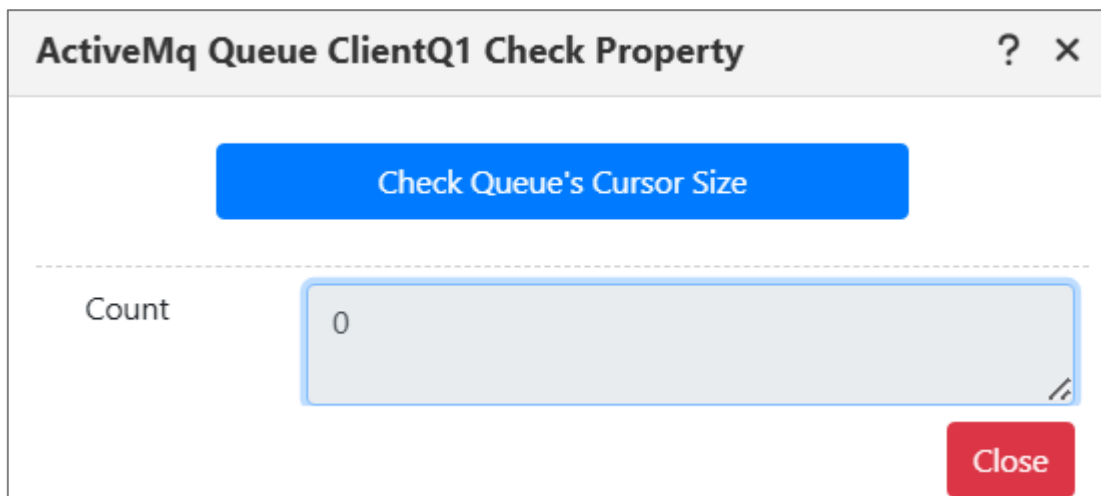


Cursor Size

Select **Check Property** > **Cursor Size** from the **Selected** menu. The *ActiveMQ Queue Check Property* dialog opens. Click Check Queue's Cursor Size to view the current size of the queue's internal cursor.



The **Count** field displays the numeric size, representing the number of messages currently held in the cursor.



4.3.19.4 ActiveMQ Consumer Check Matching

The **Check Matching** submenu allows you to verify whether the consumer is correctly linked to its assigned queue or topic destination.

Consumer Queue

Select **Check Matching > Consumer Queue** from the Selected menu.

The *ActiveMQ Consumer Check Property* dialog opens.

From the Queue dropdown, select the queue you want to verify and click **Check Matching Queue**.

The Status field then displays the result of the match check:

- true — if the consumer is subscribed to the selected queue.
- false — if there is no matching subscription.

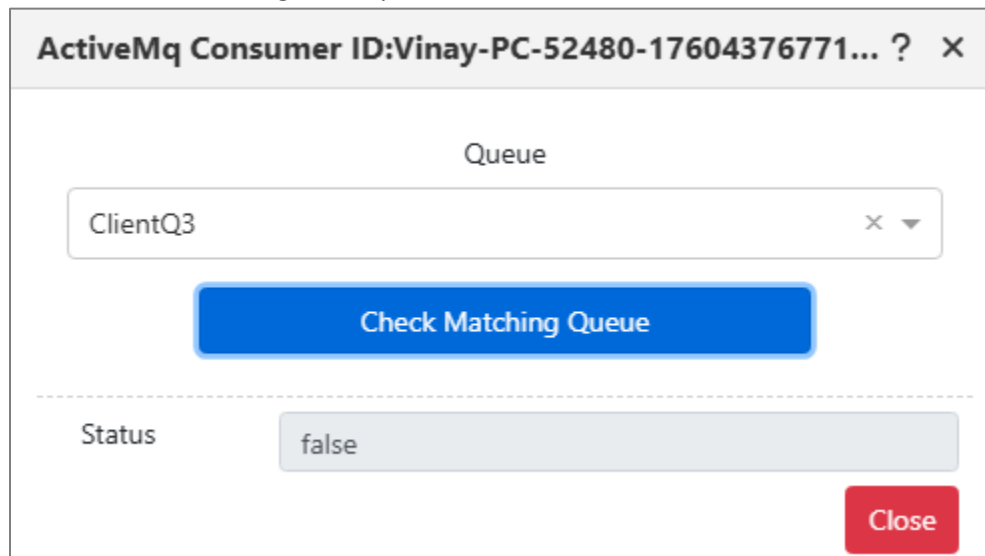


Figure 4.3.19.4-A. ActiveMQ Consumer Check Property

This feature helps verify whether a specific consumer is correctly linked to the intended queue destination.

Consumer Topic

Select **Check Matching > Consumer Topic** from the Selected menu.

The *ActiveMQ Consumer Check Property* dialog opens.

From the Topic dropdown, choose the topic you want to verify and click **Check Matching Topic**.

The **Status** field then displays the result of the match check:

- true — if the consumer is subscribed to the selected topic.
- false — if there is no matching subscription.

This feature helps confirm whether a consumer is properly associated with the intended topic

destination.

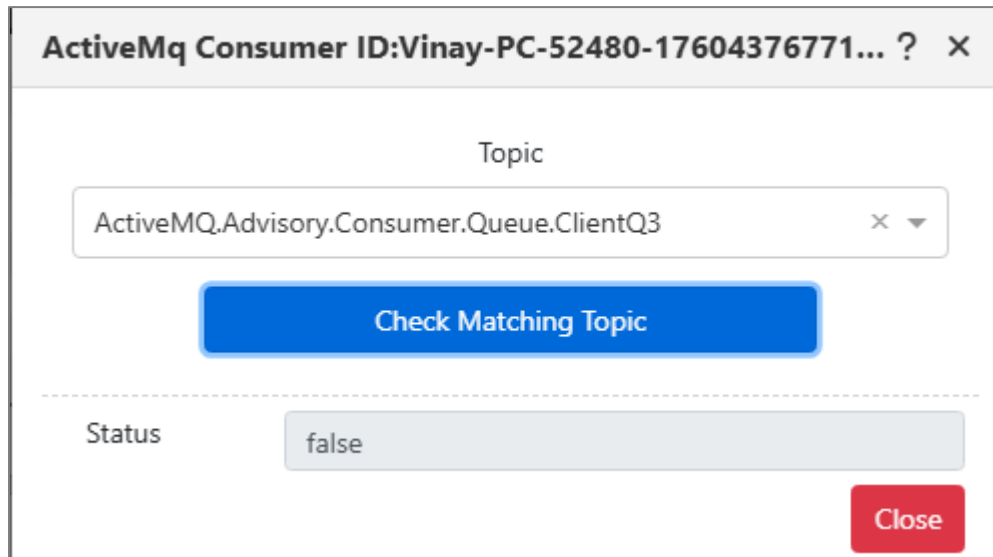


Figure 4.3.19.4-B. ActiveMQ Consumer Check Property

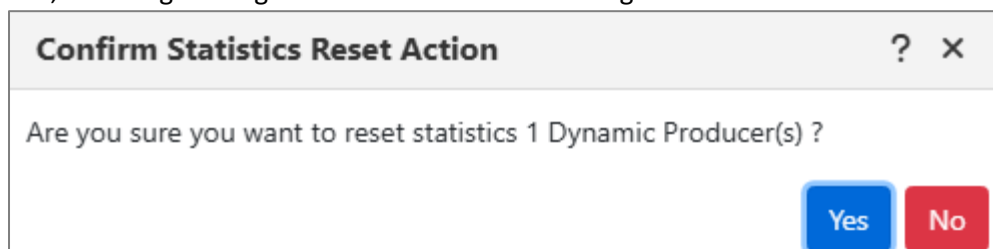
4.3.19.5 ActiveMQ Producer and Dynamic Producer Commands

The **Commands** submenu provides options to manage runtime behavior and monitoring data for a dynamic producer.

Statistics Reset

Select **Commands > Statistics Reset**.

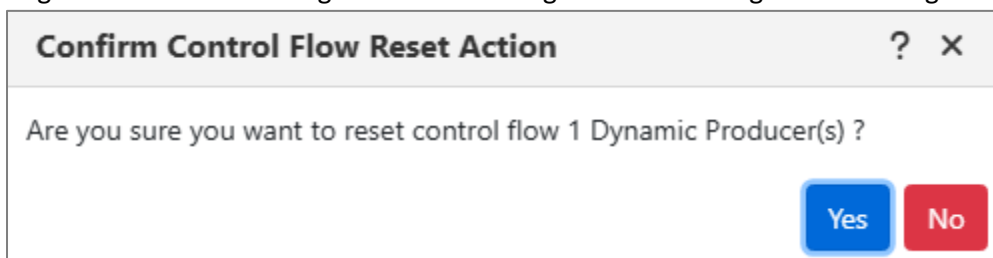
The *Confirm Statistics Reset Action* dialog opens. Click **Yes** to reset all collected statistics for the selected dynamic producer, including message send counts and acknowledgment data.



Flow Control Reset

Select **Commands > Flow Control Reset**.

The *Confirm Flow Control Reset Action* dialog opens. Click **Yes** to reset the flow control counters for the producer, clearing accumulated throttling data and restoring accurate message flow tracking.



4.4 Toolbar Options

The toolbar appears at the top right of the screen. Functionality is explained in *Table 4.4-A* below.

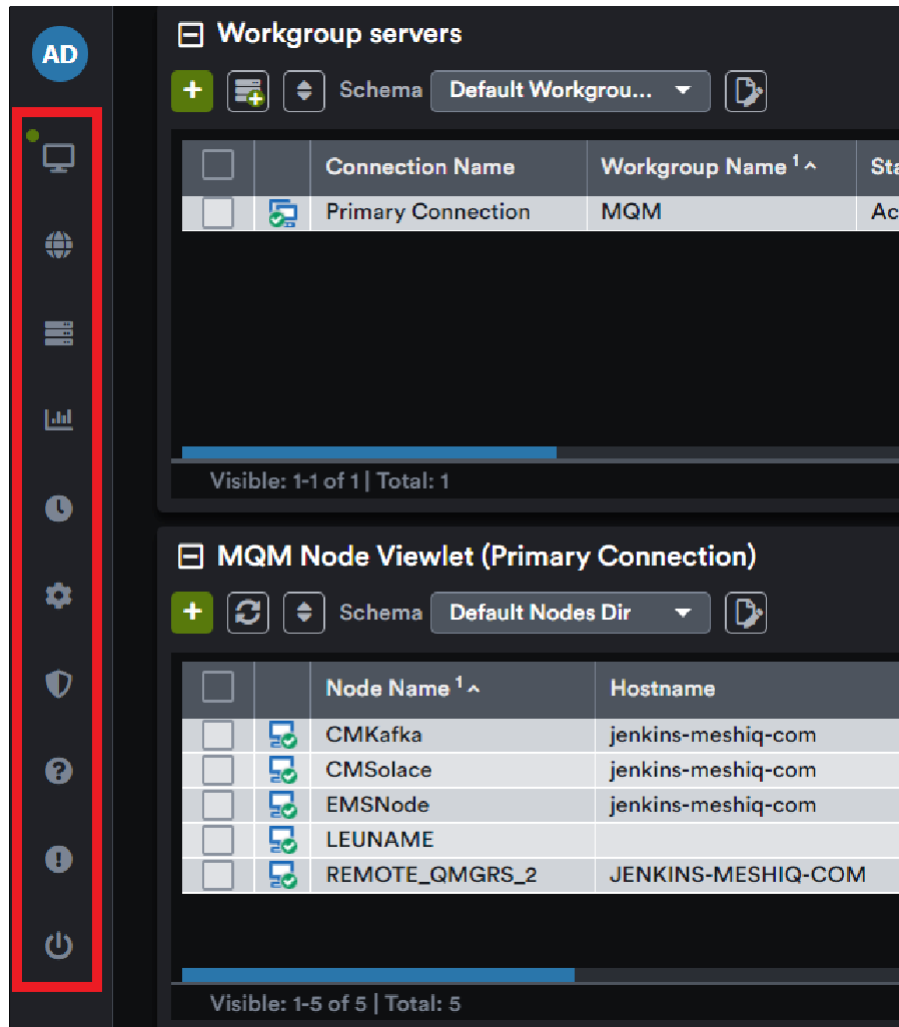









Figure 4.4-A. Toolbar Options

Table 4.4-A. Toolbar Options		
Icon	Name	Description
	User Name	Displays the user's name.
	Go to Workspace dashboard	Navigates to the Workspace dashboard, which was available as a dashboard tab in versions 11.0 and earlier.
	Reconnect	Reconnects workgroup server connections.

Table 4.4-A. Toolbar Options

Icon	Name	Description
	Request History	Displays all historical requests. (Section 4.4.2).
	Schedules	Opens the Schedules window. A list of scheduled commands and their statuses are displayed. (Section 4.4.2).
	Settings	Displays the Settings window . See Settings Window below (Section 4.4.5) for more information.
	Security Manager	Redirect to Security application.
	Help	Opens the Resource Center or other online resource defined in your system's global settings.
	About	Displays version number.
	Log Out	Logs the user out of the application.

4.4.1 Reconnect

Click the **Reconnect** button to reconnect the workgroup server when the status of the workgroup server is **Not Connected** or there are WGS issues. Enter the workgroup server's password and click **Renew Token**.

Renew token ?

Connection info:

IP	Hostname	Port
172.16.6.60		4010


Enter password to renew token

Password:

CancelRenew Token

Figure 4.4.1-A. Renew Token

4.4.2 Request History

Clicking the **Request History** button  displays all running and completed tasks.

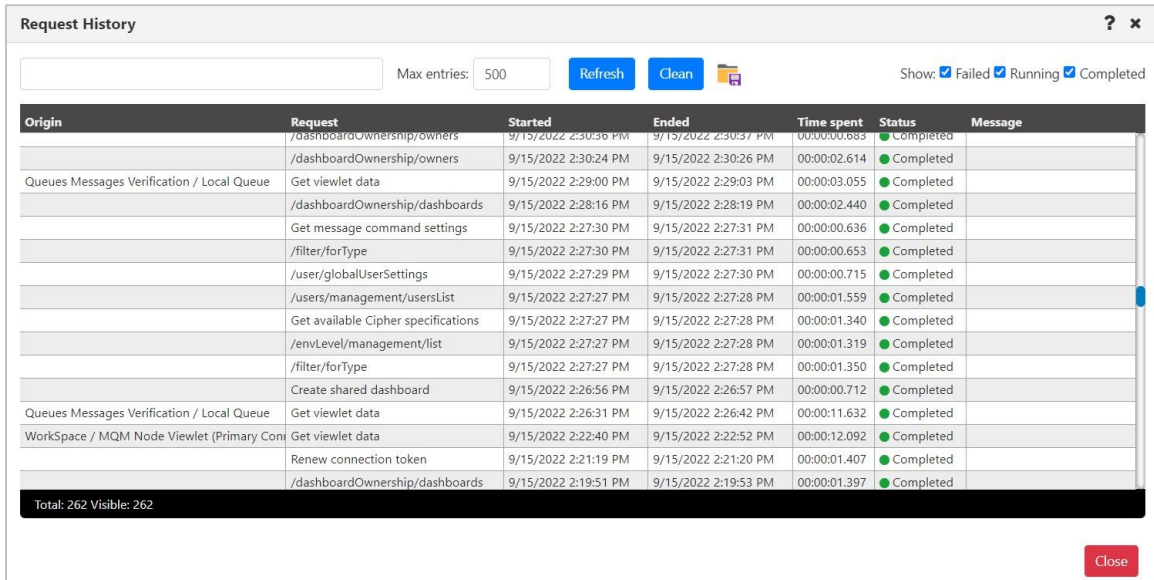


Figure 4.4.2-A. Request History Screen

Several options are available to handle the data displayed:

- Use the **Failed**, **Running** and **Completed** options to filter the history.
- Click the **Clean** button to clear all completed historical requests. Only the requests with a status of *Running* will be displayed.
- To export Request History data to a .csv file to facilitate troubleshooting efforts or investigate performance issues, click the **Save Table As CSV** button (identified by a red border in the screen shot below).

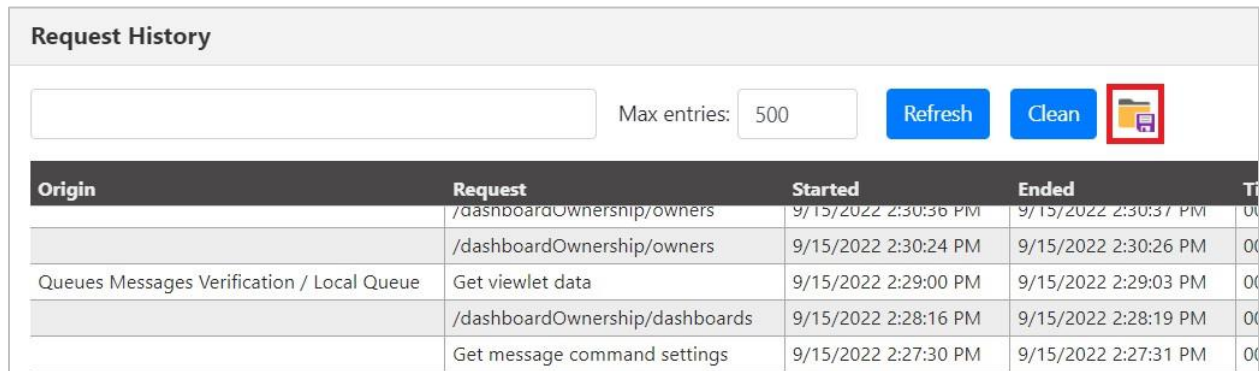



Figure 4.4.2-B. Save Table As CSV Button

4.4.3 Statistics

To determine the highest value features of meshIQ Manage at your organization, run the Statistics report, available from the toolbar: .

The **Show meshIQ Manage Statistics** right is required to view this report.

By default, the Statistics report shows counts of each user activity for today. You can change the date Range to view activity from a different time period. Hover over a bar on the chart to view the exact number of times a feature has been used.

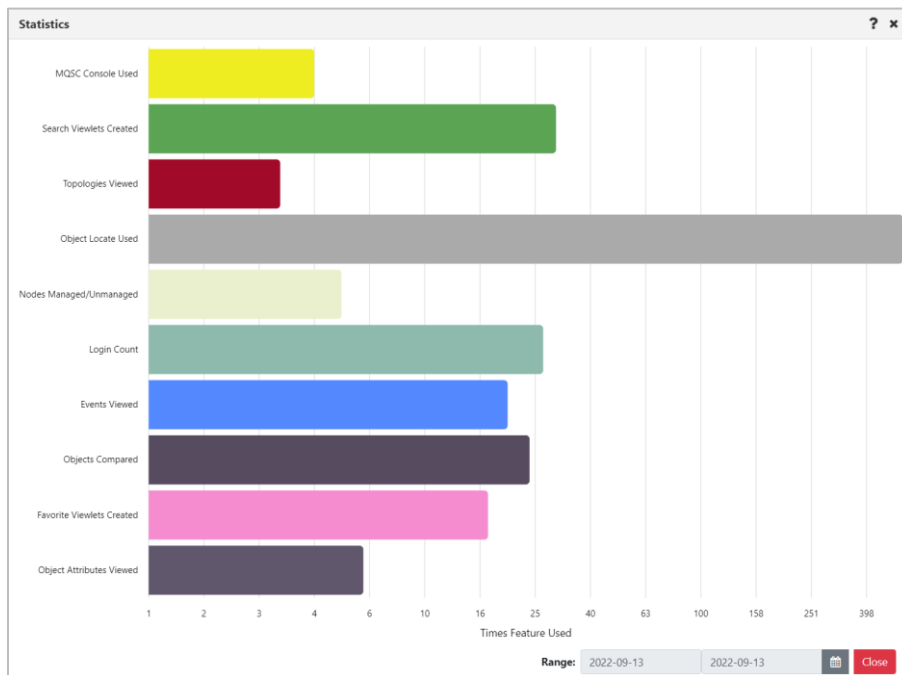


Figure 4.4.3-A. Statistic Report


By default, statistics data is updated about every 10 minutes. The chart uses a logarithmic scale since some features, like Object Locate, are used far more often than any others.

The features that are included in this report are listed below.


Action Schedule Used	MQSC Snapshots Created
Attribute Filters Created	Nodes Managed/Unmanaged
Authority Records Created	Object Attributes Viewed
Custom Attributes Created	Object Authority Records Viewed
Dashboard Templates Created	Object Locate Used
Events Viewed	Object Name Filters Created
External Viewlets Created	Object Status Viewed
Favorite Viewlets Created	Objects Compared
Login Count	Search Criteria Created

Managers Compared	Search Viewlets Created
Message Export Used	Shared Dashboard Count
Message Import Used	Topologies Viewed
MQ Statistics Used	Viewlet Schemas Created
MQSC Console Used	

4.4.4 Schedules

After clicking the Schedules icon  from the left toolbar of the screen ([Figure 4.4-A](#)), the *Schedules* window opens. Only users with the required WGS configuration will have the ability to use this feature. See [Scheduling](#) for more information.

4.4.5 Settings Window

After clicking the **Settings** icon  from the top right of the screen ([Figure 4.4-A](#)), the *Settings window* is displayed. This window is labeled *User Settings* or *Global Settings*, depending on which settings are being displayed. It has the following tabs:

Settings Common to User and Global Setting Windows

- **User settings** ([Section 4.4.5.1](#))
- **Message Commands** ([Section 4.4.5.1.2](#))
- **Load Messages** ([Section 4.4.5.1.3](#))
- **Save Messages** ([Section 4.4.5.1.4](#))
- **Color Settings** ([Section 4.4.5.1.5](#))
- **Attribute Filters** ([Section 4.4.5.1.6](#))
- **Display Schemas** ([Section 4.4.5.1.7](#))

Global Only Settings

- **Cipher Specs** ([Section 4.4.5.1.5](#))
- **Manage Users** ([Section 4.4.5.2.2](#))
- **Global Notice** ([Section 4.4.5.2.3](#))
- **SSO** ([Section 4.4.5.2.4](#))
- **Environment Level** ([Section 4.4.5.2.5](#))
- **Dashboard Ownership Management** ([Section 4.4.5.2.6](#))
- **User Object Ownership Management** ([Section 4.4.5.2.7](#))

4.4.5.1 User and Global Settings

This section describes settings that can be configured at both the User level and the Global level. For information on settings that are global only, see [Global Settings](#).

When a new user is added to the system, they will automatically have the global settings created by the administrator. If the user updates their settings, the updates will override the global settings they initially had.

If a user wants to restore their own settings to the default global settings, simply click the **Restore Default** button located at the bottom of the screen.

4.4.5.1.1 User Settings Tab

4.1.1.1.1.17 User Level

The **User settings** tab located on the *User Settings window* is shown below and described in *Table 4.4.4.1.1.1-A*.

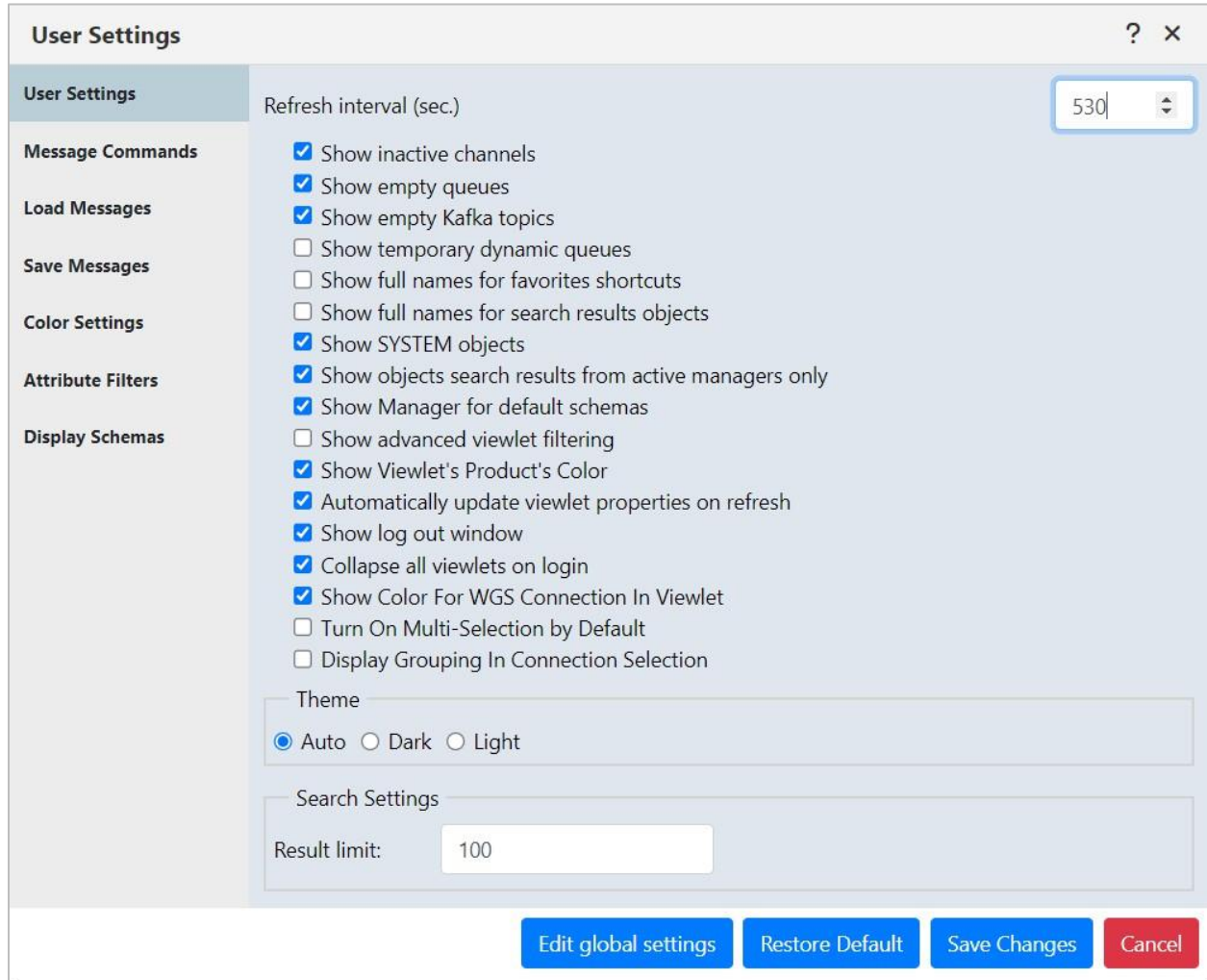


Figure 4.4.5.1.1.1-A. Edit User Settings

Table 4.4.5.1.1.1-A. User Settings	
Name	Description
Refresh interval (sec.)	Automatically refreshes the displayed information at the specified interval (in seconds).
Show inactive channels	Select to show all inactive channels in the tree.
Show empty queues	Display all queues that have a current depth equal to zero. Applies to IBM MQ and TIBCO EMS. This option is not enabled by default.
Show empty Kafka topics	Display Kafka topics that have a current depth equal to zero.

Show temporary dynamic queues	Select to display temporary dynamic queues.
Table 4.4.5.1.1.1-A. User Settings	
Name	Description
Show full names for favorites shortcuts	Displays entire object path names on the Favorites tab.
Show full names for search results objects	Displays entire object path names for all search results.
Show SYSTEM objects	Select to show SYSTEM objects (objects that begin with SYSTEM or NASTEL).
Show objects search results from active queue managers only	Select to only search active queue managers. If off, all objects are shown, even from queue managers that are not currently active (will produce duplicates of the same object). This option is selected by default.
Show Manager for default schemas	By default, the Manager Name is the second viewlet column displayed. Uncheck this setting to remove the Manager Name column.
Show advanced viewlet filtering	<p>Shows applicable filters at the top of search viewlets by default, so that you can adjust them more easily. Apart from Schemas and Projects, options shown are relevant to the object type (queues, channels, listeners, EMS routes, and so on). Advanced filter options can include settings from the viewlet properties such as Node, Manager, Object, queue Type, Attribute filters, and Message Search criteria. They can also include the user and global settings checkboxes Show empty queues and Show SYSTEM objects (labeled Empty and System, respectively).</p> <p>This setting applies to viewlets for Kafka, Solace, RabbitMQ, TIBCO EMS, IBM MQ, and IIB products, including temporary viewlets. It does not apply to favorites viewlets, external viewlets, or system-generated viewlets in the Workspace dashboard.</p> <p>To learn more about filtering in a specific viewlet, see Attribute Filter.</p>
Show Viewlet's Product's Color	Applies the product color settings from the Colors tab of the Settings window to the IBM MQ, EMS, Kafka, IIB, and ACE product viewlets. By default, a gradient is used, unless the Flat Color checkbox has been selected on the Color tab.
Automatically update viewlet properties on refresh	<p>When this setting is enabled, and another user updates the properties of a viewlet on a dashboard that you have open, the viewlet is updated automatically the next time its data is refreshed. This also holds true if you updated the viewlet yourself, from another computer.</p> <p>If this setting is not enabled, the viewlet information is not updated automatically; instead, the application will inform you of the pending synchronization.</p>

Show log out window	<p>When this option is selected, users receive a confirmation message after they click the Logout button on the toolbar. Users can click Yes to log out or Cancel to leave it open.</p> <p>A Remember this option checkbox is available to prevent future prompts; but clearing this setting has the same effect; the user is automatically</p>
Table 4.4.5.1.1.1-A. User Settings	
Name	Description
	logged out, bypassing the confirmation message.
Collapse all viewlets on login	<p>You can choose to display all viewlets as collapsed at login. This option can be set at the global or user level. If you do not have this option enabled, then the next time you log in, viewlets will revert to their previous state.</p> <p>Note that Workspace dashboard viewlets are not subject to this setting.</p>
Show Color For WGS Connection In Viewlet	Turn on this setting to shade viewlet rows by workgroup server connection. See Color Settings Tab to learn how to choose the colors.
Turn On Multi-Selection by Default	When this setting is turned on, by default, a user can select multiple workgroup servers when editing a viewlet. If it is not turned on, the user must first select the Multi-Selection checkbox under the Workgroup server list before being able to select multiple workgroup servers.
Display Grouping In Connection Selection	If Workgroup server connection groups have been created, select this option to include these groups in Workgroup server lists, rather than including individual connections only.
Theme	<p>Choose a Dark or Light theme for the Manage interface. Or choose Auto to follow the theme of your device or browser.</p> <ul style="list-style-type: none"> • Chrome and Safari: The Auto theme setting uses operating system theme and colors. • Edge, Firefox, and Opera: The Auto theme setting uses the browser theme and color preferences. If those are set to automatic, the operating system theme and colors are used.
Search Settings: Result limit	<p>For new viewlets. Define the default maximum number of results (objects) a search request will return. Use this to limit the number of managers, connections, routes, and so on, to be included in new viewlets by default.</p> <p>When the Total/Visible/Selected labels at the bottom of your viewlet are orange, it means that the number of records in your viewlet meets or exceeds the Result Limit, and you should consider fine-tuning the viewlet's attribute filters to return a more relevant set of results from the workgroup server.</p> <p>This setting overrides the corresponding Global Settings value.</p>
Restore Default button	Select to restore to default settings.

4.1.1.1.1.18 Global Level

The **User Settings** tab located on the *Global Settings* window is shown below and described in *Table*

4.4.4.1.1.1-A. Admins can edit the global settings by clicking the **Edit global settings** button located at the bottom of the screen.



Please note, updating the global settings will not affect existing users (admins can reset a user's settings back to the global settings on the Manage Users tab ([Section 4.4.5.2.2](#))).

After making updates to global settings, click the **Save Changes** button to save and exit the screen. From this point forward, any new users added to the system will receive these settings. When editing global settings, you can switch back to updating your own settings by clicking the **Edit user settings** button located at the bottom.

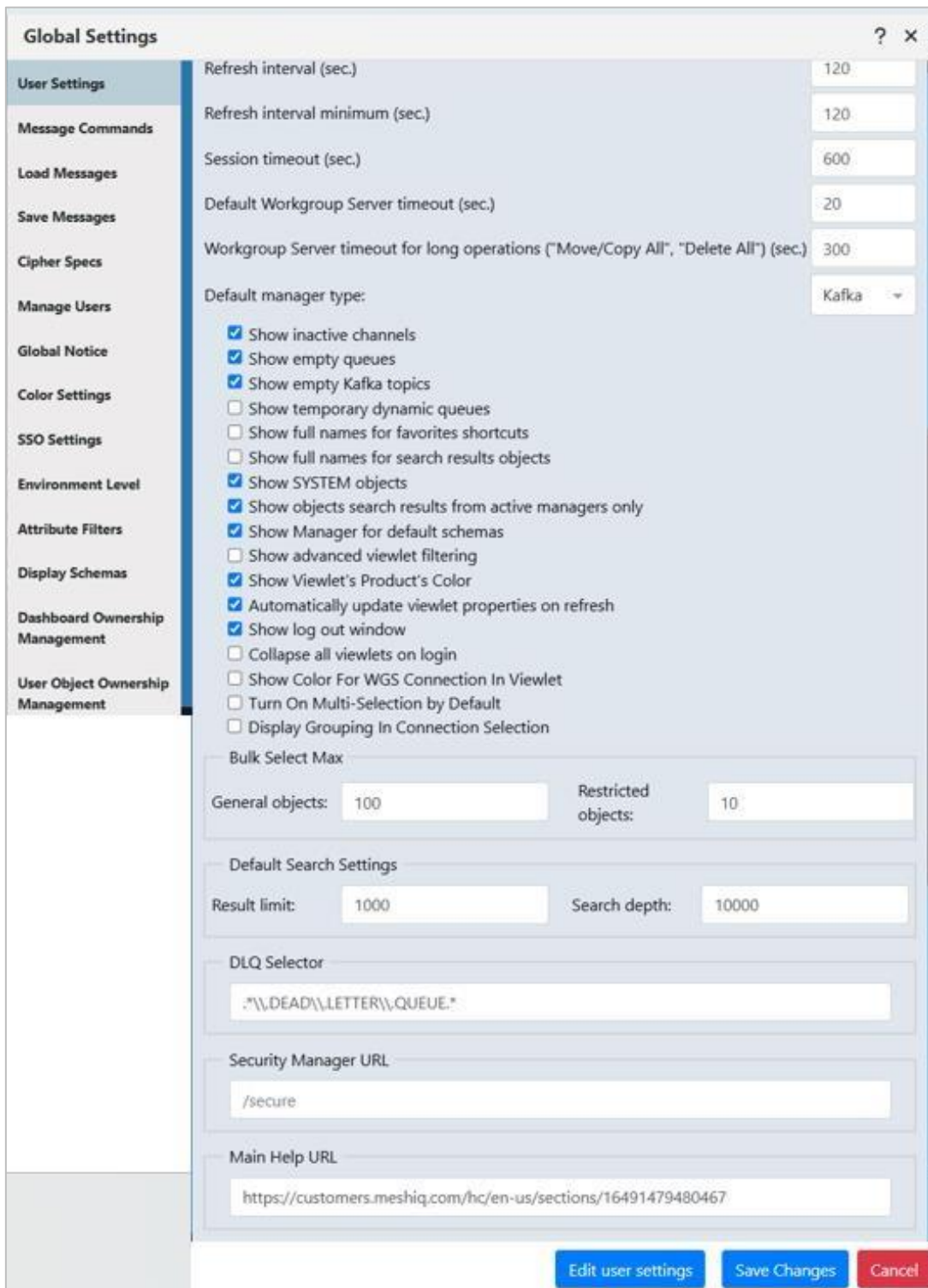


Figure 4.4.5.1.1.2-A. Global User Settings

Table 4.4.5.1.1.2-A. Global User Settings	
Name	Description
Refresh interval minimum (sec.)	To conserve system resources, you can prevent users' viewlets from being refreshed too frequently by establishing a minimum value for refresh intervals. This minimum threshold, Refresh interval minimum (sec.), is stored in Global Settings. When it is changed, all user-defined refresh

Table 4.4.5.1.1.2-A. Global User Settings



Name	Description
	intervals that fall below it are set to the threshold from Global Settings; the updated interval goes into effect the next time the user logs in.
Session timeout (sec.)	For security reasons, user sessions are set to terminate after a defined period of inactivity (known as the "session timeout"). The Session timeout (sec.) value is defined on the <i>Global Settings</i> dialog. The default value is 600 seconds (10 minutes). If a user's session has been idle for 10 minutes, the <i>Extend Session</i> dialog is displayed, and the user can either click Continue to extend the user session or Log Out to exit the application.
Default Workgroup Server timeout (sec.)	Default timeout value for most Workgroup Server operations. See also "Workgroup Server timeout for long operations" below. The default value is 20 seconds.
Workgroup Server timeout for long operations ("Move/Copy All", "Delete All") (sec.)	Default timeout value for long Workgroup Server operations only. Overrides Default Workgroup Server timeout (sec.). The default value is 300 seconds.
Bulk Select Max options	<p>The Bulk Select Max options in Global User Settings control the number of objects in a viewlet that can be selected using the bulk select check box:</p>  <p>For General objects (that is, all objects except queue managers), the default limit is set to 100 objects. If there are more than 100 objects in the viewlet, the Bulk Select check box is unavailable.</p> <p>For Restricted objects, which currently only includes queue managers, the default limit is set to 10 objects. If there are more than 10 objects, the Bulk Select check box is unavailable.</p> <p>Either limit can be set from 0 to 1000.</p>
Default Search Settings: Result limit	<p>For new viewlets. Define the default maximum number of results (objects) a search request will return. Use this to limit the number of managers, connections, routes, and so on, to be included in new viewlets by default. The user-level setting overrides the global setting.</p> <p>When the Total/Visible/Selected labels at the bottom of your viewlet are orange, it means that the number of records in your viewlet meets or exceeds the Result Limit, and you should consider fine-tuning the viewlet's attribute filters to return a more relevant set of results from the workgroup server.</p>
Default Search Settings: Search depth	Define the number of records will be searched within each queue manager.
DLQ Selector	<p>The DLQ Selector configuration property allows for flexibility in identifying a Dead Letter Queue (DLQ) by its name, so that the management application can automatically apply the correct schema for the message format. This field accepts regular expressions for pattern matching.</p> <p>Example: <code>.*\\.DEAD\\.LETTER\\.QUEUE.*</code></p>

Table 4.4.5.1.1.2-A. Global User Settings

Name	Description
Security Manager URL	Location of the security application. For the original security manager, use /apodwsm. For the new security manager introduced in version 10.4, use /navxwsm. For meshIQ Secure, use /secure.
Main Help URL	Defines the URL destination for the help icon  on the toolbar. By default, the help icon opens the Resource Center; however, a different online destination can be configured here.

4.4.5.1.2 Message Commands Tab

The **Message Commands** tab, located on both the *User Settings window* and the *Global Settings window*, provides settings for browsing messages. The various options are described in *Table 4.4.4.1.2-A*.

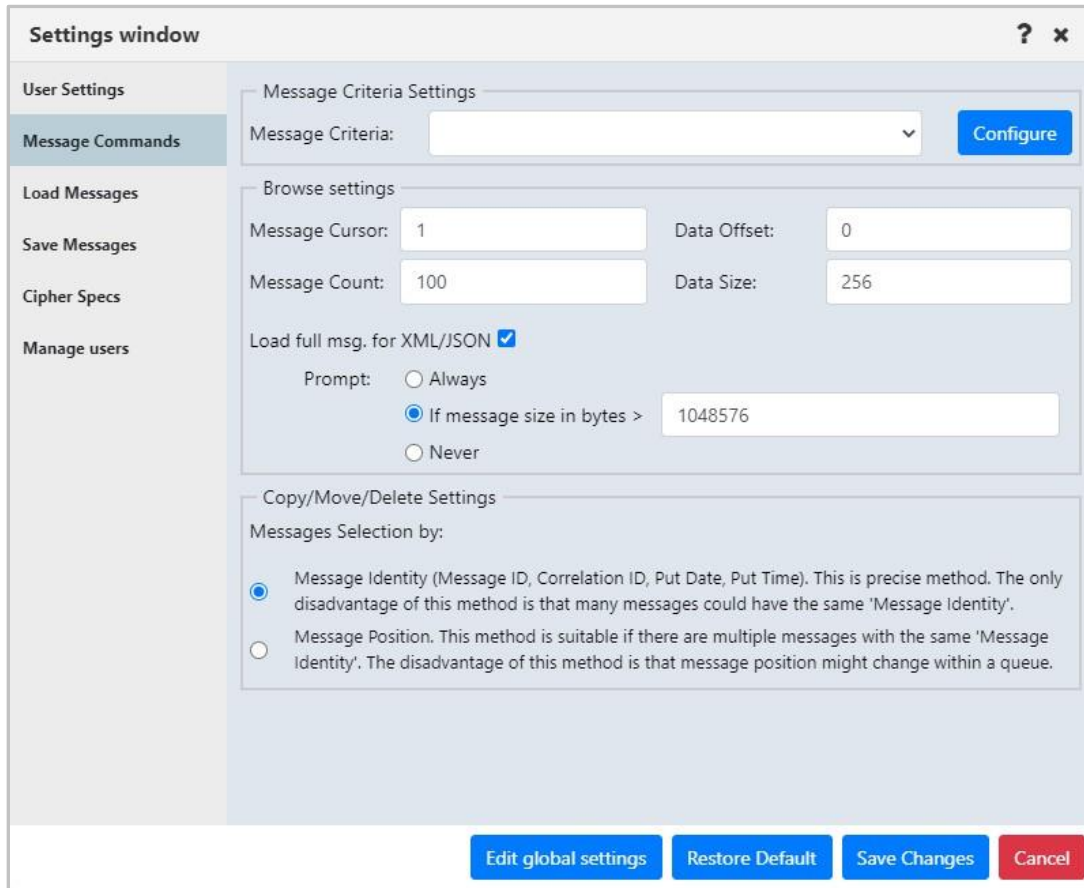


Figure 4.4.5.1.2-A. Message Commands

Table 4.4.5.1.2-A. Message Commands	
Name	Description
Message Criteria Settings	A filter for messages. When criteria set is specified, it can be used to browse, copy, move, reroute, and delete messages which satisfy the selected criteria's specifications. When a message criteria record is selected to filter messages, it also applies to the Put New Message option. Message criteria are also available to set default MQMD header values when you load messages from a file (Load from File option).
Message Criteria	Select an existing message criteria set from the drop-down list to apply to the messages. Only one message criteria set can be specified.
Configure button	Create, edit, or delete message criteria (Message Criteria).
Browse Settings	The following describes browse options:
Message Cursor	Enter message cursor; that is, where to start reading the message. Range: 1 – 999999999. Default: 1 (Required) For Kafka messages, this is the specific record in the partition that you want to start at.

Table 4.4.5.1.2-A. Message Commands

Name	Description
Data Offset	Enter message data offset. (Required)
Message Count	<p>The Message Count setting determines the number of messages that will be returned per page. The default setting is 500, but the Administrator can change this to any value from 1 to 1,000. However, if the user enters a value that is greater than the default, it will not be saved. The value will revert to the default. Note that when browsing Kafka messages at the <i>topic level</i>, paging is not supported.</p> <p>For Kafka messages, to start at a specific record in the partition, update the Message Cursor setting. The messages listed in the console will begin at the Message Cursor value that you set.</p>
Data Size	Enter the message data size (in bytes) you would like the system to load. (Required)
Load full msg. for XML and Decode views	<p>Full messages are needed for XML and decode views. Enable this option to allow full messages to be loaded when in an XML or decode view.</p> <p>When enabled, the system can be configured so that a confirmation prompt can appear before loading the full message. See below Prompt options to select desired criteria.</p>
Prompt	<p>When the Load full msg. for XML and Decode views option is enabled, the Prompt options appear. These options control whether to display a confirmation prompt before loading a full message for XML and decode views. Select one of the following options:</p> <ul style="list-style-type: none"> • Always: Before loading full messages, the system will ask the user if the full message should be loaded. • If message size in bytes >: Specify an amount. The prompt asking if the full message should load will only appear when the message size is larger than the size specified. • Never: a confirmation prompt will never appear.
Messages Selection by radio buttons	<p>Provides Copy/Move/Delete options. Available when User settings is clicked or if you are in Copy/Move/Delete messages operations.</p> <p>As noted in the description on the dialog, the disadvantage of selecting messages by position (the Message Position method) is that a message's position might change within a queue. For this reason, when you select the Message Position method, the icons for deleting, rerouting, copying, and editing are not available when multiple individual messages are selected. You can still choose to copy, move, or delete all messages using the message(s) Pop-up menu.</p>
Restore Default button	Restores the default settings.

4.1.1.1.19 Message Criteria

When you click the **Configure** button on the **Message Commands** tab of either the *User Settings Window* or the *Global Settings window*, the *Message Criteria* window opens. Below the **name** header is the list of existing message criteria sets.

1.1.1.1.13 User Level

At the User level, the Message Criteria window displays a list of the message criteria records that you (the current user) have created. To add, edit, and delete criteria records, you must have the **Manage Private Message Criteria** right in the security application.

A user's message criteria record can be selected in the Active Filter of a queue to filter its results; in this case, the Put New Message option for that queue is also affected by the message criteria filter. Message criteria records that concern message descriptor properties can also affect messages loaded through the Load from File option (the message criteria record can be selected from the MQMD Header Default Values list).

1.1.1.1.14 Global Level

At the Global level, the Message Criteria window displays a list of global message criteria records only. To add, edit, and delete global criteria records, you must have the **Manage Global Message Criteria** right in the security application.

Use the buttons described below to create, edit, or delete message criteria sets.

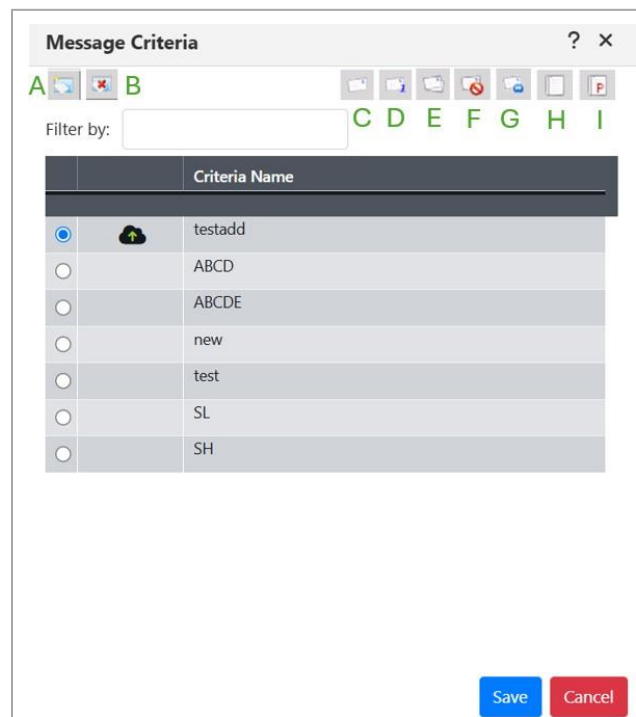


Figure 4.4.5.1.2.1-A. Message Criteria Window

A: Add new message criteria. After clicking this button, a new blank row appears. Double click on the new row to enter a name for the criteria set (do the same to rename an existing criteria). Customize its properties using the toolbar buttons. Click **Save** when finished.

B: Delete selected message criteria (please note, that there is no delete confirmation).

C: Customize Message Descriptor properties.

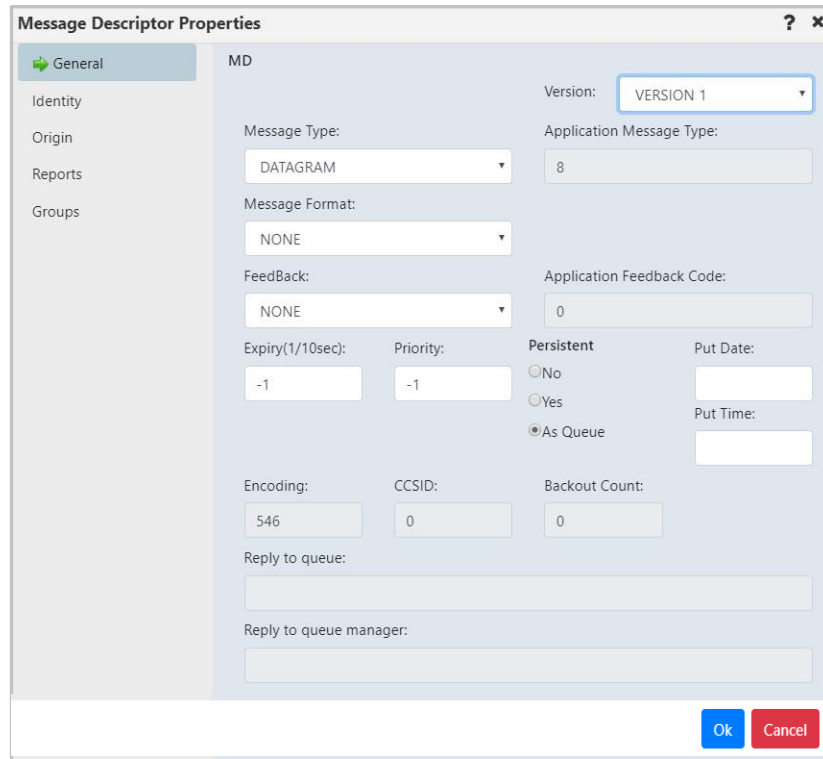


Figure 4.4.5.1.2.1-B. Message Descriptor Properties Window

D: MD1 – message descriptor properties. Opens the same windows when the MD option is clicked with the exception of the **Group** tab.

E: MDE – message descriptor extension properties.

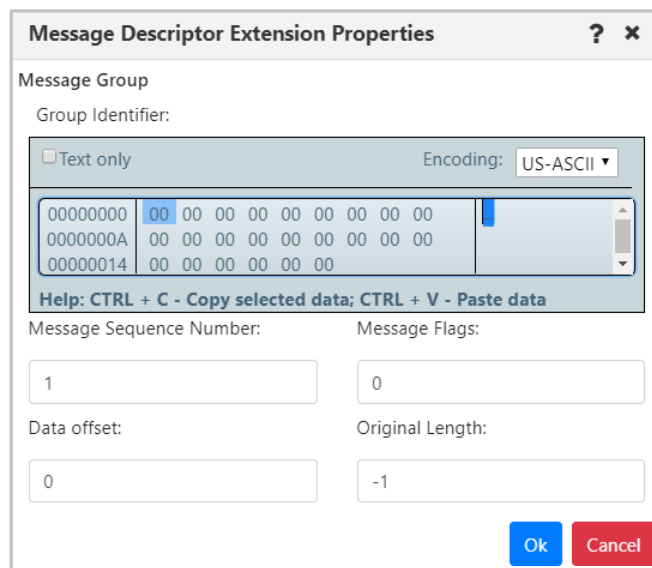
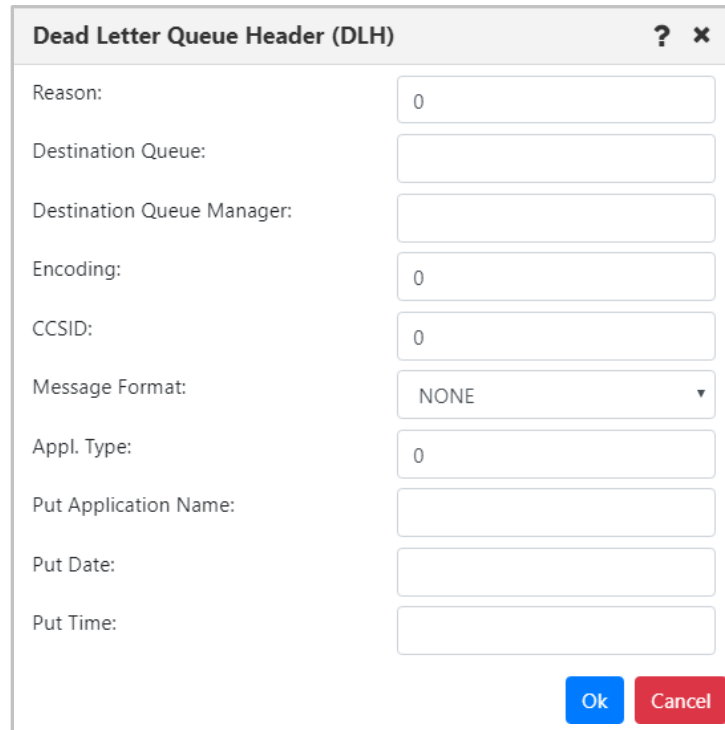


Figure 4.4.5.1.2.1-C. Message Descriptor Extension Properties Window

F: DLH – dead letter queue header properties.



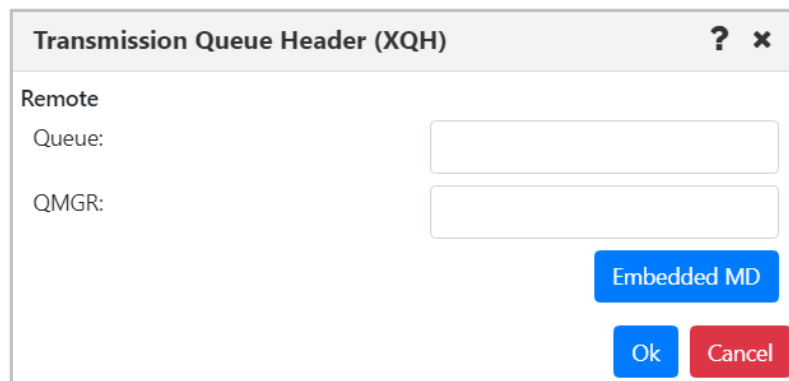
The screenshot shows a dialog box titled "Dead Letter Queue Header (DLH)" with a question mark and close button in the top right corner. The dialog contains several input fields and a dropdown menu:

- Reason:
- Destination Queue:
- Destination Queue Manager:
- Encoding:
- CCSID:
- Message Format: - Appl. Type:
- Put Application Name:
- Put Date:
- Put Time:

At the bottom right, there are two buttons: "Ok" (blue) and "Cancel" (red).

Figure 4.4.5.1.2.1-D. DLH – Dead Letter Queue Header Properties

G: XQH – transmission queue header properties.



The screenshot shows a dialog box titled "Transmission Queue Header (XQH)" with a question mark and close button in the top right corner. The dialog contains two input fields and three buttons:

- Remote Queue:
- QMGR:

At the bottom right, there are three buttons: "Embedded MD" (blue), "Ok" (blue), and "Cancel" (red).

Figure 4.4.5.1.2.1-E. XQH – Transmission Queue Header Properties

Click the **Embedded MD** button to open the *Message Descriptor Properties* window ([Figure 4.4.5.1.2.1-B](#)).

H: Data – message data criteria.

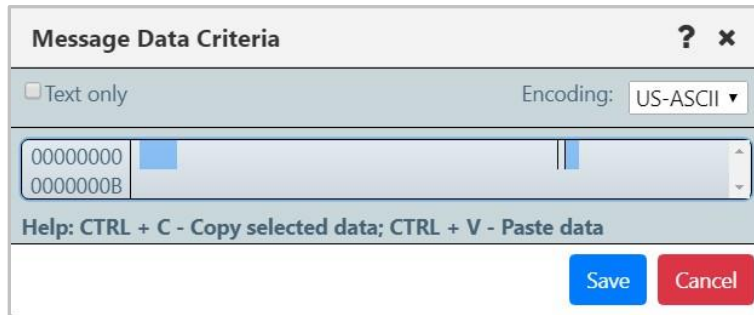


Figure 4.4.5.1.2.1-F. Message Data Criteria

I: Message Properties – Ability to search messages based on message properties (including RFH2 header fields). Both key and value must match. When searching multiple properties, all property keys and values must match (&&).

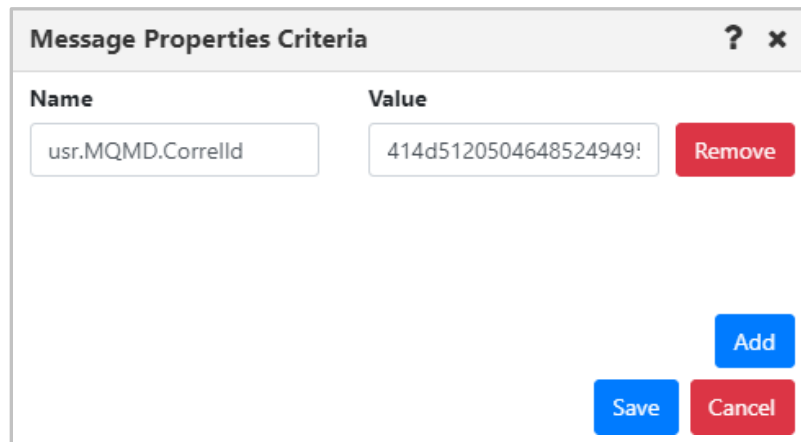


Figure 4.4.5.1.2.1-G. Message Properties Criteria

4.4.5.1.3 Load Messages Tab

The **Load Message** tab, located on both the *User Settings window* and the *Global Settings window*, is shown below and described in *Table 4.4.4.1.3-A*. This tab is used for the configuration of loading messages into a queue from a file.

The screenshot shows the 'User Settings' dialog box with the 'Load Messages' tab selected. The dialog has a sidebar on the left with categories: User Settings, Message Commands, Load Messages (selected), Save Messages, Color Settings, Attribute Filters, and Display Schemas. The main area contains the following settings:

- Product:** IBM MQ (dropdown)
- Max loaded messages count:** 500 (text input)
- Message Creation:** Create Multiple Messages (dropdown)
- Preserve Context:** Yes (dropdown)
- Message Delimiter:** CrLf (dropdown)

NOTE:

- Lf, CrLf, Tab, Ft - standard delimiters.
- Specify Delimiter String... - user can define special delimiter.
- Specify Start of Message... - user defined string will be used as delimiter and kept at the start of the message.
- Specify End of Message... - user defined string will be used as delimiter and kept at the end of the message.
- Specify Start and End of Message... - user defined strings will be used as delimiters and kept at the start and end of the message.

MQMD Header Values

Default settings: (dropdown) [Configure button]

At the bottom of the dialog are four buttons: Edit global settings, Restore Default, Save Changes, and Cancel.

Figure 4.4.5.1.3-A. Load Messages: IBM MQ

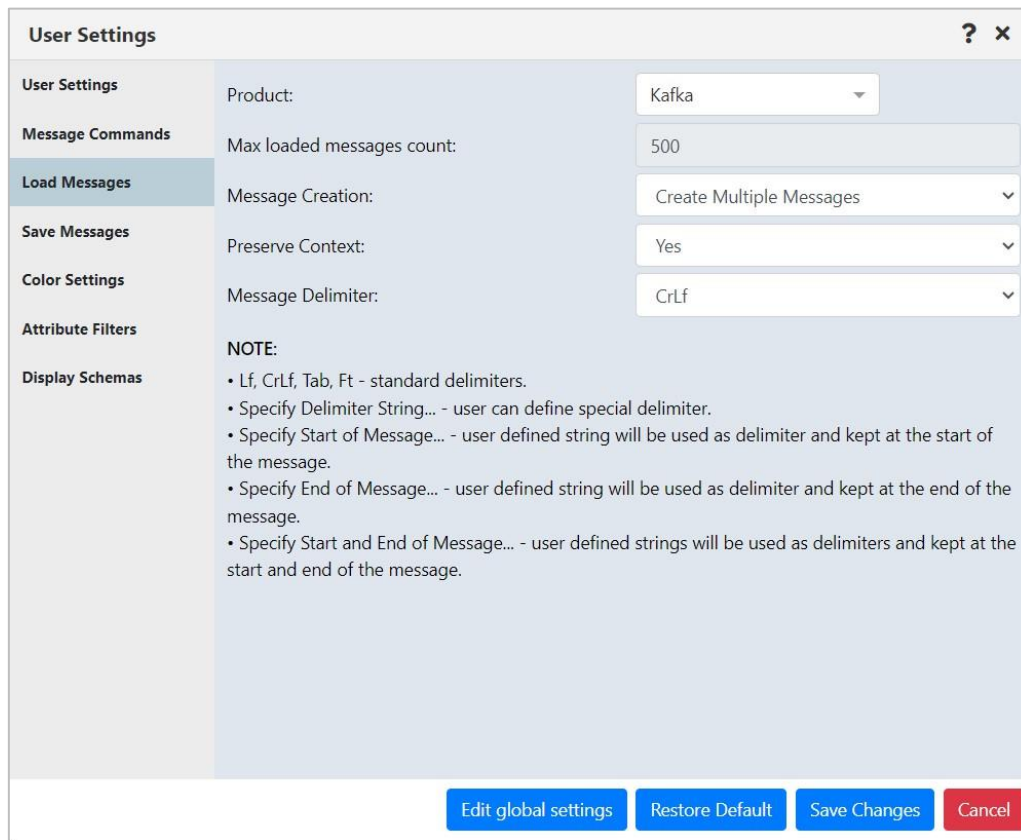



Figure 4.4.5.1.3-B. Load Messages: Kafka, Solace, RabbitMQ, EMS, ACE, and IIB

Table 4.4.5.1.3-A. Load Messages	
Name	Description
Product	Select the product for which you want to configure Load Messages. Some fields in this dialog will vary by product. The description of a field in this table indicates when a field is product-specific.
Max loaded messages count	The Max loaded messages count depends on a queue manager's capacity to support a large number of messages. You must set this value at the global settings level (click Edit Global Settings). The user settings field reflects the global setting; it is for display only.
Message Creation	Specify if you would like a single message created or multiple messages.
Preserve Context	Specify if you would like the message context preserved.
Message Delimiter	Select the delimiter used from the Message Delimiter drop-down list. An explanation of the options appears immediately below the drop-down. Please note Ft represents the Form Feed delimiter.
MQMD Header Default Values	This setting only applies to the IBM MQ product. Click Configure to view or configure the default Message Descriptor (MD) properties. (Some of these properties are described in the table in Message Descriptor Properties .) If you already have a configuration for message

Table 4.4.5.1.3-A. Load Messages	
Name	Description
	<p>descriptor properties that has been saved through Message Commands (see Message Commands Tab), you can select a saved configuration from the MQMD Header Values list to use as a template (that is, a starting point) for changes to the MQMD header values.</p> <p>You can also make changes to a previously saved message criteria record from here by selecting the record from the MQMD Header Values list, clicking Configure, updating the configuration, and clicking Save Changes, as long as the record is not global or shared by another user (shared records in the list are displayed with a green Shared Filter icon ). When saved, changes to the selected record become the default settings.</p>
Restore Default button	Restores the default settings.

4.4.5.1.4 Save Messages Tab

The **Save Messages** tab, located on both the *User Settings window* and the *Global Settings window*, is shown below and described in *Table 4.4.4.1.4-A*. Use this tab for the configuration of saving messages into a file from a queue.

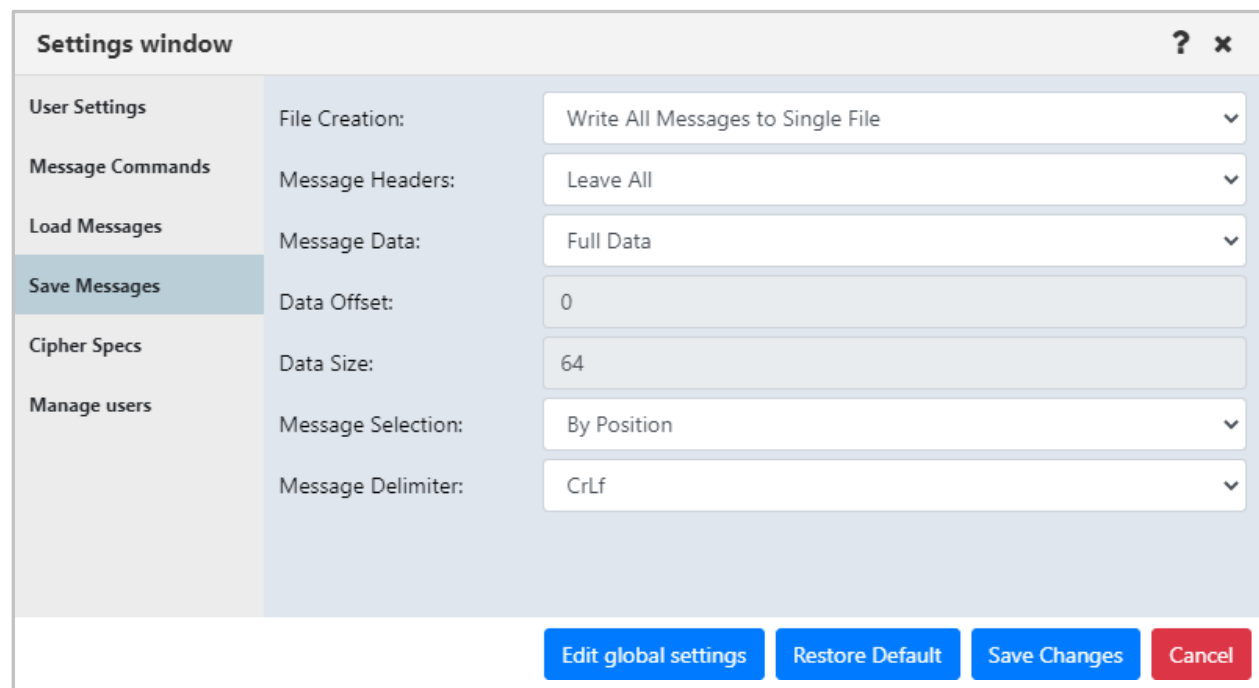


Figure 4.4.5.1.4-A. Save Messages

Table 4.4.5.1.4-A. Save Messages	
Name	Description
File Creation	Select if you would like messages saved to a single file or separate files.
Message Headers	Select either Leave All , Strip All or Strip MD . Please note that the Strip

Table 4.4.5.1.4-A. Save Messages

Name	Description
	MD setting will strip message descriptors.
Message Data	Select either Full Data to save entire messages or Selected Data to only save a specified amount. The amount to save is specified within the Data Size field.
Data Offset	Enter the starting point of the data.
Data Size	This setting is only required when Selected Data is specified for the Message Data setting. Enter the desired message size to be saved.
Message Selection	Select whether you would like the message selection to be by position or identity. By Identity uses Message ID, Correlation ID, Put Date and Put Time. The disadvantage of using By Identity is that many messages could have the same message identity. Use the By Position option if there are multiple messages with identical message identities. The disadvantage of using this method is that the message position can change within a queue.
Message Delimiter	Select desired message delimiter for the saved messages. Please note Ft represents the Form Feed delimiter.
Restore Default button	Restores the default settings.

4.4.5.1.5 Color Settings Tab

Color coding user interface elements lets you quickly determine characteristics of an object at a glance. Color coding viewlet headers makes it easier for users to identify the product that a viewlet is associated with, or what type of objects it contains. Color coding of viewlet rows by workgroup server quickly shows you which workgroup server an object is from.

4.1.1.1.1.20 Color Coding Viewlet Headers

On the **Color Settings** tab, located on both the *User Settings window* and the *Global Settings window*, color formatting can be applied at the user level or global level. You can specify which colors should represent what objects, giving you the ability to color code viewlet headers by object type. You can configure color settings as follows:

- you can specify one color to represent all viewlets of a product, or
- you can specify multiple colors where each viewlet type is represented by a different color, or
- you can select a color to represent a single viewlet

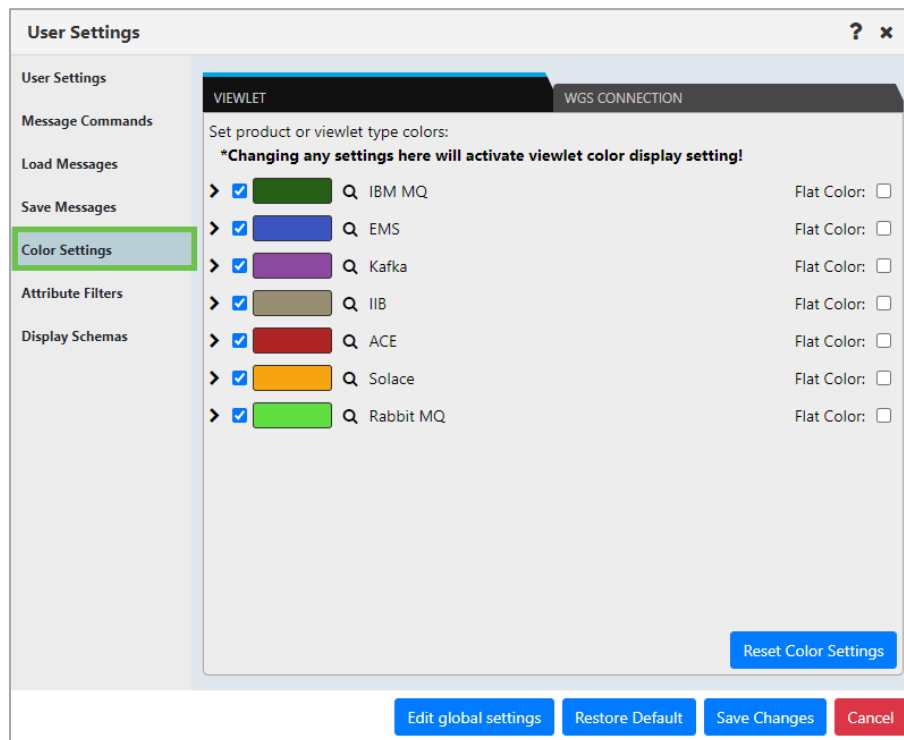


Figure 4.4.5.1.5-A. Color Settings

To activate this feature, you will need to enable the **Show Viewlet's Product's Color** setting on the **Users Settings** tab (see section [4.4.5.1](#)).

By default, a gradient is used, unless the Flat Color checkbox has been selected. See the following screenshot for an example of a color coded viewlet with a gradient. In this example, the manager viewlets are colored green:

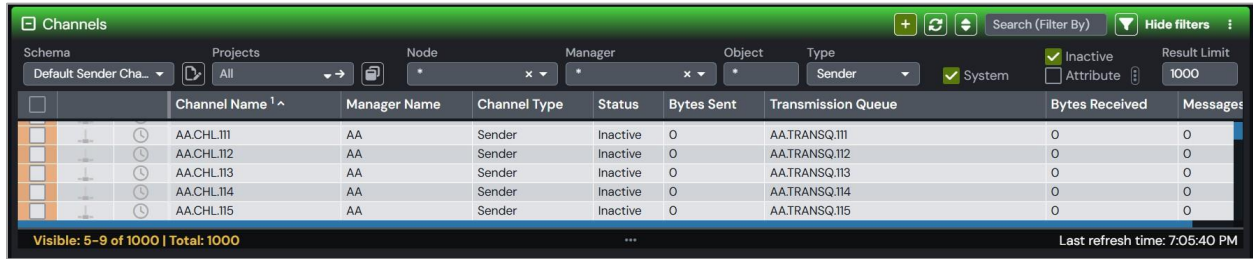


Figure 4.4.5.1.5-B. Green Color Coded Viewlet: Gradient (Default)

When the Flat Color checkbox is selected, the tops of the viewlets have a solid background color. The following screenshot shows an example:



Figure 4.4.5.1.5-C. Green Color Coded Viewlet: Flat Color

To specify one color to represent all viewlets of a product: Check off the product and click on its color button. Select a color from the color picker window. You can also enter the desired color's code in RGB, HSL or Hex format by clicking the arrows at the bottom of the color picker window to select the format and enter the color codes.

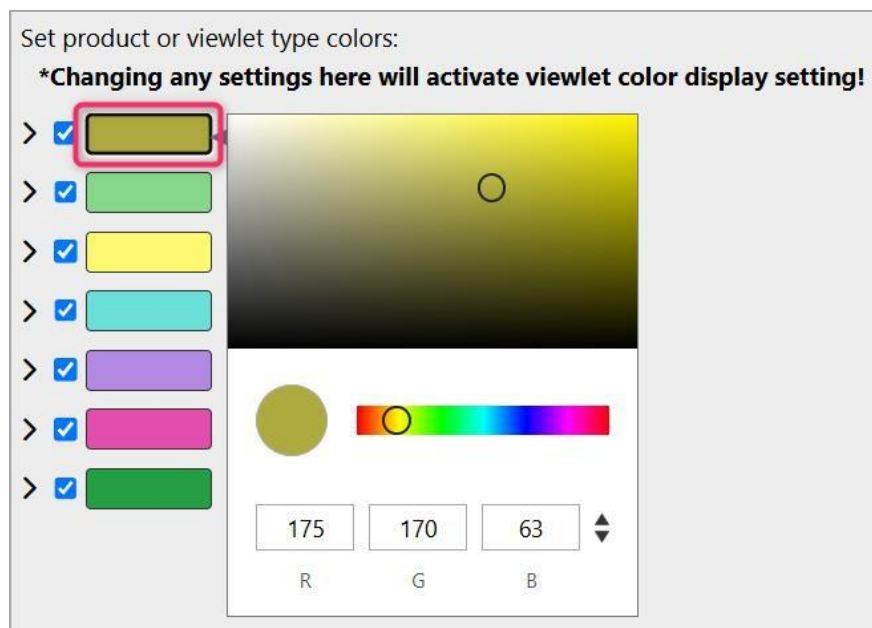


Figure 4.4.5.1.5-D. Select/Enter Color for Objects

To specify different colors to represent each viewlet type of a product: Click the expand button for the desired product to view all viewlet types for that product. Check a viewlet and click on the color button to specify the color for this viewlet type. Unchecked viewlets will follow the product's selected color.

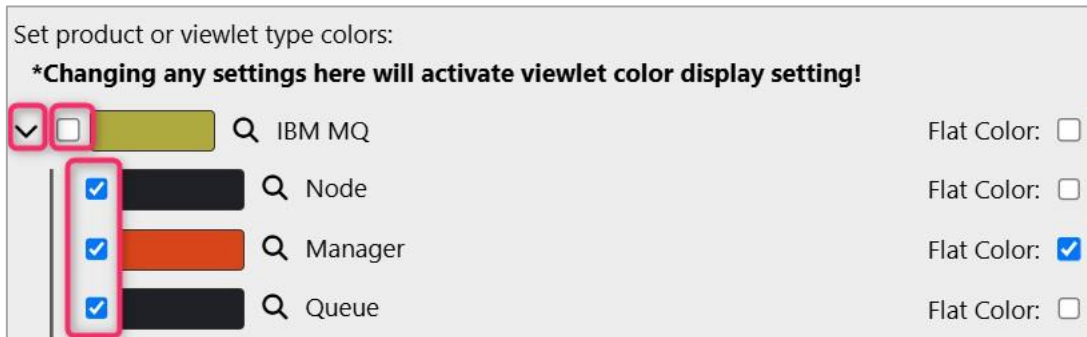


Figure 4.4.5.1.5-E. Specifying Colors for Viewlet Types

You can preview the selected color by hovering your mouse over the magnifying glass.

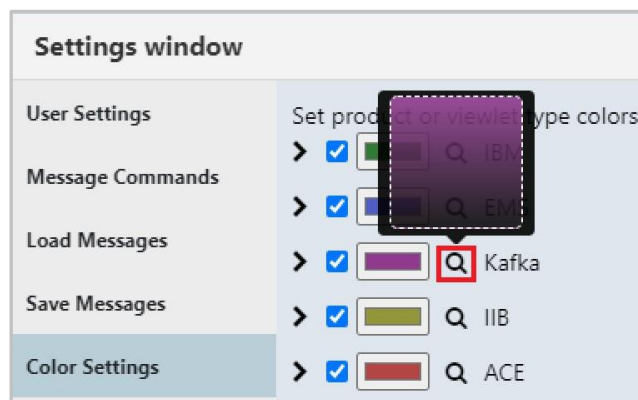


Figure 4.4.5.1.5-F. Preview Selected Color

To specify a color for a single viewlet: This is done on *the Create New/Edit Viewlet window* (see [Creating New / Temporary Viewlets](#)). Color codes specified on this window will override all color code options selected on the settings windows.

The screenshot shows the 'Edit IBM MQ Queue Viewlet' window. The left sidebar contains a list of categories: Product, Node, Manager, Queue, Channel, Process, Topic, Listener, Namelist, Service, Auth info, Cluster QMgr, Subscription, Channel auth rec, and Comm Info. The main area is divided into several sections. The 'Namelist' section is highlighted with a red box and contains the following options: Custom Viewlet Color, a red color swatch, and Flat Color: . Other sections include: Product (IBM MQ), Viewlet name (Queue Viewlet), Workgroup server (Primary Connection - (MQM)), Node (LEUNAME), Manager (*), Object name (*), Queue Type (Local Queue), Project (All), Find messages (checkbox), Active attribute filtering (checkbox), Attribute filter (+ x), Search criteria (... x), Result limit (100000), and Search depth (10000). At the bottom right, there are 'Apply changes' and 'Cancel' buttons.

Figure 4.4.5.1.5-G. Set Colors for Individual Viewlets

4.1.1.1.1.21 Color coding workgroup servers

1.1.1.1.15 Setup

To see color coding by workgroup server, you must make changes in User Settings and in the viewlet.

1. In User Settings (or Global Settings, for all users), make sure you have selected the **Show Color For WGS Connection In Viewlet** checkbox. You can also choose these other settings:
 - **Turn On Multi-Selection by Default:** When you are editing viewlets, turning this setting on selects the Multi-Selection checkbox by default so that you can select more than one workgroup server.
 - **Display Grouping In Connection Selection:** If Workgroup server connection groups have been created, includes connection groups in Workgroup server lists, in addition to individual connections.

2. On the Color Settings tab of User Settings, the WGS Connection tab allows you to associate a color with each connection. Click the rectangle to select a unique color. See [Figure 4.4.5.1.5.2-A](#).
3. Within an object viewlet, you can choose to show color-coded objects from multiple workgroup server connections by selecting the Multi-Selection checkbox and selecting the individual workgroup servers one at a time. See the [Node Viewlet](#) example under [Viewing color coding](#).

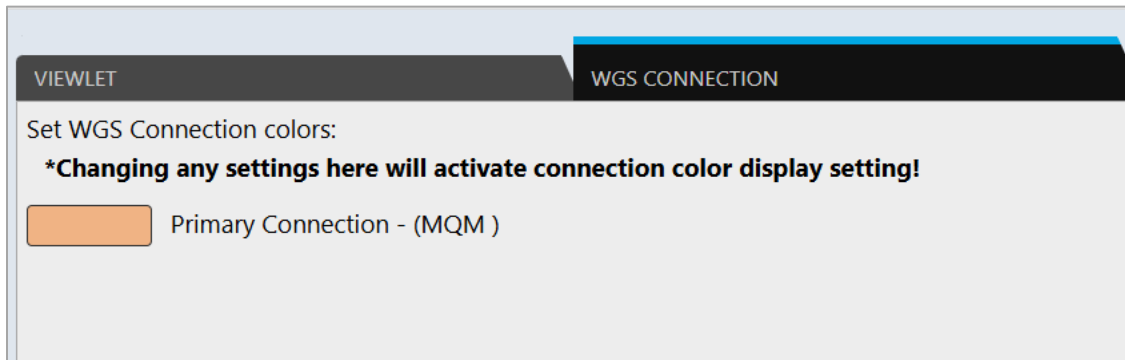


Figure 4.4.5.1.5.2-A. WGS Connection Tab of Color Settings

1.1.1.1.16 Viewing color coding

The selected colors are reflected in the Workgroup servers viewlet. See [Figure 4.4.5.1.5.2-B](#). [Error! Reference source not found.](#) shows a Node viewlet with nodes from workgroup servers (Primary Connection (MQM)).

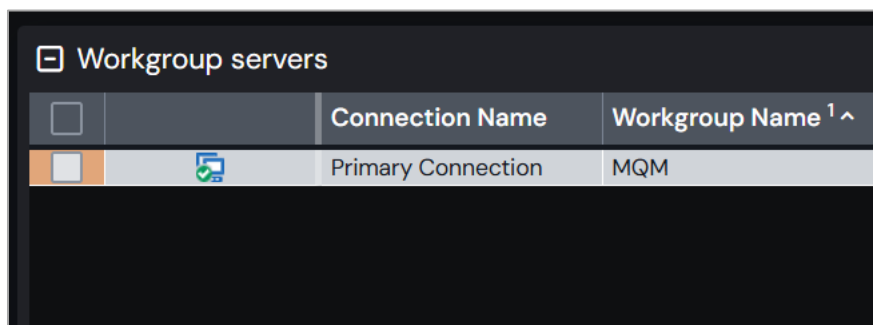


Figure 4.4.5.1.5.2-B. Color-Coded Workgroup Servers Viewlet


4.4.5.1.6 Attribute Filter Tab

4.1.1.1.1.22 User Settings

Users with the **Manage Private Attribute Filters** right in the security application can view the attribute filters that they have created for filtering individual viewlets on the Attribute Filters tab of User Settings. Filters are organized according to Product and Viewlet Type. To view a filter's details, select it from the list; its details are displayed on the right side of the dialog.

Users with this right can add, copy, edit, and delete their own attribute filters from here. (This tab does not include global attribute filters or filters that other users have shared.)

If you also have the Manage Shared Attribute Filters right, you can share the filters you have created.

Attribute filters that you have shared are displayed with a green Shared Filter icon . They can be used on viewlets by members of the groups with which you have shared them.

4.1.1.1.1.23 Global Settings

Users with the **Manage Global Attribute Filters** right in the security application can view and manage global attribute filters, which are available to everyone. Click **Edit Global Settings** to access the global Attribute Filters tab. From there, you can add, copy, edit, and delete global attribute filters.

For information on adding, copying, sharing, editing, and deleting attribute filters through the *Attribute Filter Management* dialog, see [Attribute Filter](#).

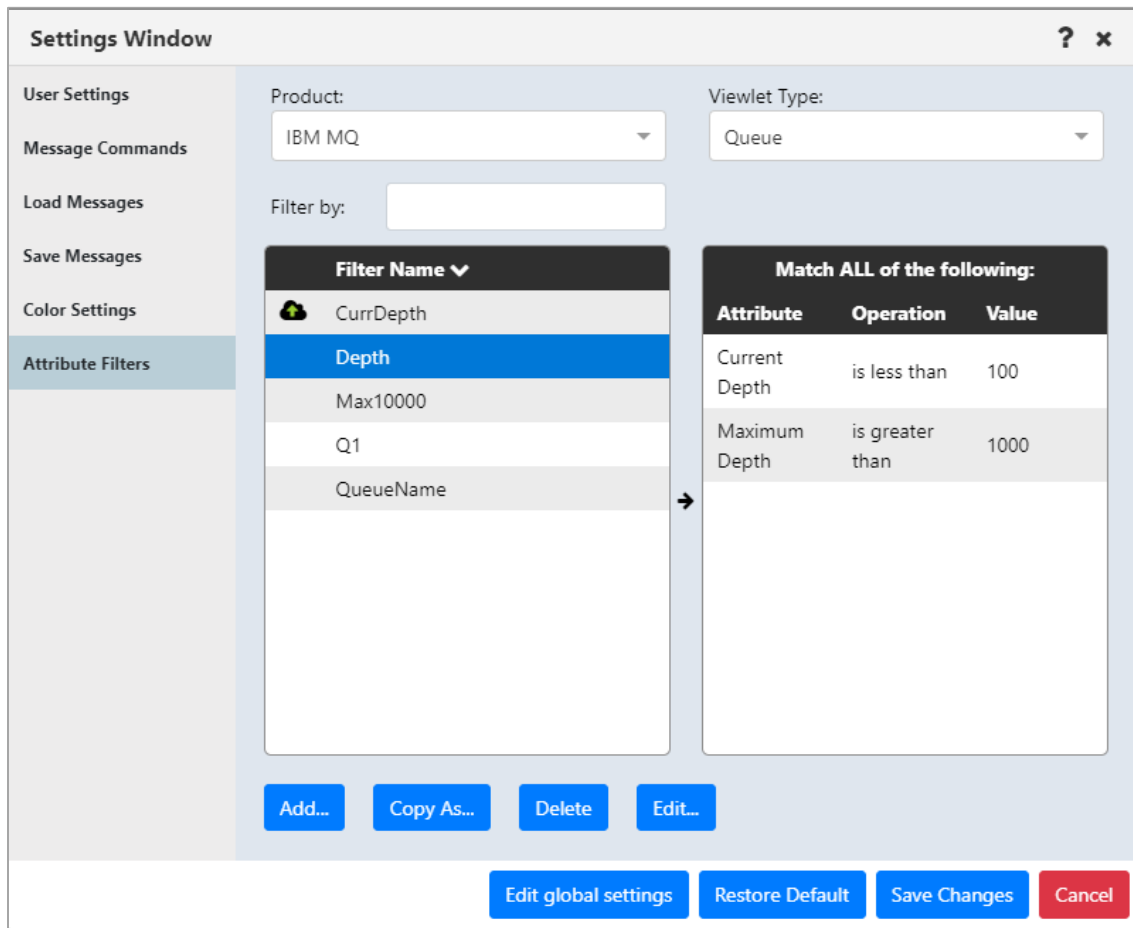


Figure 4.4.5.1.6.2-A. Settings: Attribute Filters

4.4.5.1.7 Display Schemas Tab

The **Display Schemas** tab located on the *Settings window* is a central location from which you can manage schemas for all products and objects.

- At the User Settings level, you can view, add, copy, edit, and delete your own schemas. These schemas remain private to you unless you share them with one or more groups. (See [Schemas](#) for instructions.)
- At the Global Settings level, you can view, add, copy, edit, and delete schemas that are available to all users who log in to the interface.

To view a schema, select the Product and Viewlet Type (Object) for which you want to view schemas. Viewlet schemas are displayed based on your selections. For products that include an Object Sub Type

selection, the Object Sub Type *All* shows only schemas that apply to all Sub Types. Click a Viewlet schema in the list on the left to view its columns in the Schemas object attributes list.

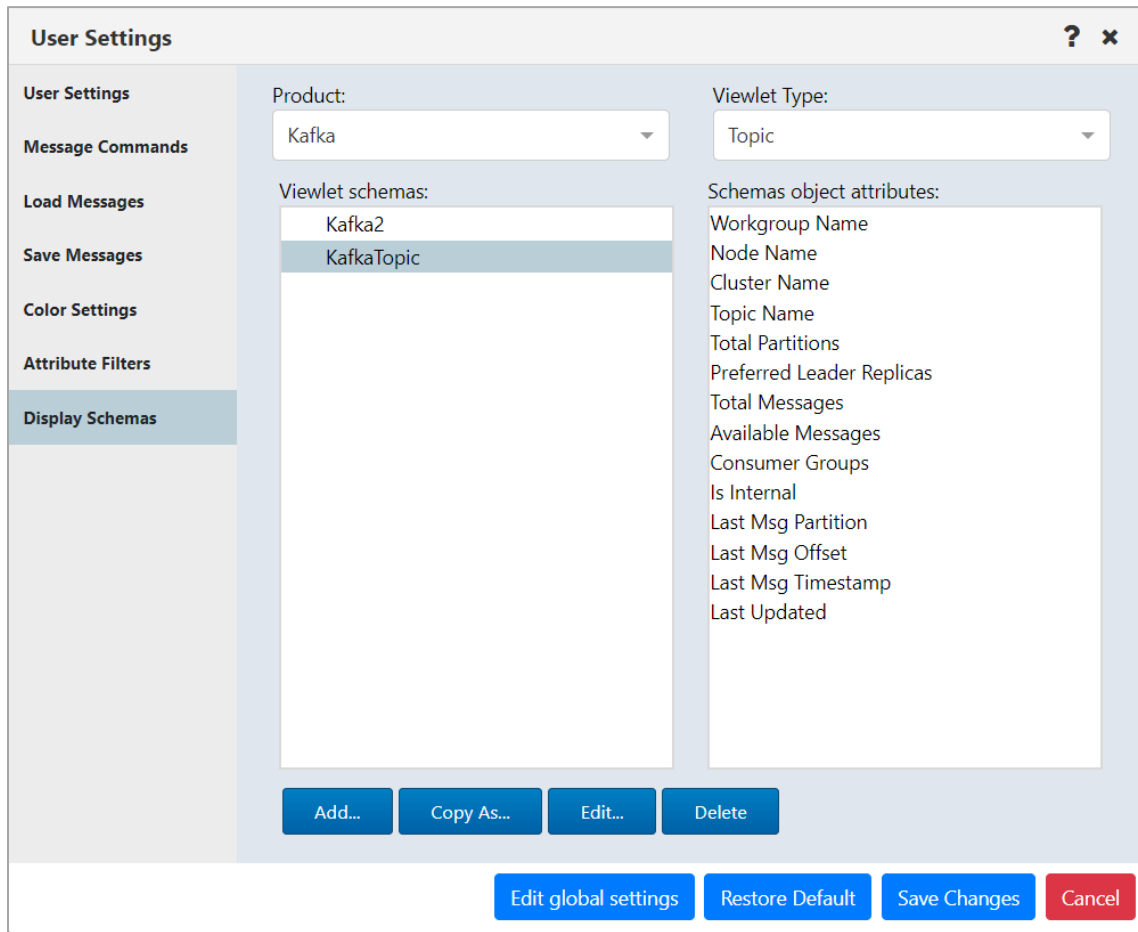


Figure 4.4.5.1.7-A. Settings: Display Schemas

To add a schema, select the Product and Viewlet Type (Object) of the schema you want to add. Then click **Add...** To copy, edit, or delete a schema, view the schema using the instructions above, then click the appropriate button. See [Schemas](#) for more information.

4.4.5.2 Global Settings

This section describes settings that can be configured at the global level only. Global settings can only be modified by administrators (those who have the **Manage Administration** right in the security application). For information on settings that common to both the user and global levels, see [User and Global Settings](#).

4.4.5.2.1 Cipher Specs Tab

On the **Cipher Specs** tab, located on the *Global Settings* window, administrators can deselect the Cipher specifications that they do not want displayed in the application.

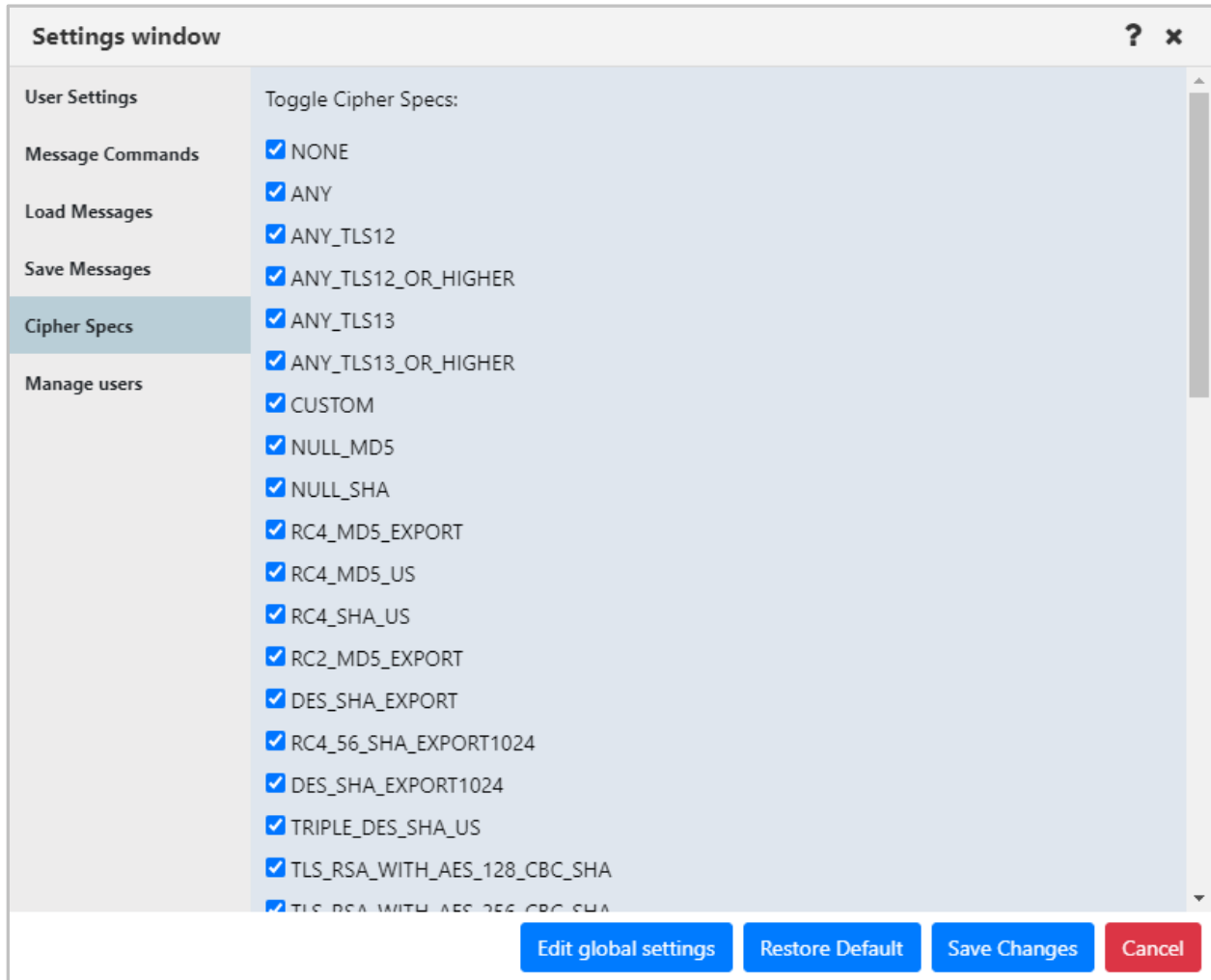



Figure 4.4.5.2.1-A. Cipher Specs

4.4.5.2.2 Manage Users Tab

- On the **Manage users** tab, located on the *Global Settings* window, administrators can reset a user's settings back to the default settings or delete the user using the buttons provided.
- Deleting a user does not prevent that user from logging in. Instead, it deletes that user's dashboards, attribute filters, and schemas, including those that have been shared. Please see the important note about shared objects below.



IMPORTANT!

Since members of other groups may be using objects shared by the user you want to delete, when you attempt to delete a user, the *Confirm Delete Action* dialog provides a warning. It shows the total number of objects that the user shared (even if that user later unshared them). The only shared dashboards that are counted in this message are the ones that are in use (at least one other user has added the dashboard to their current view).

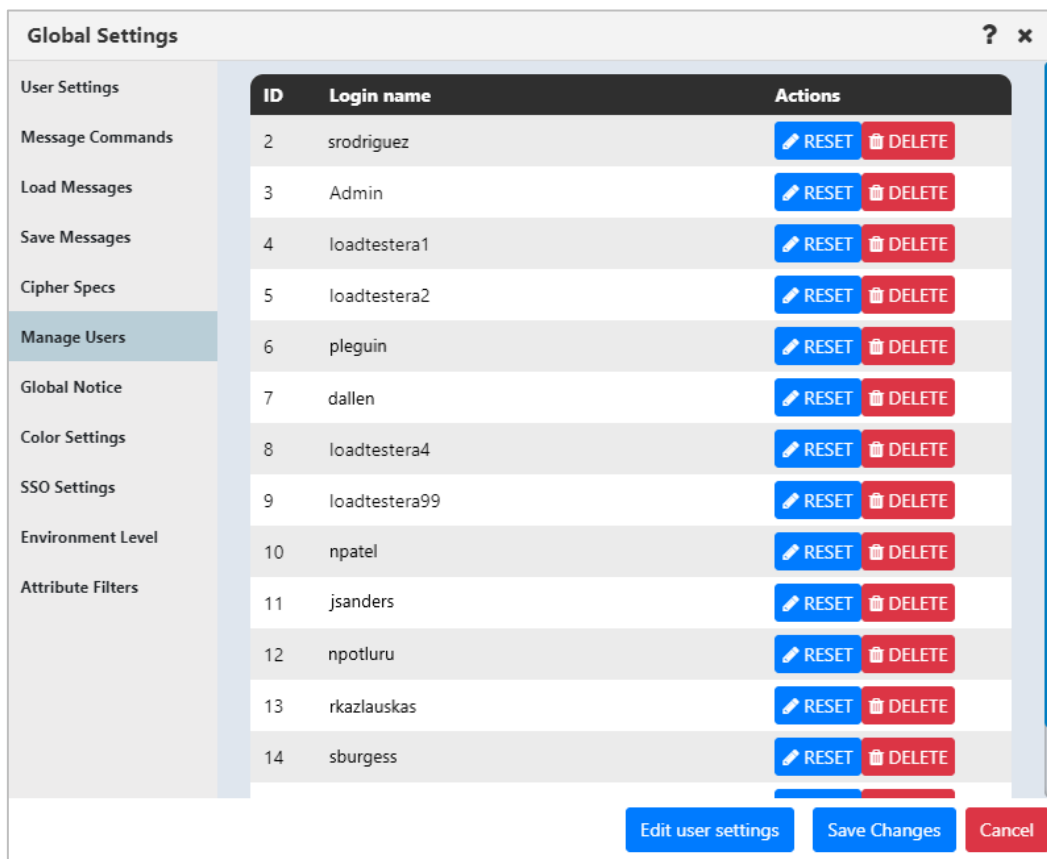


Figure 4.4.5.2.2-A. Manage Users

4.4.5.2.3 Global Notice Tab

The global notice feature on the *Global Settings* window allows administrators to add banner messages that display across the top of the application window. For example, a custom banner could be used to announce scheduled maintenance to all users. A user can close a banner message, but it will be displayed again the next time the user logs in. See the example below.

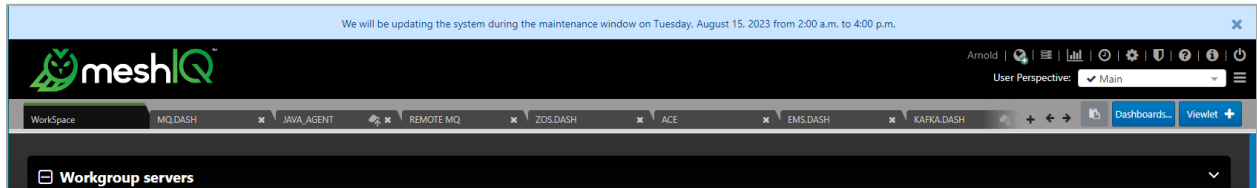


Figure 4.4.5.2.3-A. Custom Banner

Click the **Edit global settings** button located at the bottom of the *User Settings* window.

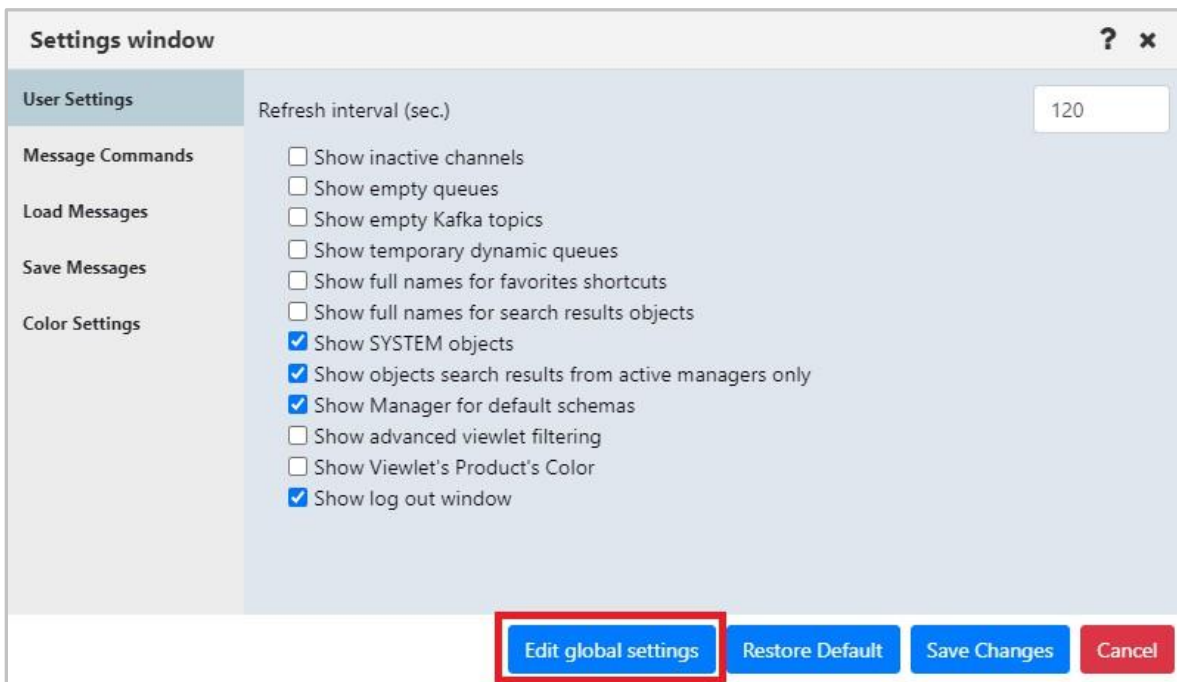
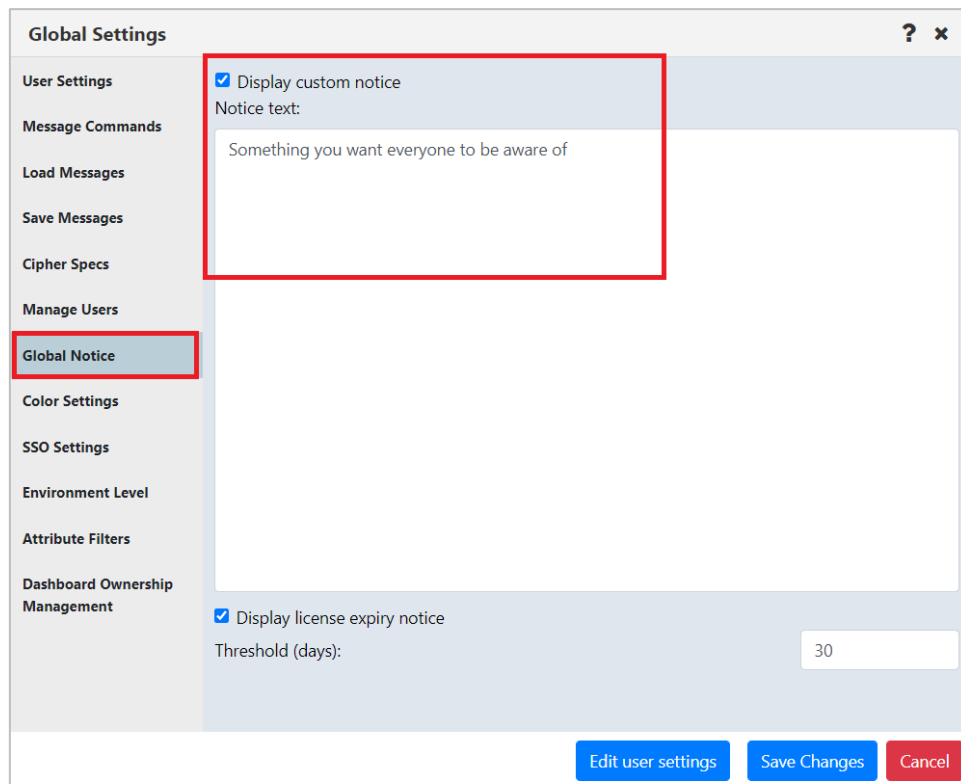


Figure 4.4.5.2.3-A. Edit Global Settings

Go to the **Global Notice** tab and enable the **Display custom notice** option. Enter the desired message within the text box. Please note, the message can have a maximum of 4000 characters.



The screenshot shows the 'Global Settings' dialog box. The left sidebar has 'Global Notice' selected. The main area has 'Display custom notice' checked, with a text box containing 'Something you want everyone to be aware of'. Below that, 'Display license expiry notice' is checked, and the 'Threshold (days)' field is set to 30. At the bottom, there are three buttons: 'Edit user settings', 'Save Changes', and 'Cancel'.

Figure 4.4.5.2.3-B. Enable Global Notice and Enter Message

Click **Save Changes** when finished. From this point forward, all users will see this message display at the top of their screen.

Administrators can also choose to display a warning banner at the top of the application window when a workgroup server license is approaching its expiration date. Select the **Display license expiry notice** check box, and enter the number of days in advance that you want the banner to be displayed (prior to the expiration date) in the **Threshold (days)** field. When the license of any connected workgroup server is due to expire in less than this number of days, a license expiration notice appears to inform users of the time remaining.

4.1.1.1.2 Single Sign-on (SSO)

If your organization would like to set up Single Sign-on, note the following requirements and guidelines:

- Your organization must choose and set up an identity provider. This is the provider that is responsible for authenticating users for the sign-on process. Examples are Auth0, Okta, and Keycloak.
- The identity provider configuration includes setting up users and assigning them to groups. The groups (which may also be called roles, depending on the identity provider), are used for role mapping, and ensure that the users are assigned the proper permissions at login.

- A configuration file defines the SSO options that are available on the login page. meshIQ support provides assistance in setting up the configuration file for our customers.
- If applicable, more than one identity provider may be named within a configuration file. meshIQ support will work with you to determine the order in which providers will appear on the login page.
- When the configuration file is complete, it will be placed in the expected location in your system, and the required pointer to it will be updated in Apache Tomcat. Each time a configuration file is updated, Apache Tomcat must be restarted.

The Global Settings SSO tab is for systems that have single sign-on (SSO) configured. Use the SSO tab to preview the connection settings for service providers. If no SSO connections are detected, then this tab will not be filled in.

If SSO is configured, the following configuration settings are displayed on this tab:

- Name
- Description
- Status (Active or Passive)
- Position
- Client Issuer (Client Entity ID)
- Assertion Consumer Service URL
- SSO Issuer (Provider Entity ID)
- IdP (Identity Provider) SSO Service URL
- IdP (Identity Provider) Artifact Resolve URL
- Authentication Request Signed (Active or Passive)
- Artifact Resolve Request Signed (Active or Passive)
- Client Certificate, in JKS or PKS12 format (Type, Key Store File, and Key Alias)
- IdP (Identity Provider) Signing Certificate (X.509 Certificate from IdP metadata)

4.4.5.2.4 Environment Level Tab

On the **Environment Level** tab, located on the Global *Settings* window, administrators can help users identify which environment they are using by adding a label next to the logo, as shown below. You must have the **Manage Environment Level** right to perform the actions described in this section.



Figure 4.4.5.2.5-A. Environment Level Label Example

To turn on the label, select the **Display Environment Level** checkbox on the Environment Level tab.

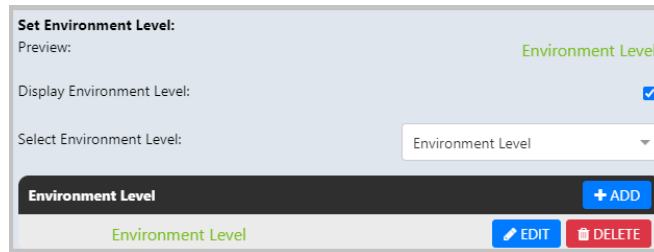


Figure 4.4.5.2.5-B. Set Environment Level

You can format this label whether or not it is currently turned on. Use the *Environment Level Properties* dialog to define a set of colors for the label for each environment, including text, optional text outline, and background color.

Select the **Environment Level** you want to format from the list, and click **Add** to format its label. Set the **Text Color**, **Text Outline**, **Background Color**, and **Text Size**. **Text Outline** and **Background Color** can be turned on and off using the checkboxes. The Preview area shows changes. Click **Save Changes** to return to the *Set Environment Level* dialog.

To edit a format, click the **Edit** button in its row. The *Environment Level Properties* dialog opens. Make changes and save them. To delete a format, click the **Delete** button in its row.

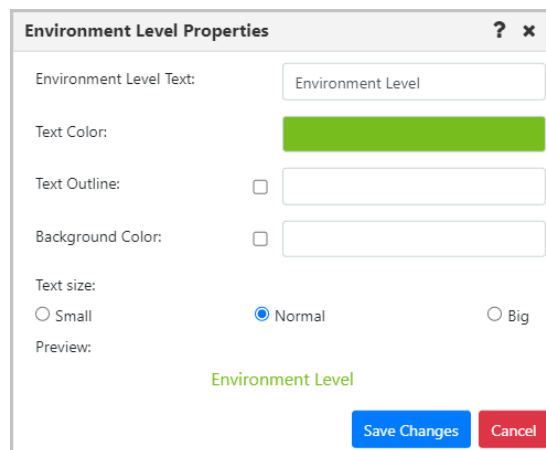






Figure 4.4.5.2.5-C. Environment Level Properties

4.4.5.2.5 Dashboard Ownership Management

Dashboard Ownership Management is located on the *Global Settings* window. This feature is intended to manage the dashboards of inactive users before the users' accounts are deleted. Administrators can use it to change the ownership of an inactive user's dashboard, assigning it to a different user. Dashboard Ownership Management provides access to any dashboard in the system. You can view all dashboards by clicking **Search**.

To search for specific dashboards, use the filter on the Dashboard Ownership Management tab (see [Figure 4.4.5.2.6-A](#)). You can search by the **Owner** of the dashboard, by its **Title**, or **All** (both **Owner** and **Title**). Searches are case-sensitive.

For shared dashboards, the Permissions column shows the groups that have been granted permissions for the dashboard. When the ownership of a dashboard changes, its permissions are carried through to the new owner. In the Permissions column, the following codes are used:

- The "(rw)" code means that the group has both read and write permission for that dashboard. This is equivalent to both read and write icons being selected:  .
- The "(r)" code means that the group has read only permission for that dashboard. This is equivalent to the read icon being selected:  .

To change dashboard ownership, select one or more dashboards that you want to change the owner of. Click **Change Owner** to open the *Change Dashboard Owner* dialog.

Search for a new Owner by entering part or all of the new Owner's name in the search field and clicking **Search**. Click the **Set Owner** button that corresponds to the Owner you want to assign to the dashboard. Read the warning message that is displayed carefully (see [Figure 4.4.5.2.6-B](#)). Click **Yes** to continue applying changes.



If the changes you have made apply to your own account, you must log out and log in again for them to take effect.

Global Settings ? x

User Settings

Message Commands

Load Messages

Save Messages

Cipher Specs

Manage Users

Global Notice

Color Settings

SSO Settings

Environment Level

Attribute Filters

Dashboard Ownership Management

Dashboards: All Kafka Search

<input type="checkbox"/>	Title	Owner	Permissions
<input type="checkbox"/>	Kafka	Admin	Operators (r) Developers (rw) Administrators (rw)
<input type="checkbox"/>	KafkaDash	sdilg	

Change Owner

Edit user settings Save Changes Cancel

Figure 4.4.5.2.6-A. Dashboard Ownership Management

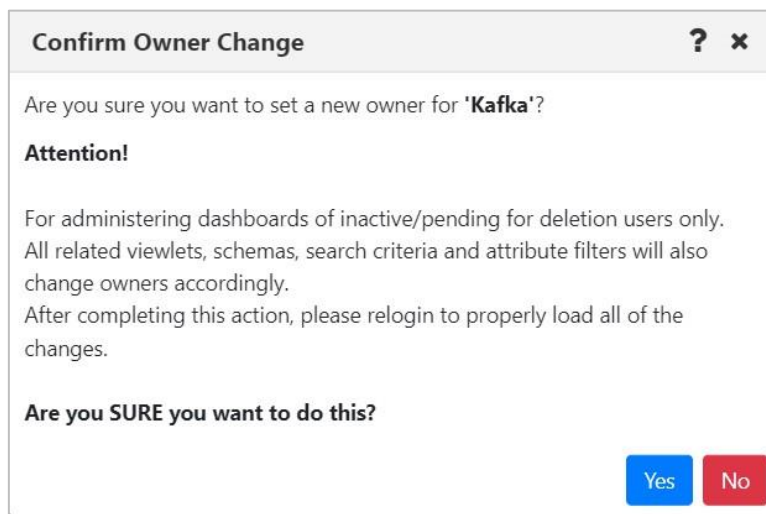



Figure 4.4.5.2.6-B. Confirm Owner Change dialog

4.4.5.2.6 User Object Ownership Management

The User Object Ownership Management feature, located on the *Global Settings* window, is intended to manage the attribute filters, display schemas, and message criteria of inactive users before the users' accounts are deleted. For example, administrators can use it to change the ownership of an inactive user's message criteria record, assigning it to a different user. User Object Ownership Management provides access to any object in the system.

The management of user objects is governed by the **Manage Global Attribute Filters**, **Manage Global Display Schemas**, **Manage Global Message Criteria**, **Manage Shared Attribute Filters**, **Manage Shared Display Schemas**, **Manage Shared Message Criteria**, **Manage Private Attribute Filters**, **Manage Private Display Schemas** and **Manage Private Message Criteria** rights. See Navigator GUI Feature Rights in the *meshIQ Secure User Guide* for details.



To change the owner of a user object, click the User Settings icon , then click **Edit global settings**. Select the *User Object Ownership Management* vertical tab. Three horizontal tabs are displayed: *Attribute Filters*, *Display Schema*, and *Message Criteria*. Select the one that corresponds to the object that you want to change the owner of.

Search for objects using the following steps:

- **Attribute Filters:** Select the Product and Viewlet Type of the attribute filter you want to change the ownership of. Use the Filter list to choose a method to further narrow down results (by the attribute filter's Owner, Title, or All [either Owner or Title]). Enter a search value.
- **Display Schema:** Select the Product and Viewlet Type of the schema you want to change the ownership of. For products that include an Object Sub Type selection, the Object Sub Type *All* shows only schemas that apply to all Sub Types. Use the Filter list to choose a method to further narrow down results (by the schema's Owner, Title, or All [either Owner or Title]). Enter a search value.

- **Message Criteria:** You can view all message criteria records by clicking **Search**. Or use the Filter list to choose a method to further narrow down results (by the message criteria record's Owner, Title, or All [either Owner or Title]). Enter a search value.

Click **Search** to retrieve a list of results (see [Figure 4.4.5.2.7-A](#)).

You can view object details by clicking anywhere on the blue bar with the left arrow . (See [Figure 4.4.5.2.7-B](#).) Click the right arrow  to collapse details again.

Select one or more objects that you want to change the owner of. Click **Change Owner** to open the *Change User Object Ownership* dialog (see [Figure 4.4.5.2.7-C](#)).

Enter part or all of the new Owner's name in the search filter and click **Search**. Click the **Set Owner** button that corresponds to the Owner you want to assign to the object.

Read the warning message carefully. If you are sure you want to continue applying changes, click **Yes** to update the Owner Name for the object. Otherwise, click **No**.



If the changes you have made apply to your own account, you must log out and log in again for them to take effect.

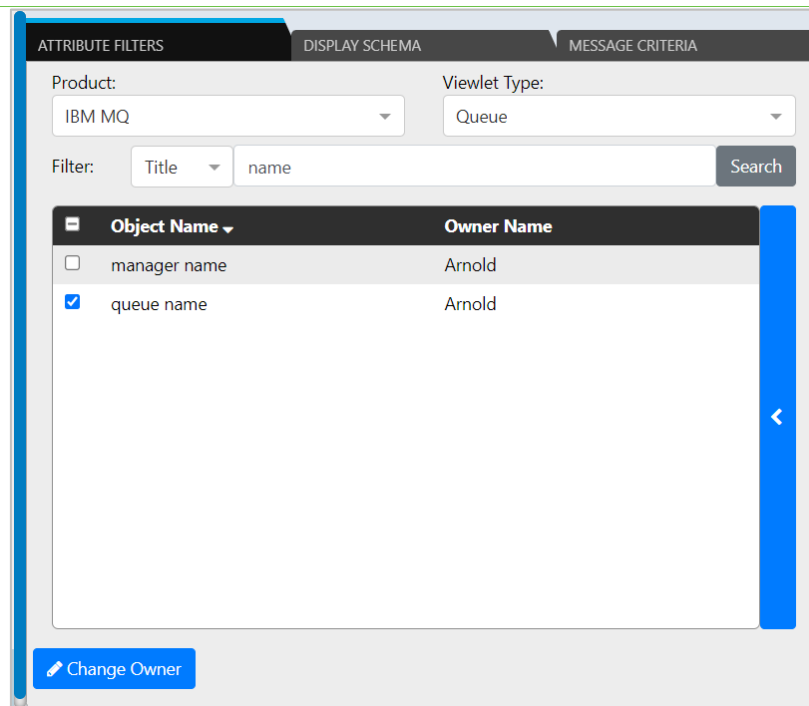


Figure 4.4.5.2.7-A. Object Search

Object Name ▾		Owner Name	Match ALL of the following:		
<input type="checkbox"/>	manager name	Arnold	Attribute	Operation	Value
<input checked="" type="checkbox"/>	queue name	Arnold	Queue Name	starts with	SSH

Figure 4.4.5.2.7-B. View Object Details

Change User Object Ownership ✕

Owner: Search

Object Name ▾	Actions
Admin	⚡ Set Owner
Arnold	⚡ Set Owner
Barry	⚡ Set Owner
Ben	⚡ Set Owner
Robert	⚡ Set Owner

Close

Figure 4.4.5.2.7-C. Set New Object Owner

4.5 Updating the Configuration File

Some settings are stored in a configuration file rather than on dialogs in the user interface. This section describes two of these settings: the length of time for which user tokens are valid, and the ability to cache key database queries to improve the performance of your system. Both of these configuration settings have default values, but these values can be changed. See the sections immediately below for more information.

4.5.1 Renewing Workgroup Server Tokens

After being inactive for 30 minutes (the default time period) the user will need to renew the workgroup server token. The warning notification below is displayed, along with the *Renew Token* dialog ([Figure 4.4.1-A](#)). Enter the workgroup server's password and click **Renew Token** to continue the session.

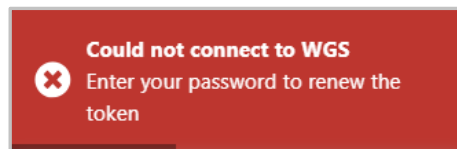


Figure 4.5.1-A. Could Not Connect to WGS

1.1.1.1.17 Changing the Token Validation Time Period

Open the **navigator.cfg** file located in:

```
<tomcat_dir>\webapps\navigator-server\WEB-INF\classes
```

Edit the `tokenLongevity` value to your desired time period, in minutes.

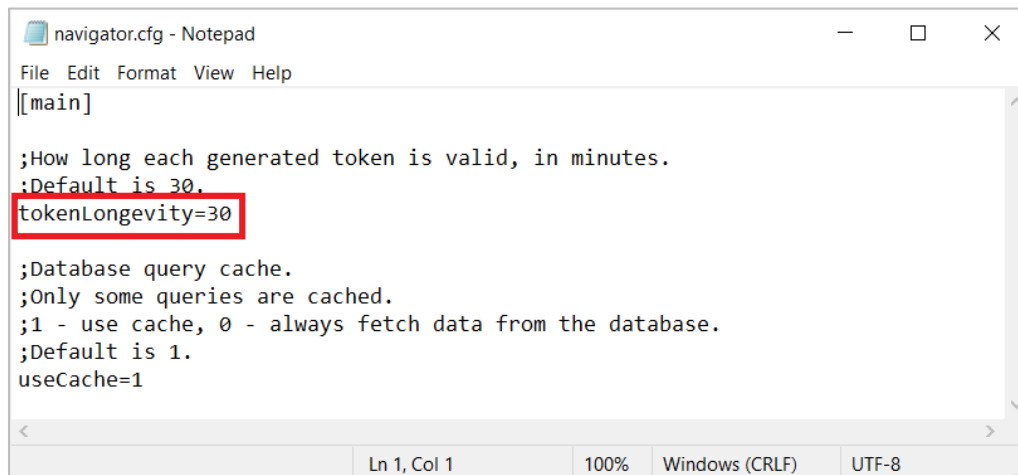


Figure 4.5.1-B. Navigator.cfg – tokenLongevity Value

4.5.2 Caching Key Database Queries

To improve system performance, by default a limited set of database queries are stored within the cache instead of being obtained from the database. These queries capture key information, such as the items listed below:

- User ID
- Global user timeout settings

- User settings

This cached information will expire 90 minutes after the end of your most recent session. After it has expired, values will be obtained from the database.



When key database queries are cached, user permissions are also cached for the current session only. The permissions cache is then reset each time a user logs on. During a session, if that user's permission to perform an action is removed in the security application, and the action requires workgroup server involvement, then the user will not be able to complete the action.

Please keep in mind that, with the exception of user permissions, neither logging in nor logging out of the application has an immediate effect on this cached data. The cached information that is not related to permissions is only considered “expired” when one of the following takes place:

- The 90-minute lifespan of the cache instance (beyond the most recent user session) has elapsed.
- The application or server is restarted.

1.1.1.1.18 Changing the Database Query Cache Setting

As stated above, by default this setting is “on” (key queries are cached). If you would like to obtain this queried information from the database instead of from the cache, you can change this setting.

Open the **navigator.cfg** file located in:

```
<tomcat_dir>\webapps\navigator-server\WEB-INF\classes
```

Edit the `useCache` value to your desired setting: 0 (obtain values from the database) or 1 (used cached values).

A screenshot of a Notepad window titled "navigator.cfg - Notepad". The window shows the following configuration text:

```
File Edit Format View Help
[[main]

;How long each generated token is valid, in minutes.
;Default is 30.
tokenLongevity=30

;Database query cache.
;Only some queries are cached.
;1 - use cache, 0 - always fetch data from the database.
;Default is 1.
useCache=1
```

The line `useCache=1` is highlighted with a red rectangular box. The status bar at the bottom of the Notepad window shows "Ln 1, Col 1", "100%", "Windows (CRLF)", and "UTF-8".

Figure 4.5.2-A. Navigator.cfg – useCache Value

4.6 Scheduling

When you schedule actions for objects, those actions can automatically take place at a later time, such as during a change or testing window.

Actions you can schedule include creating, deleting, modifying, starting or stopping objects. Message actions such as loading messages to a file or clearing a queue can also be scheduled.



Before you can schedule actions, your workgroup server must have the Job Scheduler Expert. Please see the Resource Center article [How do I install the Job Scheduler Expert](#) for requirements and setup instructions.

4.6.1 Viewing an Object's Scheduled Jobs

There is a clock icon next to the name of each object. The color represents the status of the object's scheduled jobs.

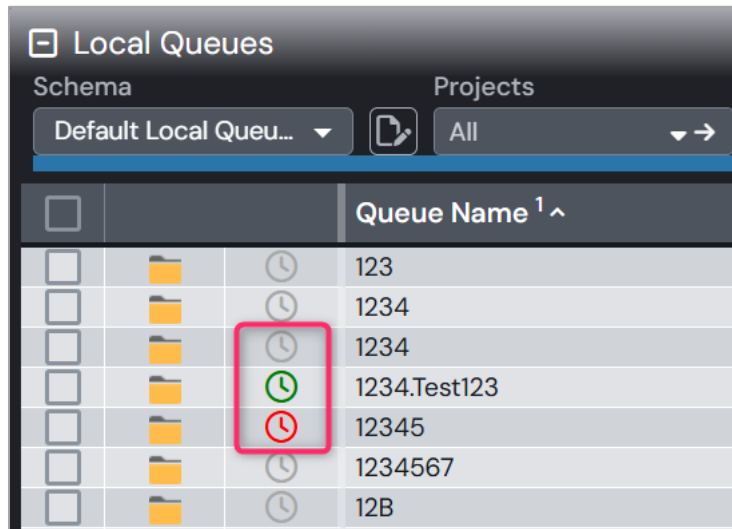


Figure 4.6.1-A. Schedule Icons

- no scheduled items found
- all scheduled items found are complete
- scheduled items are present, and none are pending
- scheduled items include some pending authorization
- some scheduled items failed

To view an object's scheduled jobs, click on its clock icon. A window similar to the following screenshot opens, displaying the object's past and future jobs.

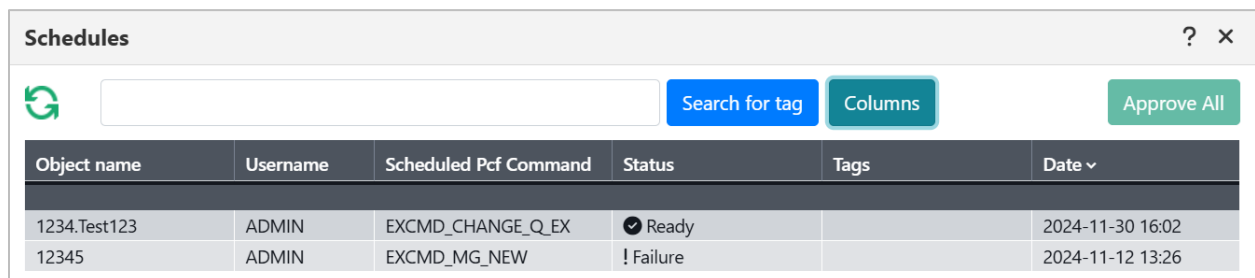


Figure 4.6.1-B. Schedule for an Object

The **Status** field displays the status of the job; potential statuses include Pending, Ready, Retrying, Cancelled, Success, or Failure. The **Tags** field displays the tag (job name) that you specified when the job was created.

4.6.2 Scheduling a Job

Select an object to open its Selected menu and select the desired action you want to schedule. In the example below, the Start all WMQ objects action is going to be scheduled for two queue managers.

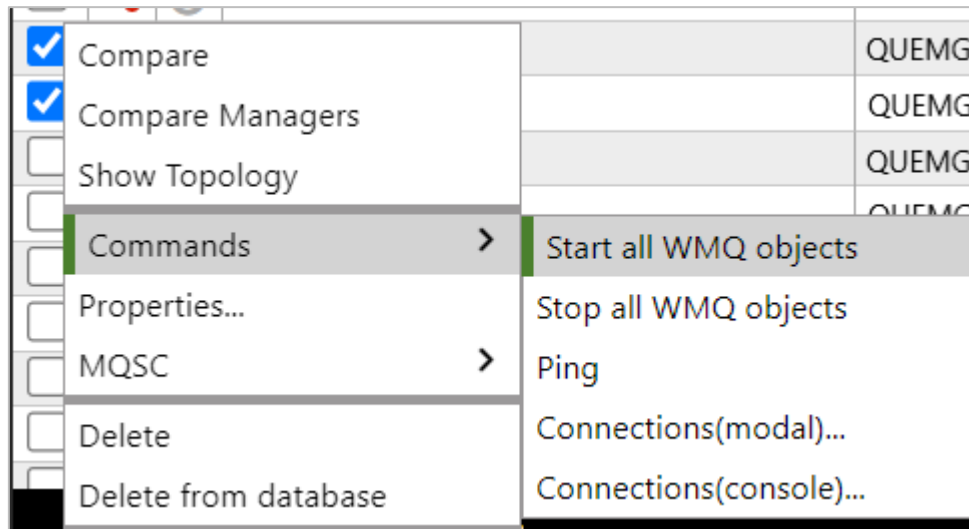


Figure 4.6.2-A. Action to Schedule

On the action window, click the green **Schedule** button.

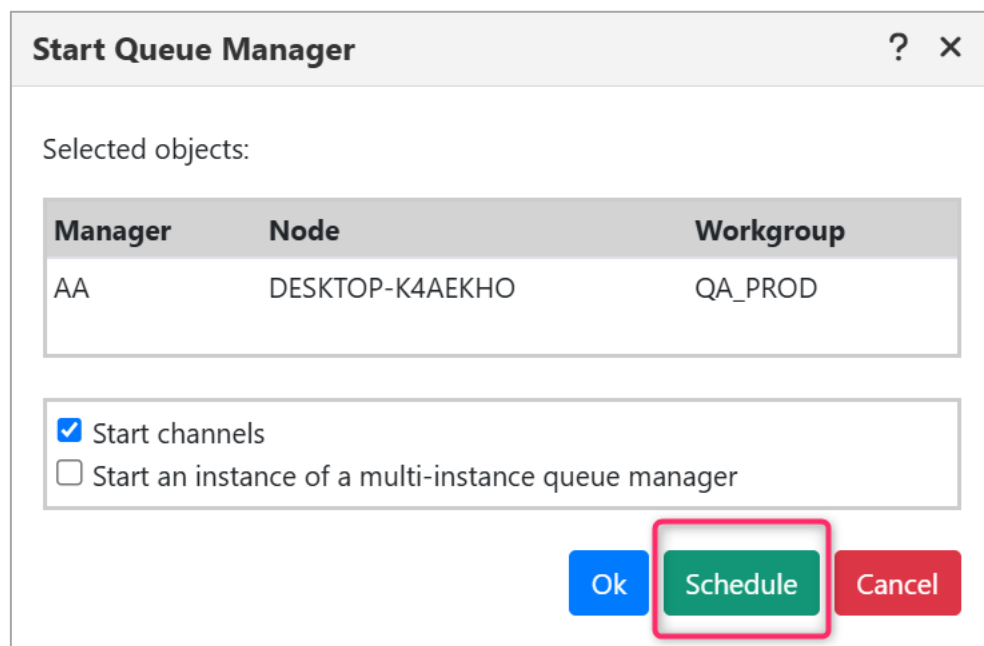


Figure 4.6.2-B. Schedule Button

The *Scheduler* window opens. Enter the date and time. Specify a name for the scheduled job in the **Tag for scheduled job** field. Click **Ok**. The action is now scheduled.

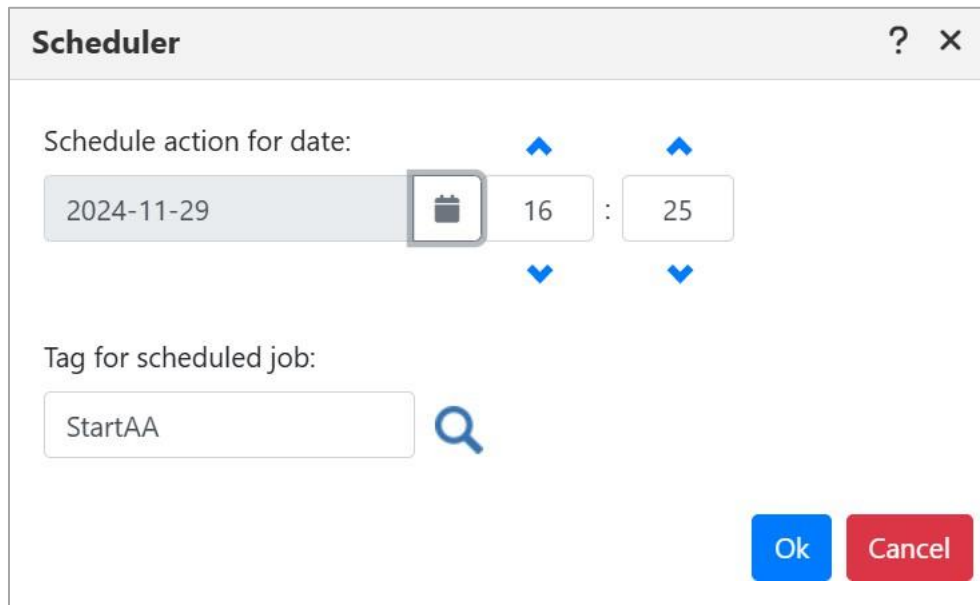


Figure 4.6.2-C. Scheduler Date, Time, and Tag

The object's clock icon will now appear yellow, signifying that the object has a job scheduled but that it has not yet been approved. See the following section for more information.

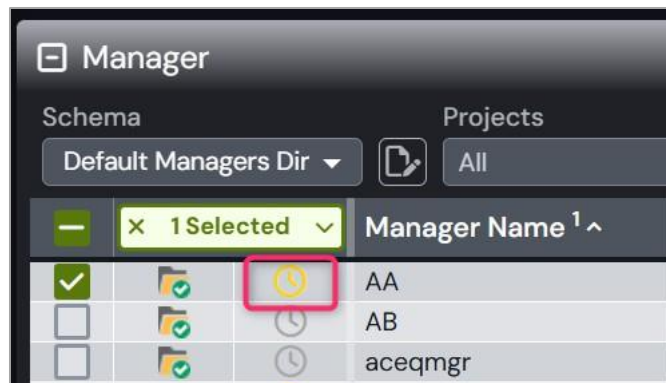





Figure 4.6.2-D. Pending approval

4.6.3 Approving Scheduled Jobs

You must have the **Approve Scheduled Job** right to perform the actions below.


To view all scheduled jobs for all objects, click the clock icon  from the toolbar at the top right of the screen. Jobs that are pending approval show a status of Pending and are listed with an  button.

Schedules ? x

 Search for tag Columns Approve All


Object name	Username	Scheduled Pcf Command	Status	Tags	Date v
1234.Test123	ADMIN	EXCMD_CHANGE_Q_EX	● Pending Approve		2024-11-30 16:02
AA	ADMIN	EXCMD_START_Q_MGR	● Pending Approve	StartAA	2024-11-29 16:25
SH	ADMIN	EXCMD_CREATE_Q_MGR	● Pending Approve		2024-11-29 16:17

Choose one of the following:

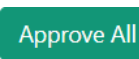
To approve a single job, click the  button that corresponds to that job. A Job Approval Action message is displayed.

Click Yes to confirm the approval. The job Status is updated to Ready.

Schedules ? x


 Search for tag Columns Approve All

Object name	Username	Scheduled Pcf Command	Status	Tags	Date v
1234.Test123	ADMIN	EXCMD_CHANGE_Q_EX	● Pending Approve		2024-11-30 16:02
AA	ADMIN	EXCMD_START_Q_MGR	✔ Ready	StartAA	2024-11-29 16:25
SH	ADMIN	EXCMD_CREATE_Q_MGR	● Pending Approve		2024-11-29 16:17

To approve all Pending or Retrying jobs, click  in the upper right corner of the dialog. A Job Approval Action message is displayed.

Click Yes to confirm the approval. The job statuses for all jobs are updated to Ready.

Schedules ? x

 Search for tag Columns Approve All

Object name	Username	Scheduled Pcf Command	Status	Tags	Date v
1234.Test123	ADMIN	EXCMD_CHANGE_Q_EX	✔ Ready		2024-11-30 16:02
AA	ADMIN	EXCMD_START_Q_MGR	✔ Ready	StartAA	2024-11-29 16:25
SH	ADMIN	EXCMD_CREATE_Q_MGR	✔ Ready		2024-11-29 16:17

The clock icons for the ready jobs are now green.

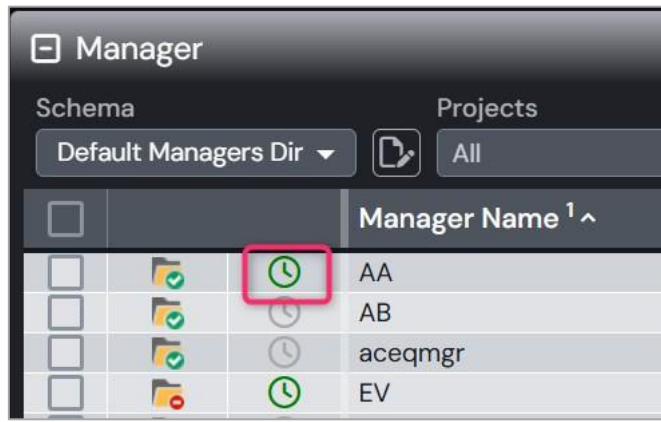

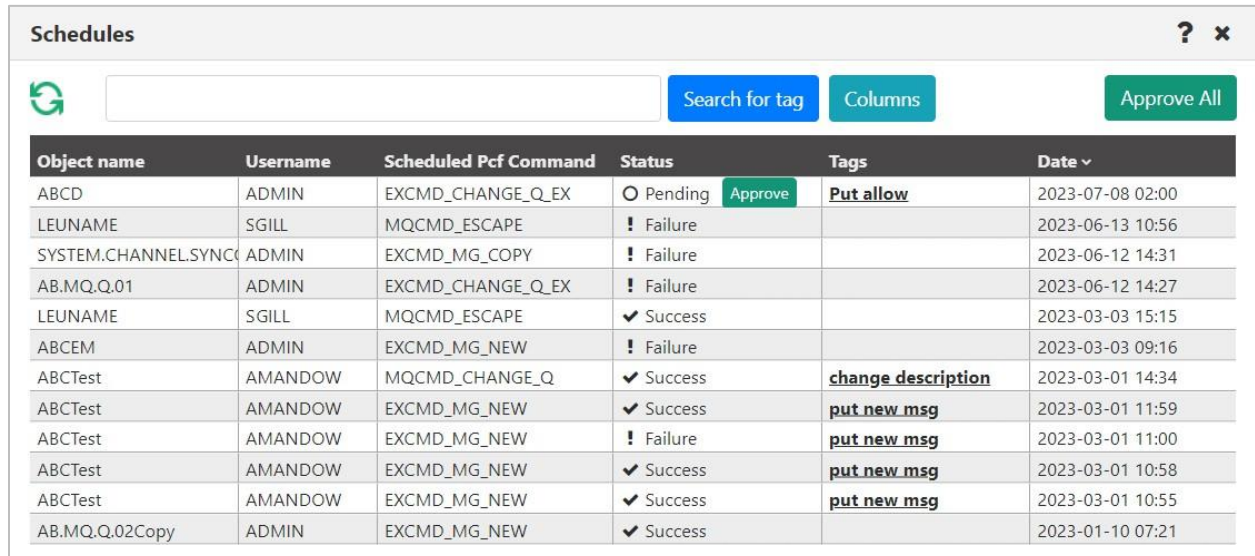


Figure 4.6.3-A. Manager with Approved Scheduled Task

4.6.4 Viewing All Scheduled Jobs


All past and future scheduled actions can be found by clicking the clock icon  from the toolbar at the top right of the screen ([Figure 4.4-A](#)).

The **Schedules** window opens.



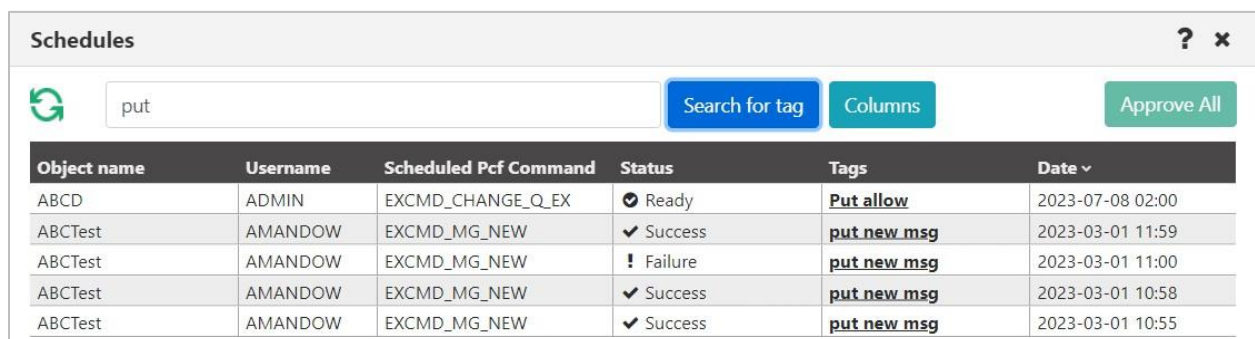
Object name	Username	Scheduled Pcf Command	Status	Tags	Date
ABCD	ADMIN	EXCMD_CHANGE_Q_EX	Pending Approve	Put allow	2023-07-08 02:00
LEUNAME	SGILL	MQCMD_ESCAPE	Failure		2023-06-13 10:56
SYSTEM.CHANNELSYNC	ADMIN	EXCMD_MG_COPY	Failure		2023-06-12 14:31
AB.MQ.Q.01	ADMIN	EXCMD_CHANGE_Q_EX	Failure		2023-06-12 14:27
LEUNAME	SGILL	MQCMD_ESCAPE	Success		2023-03-03 15:15
ABCEM	ADMIN	EXCMD_MG_NEW	Failure		2023-03-03 09:16
ABCTest	AMANDOW	MQCMD_CHANGE_Q	Success	change description	2023-03-01 14:34
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 11:59
ABCTest	AMANDOW	EXCMD_MG_NEW	Failure	put new msg	2023-03-01 11:00
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 10:58
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 10:55
AB.MQ.Q.02Copy	ADMIN	EXCMD_MG_NEW	Success		2023-01-10 07:21

Figure 4.6.4-A. Schedules List

If you have scheduled a command but it does not appear in the list, click the **Refresh** button  to reload the screen.

You can choose which columns to display on this dialog by clicking **Columns**. See [Choosing Scheduler Columns](#).

Use the **Search** field to quickly filter and locate a scheduled task by entering its tag name and clicking the **Search for tag** button.



Object name	Username	Scheduled Pcf Command	Status	Tags	Date
ABCD	ADMIN	EXCMD_CHANGE_Q_EX	Ready	Put allow	2023-07-08 02:00
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 11:59
ABCTest	AMANDOW	EXCMD_MG_NEW	Failure	put new msg	2023-03-01 11:00
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 10:58
ABCTest	AMANDOW	EXCMD_MG_NEW	Success	put new msg	2023-03-01 10:55

Figure 4.6.4-B. Search for Scheduled Jobs


Select a scheduled job to open the *Scheduled job info* screen where all of the job's details are displayed.

Scheduled Job Info ? x	
Job Id:	5a5cd156-1787-11ee-a3b7-066cbf238f1a
Pcf Command:	EXCMD_START_Q_MGR
Status:	<input checked="" type="checkbox"/> Ready
Date:	2023-07-11 03:00
Workgroup Name:	MQM
Node Name:	QUEMGR
Manager Name:	QA
Start Channels:	YES
Reason Code:	INFO: Command completed successfully
User ID:	ADMIN
Response Text:	
Job Approval Required:	YES
Job Approved on:	2023-06-30 17:03:58
Job Approved by:	ADMIN
EMS Server URL:	
Scheduled Job Tag:	StartWMQ

Cancel Schedule
Close

Figure 4.6.4-C. Scheduled Action Details

In version 11, scheduled job details (EXCMD_INQUIRE_JOB) also return EXCA_RESPONSE_TEXT. Response Text will only have a value if the scheduled request was an Escape command.



The amount of data displayed in the Response Text row is limited to 2 KB.

NOTE

User ID:	MNOUVEAU
Response Text:	<div style="border: 2px solid green; padding: 5px;"> AMQ8408: Display Queue Manager details. QMNAME(NAME) ACCTCONO(DISABLED) ACCTINT(1800) ACCTMQI(OFF) ACCTQ(OFF) ACTIVREC(MSG)... </div>
Job Approval Required:	YES
Job Approved on:	2023-03-03 15:03:26

Figure 4.6.4-D. Response Text Details

You can then click the Response Text details to expand the row to include the full response.

4.6.5 Cancelling a Scheduled Job

Scheduled jobs can be cancelled from the *Scheduled job info* screen displayed above. Click the blue **Cancel Schedule** button at the bottom of the screen to cancel the job.

4.6.5.1 Choosing Scheduler Columns

To choose which columns you want to include on the table of scheduled jobs on the *Schedules* dialog, click **Columns** at the top of the dialog. Select the checkboxes of the columns you want to display, and clear the checkboxes of the columns you do not want to display. Click **OK**.

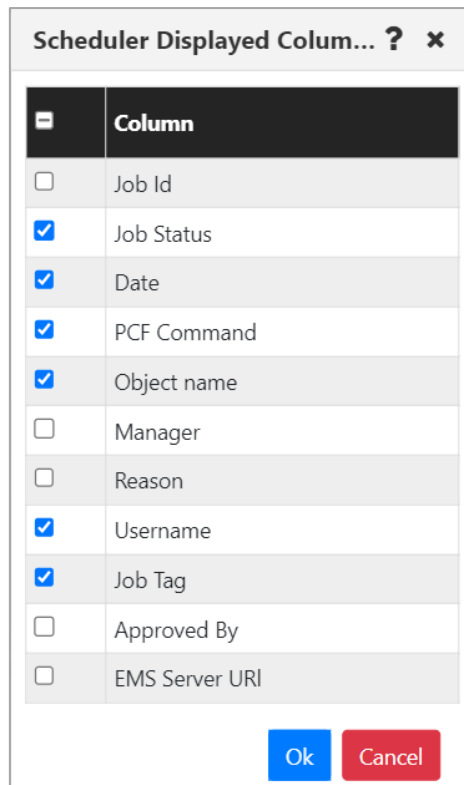


Figure 4.6.5.1-A. Selected Scheduler Window Columns


4.7 Create Objects

There are two methods to create objects which are discussed in the below sections. For information on creating nodes, remote queue managers and remote EMS managers, see sections [4.2.2.1.1, Create a Node](#), [4.2.2.1.2, Create Remote Queue Managers](#) and [4.2.2.1.3, Create Remote EMS Manager](#).

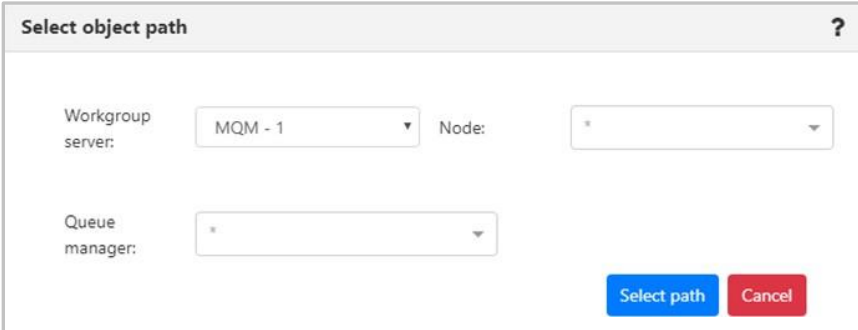
Method #1

Select the **Create** option from an object's Selected menu. Objects created in this manner will automatically take on the path of the selected object. The dialogs that will appear are described in sections [4.7.1 – 4.7.4](#) below.

Method #2

Click the **Add** button  within an object's viewlet. The *Select object path* window opens allowing you to fully customize the path of the new object.

Select the workgroup server, node, and queue manager to create a specific path for the new object. Use the drop-down menus to select your options, or type your entries into the fields. Leave an asterisk to create a new object in every node and queue manager of the selected WGS.



The dialog box titled "Select object path" contains the following fields:

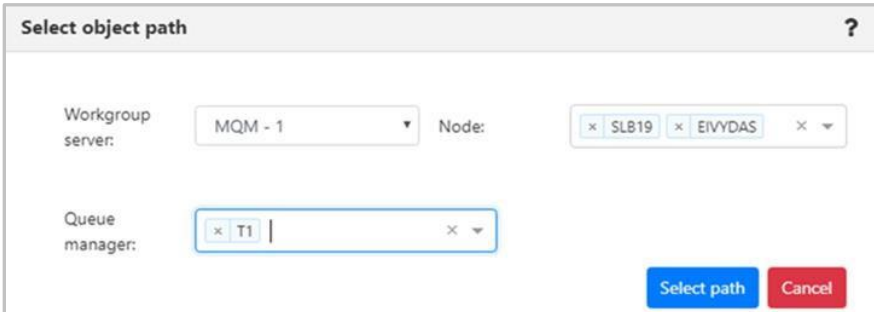
- Workgroup server: MQM - 1
- Node: *
- Queue manager: *

Buttons: Select path, Cancel

Figure 4.7-A. Select Object Path

Multiple nodes and queue managers can be selected at a time; a new object will be created in each selection. Remove unwanted items by simply clicking the **X** icon immediately to the left of an item's name or clear an entire field by clicking the **X** icon on the right side of the field.

Click **Select path** to save. The following sections discuss the dialogs for each object.




The dialog box titled "Select object path" contains the following fields:

- Workgroup server: MQM - 1
- Node: SLB19, EIVVDAS
- Queue manager: T1

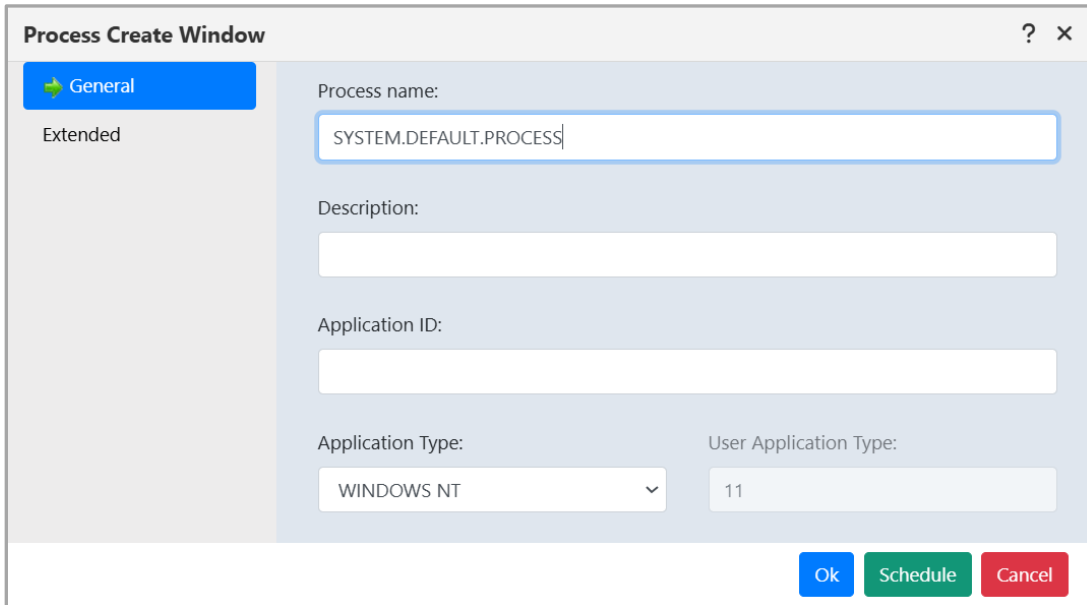
Buttons: Select path, Cancel

Figure 4.7-B. Select Object Path – Multiple

4.7.1 Create Process

In a Process viewlet, after clicking the **Add** button  or selecting **Create Process** from the Selected menu, the following window appears to customize the properties of the new process being created.

Populate the fields on the **General** and **Extended** tabs. Click **Ok** when finished to create the process.




The screenshot shows the "Process Create Window" dialog box. It has a title bar with a question mark and a close button. On the left, there are two tabs: "General" (selected) and "Extended". The main area contains the following fields:

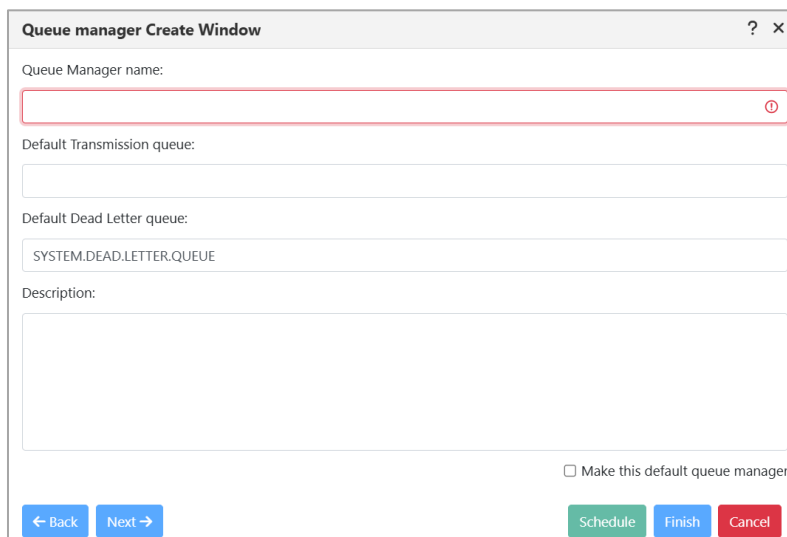
- Process name:** A text input field containing "SYSTEM.DEFAULT.PROCESS".
- Description:** An empty text input field.
- Application ID:** An empty text input field.
- Application Type:** A dropdown menu showing "WINDOWS NT".
- User Application Type:** A text input field containing "11".

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.1-A. Process Create Window

4.7.2 Create Queue Manager

From a Queue Manager viewlet, clicking the **Add** button  or selecting **Create Queue Manager** from the Selected menu to open the *Queue manager Create Window*. Enter the new queue manager name (required) and populate other needed details. Enable the **Make this default queue manager** checkbox if you would like it to be the default queue manager the applications connect to when there is no queue manager specified. Click **Next** and update options on the proceeding windows as needed.



The screenshot shows the "Queue manager Create Window" dialog box. It has a title bar with a question mark and a close button. The main area contains the following fields:

- Queue Manager name:** An empty text input field with a red border and a red circle icon on the right.
- Default Transmission queue:** An empty text input field.
- Default Dead Letter queue:** A text input field containing "SYSTEM.DEAD.LETTER.QUEUE".
- Description:** An empty text input field.

At the bottom right, there is a checkbox labeled "Make this default queue manager" which is currently unchecked. Below the checkbox are three buttons: "Back" (blue), "Next" (blue), "Schedule" (green), "Finish" (blue), and "Cancel" (red).

Figure 4.7.2-A. Create Queue Manager Window

Queue manager Create Window ? x

Queue Manager name:
SH

Trigger interval:
99999999

Maximum Handle limit:
256

Maximum Uncommitted messages:
10000

Application Group (UNIX only):

← Back Next → Schedule Finish Cancel

Figure 4.7.2-B. Create Queue Manager Window

Queue manager Create Window ? x

Queue Manager name:
SH

Log Path:

Logging Type: Circular

Log File size: (x 4KB) 4096

Log Primary files: (No.) 3

Log Secondary files: (No.) 2

← Back Next → Schedule Finish Cancel

Figure 4.7.2-C. Create Queue Manager Window

Queue manager Create Window ? x

Queue Manager name:
SH

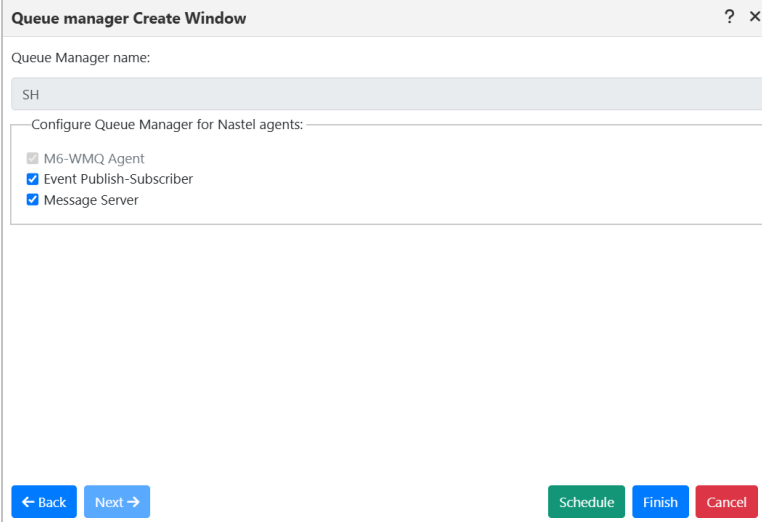
Configure Queue Manager options:
 Automatic Startup
 Automatic Startup, Permitting Multiple Instances
 Interactive Startup (Manual)
 Service Startup

Data Path:

← Back Next → Schedule Finish Cancel

Figure 4.7.2-D. Create Queue Manager Window

On the last screen, click **Finish**. The new queue manager is now created. You can also Schedule the process to perform tasks. Refer this to learn how to [Scheduling a Job](#).



Queue manager Create Window

Queue Manager name:

SH

Configure Queue Manager for Nastel agents:


- M6-WMQ Agent
- Event Publish-Subscriber
- Message Server

← Back Next → Schedule Finish Cancel

Figure 4.7.2-E. Create Queue Manager Window

4.7.3 Create Topic

You can create a topic from a topic viewlet in one of two ways:

- Select **Create Topic** from the **Selected** menu (when a topic is selected in a Topic viewlet).
- Click the Add  button.

The Select object path window opens. Specify the Workgroup server, Node, and Queue manager and click Select path to open the *Topic Create window*.

For information on the properties which can be modified when creating a topic, please see the online IBM documentation:

https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.ref.adm.doc/q087060_.htm

See [Custom Attributes](#) for information on adding custom attributes to a topic (done on the **Custom Attributes** tab).

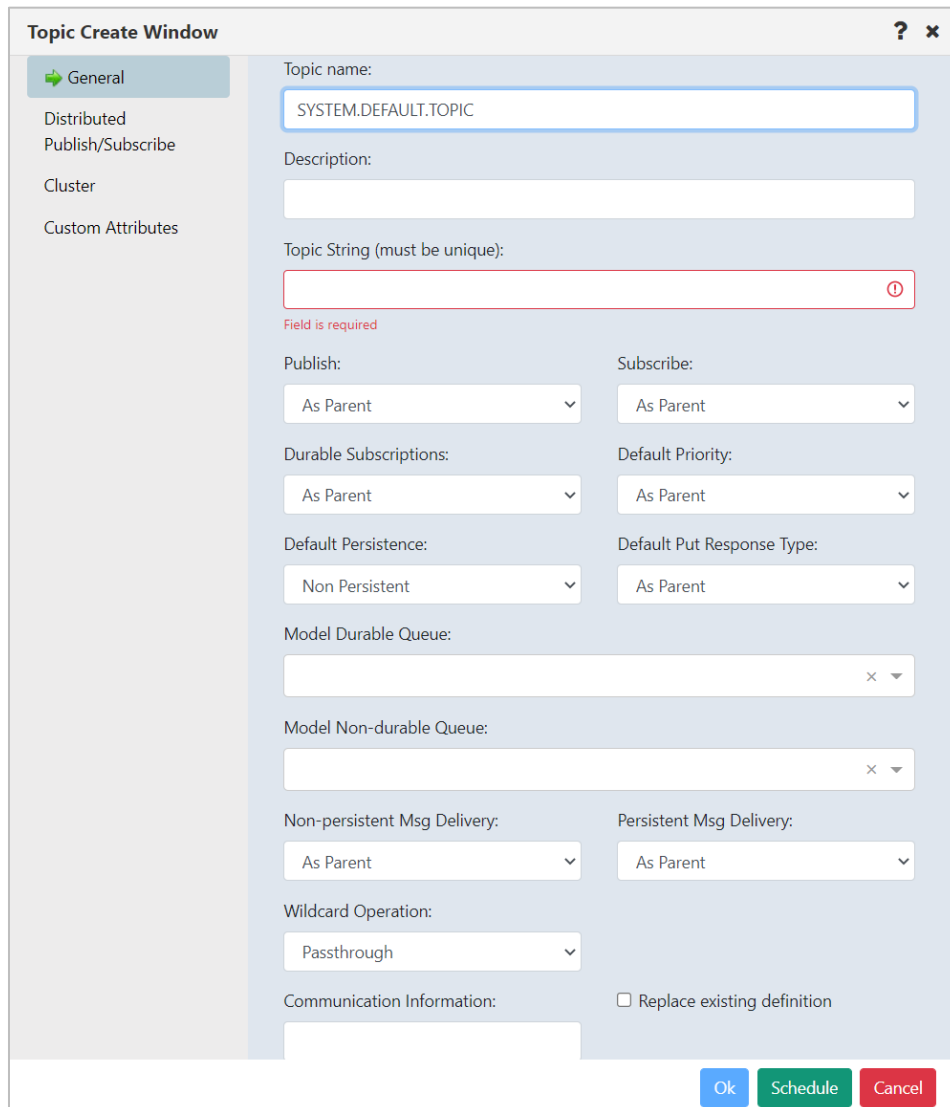


Figure 4.7.3-A. Topic Create Window

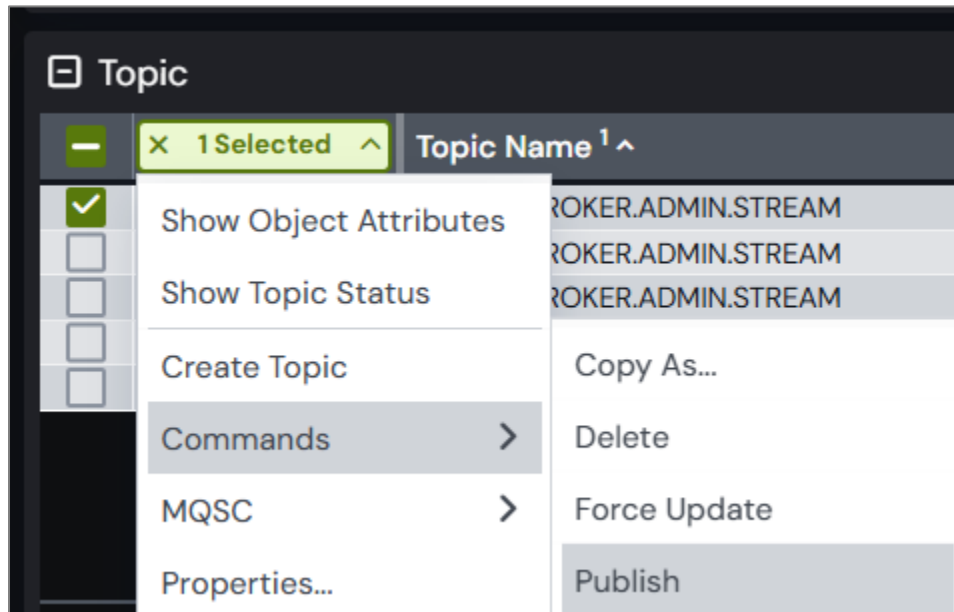
4.7.3.1 Publishing Message to an IBM MQ Topic

The **Publish** feature allows you to send a message to a topic.

Publishing a message sends it to all subscribers that are currently subscribed to that topic or a matching topic string, making it useful for testing topic functionality or distributing messages.

To publish a message:

- 1 In the **Topics viewlet**, select the topic you want to publish a message to.
- 2 From the **Selected** menu, navigate to:
Commands > Publish.



- 3 The **Publish Topic** dialog opens.

 A screenshot of the 'Publish Topic' dialog box. It has a title bar with a question mark and a close button. The dialog contains three main input fields: 'Message Data' (a large text area), 'Property Name' (a text box), and 'Property Value' (a text box). At the bottom right, there are three buttons: 'Ok' (blue), 'Schedule' (green), and 'Cancel' (red).

Figure 4.7.3.1-A Publish Topic Dialog

The dialog contains the following fields:

- **Message Data**
Enter the message content you want to publish to the topic. This text will be sent to all subscribers of the selected topic.
- **Property Name (optional)**
Specify a message property name if you want to include custom metadata with your message.

- **Property Value (optional)**
Enter the value corresponding to the property name.

After entering the message details, click **Ok** to publish the message immediately, or click **Schedule** to schedule the publish action for a later time.

4.7.3.2 Viewing Published Messages in an IBM MQ Topic

Before publishing messages to a topic, you must first configure a **subscription** for that topic.

When creating a subscription:

- Select the **Topic** to which the message will be published.
- Under the **Destination** tab, specify the **Queue** where the published messages should be delivered. Refer to [Create a Subscription](#) for more details.

Once the subscription is set up, you can publish messages to the topic. The published messages will then appear in the Queue viewlet under the selected destination queue.

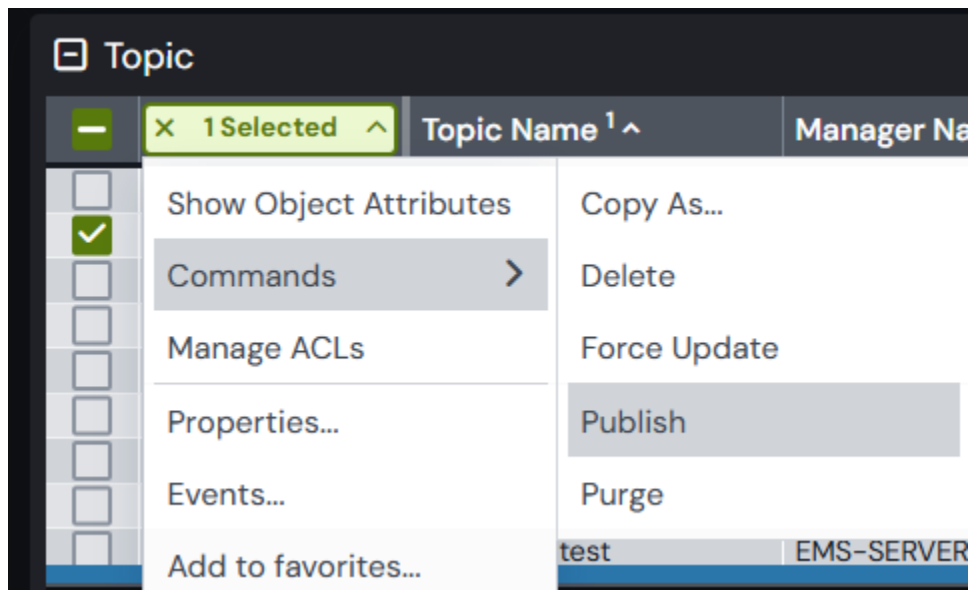
4.7.3.3 Publishing Message to an EMS Topic

The **Publish** feature allows you to send a message to a topic.

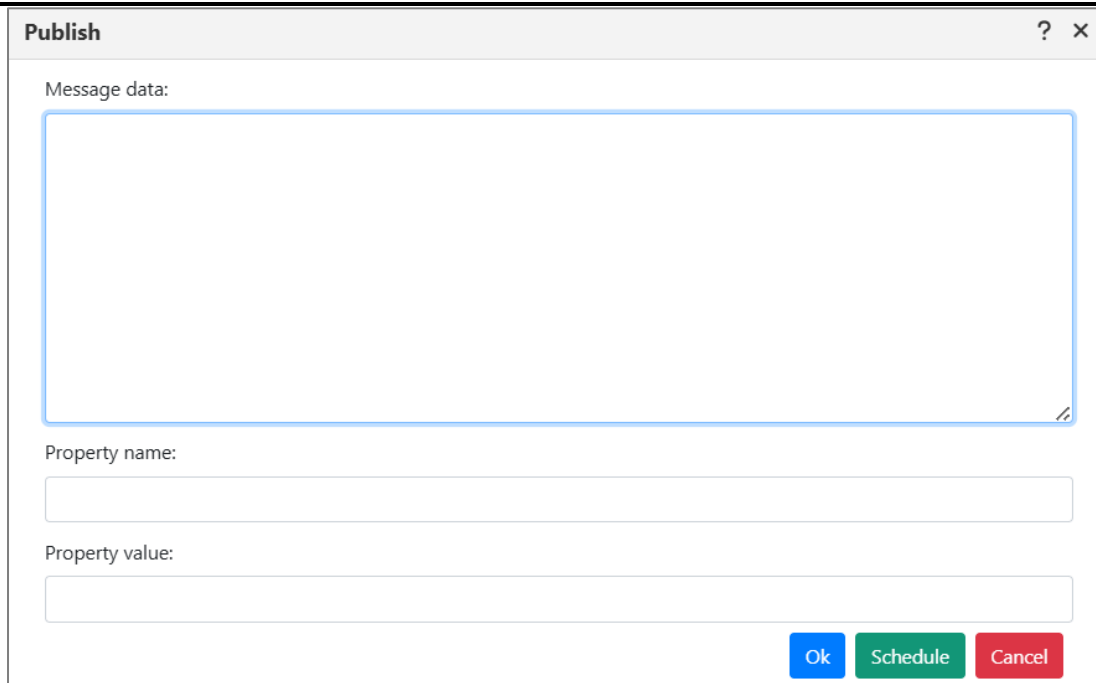
Publishing a message sends it to all subscribers that are currently subscribed to that topic or a matching topic string, making it useful for testing topic functionality or distributing messages.

Publish a Message

1. In the **Topics viewlet**, select the topic you want to publish a message to.
2. From the Selected menu, navigate to:
Commands > Publish.



3. The **Publish** dialog opens.



The screenshot shows a dialog box titled "Publish". At the top right of the dialog are icons for help (?) and close (X). Below the title bar, there is a label "Message data:" followed by a large, empty text area. Underneath the text area is a label "Property name:" followed by a single-line text input field. Below that is a label "Property value:" followed by another single-line text input field. At the bottom right of the dialog, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.3.3-A Publish Topic Dialog

The dialog contains the following fields:

- **Message Data**
Enter the message content you want to publish to the topic. This text will be sent to all subscribers of the selected topic.
- **Property Name (optional)**
Specify a message property name if you want to include custom metadata with your message.
- **Property Value (optional)**
Enter the value corresponding to the property name.

After entering the message details, click **Ok** to publish the message immediately, or click **Schedule** to schedule the publish action for a later time.

4.7.3.4 Viewing Published Messages in an EMS Topic

The messages published to a topic are received by subscribers based on how the subscription is created. There are two types of subscriptions for a topic: **consumer** and **durable subscriber**.

- **Consumer**
A consumer receives messages only while it is connected to the topic.
If it is disconnected when a message is published, that message is not delivered once it reconnects.
Use this type when real-time message delivery is sufficient.
- **Durable Subscriber**
A durable subscriber continues to receive messages even when it is temporarily disconnected.
Messages are stored on the EMS server until they are delivered, expire, or reach the topic's storage limit.
When the application reconnects, any stored messages for that topic are delivered

automatically.

To create a durable subscriber, select the desired topic while creating the durable subscription.

See [Create Durable](#) for detailed steps.

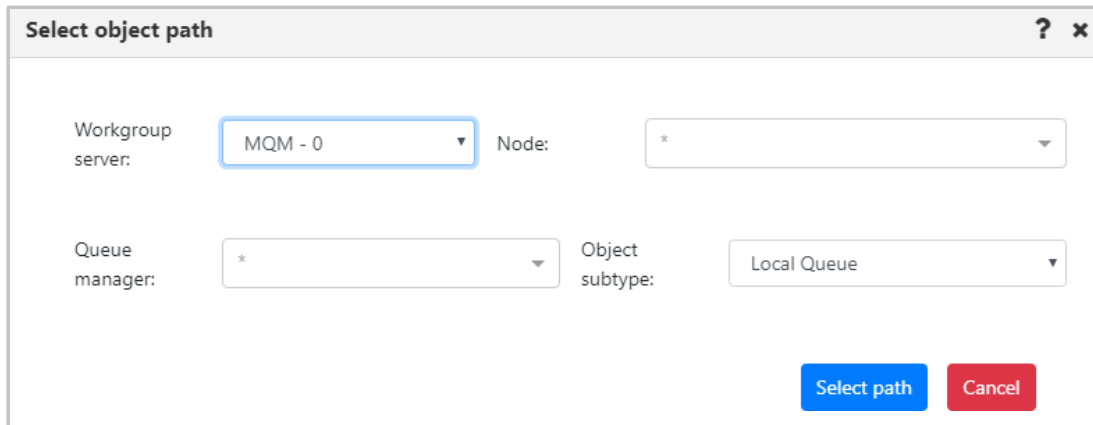
Once created, the published messages can be viewed from the **Durable viewlet** by selecting **Browse Messages** from the **Selected** menu.

4.7.4 Create Queue

From a Queue viewlet, select **Create Queue** or **Create EMS Queue** from the queue's **Selected** menu or click the **Add**  button.

Specify a Path for the New Queue

If the **Add** button was clicked, the *Select object path* window will open. Specify the workgroup server, node, queue manager (leave the asterisk to create a new queue in all of the workgroup server nodes and queue managers) and object subtype (*local, model, alias, remote* and *cluster* queues can be created). Click **Select path** to open the *Queue Create* window and move on to the next section.



The screenshot shows a dialog box titled "Select object path" with a question mark and a close button in the top right corner. The dialog contains four dropdown menus arranged in a 2x2 grid. The top-left dropdown is labeled "Workgroup server:" and has "MQM - 0" selected. The top-right dropdown is labeled "Node:" and has "*" selected. The bottom-left dropdown is labeled "Queue manager:" and has "*" selected. The bottom-right dropdown is labeled "Object subtype:" and has "Local Queue" selected. At the bottom right of the dialog are two buttons: a blue "Select path" button and a red "Cancel" button.

Figure 4.7.4-A Create Queue – Select Object Path

Specify Queue Properties

When the *Queue Create Window* (Figure 4.7.4-B) or *EMS Queue Create Window* (Figure 4.7.4-C) opens, enter a queue name (required), and specify all desired options. Please see section [4.3.4.2, Queue Properties](#), for more information on the queue properties in the *Queue Create Window*.

See [Custom Attributes](#) for information on adding custom attributes to a queue (done on the **Custom Attributes** tab).

Queue Create Window ? x

General
Extended
Cluster
Triggering
Events
Storage
Monitoring
Statistics
Custom Attributes

Queue Name:
 x
Field is required

Description:

Queue Usage: ▼ Scope: ▼

Default Bind: ▼ Default Persistence: ▼

Put Messages: ▼ Get Messages: ▼

Custom:

Default Priority: Force Changes

Ok Schedule Cancel

Figure 4.7.4-B. Queue Create Window

EMS Queue Create Window
? x

➔ General

Custom Attributes

Queue Name:
Field is required

Definition Type:

From Queue Name:

Consumer Count:

Flow Control Max. Bytes:

In Transit Message Count:

Maximum Redelivery:

Pending Msg. Size:

Pending Persist. Msg. Size:

Redelivery Delay: Enabled

Store Name:

Max. Bytes:

Message Trace:

Exclusive Global Routed Sender Name

GET Consumer Count:

Receiver Count:

To Queue Name:

Delivered Messages Count:

Expiry Override:

Maximum Messages:

Overflow Policy:

Pending Persist. Msg. Count:

Reroute Name:

Prefetch Count:

Pending Msg. Count:

Fail-safe Route Connected Secure Sender Name Enforced

Ok
Schedule
Cancel


Figure 4.7.4-C. EMS Queue Create Window

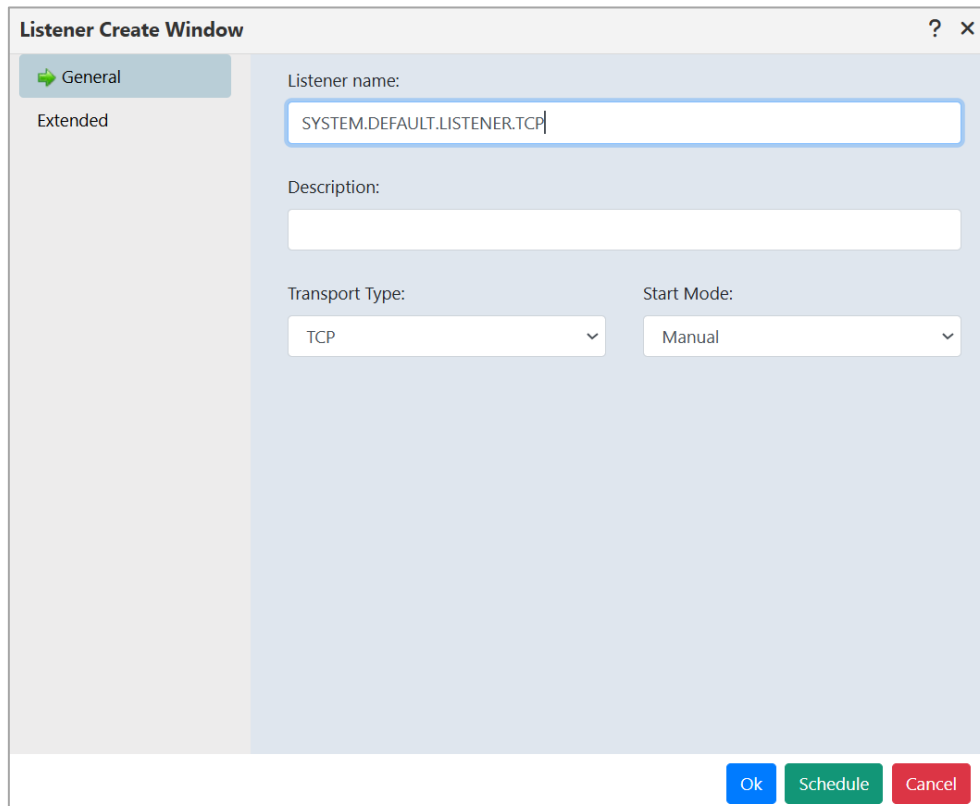


TIP

If your newly created queue does not appear in a viewlet even after refreshing it, check if the **Show empty queues** option is selected in the **User/Global Settings** window > **User Settings** tab [\(4.4.5.1.1\)](#).

4.7.5 Create Listener

From a Listener viewlet, select **Create Listener** from the Selected menu or click the **Add**  button. The following window appears. Specify the properties of the new listener and click **Ok**.



The screenshot shows a dialog box titled "Listener Create Window" with a standard window control bar (help, close). On the left is a sidebar with two tabs: "General" (selected) and "Extended". The main area contains the following fields:

- Listener name:** A text input field containing "SYSTEM.DEFAULT.LISTENER.TCP".
- Description:** An empty text input field.
- Transport Type:** A dropdown menu with "TCP" selected.
- Start Mode:** A dropdown menu with "Manual" selected.

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.5-A. Listener Create Window

4.7.6 Create Subscription



From a Subscription viewlet, select **Create Subscription** from the Selected menu or click the **Add**  button. The following window appears. Specify the properties of the new subscription and click **Ok**.

Figure 4.7.6-A. Subscription Create Window


4.7.7 Create Route

Within a Route viewlet, click the **Add**  button. The *Select Object Path* window opens; specify the object path of the new route and click **Select path**.

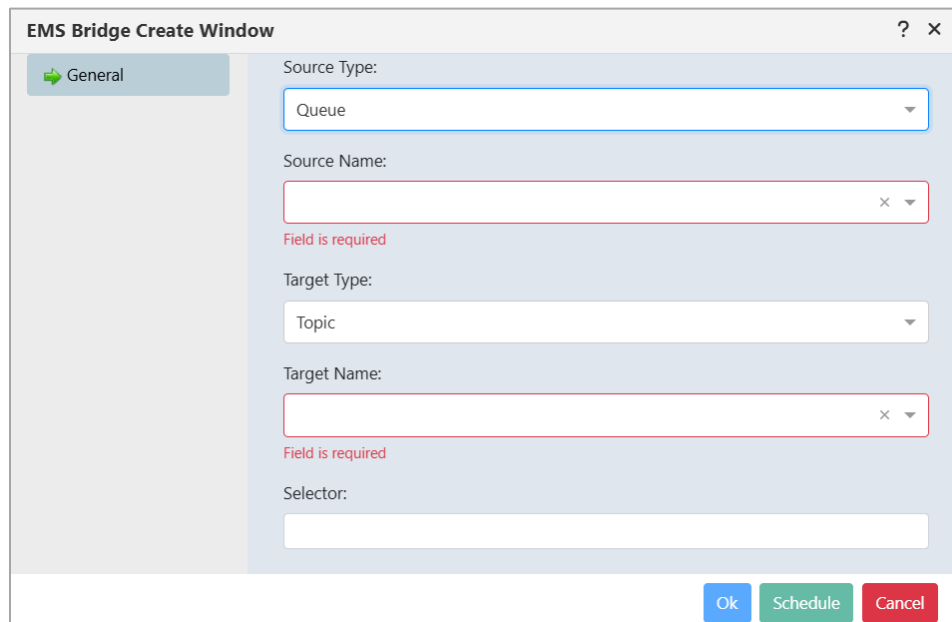
The following window opens. Specify the configurations of the new route and click **Ok**.

Figure 4.7.7-A. EMS Route Create Window

4.7.8 Create Bridge

Within a Bridge viewlet, click the **Add**  button. The *Select Object Path* window opens; specify the object path of the new bridge and click **Select path**.

The following window opens. Specify the configurations of the new bridge and click **Ok**.



The screenshot shows the "EMS Bridge Create Window" dialog box. It has a "General" tab selected. The form contains the following fields:


- Source Type:** A dropdown menu with "Queue" selected.
- Source Name:** A text input field with a red border and a "Field is required" error message below it.
- Target Type:** A dropdown menu with "Topic" selected.
- Target Name:** A text input field with a red border and a "Field is required" error message below it.
- Selector:** A text input field.

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.8-A. EMS Bridge Create Window

4.7.9 Create Durable

To create a durable, do one of the following:

- **Create a new durable from scratch:** Within a Durable viewlet, click the **Add**  button. The *Select Object Path* window opens; specify the object path of the new durable and click **Select path**.
- **Create a new durable based on an existing one:** Select the checkbox for the existing durable. On the Selected menu, select **Commands > Copy As**. Update the name for the new object in the Copy Durable Window.


The following window opens. Specify the configurations of the new durable and click **Ok**.

Figure 4.7.9-A. EMS Durable Create Window

4.7.10 Create Channel Authentication Record

Block User Map, Block Address Map, SSL Peer Map, Address Map, User Map or Queue Manager Map channel authentication record types can be created. To learn more about types, see the following IBM documentation: <https://www.ibm.com/docs/en/ibm-mq/9.0?topic=commands-set-chlauth>.

There are several ways to create a Channel authentication record.

- From a Channel authentication record (channel auth rec) viewlet:
 - Click the **Add**  button. The *Select Object Path* window opens. Specify the workgroup server, node, queue manager (leave the asterisk to create a new channel authentication record in all queue managers of the workgroup server) and object subtype. Click **Select path**.
 - Select the checkbox of a Channel auth rec record of the Channel auth type that you want to create, then select **Create ChAuthRec** from the **Selected** menu to create a new record of that type.
- From a Channel viewlet: Select **Create ChAuthRec** from the **Selected** menu of a channel record. The *Select ChAuthRec Type* dialog opens. Select a **Type** and click **OK**.

The *Channel Authentication Record Create* window opens. For more information, please see the following IBM documentation:

https://www.ibm.com/support/knowledgecenter/en/SSFKJS_9.0.0/com.ibm.mq.explorer.doc/e_properties_chlauth.html

The dialog box titled "Select object path" has a search icon and a close icon in the top right corner. It contains four dropdown menus arranged in a 2x2 grid:

- Workgroup server: MQM - 0
- Node: *
- Queue manager: *
- Object subtype: Block User Map

At the bottom right, there are two buttons: "Select path" (blue) and "Cancel" (red).

Figure 4.7.1-A. Select Path for Channel Authentication Record

Every channel auth rec type has two common tabs: **General** and **Extended**. On the **General** tab select the channel profile name and add the description. (On versions prior to 11, you must enter the profile name.)

The "Channel Authentication Record Create Window" has a tabbed interface with three tabs: "General" (selected), "Block", and "Extended". The "General" tab is active and shows the following fields:

- Channel profile: [Empty dropdown menu with a red border and "Field is required" error message below it]
- Type: Block User Map
- Description: [Empty text area]

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.10-B. General Tab

On the **Extended** tab, specify **Yes** or **No** from the **Warning** drop-down. Setting this option to **Yes** will use a warning instead of blocking access.

Within the **Custom** field, enter new feature configurations before separate attributes have been introduced.

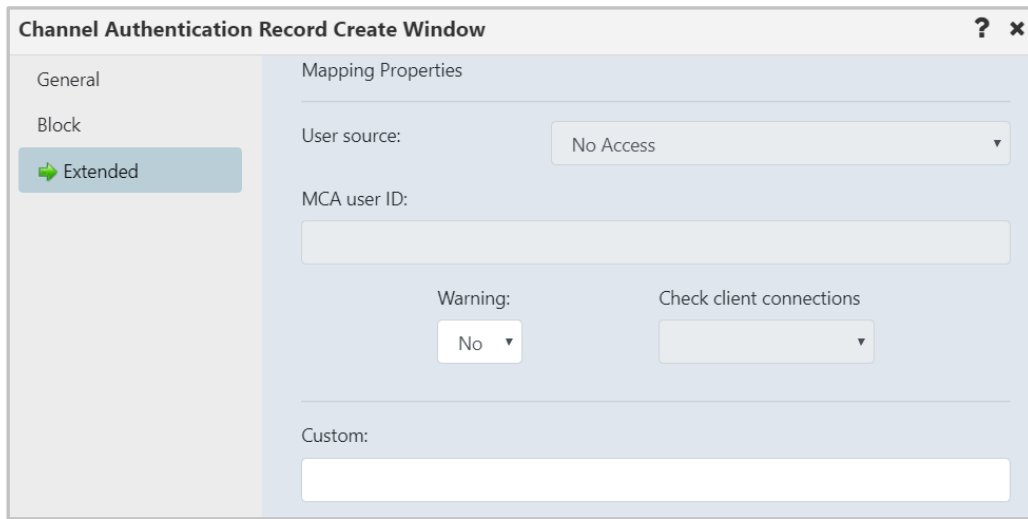


Figure 4.7.10-C. Extended Tab

Block channel auth recs will have the **Block** tab as seen below. Specify users who should not have access to this channel (or channels). Creation of a Block User Map authentication record is displayed in the figure below.



Figure 4.7.10-D. Block Tab

Instead of the **User list** field as seen above, the **Block** tab of a Block Address Map will have an **Address list** field. Enter the IP address(es) or IP address pattern(s) to be blocked from connecting to this queue manager using any channel. The IP address pattern(s) can also include an asterisk as a wildcard to represent one or more parts of the address.

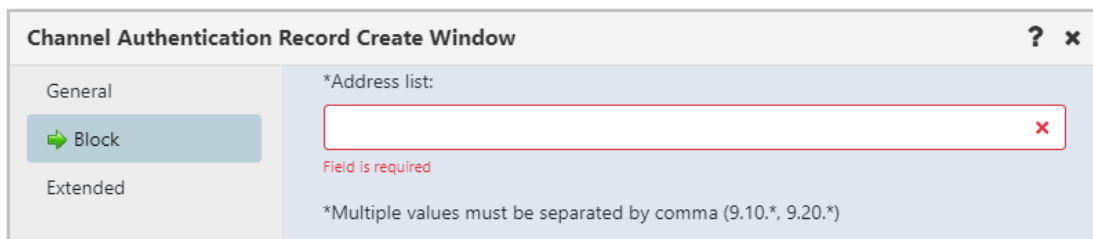


Figure 4.7.10-E. Block Tab

SSL Peer Map, Address Map, User Map and Queue Manager Map records have the **Address** tab. An **Address** field appears on this tab which is used as a filter. Specify the filter to be used to compare with the client or partner queue manager's IP address at the other end of the channel.

Figure 4.7.10-F. Address Tab

SSL Peer channel auth recs have the **SSL Peer** tab. This tab has fields to specify *SSL Peer* and *SSL/TSL Issuer's Distinguished Name*.

Figure 4.7.10-G. SSL Peer Tab

User Map channel auth recs also have a **ClientUser** tab to specify *Client user ID*.

Figure 4.7.10-H. ClientUser Tab

Queue Manager Map records have the **Queue Manager** tab to specify the *Remote queue manager*.

Figure 4.7.10-I. Queue Manager Tab

4.7.10.1 Copy Channel Authentication Record

You can create an exact copy of a channel authentication record or use an existing record as a basis for a new one.

- Use Copy to create an exact duplicate.

- Use Copy As to use an existing record to create a new one with a different name than the original.

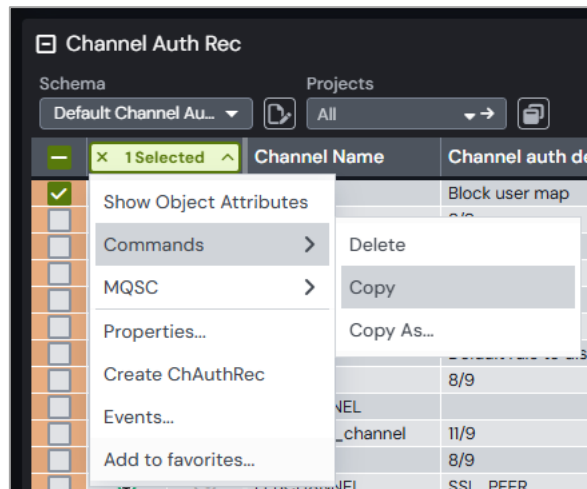



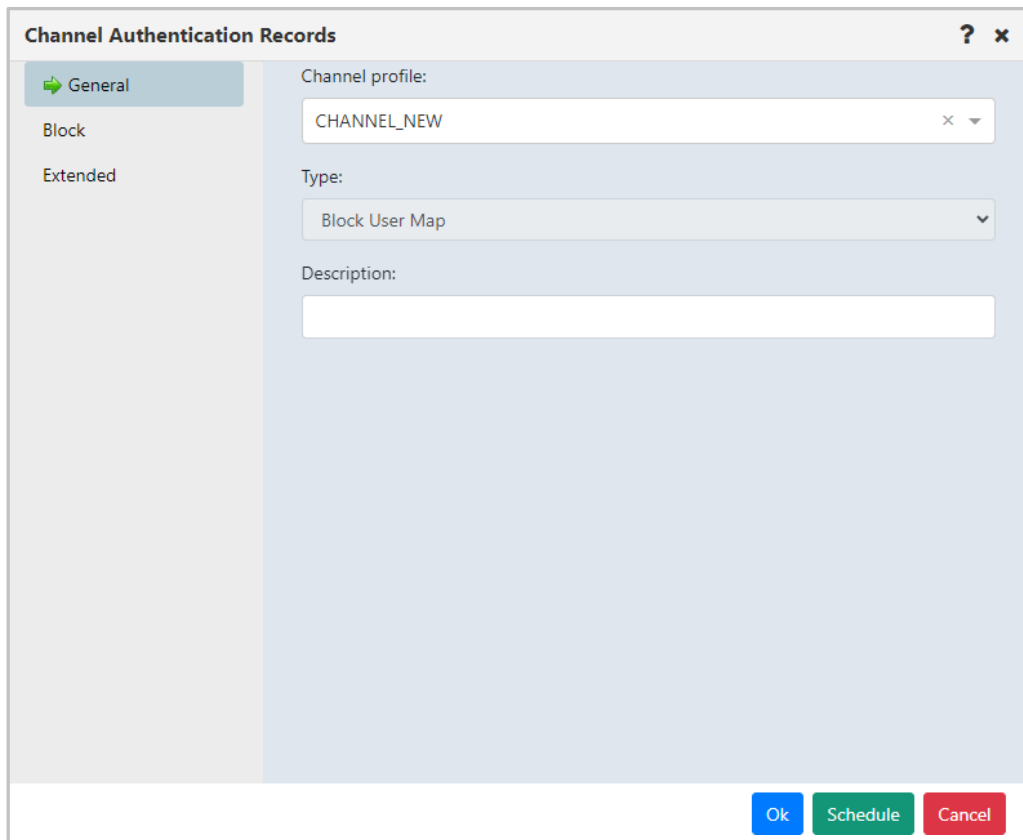


Figure 4.7.10.1-A. Channel Authentication Record Selected Menu

To copy a channel authentication record, select **Commands > Copy** from a Channel auth record's **Selected** menu. The **Copy objects to selected path** icon changes color from grey  to white: . Click the **Copy objects to selected path**  icon. Choose a path for the new object using the lists provided. Click **Paste**. After the object has been pasted successfully, a green Success Message is temporarily displayed in the lower right corner of the window and the new record appears in the viewlet.

To create a duplicate channel authentication record with a new name, select **Commands > Copy As...** from a Channel auth record's **Selected** menu. The Channel Authentication Records dialog opens.



The screenshot shows a dialog box titled "Channel Authentication Records" with a help icon and a close icon in the top right corner. On the left side, there is a vertical navigation pane with three tabs: "General" (selected and highlighted in blue), "Block", and "Extended". The main area of the dialog is light blue and contains the following fields:

- Channel profile:** A dropdown menu with the value "CHANNEL_NEW" and a close icon (x) on the right.
- Type:** A dropdown menu with the value "Block User Map" and a downward arrow on the right.
- Description:** A large, empty text input field.


At the bottom right of the dialog, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).


Figure 4.7.10.1-A. Channel Authentication Records Dialog

Type a name for the new record in the **Channel profile** field. Fill in other tabs and fields as needed. See [Channel Authentication Record](#) for more information.

Click **OK**. After the new record has been created successfully, a green Success Message is temporarily displayed in the lower right corner of the window, and the new record appears in the viewlet

4.7.11 Create Channel

 **NOTE** You cannot create AMQP channels on z/OS resource addresses.

Within a Channel viewlet, click the Add  button to create a new channel. The Select object window opens. Specify the channel's path and select its subtype from the drop-down menu. Click **Select path**.

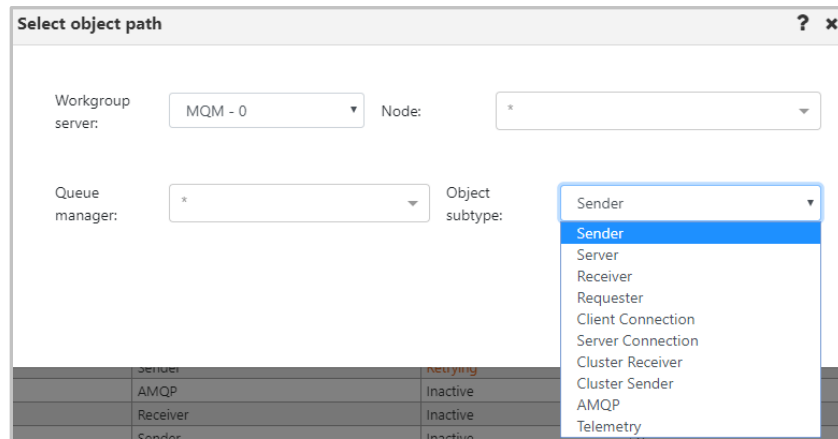



Figure 4.7.11-A. Select Object Path for a New Channel

The *Channel Create Window* opens. Specify the channel's properties.

 **NOTE** The tabs of the **Channel Create Window** differ according to the channel's type. Consult IBM documentation for the descriptions of channel properties:
https://www.ibm.com/support/knowledgecenter/en/SSFKSJ_7.5.0/com.ibm.mq.explorer.doc/e_properties_channels.htm

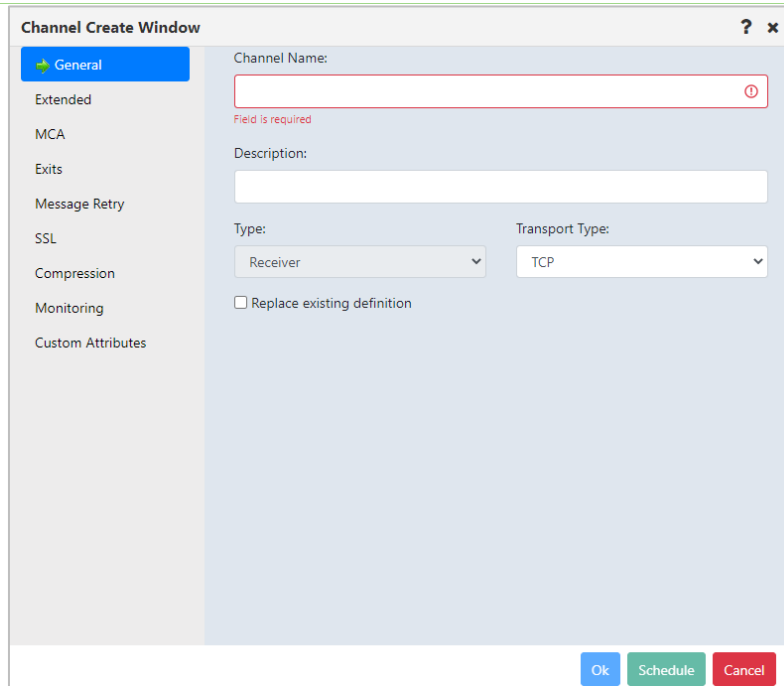


Figure 4.7.11-B. Channel Create Window – General Tab

4.7.12 Create Consumer

When creating viewlets (section [Adding and Maintaining Viewlets](#)), go to the **Consumer** tab and enter all details.

Figure 4.7.12-A. New EMS Consumer

4.7.13 Create Connection

When creating viewlets (section [Adding and Maintaining Viewlets](#)), go to the **Connection** tab and enter all details.

Create New EMS Connection Viewlet ? x

Product
EMS

Viewlet name
Temp_Connection_Viewlet_2

Workgroup server
Primary Connection - (

Temporary

Multi-Selection

Node
Node: *

Manager
Manager: *

Object name
*

Custom Viewlet Color Flat Color:

Project
All

Active attribute filtering

Attribute filter + X


Result limit
150


Save changes **Cancel**

Figure 4.7.13-A. New EMS Connection

4.7.14 Create Kafka Topic

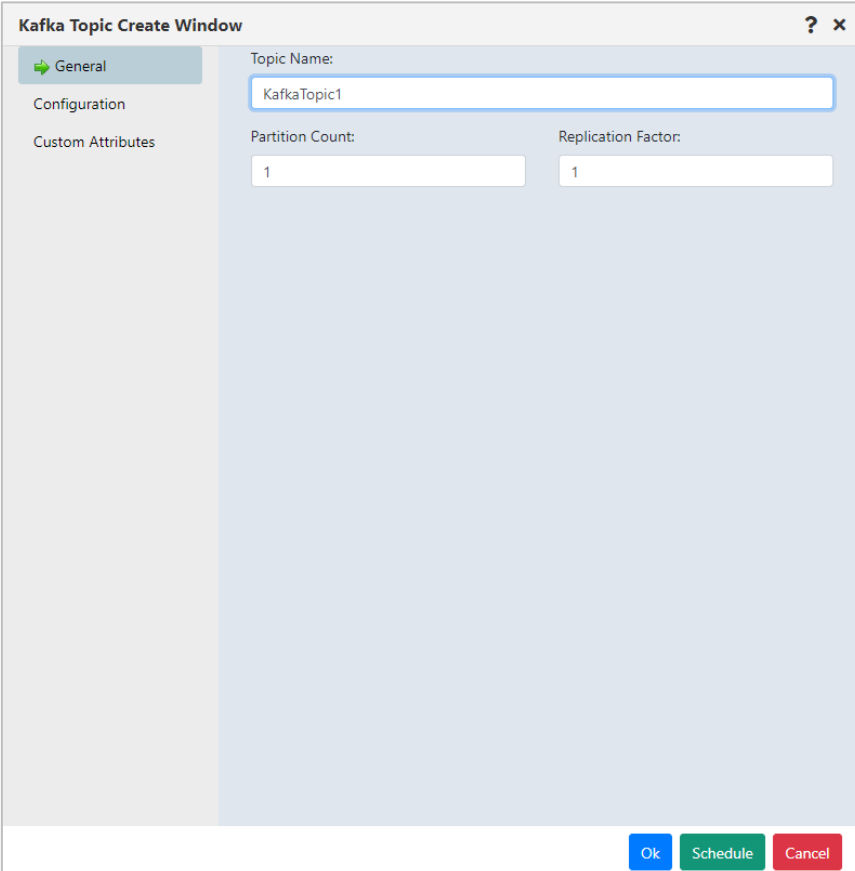
You can create a Kafka topic from a topic viewlet in one of two ways:

- Select **Create Topic** from the **Selected** menu (when a topic is selected in a Topic viewlet).
- Click the Add  button.

If you click the Add  button, the Select object path window opens. Specify the Workgroup server, Node, and Cluster and click Select path to open the Kafka Topic Create window. See Figure 4.7.3-A below. Fill in Topic Name. The Configuration tab is empty during the create process but is filled in and can be edited when the topic has been created. Click **OK** to create the topic.

To edit a topic, Select the checkbox for the topic and select **Properties...** from the **Selected** menu. On the Configuration tab, use the Configuration Entry (Filter by key) and Value (Filter by value) filters to find the configuration entry you want to update. Make your changes by replacing the existing values with new values. (See Figure 4.7.3-C below.) See [Custom Attributes](#) for information on adding custom attributes to a topic (done on the **Custom Attributes** tab). Click **OK** to save your changes.

When you select a topic from a Kafka topic viewlet and choose to browse partitions, both the System and the Empty checkboxes are selected on the Partitions viewlet, so that all partitions are displayed, and empty ones are included.



The screenshot shows the 'Kafka Topic Create Window' with the following details:

- Title Bar:** Kafka Topic Create Window, ? x
- Left Sidebar:** General (selected), Configuration, Custom Attributes
- Form Fields:**
 - Topic Name: KafkaTopic1
 - Partition Count: 1
 - Replication Factor: 1
- Bottom Buttons:** Ok, Schedule, Cancel

Figure 4.7.14-A. Create Kafka Topic

Kafka Topic Properties ? x

General

Configuration

Custom Attributes

Topic Name: jkreq-to-sub-grid

Is Internal:

Partition Count: 16

Replication Factor: 1

Preferred Leader Replicas: 16

Replicas not in sync: 0

Consumer Groups: 0

Compression Type: producer

Minimum In-sync Replicas: 1

Cleanup Policy: delete

Bytes per Segment: 524288000

Retention (ms): 3600000

Max Message Size (bytes): 10485760

Unclean Leader Election: false

Retention (bytes): -1

Ok Schedule Cancel

Figure 4.7.14-B. Edit Kafka Topic

Kafka Topic Properties ? x

General

Configuration

Custom Attributes

Configuration Entry Value

Filter by key Filter by value

compression.type producer

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

leader.replication.throttled.replicas

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

message.downconversion.enable true

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

min.insync.replicas 1

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

segment.jitter.ms 0

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

cleanup.policy delete

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

flush.ms 9223372036854775807

Sensitive: Default: Custom: Source: DEFAULT_CONFIG

follower.replication.throttled.replicas

Sensitive: Default: Custom: Source: DEFAULT_CONFIG



Ok Schedule Cancel

Figure 4.7.14-C. Edit Kafka Configurations

4.7.15 Create RabbitMQ Virtual Host

RabbitMQ vhosts virtually separate applications within a single RabbitMQ instance. Each vhost has its own exchanges, queues, users, and policies.

To create a virtual host, do the following:

1. Click  on an Vhost viewlet.
2. Enter the **Vhost Name** and a **Description** of the virtual host.
3. Select the **Default Queue Type** for new queues (*quorum*, *stream*, or *classic*).
4. Click  to begin adding tags.
5. Use the **Tracing** list to turn RabbitMQ's Firehose Tracer on (*True*) or off (*False*).
6. Click **OK** to save the virtual host.

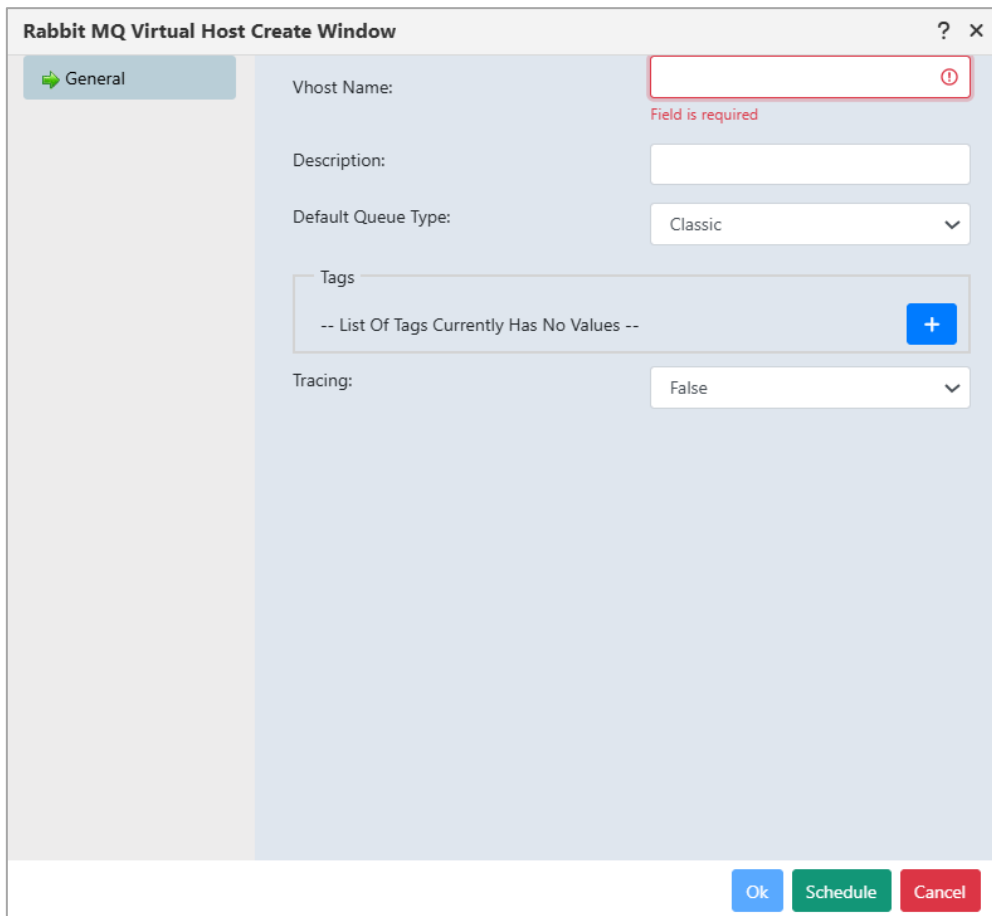



Figure 4.7.15-A. Create RabbitMQ Virtual Host

4.7.16 Create RabbitMQ Exchange

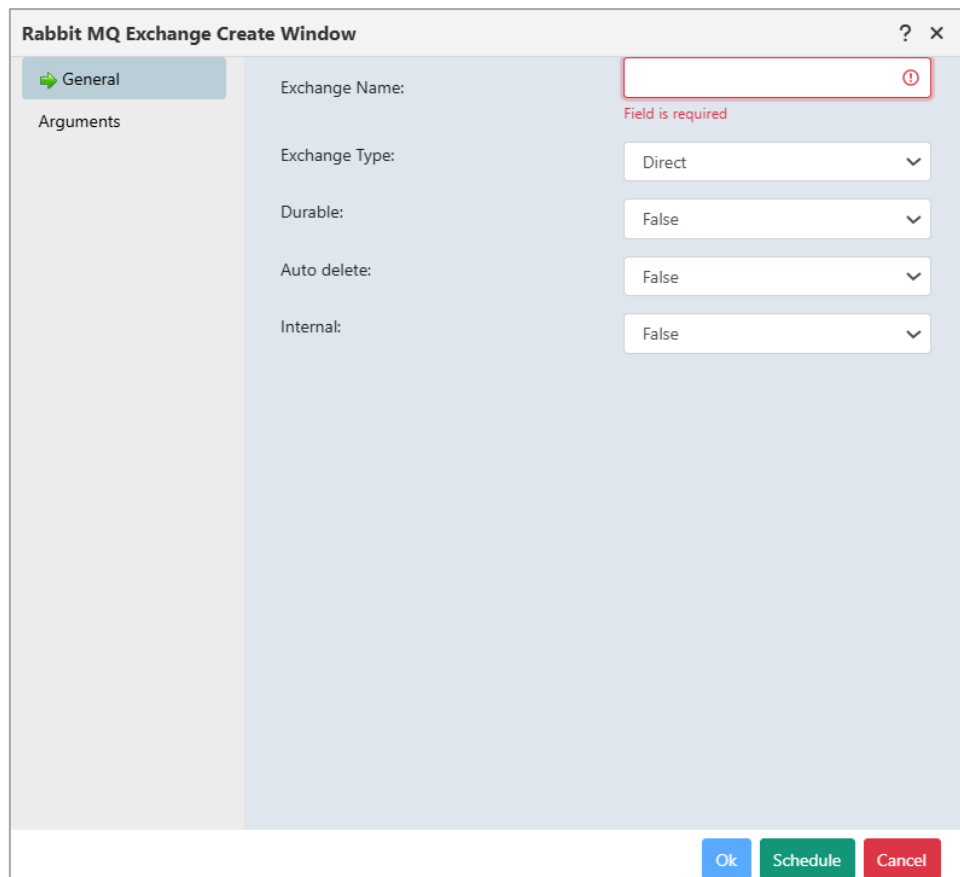
RabbitMQ exchange objects show properties and metrics for RabbitMQ exchanges.

To create an exchange, do the following:

1. Click  on an exchange viewlet.

2. Enter the Exchange Name.

3. Select the **Exchange Type** (*Direct, Topic, Fanout, and Headers*).
4. To allow the queue to remain active after server restart, select *True* from the **Durable** list.
5. If you want this queue to be automatically deleted by the broker if it is not bound to a queue, select *True* from the **Auto delete** list.
6. If this exchange will not be directly available for clients to publish to, select *True* from the **Internal** list.
7. Click **OK** to save the new exchange.



Rabbit MQ Exchange Create Window

General

Arguments

Exchange Name: Field is required

Exchange Type: Direct

Durable: False

Auto delete: False

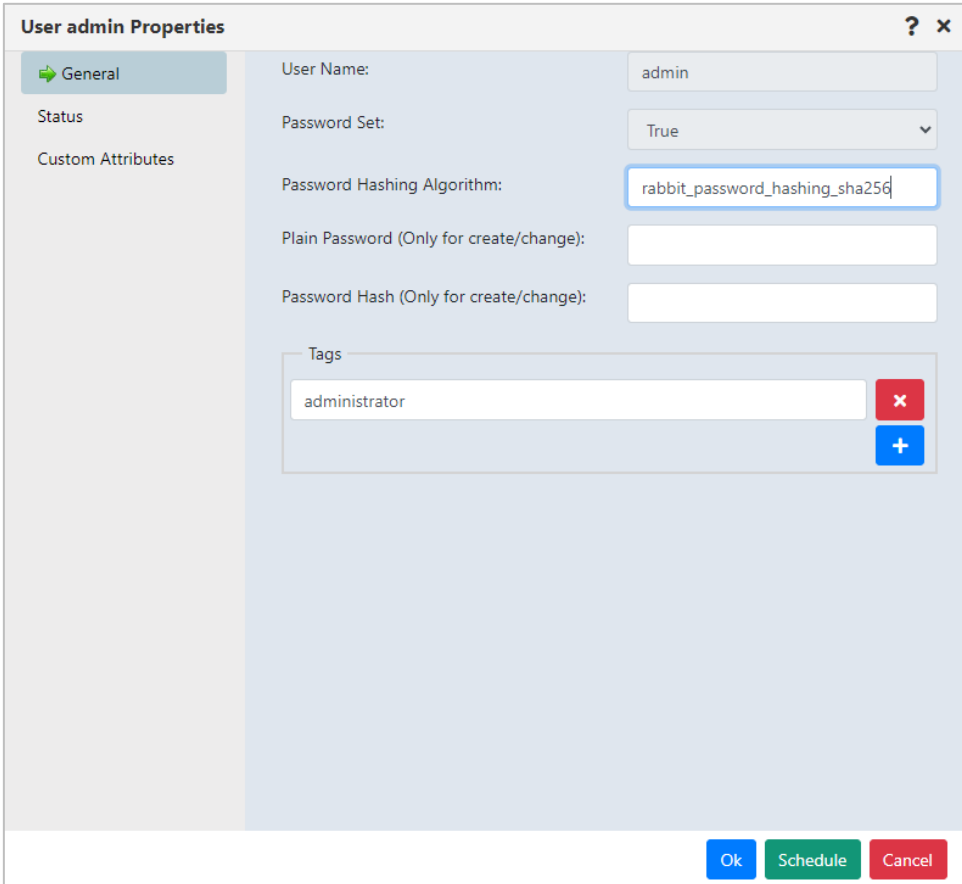
Internal: False

Ok Schedule Cancel

Figure 4.7.16-A. Create RabbitMQ Exchange

4.7.17 RabbitMQ User

RabbitMQ user objects show properties and metrics for RabbitMQ users.



The screenshot shows a dialog box titled "User admin Properties" with a help icon (?) and a close icon (x) in the top right corner. On the left, there is a sidebar with three tabs: "General" (selected), "Status", and "Custom Attributes". The main area contains the following fields:

- User Name:** A text input field containing "admin".
- Password Set:** A dropdown menu currently set to "True".
- Password Hashing Algorithm:** A text input field containing "rabbit_password_hashing_sha256".
- Plain Password (Only for create/change):** An empty text input field.
- Password Hash (Only for create/change):** An empty text input field.
- Tags:** A container with a text input field containing "administrator", a red "x" button to remove the tag, and a blue "+" button to add a new tag.


At the bottom right of the dialog, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.17-A. Create RabbitMQ Exchange


4.7.18 Create RabbitMQ Component

Using Components, you can specify and describe the traditional objects in RabbitMQ architecture. You can also use it to create and manage custom objects, if the environment allows it.

To add a component, do the following:

1. Click  on a component viewlet.
2. Enter the **Component Name**.
3. Select the **Type** of component.
4. Click **OK** to save the component.

To add a parameter:

1. Enter the parameter in the first space provided (red box below).
2. Enter the parameter value in the box below that (green box below).
3. Select the parameter's data type from the list.
4. Click .

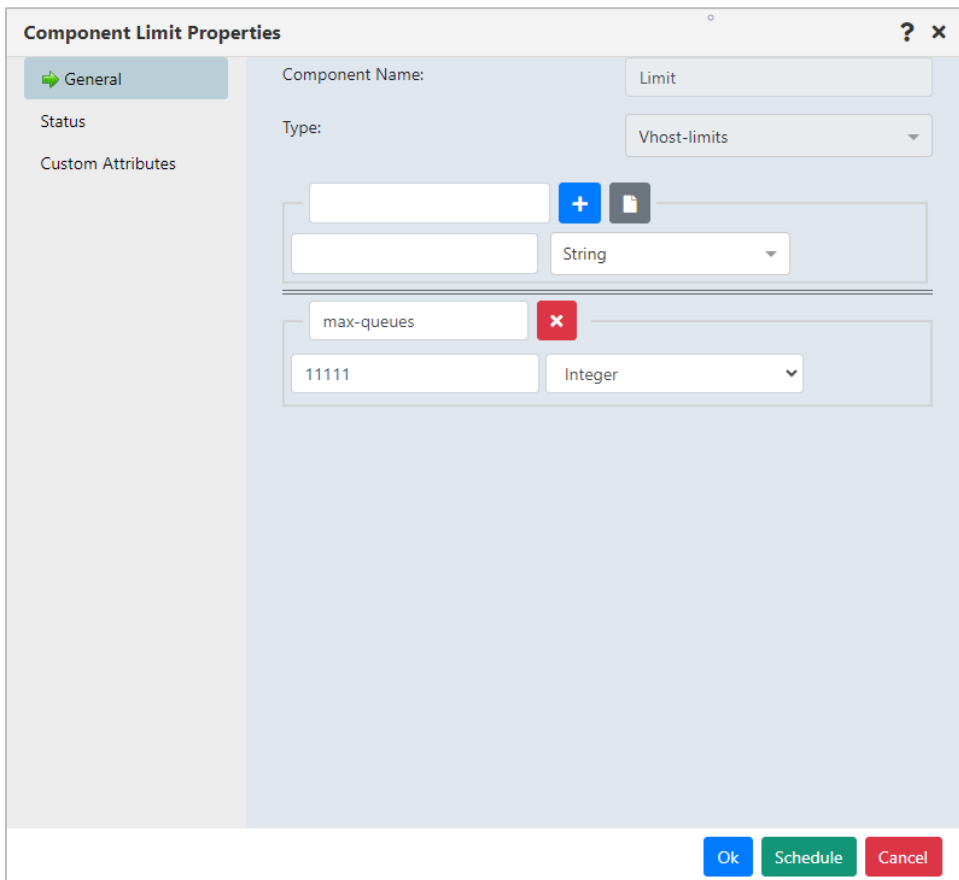



Figure 4.7.18-A. Create RabbitMQ Component

4.7.19 Create RabbitMQ Policy

You can use RabbitMQ policies to set optional arguments for queues and exchanges or to set up the Federation Plugin.

To create a policy, do the following:

1. Click  on a policy viewlet.
2. Enter the **Policy Name**.
3. In the **Pattern** field, enter a regular expression pattern to help match queues to this policy by queue name.
4. In the **Apply To** field, indicate the object that the policy applies to (*queues* or *exchanges*).
5. Enter a **Priority** to determine the relative likelihood of this policy being applied.
6. Click **OK** to save the policy.

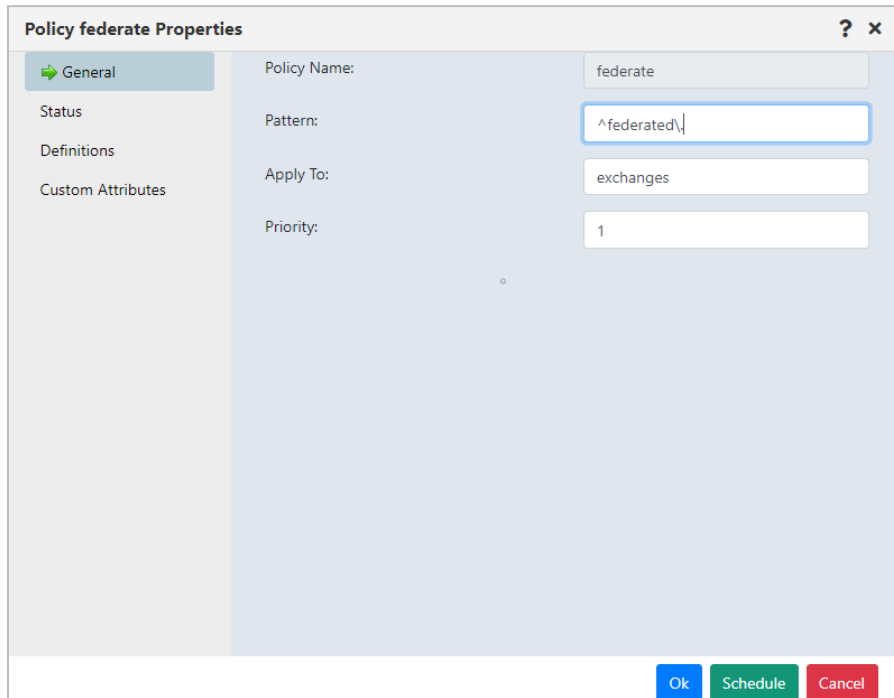


Figure 4.7.19-A. Create RabbitMQ Policy


4.7.20 Create RabbitMQ Operator Policy

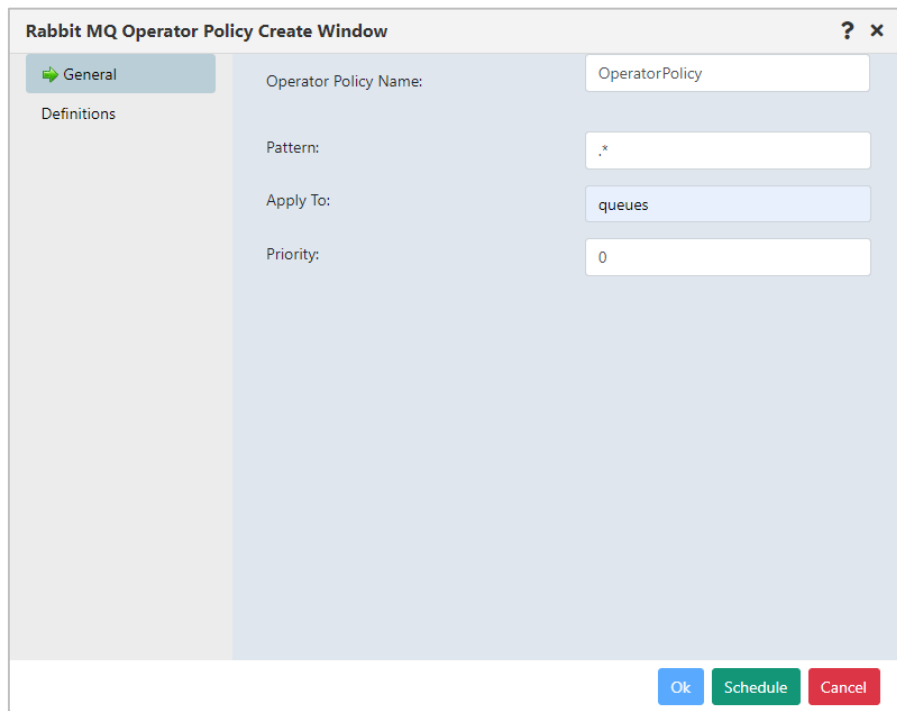
Operator policies allow operators to enforce certain policies. Their definitions are merged with regular policy definitions before the result is applied to matching queues.

Operator policies are limited to a small set of arguments.

See <https://www.rabbitmq.com/parameters.html#operator-policies> for more information.

To create an operator policy, do the following:

1. Click  on an operator policy viewlet.
2. Enter the **Operator Policy Name**.
3. In the **Pattern** field, enter a regular expression pattern to help match queues to this operator policy by queue name.
4. In the **Apply To** field, indicate the object that the operator policy applies to (for example, *queues* or *exchanges*).
5. Enter a **Priority** to determine the relative likelihood of this policy being applied.
6. Click **OK** to save the operator policy.



Rabbit MQ Operator Policy Create Window

General

Definitions

Operator Policy Name: OperatorPolicy

Pattern: .*

Apply To: queues

Priority: 0


Ok Schedule Cancel

Figure 4.7.20-A. Create RabbitMQ Operator Policy

4.7.21 Create RabbitMQ Queue

RabbitMQ queue objects show properties and metrics for RabbitMQ queues.

To create a queue, do the following:

1. Click  on the queue viewlet toolbar.
2. Enter the **Queue Name**.
3. Select the **Queue Type** (*Quorum*, *Stream*, or *Classic*).
4. To allow the queue to survive RabbitMQ restart, select *True* from the **Durable** list.
5. If you want this queue to be automatically deleted when the last consumer unsubscribes, select *True* from the **Auto delete** list.
6. If this queue will be limited to one consumer, select *True* from the **Exclusive** list.
7. If the queue is exclusive (**Exclusive** is set to *True*), enter the tag for its consumer in the **Exclusive Customer Tag** field.
8. The **Policy** and **Operator Policy** are set based on the queue's name value or regex matching.
9. Click **OK** to save the queue.

Queue \$32 Properties ? x

- General
- Message Details
- Message Rates
- Messages
- Queue Consumers
- Runtime Metrics
- Status
- Arguments
- Custom Attributes

Queue Name:

Queue Type:

Durable:

Auto delete:

Exclusive:

Remote Node Name:

Exclusive Consumer Tag:


Policy:

Operator Policy:

Ok Schedule Cancel

Figure 4.7.21-A. Create RabbitMQ Operator Policy

4.7.22 Create Namelist

In a Namelist viewlet, after clicking the **Add** button  or selecting Create Namelist from the Selected menu. Enter the new **Namelist name** (required) and populate other needed details. Click **Ok** when finished to create the Namelist.

Namelist Create Window ? x

- General

Namelist name:


Description:

Names:

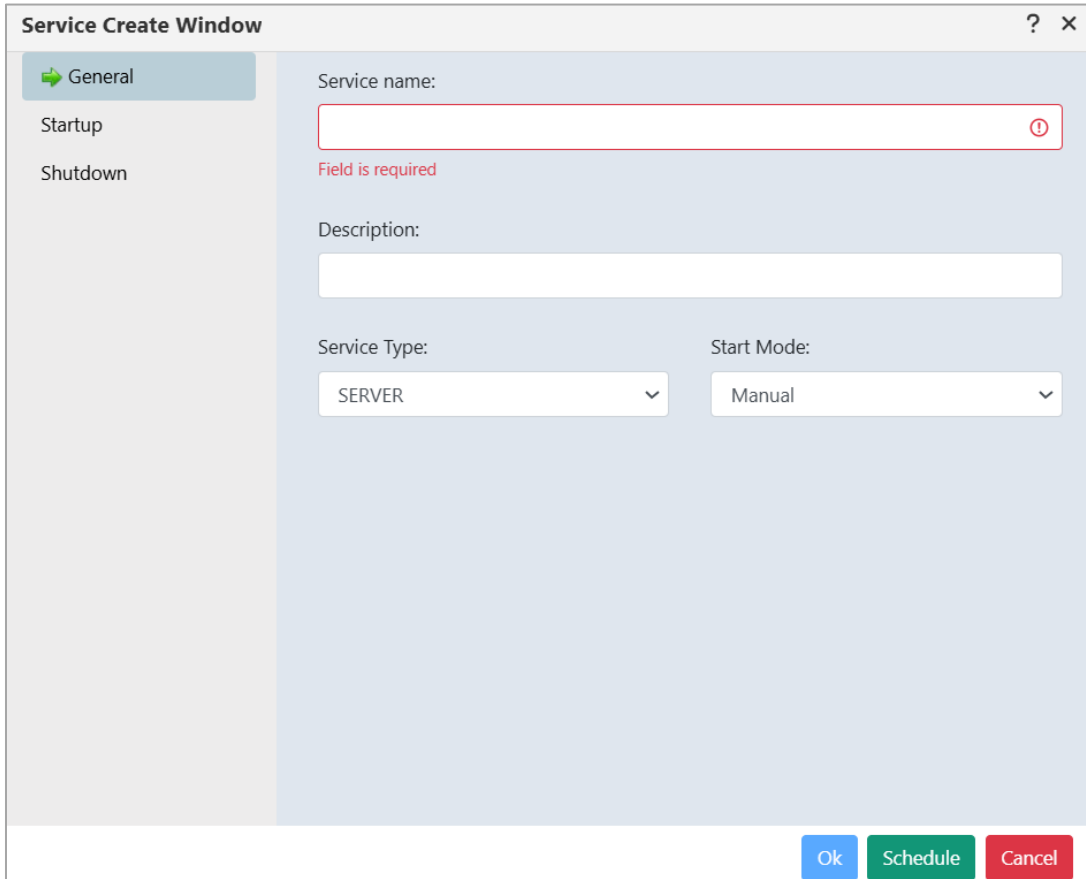
Ok Schedule Cancel

Figure 4.7.22-A Create MQ Namelist

4.7.23 Create Service

In a Service viewlet, click the Add button 

Enter the new Service name (required) and populate other needed details. Click **Ok** when finished to create the Service.




The screenshot shows a dialog box titled "Service Create Window" with a close button (X) and a help button (?). On the left, there is a sidebar with three tabs: "General" (selected), "Startup", and "Shutdown". The main area contains the following fields:

- Service name:** A text input field with a red border and a red exclamation mark icon, indicating it is required. Below it, the text "Field is required" is displayed in red.
- Description:** A text input field.
- Service Type:** A dropdown menu with "SERVER" selected.
- Start Mode:** A dropdown menu with "Manual" selected.

At the bottom right, there are three buttons: "Ok" (blue), "Schedule" (green), and "Cancel" (red).

Figure 4.7.23-A Create Service

4.7.24 Create Auth Info

In a Auth Info viewlet, click the Add button 

Enter the new **Auth Info name** (required) and **Description**. Select the **Type** from the dropdown list. Based on the selection, the tabs on the left side will change. If you select OCSP, you need to enter the responder URL. For CRL, you need to provide a connection. For IDPW(OS), all values are preselected (dropdowns or number input). IDPW (LDAP) requires a connection and user details for authentication. Click **OK** when finished to create the Auth Info.

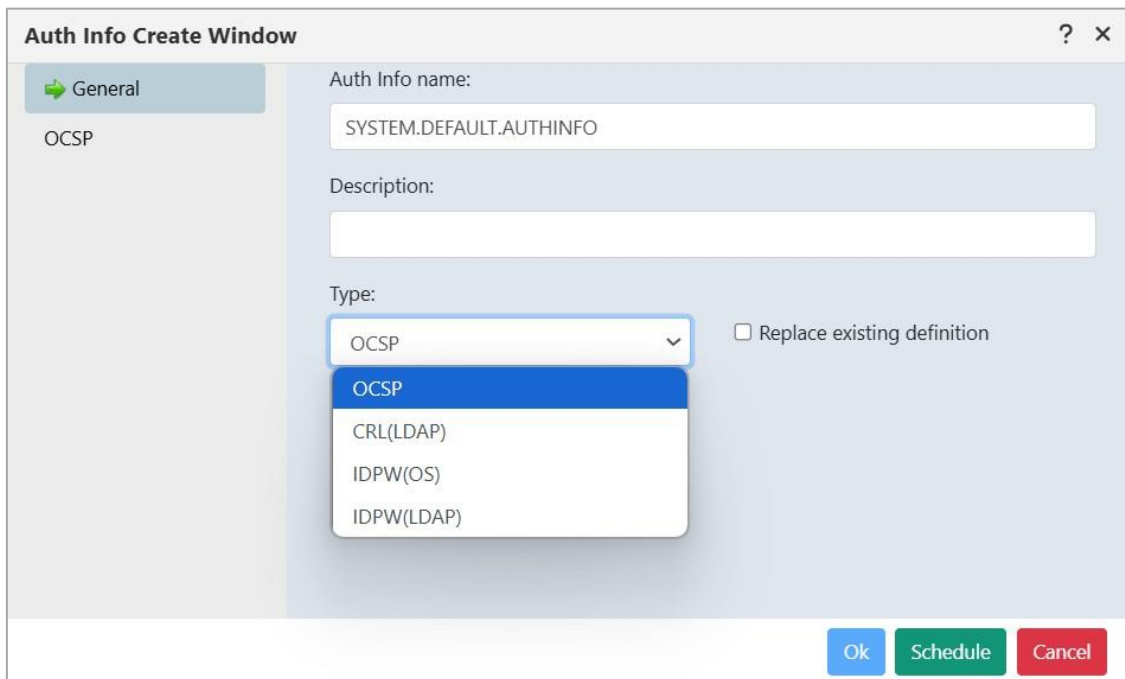


Figure 4.7.24-A Create MQ Auth Info

4.7.25 Create JNDI Connection Factory

In JNDI Connection factory viewlet, click the Add button .

The **Select Object Path** window will open. Specify the workgroup server, node, and EMS server, then click **Select path**. The **EMS JNDI Connection Factory Create Window** will open. Enter the JNDI Connection Factory name and server URL (required) and populate other needed details.

Figure 4.7.25-A Create JNDI Connection Factory

4.7.26 Create EMS Topic

In the Topic viewlet, click the Add button .

The **Select Object Path** window will open. Specify the workgroup server, node, and EMS server, then click **Select path**. The **EMS Topic Create Window** will open. Enter the **Topic Name** (required) and populate other needed details.

See [Custom Attributes](#) for information on adding custom attributes to a topic (done on the **Custom Attributes** tab).

Figure 4.7.26-A Create EMS Topic

4.7.27 Create Node


To create a node, go to Node viewlet and click the Add button . The **Node Create** window will open. Enter the **Name** and **IP Address** (required). Select the **Node Type** from the dropdown list, and provide the details in other fields (optional), then click **Ok** to create the node.



Figure 4.7.27-A Create Node

4.7.28 Create Kafka Schema Subject

In the Schema Subject viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Cluster, and schema registry, then click **Select Path**. The **Kafka Schema Subject Register Create window** will open. Enter the **Subject Name** (required) and select the **Type** and **Mode** from the dropdown list. Select **Compatibility** if Mode is chosen other than READONLY Define the schema in the above chosen format.

Click **OK** to create the schema subject.

You can add schema subject references from the left option, then click the  button. The **Add Schema Subject Reference** window will open. Fill in the details and click **Save Changes**. You can click on the  button to remove the reference.

Kafka Schema Subject Register Create Window

General

Schema References

Type: JSON

Subject Name:

Field is required

Mode:

Compatibility:

Schema

```
{
  "sid": "http://example.com/myURI.schema.json",
  "$schema": "http://json-schema.org/draft-07/schema#",
  "additionalProperties": false,
  "description": "Sample schema to help you get started.3",
  "properties": {
    "myField1": {
      "description": "The integer type is used for integral numbers.",
      "type": "integer"
    },
    "myField2": {
      "description": "The number type is used for any numeric type, either integers or floating point numbers.",
      "type": "number"
    },
    "myField3": {
      "description": "The string type is used for strings of text.",
      "type": "string"
    }
  },
  "title": "SampleRecord",
  "type": "object"
}
```

Ok Cancel

Figure 4.7.28-A Create Schema Subject Register

Kafka Schema Subject Register Create Window

General

Schema References


Name	Subject Name	Version	Actions
test		1	REMOVE
SH	test	2	REMOVE

Add

Ok Cancel

Figure 4.7.28-B Add Schema References

4.7.29 Create Kafka Connectors

In the Connectors viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, and Cluster then click Select Path. The **Kafka Connector Create window** will open. Enter the **Connector Name** (required) and select Instance, Type, and Class from the dropdown list. Click **Ok** to create the connector.

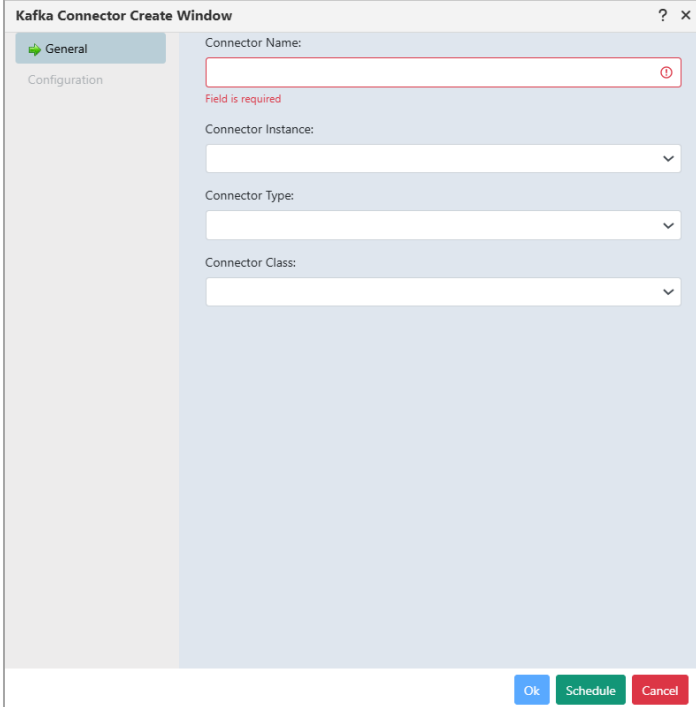



Figure 4.7.29-A Create Kafka Connector

4.7.30 Create IIB and ACE Server

In the Servers viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, and Queue manager then click Select Path. The **IIB / ACE Server Create window** will open. Enter the **Server Name** (required) and click **Ok** to create the Server.

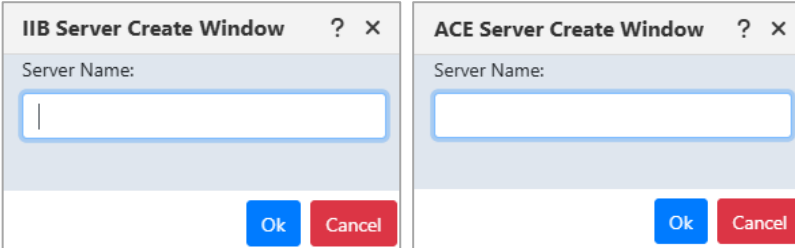



Figure 4.7.30-A Create Server

4.7.31 Create Solace Message VPN

In the message VPN viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, and Broker, then click **Select path**. The **Solace Message VPN Create Window** will open. Enter the **Message VPN Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options.

Click **Ok** to create the Message VPN or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

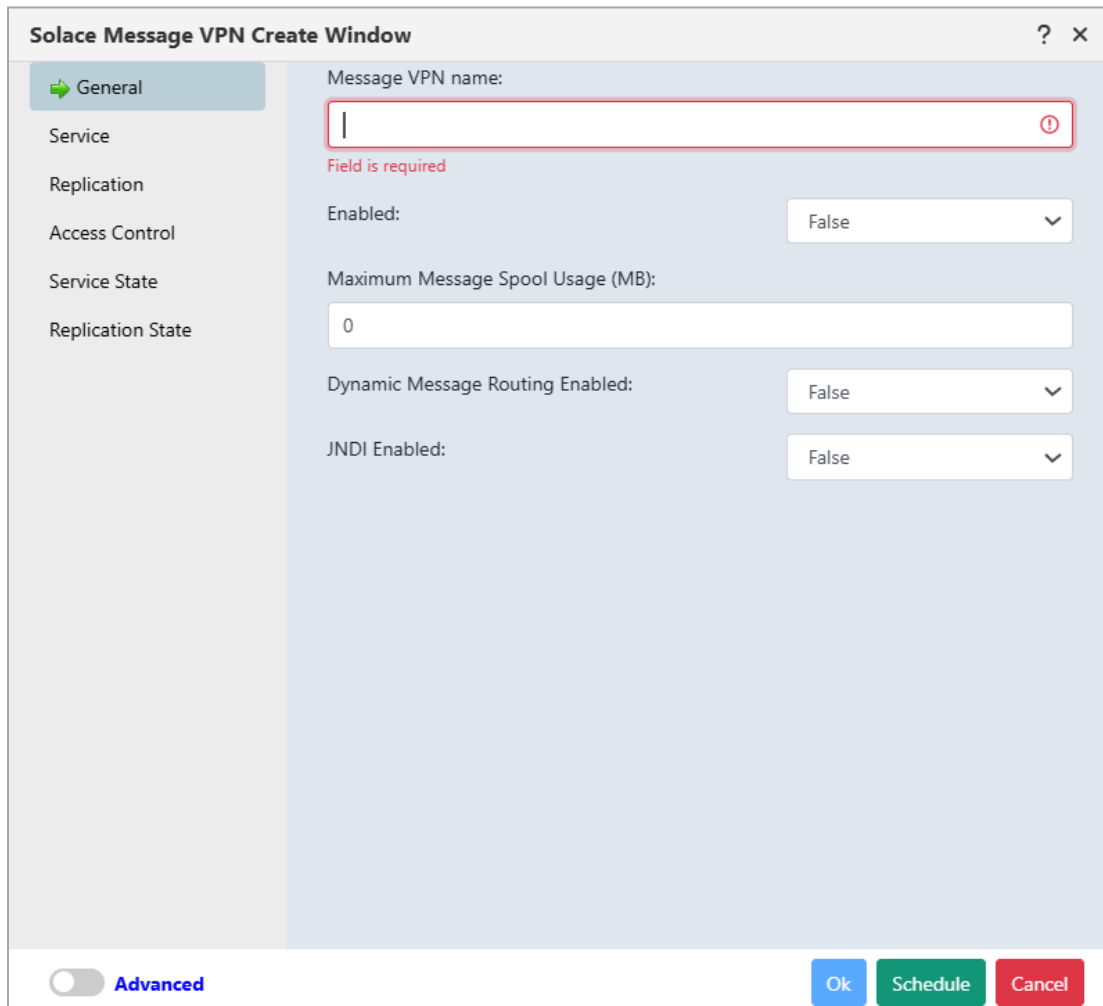


Figure 4.7.31-A Create Solace Message VPN

Messages Queued (MB) Alert Thresholds

%

Clear Value: 0

Raise Value: 0

Consumer Count Alert Thresholds

%

Clear Value: 0

Raise Value: 0

Congestion Control Reject Low Priority Messages Alert Thresholds

%

Clear Value: 0


Raise Value: 0

Advanced

Ok Schedule Cancel

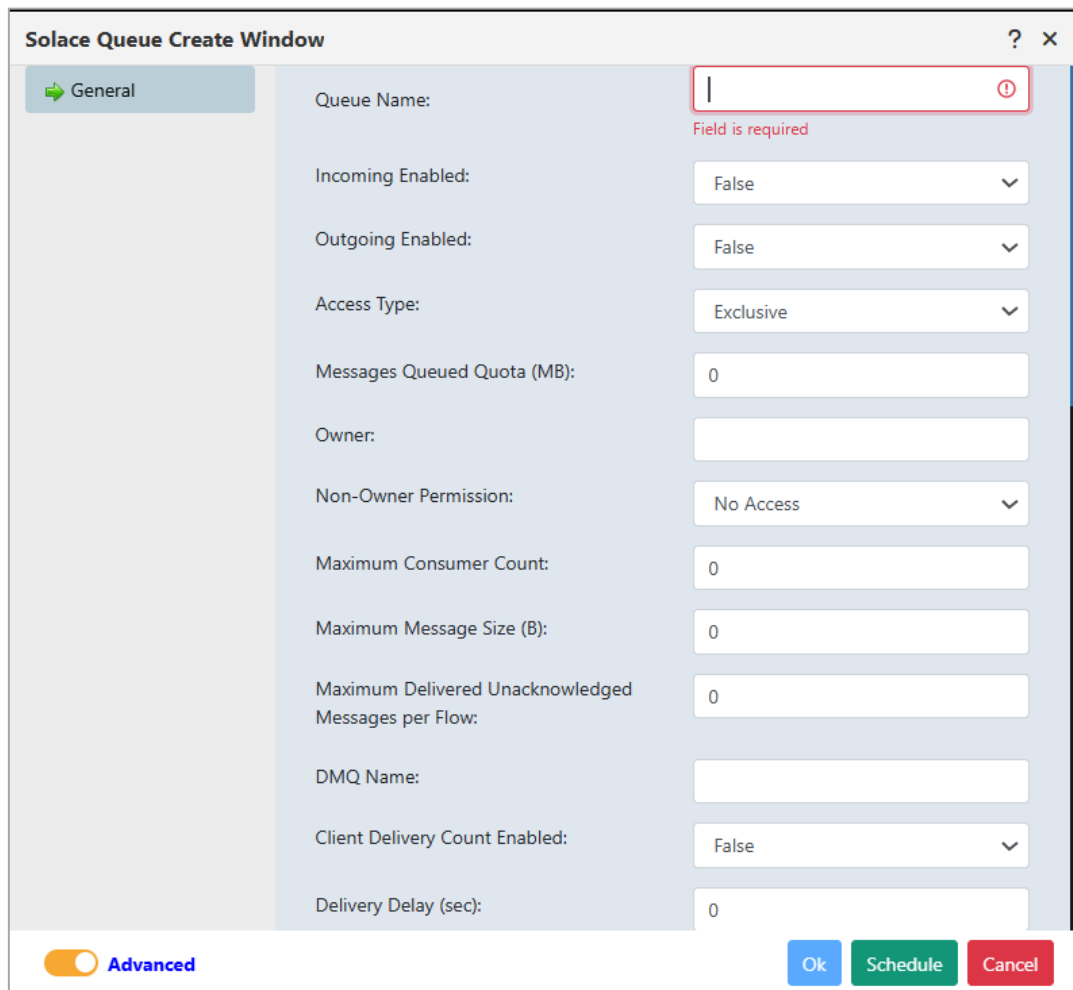
Figure 4.7.31-B Solace Advanced Options

4.7.32 Create Solace Queue

In the Queue viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Queue Create Window** will open. Enter the **Queue Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options. Refer to Figure 4.7.31.B for details.

Click **Ok** to create the Queue or click **Schedule** to create a task at a specified time (see [Scheduling](#)).



Solace Queue Create Window

General

Queue Name: Field is required

Incoming Enabled:

Outgoing Enabled:

Access Type:

Messages Queued Quota (MB):

Owner:

Non-Owner Permission:

Maximum Consumer Count:

Maximum Message Size (B):

Maximum Delivered Unacknowledged Messages per Flow:

DMQ Name:

Client Delivery Count Enabled:

Delivery Delay (sec):

Advanced

Ok Schedule Cancel

Figure 4.7.32-A Create Solace Queue

4.7.33 Create Solace Queue Template

In the Queue Template viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Queue Template Create Window** will open. Enter the **Queue Template Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options. Refer to Figure 4.7.31.B for details.

Click **Ok** to create the Queue Template or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

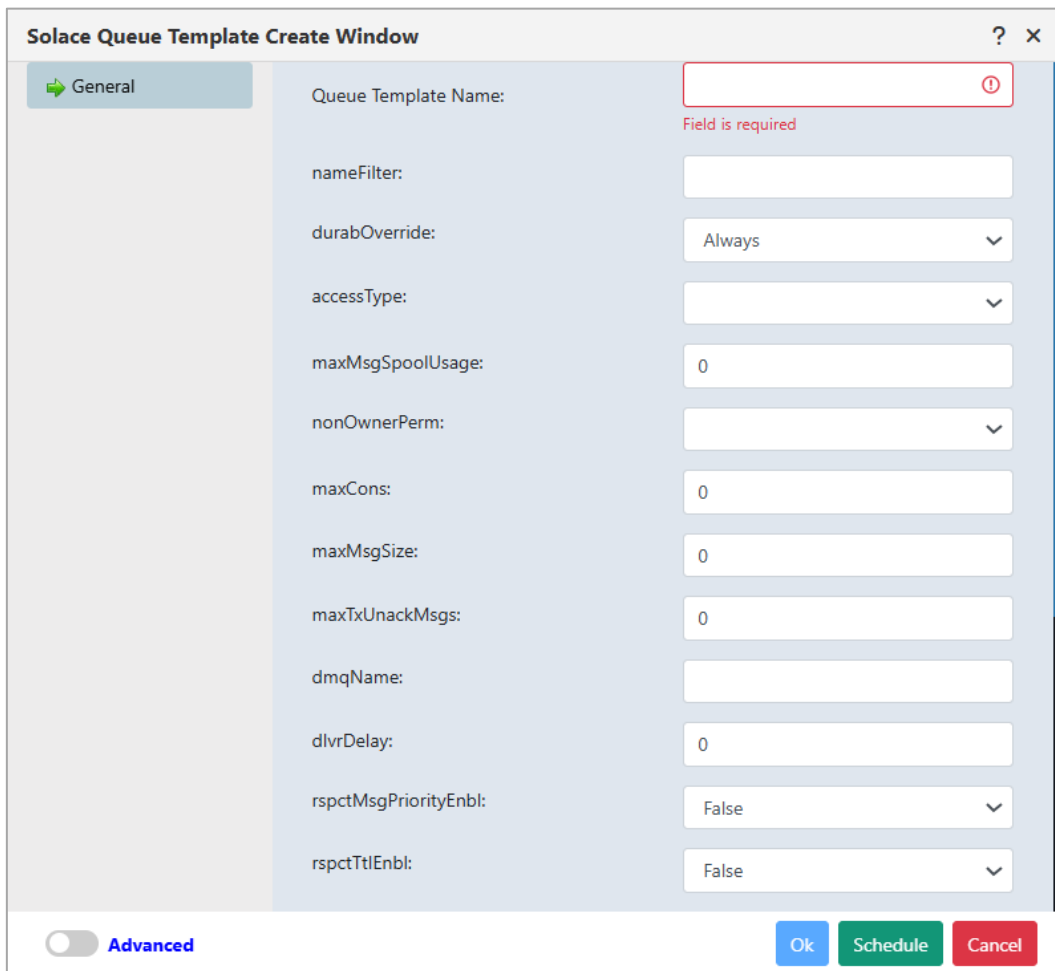


Figure 4.7.33-A Create Solace Queue Template

4.7.34 Create Solace Topic Endpoint

In the Topic Endpoint viewlet, click the Add button .


The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Topic Endpoint Create Window** will open. Enter the **Topic Endpoint Name** (required) and populate other needed details.

Click on the **Advanced** slide at the bottom left to view more advanced options. Refer to Figure 4.7.31.B for details.

Click **Ok** to create the Topic Endpoint or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

Figure 4.7.34-A Create Solace Topic Endpoint

4.7.35 Create Solace Topic Endpoint Template

In the Topic Endpoint Template viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Topic Endpoint Template Create Window** will open. Enter the **Topic Endpoint Template Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options. Refer to Figure 4.7.31.B for details.

Click **Ok** to create the Topic Endpoint Template or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

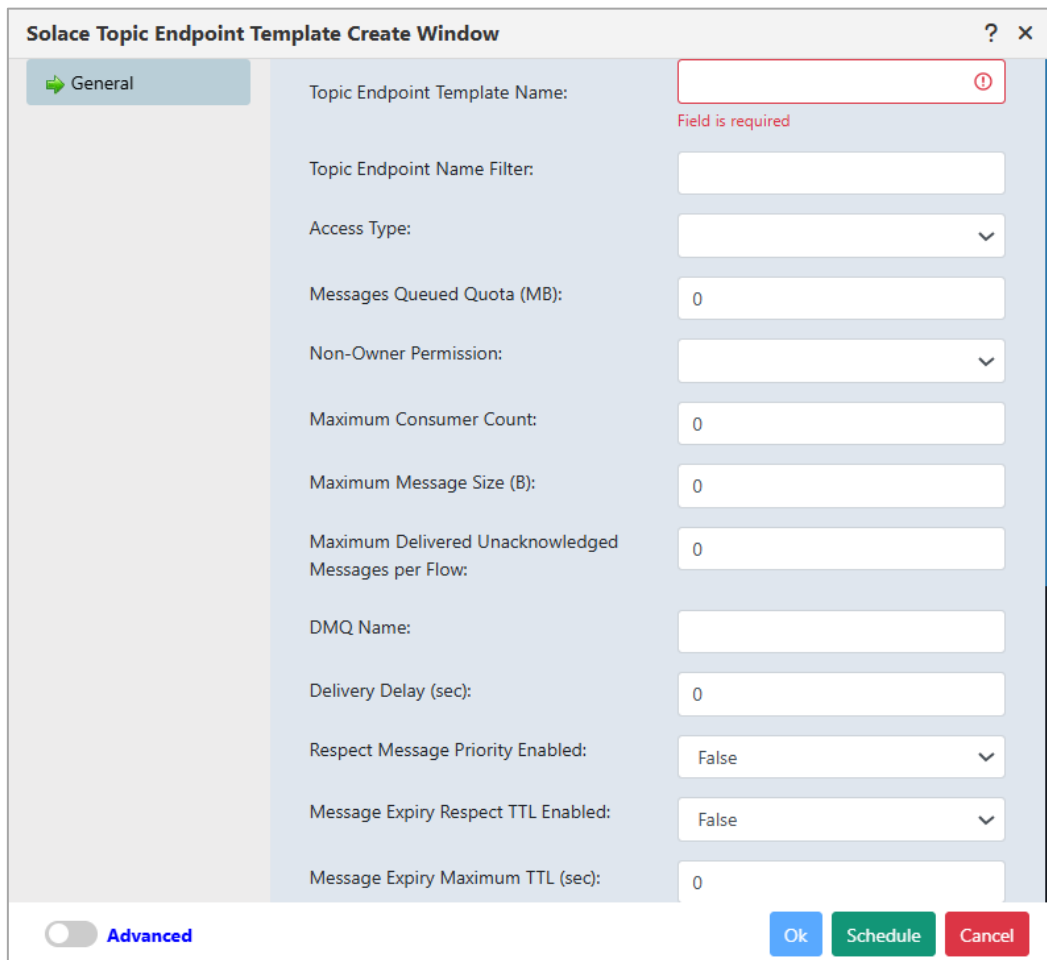



Figure 4.7.35-A Create Solace Topic Endpoint

4.7.36 Create Solace Bridge

In the Bridge viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Bridge Create Window** will open. Enter the **Bridge Name** (required) and populate other needed details.

Click **Ok** to create the Bridge or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

Solace Bridge Create Window

General

Bridge Name: Field is required

Redundancy Role:

Enabled:

Maximum TTL (hops):

DTO Priority:

Maximum Connect Retry Attempts:

Connect Retry Wait (sec):

Authentication Scheme:

Basic Authentication Client Username:

Basic Authentication Client Password:


Client Certificate Authentication File Name:

Client Certificate Authentication File Content:

Client Certificate Authentication File:

Figure 4.7.36-A Create Solace Bridge

4.7.37 Create Solace Client Profile

In the Client Profile viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Client Profile Create Window** will open. Enter the **Client Profile Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options.

Click **Ok** to create the Client Profile or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

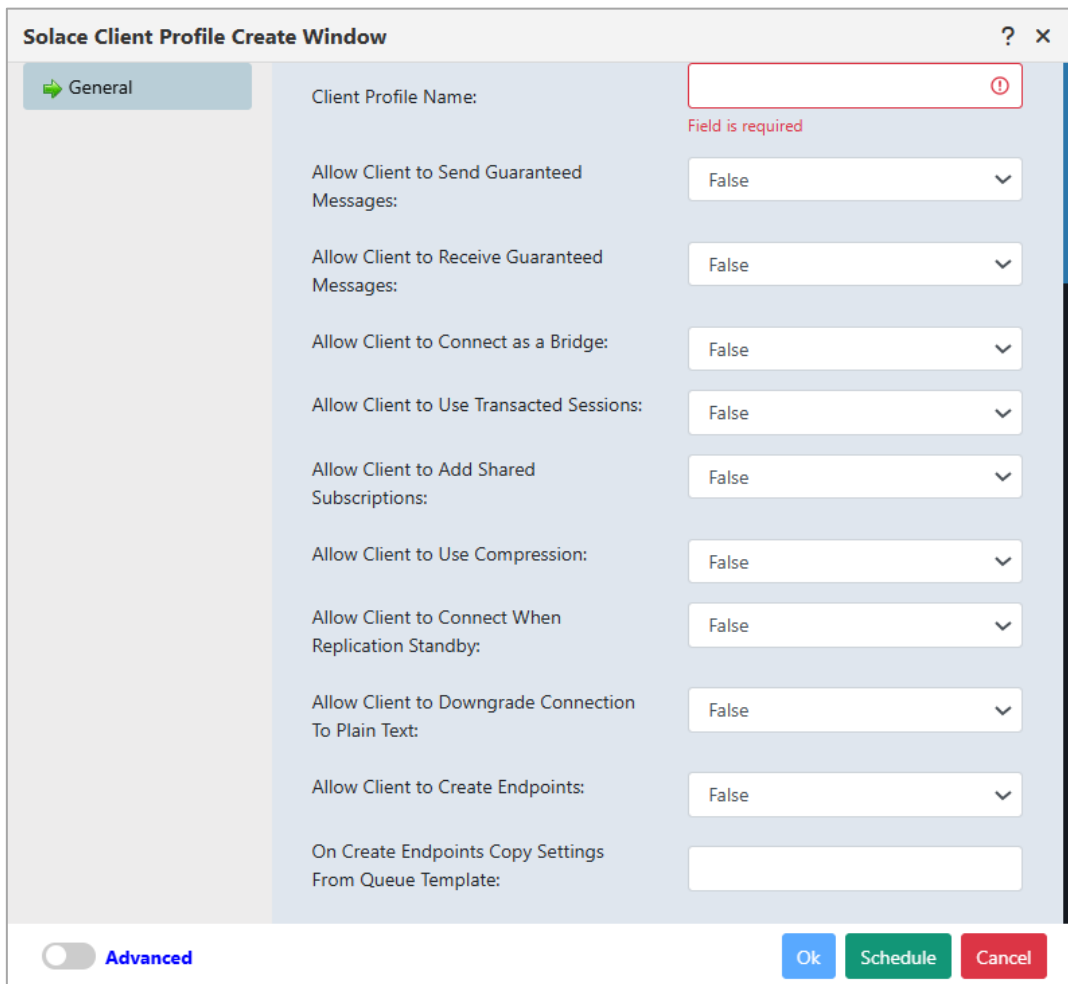



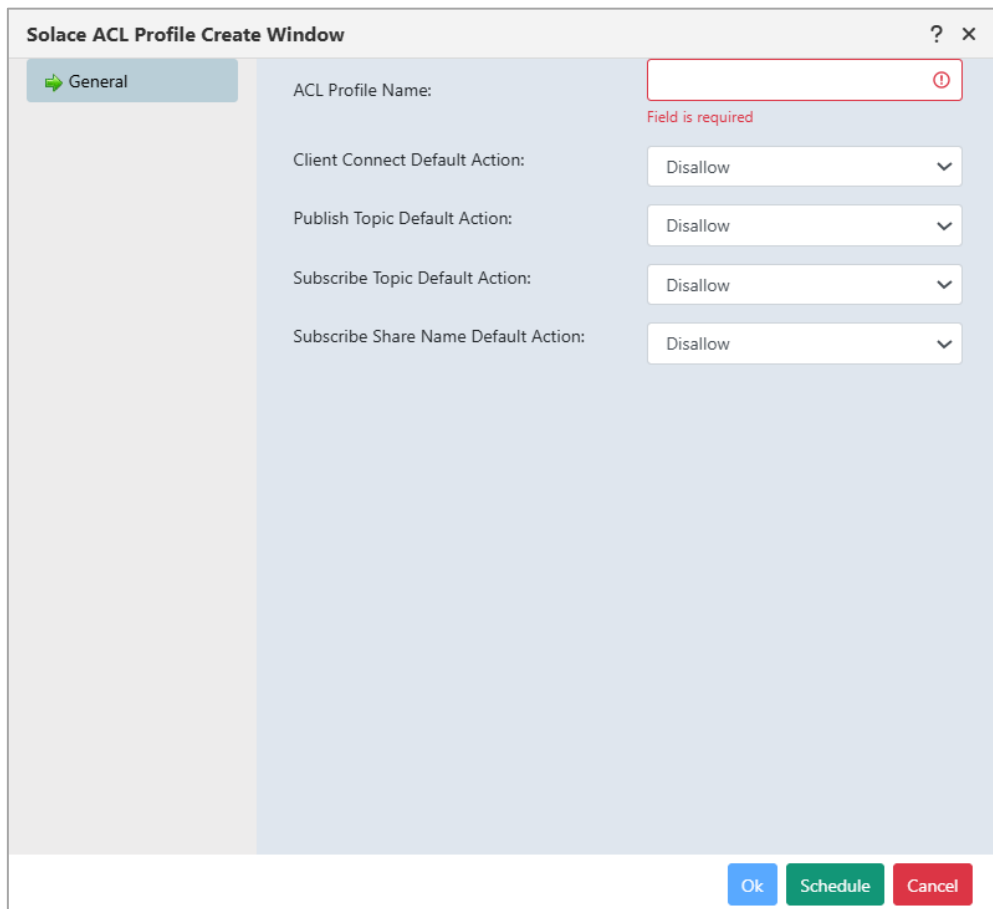
Figure 4.7.37-A Create Solace Client Profile

4.7.38 Create Solace ACL Profile

In the ACL Profile viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace ACL Profile Create Window** will open. Enter the **ACL Profile Name** (required) and select the remaining options from the dropdown list.

Click **Ok** to create the ACL Profile or click **Schedule** to create a task at a specified time (see [Scheduling](#)).



Solace ACL Profile Create Window

General

ACL Profile Name: Field is required

Client Connect Default Action: Disallow

Publish Topic Default Action: Disallow

Subscribe Topic Default Action: Disallow

Subscribe Share Name Default Action: Disallow

Ok Schedule Cancel

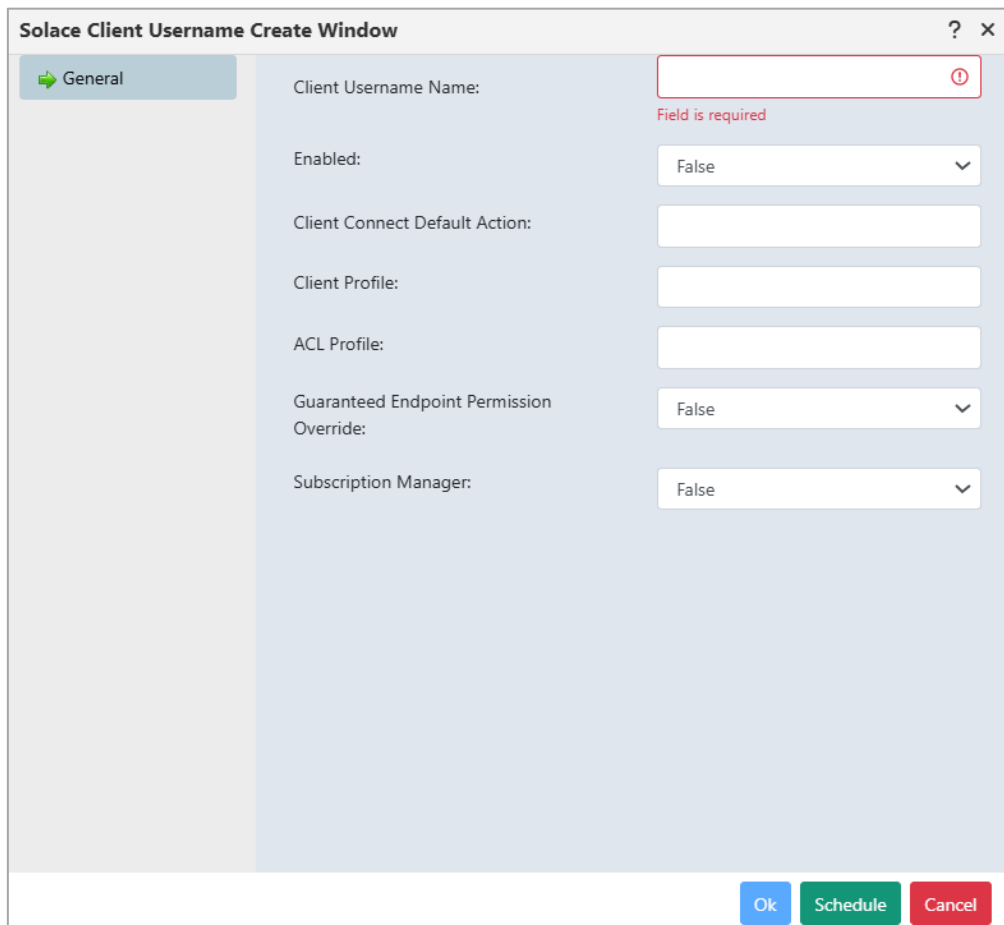
Figure 4.7.38-A Create Solace ACL Profile

4.7.39 Create Solace Client Username

In the Client Username viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace Client Username Create Window** will open. Enter the **Client Username Name** (required) and populate other needed details.

Click **Ok** to create the Client Username or click **Schedule** to create a task at a specified time (see [Scheduling](#)).




The image shows a 'Solace Client Username Create Window' with a 'General' tab selected. The window contains several fields and dropdown menus:

- Client Username Name:** A text input field that is currently empty and has a red border with a warning icon and the text 'Field is required' below it.
- Enabled:** A dropdown menu with 'False' selected.
- Client Connect Default Action:** An empty text input field.
- Client Profile:** An empty text input field.
- ACL Profile:** An empty text input field.
- Guaranteed Endpoint Permission Override:** A dropdown menu with 'False' selected.
- Subscription Manager:** A dropdown menu with 'False' selected.

At the bottom right of the window are three buttons: 'Ok' (blue), 'Schedule' (green), and 'Cancel' (red).

Figure 4.7.39-A Create Solace Client Username

4.7.40 Create Solace JNDI Connection Factory

In the JNDI Connection Factory viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace JNDI Connection Factory Create Window** will open. Enter the **JNDI Connection Name** (required) and populate other needed details.

Click **Ok** to create the JNDI Connection Factory or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

Solace JNDI Connection Factory Create Window

General

JNDI Connection Name: Field is required

Transport Connect Timeout (ms):

Transport Reply Timeout (ms):

Transport Reconnect Retry Attempts:

Transport Reconnect Retry Wait (ms):

Transport Connect Retry Attempts per Host:

Transport Connect Retry Attempts:

Transport Keepalive Messages:

Transport Keepalive Messages Interval (ms):

Transport Keepalive Messages Retry:

Transport Send Socket Buffer Size (B):


Transport Receive Socket Buffer Size (B):

Transport TCP No Delay:

Ok Schedule Cancel

Figure 4.7.40-A Create Solace JNDI Connection Factory

4.7.41 Create Solace JNDI Queue

In the JNDI Queue viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace JNDI Queue Create Window** will open. Enter the **JNDI Queue Name** (required) and click **Ok** to create the JNDI Queue or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

Solace JNDI Queue Create Window

General


JNDI Queue Name: Field is required

Physical Name:

Ok Schedule Cancel

Figure 4.7.41-A Create Solace JNDI Queue

4.7.42 Create Solace JNDI Topic

In the JNDI Topic viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace JNDI Topic Create Window** will open. Enter the **JNDI Topic Name** (required) and click **Ok** to create the JNDI Topic.




Figure 4.7.42-A Create Solace JNDI Topic

4.7.43 Create Solace Client Certificate Authority

In the Client Certificate Authority viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node and Broker then click **Select path**. The **Solace Client Certificate Authority Window** will open. Enter the **Client Certificate Authority Name** (required) and populate other needed details then click **Ok** to create the Client Certificate Authority.

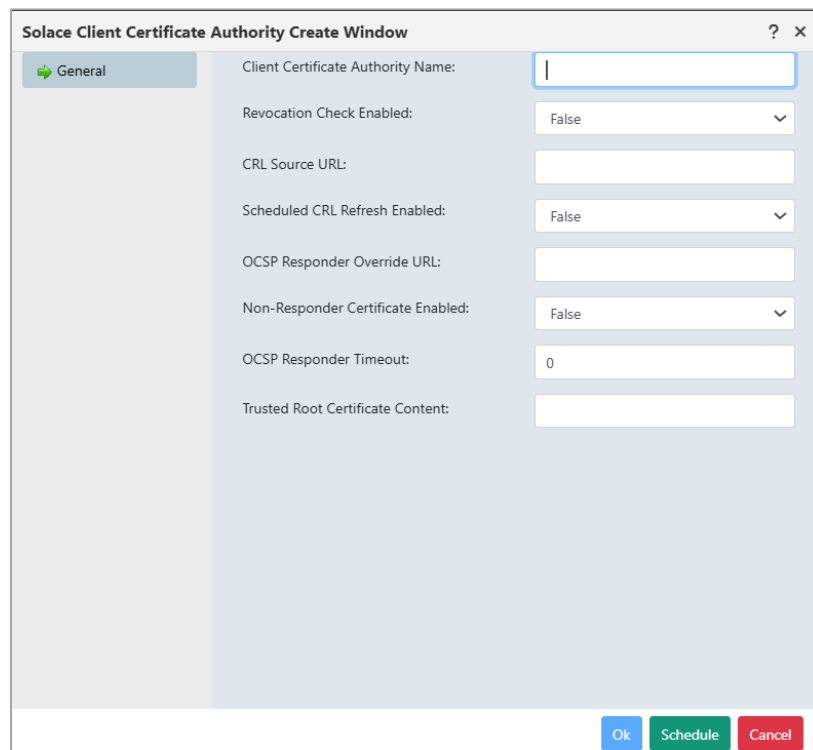



Figure 4.7.43-A Create Solace Client Certificate Authority

4.7.44 Create Solace MQTT Session

In the MQTT Session viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace MQTT Session Create Window** will open. Enter the **MQTT Session Client Id** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options. Refer to Figure 4.7.31.B for details.

Click **Ok** to create the MQTT Session or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

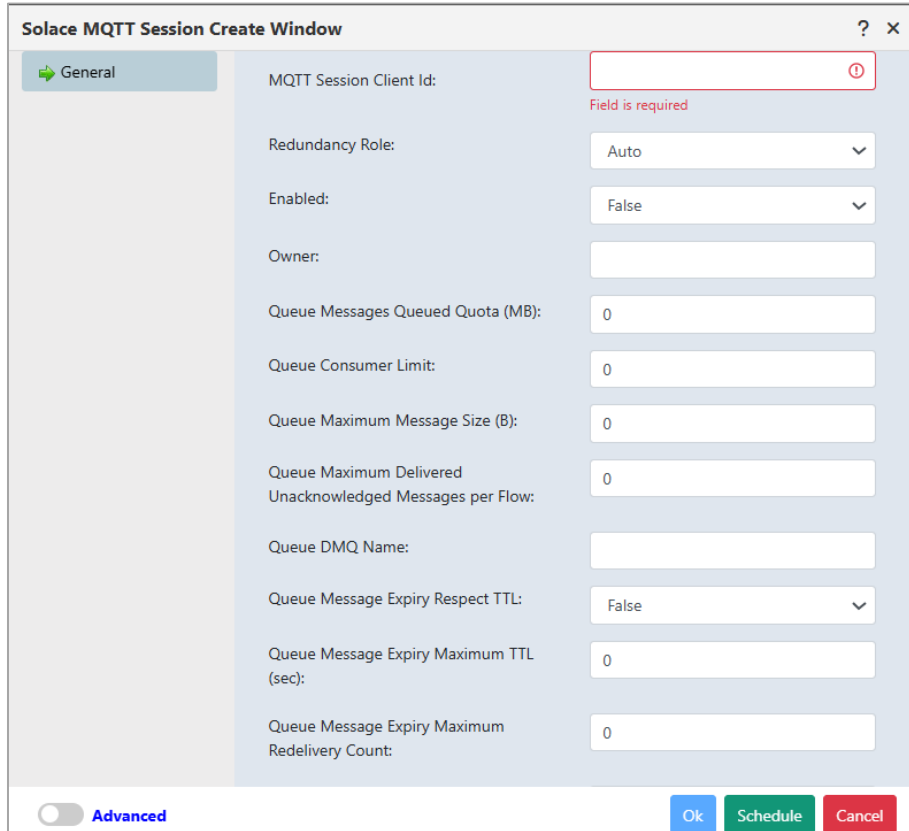


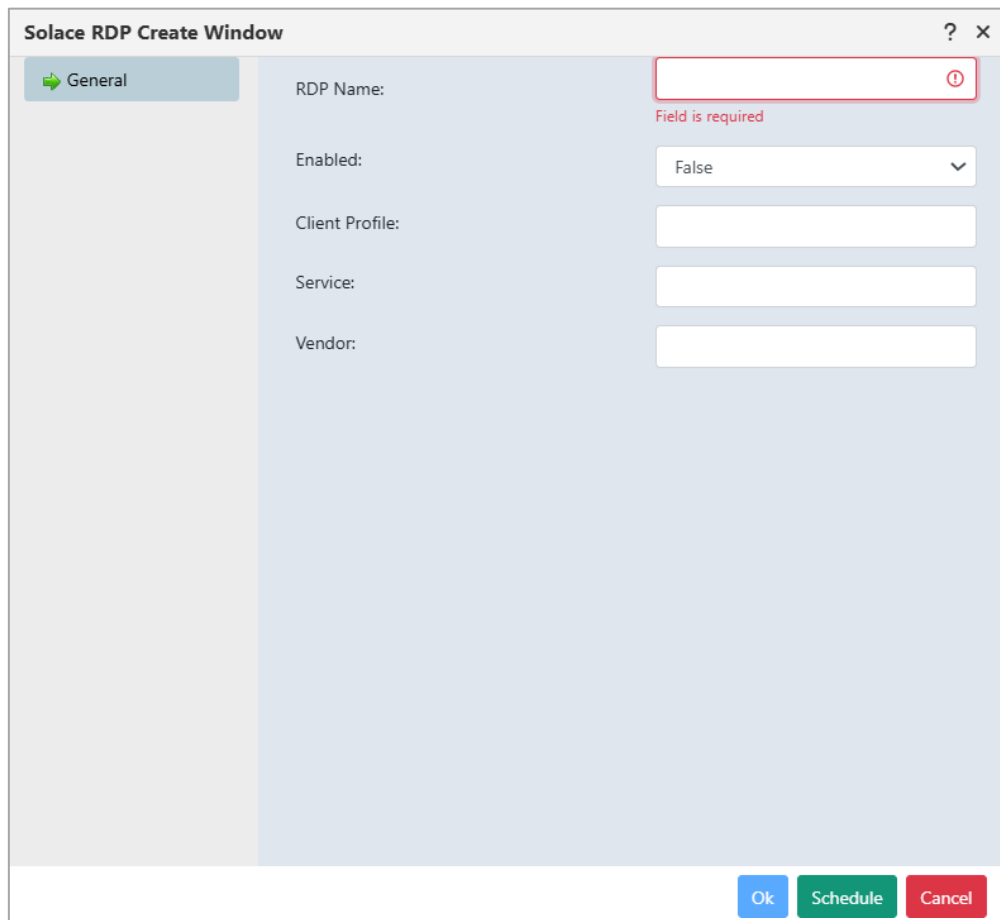
Figure 4.7.44-A Create Solace MQTT Session

4.7.45 Create Solace RDP

In the RDP viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, and Message VPN then click **Select path**. The **Solace RDP Create Window** will open. Enter the **RDP Name** (required) and populate other needed details.

Click **Ok** to create the RDP or click **Schedule** to create a task at a specified time (see [Scheduling](#)).



Solace RDP Create Window

General

RDP Name: ❗
Field is required

Enabled:

Client Profile:

Service:

Vendor:

Ok Schedule Cancel

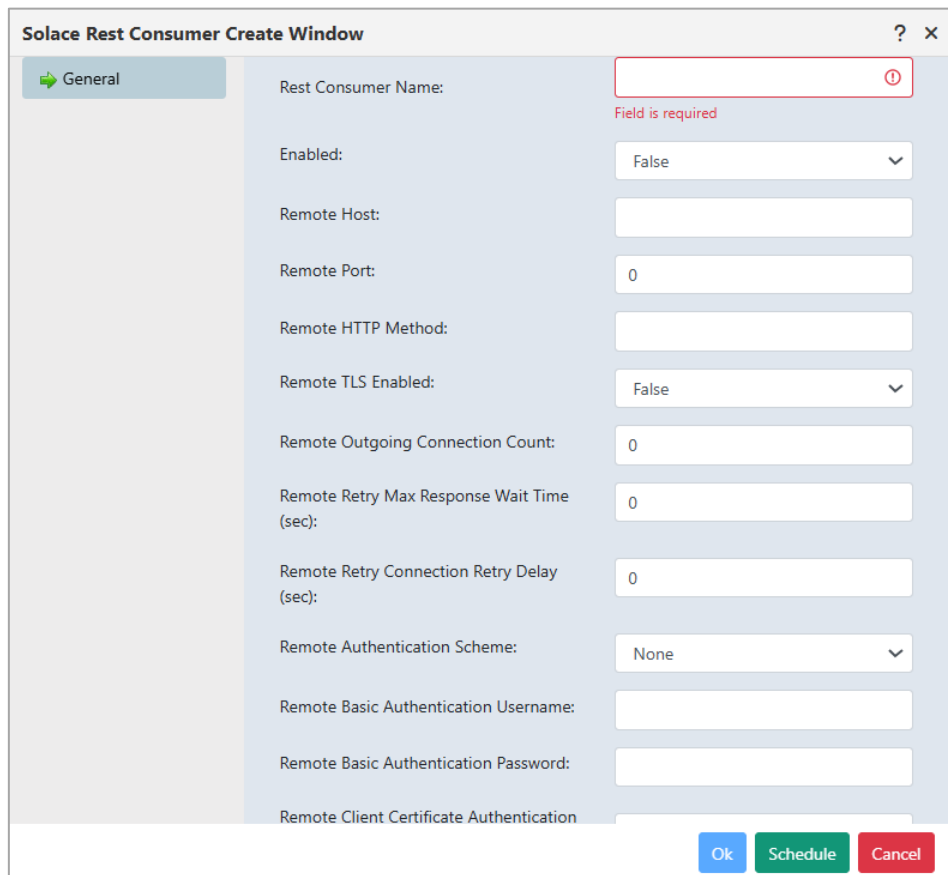
Figure 4.7.45-A Create Solace RDP

4.7.46 Create Solace Rest Consumer

In the Rest Consumer viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, Message VPN and RDP then click **Select path**. The **Solace Rest Consumer Create Window** will open. Enter the **Rest Consumer Name** (required) and populate other needed details.

Click **Ok** to create the Rest Consumer or click **Schedule** to create a task at a specified time (see [Scheduling](#)).



The image shows a 'Solace Rest Consumer Create Window' with a 'General' tab selected. The window contains the following fields and controls:

- Rest Consumer Name:** A text input field with a red border and a warning icon, with the message 'Field is required' below it.
- Enabled:** A dropdown menu set to 'False'.
- Remote Host:** A text input field.
- Remote Port:** A text input field with the value '0'.
- Remote HTTP Method:** A text input field.
- Remote TLS Enabled:** A dropdown menu set to 'False'.
- Remote Outgoing Connection Count:** A text input field with the value '0'.
- Remote Retry Max Response Wait Time (sec):** A text input field with the value '0'.
- Remote Retry Connection Retry Delay (sec):** A text input field with the value '0'.
- Remote Authentication Scheme:** A dropdown menu set to 'None'.
- Remote Basic Authentication Username:** A text input field.
- Remote Basic Authentication Password:** A text input field.
- Remote Client Certificate Authentication:** A partially visible text input field.

At the bottom right, there are three buttons: 'Ok' (blue), 'Schedule' (green), and 'Cancel' (red).

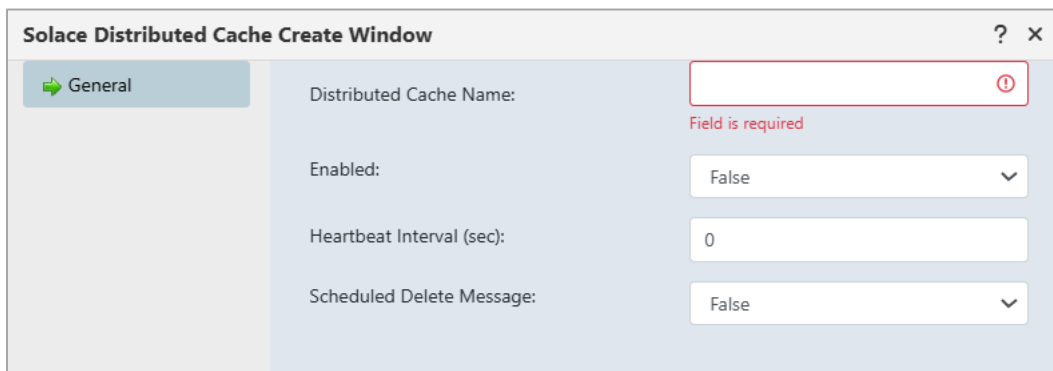
Figure 4.7.46-A Create Solace Rest Consumer

4.7.47 Create Solace Distributed Cache

In the Distributed Cache viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker and Message VPN then click **Select path**. The **Solace Distributed Cache Create Window** will open. Enter the **Distributed Cache Name** (required) and populate other needed details.

Click **Ok** to create the Distributed Cache or click **Schedule** to create a task at a specified time (see [Scheduling](#)).




The image shows a 'Solace Distributed Cache Create Window' with a 'General' tab selected. The window contains the following fields and controls:

- Distributed Cache Name:** A text input field with a red border and a warning icon, with the message 'Field is required' below it.
- Enabled:** A dropdown menu set to 'False'.
- Heartbeat Interval (sec):** A text input field with the value '0'.
- Scheduled Delete Message:** A dropdown menu set to 'False'.

Figure 4.7.47-A Create Solace Distributed Cache

4.7.48 Create Solace Cache Cluster

In the Cache Cluster viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, Message VPN and Distributed Cache then click **Select path**. The **Solace Cache Cluster Create Window** will open. Enter the **Cache Cluster Name** (required) and populate other needed details. Click on the **Advanced** slide at the bottom left to view more advanced options.

Click **Ok** to create the Cache Cluster or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

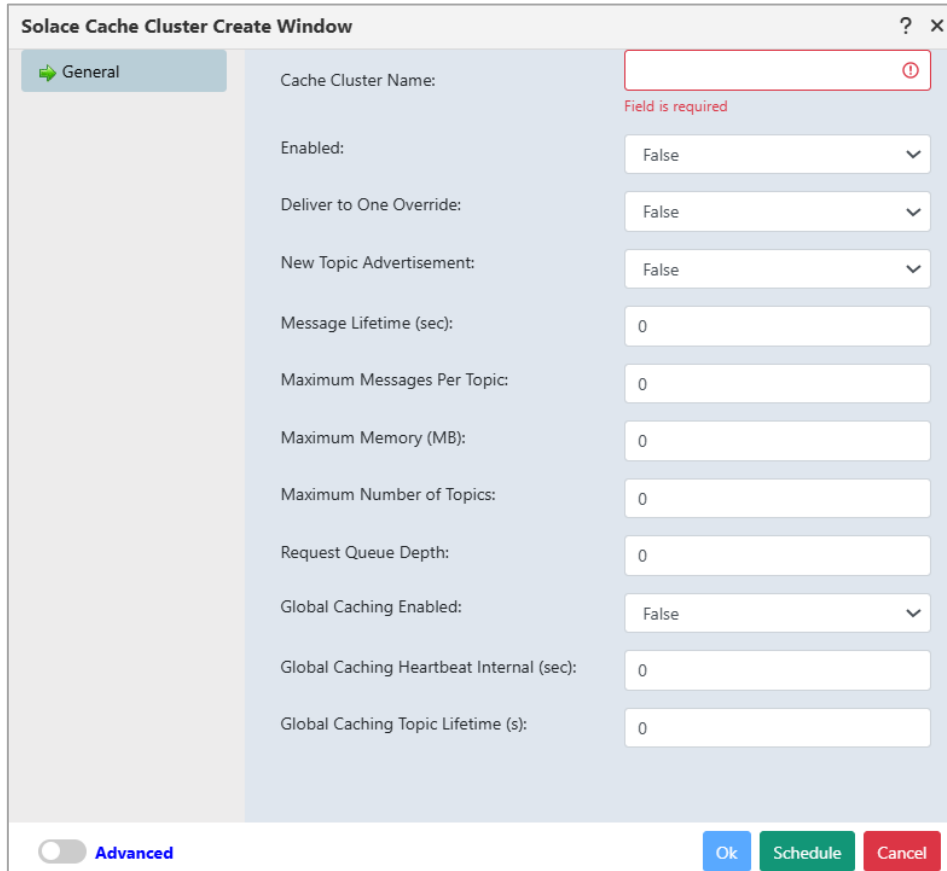


Figure 4.7.48-A Create Solace Cache Cluster

4.7.49 Create Solace Cache Instance

In the Cache Instance viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node, Broker, Message VPN, Distributed Cache and Cache Cluster then click **Select path**.


The **Solace Cache Instance Create Window** will open. Enter the **Cache Instance Name** (required) and populate other needed details.

Click **Ok** to create the Cache Instance or click **Schedule** to create a task at a specified time (see [Scheduling](#)).

Figure 4.7.49-A Cache Instance Select Object Path

Figure 4.7.49-B Create Solace Cache Instance

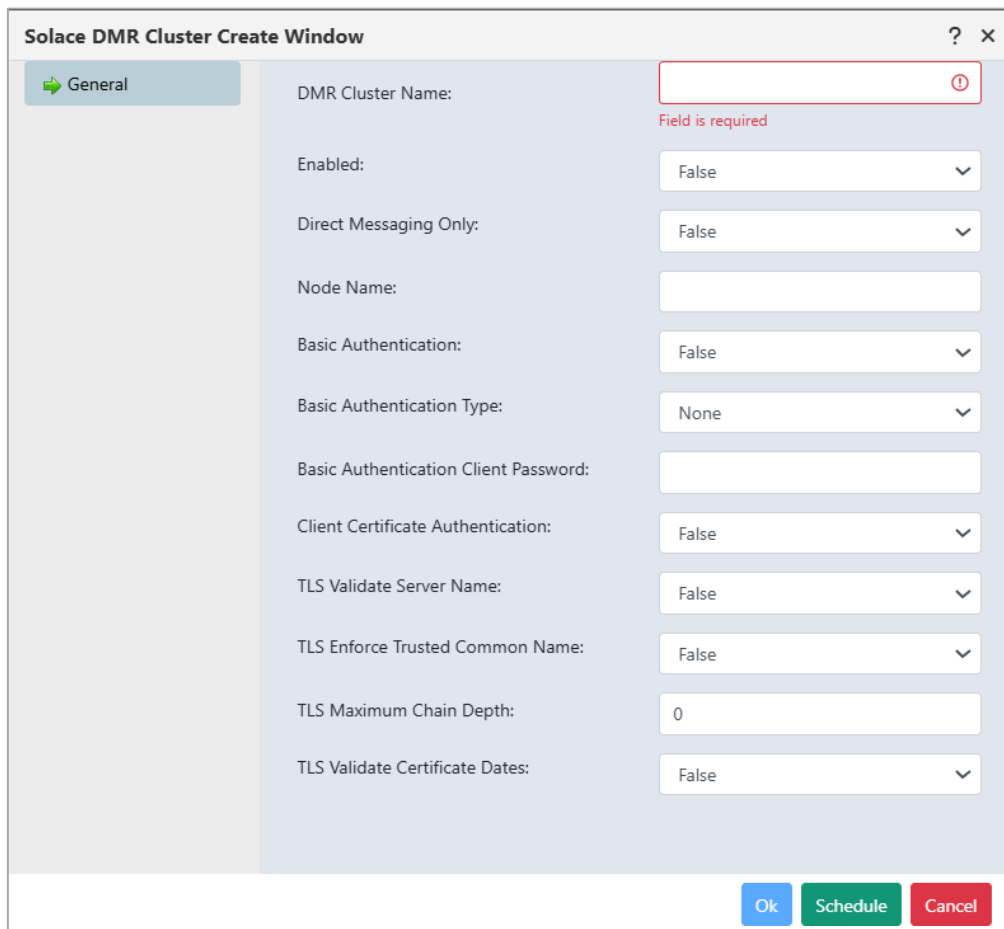
4.7.50 Create Solace DMR Cluster

In the DMR Cluster viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node and Broker then click Select path.

The **Solace DMR Cluster Create Window** will open. Enter the **DMR Cluster Name** (required) and populate other needed details.

Click **Ok** to create the DMR Cluster or click **Schedule** to create a task at a specified time (see [Scheduling](#)).




The image shows a 'Solace DMR Cluster Create Window' with a 'General' tab selected. The window contains the following fields and controls:

- DMR Cluster Name:** A text input field with a red border and a red error icon, with the message 'Field is required' below it.
- Enabled:** A dropdown menu set to 'False'.
- Direct Messaging Only:** A dropdown menu set to 'False'.
- Node Name:** A text input field.
- Basic Authentication:** A dropdown menu set to 'False'.
- Basic Authentication Type:** A dropdown menu set to 'None'.
- Basic Authentication Client Password:** A text input field.
- Client Certificate Authentication:** A dropdown menu set to 'False'.
- TLS Validate Server Name:** A dropdown menu set to 'False'.
- TLS Enforce Trusted Common Name:** A dropdown menu set to 'False'.
- TLS Maximum Chain Depth:** A text input field containing '0'.
- TLS Validate Certificate Dates:** A dropdown menu set to 'False'.

At the bottom right, there are three buttons: 'Ok' (blue), 'Schedule' (green), and 'Cancel' (red).

Figure 4.7.50-A Create Solace DMR Cluster

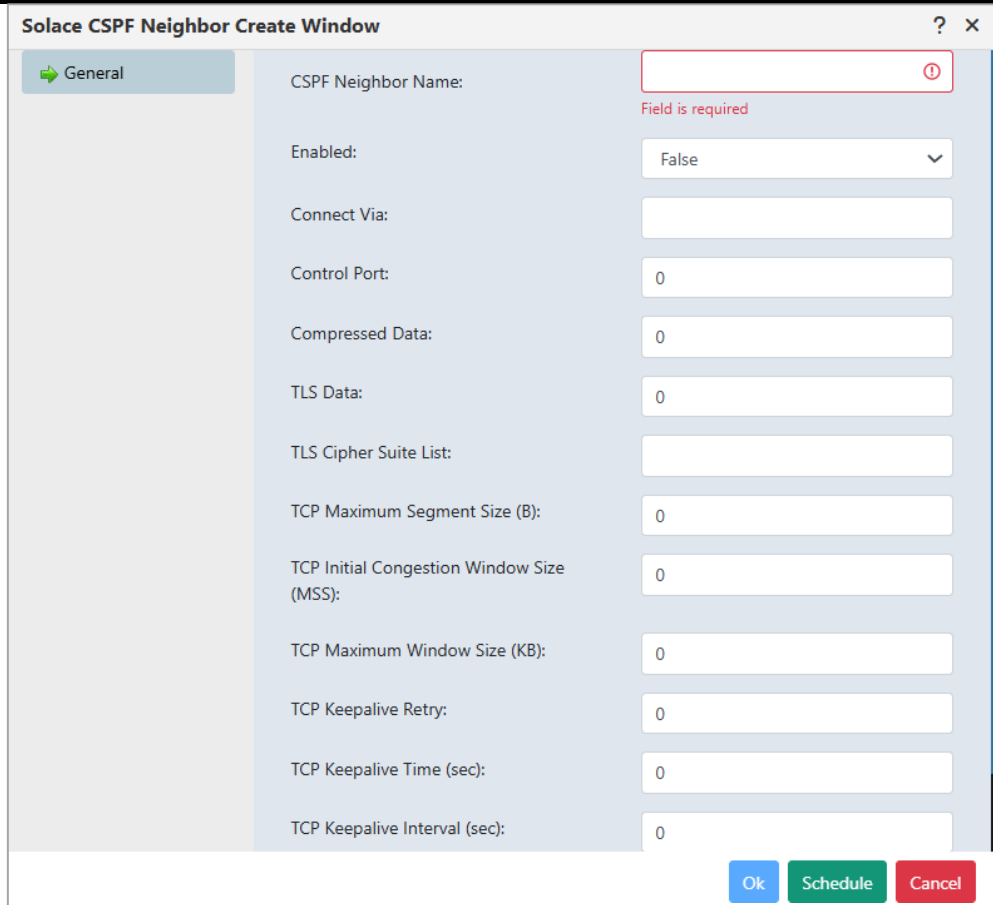
4.7.51 Create Solace CSPF Neighbor

In the CSPF Neighbor viewlet, click the Add button .

The **Select Object Path** window will open. Specify the Workgroup server, Node and Broker then click **Select path**.

The **Solace CSPF Neighbor Create Window** will open. Enter the **CSPF Neighbor Name** (required) and populate other needed details.

Click **Ok** to create the CSPF Neighbor or click **Schedule** to create a task at a specified time (see [Scheduling](#)).



Solace CSPF Neighbor Create Window

General

CSPF Neighbor Name: Field is required

Enabled:

Connect Via:

Control Port:

Compressed Data:

TLS Data:

TLS Cipher Suite List:

TCP Maximum Segment Size (B):

TCP Initial Congestion Window Size (MSS):

TCP Maximum Window Size (KB):

TCP Keepalive Retry:

TCP Keepalive Time (sec):

TCP Keepalive Interval (sec):

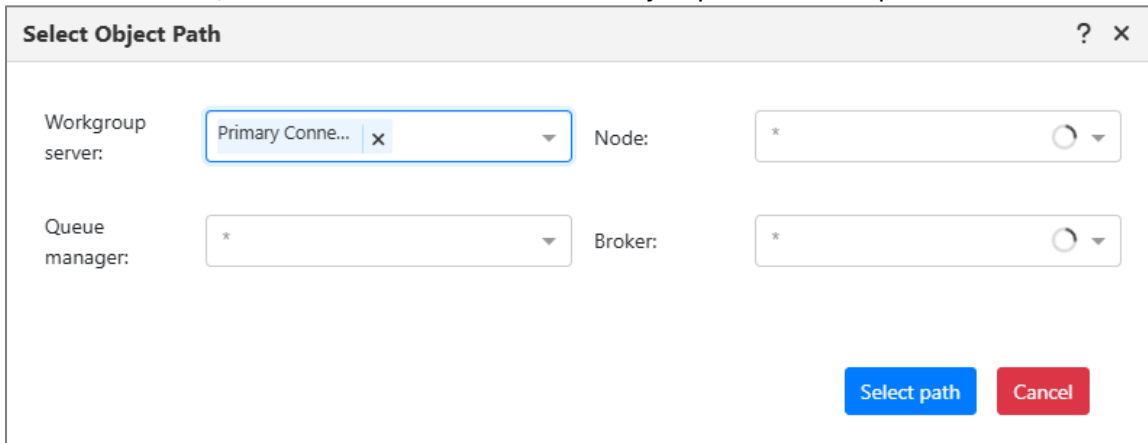
Ok Schedule Cancel

Figure 4.7.51-A Create Solace CSPF Neighbor

4.7.52 Create ActiveMQ Queue

To create an ActiveMQ queue:

1. From a Queue viewlet, click **Add Queue** . The *Select object path* window opens.



The screenshot shows a dialog box titled "Select Object Path". It has a title bar with a question mark and a close button. The dialog contains four dropdown menus arranged in a 2x2 grid. The top-left dropdown is labeled "Workgroup server" and is set to "Primary Conne...". The top-right dropdown is labeled "Node" and is set to "*". The bottom-left dropdown is labeled "Queue manager" and is set to "*". The bottom-right dropdown is labeled "Broker" and is set to "*". At the bottom right of the dialog, there are two buttons: "Select path" (blue) and "Cancel" (red).

Figure 4.7.52-A Create ActiveMQ Queue Select Object Path

2. Specify the following:
 - Workgroup Server
 - Node
 - Queue Manager (leave the asterisk * to create the new queue in all workgroup server nodes and queue managers)
 - Broker
3. Click **Select path**. The *Active MQ Queue Create Window* opens.

The screenshot shows the 'Active MQ Queue Create Window' with the 'General' tab selected. The 'Name' field is empty and has a red border with a warning icon and the text 'Field is required'. Other fields include 'Send Duplicate From Store To DLQ', 'Memory Limit', 'Temp Usage Limit', 'Memory Usage Portion', 'Producer Flow Control', 'Always Retroactive', 'Blocked Producer Warning Interval', 'Max Producers To Audit', 'Max Audit Depth', 'Max Page Size', 'Use Cache' (set to 'False'), 'Prioritized Messages', and 'Options'. At the bottom are 'Ok', 'Schedule', and 'Cancel' buttons.

Figure 4.7.52-B ActiveMQ Queue Create Window-General Tab

4. Enter a queue **Name** (required) and specify all desired options.
5. Click **Ok** to create the queue now, or click **Schedule** to create it at a later time (see [Scheduling](#)).
6. From the queue's **Selected** menu, choose **Properties**. The *Queue Properties* window opens with **Status** and **Custom Attributes** tabs.
7. Use the [Custom Attributes](#) tab to define your own properties

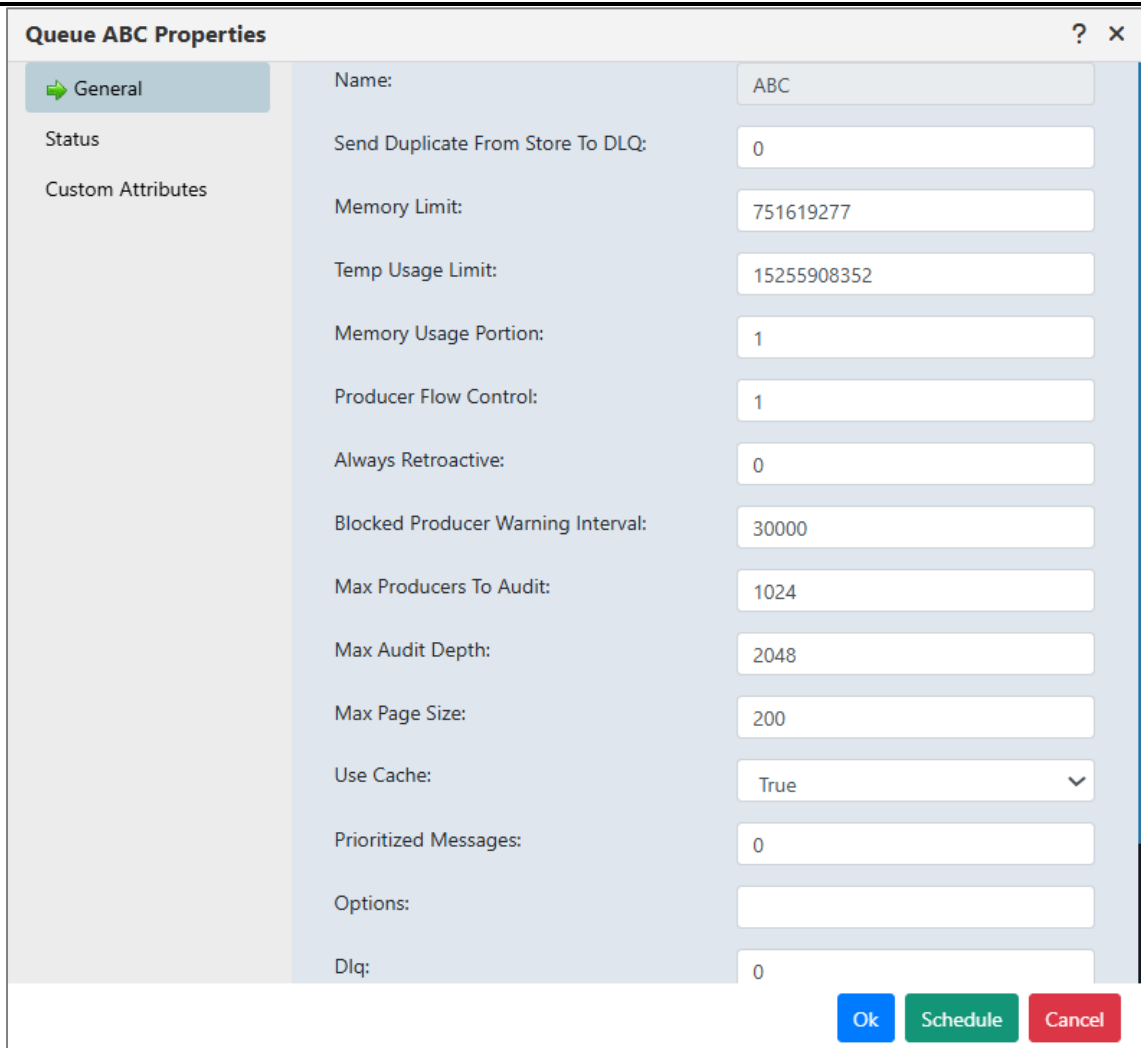


Figure 4.7.52-C ActiveMQ Queue Properties Window

4.7.53 Create ActiveMQ Topic

To create an ActiveMQ topic:

1. From a **Topic** viewlet, click **Add Topic** . The *Select object path* window opens.

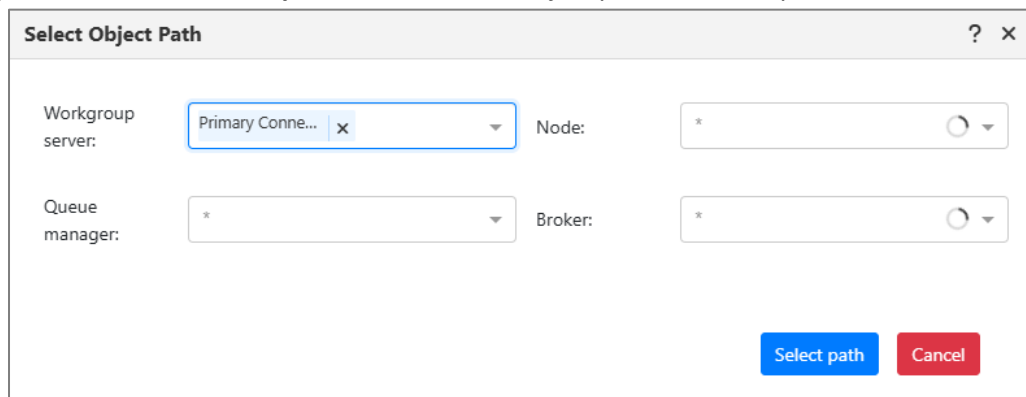
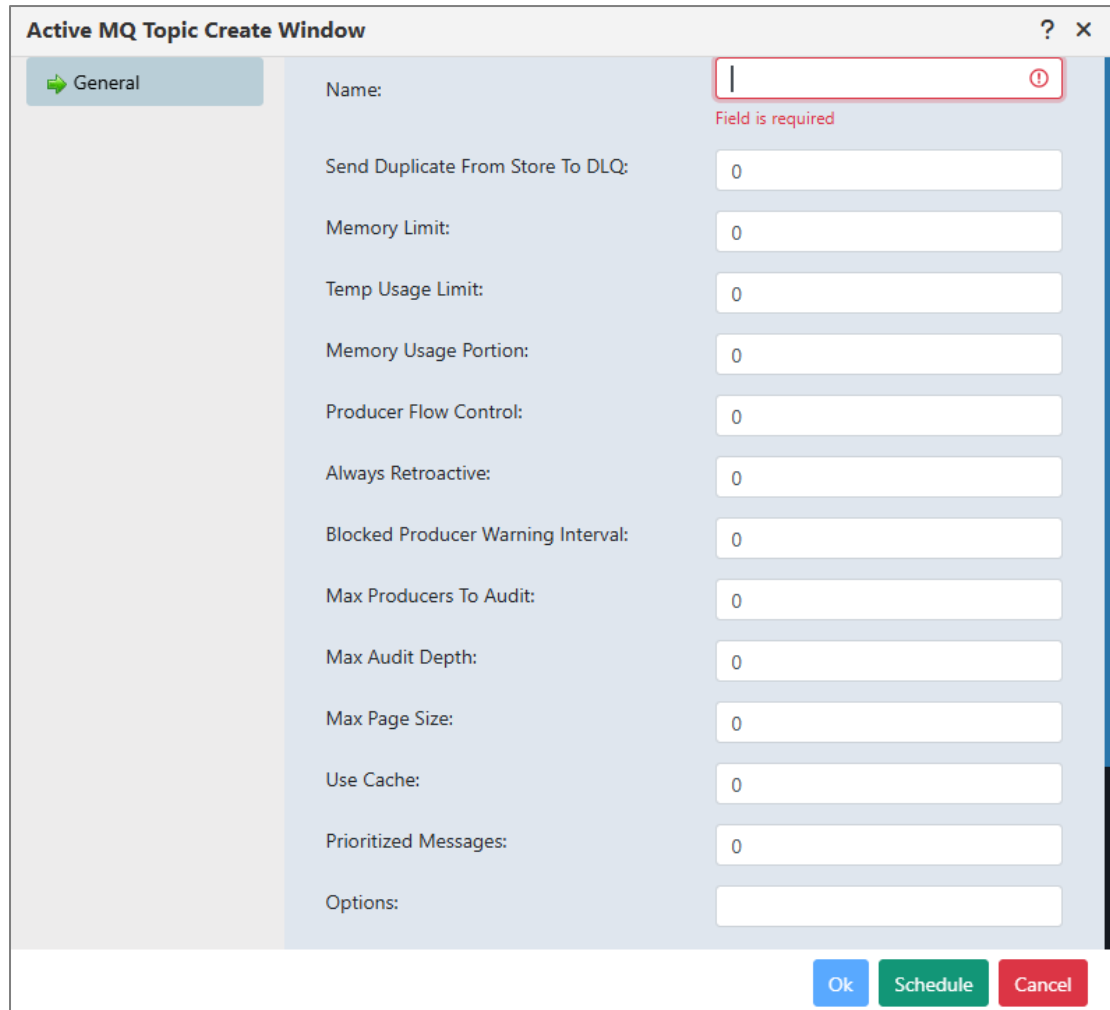


Figure 4.7.53-A Create ActiveMQ Topic Select Object Path

2. Specify the following:

- Workgroup Server
 - Node
 - Queue Manager (leave the asterisk * to create the new queue in all workgroup server nodes and queue managers)
 - Broker
3. Click **Select path**. The *Active MQ Topic Create Window* opens.



The screenshot shows the 'Active MQ Topic Create Window' with the 'General' tab selected. The 'Name' field is empty and has a red border with a red exclamation mark icon and the text 'Field is required' below it. Other fields include 'Send Duplicate From Store To DLQ', 'Memory Limit', 'Temp Usage Limit', 'Memory Usage Portion', 'Producer Flow Control', 'Always Retroactive', 'Blocked Producer Warning Interval', 'Max Producers To Audit', 'Max Audit Depth', 'Max Page Size', 'Use Cache', 'Prioritized Messages', and 'Options'. All these fields have a value of '0'. At the bottom right, there are three buttons: 'Ok' (blue), 'Schedule' (green), and 'Cancel' (red).

Figure 4.7.5-B ActiveMQ Topic Create Window-General Tab

4. Enter a topic **Name** (required) and specify all desired options.
5. Click **Ok** to create the topic now, or click **Schedule** to create it at a later time (see [Scheduling](#)).
6. From the topic's **Selected** menu, choose **Properties**. The **Properties** window opens with **Status** and **Custom Attributes** tabs.
7. Use the [Custom Attributes](#) tab to define your own properties.

Property	Value
Name:	ABC
Send Duplicate From Store To DLQ:	0
Memory Limit:	751619277
Temp Usage Limit:	15255908352
Memory Usage Portion:	1
Producer Flow Control:	1
Always Retroactive:	0
Blocked Producer Warning Interval:	30000
Max Producers To Audit:	64
Max Audit Depth:	10000
Max Page Size:	200
Use Cache:	1
Prioritized Messages:	0
Options:	
Dlq:	

Figure 4.7.53-C ActiveMQ Topic Properties Window

Appendix A: References

A.1 meshIQ Documentation

The following documents relevant to meshIQ management applications can be found in the [Resource Center](#).

Table A-1. meshIQ Documentation	
Document Number (or higher)	Title
NAV/WGS 101.036	<i>Workgroup Server Expert</i>
NAV/COMP 101.018	<i>Components Installation Guide</i>
MS-UG 11.000	<i>meshIQ Secure User's Guide</i>
M6/MQ 10.002.1	<i>AutoPilot® M6 Plug-in for IBM MQ</i>
CS-INS11.000	<i>meshIQ Platform Core Services Installation Guide</i>
APM6/USR 625.003	<i>AutoPilot M6 User's Guide</i>

A.2 Tomcat

<http://jakarta.apache.org/tomcat/tomcat-4.1-doc/index.html>

A.3 Java™

<http://java.sun.com/products/JavaManagement/reference/docs/index.html>

<http://www.hp.com/products1/unix/java/infolibrary/index.html>

A.4 MS Windows

<http://www.microsoft.com/windows/default.mspx>

A.5 UNIX

<http://www.unix.org/>

A.6 Solaris

<http://www.sun.com/software/solaris/>

A.7 Linux

<http://www.linux.org/>

Appendix B: Objects

The following table is a list of objects and their descriptions.

Table B-1. Objects		
Icon	Name	Description
	Node	A computer in a workgroup server. An EMS node contains EMS queue managers.
	Manager	Queue (or EMS) managers maintain their queues and provide queuing services to applications.
Queues		An IBM MQ queue is an object in which applications can put and get messages from.
	Local	Transmission, initiation, dead-letter, command, default, channel, and event queues are types of local queues. A queue is known to a program as local if it is owned by the queue manager to which the program is connected. You can get messages from, and put messages on, local queues.
	Model	A model queue is a queue definition template used when creating dynamic queues.
	Alias	An alias queue is an IBM MQ object that you can use to access another queue or a topic. This means that more than one program can work with the same queue, accessing it using different names.
	Remote	To a program, a queue is remote if it is owned by a different queue manager to the one to which the program is connected.
	Cluster	A cluster queue is a queue that is hosted by a cluster queue manager and made available to other queue managers in the cluster.
	Channel	A channel is a communication link used by distributed queue managers. Channels are objects that provide a communication path from one queue manager to another.
	Process	Process definition object is an IBM MQ object that contains the definition of an MQ application. Process definition objects allow applications to be started without the need for operator intervention by defining the attributes of the application for use by the queue manager.
	Topic	A topic object is an IBM MQ object that allows you to assign specific, non-default attributes to topics. Topics can be subscribed to and can be linked with particular messages.
	Listener	Listeners are processes that accept network requests from other queue managers, or client applications, and start associated channels.
	Namelist	A namelist is an IBM MQ object that contains a list of cluster names, queue names or authentication information object names. In a cluster, it can be used to identify a list of clusters for which the queue manager holds the repositories.
	Service	Service objects are a way of defining programs to be run when a queue manager starts or stops.
	Auth info	An authentication information object provides the definitions required to perform certificate revocation checking. There are four types: CRL(LDAP), OCSP, IDPW(OS) and IDPW(LDAP)

Table B-1. Objects













Table B-1. Objects		
	Cluster QMgr	A cluster queue manager is a queue manager that is a member of a cluster.
	Subscription	An object which requests topic information.
	Channel auth rec	Channel authentication records allow for more precise control over user access to connecting systems at a channel level.
	Comm Info	Communication information
EMS Objects		
	EMS Queue	Encapsulates a provider-specific queue name.
	EMS Topic	Subjects containing a set of related messages.
	EMS Channel	Each EMS channel is a client of an EMS server, which acts as a store-and-forward intermediary for all messages through the channel.
	Route	The configuration and optionally statistical data about the routed server are represented by an object of this class.
	Transport	The data and behavior common to transports of all types that are configured on the EMS server is represented by this abstract class. Transports are mechanisms for importing and exporting messages between EMS and other messaging systems. TIBCO Rendezvous and Rendezvous Certified Messaging are currently the only two types of transports supported.
	Bridge	Consists of a source destination name and type and 1 or more BridgeTarget objects.
	Durable	Represents a durable subscription on the Tibjms server which may be active and receiving messages or it may be dormant, with its messages being stored on the server until it is active again.
	Server Properties	A TIBCO Enterprise Management Service (EMS) server provides messaging services for applications that communicate by monitoring queues. It ensures that sent messages are directed to the correct receive queue or that messages are routed to another queue manager.
	Users	Users are specific IDs that allow you to identify yourself to the server. When logging in, the connect request should be accompanied by a username and password.
	Groups	Groups are classes of users. A user can belong to multiple groups. The rights of a user are a combination of the rights of the groups the user belongs to, in addition to any rights granted to the user directly.
	Access Control Lists	This file defines all rights on topics and queues for all users and groups.
	Consumers	List of EMS Connections.
	Producer	An application sends messages to a topic.

Table B-1. Objects




	Connections	List of EMS Connections.
	JNDI Connection Factor	An object to encapsulate data used to define client connection
Kafka Objects		
	Broker	The Kafka server (identified by its cluster and integer number), known by its number "0"
	Cluster	A group of Kafka brokers sharing a configuration. The identity of a cluster is generated GUID.
	Topic	The container for Kafka messages. The identity of a topic is a user defined name. All brokers in a cluster treat the topic as a single entity.
	Partition	Where the data is stored, a topic will typically be spread across multiple partitions.
	Message	The data. The identity of a message is a Kafka topic, partition, and sequence number.
	Log	Refers to all of the messages collected for Kafka that are stored in a log. A unique aspect of Kafka is that the messages are not removed when they are read but are aged off the log based on time or size of log.
	Replicas	For recovery, Kafka may keep additional copies of the log in case of a media failure.
	Consumer	A single application reading a Kafka topic.
	Consumer Group	A collection of applications that share reading a Kafka topic.
	Stream	A conduit between Kafka and other products, such as MQ or a database.
	Connector	Connector object, associated with Apache Kafka Connect.
	Schema	Confluent Kafka. The Schema registry helps keep track of changes to schemas over time.
	Schema Subject	Confluent Kafka. Schema subjects name schemas according to a strategy.
	Schema Subject Version	Confluent Kafka. Versions keep track of the evolution of schemas.
	KSQL	Confluent Kafka. KSQL endpoints.

















Table B-1. Objects		
IIB Objects		
	Broker	A set of execution processes that hosts one or more message flows to route, transform, and enrich in flight messages.
	Servers	A named grouping of message flows that have been assigned to an integration node.
	Applications	A deployable container that provides isolation at runtime.
	Services	An application with a well-defined interface. It implements flows for each service operation.
	Rest APIs	An application that implements a RESTful interface. A REST API is defined by importing a Swagger 2.0 document.
	Library	A logical grouping of related code, data, or both. Each reference to this object is deployed with a copy of this object. Any change will not be visible after an update in referenced objects and redeploy is necessary.
	Shared Library	A logical grouping of related code, data, or both. Deployed directly to an integration server. Any change to the library will be seen in all other referenced objects.
	Message Flow	A sequence of processing steps that run in the integration node when an input message is received.
	Sub Flow	A common sequence of actions to be used by several message flows, applications, or integration services.
	Resource	The projects, folders, and files.
ACE Objects		
	Integration Node	A set of execution processes that hosts one or more message flows to route, transform, and enrich in-flight messages.
	Servers	Object used to provide an isolated runtime environment for a set of deployed message flows and resources.
	Applications	A deployable container that provides isolation at runtime.
	Services	An application with a well-defined interface. It implements flows for each service operation.
	Rest APIs	An application that implements a RESTful interface.
	Library	A logical grouping of related code, data, or both. Each reference to this object is deployed with a copy of this object. Any change will not be visible after an update in






Table B-1. Objects		
		referenced objects and redeploy is necessary.
	Shared Library	A logical grouping of related code, data, or both. Deployed directly to an integration server. Any change to the library will be seen in all other referenced objects.
	Message Flow	A message flow is a sequence of processing steps that run in the integration node when an input message is received.
	Sub Flow	A common sequence of actions to be used by several message flows, applications, or integration services.
	Resource	The projects, folders, and files.
	Link	Object describing a connection(reference) between two objects.
Solace Objects		
	Node	It represents the connection manager, through which multiple brokers can be added.
	Broker	An event broker transmits events between producers and consumers.
	Message VPN	Message VPNs are used for client connections. They create separate domains on a broker so that topics and messages are separated. They control which clients can see which messages by grouping clients: each group of clients sees only messages that are published to their group.
	Queue	A queue receives published messages, either directly, or through a topic to which it is subscribed.
	Queue Template	A queue template can facilitate the process of creating queues. Set up a queue template with the desired configuration, then applications can use that template when creating new queues.
	Topic Endpoint	Name of a unique topic endpoint in a Message VPN.
	Topic Endpoint Template	A Topic Endpoint Template facilitates the process of creating topic endpoints. The template is set up with attributes that are copied to new endpoints that are created dynamically through an API.
	Bridge	Message VPN bridges connect two Message VPNs, so that messages published to one are delivered to the other, based on the topic subscriptions that are assigned to the bridge. Message traffic can flow through bridges in one direction or in both directions.
	Client Profile	A client profile is a set of configuration properties for a client application. Client application configuration is streamlined through client profiles: changes to the client profile affect the applications that are assigned to that profile.

Table B-1. Objects

	ACL Profile	The ACL profile that is assigned to a client controls which event brokers it can connect to and which topics it can publish and subscribe to.
	Client UserName	Client usernames are the means through which clients are authorized to connect to a Message VPN. Client usernames must be assigned to a client.
	JNDI Connection Factory	Provides a means of configuring the connection between JMS clients and message brokers. The Connection Factory is looked up from the JNDI store on the broker.
	JNDI Queue	A queue object in the Solace JNDI store
	JNDI Topic	A topic object in the Solace JNDI store
	Client Certificate Authority	The Client Certificate CA (Certificate Authority) list is contained in the trust store. For incoming TLS connections, clients who present a valid client certificate can authenticate using Client Certificate CAs.
	Client	Application or device that connects to an event broker. Clients can send messages, receive messages, or do both.
	MQTT Session	Session resulting from an MQTT connection.
	RDP	A REST delivery point (RDP) on the Message VPN facilitates message delivery to REST consumers.
	Rest Consumer	A client or endpoint that receives messages through an RDP.
	Distributed Cache	A collection of one or more Cache Clusters on a Message VPN.
	Cache Cluster	Collection of Cache Instances that subscribe to the same topics.
	Cache Instance	A process that listens for and caches live data messages based on the topic subscriptions that are configured for its parent Cache Cluster.
	DMR Cluster	A DMR cluster on an event broker contains global DMR configuration parameters.
	CSPF Neighbor	An event broker that, based its topology, is considered the best node through which to forward a message to its destination event broker.

Appendix C: Object Menus

The Selected menu becomes available when an object is selected within a viewlet. The following table explains the menu options.



Your Selected menu options may differ according to your user permissions, which are managed by an admin.

Table C-1. Object Menu Options

Object	Option	Description
<u>Workgroup Server</u>	Delete workgroup server	Delete selected workgroup server. A window will appear confirming this action.
	Edit workgroup server	Edit the workgroup server settings. The <i>Edit workgroup server</i> dialog is similar to the add new workgroup server screen (see Figure 3.2.1-A).
	Default Connection	Sets the selected workgroup server as a primary connection for all users. This eliminates the requirement for users to select workgroup server connections upon logging in for the first time. Multiple workgroup server connections can be set as defaults. The Default Connection column within the Workgroup Servers viewlet displays the workgroup server connections that are set as a default. To remove a workgroup server as a default connection, simply select the Default Connection option to disable the default setting. Only users with the Add/Remove Default Connection right enabled in the security application will have this ability; all other users will not have the Default Connection option and cannot edit or remove these connections. However, they can create new (non-default) workgroup server connections.
	Create > Node	Create a node. See section 4.2.2.1.1, Create a Node .
	Remote Queue Managers	Create a remote queue manager. Includes edit and delete options (section 4.2.2.1.2).
	Remote EMS Managers	Create a remote EMS manager connection. Includes edit and delete options (section 4.2.2.1.3).
	Remote Kafka Managers	Create a remote Kafka manager connection. Includes edit and delete options (section 4.2.2.1.4).
	Remote ACE/IIB Managers	Create a remote ACE or IIB manager connection. Includes edit and delete options (section 4.2.2.1.5).

Table C-1. Object Menu Options

Object	Option	Description
	Remote Solace Managers	Create a remote Solace manager connection. Includes edit and delete options (section 4.2.2.1.6).
	Remote Rabbit MQ Managers	Create a remote Solace manager connection. Includes edit and delete options (section 4.2.2.1.7).
<u>Node</u>	Show Object Attributes	Displays the node's Attribute viewlet.
	Show Topology	See Topology .
	Events	Opens a Console tab displaying events which occurred within the selected node.
	Manage	Select the Manage option to activate an inactive node. Unselect this option to make a node inactive. When unselected, the Delete and Properties options become available in the node menu. Note: An active node may need to be reactivated by unselecting and reselecting the Manage option.
	Commands >	
	Start All WMQ Objects	Starts node's WMQ objects (section 4.3.2.2).
	Stop All WMQ Objects	Stops node's WMQ objects.
	Shutdown	Stops the node completely.
	Discover Now >	
	Incremental Full	See the next section, Manager, for more information on discovery modes.
Add to Favorites	Create a shortcut to the selected node in a Favorites viewlet. (Section 4.3.3.1.5)	
Delete	Displays in the menu when the node is not active (unmanaged). Deletes the selected node.	
Properties	This option is available in the menu when the node is inactive (unmanaged). Opens the Properties window where you can view and/or edit the node's configurations.	
<u>Manager</u> <u>(Queue or EMS)</u>	Show Object Attributes	Displays the MQ or EMS object manager's Attribute viewlet (section 4.3.3.1.1).
	EMS Scripts	Run EMS commands.
	Manage	Select either User Groups, Users or ACLs to manage these EMS aspects.

Table C-1. Object Menu Options

Object	Option	Description
	Show Topology	View a graphic representation of queue relationship (see Topology)
	Show Status	Opens a Status viewlet within the Console panel.
	Create Queue Manager	Create a new Queue Manager (see section 4.7.2)
	Commands > Start all WMQ objects	Allows you to start WMQ objects (section 4.3.3.1.2). Not available for EMS queue managers.
	Stop all WMQ objects	Allows you to select the shutdown method (section 4.3.3.1.2). Not available for EMS queue manager.
	Ping	Ping the selected queue manager (section 4.3.3.1.11 , Ping).
	Security	View or set authority for queue manager's objects (section 4.3.3.1.7). Can also browse authority records.
	View Error Log	View and export error log files (section 4.3.3.1.8).
	Connections (Modal), Connections (Console)	View, filter, stop, and refresh connections and connection handles (section 4.3.3.1.9).
	Cluster membership > Join	Joins the selected queue manager to a cluster. Includes cluster create option (sections 4.3.3.1.10.1 and 4.3.3.1.10.2).
	Refresh	Refreshes queue manager clusters and repositories (section 4.3.3.1.10.3).
	Suspend	Temporarily reduce the inbound cluster activity to this queue manager.
	Resume	Informs other queue managers in a cluster that the local queue manager is available again for processing and can be sent messages. It reverses the action of the Suspend command.
	Leave	Removes the selected queue manager from the queue manager cluster (section 4.3.3.1.10.4).
	Properties	Displays the Properties window (section 4.3.3.1.3)
	MQSC / EMS	Select Apply script, Console (Figure 4.3.3.1.6-A or Figure 4.3.3.2.2-A), Snapshot , or z/OS Reports .
	Discover Now (only available for MQ queue managers)	Incremental: the WGS maintains the last discovery time for each queue manager and sends this time with each discovery command. Incremental discovery logic will work only if initial discovery is completed and queue managers are fully discovered.

Table C-1. Object Menu Options

Object	Option	Description	
		Full: when the WGS starts up, it sends a query on every object to the agent. The Workgroup Server re-connects to each agent and sends an EXCMD_MQ_DISCOVER command. Since the agent thread or process for a given queue manager has just started, while servicing the discover command, the agent allows every inquire object reply from the IBM WMQ command server to be sent to the WGS.	
	Delete	Remove the queue manager.	
	Delete from Database	Allows you to delete the queue manager from the database. Please note that there is no confirmation dialog for this action.	
	Events	Displays the Events viewlet (section 4.3.3.1.4).	
	MQ Statistics	Displays a statistics viewlet generated by a SQL query (section 4.3.10).	
	Create Dashboard	Create a new dashboard for the queue manager using a default dashboard template (section 4.2.11).	
	Add to favorites	Allows you to create a shortcut for a MQ or EMS manager in a Favorites viewlet (section 4.3.3.1.5).	
Queue	Browse messages	Displays a list of messages. (Figure 4.3.4.3-A)	
	Show Object Attributes	Displays the object attributes. (Figure 4.3.3.1-A)	
	Show Queue Status / Show EMS Queue Status	Displays queue status. (Figure 4.3.4.1-A)	
	Create Queue / Create EMS Queue	Opens the window to create a queue. (Section 4.7.4)	
	Messages		Put New Message: Displays the Put New window (Figure 4.3.4.3.1-A) to create and put new message(s) into the selected queue.
			Load From File: If loading single or multiple messages from .mmf files, .txt files, or files created by the IBM dmpmqmsg utility (Figure 4.3.4.3.7.1-A), opens the <i>Command Settings</i> dialog to continue or configure settings. If loading messages from shared storage, opens the <i>Select Files</i> dialog.
			Export All Messages: Exports all messages as .mmf or .txt files, or to shared storage (Figure 4.3.4.3.8-A).
			Copy All: Displays the Copy messages window (Figure 4.3.4.3.5-A) where a user can define how and where messages should be copied. Message criteria can be selected to only copy messages which meet the criteria specifications.

Table C-1. Object Menu Options

Object	Option	Description
		<p>Move All: Displays the Move messages window (Figure 4.3.4.3.5-B) where a user can define how and where messages should be moved. Message criteria can be selected to only move messages which meet the criteria specifications.</p> <p>Delete All: Allows the user to delete all messages within the selected queue. The system reads then deletes one message at a time. This function does not recognize uncommitted messages, which means that there could still be uncommitted messages on the queue. Also, the command might fail if the queue is already exclusively opened by another application. Message criteria can be selected to only delete messages which meet the criteria specifications.</p> <p>Clear All: This option will clear an entire queue without reading the messages. Please note that this function will not work if the queue is open by another application or if the queue contains uncommitted messages.</p>
	<p>Commands > Copy As</p>	<p>Creates a new object based on the definition of the currently selected object. (Figure 4.3.4.4-A)</p>
	<p>Rename</p>	<p>This will allow rename the objects. Ref section Rename Objects</p>
	<p>Delete Queue</p>	<p>Allows users to delete the queue. (Figure 4.3.4.4-B)</p>
	<p>Force Update</p>	<p>Triggers the WGS to retrieve the most recent copy of the data (see section 4.3.4.4).</p>
	<p>Allow or Inhibit Get and Put Messages</p>	<p>Set a queue to allow or inhibit get and put message operations.</p>
	<p>Security</p>	<p>View and set authority for MQ Queue objects. (Section 4.3.3.1.7.)</p>
	<p>MQSC Snapshot</p>	<p>MQSC snapshot file will display the definition of the object. This can be saved in .txt file.</p>
	<p>Copy</p>	<p>Copy the selected object to a specified path (the yellow Paste button needs to be used, see section 4.8 Copy Objects).</p>
	<p>Properties</p>	<p>Displays the queue properties. (Figure 4.3.3.1.3-A)</p>
	<p>MQ Statistics</p>	<p>Displays a statistics viewlet generated by a SQL query (section 4.3.10).</p>
	<p>Events</p>	<p>Displays the Events viewlet (Figure 4.3.3.1.4-A)</p>
	<p>Add to favorites</p>	<p>Allows you to add the selected queue to a Favorites viewlet.</p>

Table C-1. Object Menu Options

Object	Option	Description
		(Figure 4.3.1.2-A)
Channel	Show Object Attributes	Displays the selected channel's Attribute viewlet (section 4.3.5.1).
	Show Channel Status	Displays the selected channel's Status viewlet (section 4.3.5.2).
	Commands	Gives the option to Start, Stop, Ping, Resolve ,Reset, Delete, Copy As or Rename. the selected channel (section 4.3.5.3) and to view or edit Security permissions (section 4.3.3.1.7). Security: View and set authority for MQ Channel objects. (Section 4.3.3.1.7 .)
	Properties	Displays the selected channel's Properties window (section 4.3.5.4).
	Create ChAuthRec	Create channel auth rec (section 4.7.10).
	Events	Displays the selected channel's Events viewlet (section 4.3.5.5).
	MQ Statistics	Displays a statistics viewlet generated by a SQL query (section 4.3.10).
	Add to favorites	Allows you to create a shortcut for the channel on a Favorites viewlet (section 4.3.5.6).
Process	Show Object Attributes	Displays the selected process' Attribute viewlet.
	Commands	Gives the option to Copy As, Rename, Delete, or manage Security for the selected process (section 4.3.3.1.7).
	MQSC Snapshot	MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Create Process	Create a new process (section 4.7.1).
	Properties	Opens the Properties window for the selected process.
	Copy	Select to copy a process (section 4.8).
	Events	Displays the selected processes Events viewlet.
	Add to favorites	Create a shortcut in a Favorites viewlet. (Section 4.3.3.1.5 .)
Topic	Show Object Attributes	Displays the selected topic's Attribute viewlet.
	Show Topic Status	Displays the status of the Topic
	Create Topic	Create a new topic (section 4.7.3)
	Commands > Copy As	Creates a new topic based on the definition of the currently selected topic. Specify the topic string (optional).

Table C-1. Object Menu Options

Object	Option	Description
	Delete	Deletes selected topic(s).
	Force Update	Triggers the WGS to retrieve the most recent copy of the data, see section 4.3.4.4 .
	Publish	Puts an IBM MQ message (containing information for the application) to a topic with a related subject.
	Security	Gives the option to view/edit Security permissions (section 4.3.3.1.7).
	MQSC Snapshot	MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Properties	Displays the selected topic's Properties window.
	Events	Displays the selected topic's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the listener in a Favorites viewlet.
Listener	Show Object Attributes	Displays the selected listener's Attribute viewlet.
	Create Listener	Create a new listener (section 4.7.5).
	Commands	Gives the option to Start, Stop, Copy As, Rename, Delete, Force Update or view/edit Security permissions (section 4.3.3.1.7).
	Properties	Displays the selected listener's Properties window.
	Copy	Select to copy the listener.
	Events	Displays the selected listener's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the listener in a Favorites viewlet.
Namelist	Show Object Attributes	Displays the selected namelist's Attribute viewlet.
	Commands	Gives the option to Copy As, Rename, Delete or View/edit Security permissions (section 4.3.3.1.7).
	MQSC Snapshot	MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Create Namelist	Create a new Namelist (section 4.7.22)
	Properties	Displays the selected Namelist's Properties window.
	Copy	Select to copy the Namelist
	Events	Displays the selected namelist's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the namelist in a Favorites

Table C-1. Object Menu Options

Object	Option	Description
		viewlet.
Service (IBM MQ)	Show Object Attributes	Displays the selected service's Attribute viewlet.
	Commands	Gives the option to Start, Stop, Copy As, Rename, Delete or view/edit Security permissions (section 4.3.3.1.7).
	MQSC	Run MQSC commands. Snapshot: MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Events	Displays the selected service's Events viewlet.
	Properties	Displays the Properties window.
	Add to favorites	Allows you to create a shortcut for the services in a Favorites viewlet.
Auth Info	Show Object Attributes	Displays the selected auth info's Attribute viewlet. There are four types: CRL(LDAP), OCSP, IDPW(OS) and IDPW(LDAP)
	Commands	View/edit Security permissions (section 4.3.3.1.7).
	Properties	Displays the Properties window.
	MQSC	Snapshot: MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Events	Displays the selected auth info's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the auth info in a Favorites viewlet.
Cluster OMgr	Show Object Attributes	Displays the selected cluster queue manager's Attribute viewlet.
	Events	Displays the selected cluster queue manager's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the cluster queue manager in a Favorites viewlet.
Subscription	Show Object Attributes	Displays the selected subscription's Attribute viewlet.
	Show Subscription Status	Displays the status of subscription object.
	Commands	Gives the option to Copy As, Rename or Delete.
	MQSC	Snapshot: MQSC snapshot file will display the definition of the object. This can be saved in .txt file.
	Create Subscription	Create a subscription (section 4.7.6).
	Properties	Displays the selected subscription's Properties dialog.

Table C-1. Object Menu Options

Object	Option	Description
	Events	Displays the selected subscription's Events viewlet.
	Add to favorites	Allows you to create a shortcut for the subscription in a Favorites viewlet.
<u>Route</u>	Show Routes Attributes	Displays the selected route's Attribute viewlet.
	Show Routes Status	Displays the selected route's Status viewlet.
	Commands >	
	Delete	Delete the selected route.
	Properties	Displays the selected route's Properties window.
	Events	Displays the selected route's Events viewlet.
	Add to Favorites	Allows you to create a shortcut for the route in a Favorites viewlet.
Transport	Show Transport Attributes	Displays the selected transport's Attribute viewlet.
	Properties	Displays the selected transport's Properties window.
	Events	Displays the selected transport's Events viewlet.
	Add to Favorites	Allows you to create a shortcut for the transport in a Favorites viewlet.
<u>Bridge</u>	Show Bridge Attributes	Displays the selected bridge's Attribute viewlet.
	Commands >	
	Delete	Delete selected bridge.
	Properties	Displays the selected bridge's Properties window.
	Events	Displays the selected bridge's Events viewlet.
	Add to Favorites	Allows you to create a shortcut for the bridge in a Favorites viewlet.
<u>Consumer</u>	Add to Favorites	Allows you to create a shortcut to consumers in a Favorites viewlet.
<u>Connection</u>	Command >	
	Destroy	Deletes the connection.
	Add to Favorites	Allows you to create a shortcut to connections in a Favorites viewlet.
<u>Durable</u>	Show Durable Attributes	Displays the selected durable's Attribute viewlet.
	Commands >	Delete selected durable object.

Table C-1. Object Menu Options

Object	Option	Description
	Delete	
	Purge	Purge messages in selected durable(s).
	Properties	Displays the selected durable's Properties window.
	Events	Displays the selected durable's Events viewlet.
	Add to Favorites	Allows you to create a shortcut to durables in a Favorites viewlet.
<u>Channel auth rec</u>		
	Add to Favorites	Allows you to create a shortcut for a channel auth rec in a Favorites viewlet.
	Commands >	
	Delete	Delete selected channel auth rec object.
	Properties	Displays the selected channel auth rec's Properties window.
	Create ChAuthRec	Create channel auth rec (section 4.7.10).
Events	Displays the selected channel auth rec's events viewlet.	
Comm Info	Show Object Attributes	Displays the selected comm info's object attributes. Also allows you to compare multiple comm info attributes.
	Properties...	Displays the selected comm info's Properties window which includes general information and alteration date and time statistics.
	Copy As...	Make a copy of the selected comm info.
	Delete	Delete the comm info.
	Add to favorites...	Allows you to create a shortcut for comm info in a Favorites viewlet.
Broker (IIB)	Show Object Attributes	Displays the selected broker's object attributes. Also allows you to compare multiple broker attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Admin Logs	View the administrative logs.
	Add to favorites	Allows you to create a shortcut to the broker in a Favorites viewlet.
Server (IIB)	Show Object Attributes	Displays the selected server's attributes. Also allows you to compare multiple server attributes.

Table C-1. Object Menu Options

Object	Option	Description
	Start	Start the selected server.
	Start All Application Types	Start the selected server's application types.
	Start All Message Flows	Start the selected server's message flows.
	Stop	Stop the selected server.
	Stop All Application Types	Stop the selected server's application types.
	Stop All Message Flows	Stop the selected server's message flows.
	Delete All Content	Delete all of the selected server's content.
	Delete	Delete the selected server.
	Deploy	Deploys objects by bar file into the server.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Statistics On	Turn the server's statistics on.
	Statistics Off	Turn the server's statistics off.
	Resource Statistics On	Turn resource statistics on.
	Resource Statistics Off	Turn resource statistics off.
Add to favorites...	Allows you to create a shortcut to the server in a Favorites viewlet.	
Application (IIB)	Show Object Attributes	Displays the selected application's attributes. Also allows you to compare multiple application attributes.
	Start	Start the selected application.
	Stop	Stop the selected application.
	Delete	Delete the selected application.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Statistics On	Turn statistics on.
	Statistics Off	Turn statistics off.
	Start Flow Monitoring	Enable flow monitoring.
	Stop Flow Monitoring	Disable flow monitoring.
	Add to favorites...	Allows you to create a shortcut to the application in a Favorites viewlet.
Service (IIB)	Show Object Attributes	Displays the selected service's attributes. Also allows you

Table C-1. Object Menu Options

Object	Option	Description
		to compare multiple service attributes.
	Start	Start the selected service.
	Stop	Stop the selected service.
	Delete	Delete the selected service.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Statistics On	Turn statistics on.
	Statistics Off	Turn statistics off.
	Start Flow Monitoring	Enable flow monitoring.
	Stop Flow Monitoring	Disable flow monitoring.
	Add to favorites...	Allows you to create a shortcut to the service in a Favorites viewlet.
REST API (IIB)	Show Object Attributes	Displays the selected REST API's attributes. Also allows you to compare multiple REST API attributes.
	Start	Start the selected REST API.
	Stop	Stop the selected REST API.
	Delete	Delete the selected REST API.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Statistics On	Turn statistics on.
	Statistics Off	Turn statistics off.
	Start Flow Monitoring	Enable flow monitoring.
	Stop Flow Monitoring	Disable flow monitoring.
	Add to favorites...	Allows you to create a shortcut to the REST API in a Favorites viewlet.
Library (IIB)	Show Object Attributes	Displays the selected library's attributes. Also allows you to compare multiple library attributes.
	Delete	Delete the selected library.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the library in a Favorites viewlet.

Table C-1. Object Menu Options

Object	Option	Description
Shared Library (IIB)	Show Object Attributes	Displays the selected shared library's attributes. Also allows you to compare multiple share library attributes.
	Delete	Delete the selected shared library.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the shared library in a Favorites viewlet.
Message Flow (IIB)	Show Object Attributes	Displays the selected message flow's attributes. Also allows you to compare multiple message flow attributes.
	Start	Start the message flow.
	Stop	Stop the message flow.
	Force Stop	Force the message flow to stop.
	Activity Logs	Displays the message flow activity log.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Stop Recording	Stop recording message flow.
	Statistics On	Turn statistics on.
	Statistics Off	Turn statistics off.
	Start Flow Monitoring	Start flow monitoring for the selected message flow.
	Stop Flow Monitoring	Stop flow monitoring for the selected message flow.
	Add to favorites...	Allows you to create a shortcut to the message flow in a Favorites viewlet.
Sub Flow (IIB)	Show Object Attributes	Displays the selected sub flow's attributes. Also allows you to compare multiple sub flow attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the sub flow in a Favorites viewlet.
Resource (IIB)	Show Object Attributes	Displays the selected resource's attributes. Also allows you to compare multiple resource attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the resource in a

Table C-1. Object Menu Options

Object	Option	Description
		Favorites viewlet.
Integration Node (ACE)	Show Object Attributes	Displays the selected integration node's attributes. Also allows you to compare multiple integration node attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Admin Logs	View the administrative logs.
	Add to favorites...	Allows you to create a shortcut to the integration node in a Favorites viewlet.
Integration Server (ACE)	Show Object Attributes	Displays the selected server's attributes. Also allows you to compare multiple servers' attributes.
	Start	Start Integration Server
	Stop	Stop Integration Server
	Shutdown	Shutowns the Integration Server
	Delete	Deletes the Integration Server
	Delete All Content	Deletes all deployed objects in the Integration Server
	Deploy	Deploys content by bar file to Server
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Start Service Trace	Starts server's service trace
	Rest Service Trace	Resets server's service trace
	Stop Service Trace	Stops server's service trace
	Start User Trace	Starts server's user trace
	Reset User Trace	Resets server's user trace
	Stop User Trace	Stops server's user trace
	Flow Statistic On	Enables flow statistics
	Flow Statistic Off	Disables flow statistics
	Resource Statistics On	Enables resource statistics
	Resource Statistics Off	Disables resource statistics
	Admin Logs	View the administrative logs
	Start Flow Monitoring	Enables flow monitoring

Table C-1. Object Menu Options

Object	Option	Description
	Stop Flow Monitoring	Disables flow monitoring
	Add To Favorites	Allows you to create a shortcut to the Integration Server in a Favorites viewlet.
Application (ACE)	Show Object Attributes	Displays the selected application's attributes. Also allows you to compare multiple application attributes.
	Start	Start the application.
	Stop	Stop the application.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Delete	Delete the application.
	Set Up	Configure the application.
	Teardown	Tears down the application.
	Validate	Validates the application.
	Add to favorites...	Allows you to create a shortcut to the application in a Favorites viewlet.
Service (ACE)	Show Object Attributes	Displays the selected service's attributes. Also allows you to compare multiple service attributes.
	Start	Start the service.
	Stop	Stop the service.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Delete	Delete the service.
	Set Up	Configure the service.
	Teardown	Tears down the service.
	Validate	Validates the service.
	Add to favorites...	Allows you to create a shortcut to the service in a Favorites viewlet.
REST API (ACE)	Show Object Attributes	Displays the selected REST API's attributes. Also allows you to compare multiple REST API attributes.
	Start	Start the REST API.
	Stop	Stop the REST API.
	Force Update	Forcibly retrieves the object's value (required if needed to

Table C-1. Object Menu Options

Object	Option	Description
		quickly refresh data)
	Delete	Delete the REST API.
	Set Up	Configure the REST API.
	Teardown	Tears down the REST API.
	Validate	Validates the REST API.
	Add to favorites...	Allows you to create a shortcut to the REST API in a Favorites viewlet.
Library (ACE)	Show Object Attributes	Displays the selected library's attributes. Also allows you to compare multiple library attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the library in a Favorites viewlet.
Shared Library (ACE)	Show Object Attributes	Displays the selected shared library's attributes. Also allows you to compare multiple shared library attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Delete	Delete the shared library.
	Add to favorites...	Allows you to create a shortcut to the shared library in a Favorites viewlet.
Message Flow (ACE)	Show Object Attributes	Displays the selected message flow's attributes. Also allows you to compare multiple message flow attributes.
	Start	Start the message flow.
	Stop	Stop the message flow.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Activity Logs	View the message flow's activity log.
	Set Up	Configure the message flow.
	Teardown	Tears down the message flow.
	Validate	Validates the message flow.
	Add to favorites...	Allows you to create a shortcut to the message flow in a Favorites viewlet.
Sub Flow (ACE)	Show Object Attributes	Displays the selected sub flow's attributes. Also allows you

Table C-1. Object Menu Options

Object	Option	Description
		to compare multiple sub flow attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the sub flow in a Favorites viewlet.
Resource (ACE)	Show Object Attributes	Displays the selected resource's attributes. Also allows you to compare multiple resource attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the resource in a Favorites viewlet.
Link (ACE)	Show Object Attributes	Displays the selected link's attributes. Also allows you to compare multiple link attributes.
	Force Update	Forcibly retrieves the object's value (required if needed to quickly refresh data)
	Add to favorites...	Allows you to create a shortcut to the link in a Favorites viewlet.
Broker (Solace)	Show Object Attributes	Display object's attributes
	Statistics	Display object's statistics
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Events	Make inquiries about and display events
	Add to favorites	Add object to favorite viewlet
Message VPNs	Show Object Attributes	Display object's attributes
	Properties	Edit object
	Status > Start	Start object
	Status > Stop	Stop object
	Status > Start DMR	Start dynamic message routing
	Status > Stop DMR	Stop dynamic message routing
	Commands >Delete	Delete object
	Commands > Clear Statistics	Clear object's statistics
	Commands > Clear	Clear object's guaranteed statistics

Table C-1. Object Menu Options

Object	Option	Description
	Guaranteed Statistics	
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Queue	Show Object Attributes	Display object's attributes
	Properties	Edit object
	Commands > Delete	Delete object
	Commands > Clear Statistics	Clear object's statistics
	Commands > Start Replay	Start replay
	Commands > Cancel Replay	Cancel replay
	Change Status > Turn Outgoing On	Turn object's outgoing messages on
	Change Status > Turn Outgoing Off	Turn object's outgoing messages off
	Change Status > Turn Incoming On	Turn object's incoming messages on
	Change Status > Turn Incoming Off	Turn object's incoming messages off
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Queue Template	Show Object Attributes	Display object's attributes
	Commands → Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Topic Endpoint	Show Object Attributes	Display object's attributes
	Properties	Edit object
	Commands > Delete	Delete object
	Commands > Clear Statistics	Clear object's statistics

Table C-1. Object Menu Options

Object	Option	Description
	Commands > Start Replay	Start object replay
	Commands > Cancel Replay	Cancel object replay
	Change Status > Turn Outgoing On	Turn object's outgoing messages on
	Change Status > Turn Outgoing Off	Turn object's outgoing messages off
	Change Status > Turn Incoming On	Turn object's incoming messages on
	Change Status > Turn Incoming Off	Turn object's incoming messages off
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Add To Favorites	Add object to favorite viewlet
Topic Endpoint Template	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Bridge	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Commands > Clear Statistics	Clear object's statistics
	Commands > Clear Event	Clear specified Event
	Commands > Disconnect	Disconnect bridge
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
Client Profile	Show Object Attributes	Display object's attributes

Table C-1. Object Menu Options

Object	Option	Description
	Commands > Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
ACL Profile	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Browse Exceptions	Browse subobjects: Exceptions
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Client Username	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
JNDI Connection Factory	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
JNDI Queue	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
JNDI Topic	Show Object Attributes	Display object's attributes

Table C-1. Object Menu Options

Object	Option	Description
	Commands > Delete	Delete object
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Client Certificate Authority	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	OCSP Trusted Names	Browse subobjects: OCSP trusted names
	Refresh CRL	Refresh Certificate Revocation List
	Properties	Edit object
	Force Update	Forcibly update object's properties
	Add to favorites	Add object to favorite viewlet
Client	Show Object Attributes	Display object's attributes
	Commands > Clear Statistics	Clear object's statistics
	Commands > Clear Event	Clear specified Event
	Commands > Disconnect	Disconnect object
	Browse Sub-Objects	Browse subobjects
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
MQTT Session	Show Object Attributes	Display object's attributes
	Commands > Clear Statistics	Clear object's statistics
	Commands > Delete	Delete object
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Browse Subscriptions	Browse subobjects: Subscriptions
	Statistics	Display object's statistics
	Force Update	Forcibly update object's properties
	Properties	Edit object

Table C-1. Object Menu Options

Object	Option	Description
	Add to favorites	Add object to favorite viewlet
RDP	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Browse Queue Bindings	Browse subobjects: Queue Bindings
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
Rest Consumer	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Browse Queue Bindings	Browse subobjects: Queue Bindings
	Browse TLS Names	Browse subobjects: TLS names
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
Distributed Cache	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Commands > Clear Event	Clear specified Event
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorite	Add object to favorite viewlet
Cache Cluster	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Commands > Clear Event	Clear specified Event

Table C-1. Object Menu Options

Object	Option	Description
	Commands > Start	Start object
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Browse Topic	Browse subobjects: Topics
	Browse Home Cache Cluster	Browse subobjects: Home Cache Clusters
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
Cache Instance	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Commands > Clear Event	Clear specified Event
	Commands > Start	Start object
	Commands > Clear Statistics	Clear object's statistics
	Statistics	Display object's statistics
	Change Status > Enable	Enable object
	Change Status > Disable	Disable object
	Browse Remote Topic	Browse subobjects: Remote Topics
	Browse Home Cache Cluster	Browse subobjects: Home Cache Cluster
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
DMR Cluster	Show Object Attributes	Display object's attributes
	Commands > Delete	Delete object
	Browse Links	Browse Subobjects: Links
	Browse Topology Issues	Browse Subobjects: Topology Issues
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet
CSPF Neighbor	Show Object Attributes	Display object's attributes

Table C-1. Object Menu Options

Object	Option	Description
	Commands > Delete	Delete object
	Browse TLS Name	Browse Subobjects: TLS Names
	Browse XML Connections	Browse Subobjects: XML Connection
	Force Update	Forcibly update object's properties
	Properties	Edit object
	Add to favorites	Add object to favorite viewlet

Appendix D: MQ Statistics Table Attributes

The following is a listing of all available MQ statistic attributes. These fields are used when generating MQ statistics viewlets (see section [4.3.10](#)).

Table D1. STATQUEUE		
MANAGER_NAME	NONPERS_TIME_ON_Q_AVG	PERS_GET_BYTES
MQNODE_NAME	PERS_TIME_ON_Q_AVG	NONPERS_BROWSE_COUNT
MQMGR_NAME	NONPERS_PUT_COUNT	PERS_BROWSE_COUNT
STAT_TIME_STAMP	PERS_PUT_COUNT	BROWSE_FAIL_COUNT
INTERVAL_START_DATE_TIME	PUT_FAIL_COUNT	NONPERS_BROWSE_BYTES
INTERVAL_END_DATE_TIME	NONPERS_PUT1_COUNT	PERS_BROWSE_BYTES
COMMAND_LEVEL	PERS_PUT1_COUNT	EXPIRED_MSG_COUNT
QUEUE_NAME	PUT1_FAIL_COUNT	NOT_QUEUED_MSG_COUNT
QUEUE_TYPE	NONPERS_PUT_BYTES	PURGED_MSG_COUNT
Q_DEFINITION_TYPE	PERS_PUT_BYTES	CB_CRT_ALT_COUNT
CREATION_DATE	NONPERS_GET_COUNT	CB_REMOVE_COUNT
CREATION_TIME	PERS_GET_COUNT	CB_RESUME_COUNT
MIN_DEPTH	GET_FAIL_COUNT	CB_SUSPEND_COUNT
MAX_DEPTH	NONPERS_GET_BYTES	CB_FAIL_COUNT

Table D2. STATMQI		
MANAGER_NAME	CFSTRUCT_INQ_COUNT	TOPIC_INQ_COUNT
MQNODE_NAME	LSR_INQ_COUNT	TOPIC_INQ_FAIL_COUNT
MQMGR_NAME	SRVC_INQ_COUNT	TOPIC_SET_COUNT
STAT_TIME_STAMP	QUEUE_INQ_FAIL_COUNT	TOPIC_SET_FAIL_COUNT
INTERVAL_START_DATE_TIME	NLIST_INQ_FAIL_COUNT	SUB_DUR_CREATE_COUNT
INTERVAL_END_DATE_TIME	PROC_INQ_FAIL_COUNT	SUB_DUR_ALTER_COUNT
COMMAND_LEVEL	STGCLS_INQ_FAIL_COUNT	SUB_DUR_RESUME_COUNT
CONNECT_COUNT	QMGR_INQ_FAIL_COUNT	SUB_NDUR_CREATE_COUNT
CONNECT_FAIL_COUNT	CHL_INQ_FAIL_COUNT	SUB_NDUR_ALTER_COUNT
MAX_CONNECTIONS	AUTHINFO_INQ_FAIL_COUNT	SUB_NDUR_RESUME_COUNT

Table D2. STATMQI		
NORMAL_DISC_COUNT	CFSTRUCT_INQ_FAIL_COUNT	SUB_FAIL_COUNT
IMPLICIT_DISC_COUNT	LSR_INQ_FAIL_COUNT	UNSUB_DUR_CL_NOT_REM_COU
QMGR_DISC_COUNT	SRVC_INQ_FAIL_COUNT	UNSUB_DUR_CL_REM_COUNT
QUEUE_OPEN_COUNT	QUEUE_SET_COUNT	UNSUB_NDUR_CL_NOT_REM_CO
NLIST_OPEN_COUNT	NLIST_SET_COUNT	UNSUB_NDUR_CL_REM_COUNT
PROC_OPEN_COUNT	PROC_SET_COUNT	UNSUB_FAIL_COUNT
STGCLS_OPEN_COUNT	STGCLS_SET_COUNT	SUB_RQ_COUNT
QMGR_OPEN_COUNT	QMGR_SET_COUNT	SUB_RQ_FAIL_COUNT
CHL_OPEN_COUNT	CHL_SET_COUNT	CB_CRT_ALT_COUNT
AUTHINFO_OPEN_COUNT	AUTHINFO_SET_COUNT	CB_REMOVE_COUNT
CFSTRUCT_OPEN_COUNT	CFSTRUCT_SET_COUNT	CB_RESUME_COUNT
LSR_OPEN_COUNT	LSR_SET_COUNT	CB_SUSPEND_COUNT
SRVC_OPEN_COUNT	SRVC_SET_COUNT	CB_FAIL_COUNT
QUEUE_OPEN_FAIL_COUNT	QUEUE_SET_FAIL_COUNT	CTL_START_COUNT
NLIST_OPEN_FAIL_COUNT	NLIST_SET_FAIL_COUNT	CTL_STOP_COUNT
PROC_OPEN_FAIL_COUNT	PROC_SET_FAIL_COUNT	CTL_RESUME_COUNT
STGCLS_OPEN_FAIL_COUNT	STGCLS_SET_FAIL_COUNT	CTL_SUSPEND_COUNT
QMGR_OPEN_FAIL_COUNT	QMGR_SET_FAIL_COUNT	CTL_FAIL_COUNT
CHL_OPEN_FAIL_COUNT	CHL_SET_FAIL_COUNT	MQSTAT_COUNT
AUTHINFO_OPEN_FAIL_COUNT	AUTHINFO_SET_FAIL_COUNT	MQSTAT_FAIL_COUNT
CFSTRUCT_OPEN_FAIL_COUNT	CFSTRUCT_SET_FAIL_COUNT	SUB_HW_ALL_DUR_COUNT
LSR_OPEN_FAIL_COUNT	LSR_SET_FAIL_COUNT	SUB_HW_APP_DUR_COUNT
SRVC_OPEN_FAIL_COUNT	SRVC_SET_FAIL_COUNT	SUB_HW_ADMIN_DUR_COUNT
QUEUE_CLOSE_COUNT	NONPERS_PUT_COUNT	SUB_HW_PROXY_DUR_COUNT
NLIST_CLOSE_COUNT	PERS_PUT_COUNT	SUB_LW_ALL_DUR_COUNT
PROC_CLOSE_COUNT	PUT_FAIL_COUNT	SUB_LW_APP_DUR_COUNT
STGCLS_CLOSE_COUNT	NONPERS_PUT1_COUNT	SUB_LW_ADMIN_DUR_COUNT
QMGR_CLOSE_COUNT	PERS_PUT1_COUNT	SUB_LW_PROXY_DUR_COUNT
CHL_CLOSE_COUNT	PUT1_FAIL_COUNT	SUB_HW_ALL_NDUR_COUNT
AUTHINFO_CLOSE_COUNT	NONPERS_PUT_BYTES	SUB_HW_APP_NDUR_COUNT

Table D2. STATMQI		
CFSTRUCT_CLOSE_COUNT	PERS_PUT_BYTES	SUB_HW_ADMIN_NDUR_COUNT
LSR_CLOSE_COUNT	NONPERS_GET_COUNT	SUB_HW_PROXY_NDUR_COUNT
SRVC_CLOSE_COUNT	PERS_GET_COUNT	SUB_LW_ALL_NDUR_COUNT
QUEUE_CLOSE_FAIL_COUNT	GET_FAIL_COUNT	SUB_LW_APP_NDUR_COUNT
NLIST_CLOSE_FAIL_COUNT	NONPERS_GET_BYTES	SUB_LW_ADMIN_NDUR_COUNT
PROC_CLOSE_FAIL_COUNT	PERS_GET_BYTES	SUB_LW_PROXY_NDUR_COUNT
STGCLS_CLOSE_FAIL_COUNT	NONPERS_BROWSE_COUNT	TOPIC_PUT_PER_COUNT
QMGR_CLOSE_FAIL_COUNT	PERS_BROWSE_COUNT	TOPIC_PUT_NPER_COUNT
CHL_CLOSE_FAIL_COUNT	BROWSE_FAIL_COUNT	TOPIC_PUT_FAIL_COUNT
AUTHINFO_CLOSE_FAIL_COUNT	NONPERS_BROWSE_BYTES	TOPIC_PUT1_PER_COUNT
CFSTRUCT_CLOSE_FAIL_COUNT	PERS_BROWSE_BYTES	TOPIC_PUT1_NPER_COUNT
LSR_CLOSE_FAIL_COUNT	COMMIT_COUNT	TOPIC_PUT1_FAIL_COUNT
SRVC_CLOSE_FAIL_COUNT	COMMIT_FAIL_COUNT	TOPIC_PUT_PER_BYTES
QUEUE_INQ_COUNT	BACKOUT_COUNT	TOPIC_PUT_NPER_BYTES
NLIST_INQ_COUNT	EXPIRED_MSG_COUNT	PUB_MSG_PER_COUNT
PROC_INQ_COUNT	PURGED_MSG_COUNT	PUB_MSG_NPER_COUNT
STGCLS_INQ_COUNT	TOPIC_OPEN_COUNT	PUB_MSG_BYTES_PER_COUNT
QMGR_INQ_COUNT	TOPIC_OPEN_FAIL_COUNT	PUB_MSG_BYTES_NPER_COUNT
CHL_INQ_COUNT	TOPIC_CLOSE_COUNT	
AUTHINFO_INQ_COUNT	TOPIC_CLOSE_FAIL_COUNT	

Table D3. STATCHL		
MANAGER_NAME	CHANNEL_TYPE	EXIT_TIME_MIN
MQNODE_NAME	REMOTE_QMGR_NAME	EXIT_TIME_AVG
MQMGR_NAME	CONNECTION_NAME	EXIT_TIME_MAX
STAT_TIME_STAMP	CHL_MSG_COUNT	FULL_BATCH_COUNT
INTERVAL_START_DATE_TIME	CHL_MSG_BYTES	INCOMPLETE_BATCH_COUNT
INTERVAL_END_DATE_TIME	NET_TIME_MIN	BATCH_SIZE_AVG
COMMAND_LEVEL	NET_TIME_AVG	PUT_RETRY_COUNT
CHANNEL_NAME	NET_TIME_MAX	

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