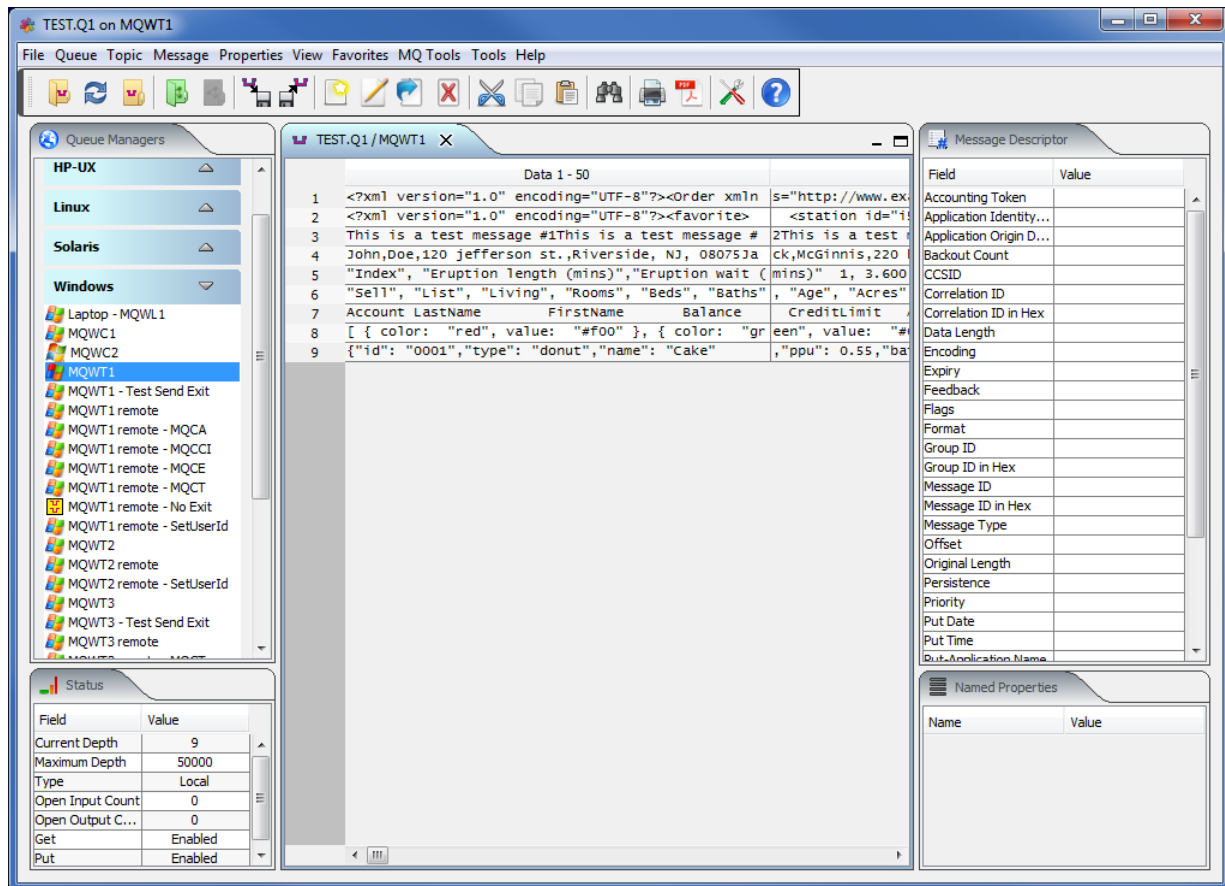


MQ Visual Edit User's Guide



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1 Introduction

1.1 Overview

MQ Visual Edit (MQVE) application allows users to view, manipulate and manage messages in a queue and/or a topic of an IBM MQ (formally WebSphere MQ & MQSeries) queue manager and presents the data in a simplified format similar to a database utility or spreadsheet program.

MQ Visual Edit is a great tool for application programmers, JMS developers, quality assurance testers, and production support personnel. The tool allows for quick problem solving because the data is presented in a very logical and insightful manner.

MQ Visual Edit is designed to run on a desktop platform. This includes: Linux x86 64-bit, macOS (Mac OS X), Windows 7/8/8.1/10 and Raspberry Pi (ARM). MQ Visual Edit is able to connect to local queue managers (residing on the same box) or to any remote queue manager.

The remote queue managers can be on any platform that supports distributed queuing including: AIX, HP-UX, HPE NonStop, Linux, IBM i (OS/400), Oracle Solaris, Raspberry Pi (ARM), Tandem, Windows 2008/2012/2016 Server, Windows 7/8/8.1/10 and z/OS (OS/390).

MQ Visual Edit has full language support for the following 55 languages: Amharic, Arabic, Azerbaijani, Bengali, Cebuano, Chinese (Mandarin China), Chinese (Mandarin Taiwan), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Gujarati, Hausa, Hebrew, Hindi, Hungarian, Igbo, Indonesian, Italian, Japanese, Javanese, Kannada, Korean, Malay, Malayalam, Marathi, Norwegian, Panjabi, Pashto, Persian, Polish, Portuguese, Romanian, Russian, Shona, Sindhi, Spanish, Sundanese, Swahili, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Urdu, Uzbek, Vietnamese, Xhosa, Yoruba and Zulu.

MQ Visual Edit supports both forms of MQ security:

- SSL/TLS for connecting to remote queue managers.
- 3rd party security exit for connecting to remote queue managers.

1.2 Prerequisites

This section provides the minimum supported software levels.

1.2.1 Operating System

MQ Visual Edit is capable of running on the following operating system platforms:

- Windows 7/8/8.1/10
- Linux x86 64-bit (Desktop)
- macOS (Mac OS X) 10.8 or higher (client mode only)
- Raspberry Pi (ARM)

2 Installing MQ Visual Edit

This chapter will describe the installation and registration of MQ Visual Edit.

2.1 Installation

2.1.1 Windows Installation

To install MQ Visual Edit on Windows, do the following instructions:

- Run the install program called: **mqve3-setup-withjre.exe**
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under *Start -> All Programs* called **MQ Visual Edit**.
- To run MQ Visual Edit, select the MQ Visual Edit icon from within the MQ Visual Edit folder.

2.1.2 Linux Installation

To install MQ Visual Edit on Linux x86 64-bit, do the following instructions:

- First, the user needs to set the 'execute' permission for the installer program:

```
chmod +x mqve3-setup-linux.bin
```

- Next, run the installer with the following command:

```
./mqve3-setup-linux.bin
```

- The installer will prompt the user for the installation directory. The default value will be 'Capitalware/MQVE3/'.

- To run MQ Visual Edit, go to the installation directory and issue the following command:

```
./mqve
```

2.1.3 macOS Installation

To install MQ Visual Edit on macOS, do the following:

- Double click the *MQ_Visual_Edit_V3.dmg* file to open it
- Follow the instructions on the opened DMG window and drag the MQ Visual Edit icon to the Applications folder.
- Close the DMG window and then eject the DMG
- To run MQ Visual Edit, go to the Application folder and double click on *MQ Visual Edit*

2.1.4 Raspberry Pi Installation

To install MQ Visual Edit on Raspberry Pi, do the following:

1. ftp or copy the selected mqve-RaspberryPi.tar.zip file to the target platform
2. Unzip the mqve-RaspberryPi.tar.zip to an appropriate directory with the following commands:

```
unzip mqve-RaspberryPi.tar.zip  
tar -xvf mqve-RaspberryPi.tar
```

3. Change directory to *Capitalware/MQVE/*
4. To run MQ Visual Edit, go to the installation directory and issue the following command:

```
./mqve
```

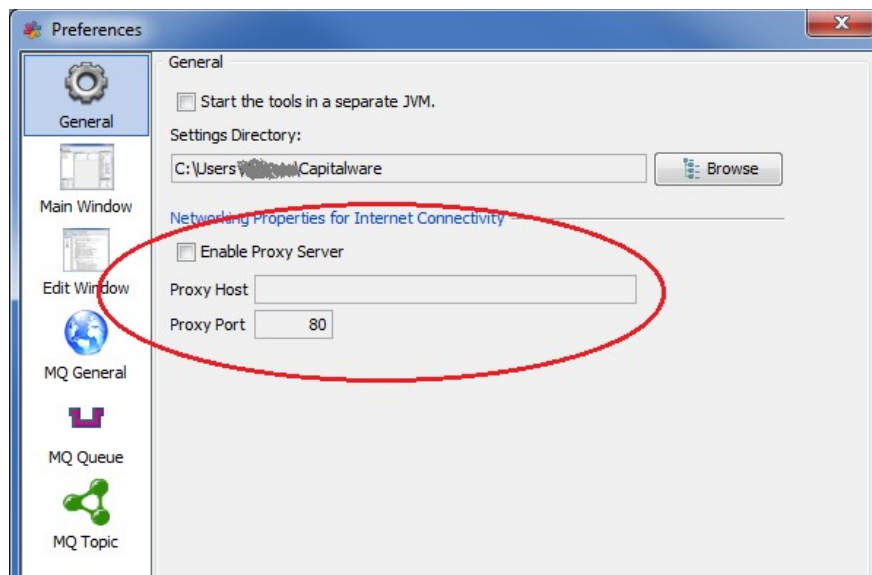
2.2 Registration

This section will describe how to obtain a license and then register your copy of MQ Visual Edit. To purchase a copy of MQ Visual Edit (obtain a license), go to Capitalware's web site (www.capitalware.com) and select MQ Visual Edit, then click the **Buy Now** button.

A license is for a single end-user. Once the user has received their license key, they will need to input the license key in the Registration window and then retrieve an Access Code. **Note: A license key can ONLY be registered once.** When the user clicks the **Submit** button MQ Visual Edit will attempt to register the user's license key by contacting the 'capitalware.com' server.

Note: Do not register MQ Visual Edit under Administrator account or any other SysAdmin account. It must be the end-user who completes the registration process under their own account.

If your company uses a Proxy Server then the user will need to input this information, so that MQ Visual Edit can access the internet. Select **File** then **Preferences**:



Click **Enable Proxy Server** checkbox then input your company's Proxy Server and Proxy Port and click **OK** to save the information.

To input the license key, from the main menu of MQ Visual Edit, select **File** then **Register**:

Do the following:

- Input the user's name and email address
- Next, click the **Yes** button to input your license key

- Finally, click the **Submit** button to get your Access Code.

Note: A license key can **ONLY** be registered once.

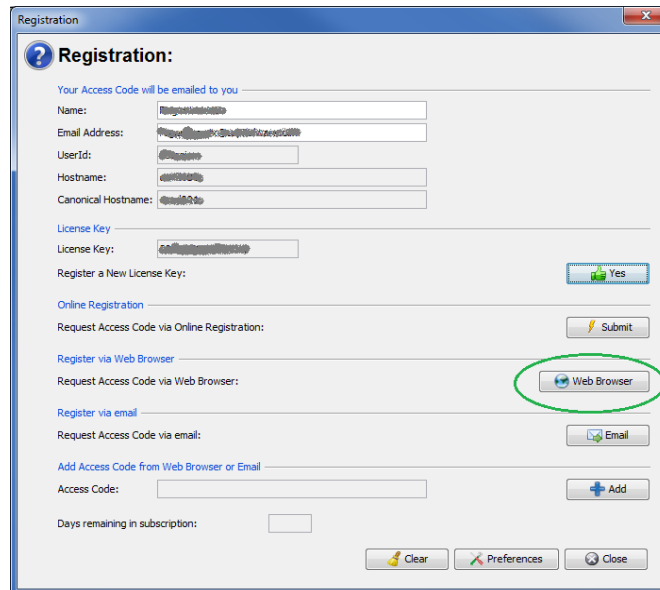
2.3 Connectivity Issues

This section will describe how to handle registering MQ Visual Edit when the user has connectivity issues.

2.3.1 Registering using a Web Browser

Before attempting to register via a web browser, please attempt the instructions in section 2.2 (clicking the **Submit** button). If you followed the instructions in section 2.2 including setting the Proxy values and the registration failed then the end-user can attempt to register via a web browser

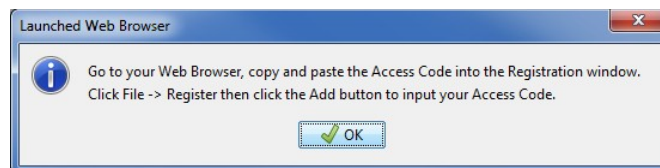
Click the **Web Browser** button to launch the default web browser on your PC/laptop.



The image shows a 'Registration' dialog box with the following fields and buttons:

- Name:** [Redacted]
- Email Address:** [Redacted]
- UserId:** [Redacted]
- Hostname:** [Redacted]
- Canonical Hostname:** [Redacted]
- License Key:** [Redacted]
- Register a New License Key:** [Yes]
- Online Registration:** [Submit]
- Register via Web Browser:** [Web Browser] (circled in green)
- Register via email:** [Email]
- Add Access Code from Web Browser or Email:** [Access Code: [Redacted]] [Add]
- Days remaining in subscription:** []
- Buttons at the bottom: [Clear] [Preferences] [Close]

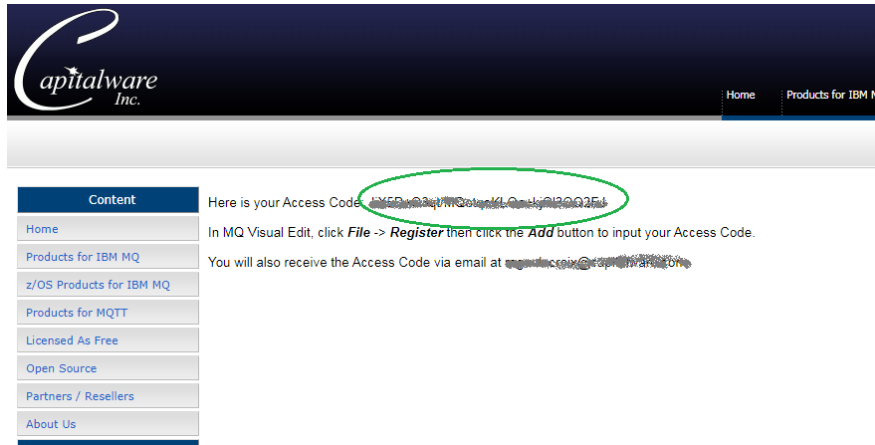
MQ Visual Edit will launch the default web browser on your PC/laptop and then display the following popup.



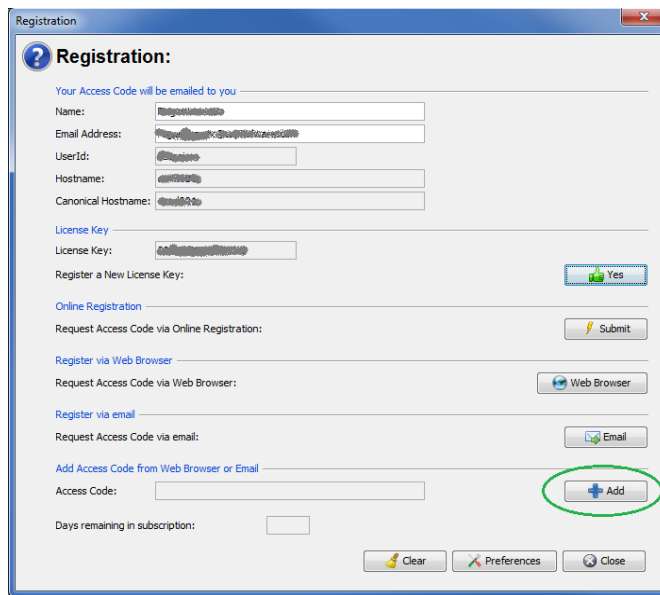
The image shows a 'Launched Web Browser' dialog box with the following text and button:

- Information icon (i)
- Text: "Go to your Web Browser, copy and paste the Access Code into the Registration window. Click File -> Register then click the Add button to input your Access Code."
- Button: [OK]

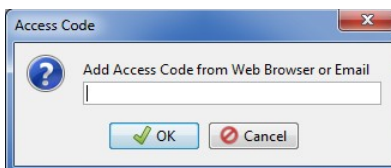
Your web browser will connect to Capitalware's online registration server and submit the end-user's information for registering the product. When the registration process is complete, the web browser will display your Access Code. An email will also be sent to the email address that the end-user provided.



Next, click **Add** button



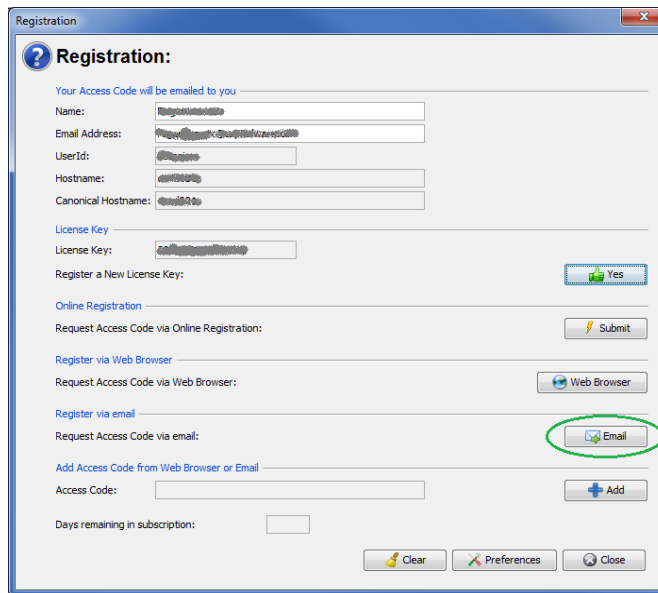
Copy and paste the Access Code from the web browser (or email) and then click **OK** button



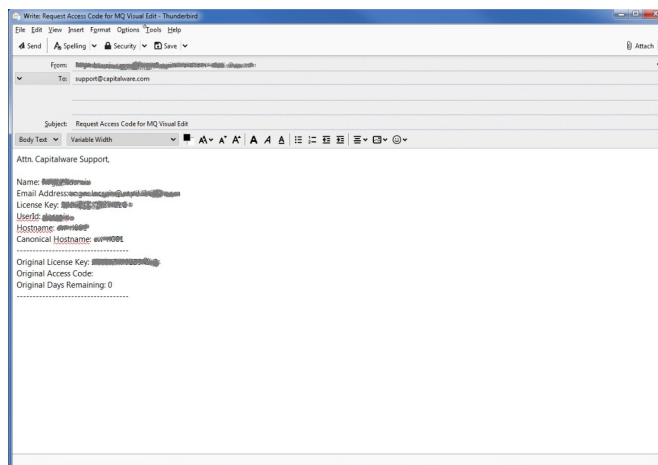
2.3.2 Registering by Email

Before attempting to register via an email, please attempt the instructions in section 2.2 (clicking the **Submit** button) and the instructions in section 2.3.1. If you followed the instructions in section 2.2 including setting the Proxy values and the registration failed then the end-user can attempt to register via a web browser

If MQ Visual Edit cannot make a connection to Capitalware's web server (with or without a Proxy Server) or the default web browser cannot make a connection, then the user can email the information to 'support@capitalware.com'. Click the **OK** button to retrieve the information:



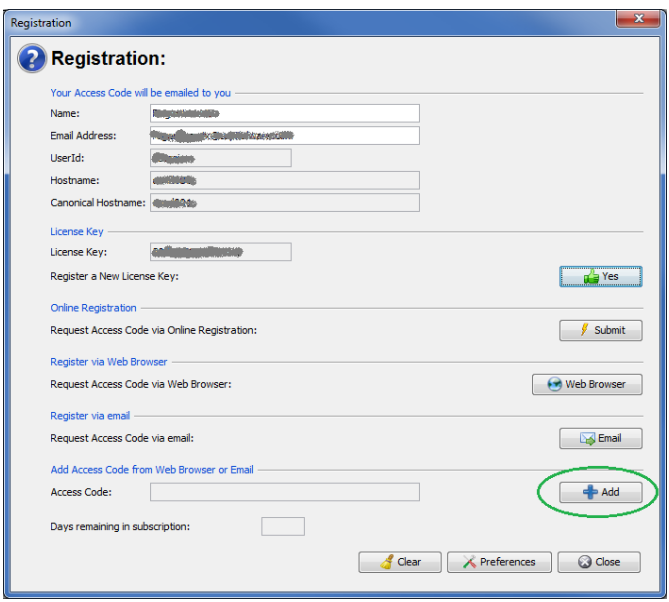
MQ Visual Edit will launch the default email client program on your PC/laptop and create the following email which is to be sent to 'support@capitalware.com'.



You will receive the Access Code via email. Simply click the **Add** button and input the Access Code.

When you receive the reply email from Capitalware Support, do the following:

Click **Add** button



Copy and paste the Access Code from the reply email and then click **OK** button.

2.4 A New or Replacement PC or Laptop

This section will describe how to handle inputting your information into MQ Visual Edit for a new/replacement PC/laptop after you have previously registered your MQ Visual Edit license key.

It is very common for users to get a new PC/laptop or have Windows re-installed on their PC/laptop. The first thing the user needs to do is find the email called '*MQ Visual Edit Access Code*' from '*support@capitalware.com*' that they received when they originally registered MQ Visual Edit. It will contain their Access Code.

- First, the user needs install MQ Visual Edit (follow the installation instructions in section 2.1).
- Optional step, the user will want to copy the following 2 files to their new PC/laptop that are located in `C:\Users\{UserId}\Capitalware\` directory:
 - QMgrInfo.db
 - UserFormats.db (if it exists)
- Finally, the user will need to input their information, License Key and Access Code into MQ Visual Edit
 - Click **File** -> **Register** and input your name and email address
 - Click the **Yes** button and input the License key
 - Click **Add** button and input your Access Code from the email the user previously received

The screenshot shows the 'Registration' dialog box with the following fields and buttons:

- Name:** [Text Field]
- Email Address:** [Text Field]
- UserId:** [Text Field]
- Hostname:** [Text Field]
- Canonical Hostname:** [Text Field]
- License Key:** [Text Field]
- Register a New License Key:** [Yes Button]
- Online Registration:** [Submit Button]
- Register via Web Browser:** [Web Browser Button]
- Register via email:** [Email Button]
- Add Access Code from Web Browser or Email:** [Access Code Field] [Add Button]
- Days remaining in subscription:** [Text Field]
- Clear** [Button]
- Preferences** [Button]
- Close** [Button]

2.5 Yearly Registration Process

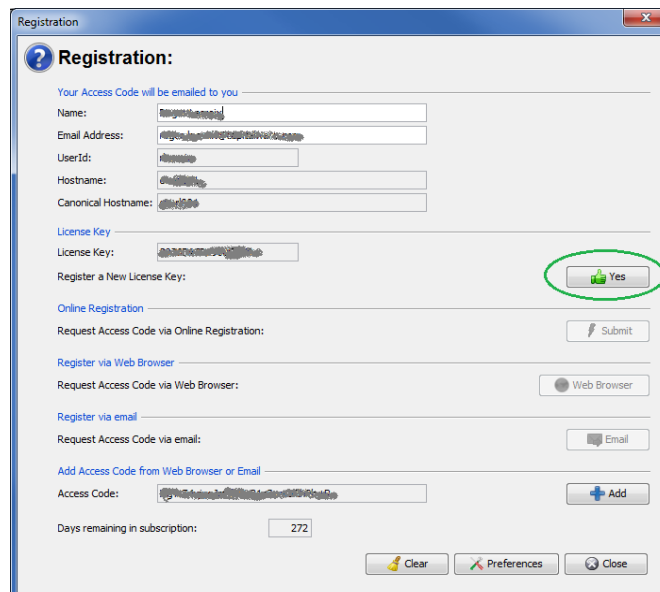
MQ Visual Edit license is for a 1-year subscription. When the 1-year subscription ends, the license key becomes invalid (garbage). Hence, to continue to use MQ Visual Edit, the end-user will need to purchase another license for a 1-year subscription to MQ Visual Edit. This section will describe how to register a *new license* key during or after an existing 1-year subscription to MQ Visual Edit.

If the end-user is using a previous release of MQ Visual Edit, Capitalware strongly suggests that the end-user upgrades to the latest release of MQ Visual Edit. The order email includes the download link (with UserId and Password) to the latest commercial release of MQ Visual Edit. Simply follow the upgrade instructions in Appendix B.

To input the license key, from the main menu of MQ Visual Edit, select **File** then **Register**.

Do the following:

- Click the **Yes** button to input your license key



- Input the new license key and then click the **OK** button



- Next, click the **Submit** button to get your Access Code.

Registration

Registration:

Your Access Code will be emailed to you

Name:

Email Address:

UserId:

Hostname:

Canonical Hostname:

License Key

License Key:

Register a New License Key:

Online Registration

Request Access Code via Online Registration:

Register via Web Browser

Request Access Code via Web Browser:

Register via email

Request Access Code via email:

Add Access Code from Web Browser or Email

Access Code:

Days remaining in subscription: 272

Note: A license key can ONLY be registered once.

2.6 Enterprise License File

This section will describe how to handle the storing of an Enterprise License file.

Note: This section is only applicable to those customers who have purchased an Enterprise License for MQ Visual Edit.

Upon the purchase or renewal of an Enterprise License for MQ Visual Edit, the customer will be emailed both the Enterprise License key and the Enterprise License file. Enterprise License file is called '*mqve.license.properties*'. Do not rename the Enterprise License file or modify its contents.

MQ Visual Edit is supported on Windows, macOS and Linux. The Enterprise License file is designed to be deployed to any and all of those platforms.

MQ Visual Edit will look for the Enterprise License file in 1 of 3 directories:

1. The user's settings directory '{home directory}\Capitalware\':
 - On Windows: *C:\Users\{UserId}\Capitalware*
 - On macOS: */Users/{UserId}/Capitalware/*
 - On Linux: */home/{UserId}/Capitalware/*
2. The user's '{home directory}\':
 - On Windows: *C:\Users\{UserId}*
 - On macOS: */Users/{UserId}/*
 - On Linux: */home/{UserId}/*
3. The MQ Visual Edit install directory:
 - On Windows: *C:\Capitalware\MQVE3*
 - On macOS: not applicable
 - On Linux: */apps/Capitalware/MQVE3/*

Capitalware recommends putting the Enterprise License file in the user's settings directory (option #1).

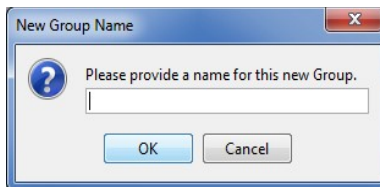
3 Managing Groups

This chapter will describe how to add, rename and delete a Group.

3.1 Adding a Group

This section will describe how to add a Group to MQ Visual Edit. A Group will hold 1 or more Queue Manager Access Profiles. The Group name can be any name the user wishes.

From the main menu of MQ Visual Edit, select **File** then **Add Group...**:

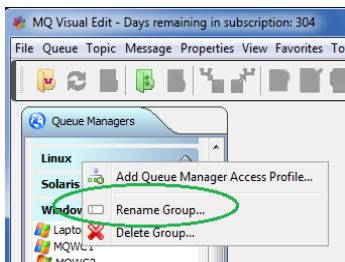


After the user inputs a name, click the **OK** button to create the new group.

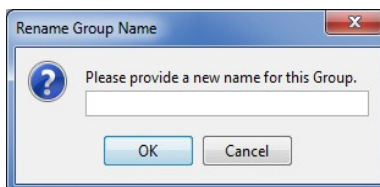
3.2 Renaming a Group

This section will describe how to rename a Group in MQ Visual Edit.

In the Queue Managers' dock, right click on the group name to be renamed, then select **Rename Group...**:



Input a new group name then click the **OK** button:

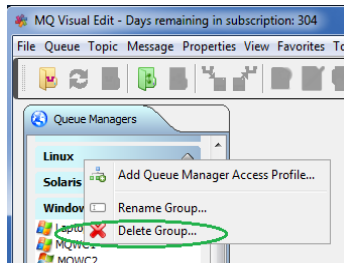


3.3 Deleting a Group

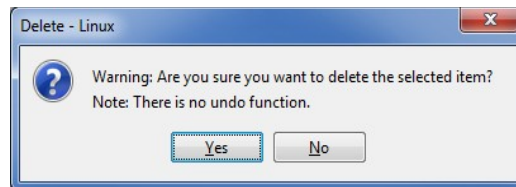
This section will describe how to delete a Group from MQ Visual Edit.

Note: If the user deletes a group containing Queue Manager Access Profiles then when the group is deleted, those Queue Manager Access Profiles will be moved to the default group called '[default]'. MQ Visual Edit will not delete the Queue Manager Access Profiles.

In the Queue Managers' dock, right click on the group name to be renamed, then select **Delete Group...**:



Click the **Yes** button to confirm the deletion of the group.



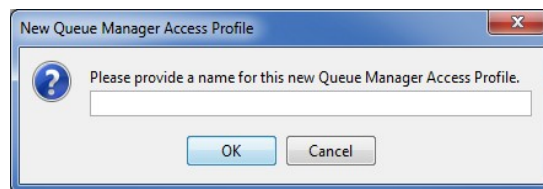
4 Managing Queue Managers

This chapter will describe how to create, update, test and delete a Queue Manager Access Profile.

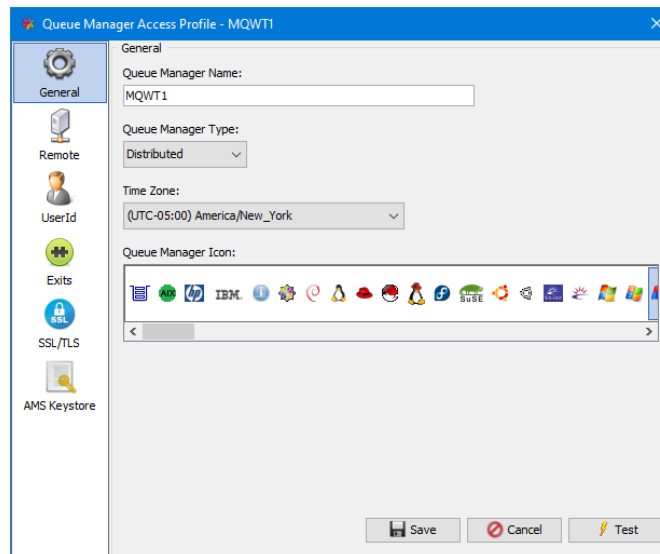
4.1 Adding a Queue Manager Access Profile

This section will describe how to add a Queue Manager Access Profile so that you can connect to a local or remote queue manager.

From the main menu of MQ Visual Edit, select **File** then **Add Queue Manager Access Profile** or the user can right click on a group name in the Queue Manager dock and select **Add Queue Manager Access Profile**:



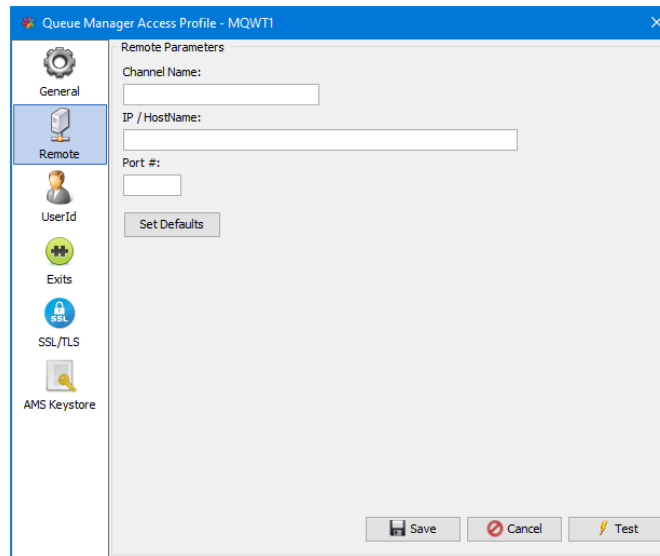
You will be prompted to provide a name for the new Queue Manager Access Profile. It is suggested that you provide a meaningful name that describes the queue manager and its location. Note: Do not use semi-colons ";" in the name.



If the queue manager is **local** to where you are running MQ Visual Edit then all you need to specify is the queue manager.

Note: If the queue manager is located in a timezone different from the end-user's PC/laptop, then the end-user can set the timezone to the actual queue manager timezone and then the MQ Visual Edit will display the date and time of messages in the queue manager's timezone (rather than the end-user's timezone).

If the queue manager is **remote** to where you are running MQ Visual Edit then the user will also need to fill in the fields on the Remote panel. i.e. Channel Name, IP / Hostname and port number.



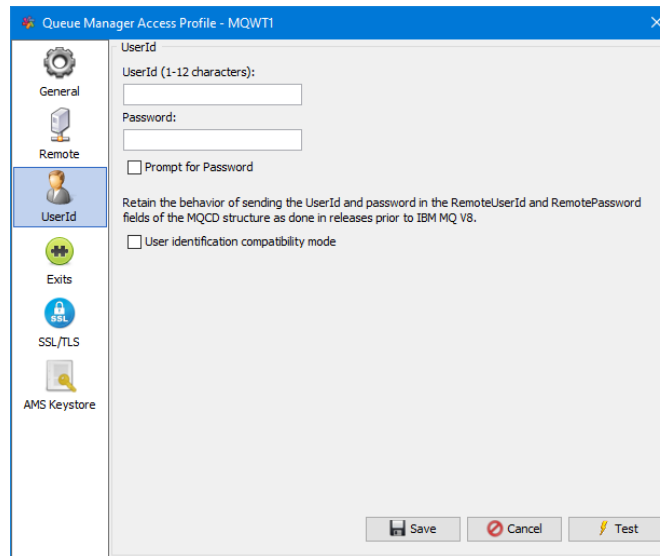
If the remote queue manager is configured for IBM MQ MI (Multi-Instance) or IBM MQ HA (High Availability) then the following rules must be followed for a successful connection:

- The first hostname or IP address **MUST** have the port number explicitly set.
- The second hostname or IP address must **NOT** have the port number explicitly set.
- The port value **MUST** be set to the correct value for the 2nd hostname or IP address.

If your queue manager is configured to fail over between 2 servers called: serv01 and serv02 and the queue manager's listener is listening on port number 5555 then this is how to set the IP/Hostname and Port # fields:

IP/Hostname: serv01(5555),serv02
Port #: 5555

Specifying a UserId and/or Password. We strongly suggest that all connection made to a remote queue manager specify both a UserId and Password.



Note: A blank or unset UserId means that MQ Visual Edit will connect to a Queue Manager and use whatever authority the MCA has. At some companies, this type of access is not allowed. Therefore, type in your valid UserId (and Password where authentication is required) for the Queue Manager that you are connecting to.

For queue managers that perform authentication, the user may wish to be prompted for the password rather than have MQ Visual Edit save it. Click the 'Prompt for Password' checkbox to have MQ Visual Edit prompt the user for their password for the remote system.

The *User identification compatibility mode* checkbox allows the user to send the UserId and Password as done in releases prior to IBM MQ V8.

Optional:

For those companies that use exits, security, send and/or receive, the user will need to fill in the Class Name, Exit Data and Jar File Location.

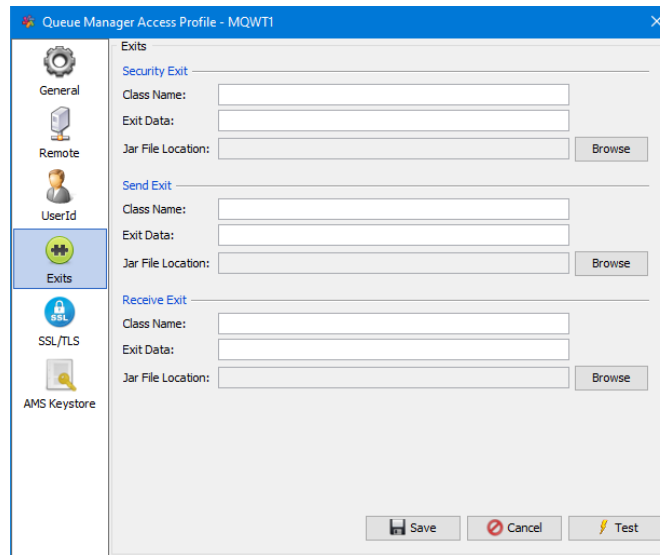
For example, if you are using Capitalware's MQAUSX solution then the fields would be set as follows:

Class Name:

- biz.capitalware.mqausx.MQAUSXJ

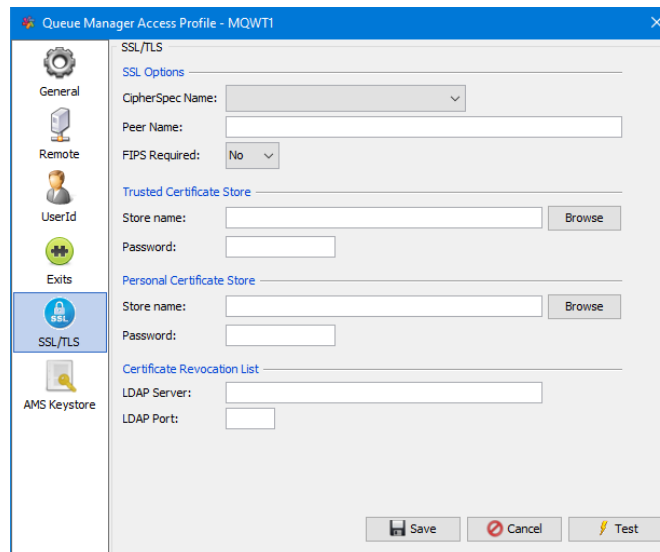
Jar File Location:

- C:\Capitalware\MQAUSX\MQAUSX.jar



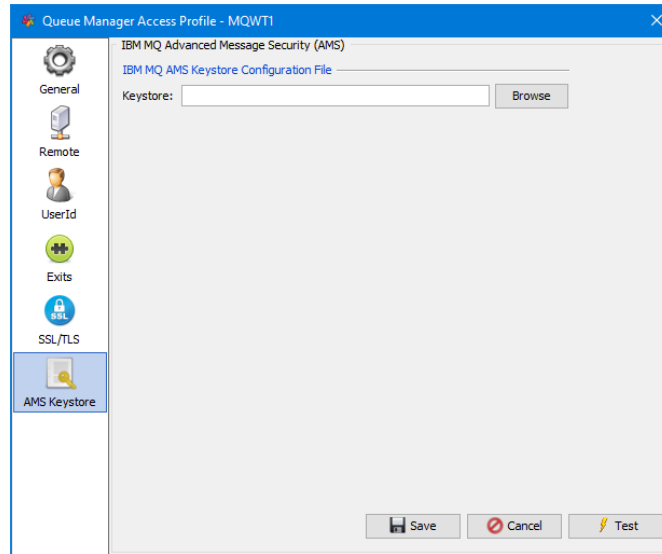
Optional:

For those companies that use SSL/TLS to allow MQ client applications to connect to their queue managers, the user will need to fill in the SSL/TLS fields.



Optional:

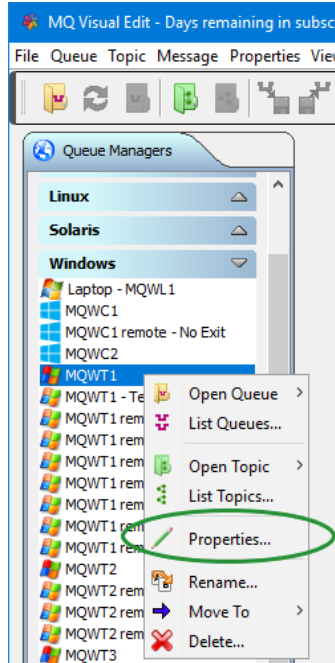
For those companies that use IBM MQ Advanced Message Security (AMS), the end-user will need to tell MQ Visual Edit where the *keystore.conf* file (with the JKS keywords and values) is located. Use the Browse button to locate the keystore.conf on the end-user's PC/laptop.



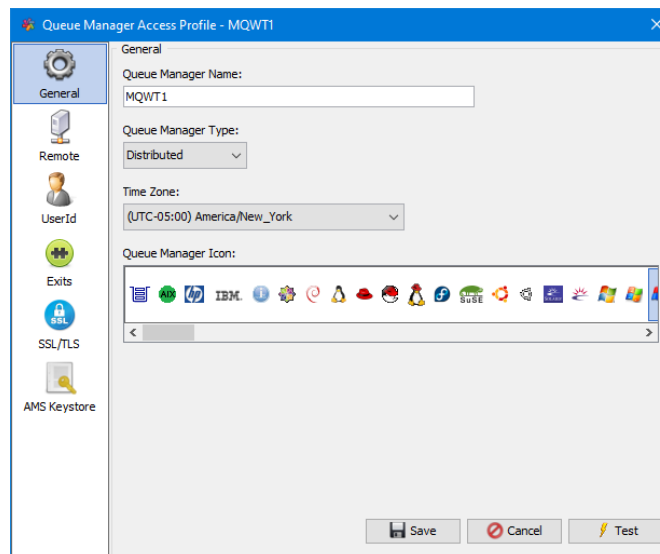
4.2 Editing a Queue Manager Access Profile

This section will describe how to edit a Queue Manager Access Profile so that you can connect to a local or remote queue manager.

Right click on the queue manager in the 'Queue Manager' dock and select **Properties**:



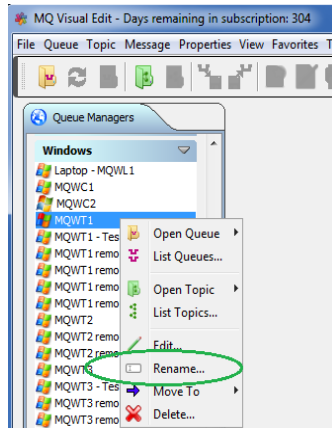
The Queue Manager Access Profile will be presented where the user can modify/update the fields and when done click the **OK** button to save the information.



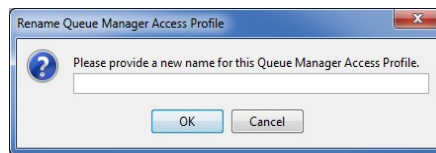
4.3 Renaming a Queue Manager Access Profile

This section will describe how to rename a Queue Manager Access Profile.

Right click on the queue manager in the 'Queue Manager' dock and select **Rename**:



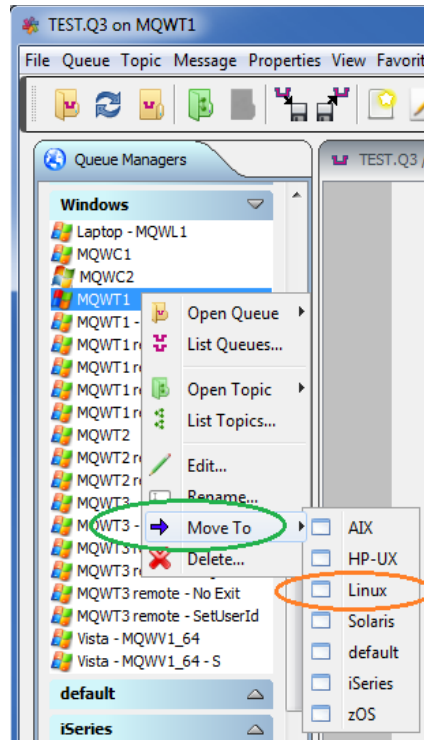
Input a new name for the Queue Manager Access Profile then click the **OK** button.



4.4 Move a Queue Manager Access Profile to Another Group

This section will describe how to move a Queue Manager Access Profile to another group.

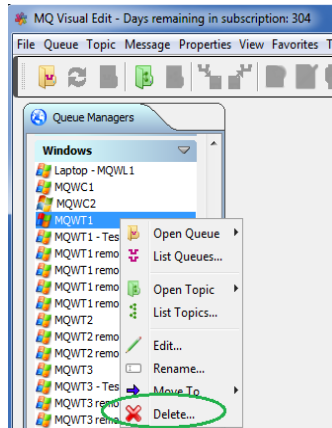
Right click on the queue manager in the 'Queue Manager' dock and select **Move To**. A list of available groups will be displayed and the user simply selects the appropriate group.



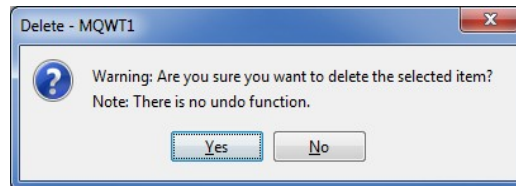
4.5 Deleting a Queue Manager Access Profile

This section will describe how to delete a Queue Manager Access Profile.

Right click on the queue manager in the 'Queue Manager' dock and select **Delete**:



Click the **Yes** button to confirm the deletion of the Queue Manager Access Profile.



4.6 Import Queue Manager Information

This section will describe how to import queue manager information from other products.

Note: During the import process, MQ Visual Edit will NOT display an importing queue manager on the Import Queue Managers window if it already exists in the MQ Visual Edit.

4.6.1 Import from MQ Explorer

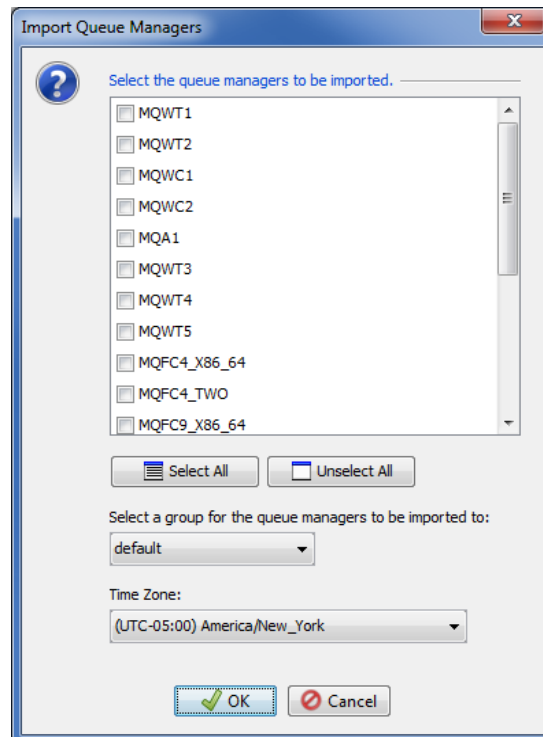
This section will describe how to import queue manager information from MQ Explorer. The end-user will need to first export their queue manager information from MQ Explorer. Do the following in MQ Explorer:

- Click **File** - > **Export** menu item
- Select **MQ Explorer Setting** then click the **Next** button
- Make sure the **Connection Information** checkbox is select (the other checkboxes are optional)
- Click the **Browse** button, select an export directory and specify a file name i.e. mqexplorer.xml
- Click the **Finish** button

Now that the MQ Explorer queue manager information has been exported, we can import it into MQ Visual Edit. Do the following:

- Click **File** - > **Import Queue Manager Settings** - > **MQ Explorer** menu item
- Go to the directory where you saved the MQ Explorer XML file and then select the XML file

MQ Visual Edit will display a list of queue managers from the MQ Explorer XML file that can be selected:



Simply select the queue managers you want to be imported, select the **Group** to be imported in to and select a **Time Zone** then click the **OK** button to finish the import.

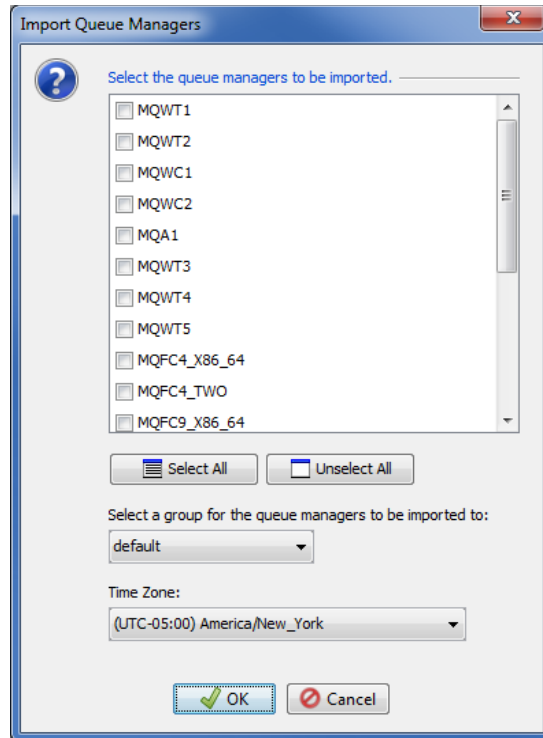
4.6.2 Import from MO71

This section will describe how to import queue manager information from MO71. The queue manager information for MO71 is generally stored in the install directory of MO71.

Do the following:

- Click **File - > Import Queue Manager Settings - > MO71** menu item
- Go to the MO71 install directory and then select the **MQMON.CFG** file

MQ Visual Edit will display a list of queue managers from the MO71 MQMON.CFG file that can be selected:



Simply select the queue managers you want to be imported, select the **Group** to be imported in to and select a **Time Zone** then click the **OK** button to finish the import.

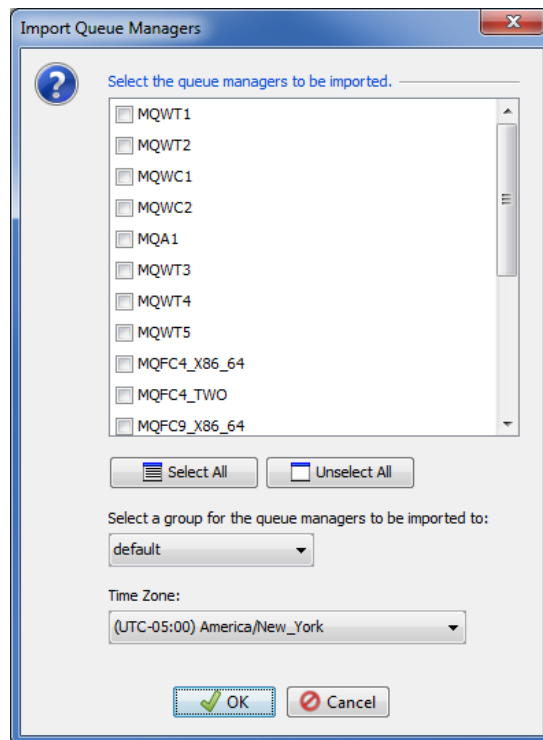
4.6.3 Import from MQ Visual Edit V1 or V2

This section will describe how to import queue manager information from MQ Visual Edit V1 or V2. The queue manager information for MQ Visual Edit V1 or V2 is stored in the end-user's home directory.

Do the following:

- Click **File** -> **Import Queue Manager Settings** -> **MQ Visual Edit V1 or V2** menu item
- Go to the directory where the **CommProfileDB.properties** file is located and select it

MQ Visual Edit will display a list of queue managers from the **CommProfileDB.properties** file that can be selected:



Simply select the queue managers you want to be imported, select the **Group** to be imported in to and select a **Time Zone** then click the **OK** button to finish the import.

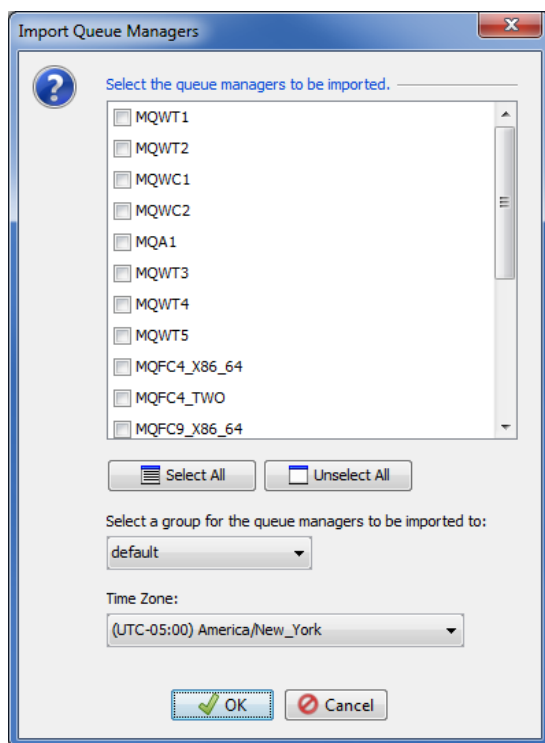
4.6.4 Import from a CCDT File

This section will describe how to import queue manager information from a CCDT file.

Do the following:

- Click **File** -> **Import Queue Manager Settings** -> **CCDT File** menu item
- Go to the directory where the CCDT file is located and select it

MQ Visual Edit will display a list of queue managers from the CCDT file that can be selected:



Simply select the queue managers you want to be imported, select the **Group** to be imported in to and select a **Time Zone** then click the **OK** button to finish the import.

4.6.5 Import Local Queue Managers

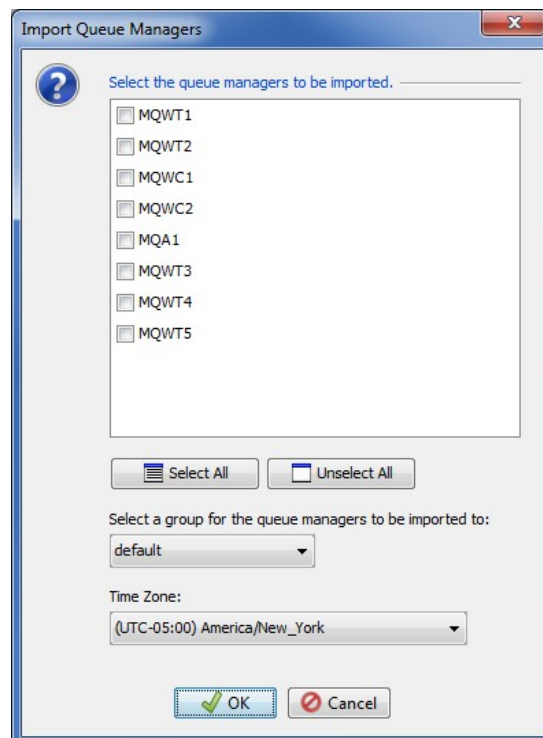
This section will describe how to import queue manager information from local queue managers (if the end-user has MQ server installed).

Note: On the initial install and usage of MQ Visual Edit, it will collect local queue managers and display the *Import Queue Managers* window with the local queue managers (if any exist).

Do the following:

- Click *File -> Import Queue Manager Settings -> Local Queue Managers* menu item

MQ Visual Edit will display a list of queue managers from the CCDT file that can be selected:



Simply select the queue managers you want to be imported, select the *Group* to be imported in to and select a *Time Zone* then click the *OK* button to finish the import.

Note: Any time the end-user adds a local queue manager to their system, simply follow the above instructions and MQ Visual Edit will display the *Import Queue Managers* window with all local queue managers that do not exist in MQ Visual Edit.

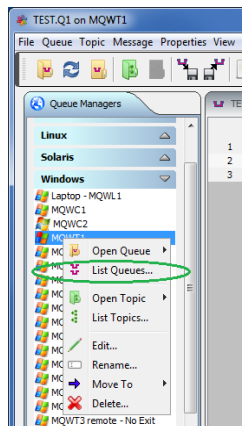
5 Managing a Queue

This chapter will describe the process of selecting, opening and managing a IBM MQ queue.

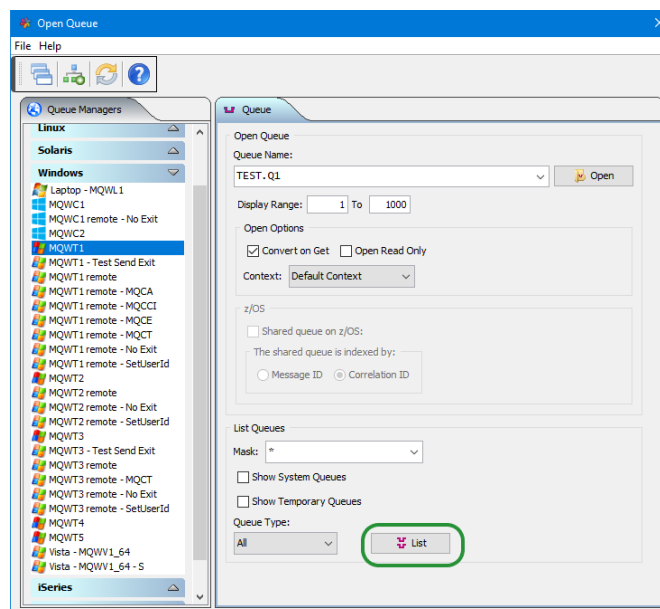
5.1 Retrieving a List of Queues

This section will describe how to retrieve a list of queues from a local or remote queue manager.

Right click on the queue manager in the 'Queue Manager' dock and select **List Queues**:



Or the user can do the following, from the main menu of MQ Visual Edit, select **Queue**, select **Open Queue** and then click the **List** button. On the Open Queue panel, select the Queue Manager Access Profile that you want to use.



You may optionally:

- Display the **SYSTEM.*** queues when the mask is set to "*" by selecting or deselecting the **Show System Queues** checkbox.
- Display temporary dynamic queues when the mask is set to "*" by selecting or deselecting the **Show Temporary Queues** checkbox.

Now click the **List** button to retrieve a list of queues from a local or remote queue manager.

For queue managers with hundreds or thousands of queues, you can filter the queue list returned to the user by specifying a mask value. **ABC.*** will return only those queue names that begin with "ABC."

i.e.

ABC.HR.Q

ABC.PAYROLL.CHECK

ABC.SUPPLY.CHAIN.NTR

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask.

i.e.

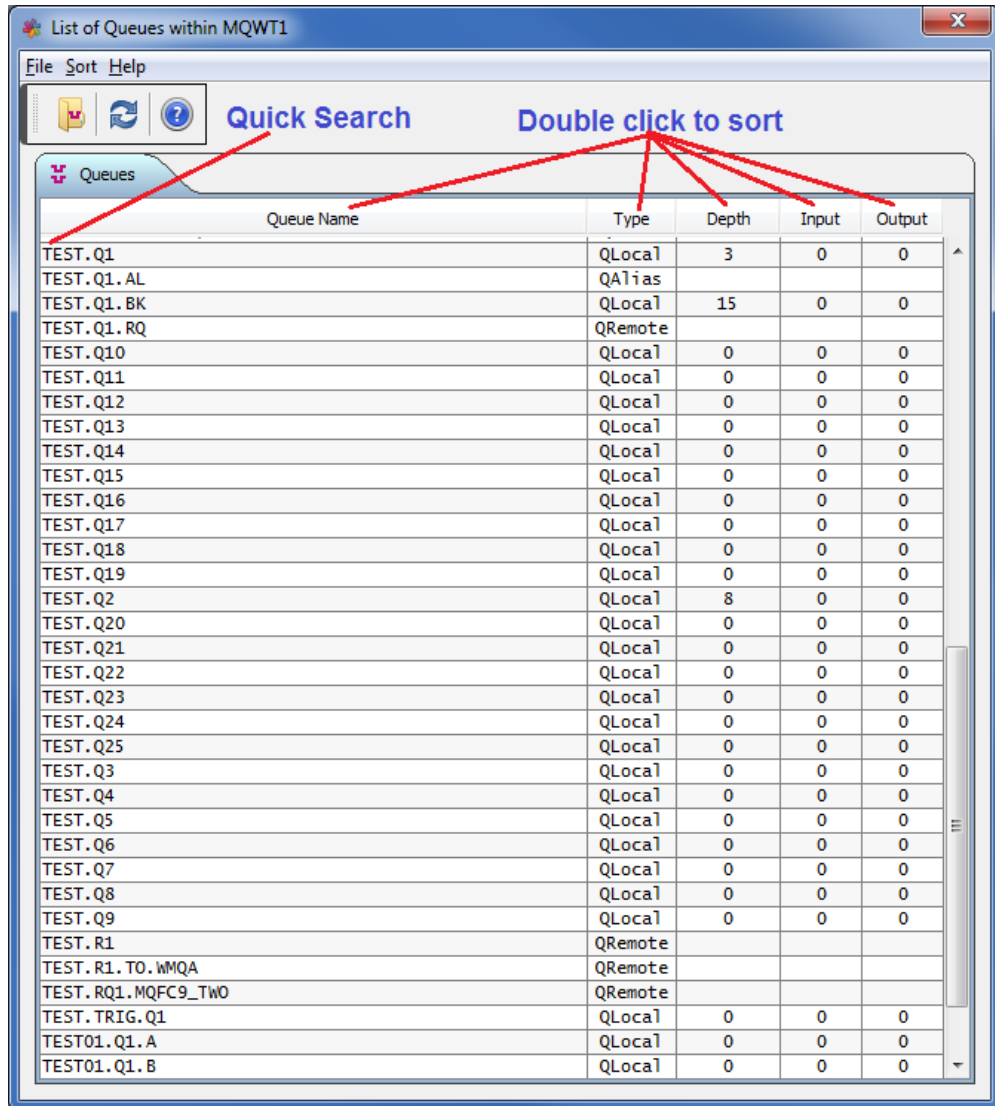
ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

You may also choose to view only a certain type of queue. You may select the queue type from one of the following:

- ALL
- Local Queues only
- Alias Queues only
- Remote Queues only
- Cluster Queues only

Select a queue from the list that you wish to interact with and then click the Select button.



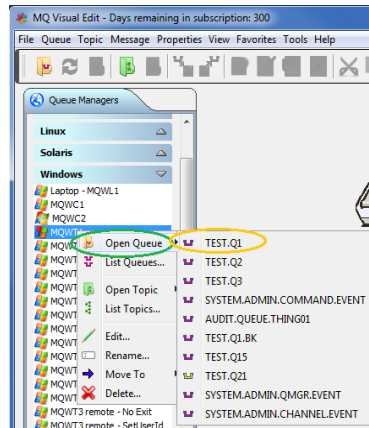
There are 4 options the user can select:

- Select - Selects the currently highlighted queue and returns to the Open Queue window.
- Open - Opens 1 or more queues and leaves the 'List of Queues' window open.
- Refresh - Refreshes the current list of queues.
- Close - Closes the 'List of Queues' window.

5.2 Opening a Queue

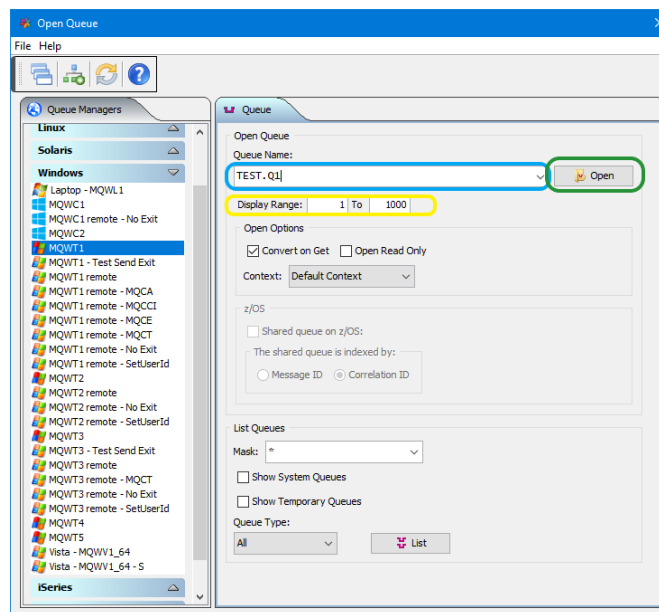
This section will describe how to open queue of a local or remote queue manager.

Right click on the queue manager in the 'Queue Manager' dock and select **Open Queue** then select the queue name from the list:



Or from the main menu of MQ Visual Edit, select **Queue** then **Open Queue**. On the Open Queue panel, select the Queue Manager Access Profile that you want to use.

The following is the Open Queue Dialog panel:



There are 3 ways to input a queue name:

1. Type a queue name into the **Queue Name** field (e.g. TEST.Q1) and click the **Open** button.
2. Use the drop-down box to select a previously inputted queue name.
3. You may also use the **List** button to retrieve a queue name.

You may select a range of messages i.e. 1100 to 1200 to be displayed rather than all messages in the queue. The user can also select whether the messages are converted on the get or not.

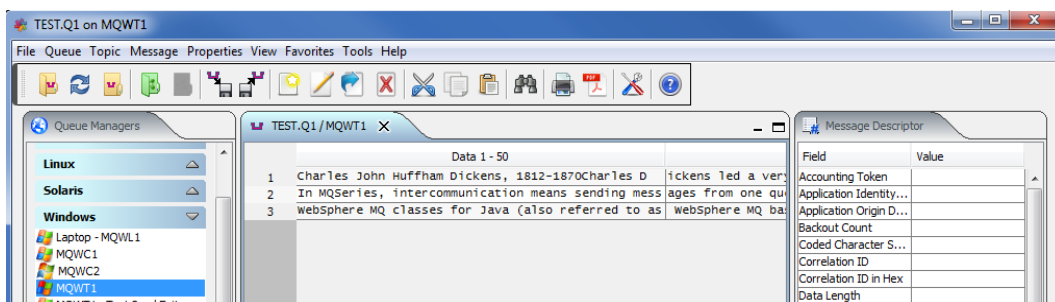
There are 2 types of options that you can selected: Convert on Get and Context.

- **Convert on Get** - this option will instruct MQ Visual Edit to perform a MQGET with the convert option specified. Any message with a different CCSID and / or Encoding will be convert to the local CCSID and /or Encoding (Note: The MQMD.Format field must have the appropriate value specified.).
- **Open Read Only** - this option will disable all features that changed or save the message.
- **Context** - this option will instruct MQ Visual Edit on what MQMD Context values should be specified when putting a message to a queue.

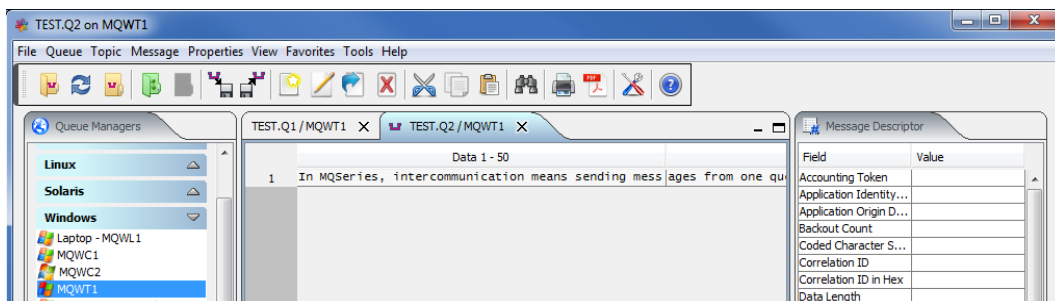
Note: For z/OS queue managers, for a shared queue, select the "*Shared queue on z/OS*" checkbox. If the queue is not a shared queue then leave the checkbox unchecked. If the shared queue is indexed by Correlation ID then the user needs to select *Correlation ID* radio button on the Open Queue window. Otherwise, the user will receive Reason Code of 2206.

Now that you have selected a Queue Manager Access Profile in the Queue Manager Dock and filled in the Queue Name field, select the Open button to open the queue.

If you typed TEST.Q1 then main panel may look something like:



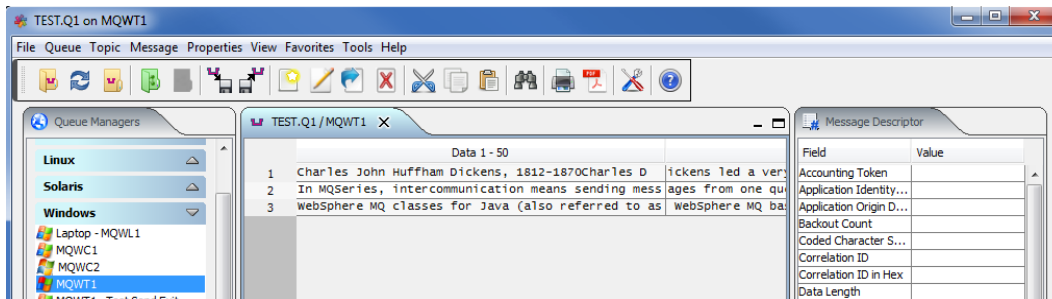
You can open a second, third, etc... by selecting **Queue** then **Open Queue**. On the Open Queue panel, select the Queue Manager Access Profile and queue that you would like to open.



5.3 Refreshing a Queue

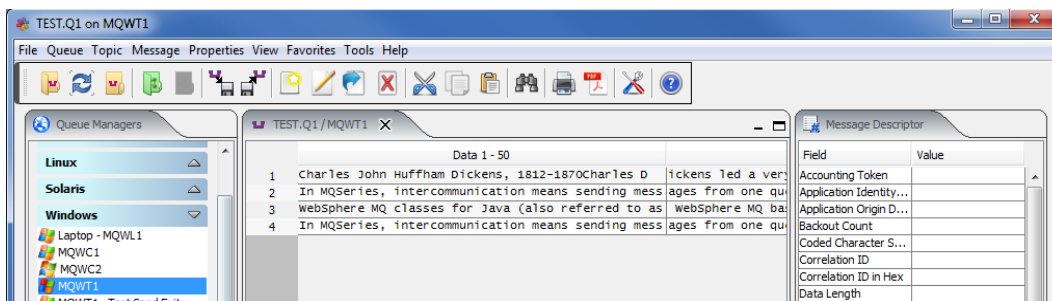
This section will describe how to refresh the contents of a queue.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Queue**, then **Refresh Queue**.

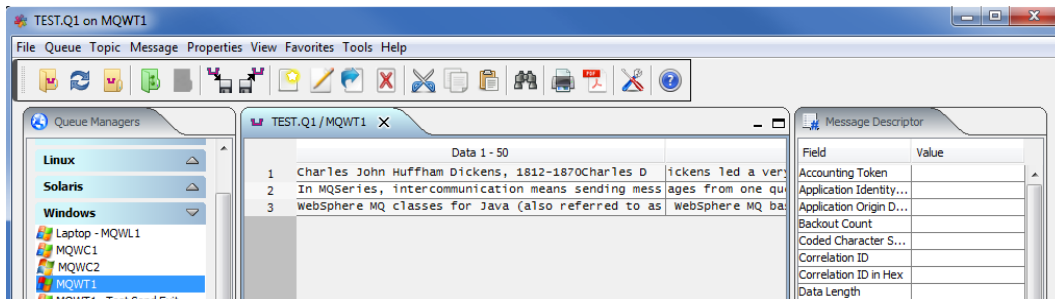
After the refresh is performed, any new messages added to the queue (since the last time opened or refreshed) will be displayed to the user.



5.4 Closing a Queue

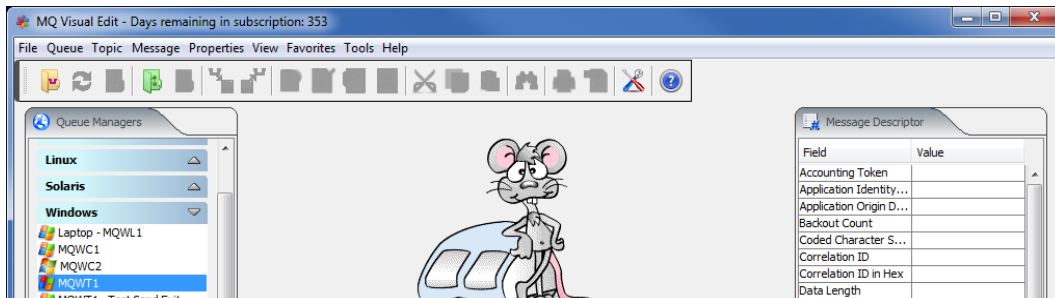
This section will describe how to close an open queue.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Queue**, then **Close Queue**.

Performing the Close queue option, disconnects from the queue manager and clears the main panel display.

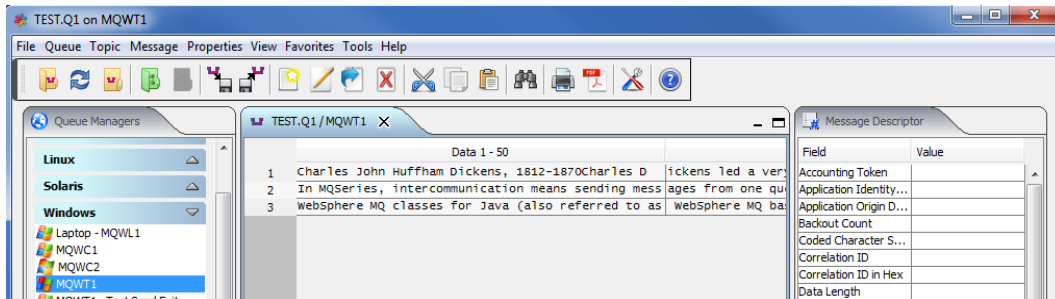


If the user has one or more queues open, then a quick and convenient way to close all of the queues is to select **Queue**, then **Close All Queues**.

5.5 Backing up a Queue

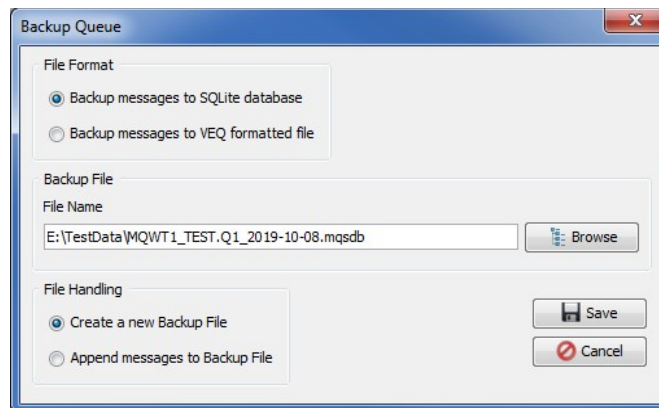
This section will describe how to backup all or selected messages in a queue including the MQMD and the message data to a Backup file. A Backup file can be either a SQLite Database or a VEQ formatted file.

If you have previously opened TEST.Q1, the main panel may look something like:

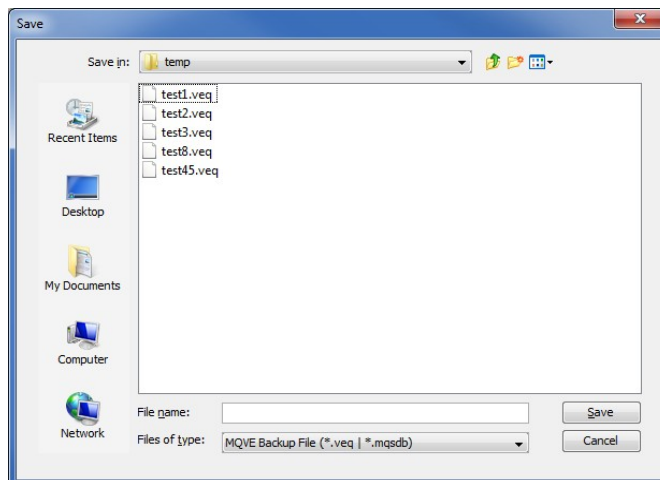


First, select one or more messages in the queue, then from the main panel of MQ Visual Edit, select **Queue**, then **Backup Queue**.

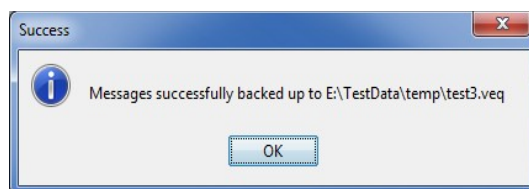
The user can select the type of Backup file (SQLite database or VEQ formatted file), the directory and/or filename and whether the messages should be appended or a new file is to be created.



To change the directory, click the **Browse** button and then select a new directory and the name of file then click **Save**.



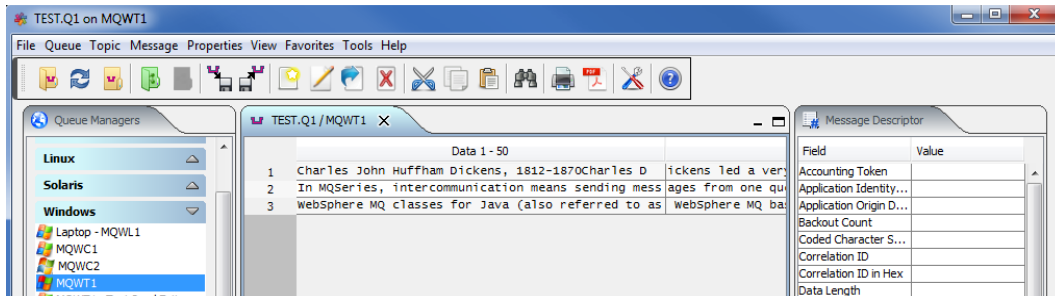
Once the user is happy with the values on the Backup Queue window, then click the **Save** button. When the selected messages have been successfully backed up, you will be notified.



5.6 Restoring a Queue

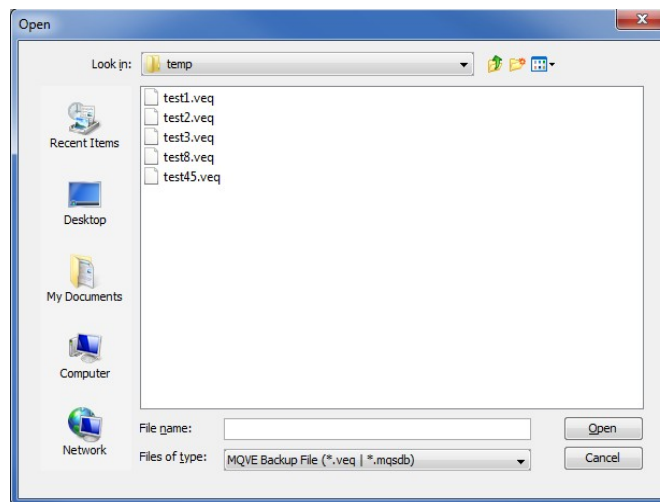
This section will describe how to restore messages to a queue from a Backup file. A Backup file can be either a SQLite Database (*.mqbdb) or a VEQ formatted file (*.veq).

If you have previously opened TEST.Q1, the main panel may look something like:

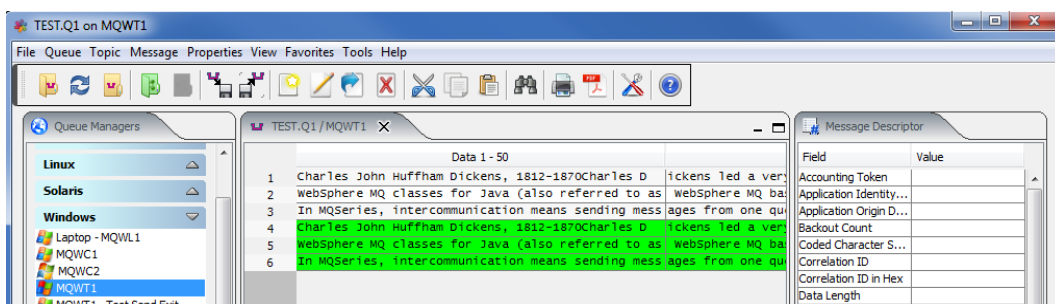


From the main panel of MQ Visual Edit, select **Queue**, then **Restore Queue**.

Select the directory and a MQVE Backup File (*.mqbdb or *.veq) then click **Open**.



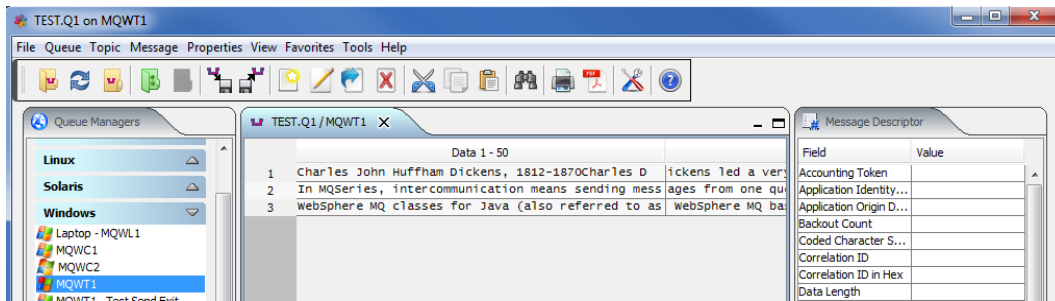
After the Restore action has been performed, the main panel may look something like (green means the messages were inserted):



5.7 Clearing a Queue

This section will describe how to clear the contents of a queue.

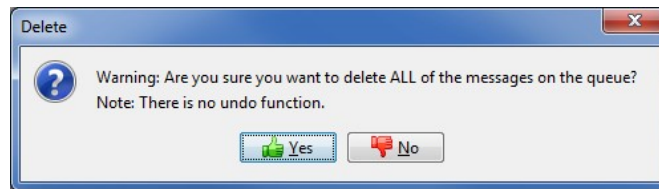
If you have previously opened TEST.Q1, the main panel may look something like:



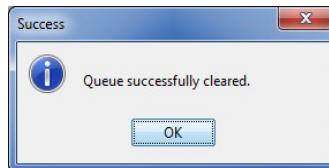
From the main panel of MQ Visual Edit, select **Queue**, then **Clear Queue**.

Click Yes if you are sure that you want to delete ALL of the messages on the queue.

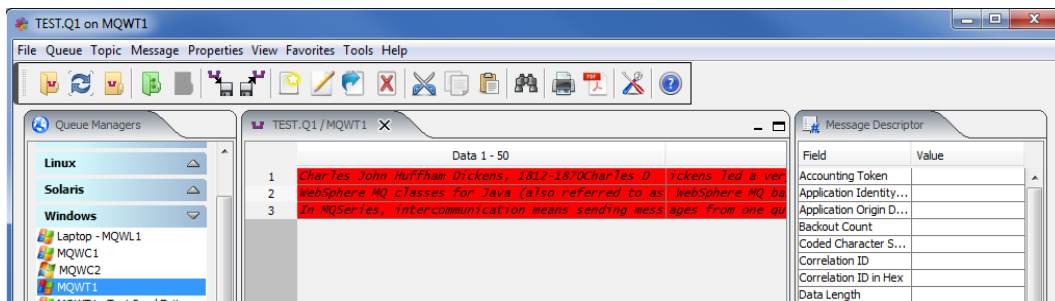
Note: There is no undo function for the Clear Queue option.



You will be notified when the queue has been cleared.



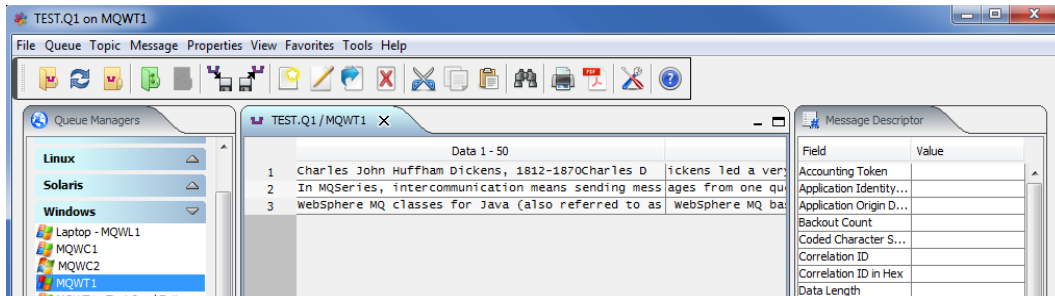
After the Clear Queue action has been performed, the main panel may look something like (red means messages were deleted):



5.8 Clearing a Queue by ID

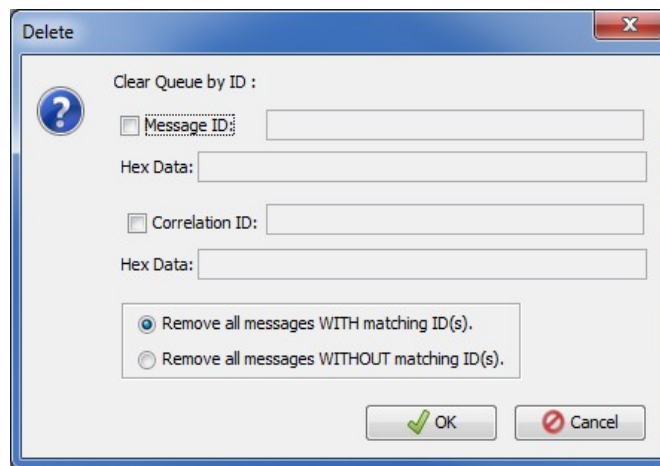
This section will describe how to clear messages from a queue that match a Message ID or Correlation ID or both.

If you have previously opened TEST.Q1, the main panel may look something like:

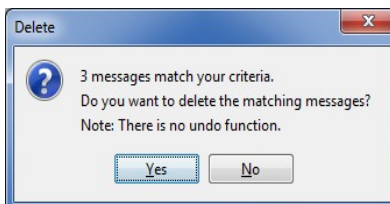


From the main panel of MQ Visual Edit, select **Queue** then **Clear Queue by ID**.

Input a hexadecimal string (HEX) into the Message ID or Correlation ID or both fields. It **MUST** be 48 digits long. Make sure to click the appropriate check box (Message ID or Correlation ID or both) for the search criteria. You may also invert the search and deletion of messages. Click the "Remove all messages without matching ID(s)", to delete all messages that do NOT contain the user specified search string.

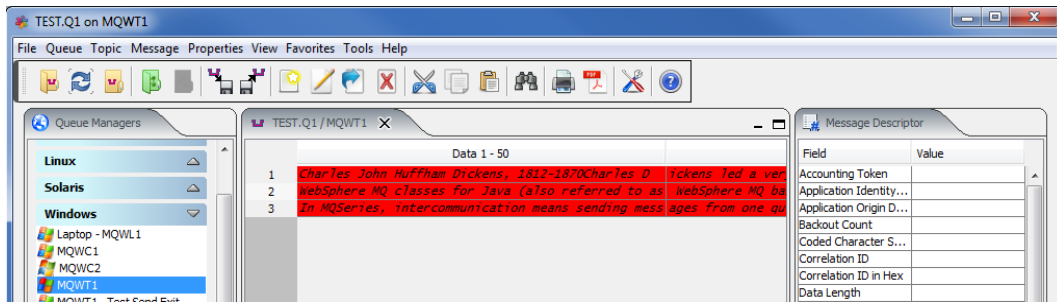


Click **Ok** to proceed to the next step. It will now search the queue for messages match the user's search string.



Click **Yes** if you are sure that you want the to delete the number of messages specified. Note: There is no undo function for the Clear Queue option.

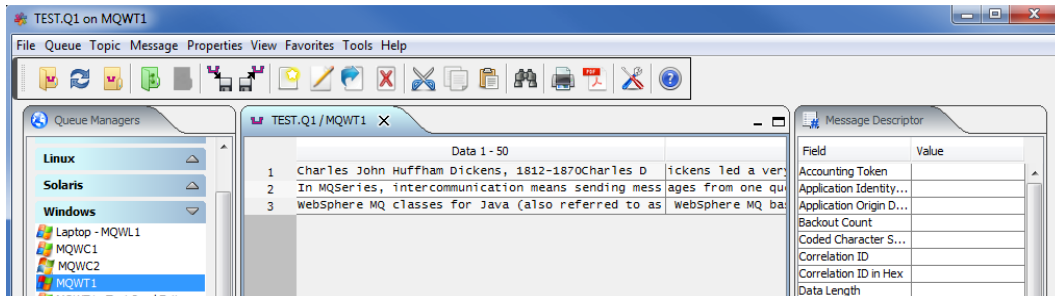
After the Clear Queue action has been performed, the main panel may look something like (red means messages were deleted):



5.9 Clearing a Queue by Time

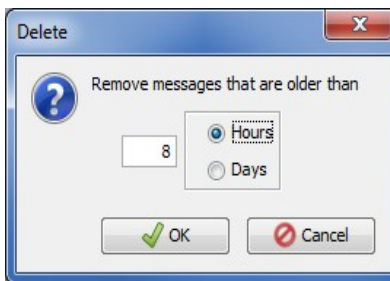
This section will describe how to clear messages from a queue that are older than "x" hours or "x" days.

If you have previously opened TEST.Q1, the main panel may look something like:

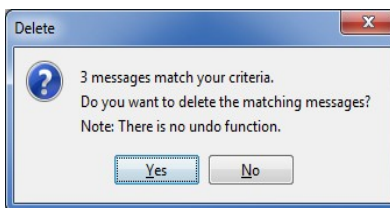


From the main panel of MQ Visual Edit, select **Queue** then **Clear Queue by Date/Time**.

Input a number value and then select the radio button that the value represents (i.e. hours or days).

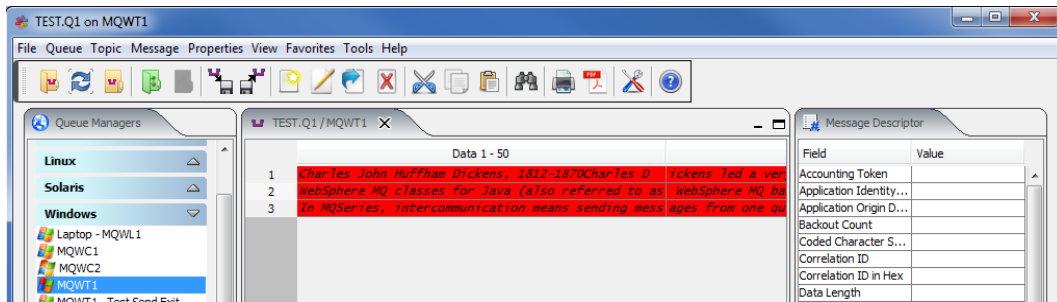


Click **Ok** to proceed to the next step. It will now search the queue for messages older than the criteria you specified.



Click **Yes** if you are sure that you want to delete the number of messages specified.
Note: There is no undo function for the Clear Queue option.

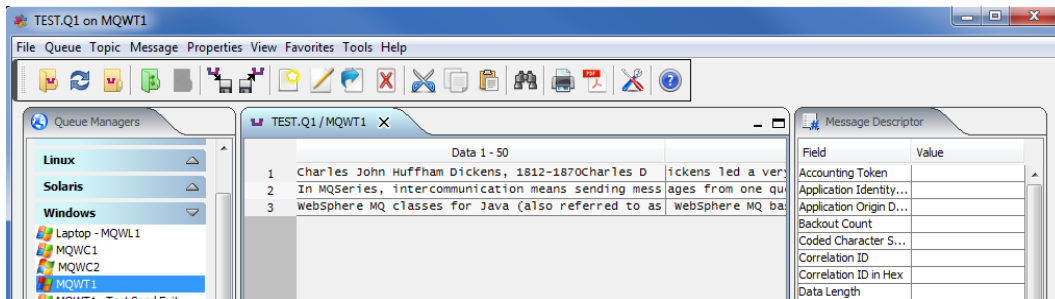
After the Clear Queue action has been performed, the main panel may look something like (red means messages were deleted):



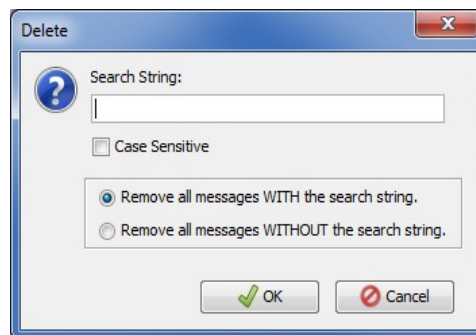
5.10 Clearing a Queue by Matching String

This section will describe how to clear messages from a queue that match a particular string.

If you have previously opened TEST.Q1, the main panel may look something like:



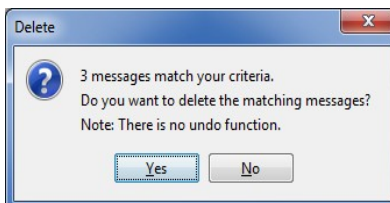
From the main panel of MQ Visual Edit, select **Queue** then **Clear Queue by Matching String**.



Input a string (alpha or numeric) that you wish to match messages on. The user may also select the "Case Sensitive" check box to make the search process case sensitive.

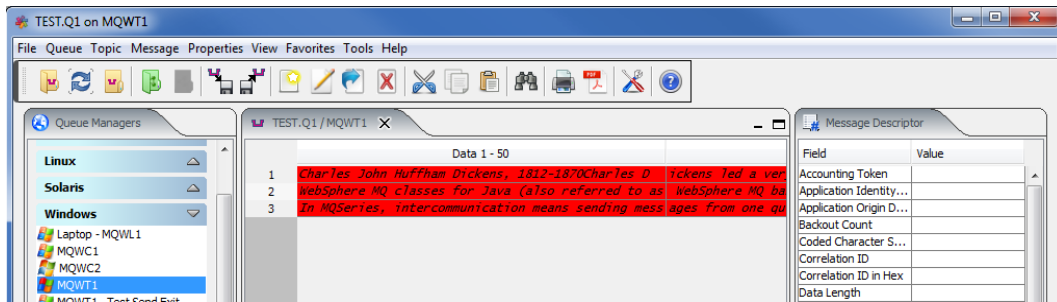
You may also invert the search and deletion of messages. Click the "Remove all messages without the search string", to delete all messages that do NOT contain the user specified search string.

Click **Ok** to proceed to the next step. It will now search the queue for messages match the user's search string.



Click **Yes** if you are sure that you want the to delete the number of messages specified. Note: There is no undo function for the Clear Queue option.

After the Clear Queue action has been performed, the main panel may look something like (red means messages were deleted):



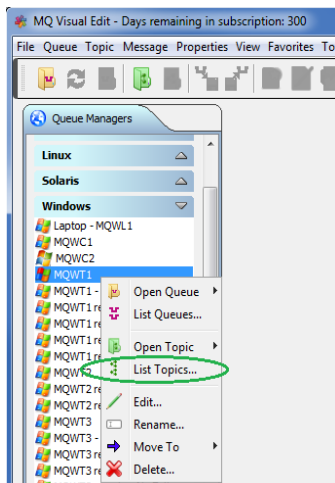
6 Managing a Topic

This chapter will describe the process of selecting, opening and managing a IBM MQ topic.

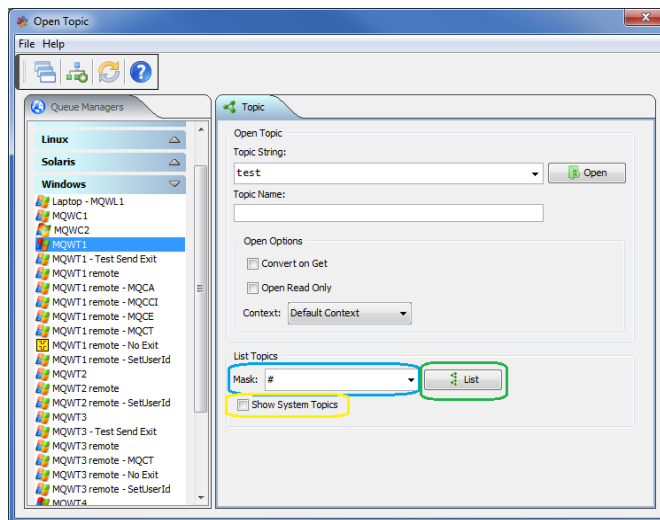
6.1 Retrieving a List of Topics

This section will describe how to retrieve a list of topics from a local or remote queue manager.

Right click on the queue manager in the 'Queue Manager' dock and select **List Topics**:



Or the user can do the following, from the main menu of MQ Visual Edit, select **Topic**, select **Open Topic** and then click the **List** button. On the Open Topic panel, select the Queue Manager Access Profile that you want to use.



You may optionally display the SYSTEM.# topics when the mask is set to "#" by selecting or deselecting the **Show System Topics** checkbox.

Now select the **List** button to retrieve a list of topics from a local or remote queue manager.

For queue managers with hundreds or thousands of topics, you can filter the topic list returned to the user by specifying a mask value. XYZ# will return only those topic names that begin with "XYZ"
i.e.

XYZ/PAYROLL/CUTOFF

XYZ/SUPPLY/CHAIN

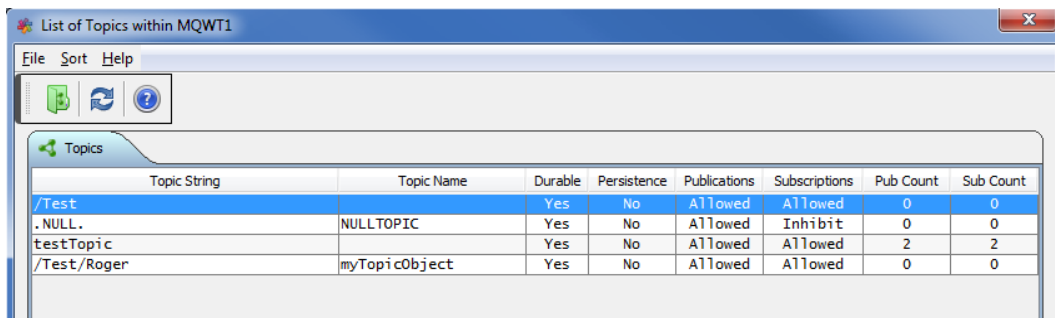
The user can also combine mask filters together. Use a semi-colon (;) to separate each mask.

i.e.

ABC#;XYZ#;TEST#

Hence, only topics that begin with 'ABC', 'XYZ' and/or 'TEST' will be shown.

Select a topic from the list that you wish to interact with and then click the Select button.



The screenshot shows a window titled "List of Topics within MQWT1" with a menu bar (File, Sort, Help) and a toolbar with icons for refresh, help, and close. Below the toolbar is a "Topics" section containing a table with the following data:

Topic String	Topic Name	Durable	Persistence	Publications	Subscriptions	Pub Count	Sub Count
/Test		Yes	No	Allowed	Allowed	0	0
.NULL.	NULLTOPIC	Yes	No	Allowed	Inhibit	0	0
testTopic		Yes	No	Allowed	Allowed	2	2
/Test/Roger	myTopicObject	Yes	No	Allowed	Allowed	0	0

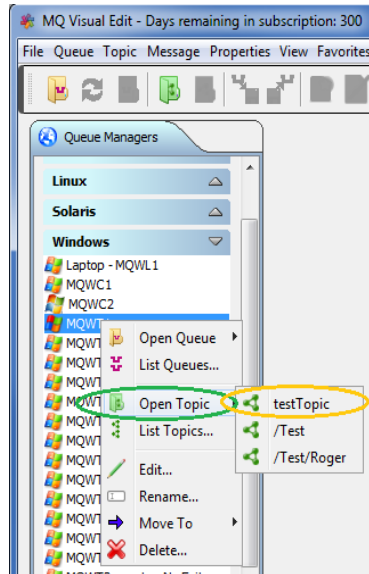
There are 4 options the user can select:

- Select - Selects the currently highlighted topic and returns to the Open Topic window.
- Open - Opens 1 or more topics and leaves the 'List of Topics' window open.
- Refresh - Refreshes the current list of topics.
- Close - Closes the 'List of Topics' window.

6.2 Opening a Topic

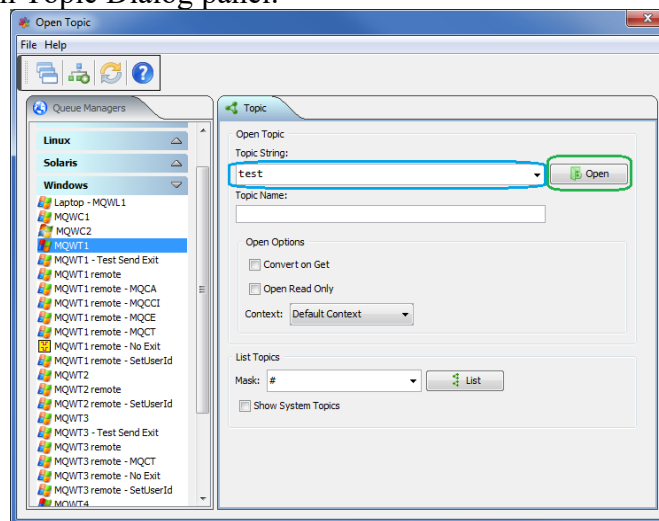
This section will describe how to open topic of a local or remote queue manager.

Right click on the queue manager in the 'Queue Manager' dock and select **Open Topic** then select the topic name from the list:



or from the main menu of MQ Visual Edit, select **Topic** then **Open Topic**. On the Open Topic panel, select the Queue Manager Access Profile that you want to use.

The following is the Open Topic Dialog panel:



There are 3 ways to input a topic name:

1. Type a topic string into the **Topic String** field (e.g. test/one) and click the **Open** button.
2. Use the drop-down box to select a previously inputted topic name.
3. You may also use the **List** button to retrieve a topic name.

The **Topic Name** is the name of a predefined node in the topic tree. An administrator can define certain nodes within a topic tree as administered nodes. The administered nodes can have properties

assigned to them. They are generally used for security purposes. Administered nodes are given a name (up to 48 characters). If a topic name is specified the node serves as the base (root node) that the topic string starts from. The topic name does not have to have any relationship with the actual location within a topic tree.

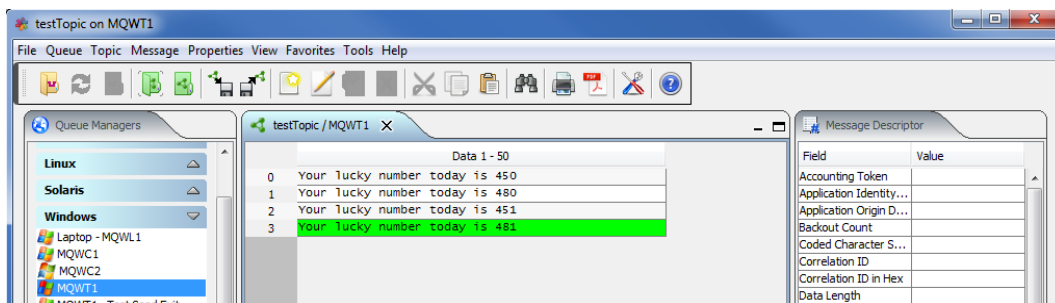
The use of topic names is optional. The entire topic string can be entered within the topic string field. If a topic name is used then the topic string should be relative to this point in the topic tree.

There are 2 types of options that you can selected: Convert on Get and Context.

- **Convert on Get** - this option will instruct MQ Visual Edit to perform a MQGET with the convert option specified. Any message with a different CCSID and / or Encoding will be convert to the local CCSID and /or Encoding (Note: The MQMD.Format field must have the appropriate value specified.).
- **Open Read Only** - this option will disable all features that changed or save the message.
- **Context** - this option will instruct MQ Visual Edit on what MQMD Context values should be specified when putting a message to a topic.

Now that you have selected a Queue Manager Access Profile and filled in the Topic Name field, select the Open button to open the topic.

If you typed *testTopic* then main panel may look something like:



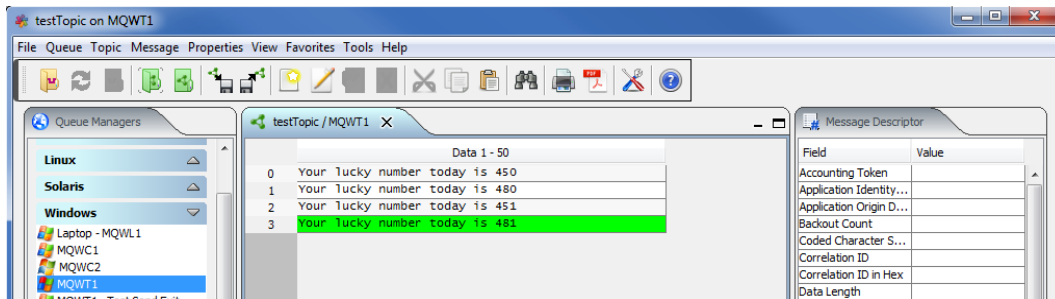
You can open a second, third, etc... by selecting **Topic** then **Open Topic**. On the Open Topic panel, select the Queue Manager Access Profile and topic that you would like to open.

Note: The topic displayed will be automatically updated as new topic messages arrive. Hence, there is no refresh menu item or toolbar button.

6.3 Closing a Topic

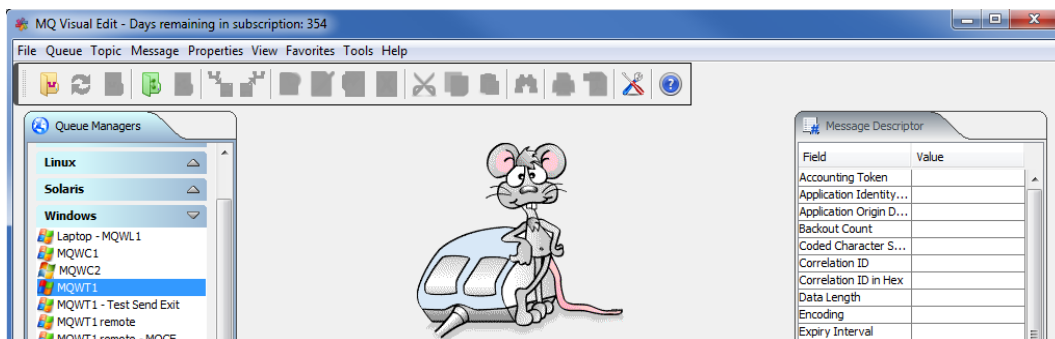
This section will describe how to close an open topic.

If you have previously opened *testTopic*, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Topic**, then **Close Topic**.

Performing the Close topic option, disconnects from the queue manager and clears the main panel display.

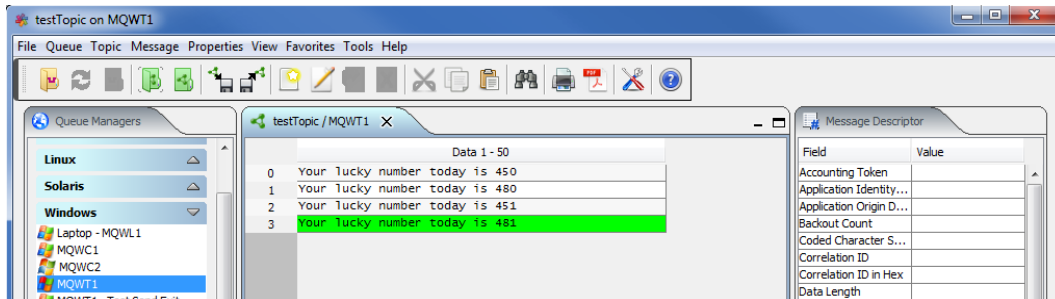


If the user has one or more topics open, then a quick and convenient way to close all of the topics is to select **Topic**, then **Close All Topics**.

6.4 Backing up a Topic

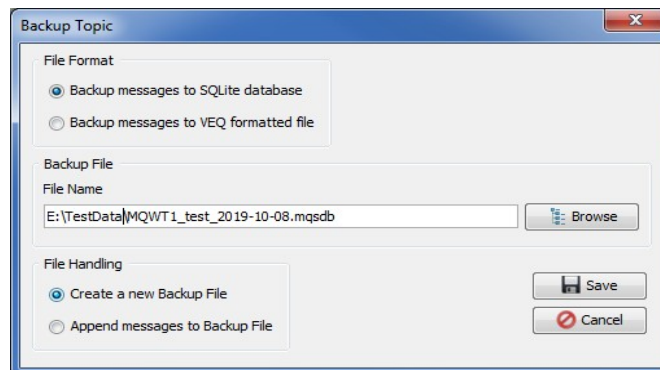
This section will describe how to backup all or selected messages in a queue including the MQMD and the message data to a Backup file. A Backup file can be either a SQLite Database or a VEQ formatted file.

If you have previously opened *testTopic*, the main panel may look something like:

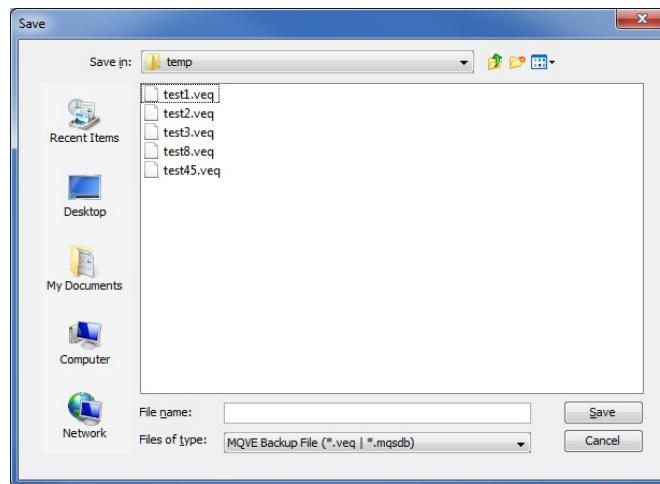


First, select one or more messages in the topic, then from the main panel of MQ Visual Edit, select **Topic**, then **Backup Topic**.

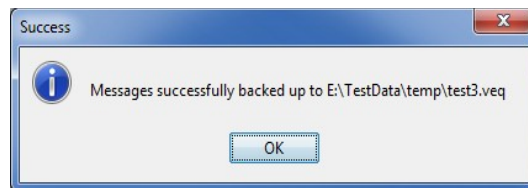
The user can select the type of Backup file (SQLite database or VEQ formatted file), the directory and/or filename and whether the messages should be appended or a new file is to be created.



To change the directory, click the **Browse** button and then select a new directory and the name of file then click **Save**.



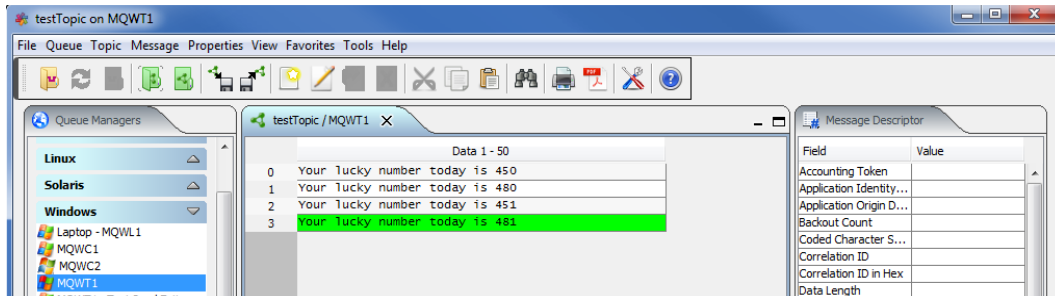
Once the user is happy with the values on the Backup Topic window, then click the **Save** button. When the selected messages have been successfully backed up, you will be notified.



6.5 Restoring a Topic

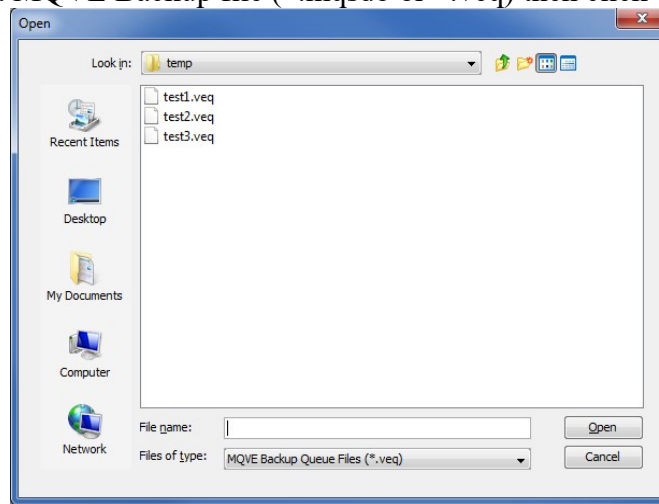
This section will describe how to restore messages to a topic from a Backup file. A Backup file can be either a SQLite Database (*.mqbdb) or a VEQ formatted file (*.veq).

If you have previously opened *testTopic*, the main panel may look something like:

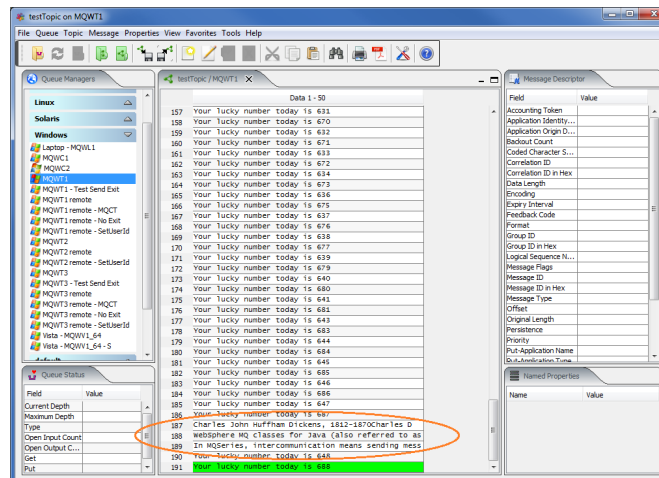


From the main panel of MQ Visual Edit, select **Topic**, then **Restore Topic**.

Select the directory and a MQVE Backup file (*.mqbdb or *.veq) then click **Open**.



After the Restore action has been performed, the main panel may look something like (green means the messages were inserted):



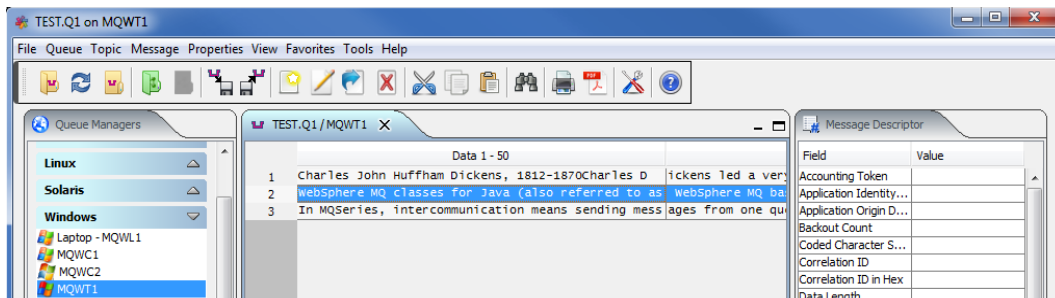
7 Manipulating the Messages

This chapter will describe the process of selecting, opening and managing a IBM MQ queue and topic.

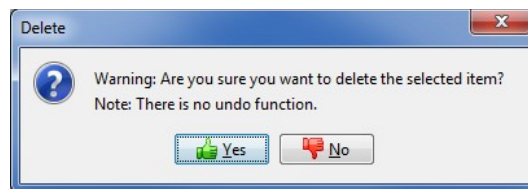
7.1 Cut a Message

This section will describe how to cut a message from the queue or topic and store it in the system clipboard.

If you have previously opened TEST.Q1, the main panel may look something like:



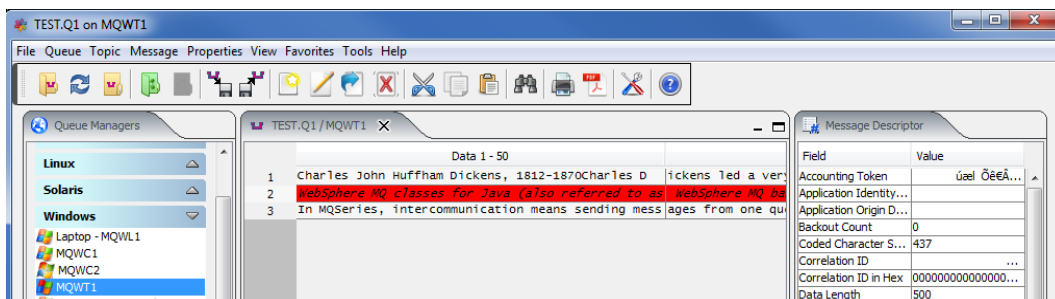
From the main panel of MQ Visual Edit, select **Message**, then **Cut Message**.



Click **Yes** if you are sure that you want the message to be deleted.

Note: There is no undo function for the delete message option.

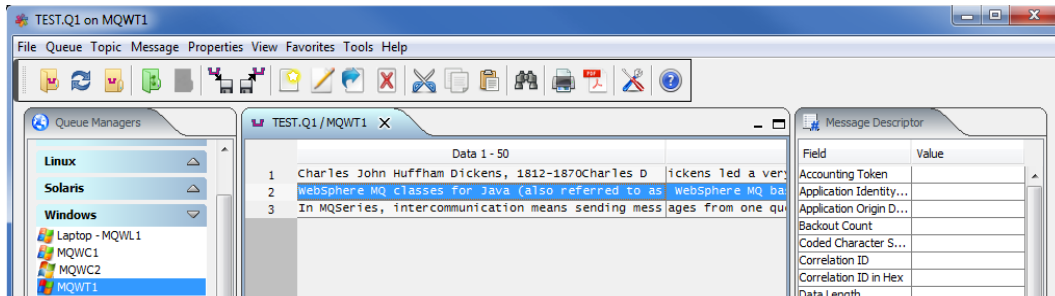
The main panel is updated with the message cut from the queue (red means messages were deleted).



7.2 Copy a Message

This section will describe how to copy a message from the queue or topic and store it in the system clipboard.

If you have previously opened TEST.Q1, the main panel may look something like:



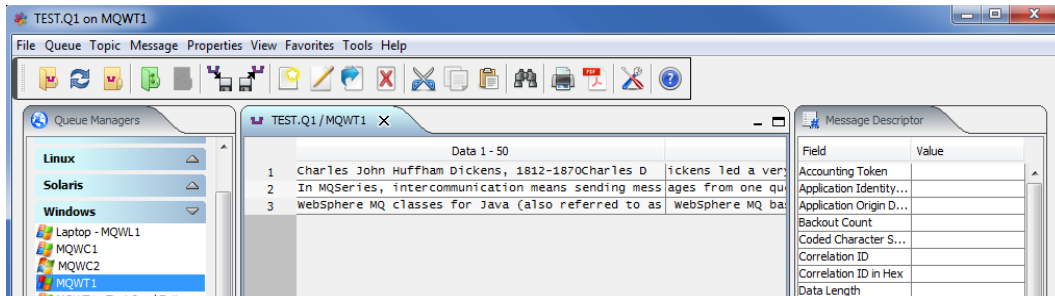
From the main panel of MQ Visual Edit, select **Message**, then **Copy Message**.

There will be no change to the main panel. The copy action copies the message contents to the system clipboard.

7.3 Paste a Message

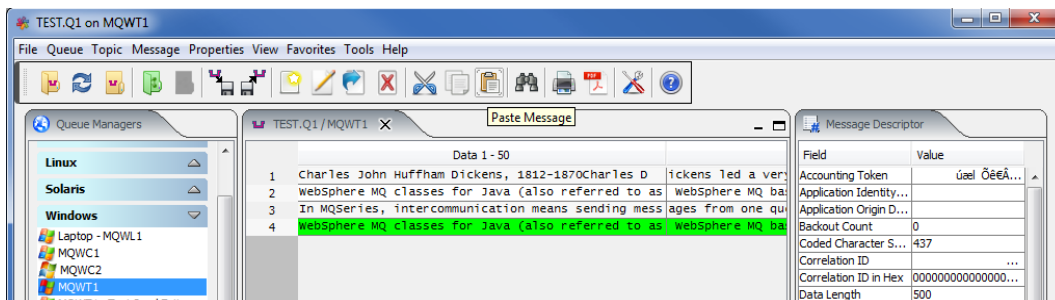
This section will describe how to paste a message from the system clipboard to the opened queue or opened topic.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Paste Message**.

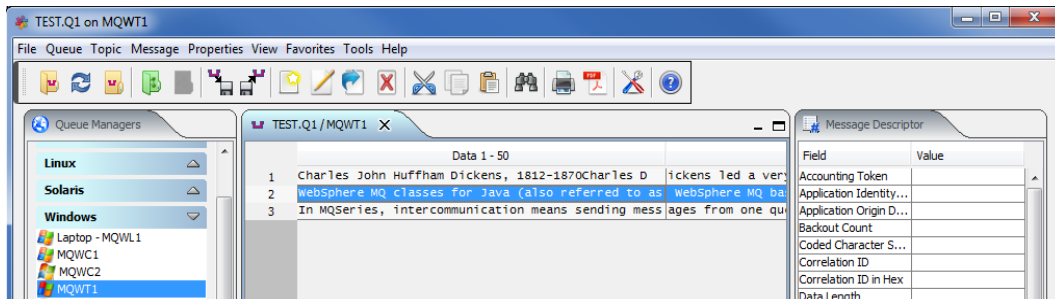
The main panel is updated with the message pasted from the system clipboard.



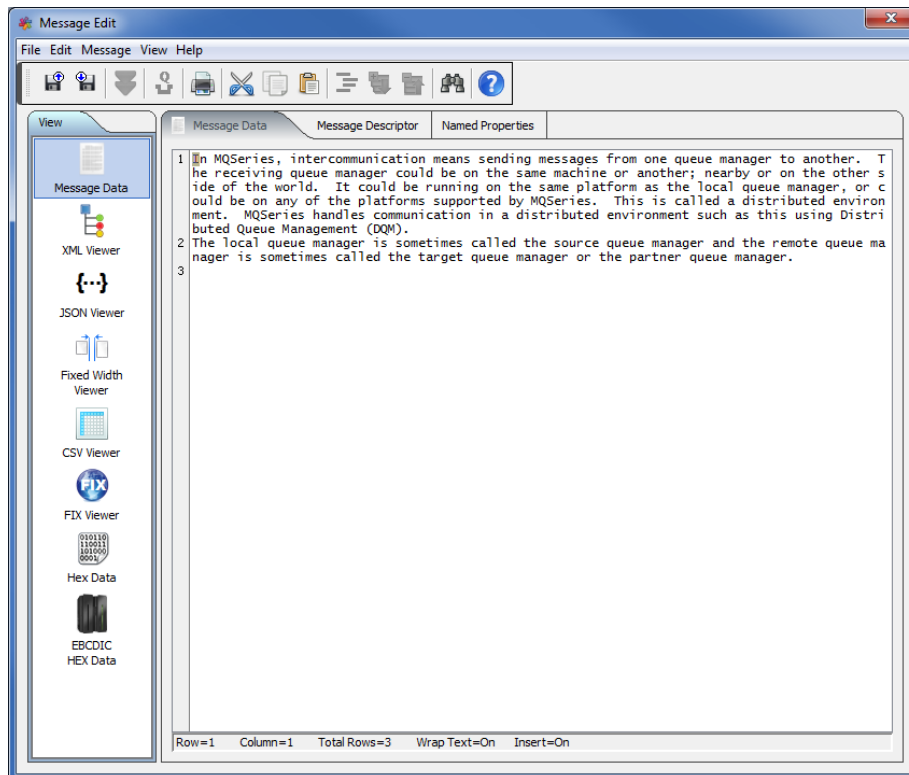
7.4 Edit a Message

This section will describe how to edit a message in the opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:

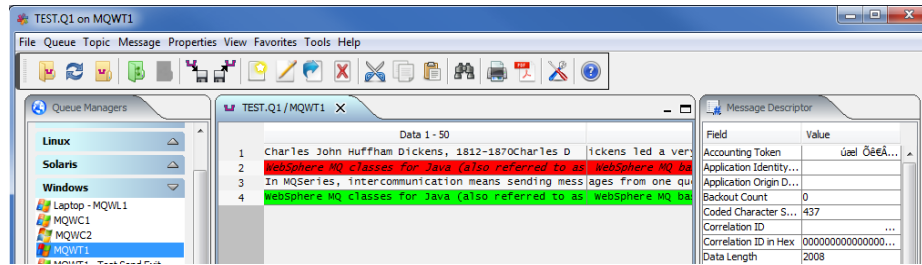


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



You can now edit, updated or delete sections of the message text. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue. From the Message Edit panel, the user can select to save the contents to a file or load data from a file. Click the **Load** button to load data from a file or click the **Save** button to save the message data to a file. For more information about the features / functions for the Raw tab, go to the Raw Data section in Chapter 8.

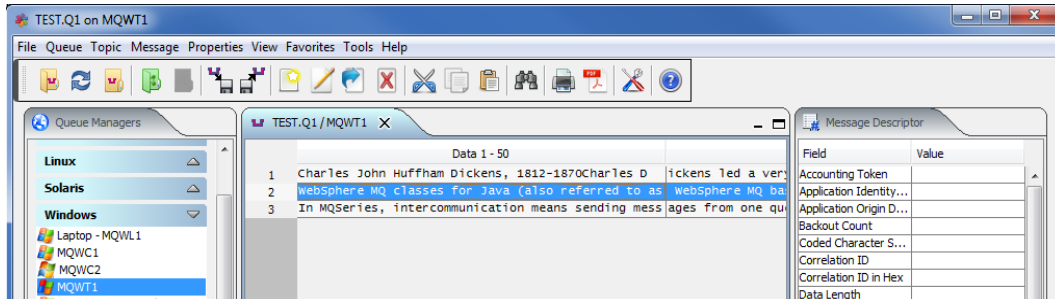
The main panel is updated with the new message from the editing session:



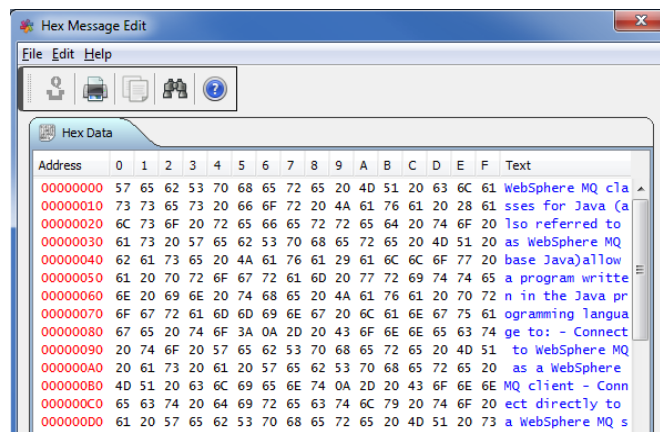
7.5 Edit a Message in Hex

This section will describe how to edit a message in Hex from the opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:

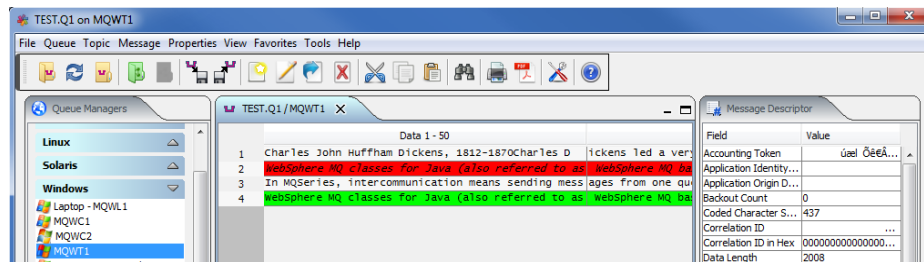


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message in Hex**.



You can now edit in hex sections of the message text. Clicking the Save button will delete the old copy of the message and insert the new updated message into the queue.

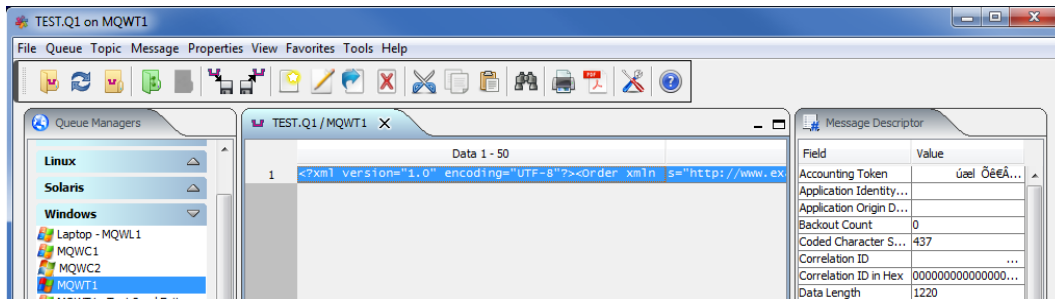
The main panel is updated with the new message from the editing session.



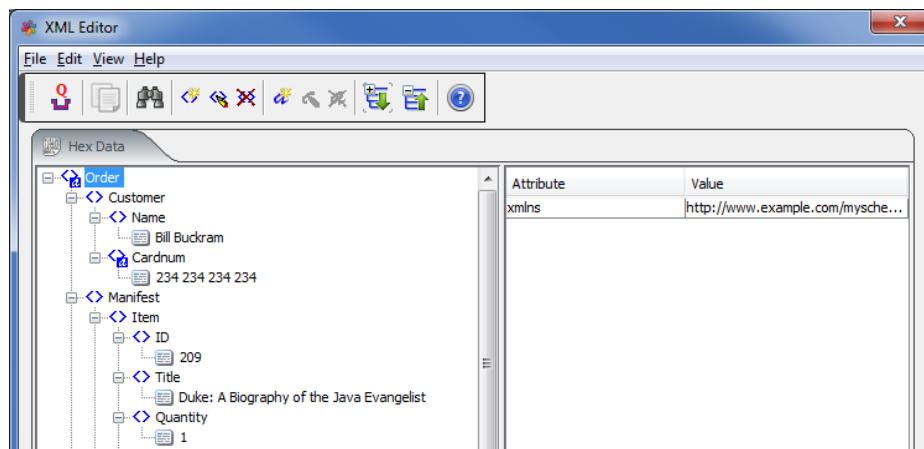
7.6 Edit a Message with XML Editor

This section will describe how to edit a message with the XML Editor from the opened queue or topic.

If you have previously opened TEST1, the main panel may look something like:

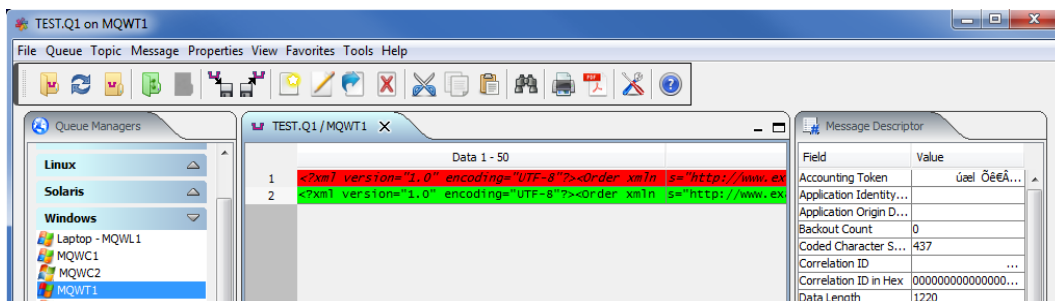


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message with XML Editor**.



You can now edit the message using the XML Editor. Clicking File then Save to Queue button will delete the old copy of the message and insert the new updated message into the queue.

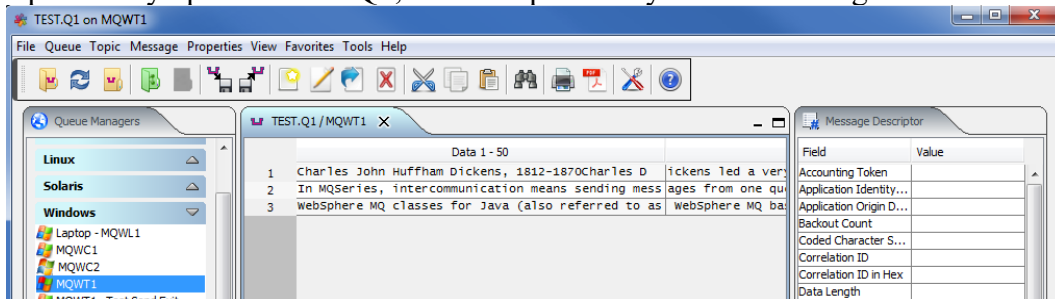
The main panel is updated with the new message from the editing session.



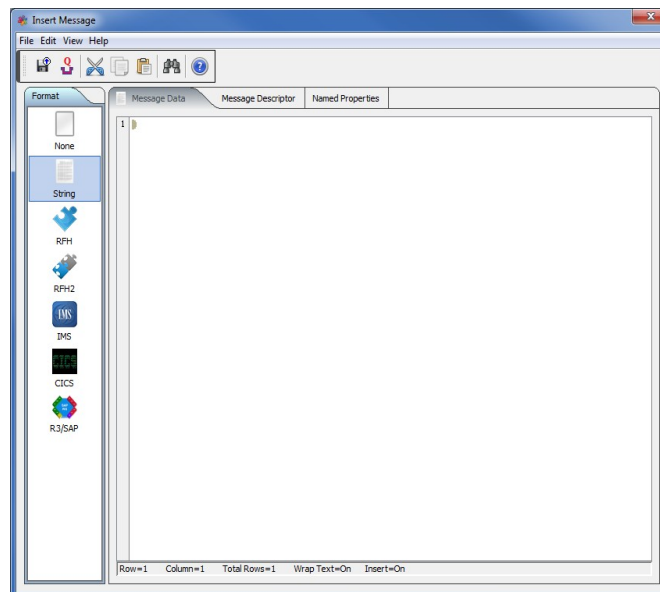
7.7 Insert a Message

This section will describe how to insert a message into an opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:

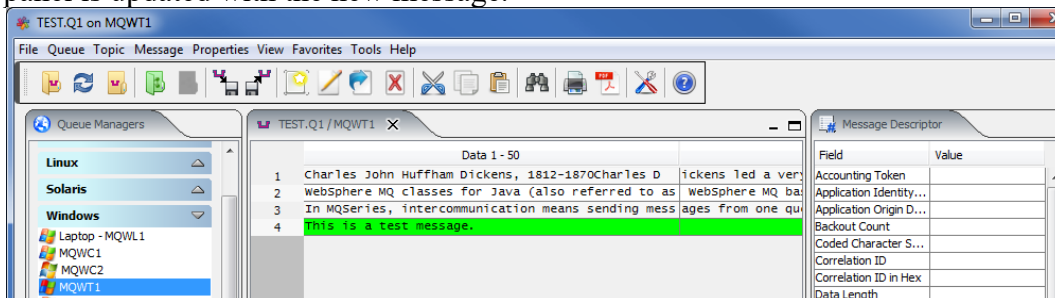


From the main panel of MQ Visual Edit, select **Message**, then **Insert Message**.



The Insert Message Wizard is designed to help the user quickly create 7 different MQ message formats. i.e. None, String, RFH, RFH2 (JMS), IMS, CICS and R3/SAP. The user can alter the contents of the Message Descriptor and/or Named Properties. Plus if the user selects RFH, RFH2 (JMS), IMS, CICS or R3/SAP message format, the user can alter those values too. Click **File -> Save to Queue** to save the message to the queue or topic.

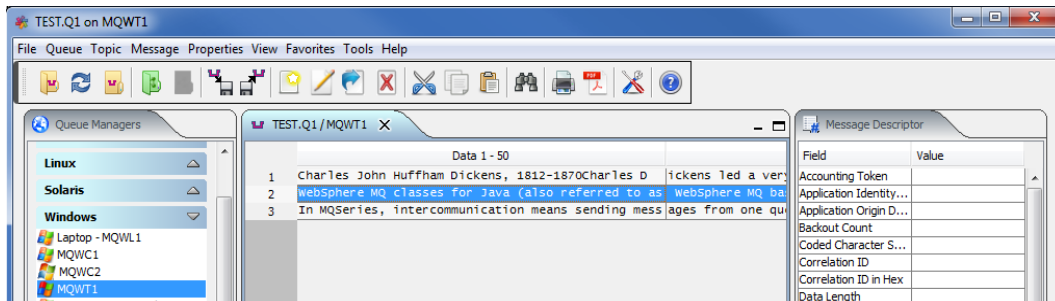
The main panel is updated with the new message.



7.8 Duplicate a Message

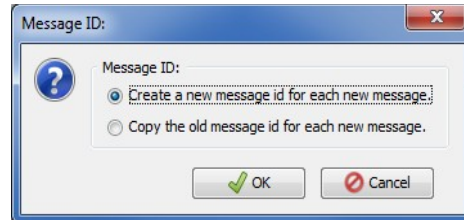
This section will describe how to duplicate a message in the opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:

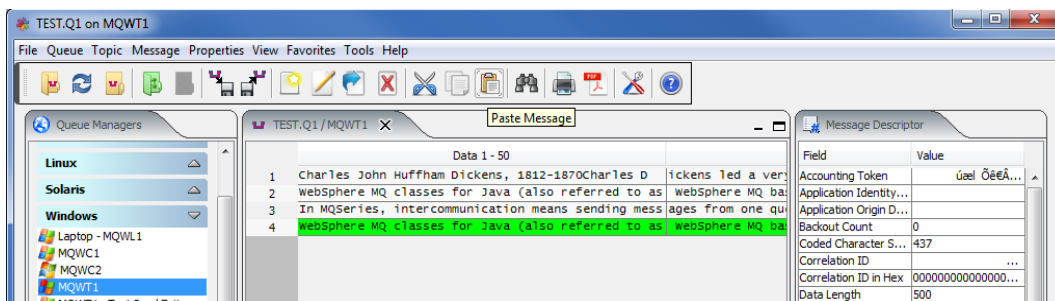


From the main panel of MQ Visual Edit, select **Message**, then **Duplicate Message**.

The user will be prompted to select either a new message id or copy the message id for each new message.



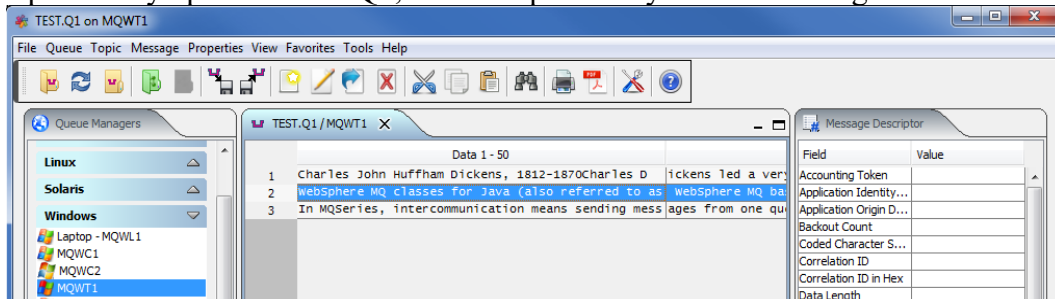
The main panel will be updated with the newly inserted message.



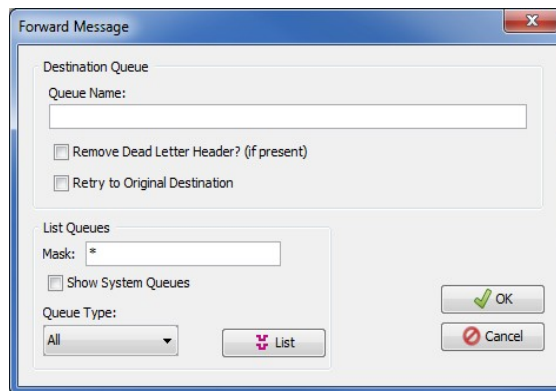
7.9 Forward a Message

This section will describe how to forward a message from an opened queue or topic.

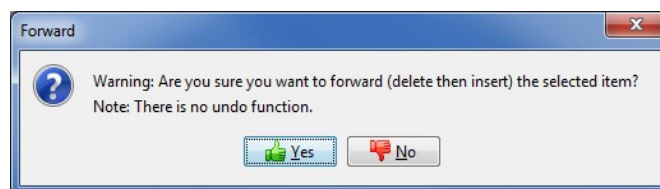
If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Forward Message**.



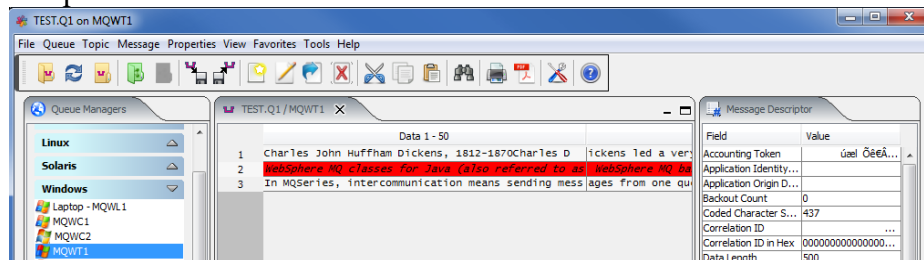
Now specify a destination queue name and then click the **Ok** button. You can use the **List** button to help you select a valid queue name. If the message has a DLH (Dead Letter Header) and you would like it to be stripped off during the forwarding, then click the Remove Dead Letter Header checkbox.



Click **Yes** if you are sure that you want the message to be forwarded.

Note: There is no undo function for the forward message option.

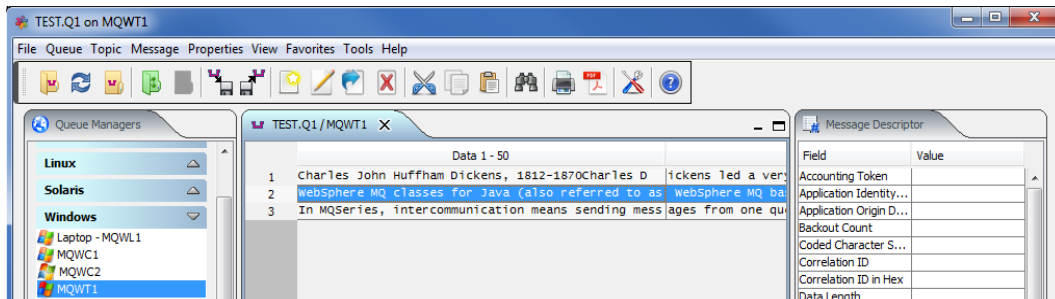
The main panel is updated.



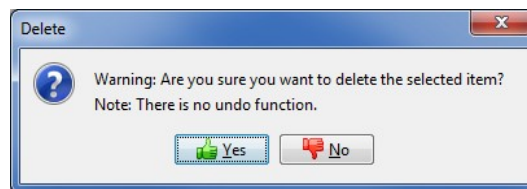
7.10 Delete a Message

This section will describe how to delete a message from an opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:



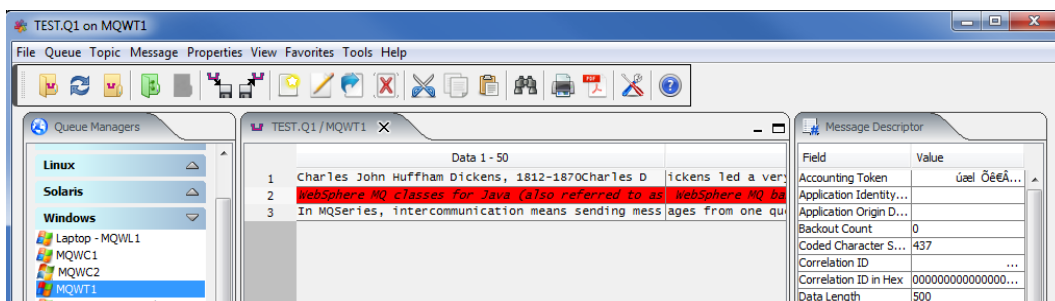
From the main panel of MQ Visual Edit, select **Message**, then **Delete Message**.



Click Yes if you are sure that you want the message to be deleted.

Note: There is no undo function for the delete message option.

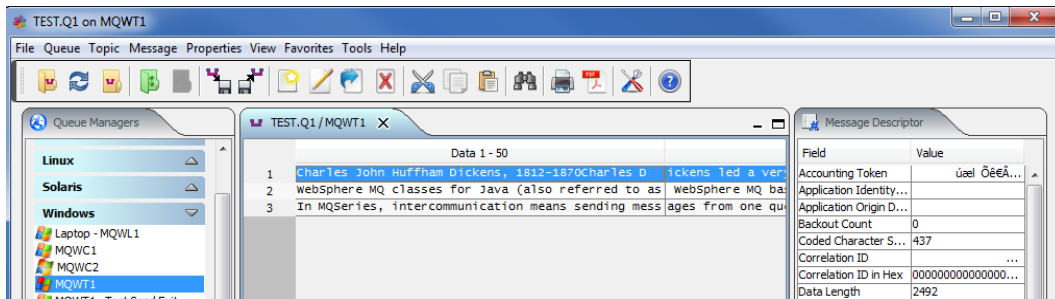
The main panel is updated.



7.11 Compare a Message to a File

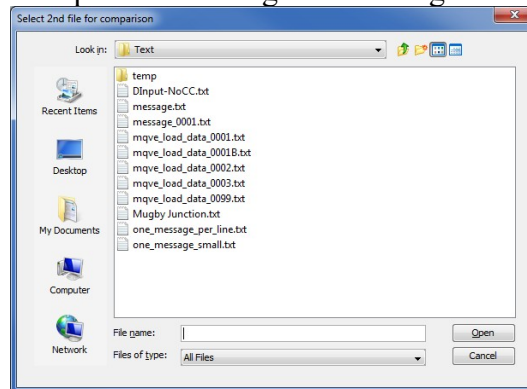
This section will describe how to compare the contents of a message to file.

If you have previously opened TEST.Q1, the main panel may look something like:

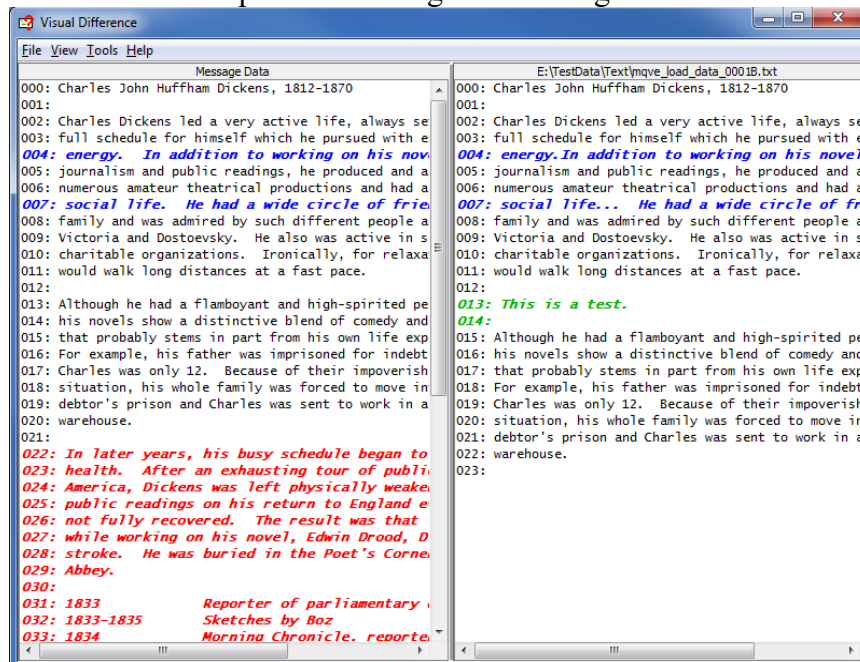


From the main panel of MQ Visual Edit, select **Message**, then **Compare a Message to a File**.

The user now selects the file to compare the message contents against.



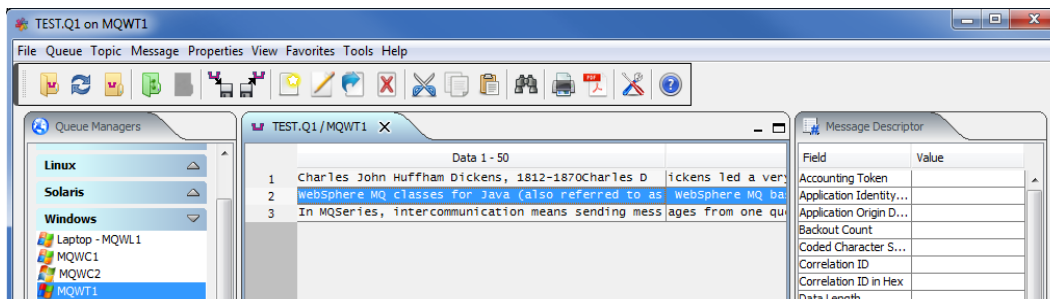
The user now selects the file to compare the message contents against.



7.12 Printing a Message

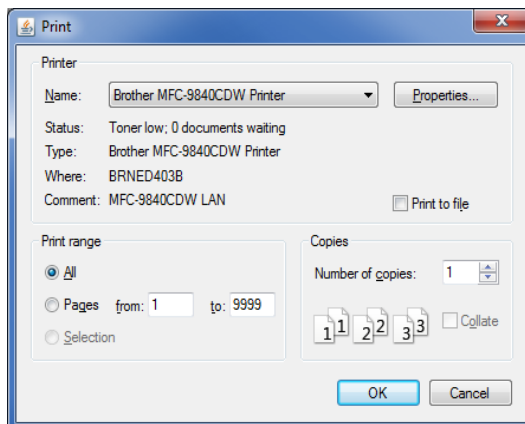
This section will describe how to print a message to a printer from an opened queue.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Print Message**.

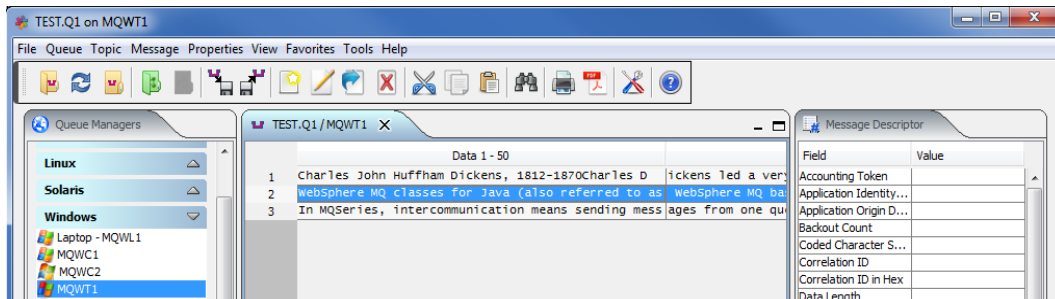
The user now selects the printer to print the message on.



7.13 Generate Report

This section will describe how to generate a report (PDF, RTF or HTML) from the selected messages.

If you have previously opened TEST.Q1, the main panel may look something like:

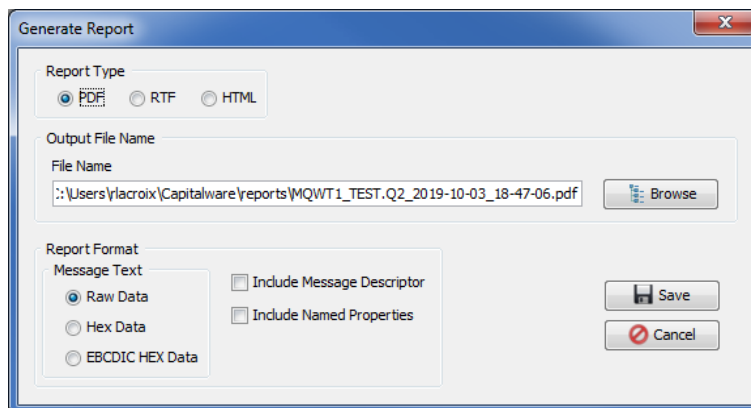


From the main panel of MQ Visual Edit, select **Message**, then **Generate Report**.

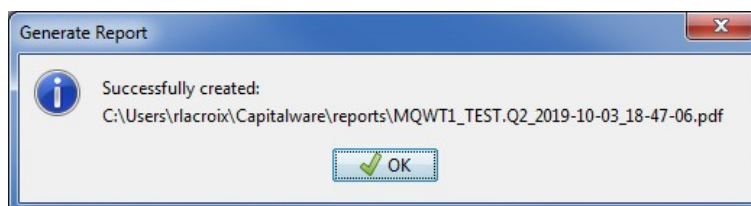
The user now selects how the messages are to be generated into the report:

- The user may use the **Browse** button to select the directory and file name to be used for the report file.
- The user can select **PDF** or **RTF** or **HTML** for the report type.
- The user can select **Raw Data** or **Hex Data** or **EBCDIC Hex** for how the message data will be formatted in the report.

The user can select to include the message's Message Descriptor and/or Named Properties in the report. Click **Save** to generate the report.



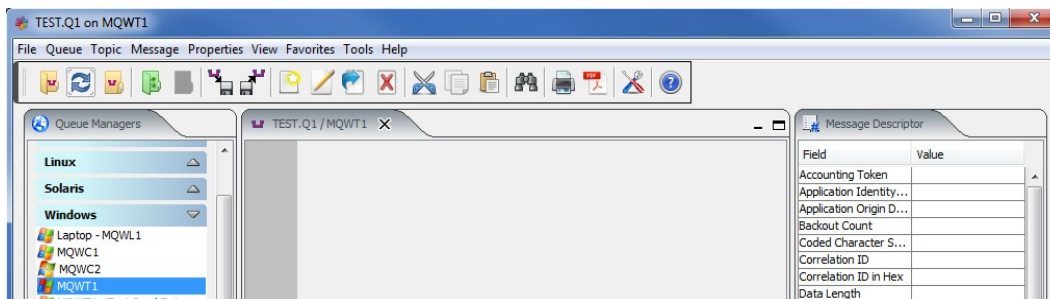
Click **Ok**



7.14 Importing Files

This section will describe how to import one or more files as message into an opened queue or topic.

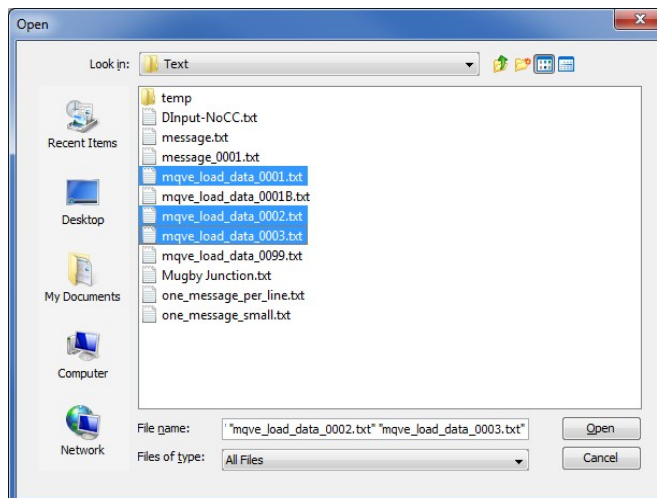
If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Insert File**.

Now select one or more files or change directories to locate the files and then click **Open**

Note: You can select more than one file in this dialog box. Use either the **Shift** or **Ctrl** keys when selecting the files.



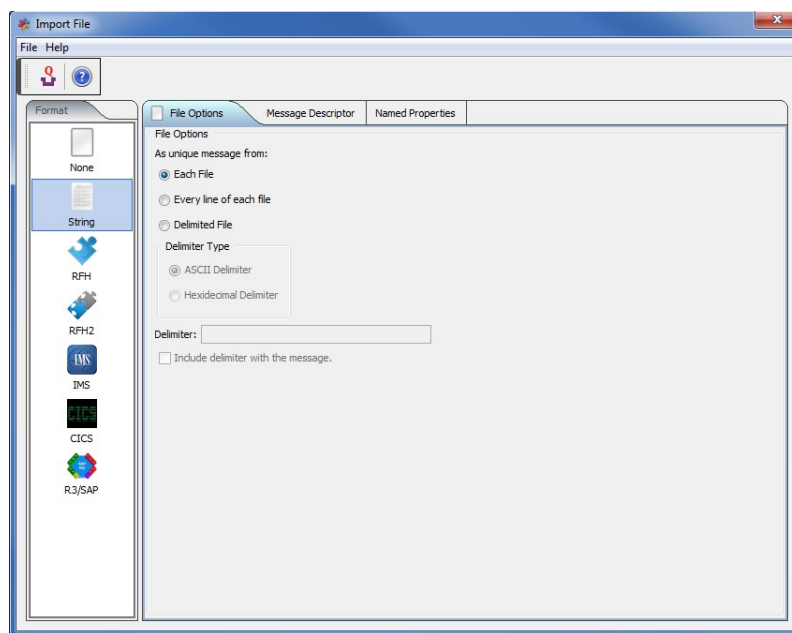
The Import File Wizard is designed to help the user quickly create 7 different MQ message formats. i.e. None, String, RFH, RFH2 (JMS), IMS, CICS and R3/SAP.

The user can alter the contents of the MQMD. Plus if the user selects RFH, RFH2 (JMS), IMS, CICS or R3/SAP message format, the user can alter those values too.

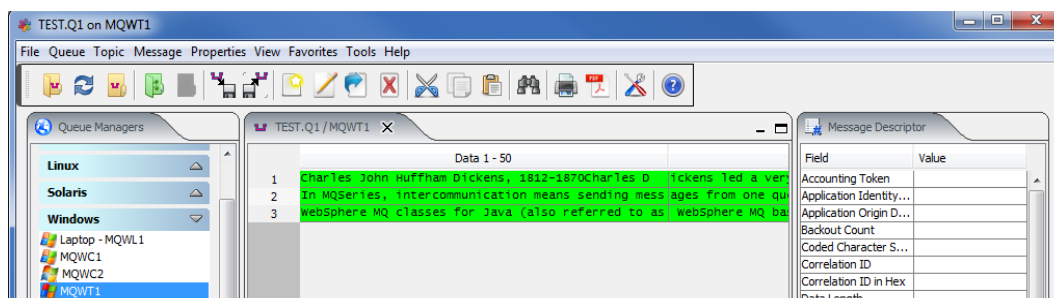
There are 3 file options when importing files:

- Each file as a message
- Every line of each file - a message will be created for each line (record) in every individual file
- Delimited File – the file will be parsed, based on the delimiter, into sections and each parsed section will be a message.

Note: The Import File Wizard will put all messages to the queue using the MQ message format that the user creates in this step.



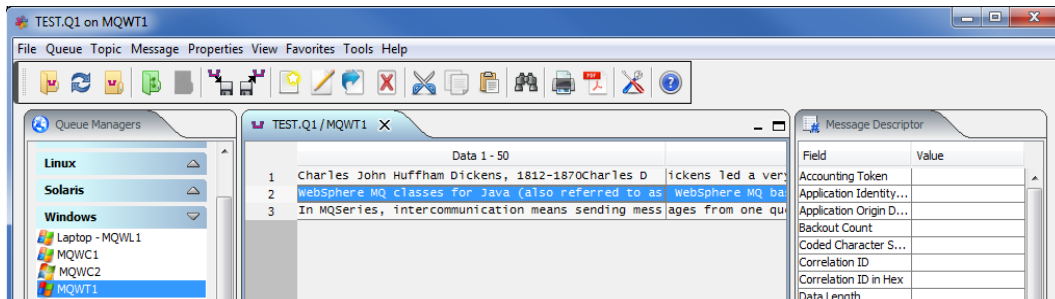
The main panel is updated with the 3 new messages.



7.15 Exporting Messages

This section will describe how to export a message to a file from an opened queue or topic.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Export Message**.

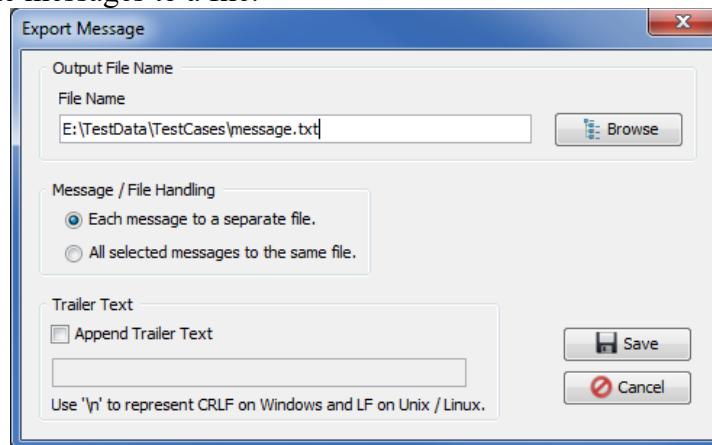
The user now selects how the messages are to be outputted to a file:

- Select **Each message to a separate file** for separate files for each message in the queue.
- Select **All selected messages to the same file** for 1 (one) output file. The single file will contain all selected messages that will be exported.

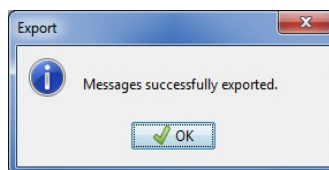
Trailer Text

- Select **Append Trailer Text** to add user defined text to the end of each message as it is saved to the file. Use "\n" to represent CRLF on Windows and LF on Unix/Linux.

The user may use the **Browse** button to select the directory and file name to be used for the exporting. Click **Save** to export the messages to a file.



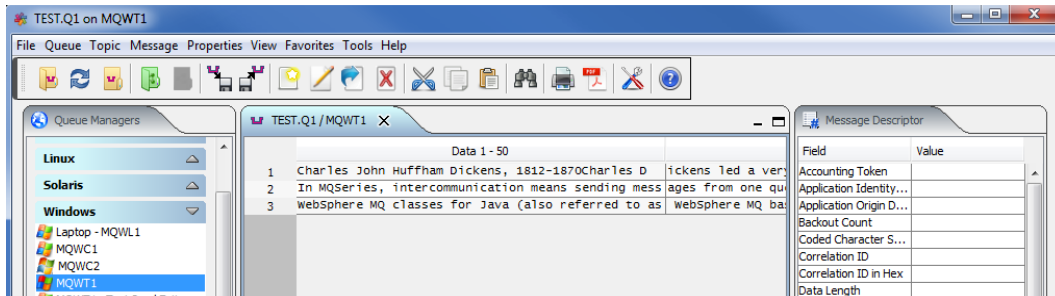
Click **Ok**.



7.16 Find

This section will describe how to use the Find feature. The Find function allows the user to search the messages of the queue for a particular text string.

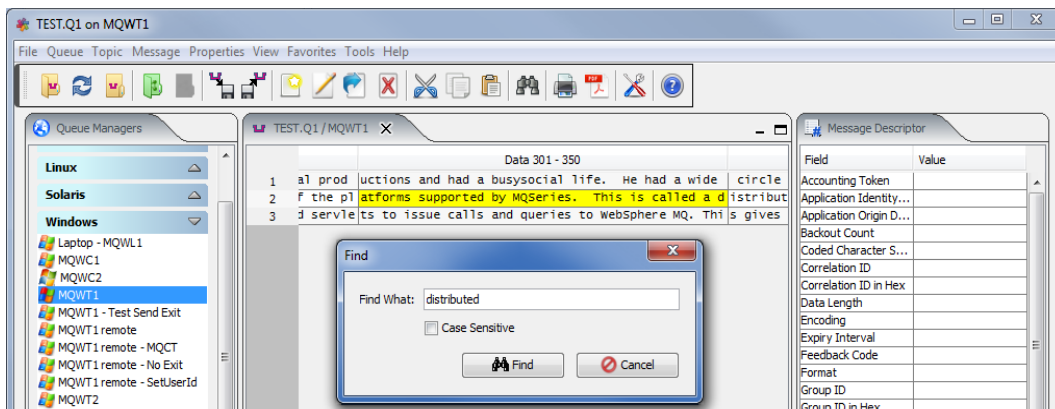
If you have previously opened TEST.Q1, the main panel may look something like:



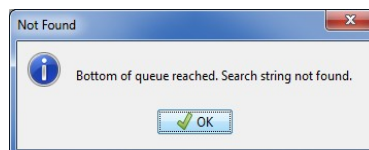
From the main panel of MQ Visual Edit, select **Message**, then **Find**.



After clicking **Find**, if a match is found, the table cell containing the matching string will be highlighted in yellow.



When you are done searching, click the **Cancel** button. The row containing the last matching search string will be highlighted.



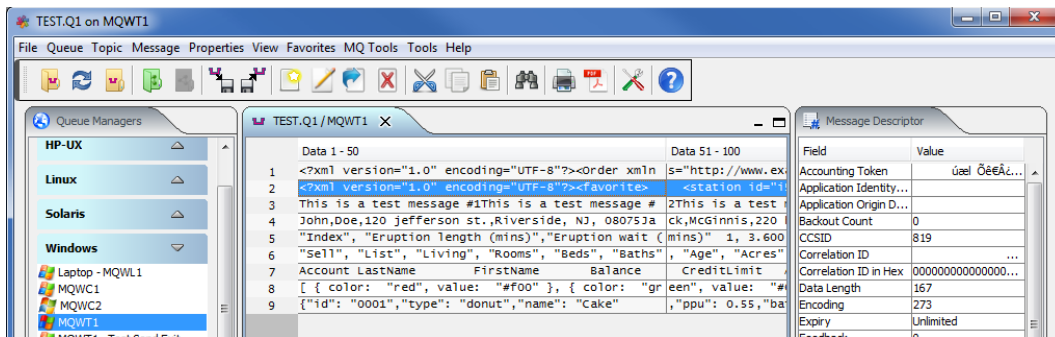
8 Message Edit

This chapter will describe the various docks of the Message Edit window.

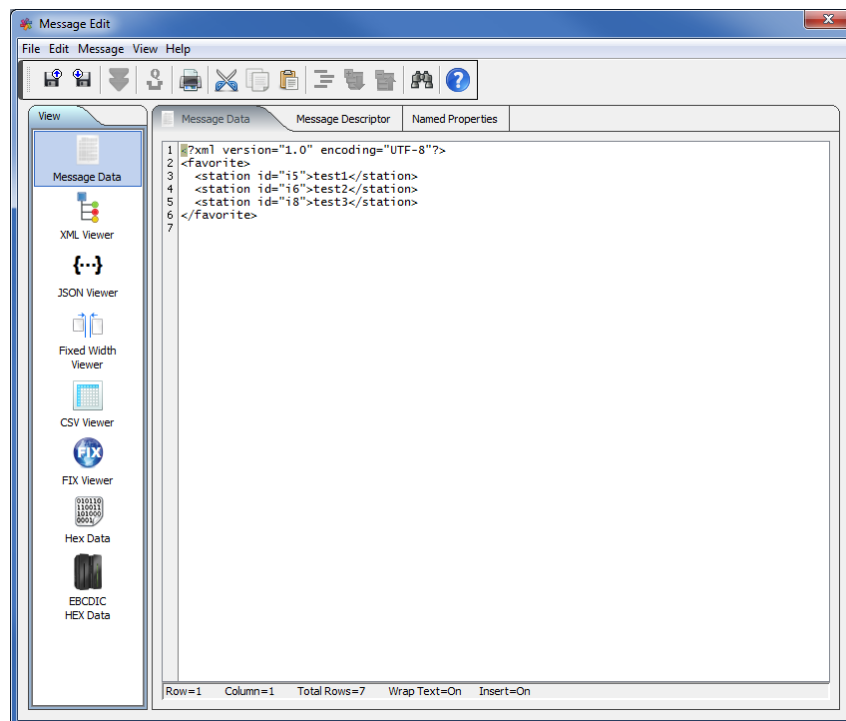
8.1 Message Data Dock

This section will describe how to edit a message in the opened queue.

If you have previously opened TEST.Q1, the main panel may look something like:

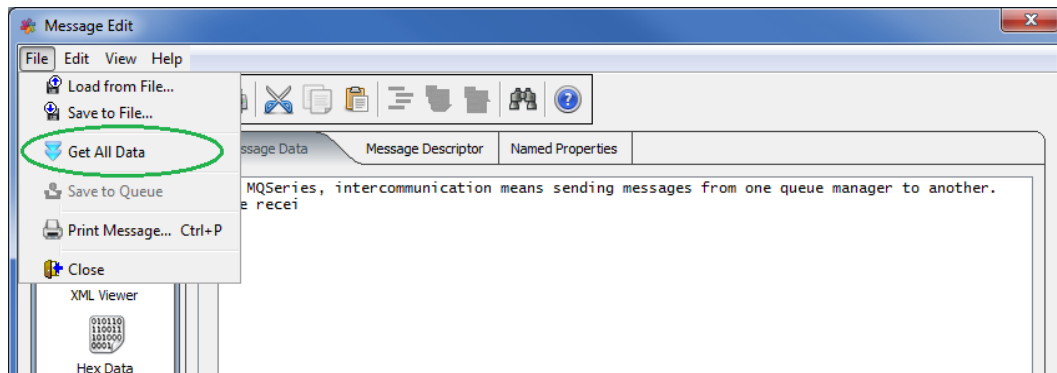


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



You can now edit, updated or delete sections of the message text. Clicking the **File -> Save to Queue** will delete the old copy of the message and insert the new updated message into the queue.

If the user has unselected the “*Automatically retrieve the entire message data when opening the 'Message Edit' window*” option on the MQ Queue panel of the Preferences window then if the message is larger than the “*Maximum size of each message to retrieve*” option then MQ Visual Edit will enable the “Get All Data” menu item (under File) on the Message Edit window.



The following are the dropdown menus that currently exist for the Message Edit Window.

Under File:

- **Load from File** - Allows the user to load (import) the contents of a text file into the current message text.
- **Get All Data** – if the retrieved message data is smaller than the actual message size then this menu item will be enabled.
- **Save to File** - Allows the user to save the message content to a plain text file.
- **Save to Queue** - Allows the user to save the message back to the queue (use this function after a change or update to the message content or the message's MQMD header.)
- **Print Message** - Allows the user to print the message
- **Close** - Allows the user to discard the Message Edit window and return to the main window.

Under Edit:

- **Cut** - Allows user to cut part or all of the message content to the system's clipboard.
- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Paste** - Allows user to paste from the system's clipboard into the message content.
- **Find** - Provides the user with the ability to search the message content for a specific string.
- **Replace** - Provides the user with the ability to search the message content for a specific string and replace the string with another string.

Under Message:

- **User Formats** - Allows user to define a message format for the data.
- **Apply Format** - Allows user to apply a specific message format to the data.

Under View:

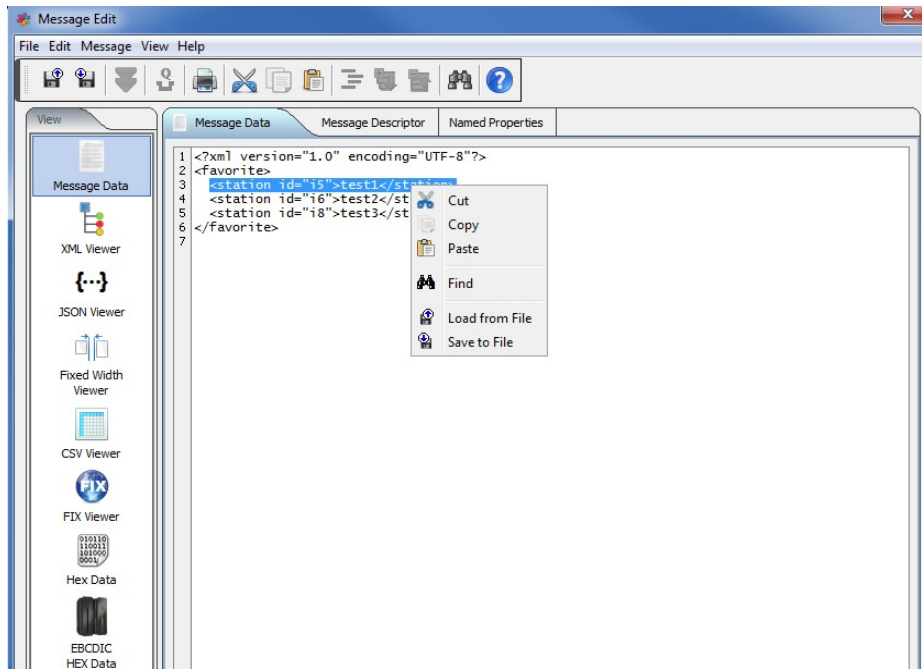
- **Wrap Text** - Allows the user to toggle the message content's display between wrapped and unwrapped text.
- **Select All** - Allows the user to quickly select all of the message's content.
- **Unselect All** - Turns the selection off (if on) and sets the cursor to column 1 of row 1.

Under Help:

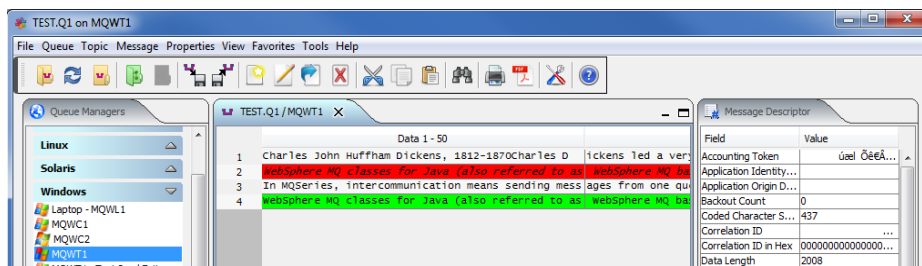
- **Help** - Allows the user to display the MQ Visual Edit User Guide.

In the message content window of the Message Data dock, if the user performs a right-mouse click then a popup window will be displayed. The user will be able to do the following:

- **Cut** - Allows user to cut part or all of the message content to the system's clipboard.
- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Paste** - Allows user to paste from the system's clipboard into the message content.
- **Find** - Provides the user with the ability to search the message content for a specific string.
- **Load from File** - Allows the user to load (import) the contents of a text file into the current message text.
- **Save to File** - Allows the user to save the message content to a plain text file.



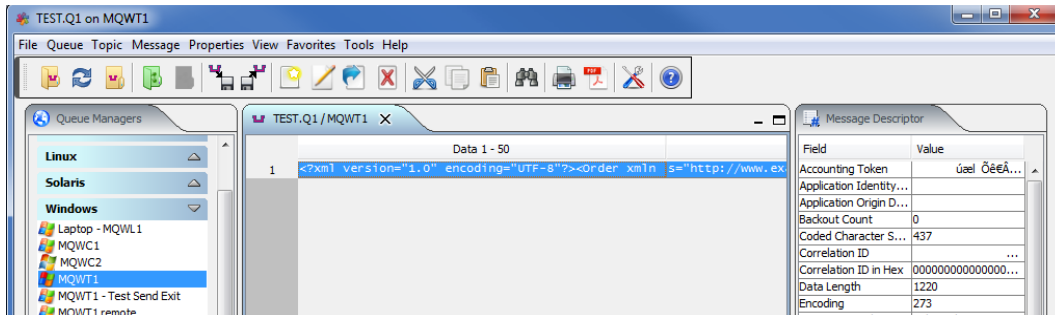
The main panel is updated with the new message from the editing session:



8.2 XML Viewer Dock

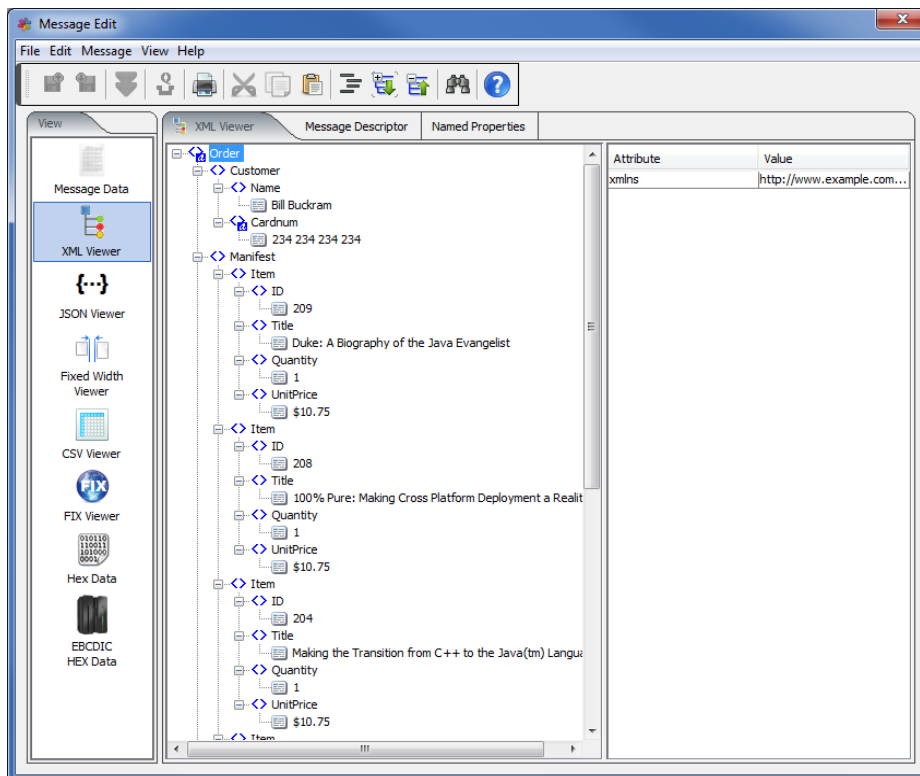
This section will describe how to view a message in the opened queue. If the data is well formed XML then the XML Viewer will be able to display it.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message** then click the **XML Viewer** button.

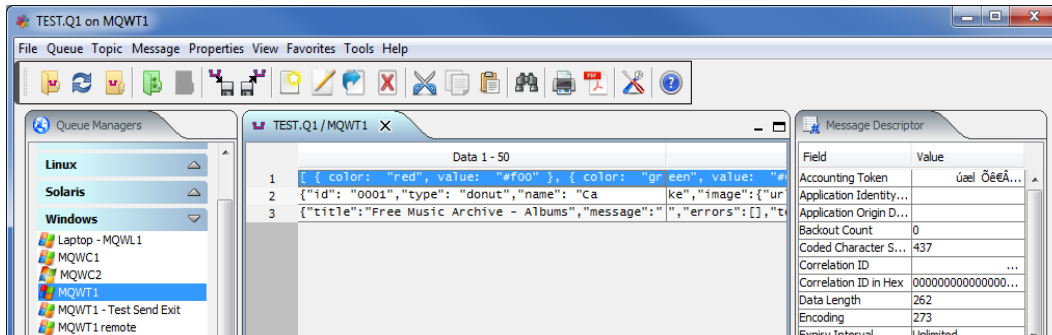
The XML data is shown in a tree view. The user can expand any entry they wish to. This will allow them to view attributes, nodes and data with the XML data.



8.3 JSON Viewer Dock

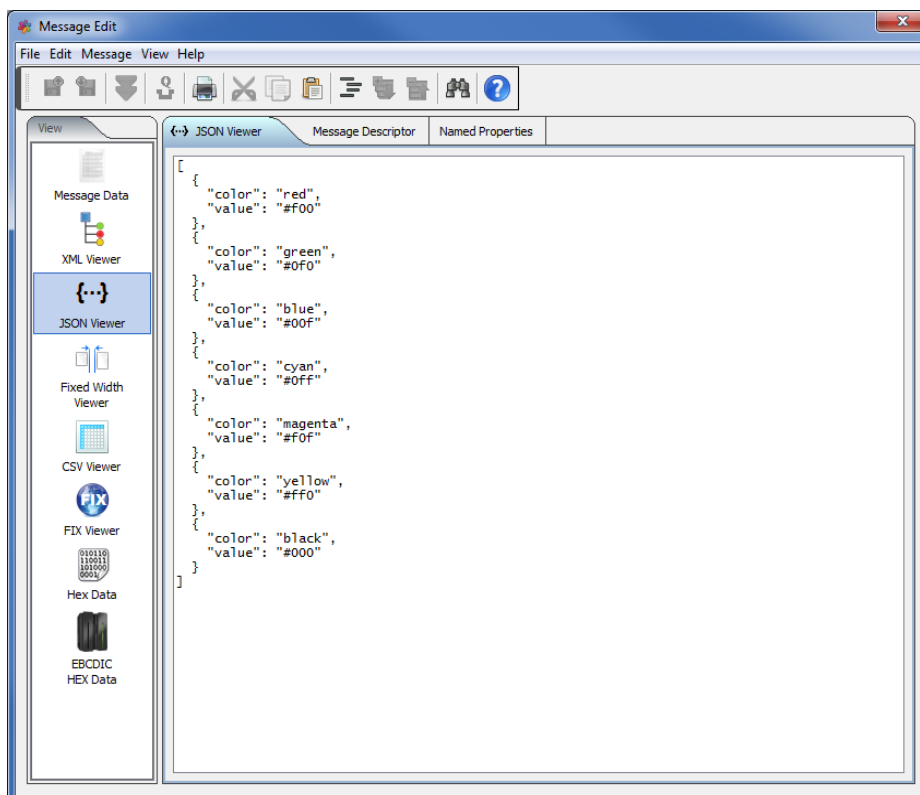
This section will describe how to view a message in the opened queue. If the data is well formed JSON then the JSON Viewer will be able to display it.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message** then click the JSON Viewer.

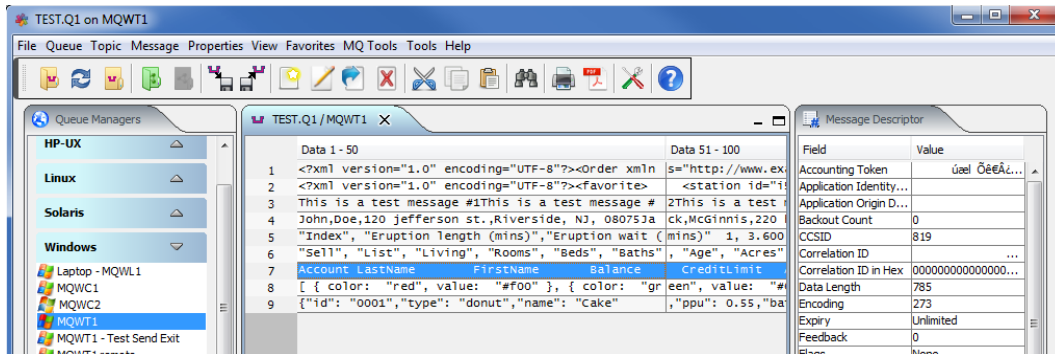
The JSON data is presented in a formatted view.



8.4 Fixed Width Viewer Dock

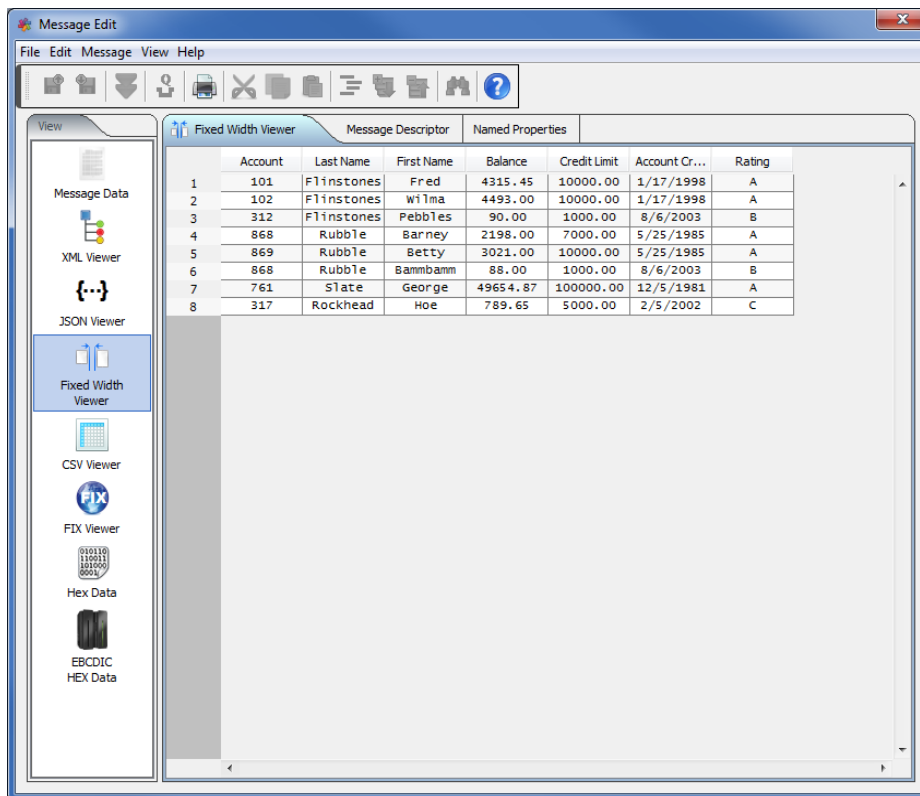
This section will describe how to view a message in the opened queue. If a Fixed Width format has been created then data can be formatted using it.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message** then click the **Fixed Width Viewer** button.

If there is a Fixed Width user format defined for the opened queue then MQ Visual Edit will automatically use it when the **Fixed Width Viewer** dock button is clicked.

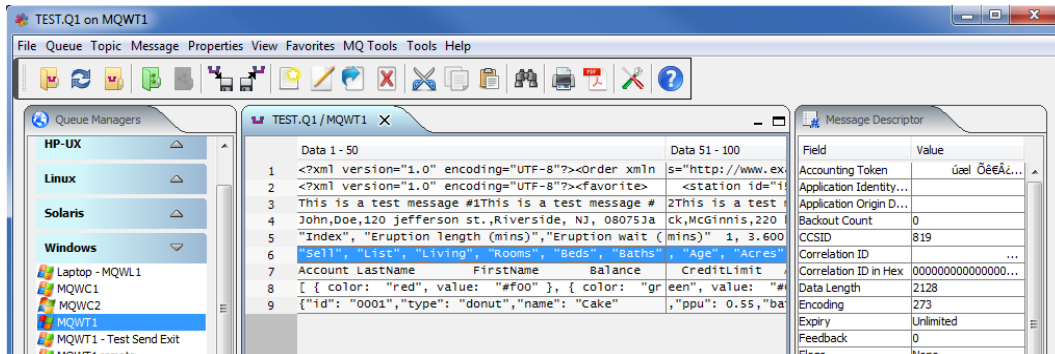


If there is no Fixed Width user format defined for the opened queue then the user can manually select one of the Fixed Width user formats by clicking **Message -> Apply Format -> XXXX** where XXXX is one of the Fixed Width user formats.

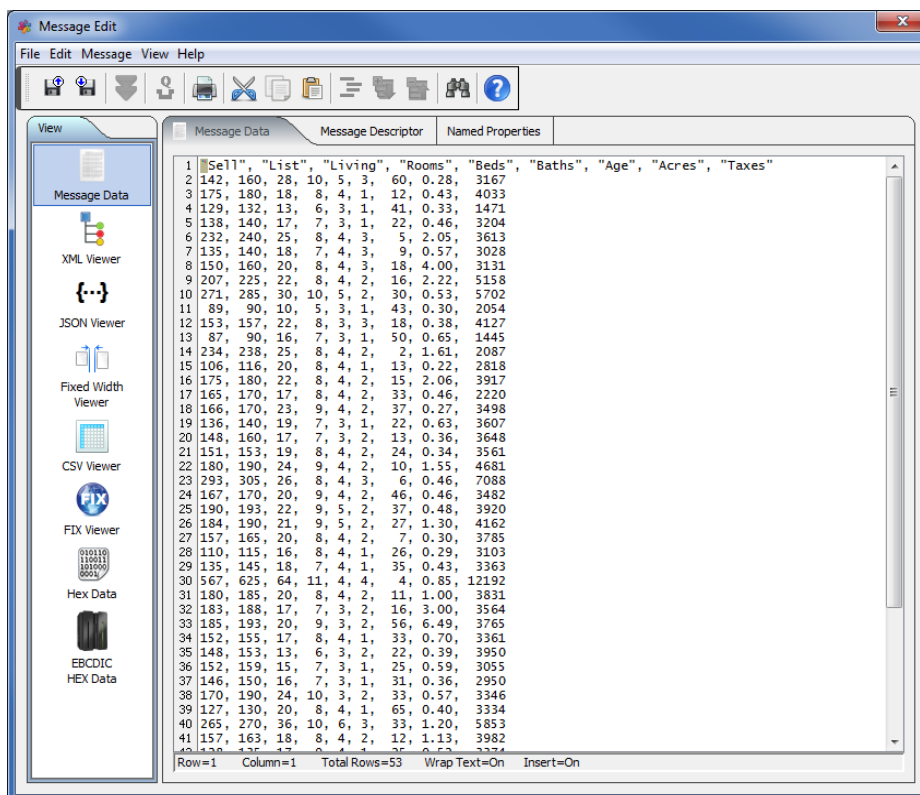
8.5 CSV Viewer Dock

This section will describe how to view a message in the opened queue. The data can be viewed with or without a CSV format.

If you have previously opened TEST.Q1, the main panel may look something like:

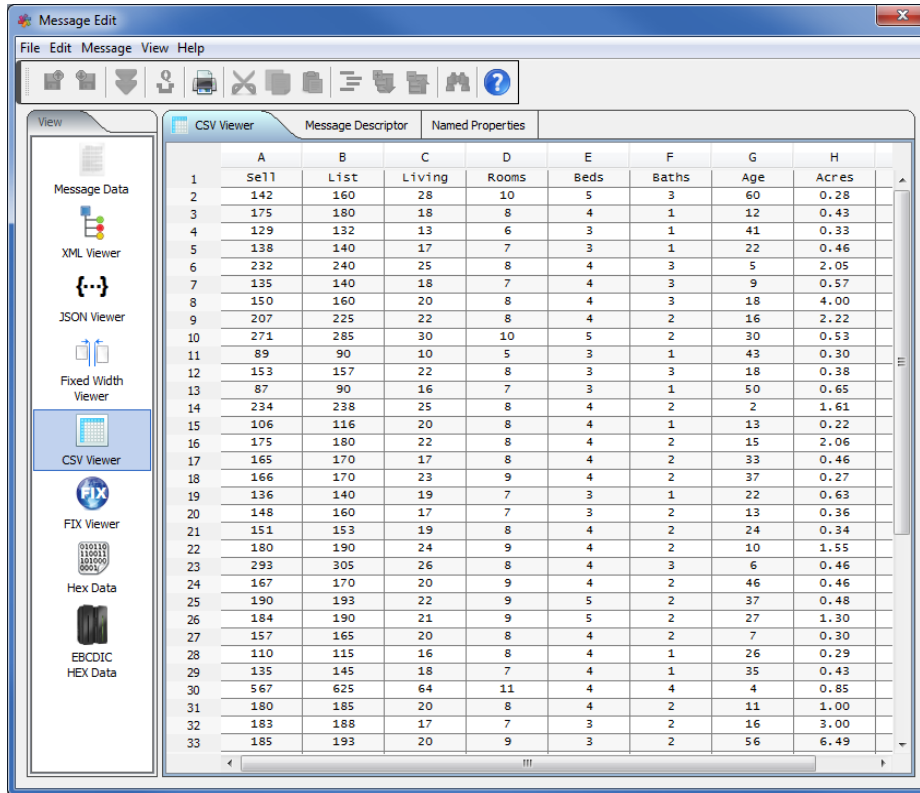


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message** to open the message in the Message Edit window.



Click the **CSV Viewer** button to view the message in the CSV Viewer.

If there is a CSV user format defined for the opened queue then MQ Visual Edit will automatically use it when the **CSV Viewer** dock button is clicked.



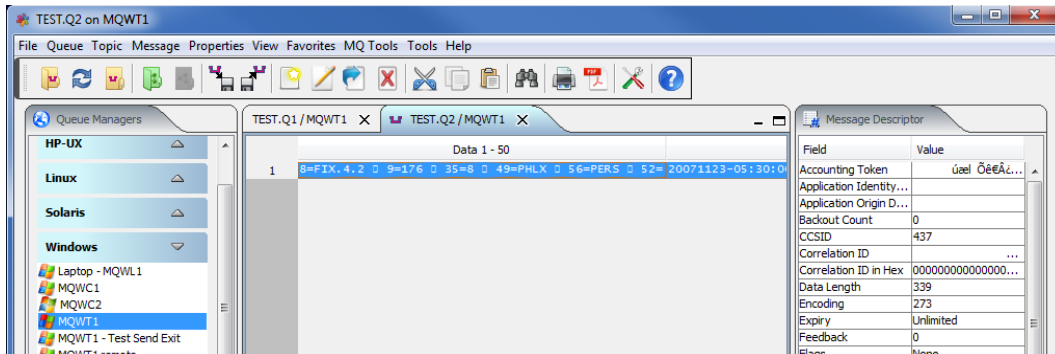
Note: If a CSV format is not being used and the first row of data contains the header row, then click **View -> Use first row for column names** menu item to display it.

If there is no CSV user format defined for the opened queue then the user can manually select one of the CSV user formats by clicking **Message -> Apply Format -> XXXX** where XXXX is one of the CSV user formats.

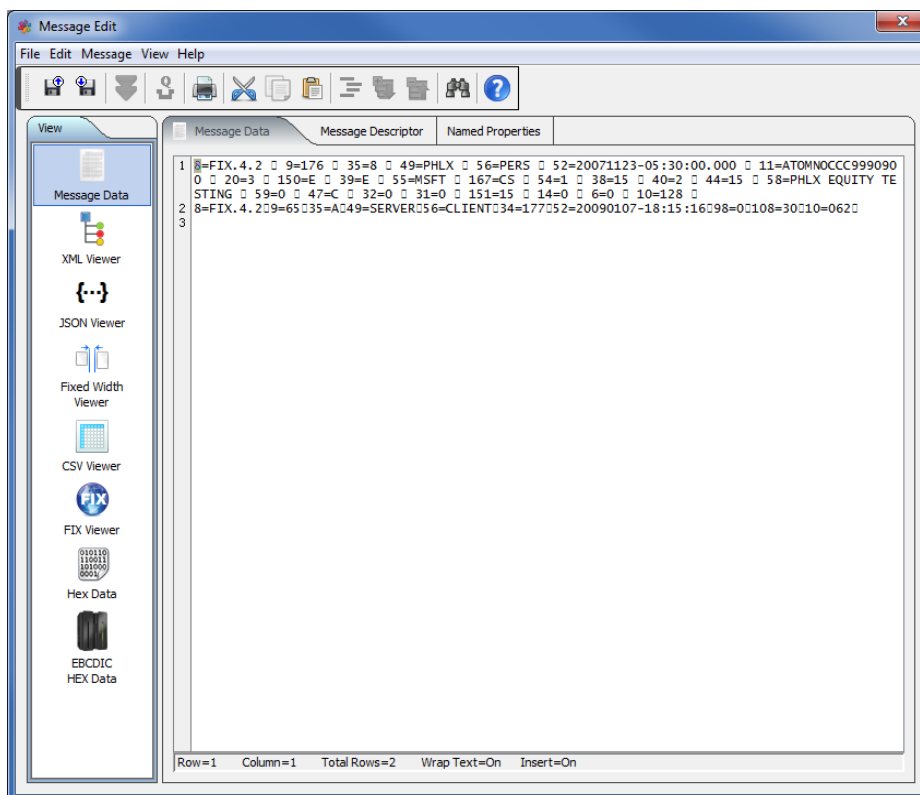
8.6 FIX Viewer Dock

This section will describe how to view a message in the opened queue. The data can be viewed with or without a FIX format.

If you have previously opened TEST.Q1, the main panel may look something like:

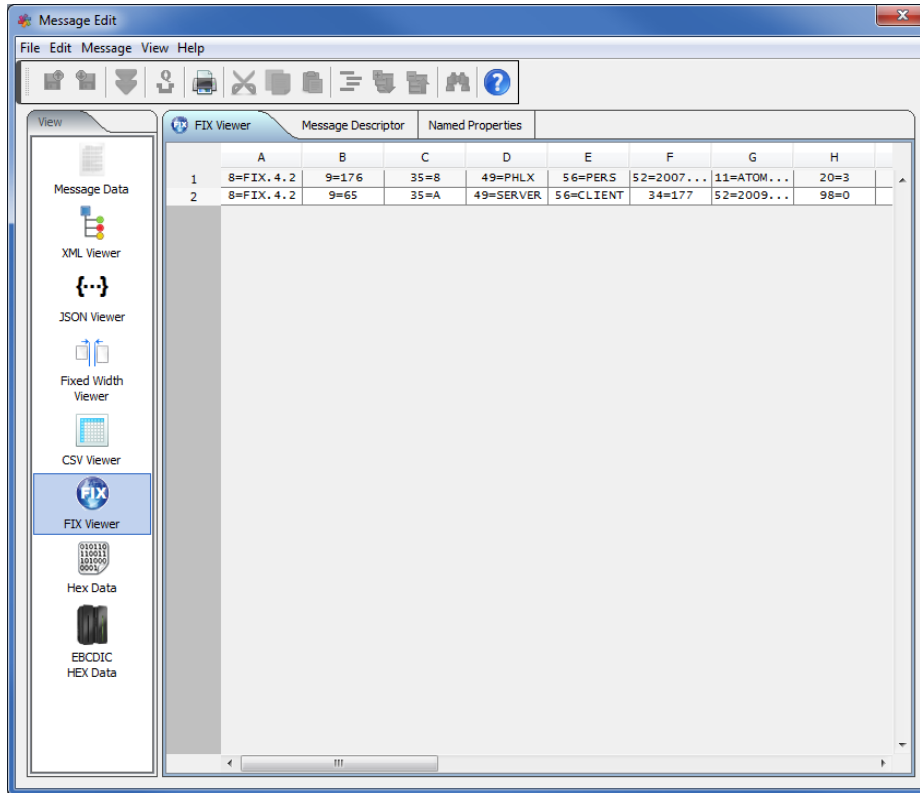


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message** to open the message in the Message Edit window.



Click the **FIX Viewer** button to view the message in the FIX Viewer.

If there is a FIX user format defined for the opened queue then MQ Visual Edit will automatically use it when the **FIX Viewer** dock button is clicked.



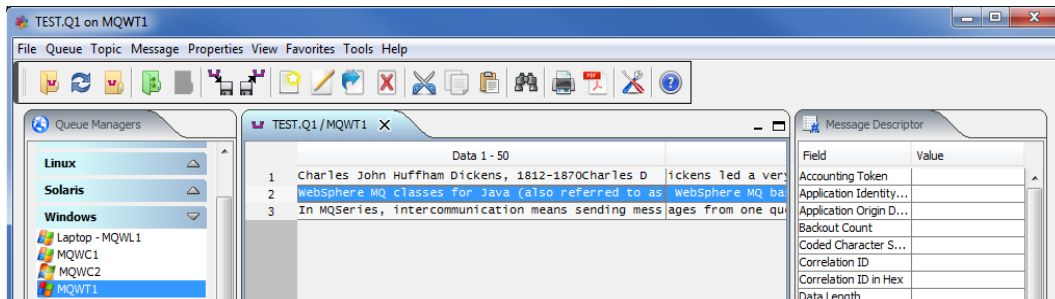
Note: If a FIX format is not being used and the first row of data contains the header row, then click **View -> Use first row for column names** menu item to display it.

If there is no FIX user format defined for the opened queue then the user can manually select one of the FIX user formats by clicking **Message -> Apply Format -> XXXX** where XXXX is one of the FIX user formats.

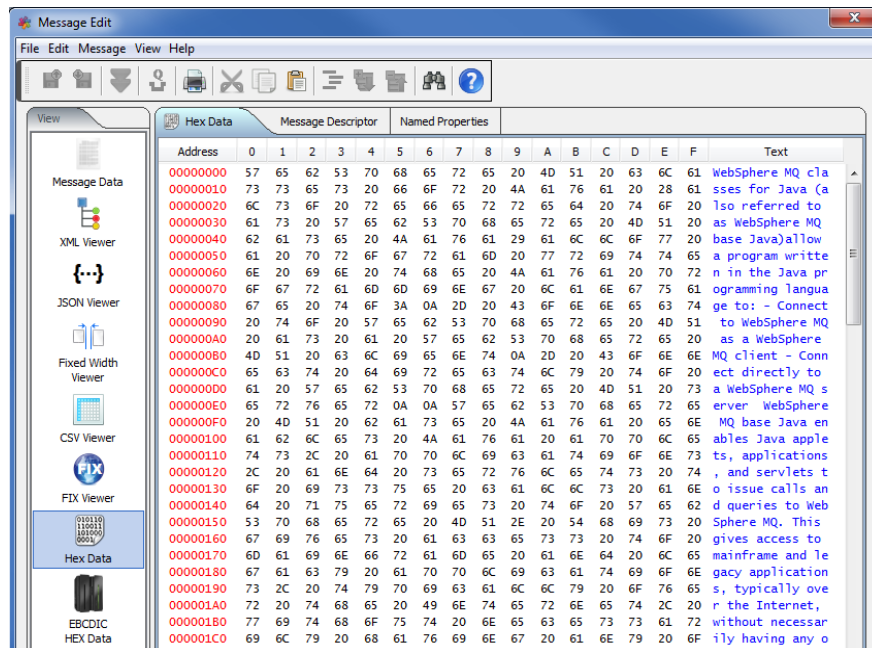
8.7 Hex Data Dock

This section will describe how to edit a message in the opened queue.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



In the columns of 0,1,2,3,4,5,6,7,8,9,0,A,B,C,D,E,F, you can alter the message content by using hexadecimal values. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.

Under **File**:

- **Save to Queue** - Allows the user to save the message back to the queue (use this function after a change or update to the message content or the message's MQMD header.)
- **Print Message** - Allows the user to print the message.

Under **Edit**:

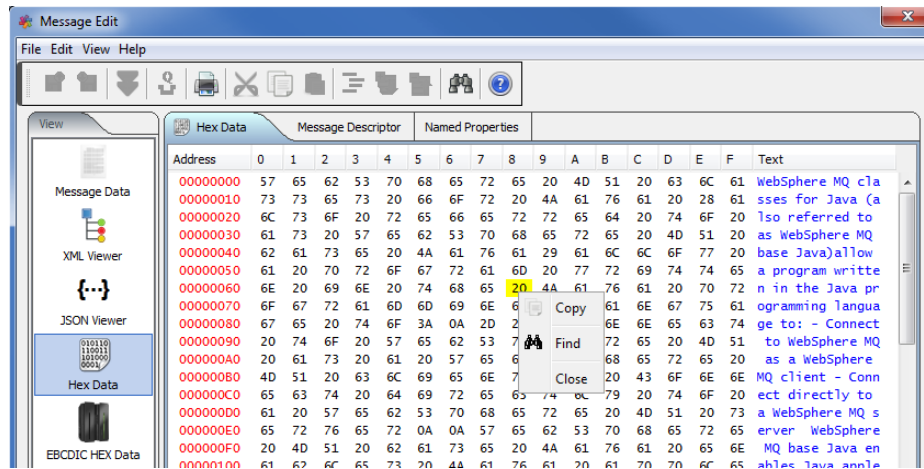
- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Find** - Provides the user with the ability to search the message content for a specific string.

Under **Help**:

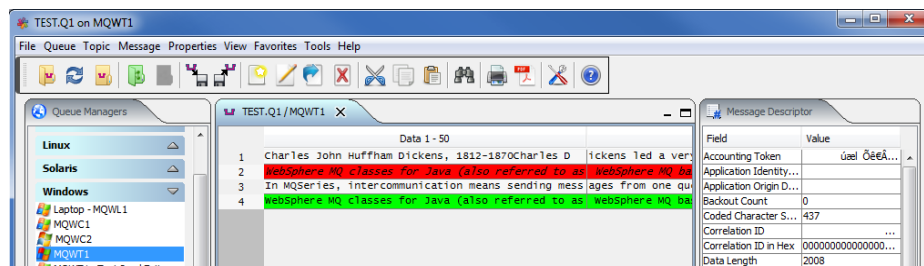
- **Help** - Allows the user to display the help files.

In the Hex Data tab, if the user performs a right-mouse click then a popup window will be displayed. The user will be able to do the following:

- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Find** - Provides the user with the ability to search the message content for a specific string.
- **Close** - Close the Message Edit window.



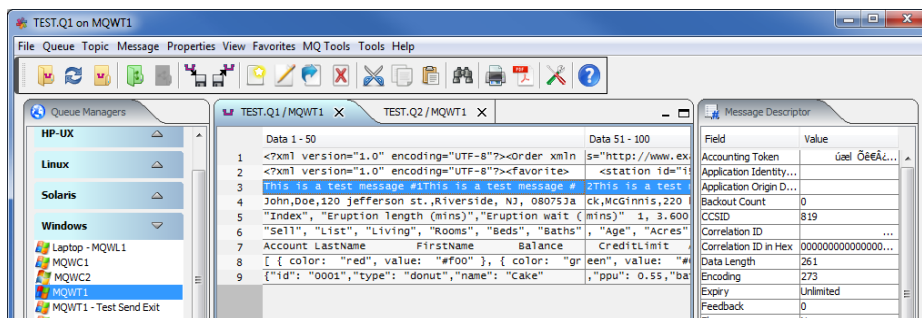
The main panel is updated with the new message from the editing session:



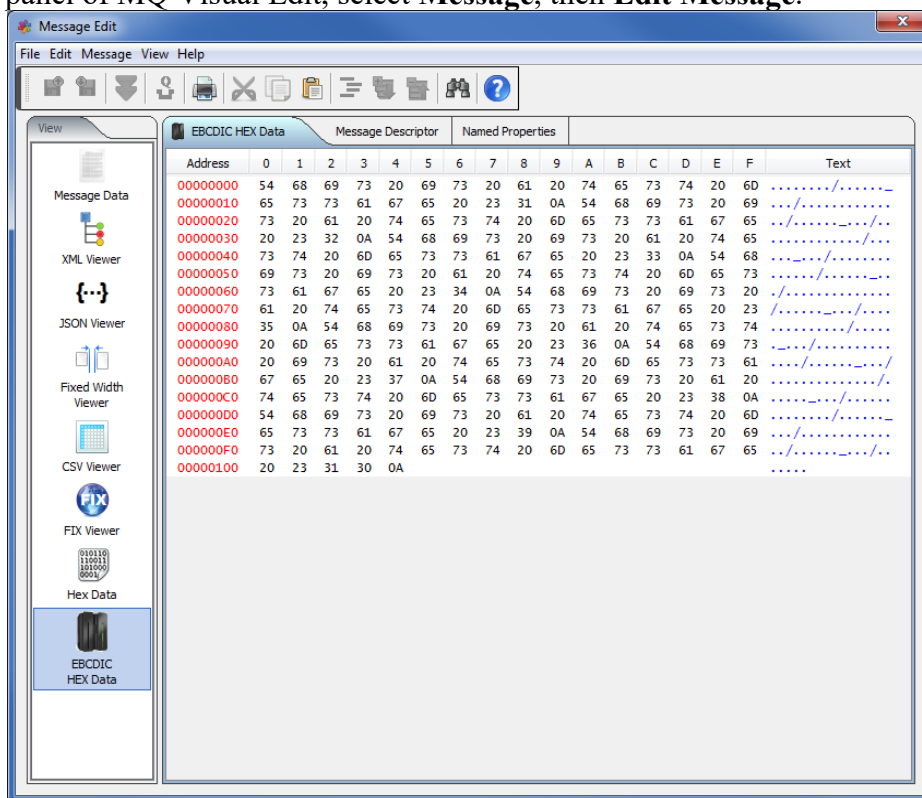
8.8 EBCDIC Hex Data Dock

This section will describe how to edit a message in the opened queue. Use this tab when the data is in EBCDIC format but the message's MQMD does not have the Format field set to reflect the EBCDIC content.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



In the columns of 0,1,2,3,4,5,6,7,8,9,0,A,B,C,D,E,F, you can alter the message content by using hexadecimal values. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.

Under **File**:

- **Save to Queue** - Allows the user to save the message back to the queue (use this function after a change or update to the message content or the message's MQMD header.)

- **Print Message** - Allows the user to print the message.

Under **Edit**:

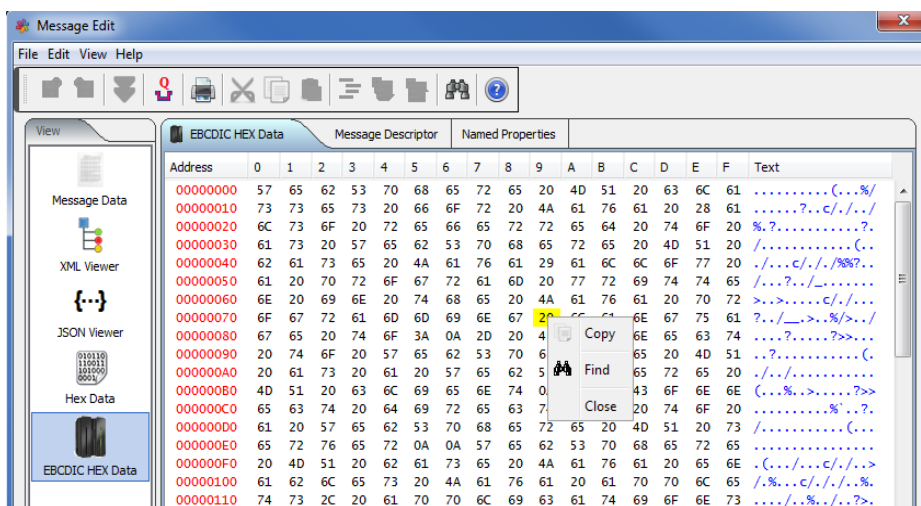
- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Find** - Provides the user with the ability to search the message content for a specific string.

Under **Help**:

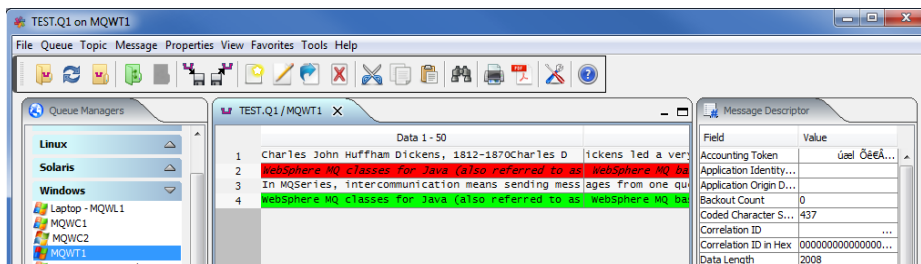
- **Help** - Allows the user to display the help files.

In the Hex Data tab, if the user performs a right-mouse click then a popup window will be displayed. The user will be able to do the following:

- **Copy** - Allows user to copy part or all of the message content to the system's clipboard.
- **Find** - Provides the user with the ability to search the message content for a specific string.
- **Close** - Close the Message Edit window.



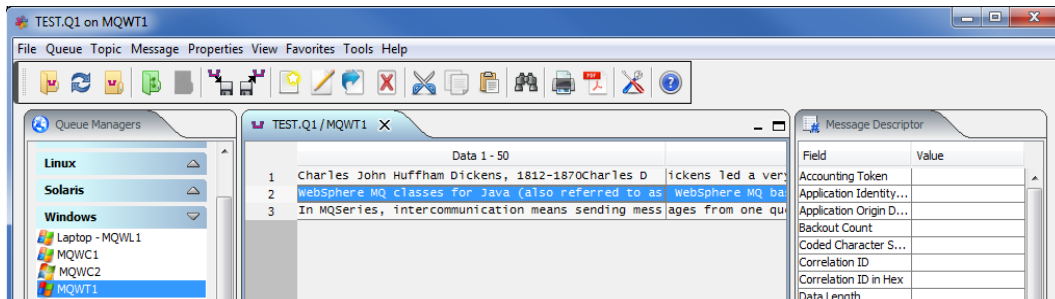
The main panel is updated with the new message from the editing session:



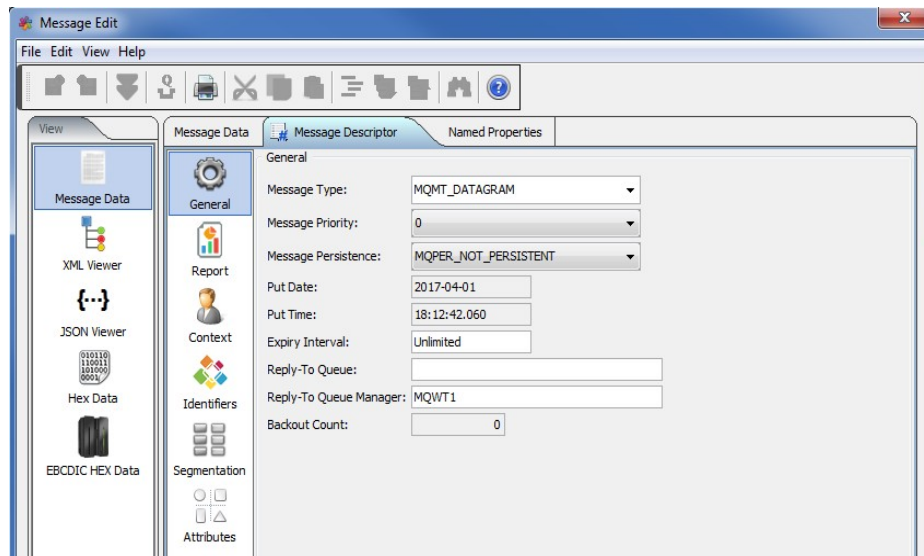
8.9 Message Descriptor Dock

This section will describe how to edit a message in the opened queue.

If you have previously opened TEST.Q1, the main panel may look something like:

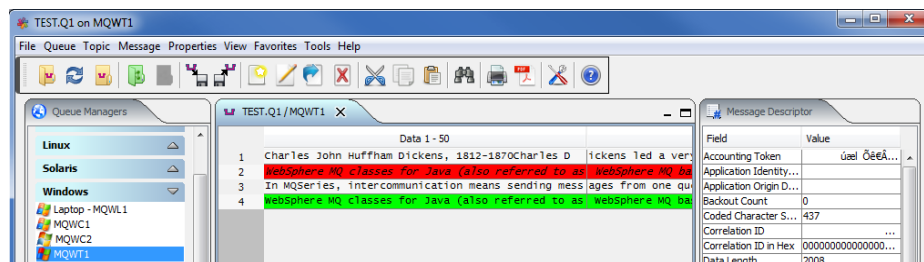


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



The user may alter any value on any of the Message Descriptor dock: **General**, **Report**, **Context**, **Identifiers**, **Segmentation** or **Attributes**. For more information about editing the Message Descriptor, go to chapter 9. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.

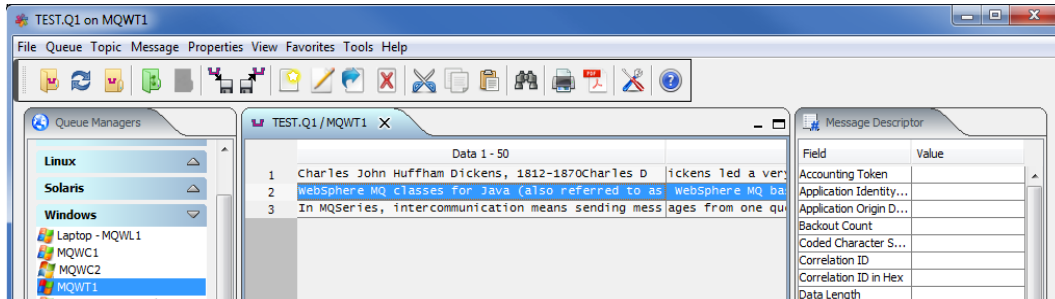
The main panel is updated with the new message from the editing session:



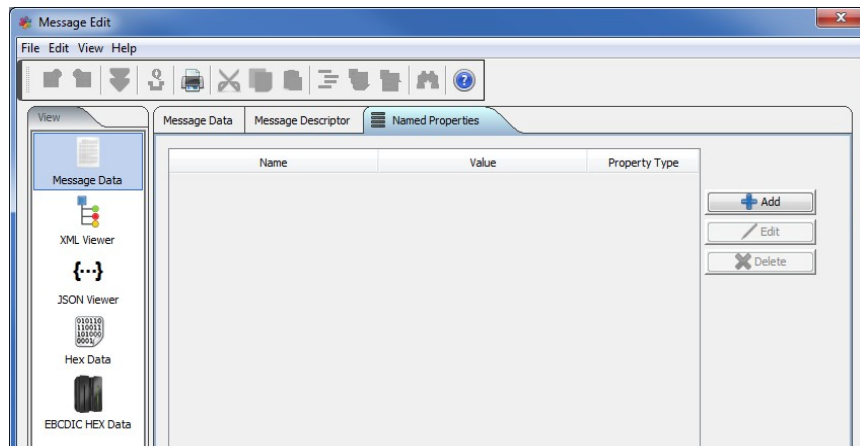
8.10 Named Properties Dock

This section will describe how to edit a message in the opened queue.

If you have previously opened TEST.Q1, the main panel may look something like:



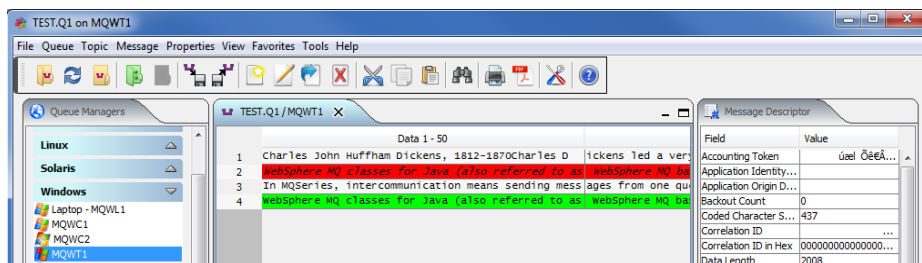
From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.



You can now edit, updated or delete sections of the message text. Clicking the **File -> Save to Queue** will delete the old copy of the message and insert the new updated message into the queue.

The user may add/edit/delete any value on any of the Named Properties dock. For more information about editing the Message Descriptor, go to chapter 9. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.

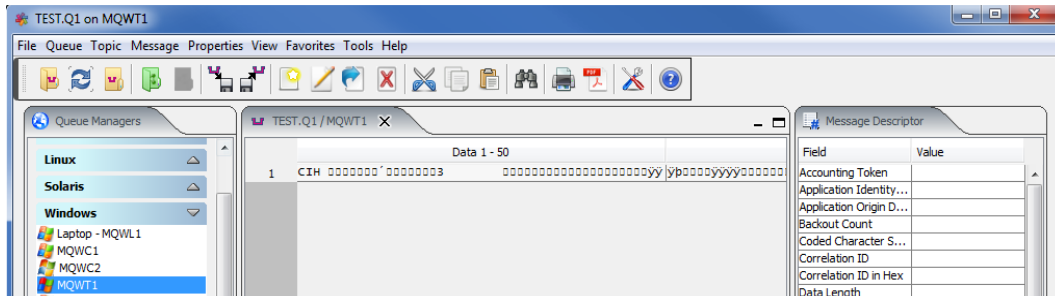
The main panel is updated with the new message from the editing session:



8.11 CICS Dock

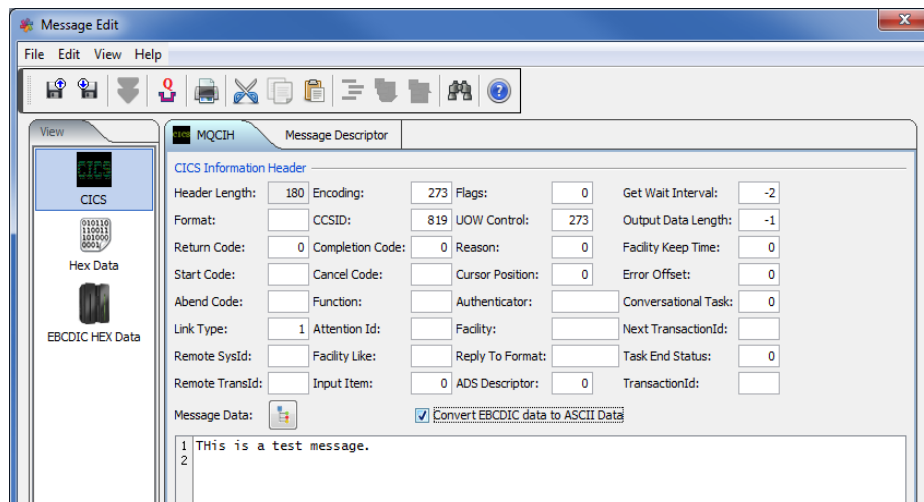
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQCIH header then the MQCIH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

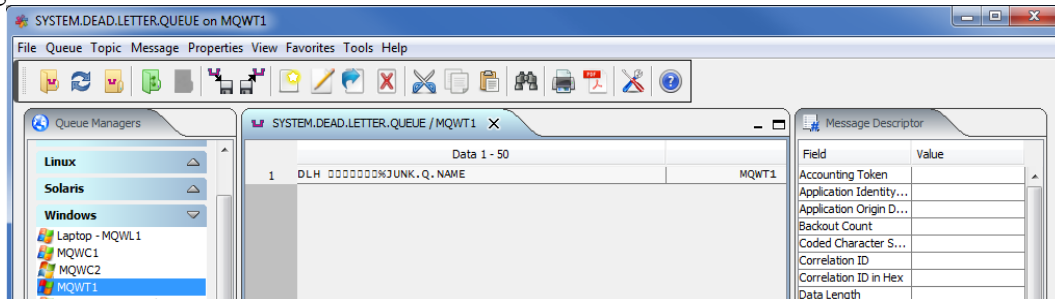
The MQCIH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.12 MQDEAD Dock

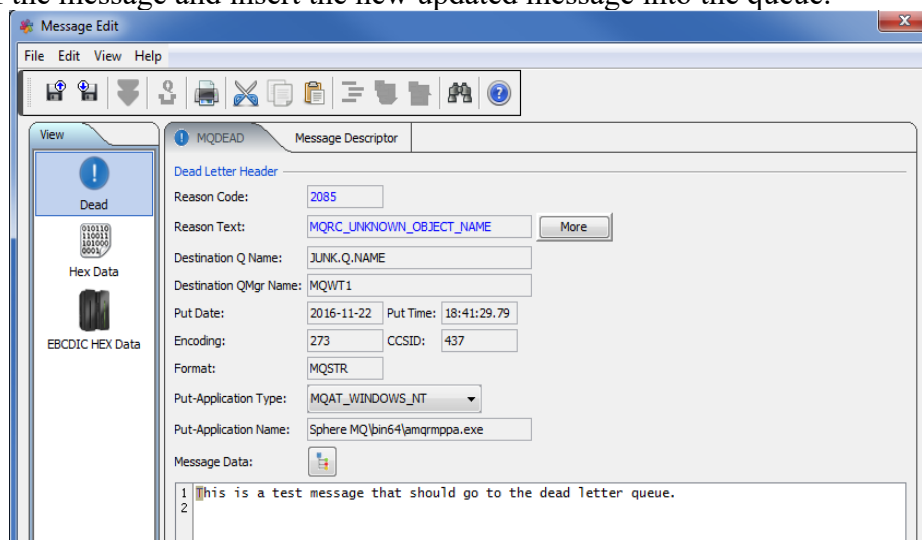
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQDEAD header (i.e. in the queue manager's dead letter queue) then the MQDEAD tab will appear on the Message Edit window.

If you have previously opened SYSTEM.DEAD.LETTER.QUEUE, the main panel may look something like:

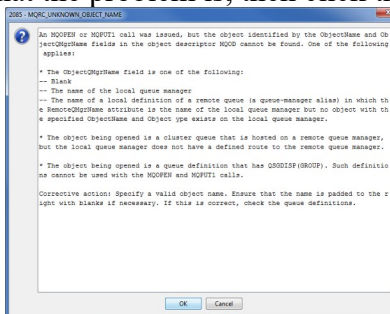


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

The MQDEAD header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



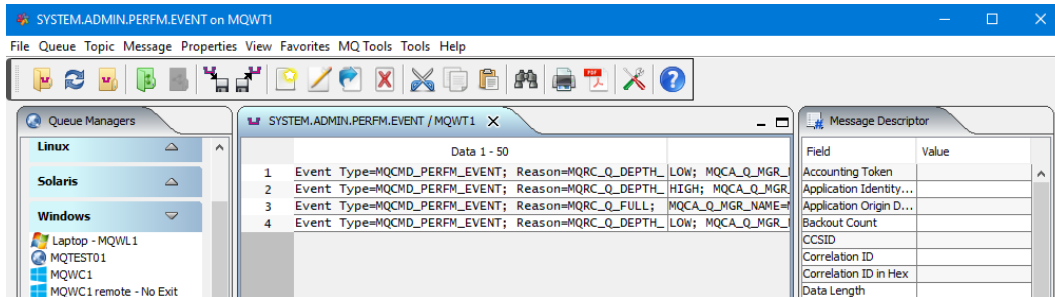
To help in problem resolution, the reason code has been translated into **Reason Text**. If this is not enough information to determine what the problem is, then click the **More** button.



8.13 MQEVENT Dock

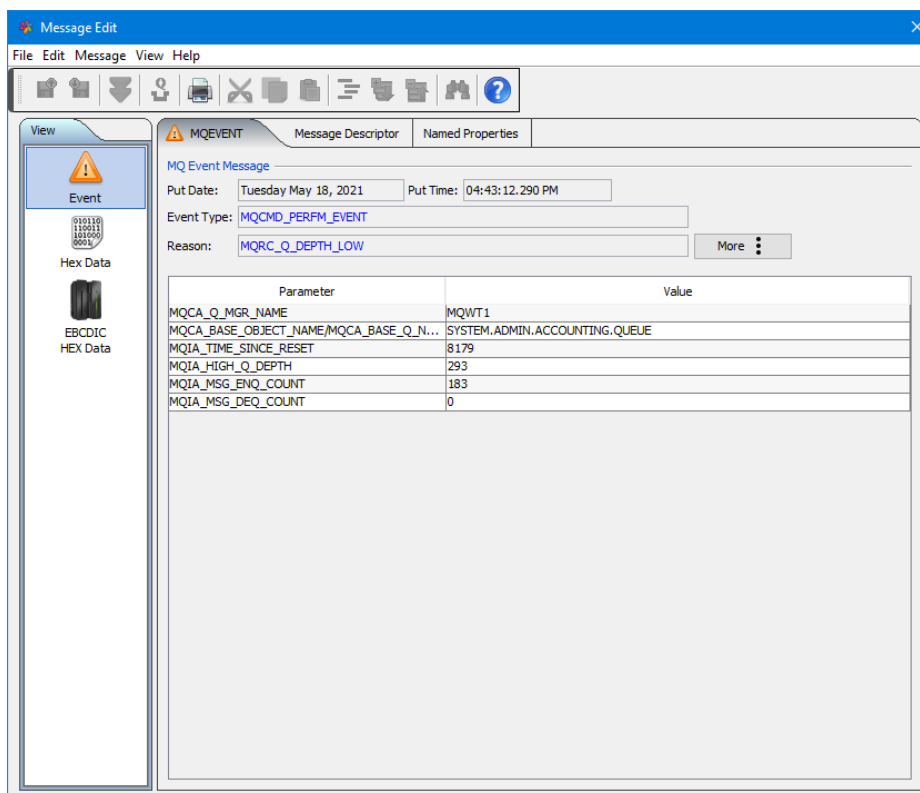
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQEVENT header then the MQEVENT tab will appear on the Message Edit window.

If you have previously opened SYSTEM.ADMIN.PERFM.EVENT, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

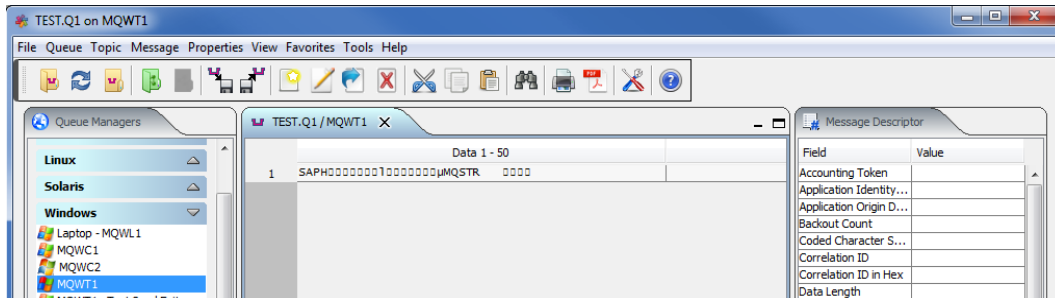
The MQEVENT header has been parsed into easy to read fields.



8.14 MQHSAP Dock

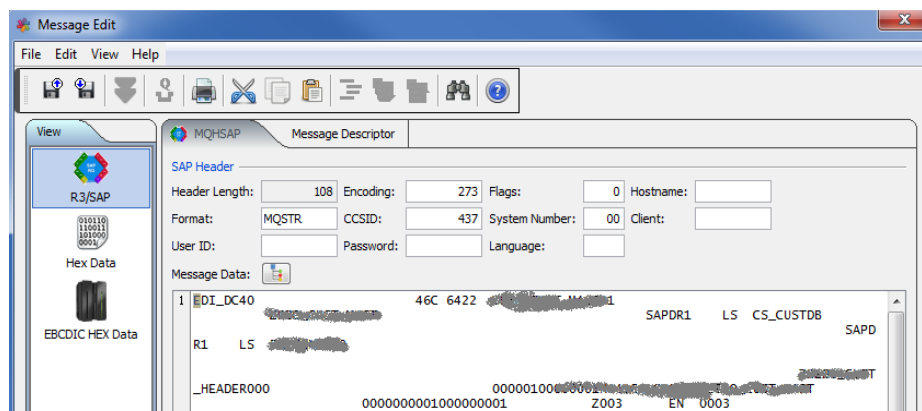
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQHSAP header then the MQHSAP tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

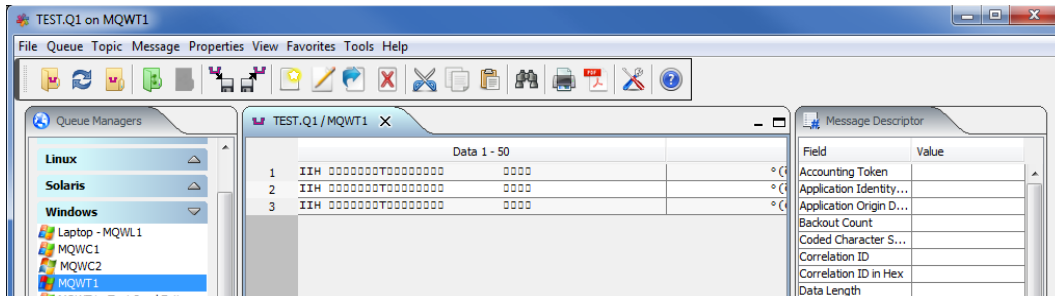
The MQHSAP header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.15 IMS Dock

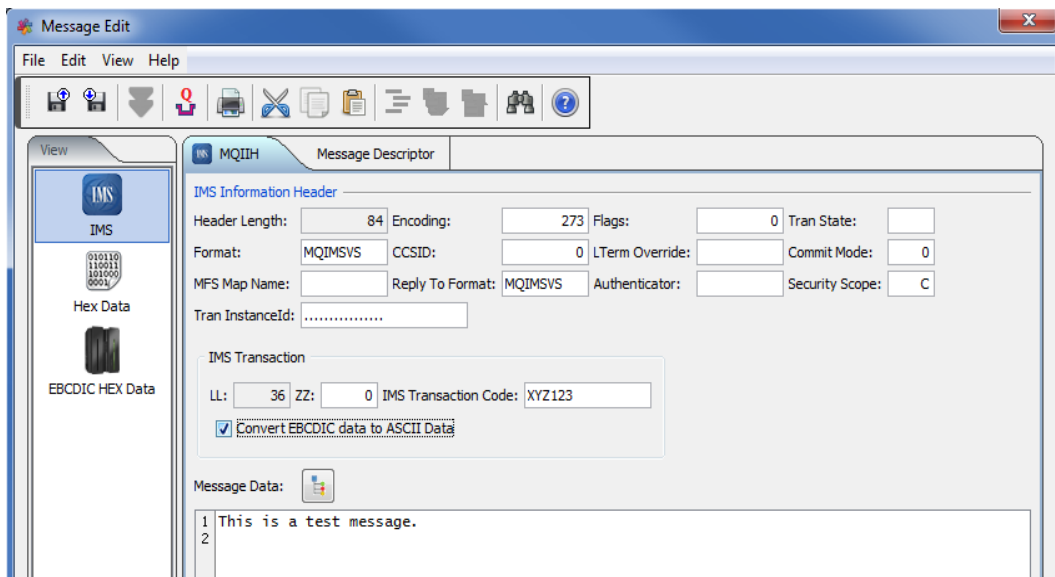
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQIIH header then the MQIIH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

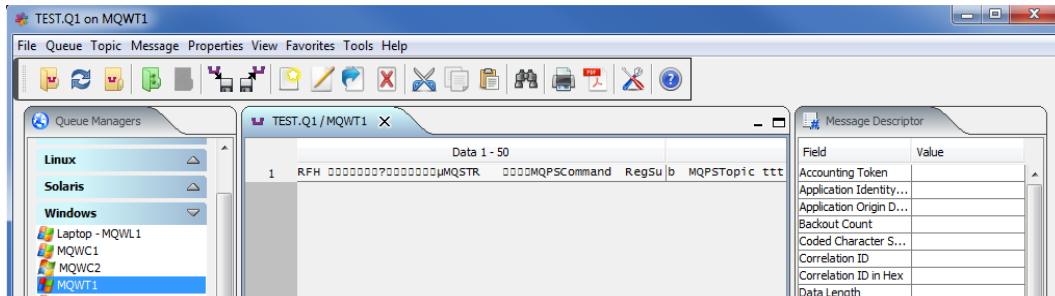
The MQIIH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.16 MQRFH Dock

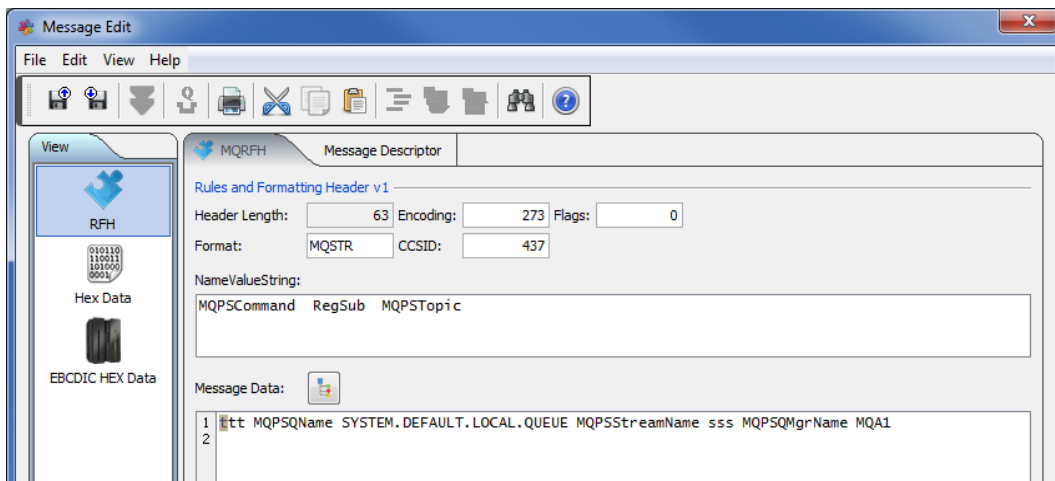
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQRFH header then the MQRFH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

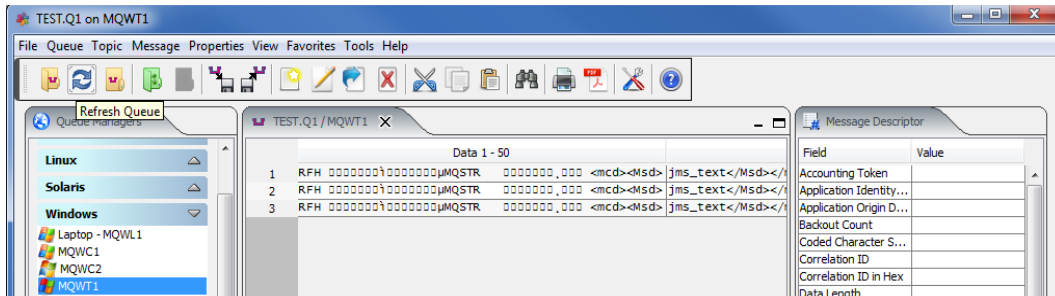
The MQRFH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.17 MQRFH2 Dock

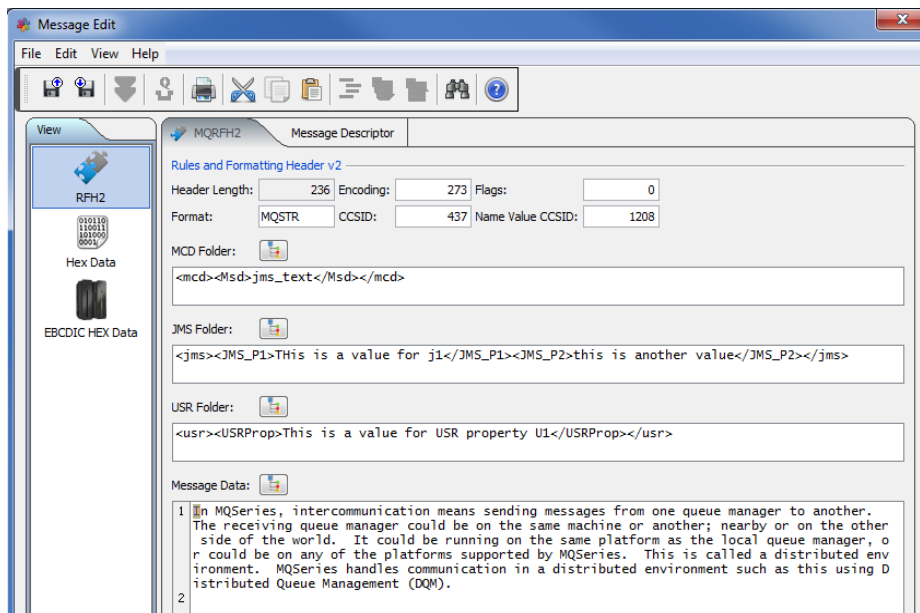
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQRFH2 header then the MQRFH2 tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

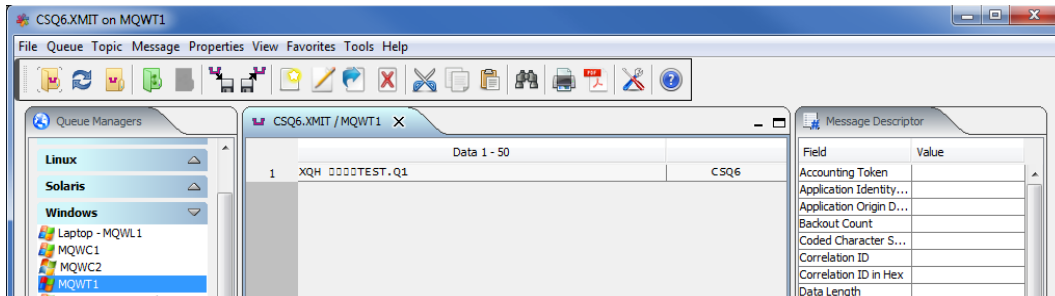
The MQRFH2 header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.18 MQXMIT Dock

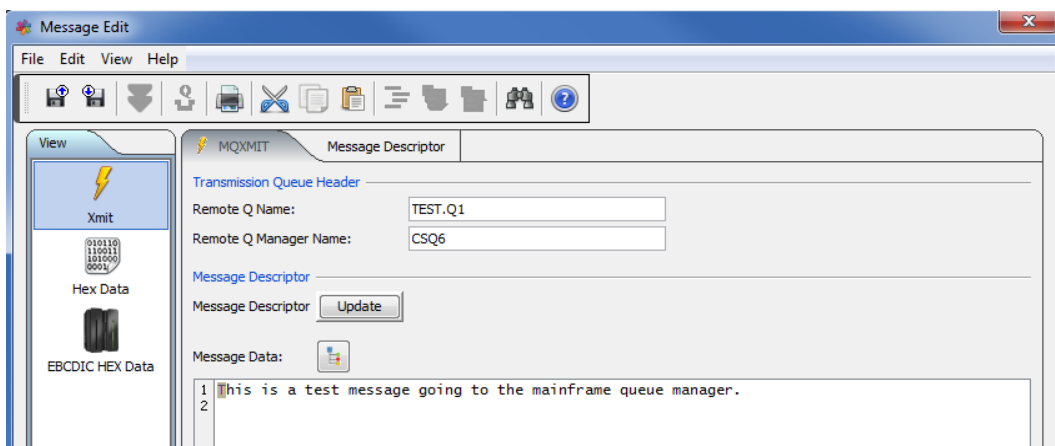
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQXMIT header then the MQXMIT tab will appear on the Message Edit window.

If you have previously opened CSQ6.XMIT, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

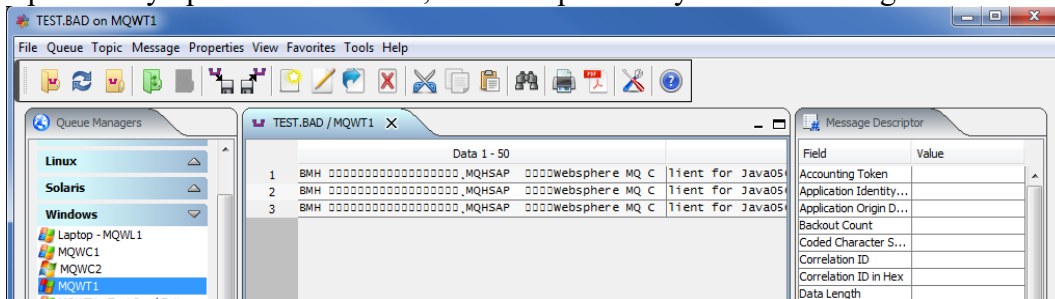
The MQXMIT header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.19 SMQBAD Dock

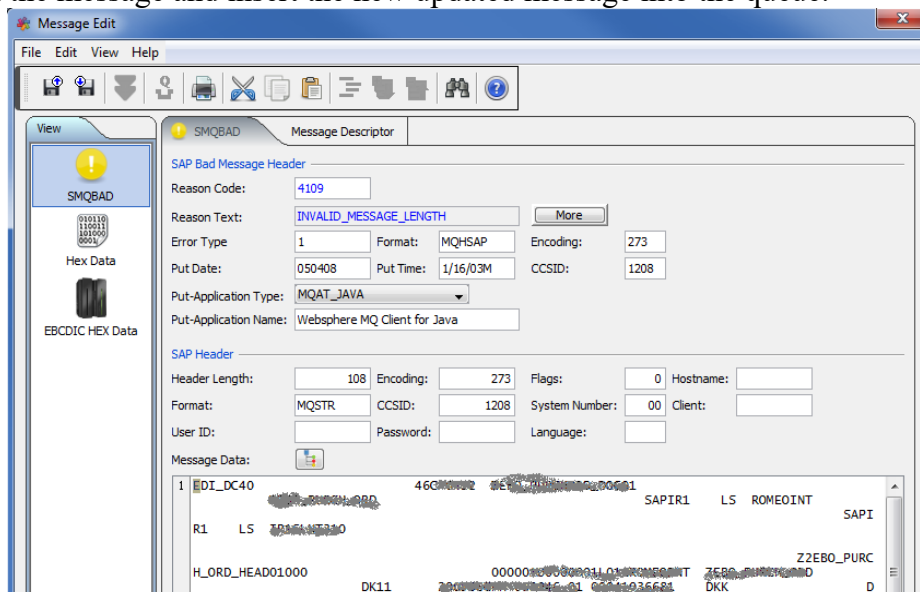
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a SMQBAD header then the SMQBAD tab will appear on the Message Edit window.

If you have previously opened TEST.BAD, the main panel may look something like:

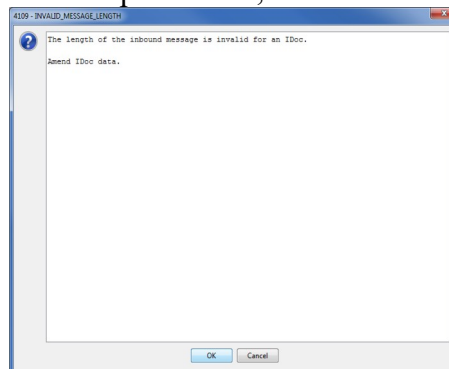


From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

The SMQBAD header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



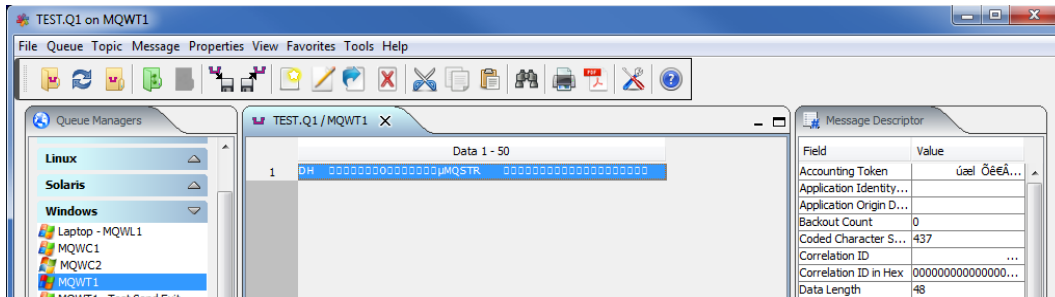
To help in problem resolution, the reason code has been translated into **Reason Text**. If this is not enough information to determine what the problem is, then click the **More** button.



8.20 MQDH Dock

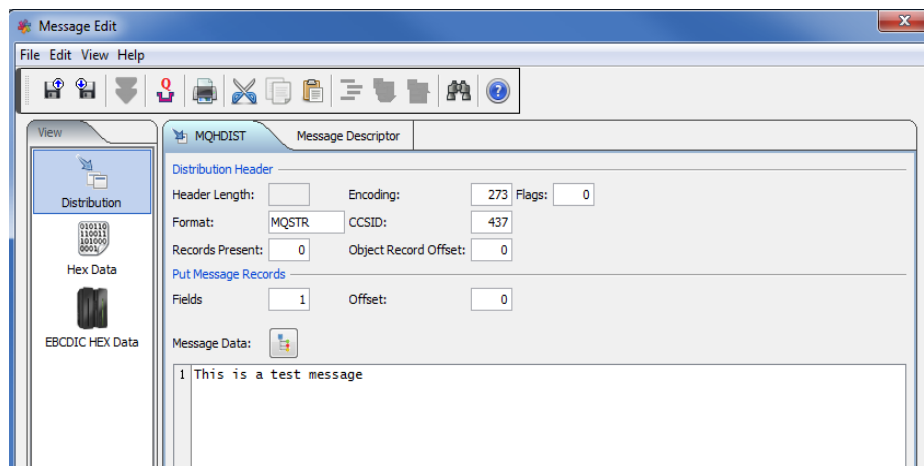
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQDH header then the MQDH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

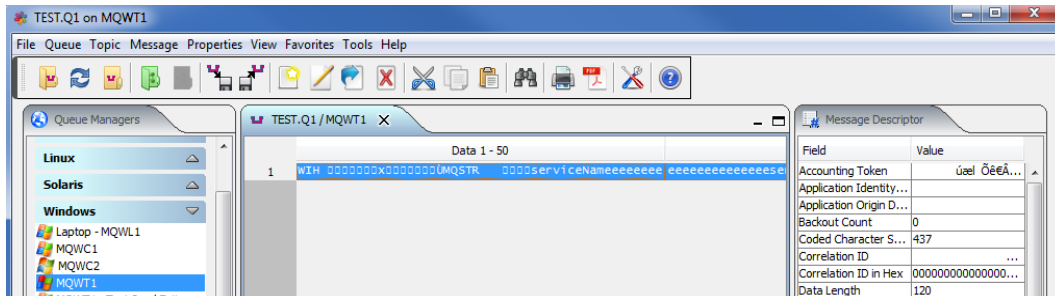
The MQDH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.21 MQMDE Dock

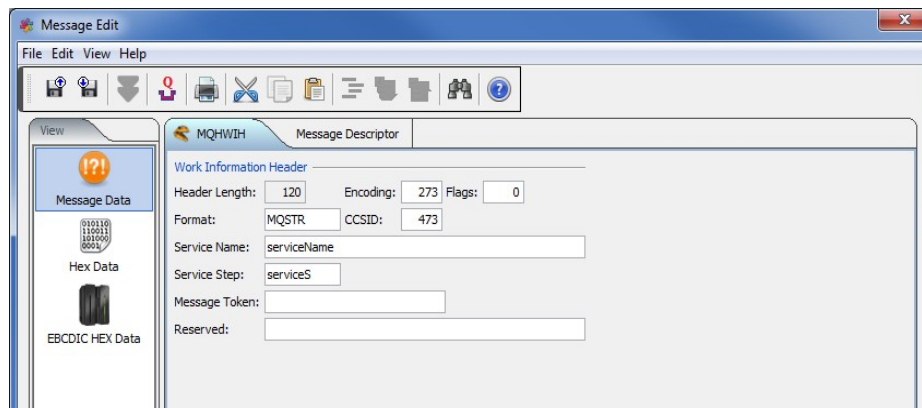
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQMDE header then the MQMDE tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

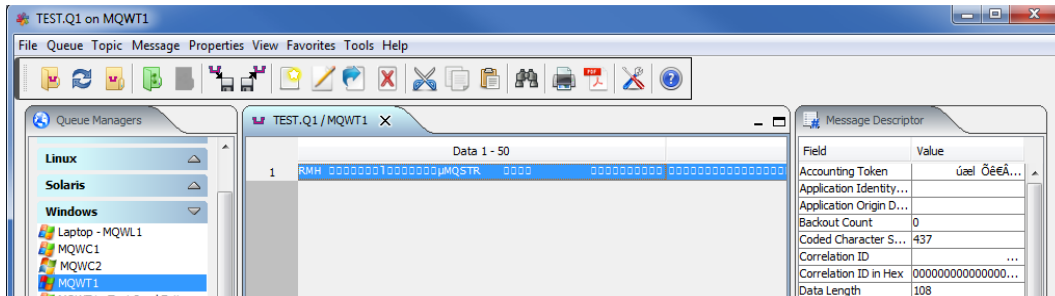
The MQMDE header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.22 MQRMH Dock

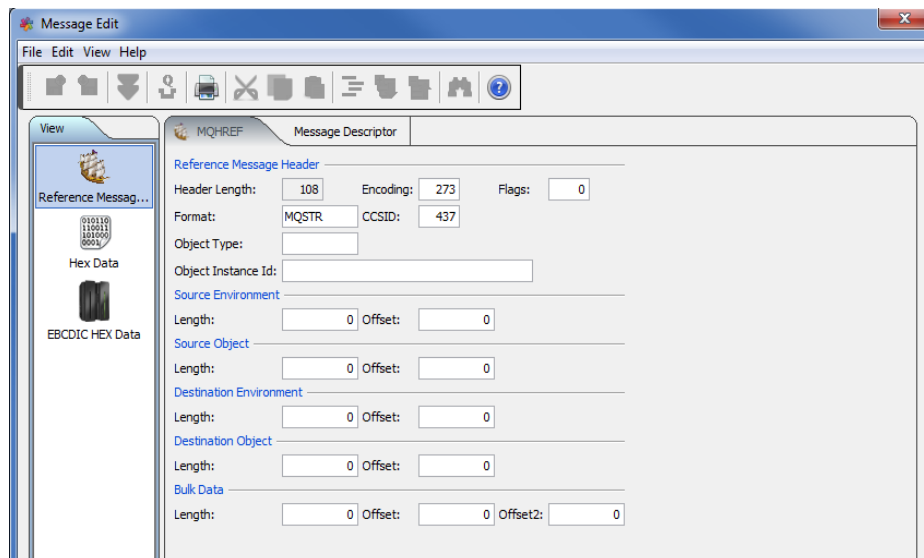
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQRMH header then the MQRMH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

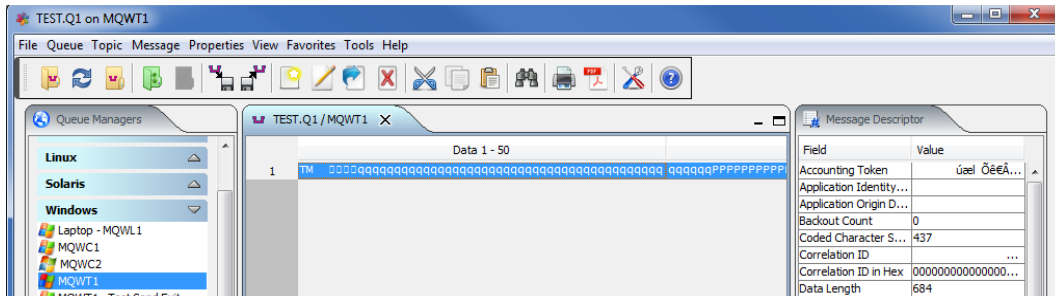
The MQRMH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.23 MQTM Dock

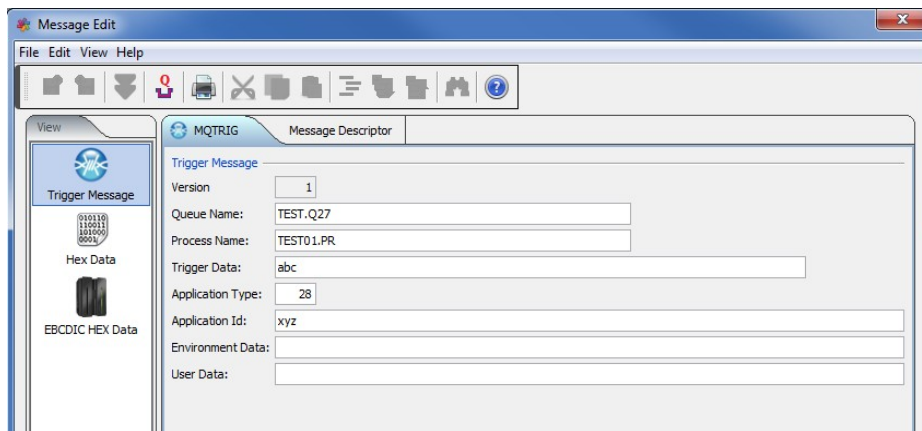
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQTM header then the MQTM tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

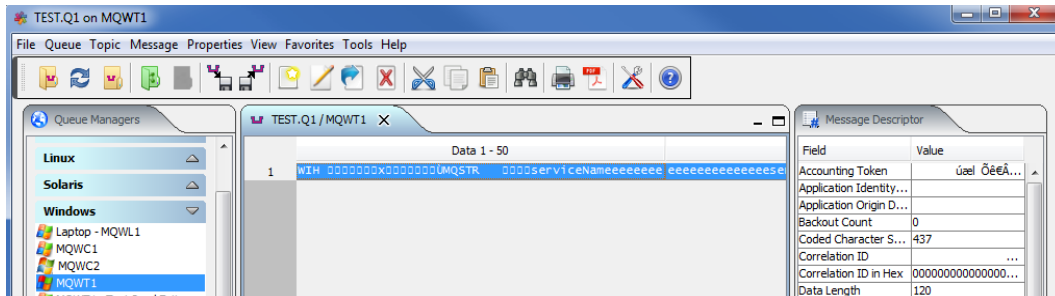
The MQTM header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



8.24 MQWIH Dock

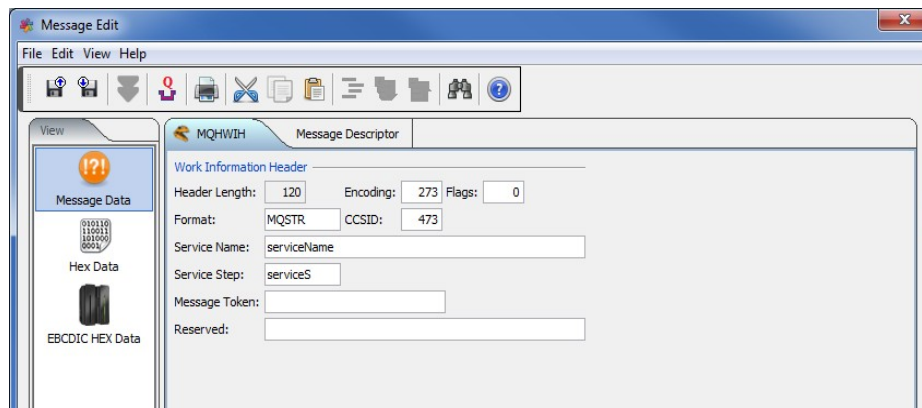
This section will describe how to edit a message in the opened queue. If the selected message has been formatted with a MQWIH header then the MQWIH tab will appear on the Message Edit window.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Message**, then **Edit Message**.

The MQWIH header has been parsed into easy to read fields. Clicking the **Save** button will delete the old copy of the message and insert the new updated message into the queue.



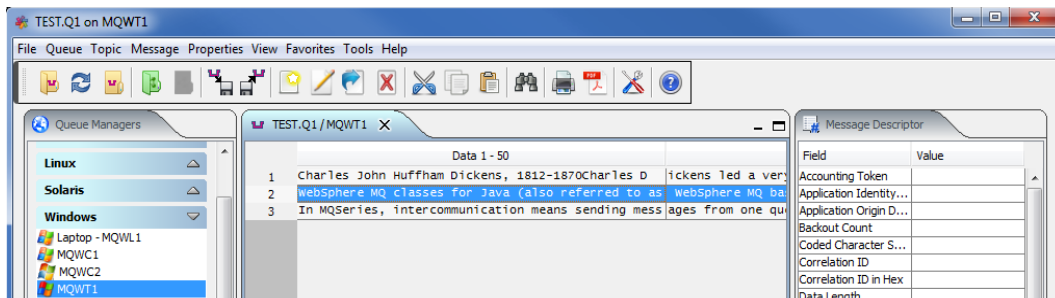
9 Message Properties

This chapter will describe how to edit, display, hide or customize the fields of the Message Descriptor (MQMD) and/or Named Properties. The user can select to edit only the Message Descriptor and/or Named Properties of a message.

9.1 Edit Message Descriptor

This section will describe how to edit message's Message Descriptor and/or Named Properties.

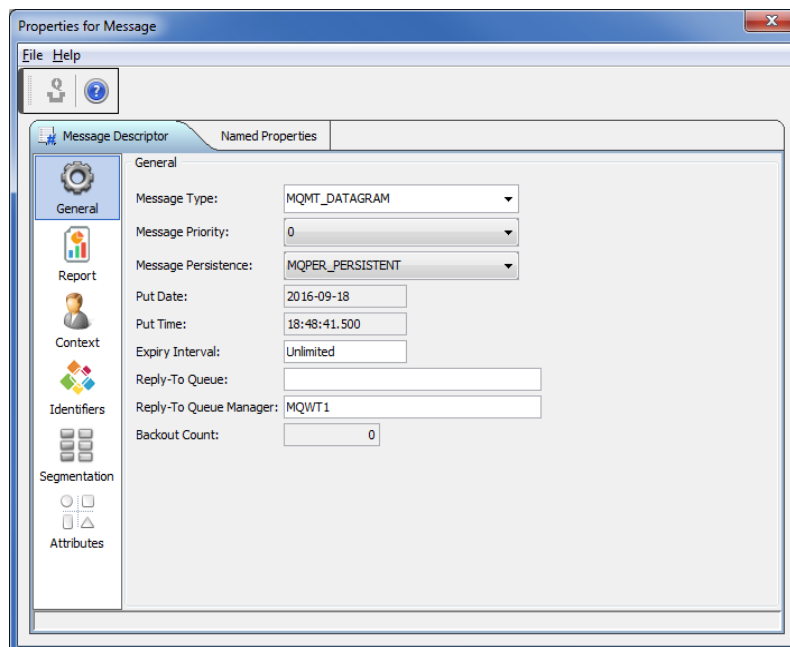
If you have previously opened the queue TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Properties**, then **Edit Properties**.

9.1.1 Message Descriptor

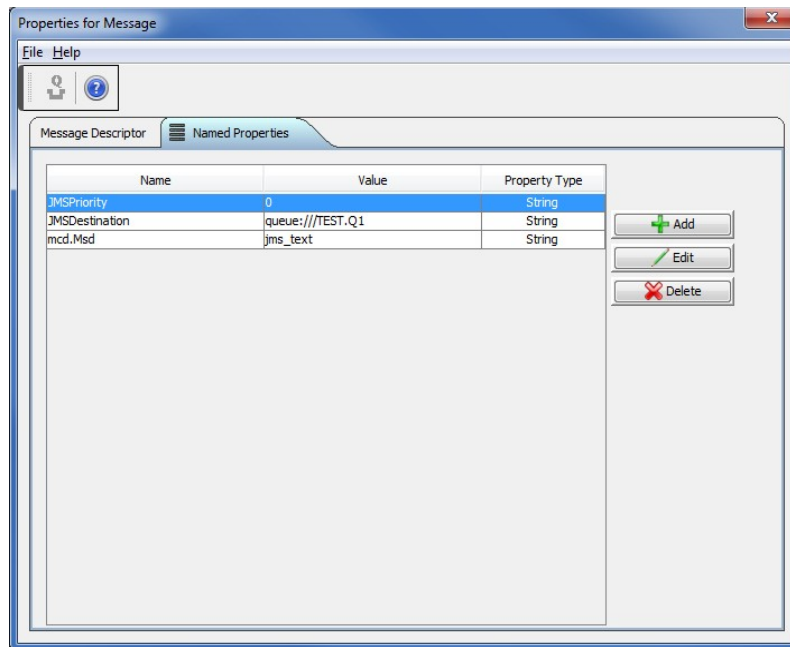
There are 6 panels on the **Message Descriptor** dock in the **Properties for Message** dialog: General, Report, Context, Identifiers, Segmentation and Attributes. The user can select any panel and edit a field's data. When the user is done editing the Message Descriptor attributes, click the **Save** button to save the message and it's attributes.



9.1.2 Named Properties

The Named Properties for the message are listed in a table.

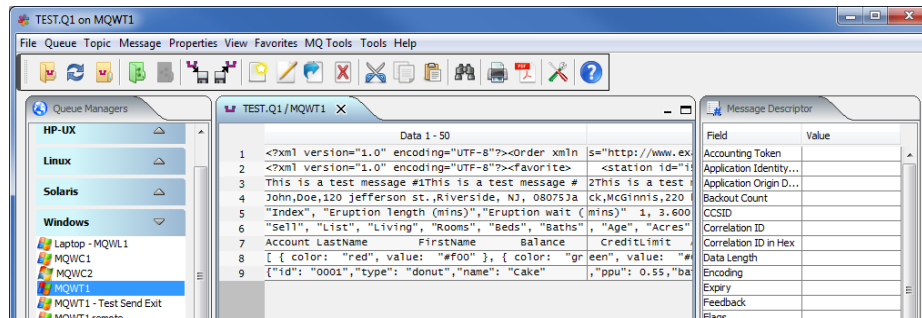
The user can add/update/delete properties in the table. When the user is done editing the Named Properties, click the **Save** button to save the message and its properties.



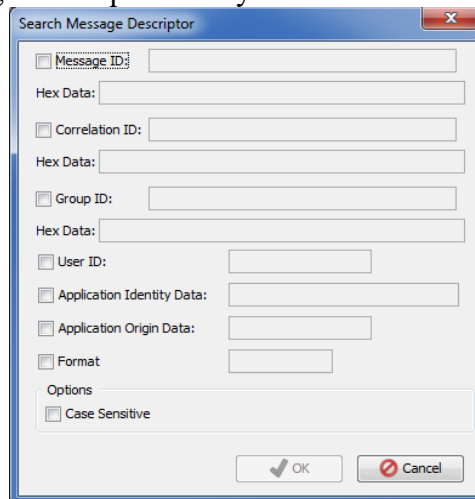
9.2 Search Message Descriptor

This section will describe how to Search message's Message Descriptor (MQMD).

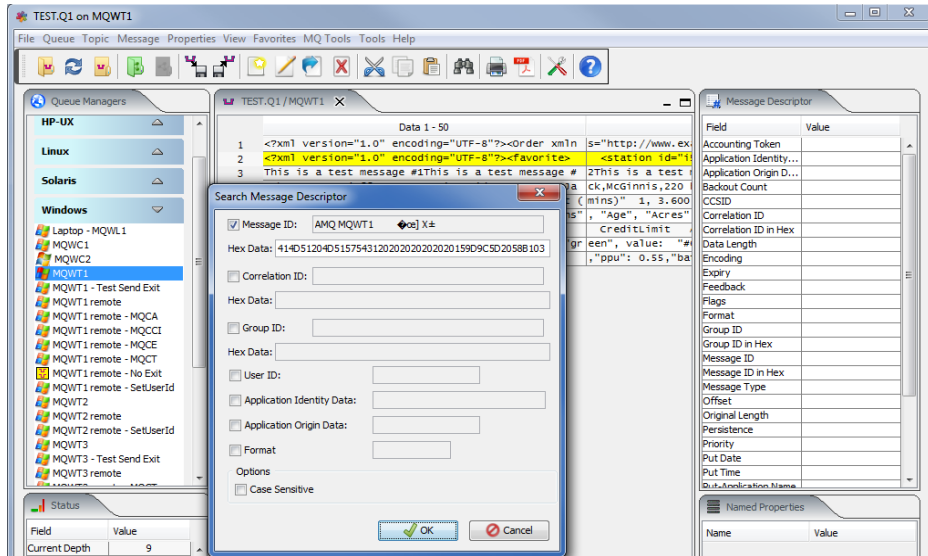
If you have previously opened the queue TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Properties**, then **Search Message Descriptor**. Click the checkbox next to the Message Descriptor field you wish to search on then input your search value.



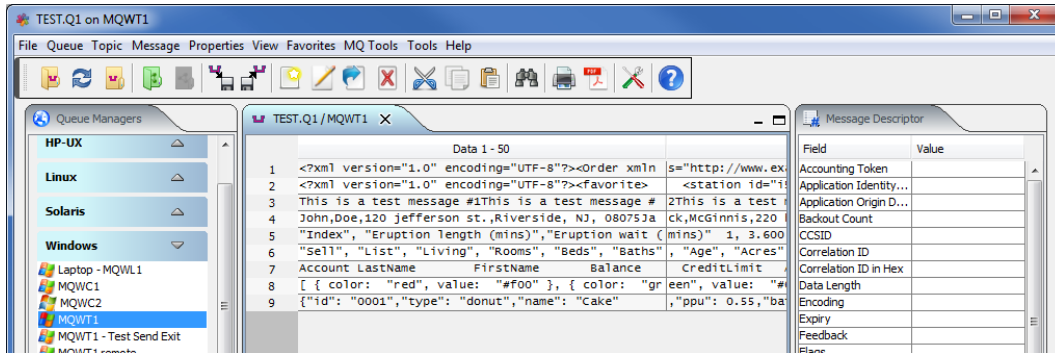
After clicking **Ok**, if a match is found, the table row containing the matching string will be highlighted in yellow.



9.3 Search Next Message Descriptor

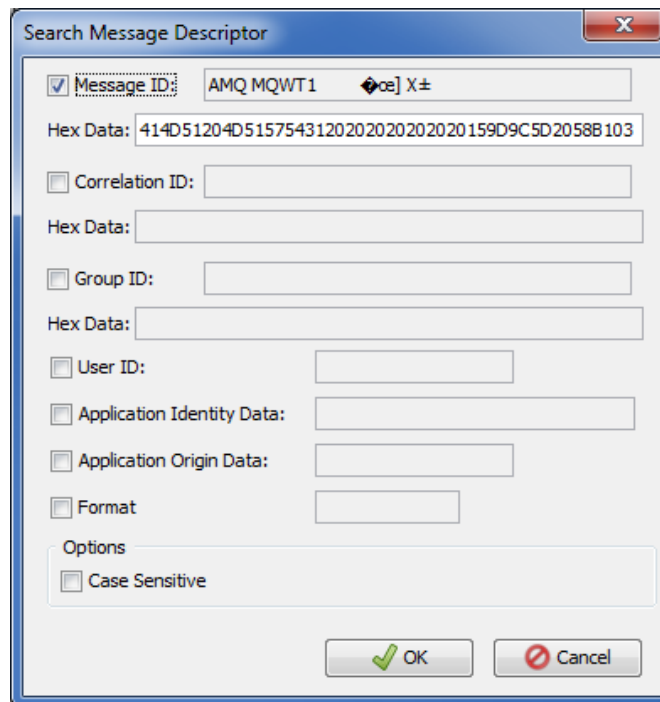
This section will describe how to Search Next message's Message Descriptor (MQMD).

If you have previously opened the queue TEST.Q1, the main panel may look something like:

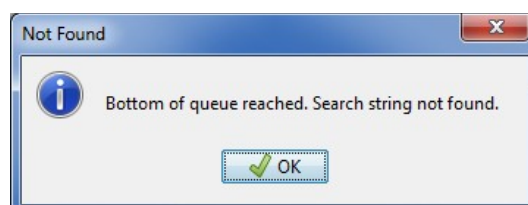


From the main panel of MQ Visual Edit, select **Properties**, then **Search Next Message Descriptor**.

Click the checkbox next to the Message Descriptor field you wish to search on then input your search value.



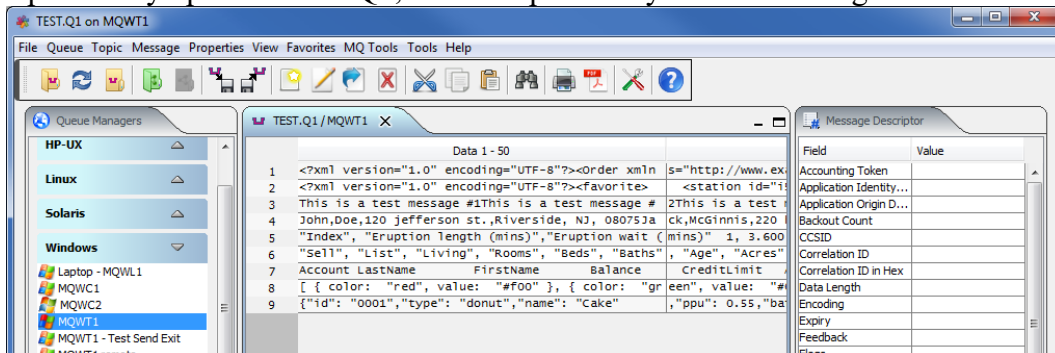
After clicking **Ok**, if a match is found, the table row containing the matching string will be highlighted in yellow or the following 'not found' popup window when all of the messages have been searched.



9.4 Show Message Descriptor

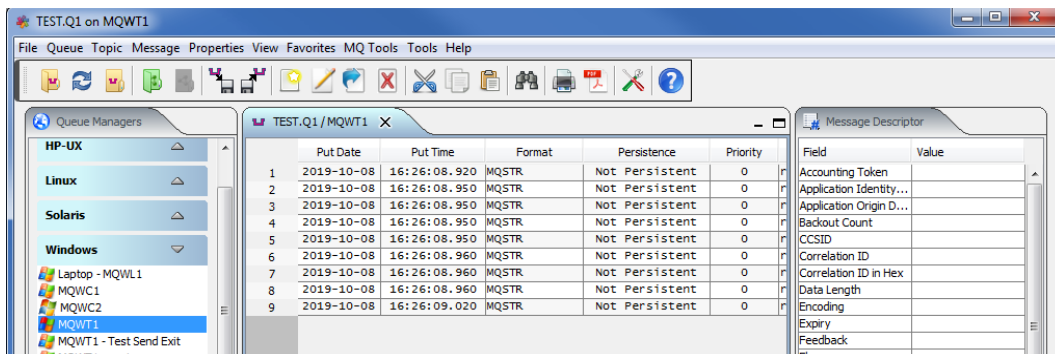
This section will describe how to show (turn on) the columns with the Message Descriptor (MQMD) data.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Properties**, then **Show Message Descriptor Columns**.

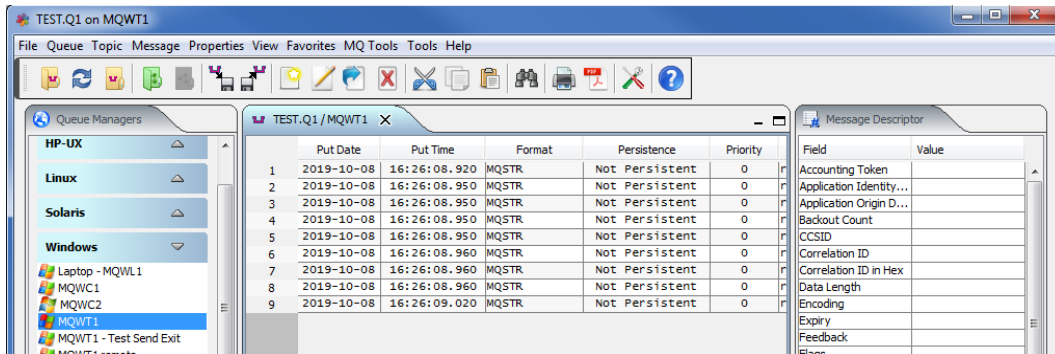
The Message Descriptor is contained within 27 columns. The Message Descriptor columns have been inserted to be the first 27 columns displayed to the user. Note: Side the horizontal scroll bar to see your data.



9.5 Hide Message Descriptor

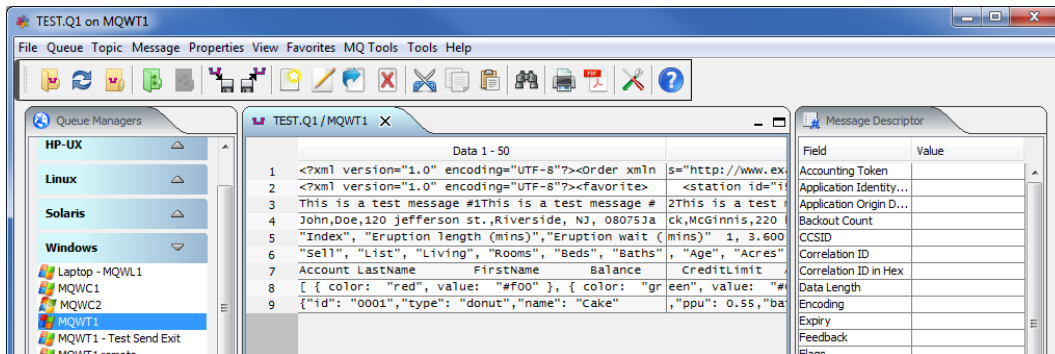
This section will describe how to hide (turn off the columns) with the Message Descriptor (MQMD) data.

If you have previously opened the queue TEST.Q1 showing the Message Descriptor data, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Properties**, then **Hide Message Descriptor Columns**.

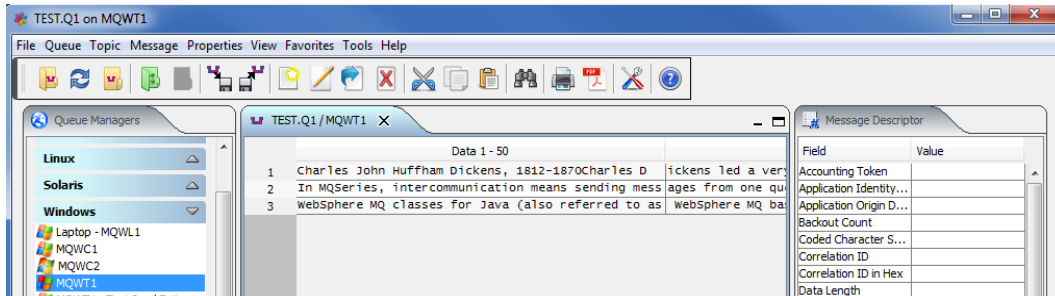
The main panel main panel may look something like:



9.6 Choose Message Descriptor Columns

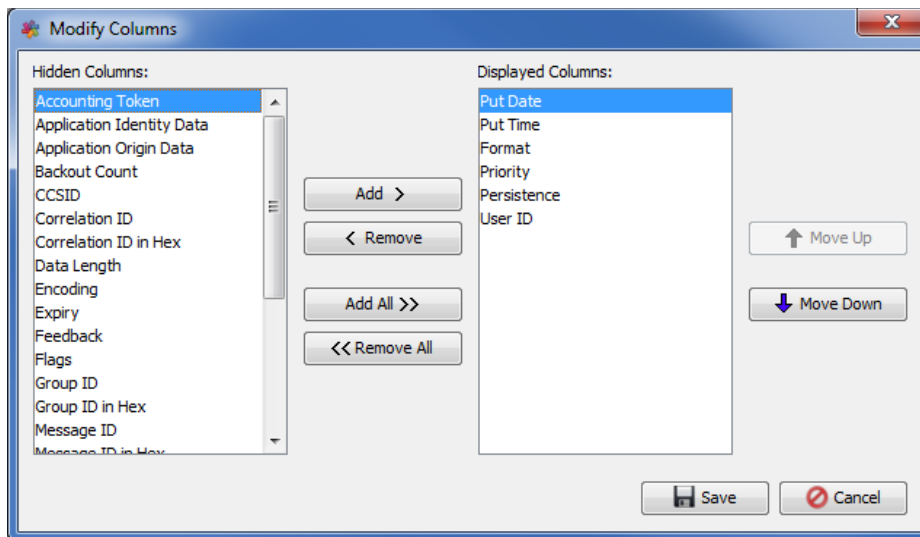
This section will describe how to choose the Message Descriptor columns that will be displayed to the user.

If you have previously opened the queue TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **Properties**, then **Choose Columns**.

The Modify Columns dialog box will be displayed. Select items in either the left or right panels to enable the selection of the column names.



Click the **Save** button to save the updated column information.

10 User Formats

This chapter will describe how to create, update and delete user defined formats. User formats allows the end-user to define formats for user specific data. Currently, MQ Visual Edit supports 3 different types of user formats:

- Fixed Width format
- CSV (Comma Separated Value) format
- FIX (Financial Information eXchange) format

MQ Visual Edit can import a COBOL CopyBook as a Fixed Width format.

There are 2 ways to access the user formats in MQ Visual Edit:

- On the main window, click *Message* - > *User Formats*
- On the edit window, click *Message* - > *User Formats*

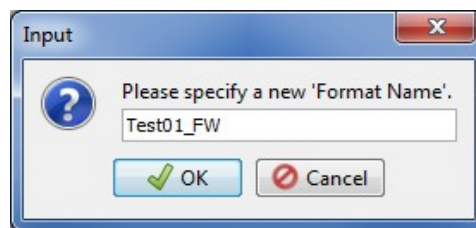
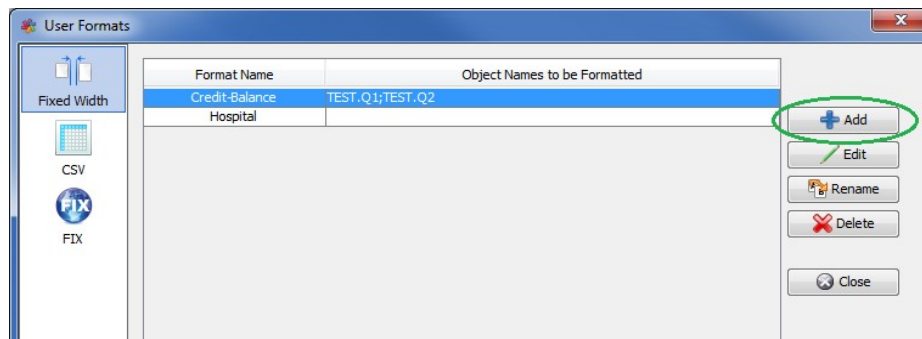
10.1 Fixed Width Format

This section will describe how to add, edit and delete Fixed Width formats.

10.1.1 Add a Fixed Width Format

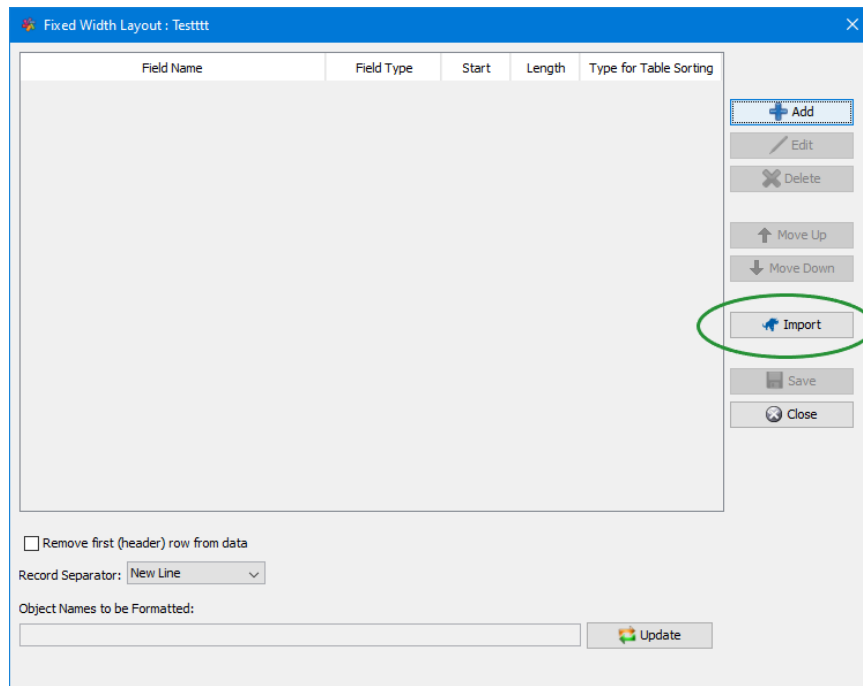
This section will describe how to add a Fixed Width format.

First, click the **Add** button, input a unique name for this new Fixed Width Format and click the **OK** button.

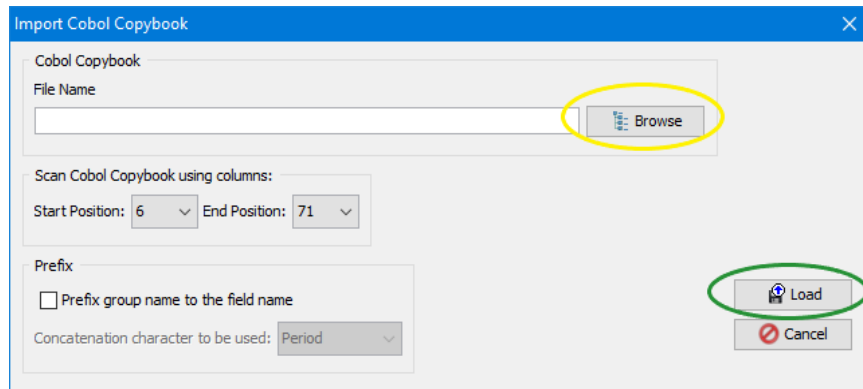


10.1.1.1 Import COBOL Copybook

Rather than manually inputting all of the fields of a COBOL Copybook, the user can use the **Import** button to parse and load the fields from the COBOL Copybook, into the Fixed Width Layout window.



Next, the user selects the COBOL Copybook file and any options the user wants.

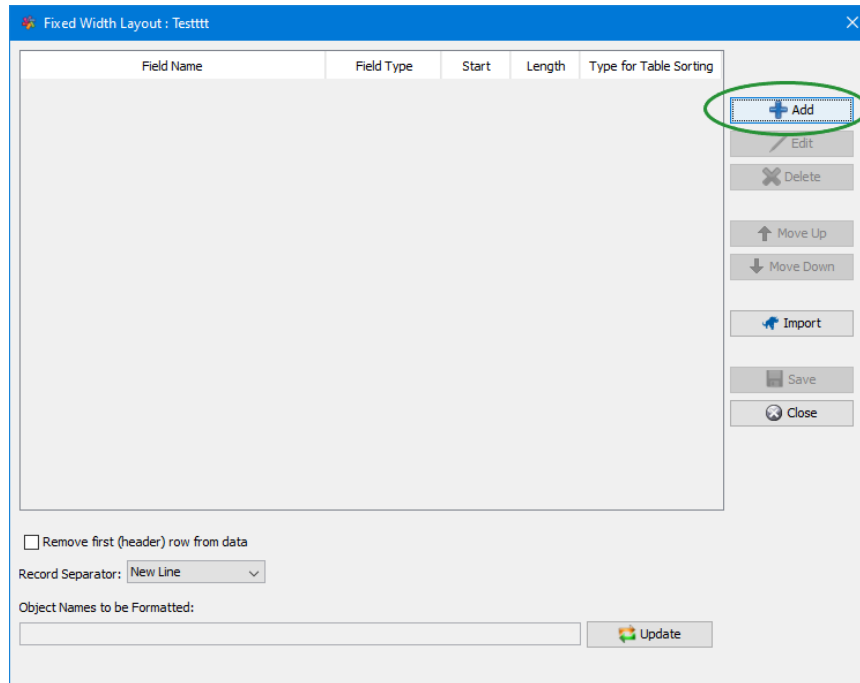


Normally, COBOL code is written starting in column 6 and ending at column 71. If your code is different then simply select the start and end positions of the code in the COBOL Copybook file.

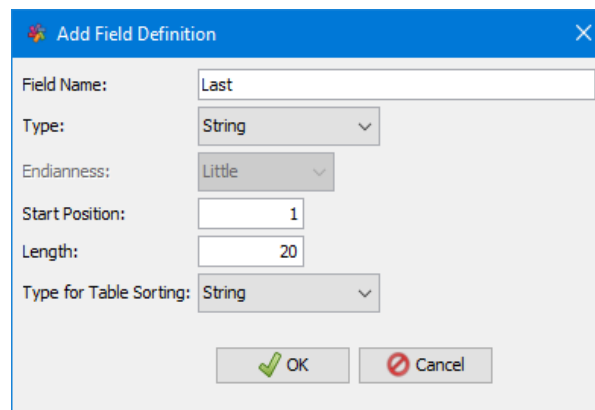
The user may wish to prefix the group name to the field name. If so, click the checkbox and then select the concatenation character to be used.

10.1.1.2 Field Definition

Next, on the Fixed Width Layout window, the user can add fields to the layout format by clicking the **Add** button.



Input a name for the field, select the type of data that is represented by this field, the start position and the length of the field then click the **OK** button.



Note: For **Type** field, do not select Integer, Double, Float, Long or Short if the data is NOT in binary format representation of the field. Also, the Endianness applies to Integer, Double, Float, Long and Short binary fields on how the binary data is laid out.

The **Type for Table Sorting** field, how the Java Table is to treat the data for sorting of the column.

10.1.1.3 Remove first (header) row from data

The **Remove first (header) row from data** states if the first row of data should or should not be displayed to the end-user.

10.1.1.4 Record Separator

The *Record Separator* states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.1.1.5 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[] * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

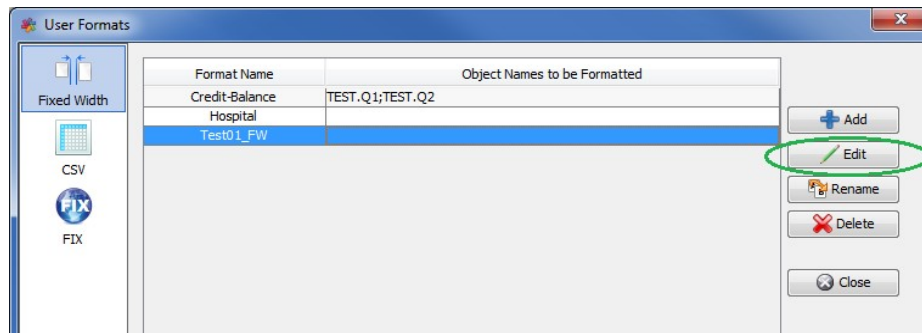
10.1.1.6 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

10.1.2 Edit a Fixed Width Format

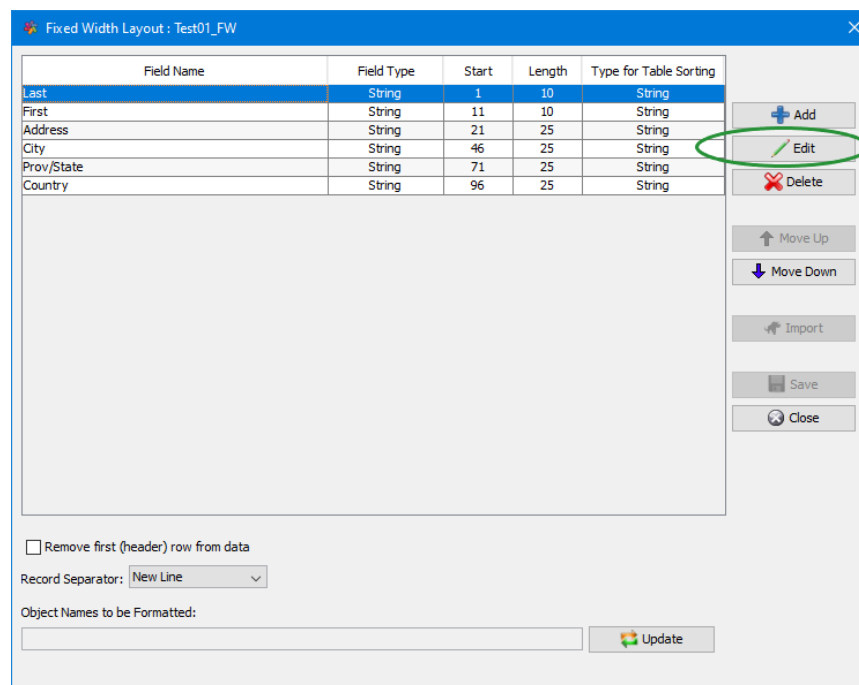
This section will describe how to edit a Fixed Width format.

Click the **Edit** button (or double left click on the format name) to open the Fixed Width Layout window.



10.1.2.1 Field Definition

On the Fixed Width Layout window, the user can add, edit or delete fields of the layout format.



10.1.2.2 Remove first (header) row from data

The **Remove first (header) row from data** states if the first row of data should or should not be displayed to the end-user.

10.1.2.3 Record Separator

The **Record Separator** states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.1.2.4 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[' * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

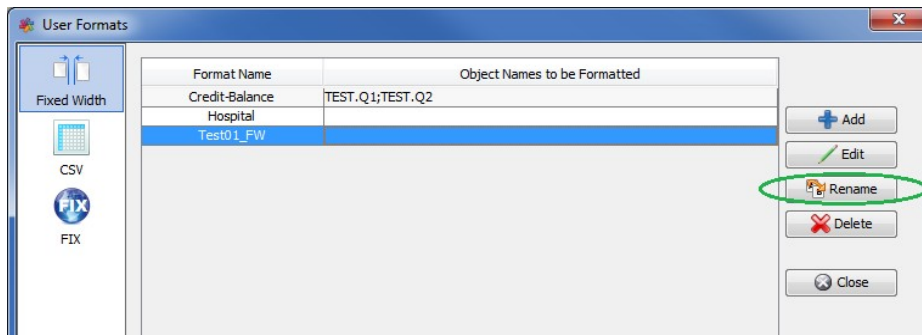
10.1.2.5 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

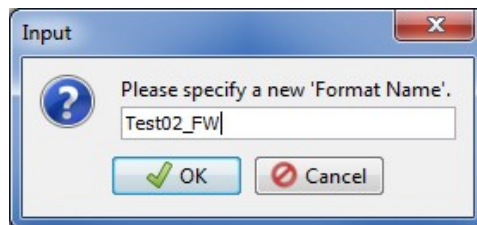
10.1.3 Rename a Fixed Width Format

This section will describe how to rename a Fixed Width format.

First, click the ***Rename*** button.



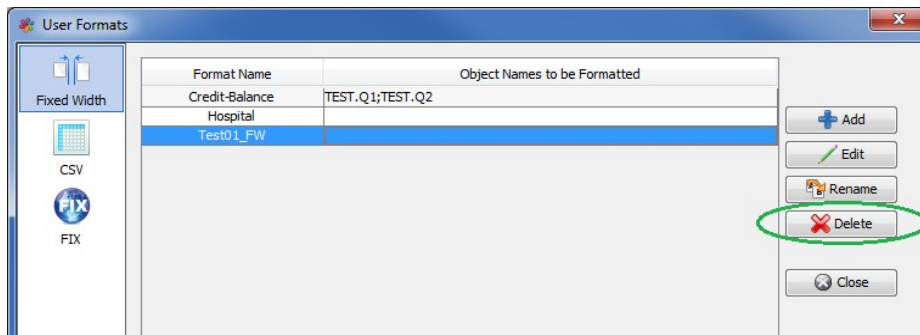
Now specify a new format name then click the ***OK*** button.



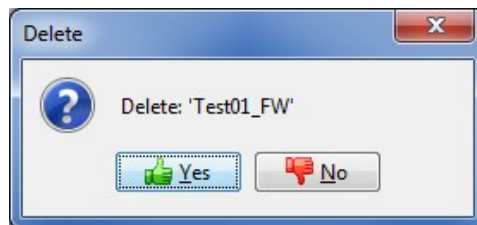
10.1.4 Delete a Fixed Width Format

This section will describe how to delete a Fixed Width format.

First, click the *Delete* button.



Click the *Yes* button to confirm the deletion of the particular Fixed Width format.



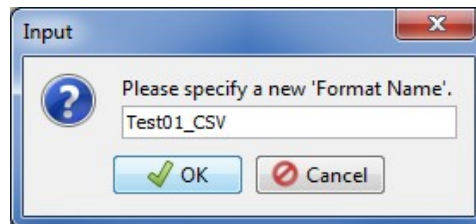
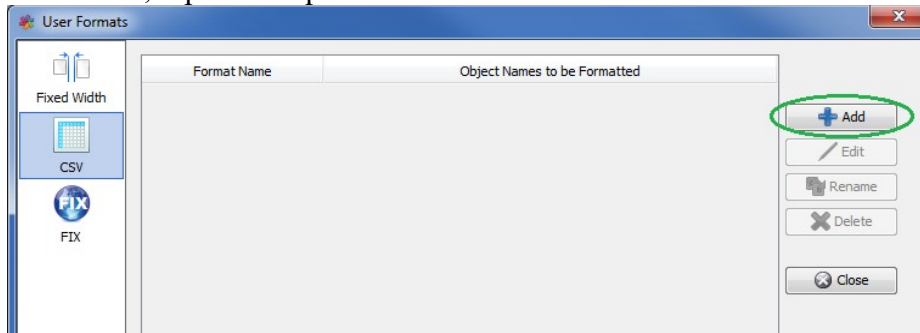
10.2 CSV Format

This section will describe how to add, edit and delete CSV (Comma Separated Value) formats.

10.2.1 Add a CSV Format

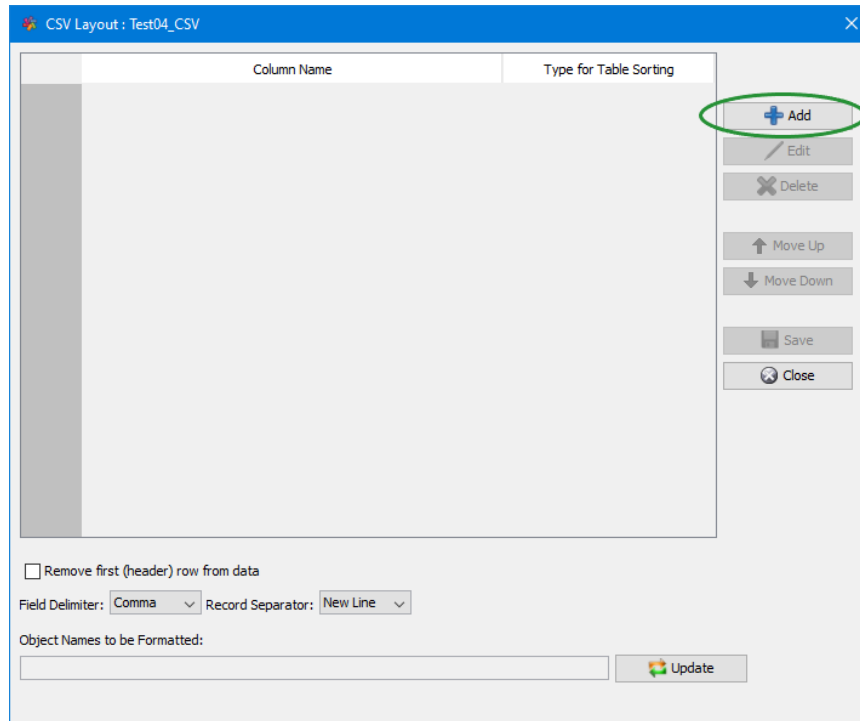
This section will describe how to add a CSV format.

First, click the **Add** button, input a unique name for this new CSV Format and click the **OK** button.

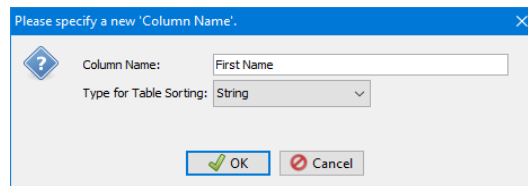


10.2.1.1 Field Definition

Next, on the CSV Layout window, the user can add fields to the layout format by clicking the *Add* button.



Input a name for the CSV column then click the *OK* button.



10.2.1.2 Remove first (header) row from data

The *Remove first (header) row from data* states if the first row of data should or should not be displayed to the end-user.

10.2.1.3 Field Delimiter

The *Field Delimiter* states how each column is separated from the next column. The default is “Comma”. The user can change it to one of the other values in the dropdown.

10.2.1.4 Record Separator

The *Record Separator* states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.2.1.5 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[' * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

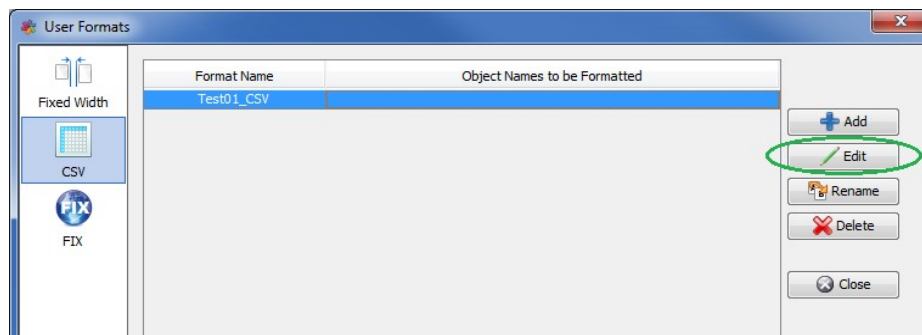
10.2.1.6 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

10.2.2 Edit a CSV Format

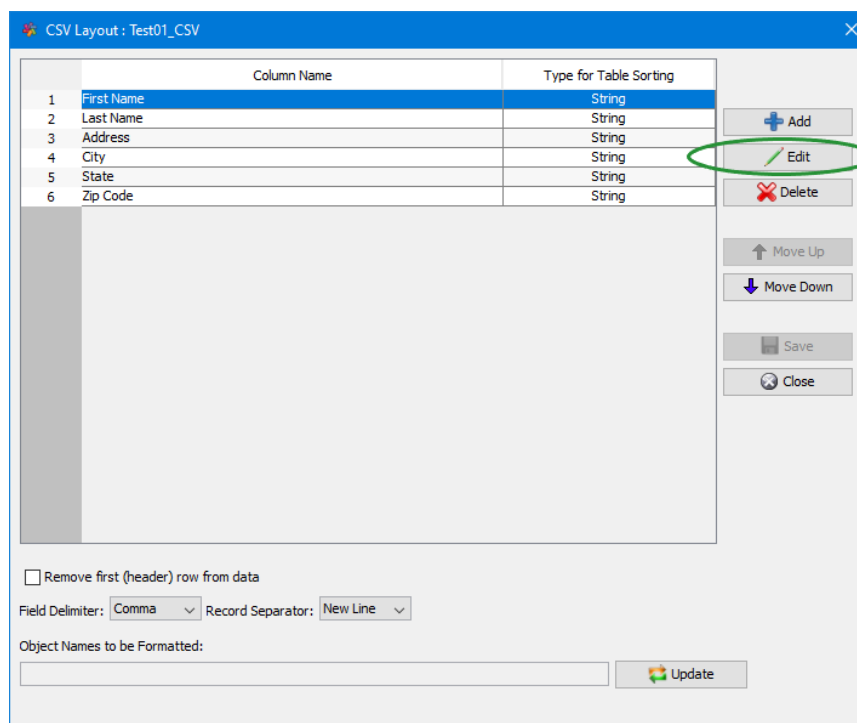
This section will describe how to edit a CSV format.

Click the *Edit* button (or double left click on the format name) to open the CSV Layout window.



10.2.2.1 Field Definition

On the CSV Layout window, the user can add, edit or delete fields of the layout format.



10.2.2.2 Remove first (header) row from data

The *Remove first (header) row from data* states if the first row of data should or should not be displayed to the end-user.

10.2.2.3 Field Delimiter

The *Field Delimiter* states how each column is separated from the next column. The default is “Comma”. The user can change it to one of the other values in the dropdown.

10.2.2.4 Record Separator

The *Record Separator* states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.2.2.5 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[] * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

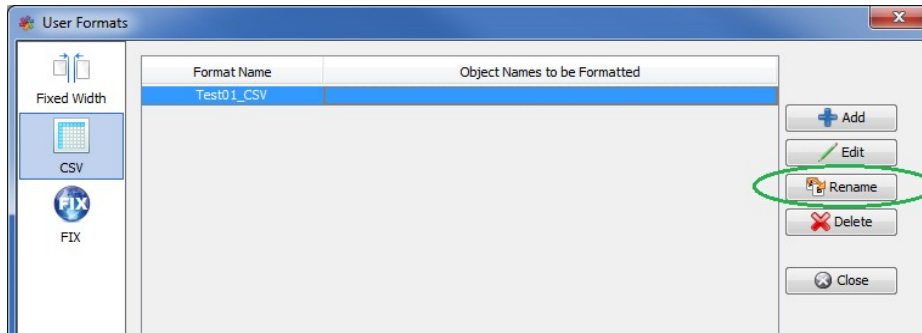
10.2.2.6 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

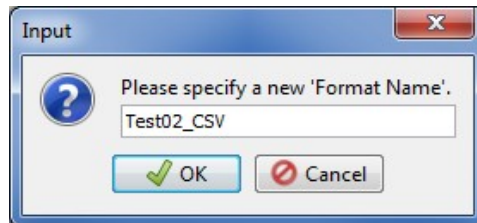
10.2.3 Rename a CSV Format

This section will describe how to rename a CSV format.

First, click the ***Rename*** button.



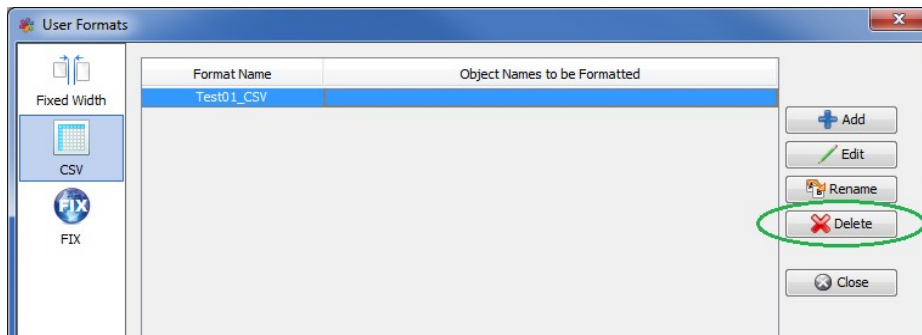
Now specify a new format name then click the ***OK*** button.



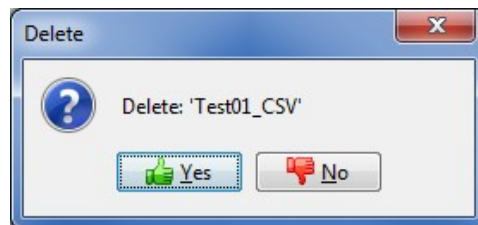
10.2.4 Delete a CSV Format

This section will describe how to delete a CSV format.

First, click the *Delete* button.



Click the *Yes* button to confirm the deletion of the particular CSV format.



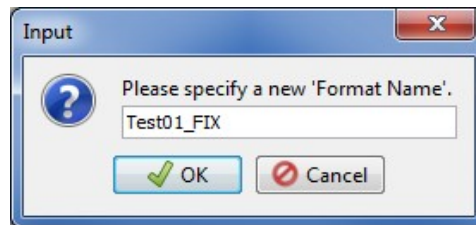
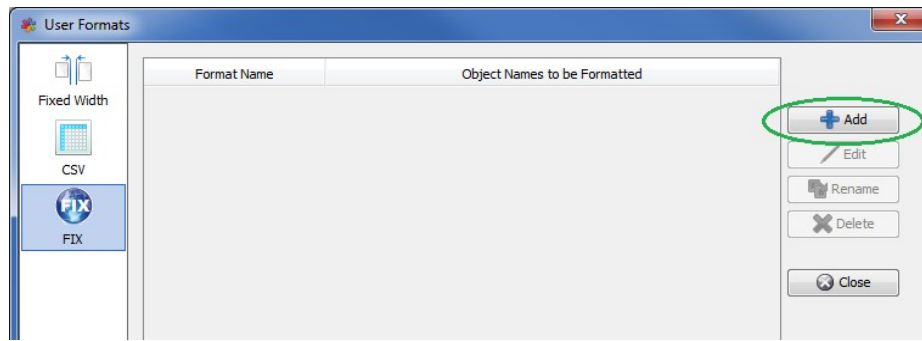
10.3 FIX Format

This section will describe how to add, edit and delete FIX (Financial Information eXchange) formats.

10.3.1 Add a FIX Format

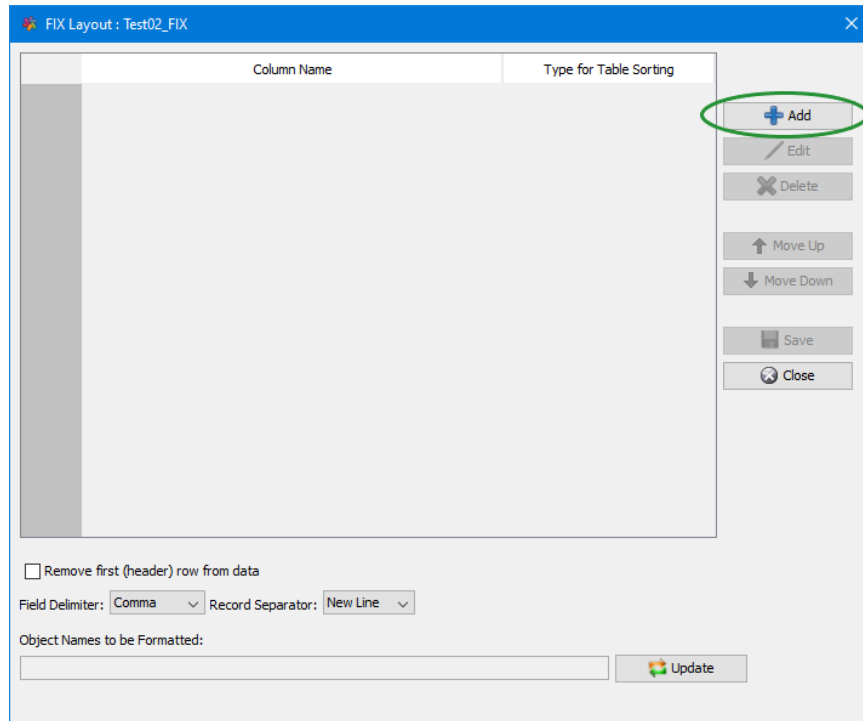
This section will describe how to add a FIX format.

First, click the **Add** button, input a unique name for this new FIX Format and click the **OK** button.

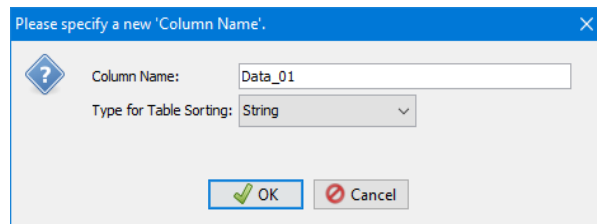


10.3.1.1 Field Definition

Next, on the FIX Layout window, the user can add fields to the layout format by clicking the *Add* button.



Input a name for the FIX column then click the *OK* button.



10.3.1.2 Remove first (header) row from data

The *Remove first (header) row from data* states if the first row of data should or should not be displayed to the end-user.

10.3.1.3 Field Delimiter

The *Field Delimiter* states how each column is separated from the next column. The default is “SOH (x'01’)”. The user can change it to one of the other values in the dropdown.

10.3.1.4 Record Separator

The *Record Separator* states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.3.1.5 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[' * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

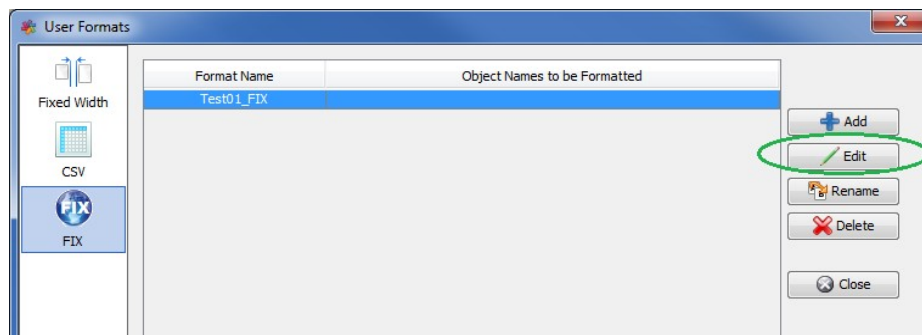
10.3.1.6 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

10.3.2 Edit a FIX Format

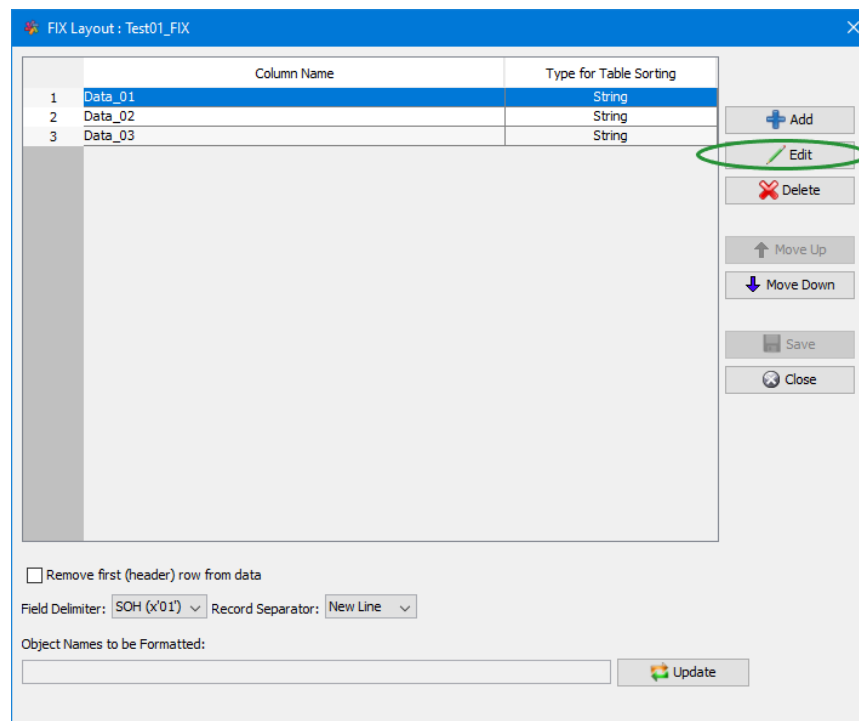
This section will describe how to edit a FIX format.

Click the *Edit* button (or double left click on the format name) to open the FIX Layout window.



10.3.2.1 Field Delimiter

On the FIX Layout window, the user can add, edit or delete fields of the layout format.



10.3.2.2 Remove first (header) row from data

The *Remove first (header) row from data* states if the first row of data should or should not be displayed to the end-user.

10.3.2.3 Field Delimiter

The *Field Delimiter* states how each column is separated from the next column. The default is “SOH (x'01'”)”. The user can change it to one of the other values in the dropdown.

10.3.2.4 Record Separator

The *Record Separator* states how each row is laid out in the message data. The default is “New Line”. The user can change it to one of the other values in the dropdown.

10.3.2.5 Object Names to be formatted

The *Object Names to be formatted* is a list of queues and topics that the format will be automatically applied to when the user clicks the Fixed Width Viewer in the Edit Message Window. This parameter is optional.

The *Object Names to be formatted* can be the fully qualified queue or topic name or it can be a regular expression pattern.

In the regular expression pattern:

- '*' matches any sequence of characters (zero or more)
- '?' matches any single character
- '#' matches any single numeric digit (0-9)
- '@' matches any single alphabetic character (A-Z, a-z)
- [SET] matches any of the characters in the specified set
- [!SET] or [^SET] matches any character except those specified in the set (negation).

A SET can be composed of characters or ranges. A range is in the form: 'character – character' (i.e. 0-9 or A-Z). Although this is the simplest range allowed in the [] pattern, more complex inclusive ranges such as [0-9a-zA-Z] are allowed. [0-9a-zA-Z] specifies that the character can be 0 through 9 **or** a through z **or** A through Z. Other characters are allowed (ie. 8 bit characters) if your system supports them.

In order to suppress the special syntactic significance of any of these characters '[] * ? # @ ! ^ - \', a backslash ('\') must precede the special character.

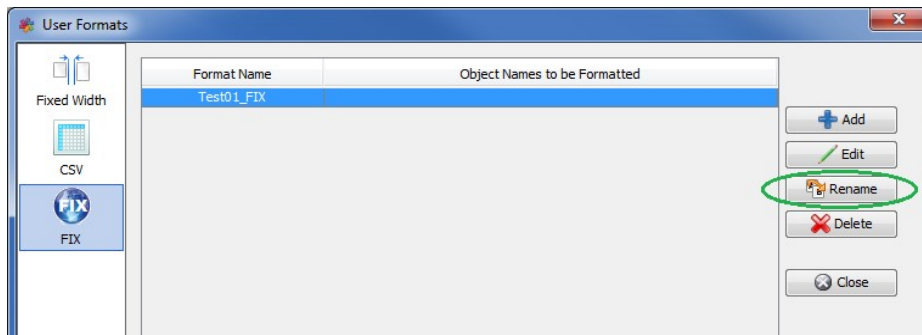
10.3.2.6 Saving Format

When you are done inputting fields, click the *Save* button to the new layout to the database.

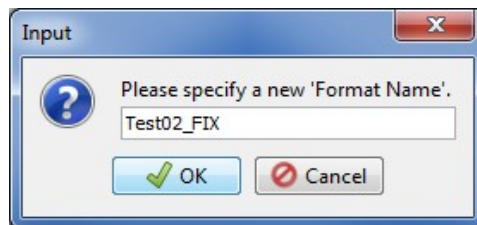
10.3.3 Rename a FIX Format

This section will describe how to rename a FIX format.

First, click the *Rename* button.



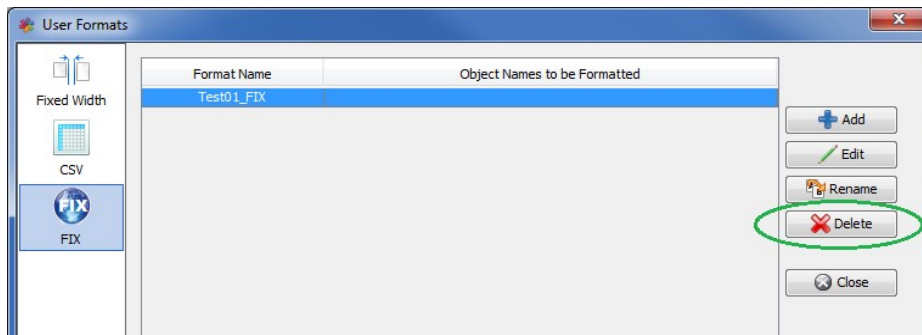
Now specify a new format name then click the *OK* button.



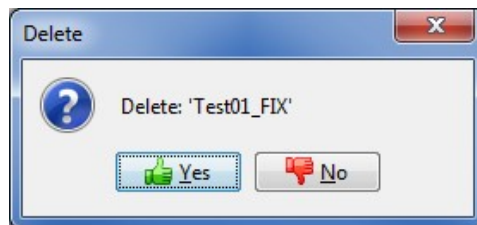
10.3.4 Delete a FIX Format

This section will describe how to delete a FIX format.

First, click the *Delete* button.



Click the *Yes* button to confirm the deletion of the particular FIX format.



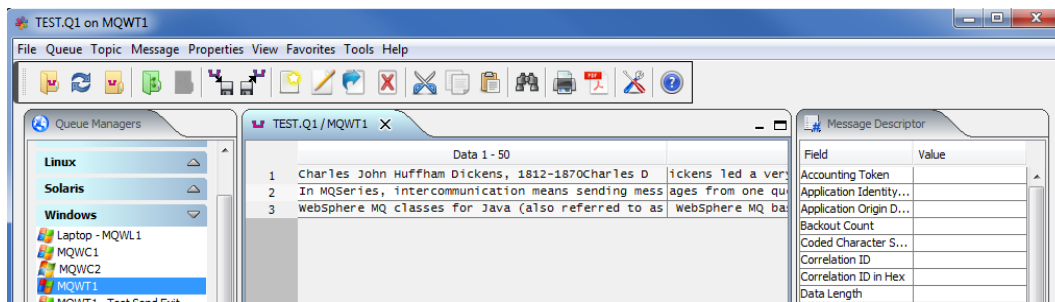
11 Favorites

This chapter will describe how to add a favorite or organize the user's list of favorites. Favorites is similar to Internet Explorer's favorites but rather than adding a favorite web site, the user adds a favorite queue or topic and queue manager combination.

11.1 Add Favorite

This section will describe how to add a favorite queue & queue manager combination to the user's favorite list.

If you have previously opened TEST.Q1, the main panel may look something like:



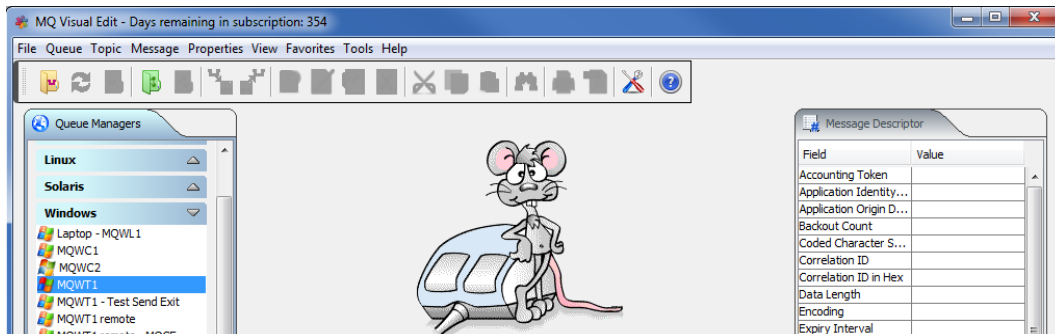
From the main panel of MQ Visual Edit, select **Favorite**, then **Add** to Favorites.

There will be no change to the main panel. The action sets the queue or topic and queue manager combination as a favorite to the user's favorite list.

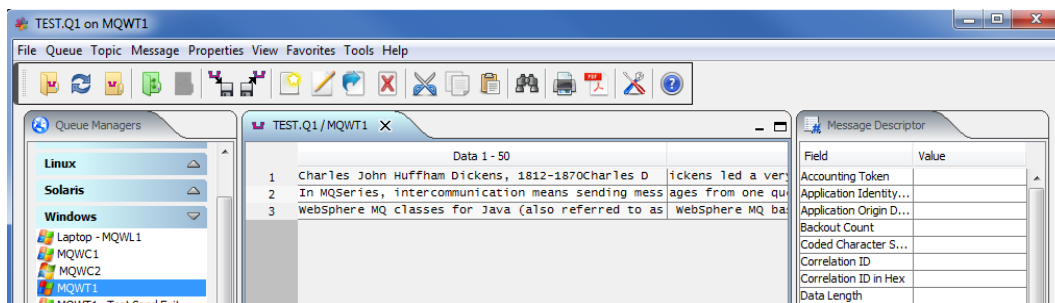
11.2 Open Favorite

This section will describe how to open a favorite queue or topic and queue manager combination.

From the main window when no queues are open, MQ Visual Edit will look like:



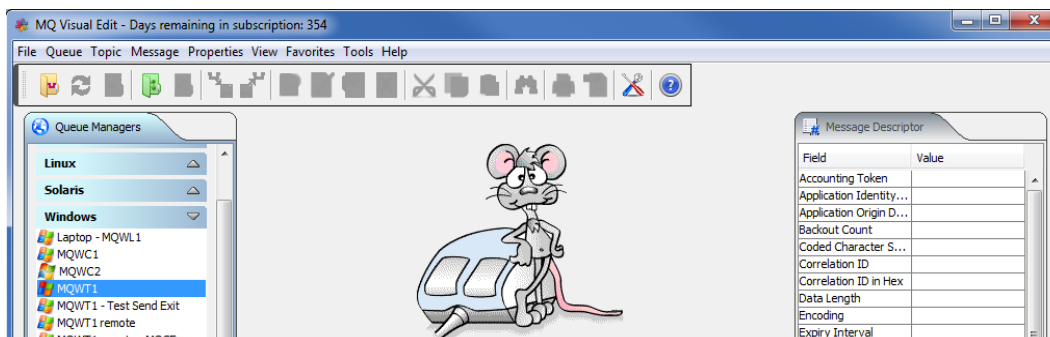
From the main panel of MQ Visual Edit, select **Favorite**, then click the favorite to be opened (i.e. 'TEST.Q1') and the queue will be opened.



11.3 Organize Favorite

This section will describe how to organize the user's list of favorites. MQ Visual Edit's favorites are very similar to Internet Explorer's favorites. Basically, it gives the user a very quick way to return to a previously opened queue or topic and queue manager combination.

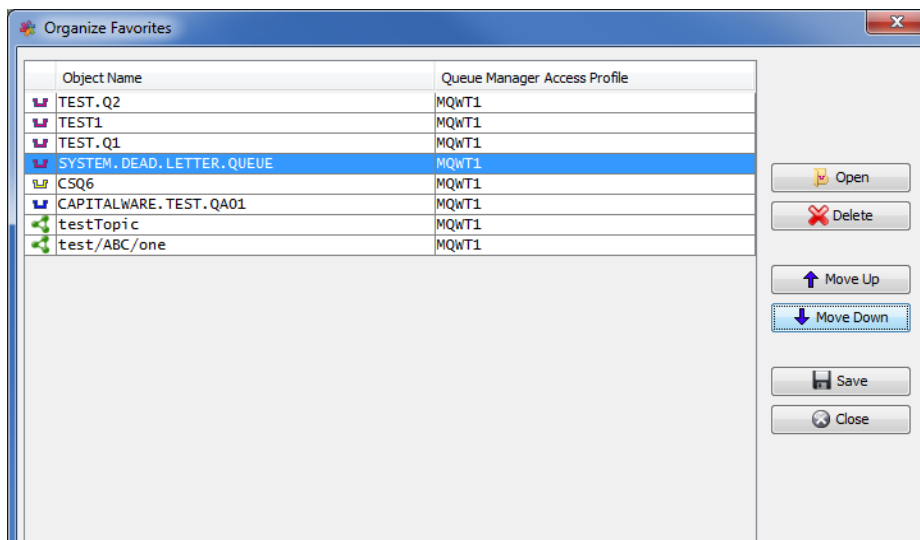
From the main window when no queues are open, MQ Visual Edit will look like:



From the main panel of MQ Visual Edit, select **Favorite**, then **Organize Favorites**.

The user can do the following actions:

- Move favorites up or down
- Delete a favorite
- Directly Open a favorite
- Save the updated favorite list when they are done.



12 MQ Stress Testing Tools

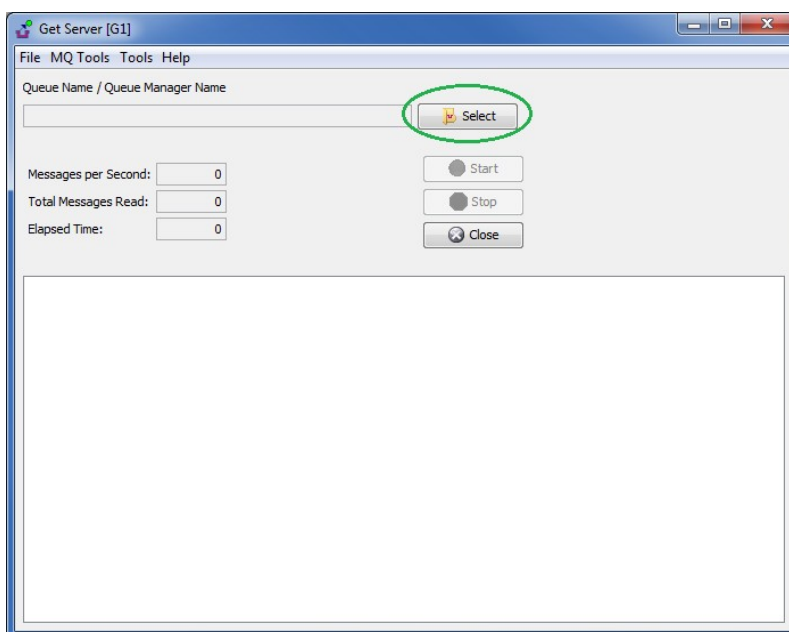
This chapter will describes how to invoke and use the MQ Stress Testing Tools included with MQ Visual Edit.

12.1 Get Server

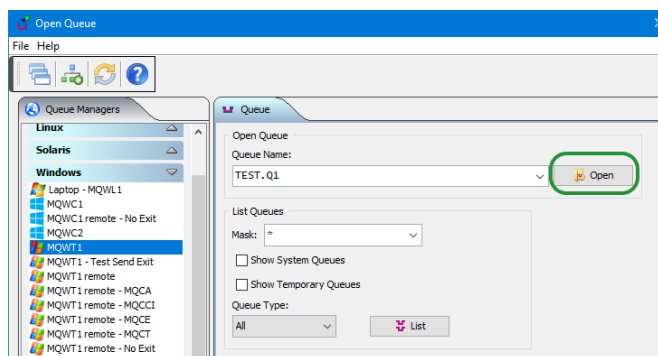
This section will describe how to invoke and use the Get Server Stress Testing tool. The Get Server will continuously consume messages from a queue and show statistics of its current state. For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, while any of the Servers are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Get Server**.

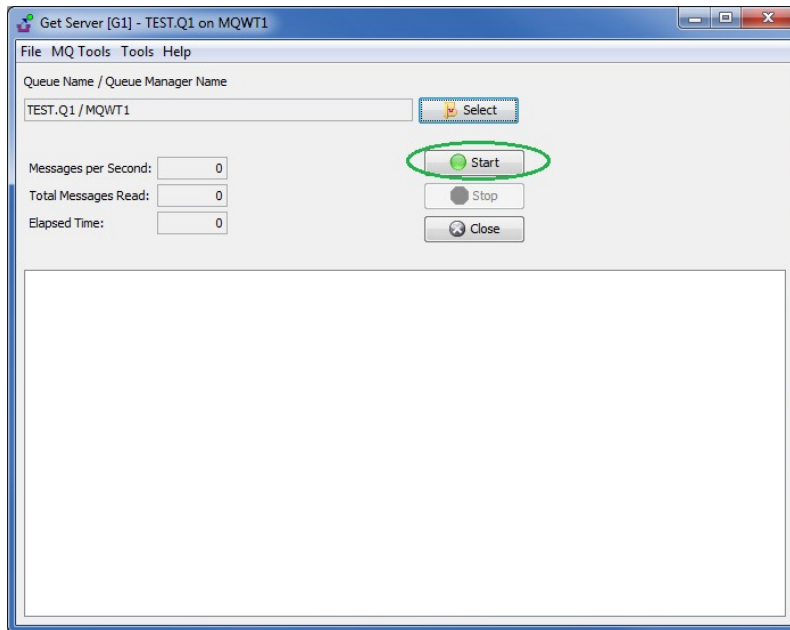
This is the main panel of the Get Server. The user will need to select the queue and queue manager before starting the Get Server. Click the **Select** button to choose the queue and queue manager.



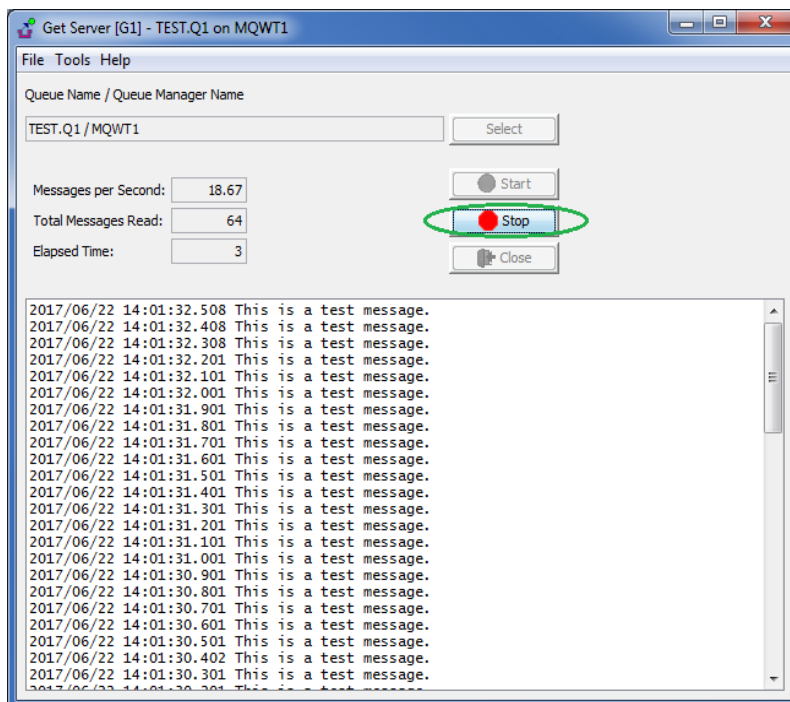
This is the standard 'Open Queue' dialog. Select the queue and queue manager then click the Open button.



Once the queue and queue manager have been selected, the user can now start the Get Server by clicking the **Start** button.



While the Get Server is running, the current statistics are displayed and updated. To stop the execution of the Get Server click the **Stop** button.



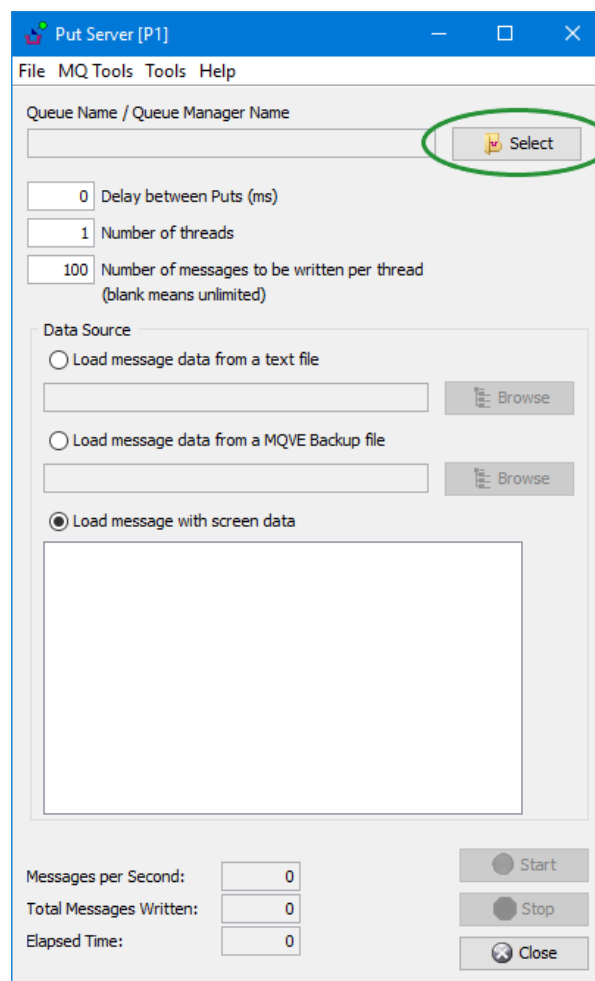
12.2 Put Server

This section will describe how to invoke and use the Put Server Stress Testing tool. The Put Server will put messages to a queue. It can be used to stress test a 'Server Component'. The user can control the feed by putting a delay between the MQPUTs. The messages data can be from a simple input text or from a plain text file or from a Backup file (this file can contain many messages with MQMDs). A Backup file can be either a SQLite Database (*.mqsd) or a VEQ formatted file (*.veq).

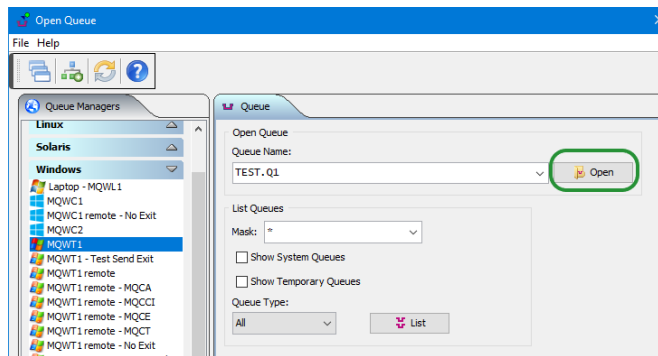
For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, while any of the Servers are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Put Server**.

This is the main panel of the Put Server. The user will need to select the queue and queue manager before starting the Put Server. Click the Select button to choose the queue and queue manager.



This is the standard 'Open Queue' dialog. Select the queue and queue manager then click the Open button.



Once the queue and queue manager have been selected, the user can provide more information:

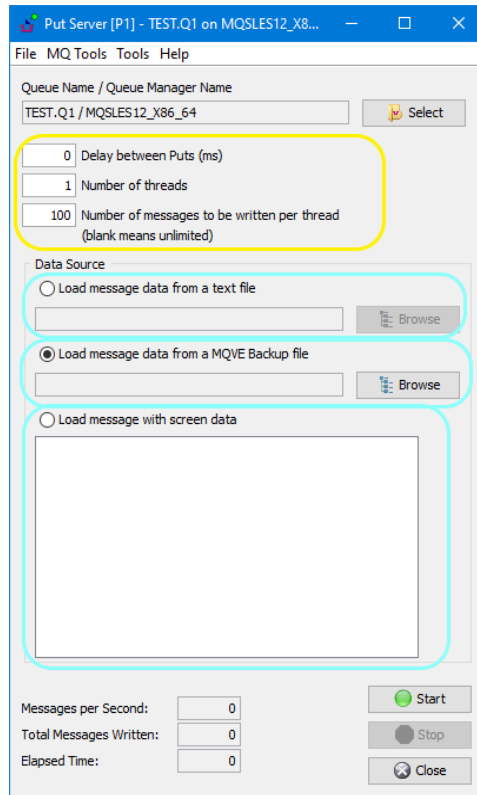
- The user can select a delay between MQPUTs.
- The number of threads putting messages to the queue.
- The user can select the number of messages to be written. Note: A blank in this field means an UNLIMITED number of MQPUTs will be done (it will run forever).
- The user is required to select a Data Source. The message text can come from 1 of 3 sources:
 1. The user can input simple text in the text box on the Put Server panel. The MQMD header will default to whatever the queue defaults attributes are.
 2. The user can select a text file to be used as the message text. The MQMD header will default to whatever the queue defaults attributes are.
 3. The user can select a Backup file. A Backup file can have multiple messages (including MQMD header) in it. Therefore, each message (with the associated MQMD header) in the Backup file will be written as separate messages to the queue. Note: If max messages is set to 100 and there are 8 messages in the Backup file then a total of 800 messages will be written to the output queue.

The Put Server supports token processing for both the text box and the text file options. Note: It does not support token processing for an MQVE Backup file.

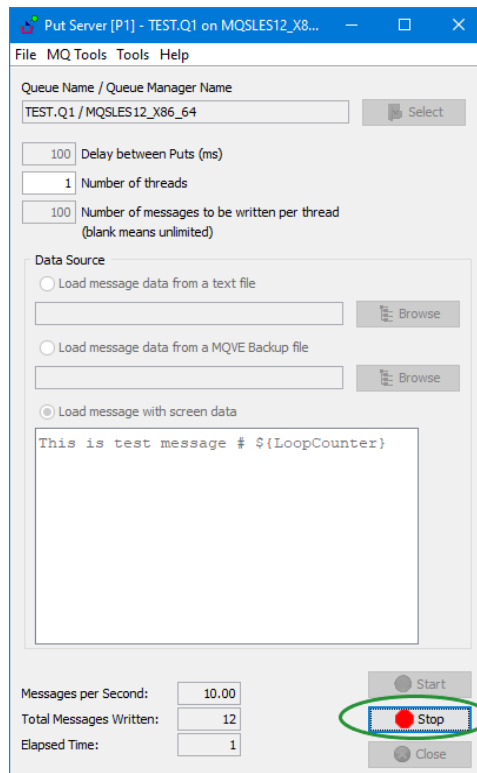
Supported tokens:

- `${Date}` – replace the token with the current date.
- `${DateTime}` – replace the token with the current date and time.
- `${FileName}` – replace the token with the filename of the text file (not applicable for text box processing)
- `${Hostname}` – replace the token with the hostname of the computer that MQ Visual Edit is running on
- `${LoopCounter}` – replace the token with the current loop counter
- `${QMgrName}` – replace the token with the queue manager name
- `${QueueName}` – replace the token with the queue name
- `${Thread}` – replace the token with the thread number
- `${Time}` – replace the token with the current time.
- `${UserId}` – replace the token with the end-user's UserId.

After filling in the required information, the user can start the Put Server by clicking the Start button.



While the Put Server is running, the current statistics are displayed and updated. To stop the execution of the Put Server click the **Stop** button.



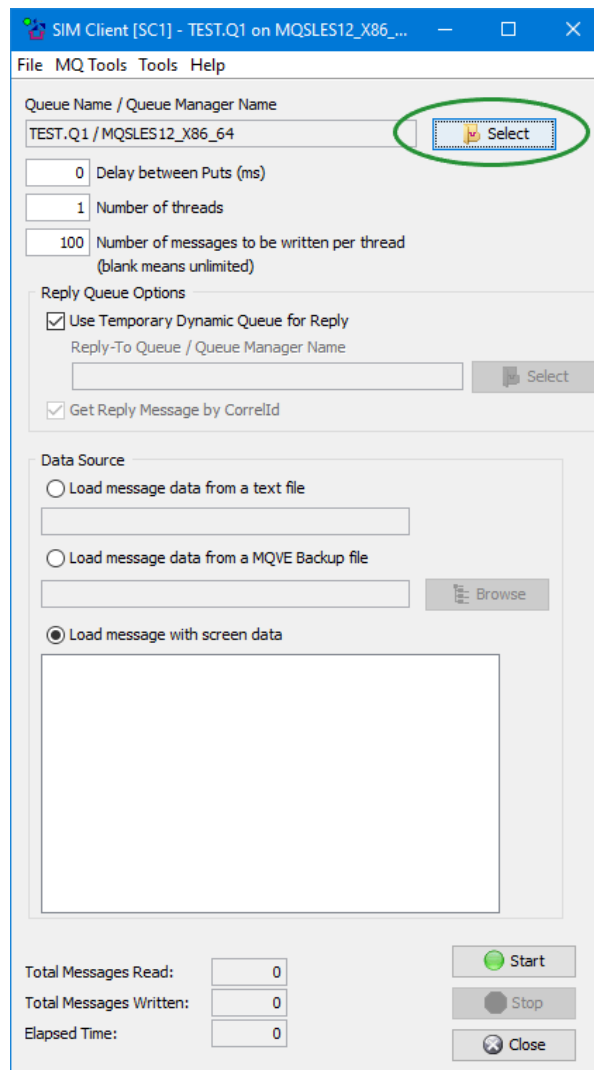
12.3 SIM Client

This section will describe how to invoke and use the SIM Client Stress Testing tool. The SIM Client will continuously send 'request' messages and wait for a reply messages. The request message's data can be from a simple input text or from a plain text file or from a Backup file (this file can contain many messages with MQMDs). A Backup file can be either a SQLite Database (*.mqbdb) or a VEQ formatted file (*.veq).

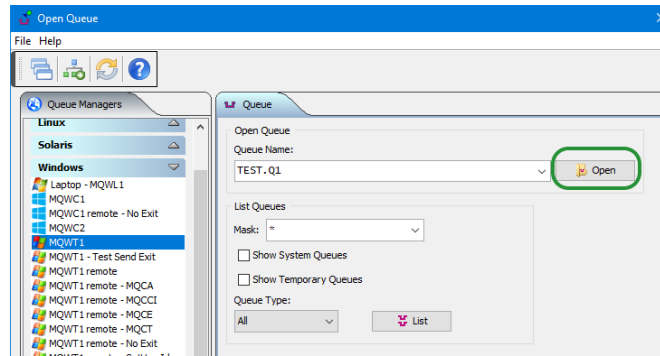
For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, the SIM Client get perform the MQGET by CorrelId for a shared queue. The outgoing message will have the Reply-To-Queue and Reply-To-QMgr fields filled in. The SIM Client will retrieve the reply message from that particular queue. Also, the incoming message's MsgID field of the MQMD header is copied to the outgoing message's CorrelID field of the MQMD header.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **SIM Client**.

This is the main panel of the SIM Client. The user will need to select the queue and queue manager before starting the SIM Client. Click the **Select** button to choose the queue and queue manager.



This is the standard 'Open Queue' dialog. Select the queue and queue manager then click the Open button.



Once the queue and queue manager have been selected, the user can provide more information:

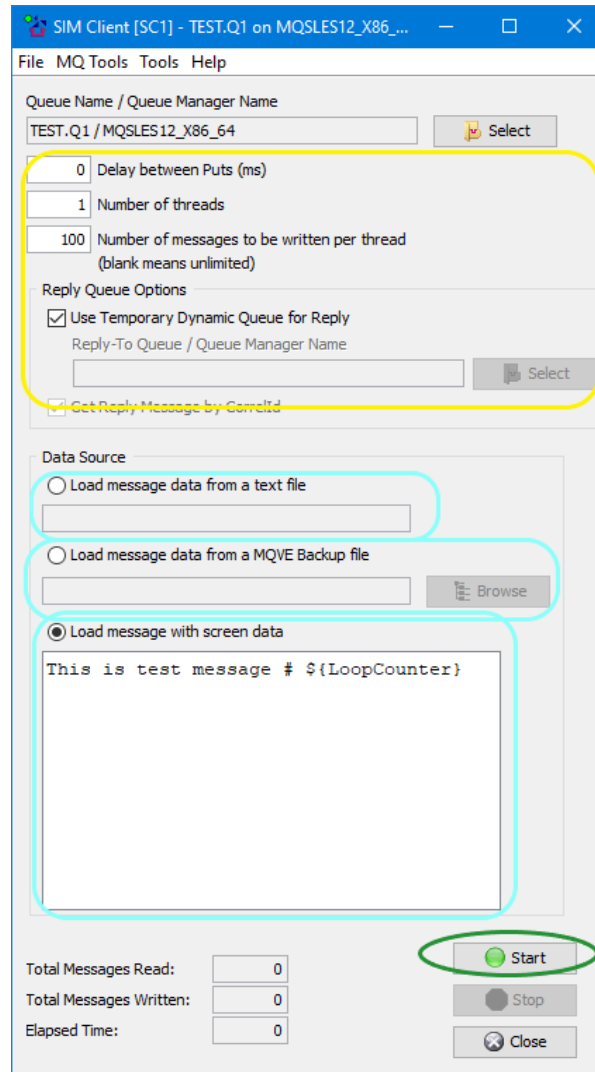
- The user can select a delay between MQPUTs.
- The number of threads putting messages to the queue.
- The user can select the number of messages to be written. Note: A blank in this field means an UNLIMITED number of MQPUTs will be done (it will run forever).
- The user can use a Temporary Dynamic Queue or a Permanent Queue for reply messages. If the user selects a Permanent Queue then they have the option of selecting the 'Get Reply Message by CorrelId'. This means that the SIM Client will only retrieve reply messages that match the particular CorrelId.
- The user is required to select a Data Source. The message text can come from 1 of 3 sources:
 - The user can input simple text in the text box on the SIM Client panel. The MQMD header will default to whatever the queue defaults attributes are.
 - The user can select a text file to be used as the message text. The MQMD header will default to whatever the queue defaults attributes are.
 - The user can select a Backup file. A Backup file can have multiple messages (including MQMD header) in it. Therefore, each message (with the associated MQMD header) in the Backup file will be written as separate messages to the output queue. Note: If there are 8 messages in the Backup file then a total of 8 messages will be written to the output queue for each incoming message.

The SIM Client supports token processing for both the text box and the text file options. Note: It does not support token processing for an MQVE Backup file.

Supported tokens:

- `${Date}` – replace the token with the current date.
- `${DateTime}` – replace the token with the current date and time.
- `${FileName}` – replace the token with the filename of the text file (not applicable for text box processing)
- `${Hostname}` – replace the token with the hostname of the computer that MQ Visual Edit is running on
- `${LoopCounter}` – replace the token with the current loop counter
- `${QMgrName}` – replace the token with the queue manager name
- `${QueueName}` – replace the token with the queue name
- `${Thread}` – replace the token with the thread number
- `${Time}` – replace the token with the current time.
- `${UserId}` – replace the token with the end-user's UserId.

After filling in the required information, the user can start the SIM Client by clicking the **Start** button.



While the SIM Client is running, the current statistics are displayed and updated. To stop the execution of the SIM Client click the **Stop** button.

12.4 SIM Server

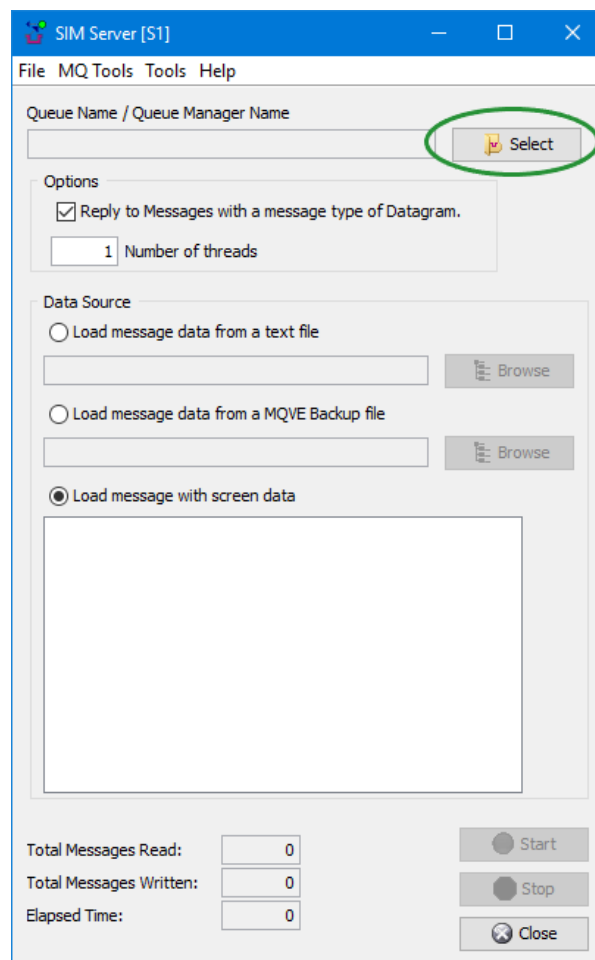
This section will describe how to invoke and use the SIM Server Stress Testing tool. The SIM Server will continuously consume messages and for each incoming messages, send a reply message(s). The reply message's data can be from a simple input text or from a plain text file or from a Backup file (this file can contain many messages with MQMDs). A Backup file can be either a SQLite Database (*.mqbdb) or a VEQ formatted file (*.veq).

The incoming message **MUST** have the Reply-To-Queue and Reply-To-QMgr fields filled in. The SIM Server will use these fields to sent a reply message to. Also, the incoming message's MsgID field of the MQMD header is copied to the outgoing message's CorrelID field of the MQMD header.

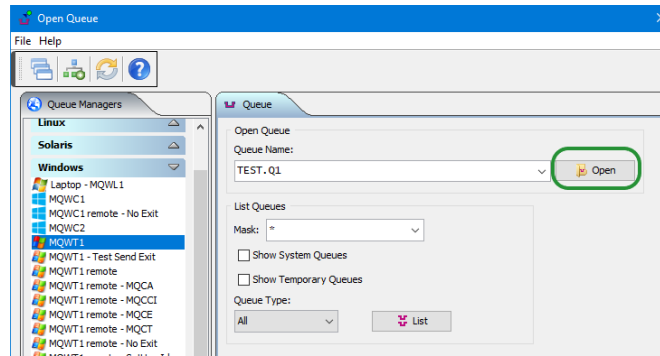
For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, while any of the Servers are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **SIM Server**.

This is the main panel of the SIM Server. The user will need to select the queue and queue manager before starting the SIM Server. Click the **Select** button to choose the queue and queue manager.



This is the standard 'Open Queue' dialog. Select the queue and queue manager then click the Open button.



Once the queue and queue manager have been selected, the user can provide more information:

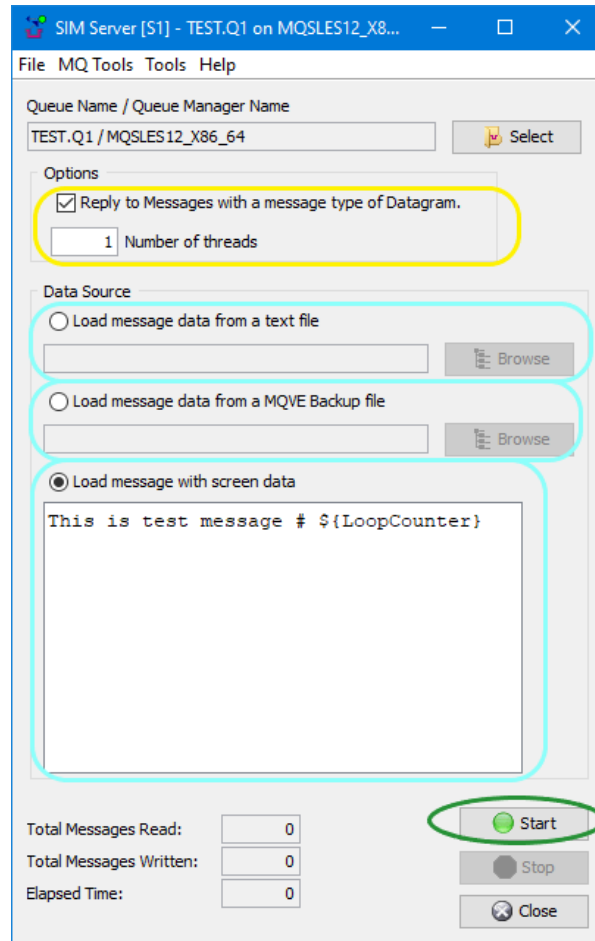
- The user can choose to ignore 'Datagram' type messages or reply to them. (Note: The incoming message's Reply-To-Queue and Reply-To-QMgr fields of the MQMD header must be filled in.)
- The number of threads putting messages to the queue.
- The user is required to select a Data Source. The message text can come from 1 of 3 sources:
 - The user can input simple text in the text box on the SIM Server panel. The MQMD header will default to whatever the queue defaults attributes are.
 - The user can select a text file to be used as the message text. The MQMD header will default to whatever the queue defaults attributes are.
 - The user can select a Backup file. A Backup file can have multiple messages (including MQMD header) in it. Therefore, each message (with the associated MQMD header) in the Backup file will be written as separate messages to the output queue. Note: If there are 8 messages in the Backup file then a total of 8 messages will be written to the output queue for each incoming message.

The SIM Server supports token processing for both the text box and the text file options. Note: It does not support token processing for an MQVE Backup file.

Supported tokens:

- `${Date}` – replace the token with the current date.
- `${DateTime}` – replace the token with the current date and time.
- `${FileName}` – replace the token with the filename of the text file (not applicable for text box processing)
- `${Hostname}` – replace the token with the hostname of the computer that MQ Visual Edit is running on
- `${LoopCounter}` – replace the token with the current loop counter
- `${QMgrName}` – replace the token with the queue manager name
- `${QueueName}` – replace the token with the queue name
- `${Thread}` – replace the token with the thread number
- `${Time}` – replace the token with the current time.
- `${UserId}` – replace the token with the end-user's UserId.

After filling in the required information, the user can start the SIM Server by clicking the **Start** button.



While the SIM Server is running, the current statistics are displayed and updated. To stop the execution of the SIM Server click the **Stop** button.

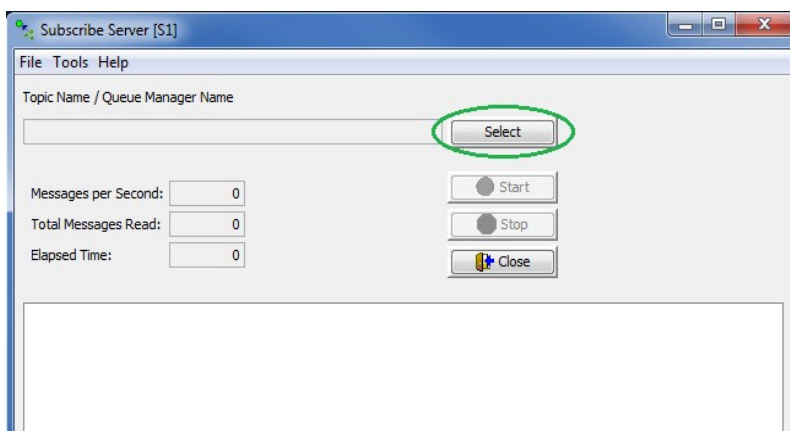
12.5 Subscribe Server

This section will describe how to invoke and use the Subscribe Server Stress Testing tool. The Subscribe Server will continuously consume messages of a topic and show statistics of its current state.

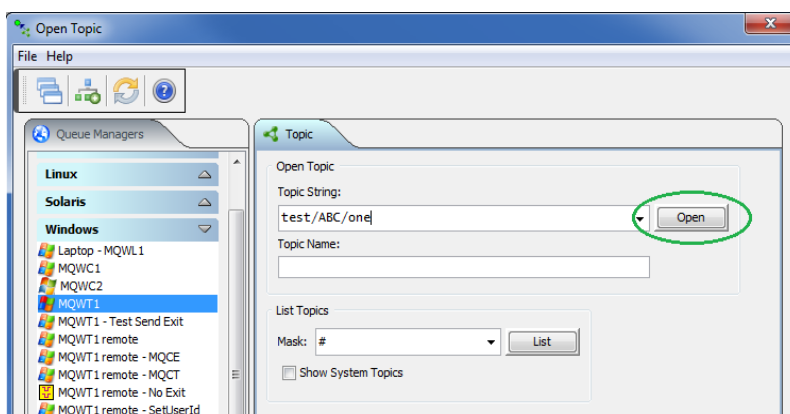
For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, while any of the Servers are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Subscribe Server**.

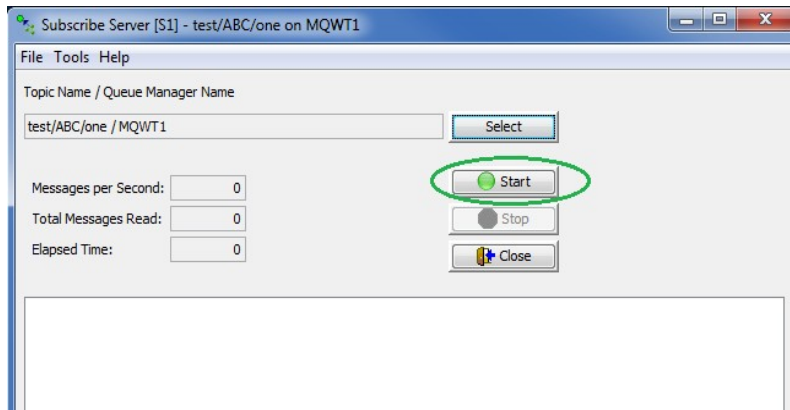
This is the main panel of the Subscribe Server. The user will need to select the topic and queue manager before starting the Subscribe Server. Click the **Select** button to choose the topic and queue manager.



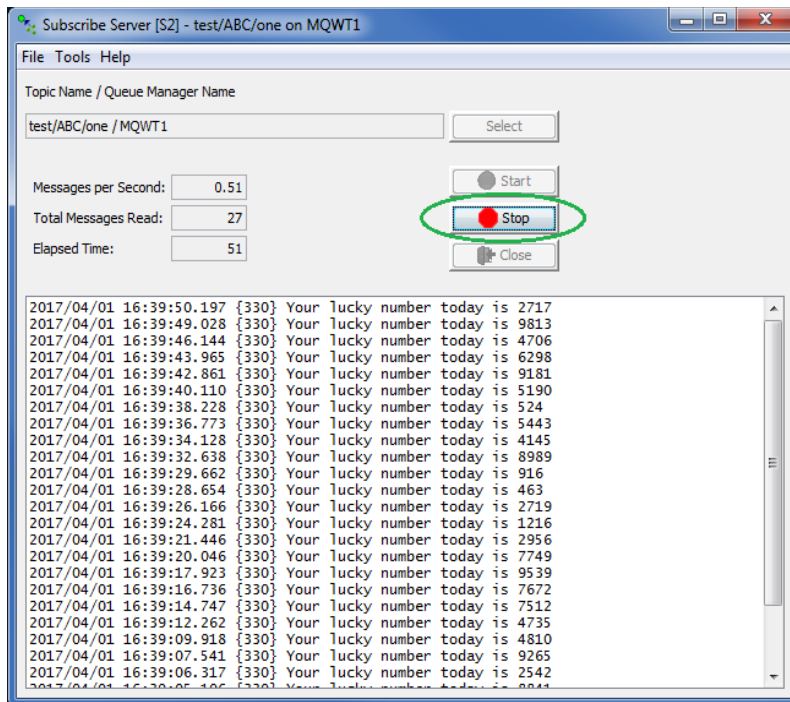
This is the standard 'Open Topic' dialog. Select the topic and queue manager then click the Open button.



Once the topic and queue manager have been selected, the user can now start the Subscribe Server by clicking the **Start** button.



While the Subscribe Server is running, the current statistics are displayed and updated. To stop the execution of the Subscribe Server click the **Stop** button.



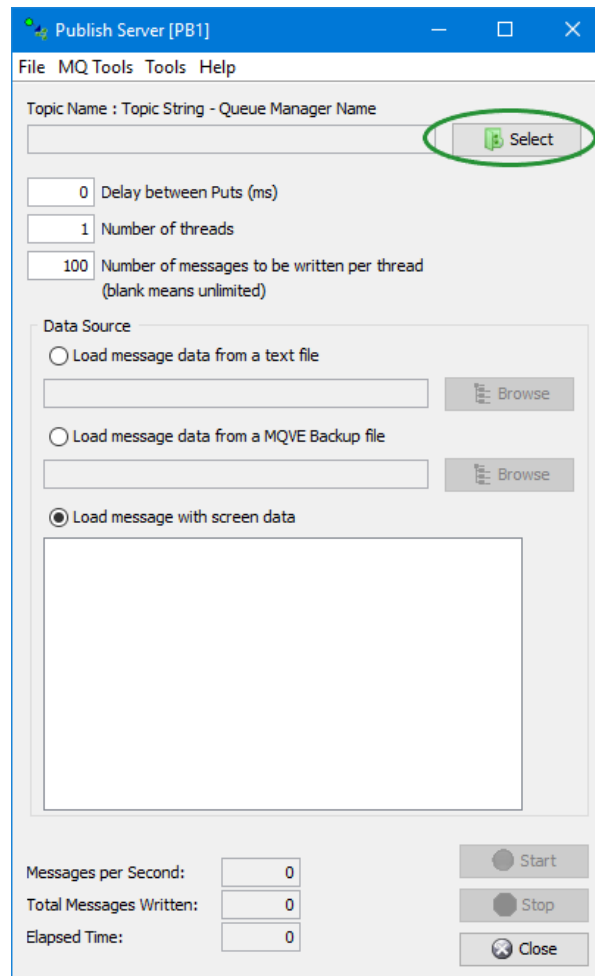
12.6 Publish Server

This section will describe how to invoke and use the Publish Server Stress Testing tool. The Publish Server will publish (put) messages to a topic. It can be used to stress test a 'Server Component'. The user can control the feed by putting a delay between the MQPUTs. The messages data can be from a simple input text or from a plain text file or from a Backup file (this file can contain many messages with MQMDs). A Backup file can be either a SQLite Database (*.mqfdb) or a VEQ formatted file (*.veq).

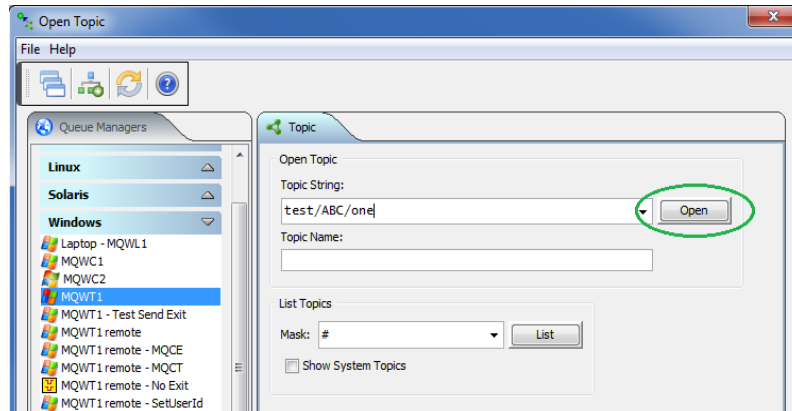
For the Stress Testing Servers, you can have unlimited number of them running (up to what your box can support). Also, while any of the Servers are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Publish Server**.

This is the main panel of the Publish Server. The user will need to select the topic and queue manager before starting the Publish Server. Click the Select button to choose the topic and queue manager.



This is the standard 'Open Topic' dialog. Select the topic and queue manager then click the Open button.



Once the topic and queue manager have been selected, the user can provide more information:

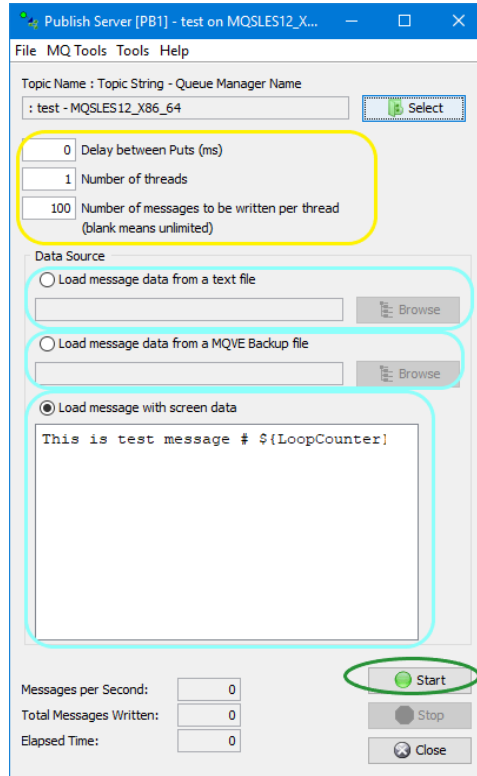
- The user can select a delay between puts.
- The number of threads putting messages to the queue.
- The user can select the number of messages to be written. Note: A blank in this field means an UNLIMITED number of puts will be done (it will run forever).
- The user is required to select a Data Source. The message text can come from 1 of 3 sources:
 1. The user can input simple text in the text box on the Publish Server panel. The Message Properties will default to whatever the topic defaults attributes are.
 2. The user can select a text file to be used as the message text. The Message Properties header will default to whatever the topic defaults attributes are.
 3. The user can select a Backup File. A Backup file can have multiple messages (including Message Properties) in it. Therefore, each message (with the associated Message Properties) in the Backup file will be written as separate messages to the topic. Note: If max messages is set to 100 and there are 8 messages in the Backup file then a total of 800 messages will be written to the topic.

The Publish Server supports token processing for both the text box and the text file options. Note: It does not support token processing for an MQVE Backup file.

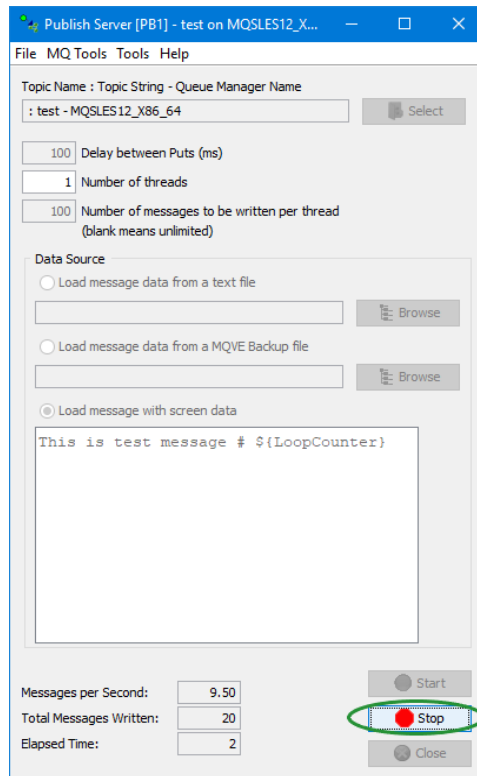
Supported tokens:

- `${Date}` – replace the token with the current date.
- `${DateTime}` – replace the token with the current date and time.
- `${FileName}` – replace the token with the filename of the text file (not applicable for text box processing)
- `${Hostname}` – replace the token with the hostname of the computer that MQ Visual Edit is running on
- `${LoopCounter}` – replace the token with the current loop counter
- `${QMgrName}` – replace the token with the queue manager name
- `${Thread}` – replace the token with the thread number
- `${Time}` – replace the token with the current time.
- `${TopicName}` – replace the token with the selected Topic Name.
- `${TopicString}` – replace the token with the selected Topic String.
- `${UserId}` – replace the token with the end-user's UserId.

After filling in the required information, the user can start the Publish Server by clicking the Start button.



While the Publish Server is running, the current statistics are displayed and updated. To stop the execution of the Publish Server click the **Stop** button.



13 MQ Analyzing Tools

This chapter will describes how to invoke and use the MQ Analyzing Tools included with MQ Visual Edit.

13.1 Ping Queue Manager

This section will describe how to invoke and use the Ping Queue Manager tool. The Ping Queue Manager will test connectivity, opening, closing of a queue and putting *AND* getting a series of messages to/from a queue of a queue manager.

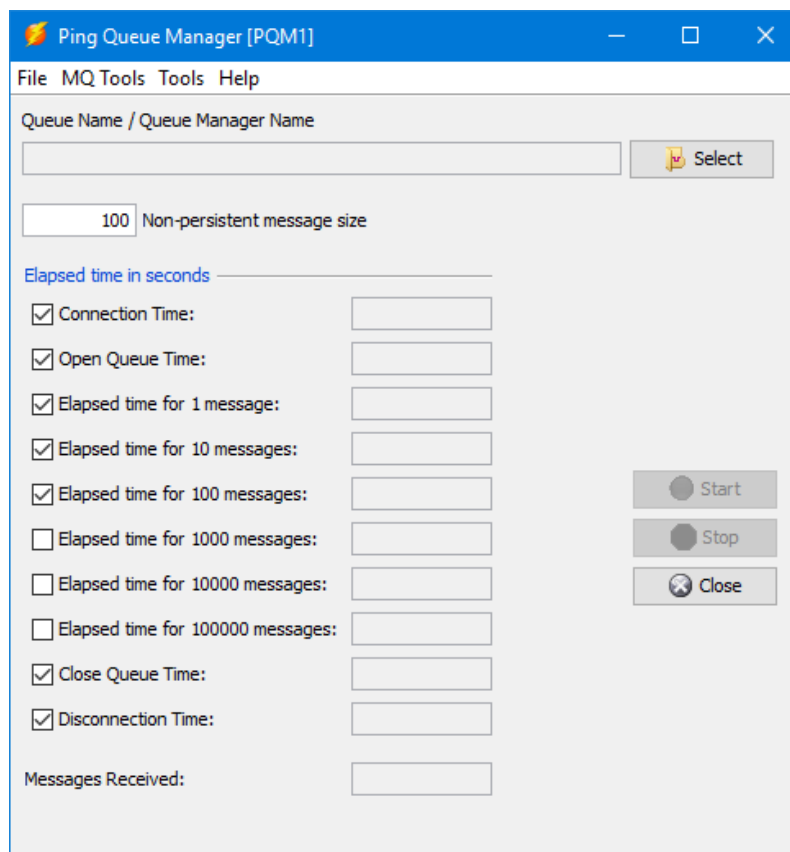
Features:

- User selectable non-persistent message size
- The user can select and/or de-select the various tests that it will run.
- The time of each test series will be displayed in nanoseconds.

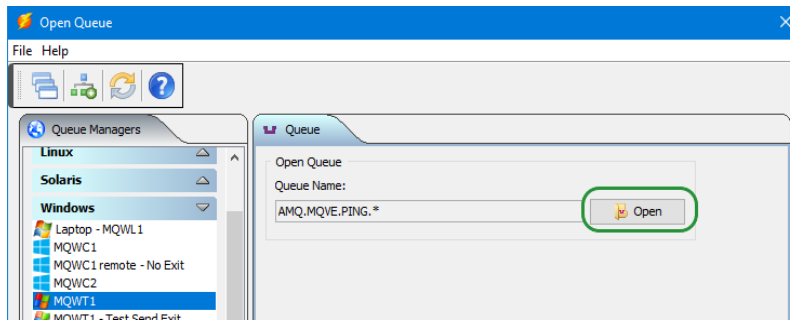
Note: The elapsed time shown for message time series is the total time taken to put then get the message from the queue.

For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Ping Queue Manager**.

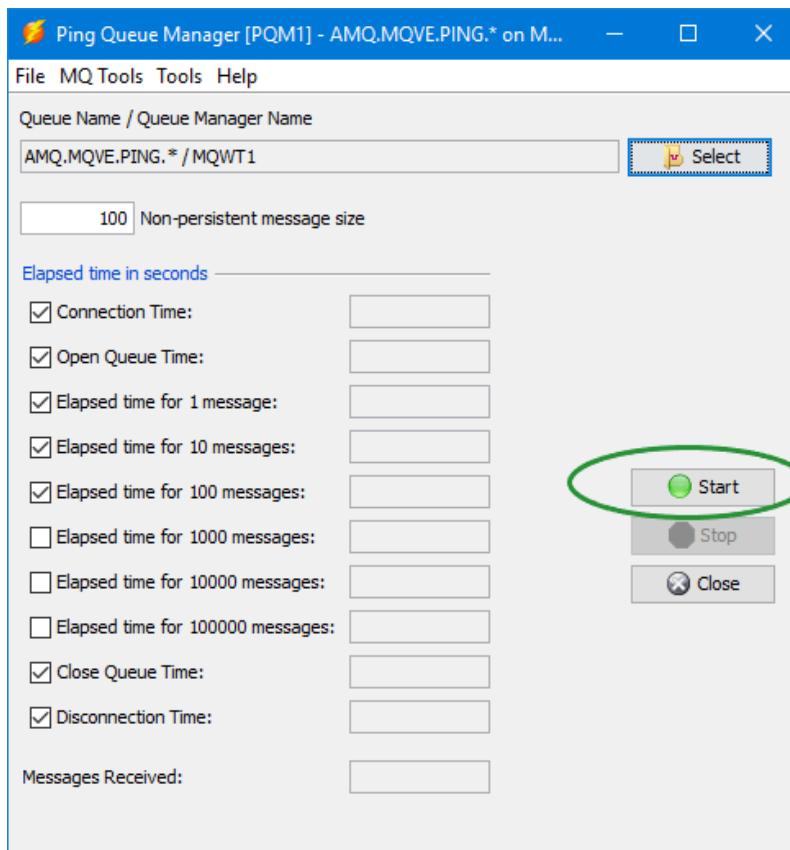


This is the main panel of the Ping Queue Manager. Click the **Select** button to choose the queue manager and options.

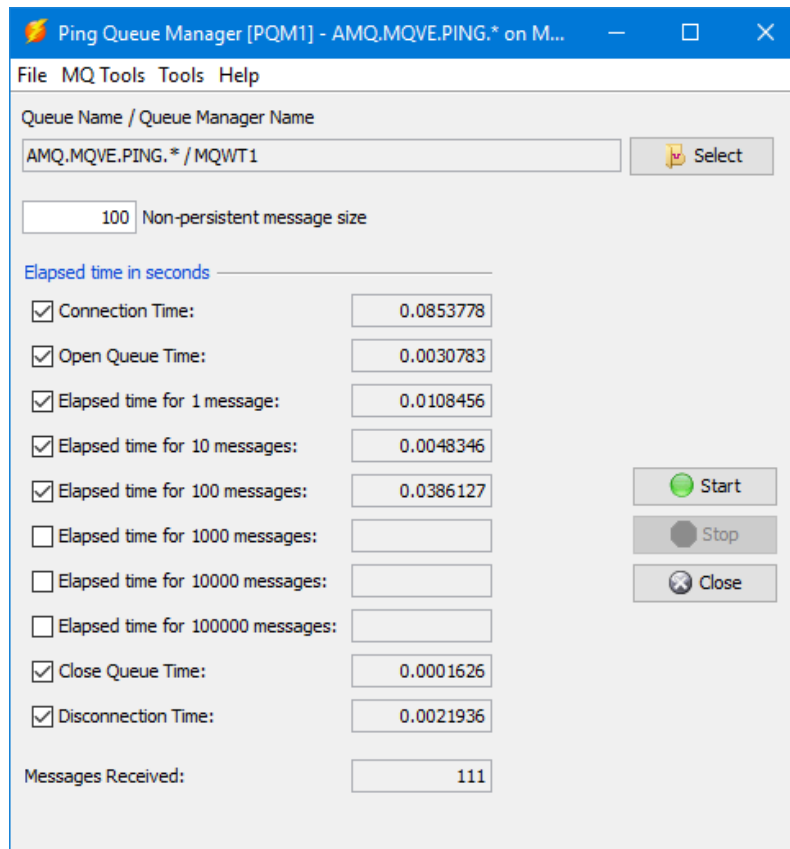


Select the queue manager then click the **Open** button.

Next, select the non-persistent message size and the tests the end-user wants completed. To begin the testing of the queue manager, click the **Start** button on the *Ping Queue Manager* window.



As the tests are proceeding, the *Ping Queue Manager* window will be updated with the test results.



Note: As you probably have read, a connection (i.e. MQCONN/MQCONN) to a queue manager is a vary time consuming MQ API call.

14 MQ Monitoring Tools

This chapter will describes how to invoke and use the MQ Monitoring Tools included with MQ Visual Edit.

14.1 Queue Monitor

This section will describe how to invoke and use the Queue Monitor tool. The Queue Monitor will continuously monitor the queues of a queue manager displaying the Queue Name, Current Queue Depth, Max Queue Depth, Open Input Count, Open Output Count, Get Enabled / Inhibited and Put Enabled / Inhibited.

Features:

- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM queues (i.e. SYSTEM.*)
- The displayed queue attributes are: Queue Name, Current Depth, Max Queue Depth, Open Input Count, Open Output Count, Get and Put.
- The user can have multi windows open at the same time monitoring different queues of the same queue manager or monitoring of different queues of different queue managers at the same time.

Quick visual helpers:

- If the current queue depth is between 70% to 84.99% (of max queue depth) then it is highlighted in 'yellow'.
- If the current queue depth is 85% or higher (of max queue depth) then it is highlighted in 'red'.
- If either the Get or Put attributes are set to Inhibited then they are highlighted in 'yellow'.

Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

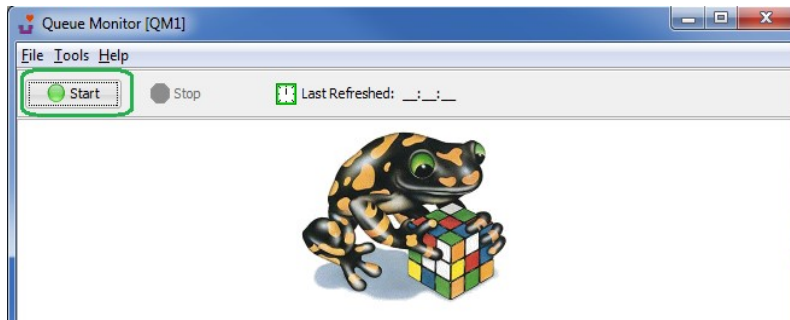
- The **Depth** is the current number of messages in the queue including both committed and uncommitted messages.
- The **Input** is the IPPROCS value for the queue. IPPROCS is the number of processes that have a queue open for input.
- The **Output** is the OPPROCS value for the queue. OPPROCS is the number of processes that have a queue open for output.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Depth was 15, hence, 15 messages were in the queue during the last 60 seconds.

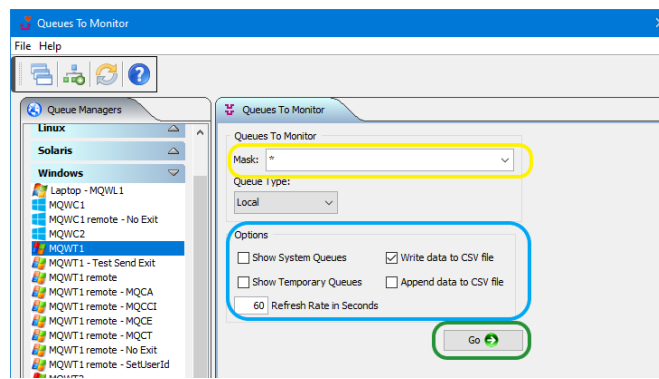
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Queue Monitor**.

This is the main panel of the Queue Monitor. Click the **Start** button to choose the queue manager and options.



This is the 'Queues To Monitor' panel, where the user selects the queue manager, refresh rate, system queues option and queue mask to be used during the monitoring of the queues.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Queue Monitor CSV files:

- On Windows: C:\Users\{UserId}\Capitalware\MQVE\QM\{QMgrName}\
- On Linux or Mac OS X: {home}/Capitalware/MQVE/QM/{QMgrName}/

- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the queues to be monitored.

While the Queue Monitor is running, the current real-time values are displayed and updated. To stop the execution of the Queue Monitor click the **Stop** button.

Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

- The **Depth** is the current number of messages in the queue including both committed and uncommitted messages.
- The **Input** is the IPPROCS value for the queue. IPPROCS is the number of processes that have a queue open for input.
- The **Output** is the OPPROCS value for the queue. OPPROCS is the number of processes that have a queue open for output.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Depth was 15, hence, 15 messages were in the queue during the last 60 seconds.

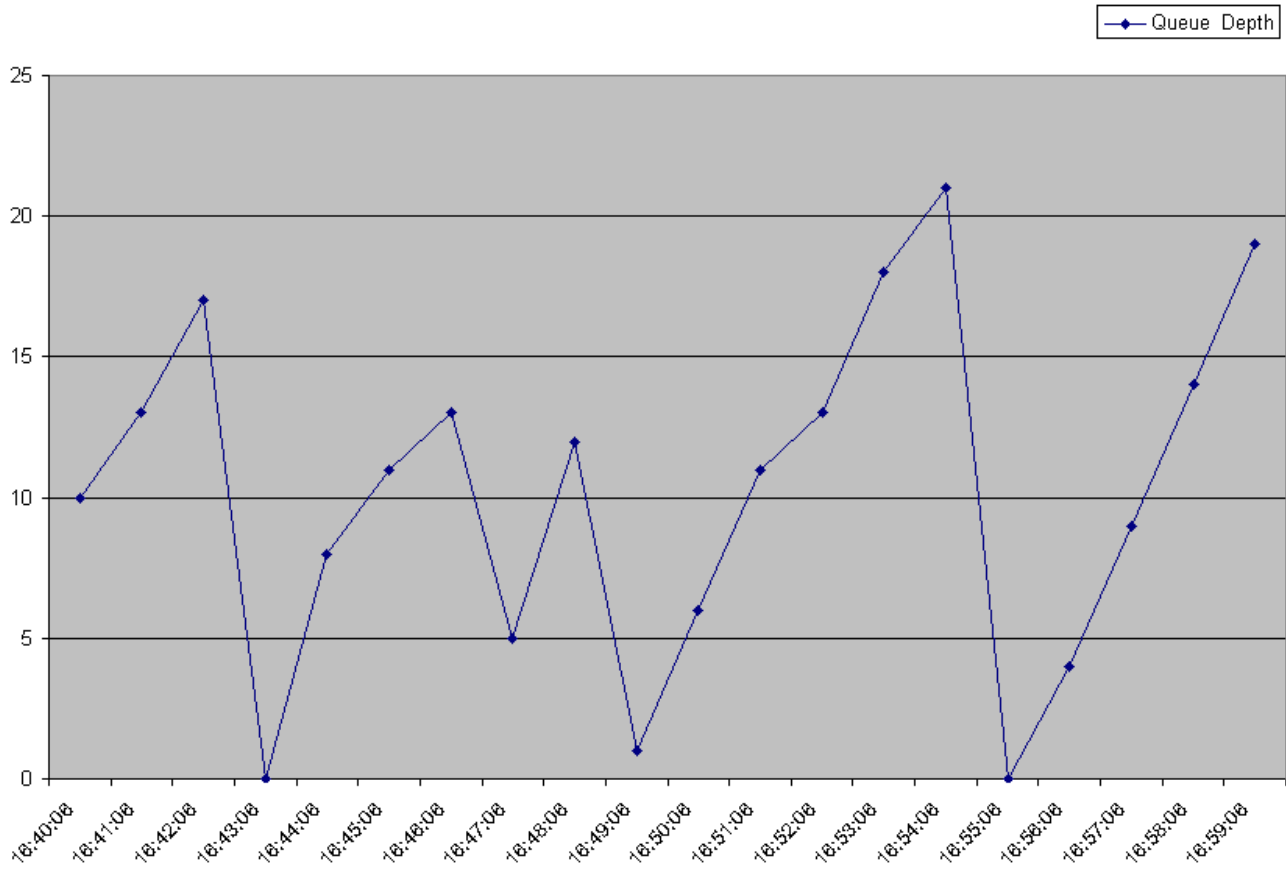
Queue Name	Depth	Input	Output	Get	Put	Max Depth
TEST.JMS.FORCE.MQRFH2	0	0	0	✓	✓	5000
TEST.MQFM.TRIG	0	0	0	✓	✓	5000
TEST.NAMING_ABC/XYZ%123	0	0	0	✓	✓	5000
TEST.Q1	3	0	0	✓	✓	50000
TEST.Q1.BK	15	0	0	✓	✓	5000
TEST.Q10	0	0	0	✓	✓	5000
TEST.Q11	0	0	0	✓	✓	5000
TEST.Q12	0	0	0	✓	✓	5000
TEST.Q13	0	0	0	✓	✓	5000
TEST.Q14	0	0	0	✓	✓	5000
TEST.Q15	0	0	0	✓	✓	5000
TEST.Q16	0	0	0	✓	✓	5000
TEST.Q17	0	0	0	✓	✓	5000
TEST.Q18	0	0	0	✓	✓	5000
TEST.Q19	0	0	0	✓	✓	5000
TEST.Q2	2	0	0	✓	✓	5000
TEST.Q20	0	0	0	✓	✓	5000
TEST.Q21	0	0	0	✓	✓	5000
TEST.Q22	0	0	0	✓	✓	5000
TEST.Q23	0	0	0	✓	✓	5000
TEST.Q24	0	0	0	✓	✓	5000
TEST.Q25	0	0	0	✓	✓	5000
TEST.Q3	800	0	0	✓	✓	1000
TEST.Q4	0	0	0	✓	✓	5000
TEST.Q5	0	0	0	✓	✓	5000
TEST.Q6	0	0	0	✓	✓	5000
TEST.Q7	0	0	0	✓	✓	5000
TEST.Q8	0	0	0	✓	✓	5000
TEST.Q9	4700	0	0	✓	✓	5000
TEST.TRIG.Q1	0	0	0	✓	✓	5000
TEST01.Q1.A	0	0	0	✓	✓	5000
TEST01.Q1.B	0	0	0	✓	✓	5000
TEST1	0	0	0	✓	✓	5000
WHAT.Q1	0	0	0	✓	✓	5000
WHAT.Q2	0	0	0	✓	✓	5000
WHAT.Q3	0	0	0	✓	✓	5000
WMQA.XMIT	0	0	0	✓	✓	5000

Quick visual helpers:

- If the current queue depth is between 70% to 84.99% (of max queue depth) then it is highlighted in 'yellow'.
- If the current queue depth is 85% or higher (of max queue depth) then it is highlighted in 'red'.
- If either the Get or Put attributes are set to Inhibited then they are highlighted in 'yellow'.

Visualizing the Data

The user can use the "TEST.Q1.csv" file with a spreadsheet program and create a Line Chart. The following sample Line Chart is using just the first 2 columns of the CSV file.



14.2 Queue Statistics Monitor

This section will describe how to invoke and use the Queue Statistics Monitor tool. The Queue Statistics Monitor will continuously monitor the queues of a queue manager displaying the Queue Name, Put Rate (enqueue rate), Get Rate (dequeue rate), High Queue Depth and Max Queue Depth.

Features:

- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM queues (i.e. SYSTEM.*)
- The displayed queue attributes are: Queue Name, Put Rate (Enqueue rate), Get Rate (Dequeue rate), High Queue Depth during the interval, and Max Queue Depth.
- The user can have multi windows open at the same time monitoring different queues of the same queue manager or monitoring of different queues of different queue managers at the same time.

Quick visual helpers:

- If the 'High Queue Depth' is between 70% to 84.99% (of max queue depth) then it is highlighted in 'yellow'.
- If the 'High Queue Depth' is 85% or higher (of max queue depth) then it is highlighted in 'red'.

Whatever you select for the **Refresh Rate** will be the interval that the Put & Get rates are measured by.

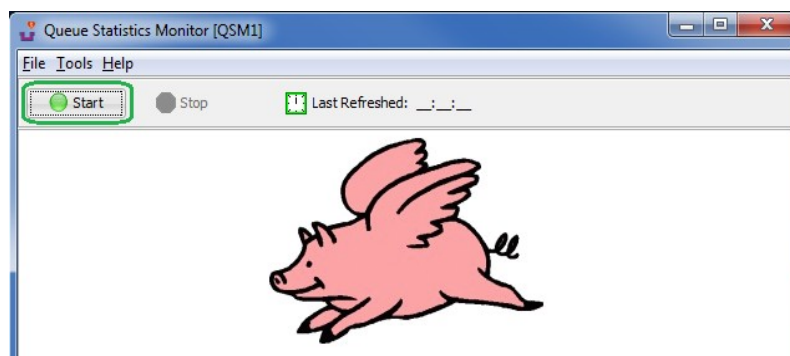
- The **Put Rate** is the number of MQPUTs in the given interval.
- The **Get Rate** is the number of MQGETs in the given interval.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Put Rate was 15, hence, 15 messages were put to the queue in the last 60 seconds.

For z/OS queue managers, you MUST enable Queue Manager Performance Events (PERFMEV) to use the Queue Statistics Monitor tool against a z/OS queue manager.

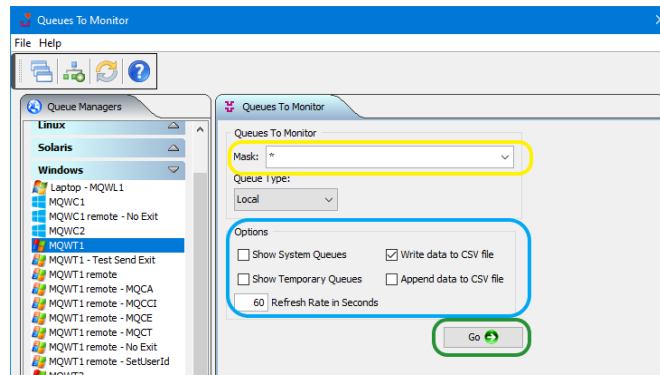
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Queue Statistics Monitor**.



This is the main panel of the Queue Stats Monitor. Click the **Start** button to choose the queue manager and options.

This is the 'Queues To Monitor' panel, where the user selects the queue manager, refresh rate, system queues option and queue mask to be used during the monitoring of the queues.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask.
i.e.

ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Queue Statistics Monitor CSV files:

- On Windows: `C:\Users\{UserId}\Capitalware\MQVE\QSM\{QMgrName}\`
- On Linux or Mac OS X: `{home}/Capitalware/MQVE/QSM/{QMgrName}/`
- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the queues to be monitored.

While the Queue Statistics Monitor is running, the current real-time values are displayed and updated. To stop the execution of the Queue Stats Monitor click the Stop button.

Whatever you select for the **Refresh Rate** will be the interval that the Put & Get rates are measured by.

- The Put Rate is the number of MQPUTs in the given interval.
- The Get Rate is the number of MQGETs in the given interval.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Put Rate was 15, hence, 15 messages were put to the queue in the last 60 seconds.

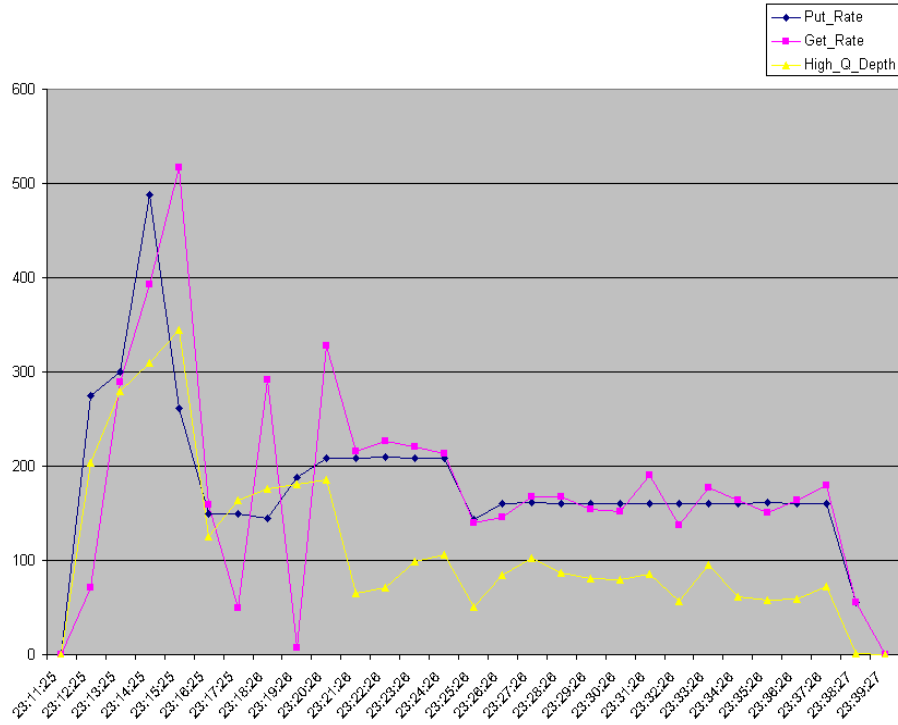
Queue Name	Put Rate	Get Rate	High Depth	Max Depth
TEST.BAD	0	0	3	5000
TEST.GOOD	0	0	0	5000
TEST.JMS.FORCE.MQRFH2	0	0	0	5000
TEST.MQFM.TRIG	0	0	0	5000
TEST.NAMING_ABC/XYZ%123	0	0	0	5000
TEST.Q1	0	0	16	50000
TEST.Q1.BK	0	0	15	5000
TEST.Q10	0	0	8	5000
TEST.Q11	0	0	0	5000
TEST.Q12	0	0	0	5000
TEST.Q13	0	0	0	5000
TEST.Q14	0	0	0	5000
TEST.Q15	0	0	0	5000
TEST.Q16	0	0	0	5000
TEST.Q17	0	0	6	5000
TEST.Q18	0	0	0	5000
TEST.Q19	0	0	0	5000
TEST.Q2	0	0	3	5000
TEST.Q20	0	0	0	5000
TEST.Q21	0	0	0	5000
TEST.Q22	0	0	0	5000
TEST.Q23	0	0	0	5000
TEST.Q24	0	0	0	5000
TEST.Q25	0	0	0	5000
TEST.Q3	0	0	800	1000
TEST.Q4	0	0	0	5000
TEST.Q5	0	0	0	5000
TEST.Q6	0	0	0	5000
TEST.Q7	0	0	0	5000
TEST.Q8	0	0	0	5000
TEST.Q9	0	0	4700	5000
TEST.TRIG.Q1	0	0	0	5000
TEST01.Q1.A	0	0	0	5000
TEST01.Q1.B	0	0	0	5000
TEST1	0	0	1	5000

Quick visual helpers:

- If the 'High Queue Depth' is between 70% to 84.99% (of max queue depth) then it is highlighted in 'yellow'.
- If the 'High Queue Depth' is 85% or higher (of max queue depth) then it is highlighted in 'red'.

Visualizing the Data

The user can use the "TEST.Q1.csv" file with a spreadsheet program and create a Line Chart. The following sample Line Chart is using just the first 4 columns of the CSV file.



14.3 Queue Status Monitor

This section will describe how to invoke and use the Queue Status Monitor tool. The Queue Status Monitor will continuously monitor the queues of a queue manager displaying the Queue Name, Current Queue Depth, Open Input Count, Open Output Count, Last Put Date, Last Put Time, Last Get Date and Last Get Time.

Features:

- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM queues (i.e. SYSTEM.*)
- The displayed queue attributes are: Queue Name, Current Queue Depth, Open Input Count, Open Output Count, Last Put Date, Last Put Time, Last Get Date and Last Get Time.
- The user can have multi windows open at the same time monitoring different queues of the same queue manager or monitoring of different queues of different queue managers at the same time.

Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

- The **Depth** is the current number of messages in the queue including both committed and uncommitted messages.
- The **Input** is the IPPROCS value for the queue. IPPROCS is the number of processes that have a queue open for input.
- The **Output** is the OPPROCS value for the queue. OPPROCS is the number of processes that have a queue open for output.

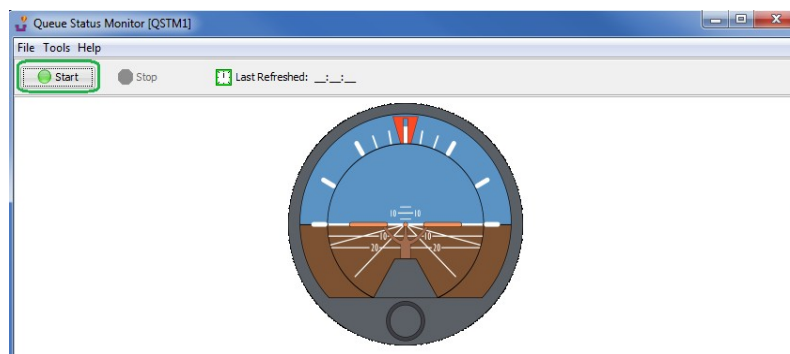
Example: If the refresh rate is 60 seconds (interval) and during the interval the Depth was 15, hence, 15 messages were in the queue during the last 60 seconds.

The user MUST enable Queue Manager 'Queue Monitor' (MONQ) to use the Queue Status Monitor tool.

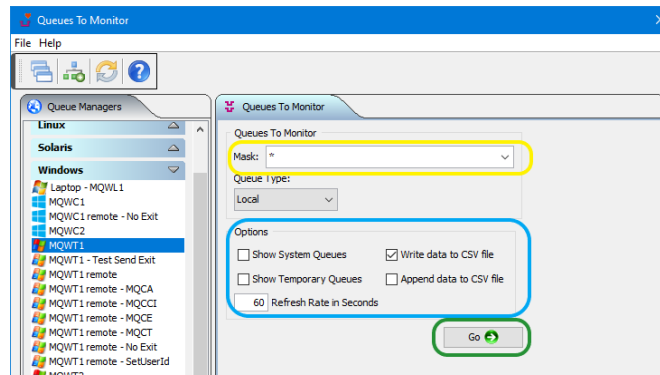
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Queue Status Monitor**.

This is the main panel of the Queue Stats Monitor. Click the **Start** button to choose the queue manager and options.



This is the 'Queues To Monitor' panel, where the user selects the queue manager, refresh rate, system queues option and queue mask to be used during the monitoring of the queues.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Queue Status Monitor CSV files:

- On Windows: `C:\Users\{UserId}\Capitalware\MQVE\QSTM\{QMgrName}\`
- On Linux or Mac OS X: `{home}/Capitalware/MQVE/QSTM/{QMgrName}/`
- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the queues to be monitored.

While the Queue Monitor is running, the current real-time values are displayed and updated. To stop the execution of the Queue Monitor click the **Stop** button.


Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

- The **Depth** is the current number of messages in the queue including both committed and uncommitted messages.
- The **Input** is the IPPROCS value for the queue. IPPROCS is the number of processes that have a queue open for input.
- The **Output** is the OPPROCS value for the queue. OPPROCS is the number of processes that have a queue open for output.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Depth was 15, hence, 15 messages were in the queue during the last 60 seconds.

Queue Status Monitor [QSTM1] : MQWT1

File Tools Help

Start
 Stop
  Last Refreshed: 19:15:57

Queue Name	Depth	Input	Output	Last Put Date	Last Put Time	Last Get Date	Last Get Time
AMQ.57DFF9F910220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F915220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F91A220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F91F220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F924220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F929220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F92E220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.57DFF9F933220020	0	1	0	2016-09-19	10.45.17	2016-09-19	10.45.17
AMQ.MQEXPLORER.57DFF9F903500020	0	1	0	2016-09-19	19.15.48	2016-09-19	19.15.48

14.4 Visual Queue Depth

This section will describe how to invoke and use the Visual Queue Depth tool. The Visual Queue Depth will continuously monitor the queues of a queue manager visually displaying the queue depth.

Features:

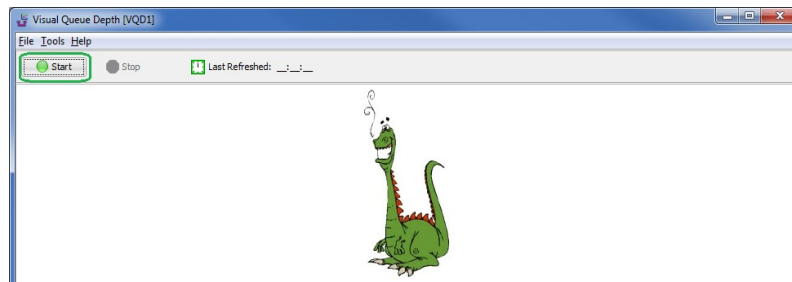
- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM queues (i.e. SYSTEM.*)
- The current queue depth of up to 30 queues will be charted. (Charting provided by JFreeChart)
- The user can have multi windows open at the same time monitoring different queues of the same queue manager or monitoring of different queues of different queue managers at the same time.

The chart will display 60 sample points for each queue being charted. Whatever you select for the Refresh Rate will determine the total duration of the chart. For example, if the refresh rate is 60 seconds then the chart will show 1 hour of data (60 1-minute samples). If the refresh rate is 30 seconds then the chart will show 30 minutes of data (60 30-second samples).

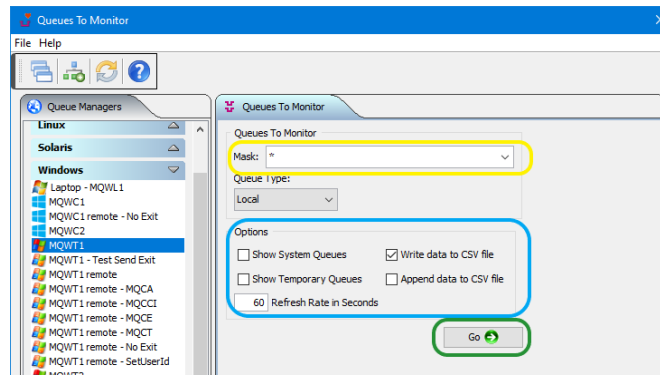
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Visual Queue Depth**.

This is the main panel of the Visual Queue Depth. Click the **Start** button to choose the queue manager and options.



This is the 'Queues To Monitor' panel, where the user selects the queue manager, refresh rate, system queues option and queue mask to be used during the monitoring of the queues.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

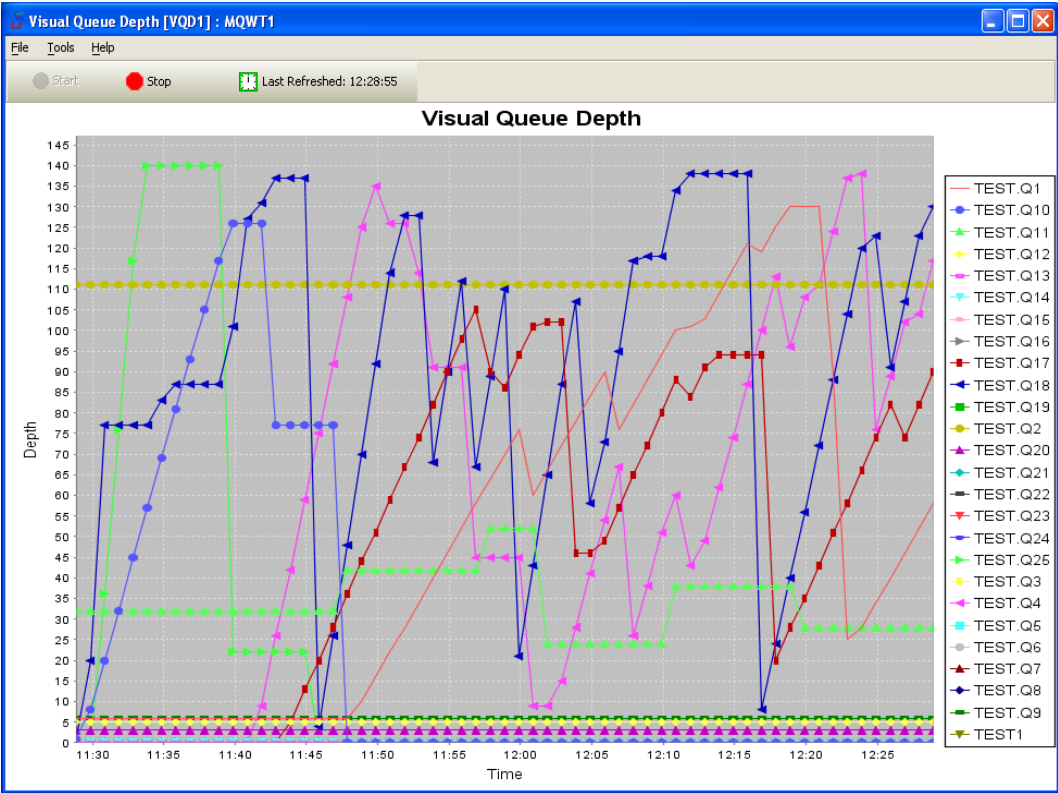
- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Visual Queue Depth CSV files:

- On Windows: `C:\Users\{UserId}\Capitalware\MQVE\VQD\{QMgrName}\`
- On Linux or Mac OS X: `{home}/Capitalware/MQVE/VQD/{QMgrName}/`

- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the queues to be monitored.

While the Visual Queue Depth is running, the current real-time values are displayed and updated. To stop the execution of the Visual Queue Depth click the **Stop** button.



14.5 Visual Queue Statistics

This section will describe how to invoke and use the Visual Queue Statistics tool. The Visual Queue Statistics will continuously monitor the queues of a queue manager visually displaying the Put Rate or Get Rate or the average of Put and Get rates.

Features:

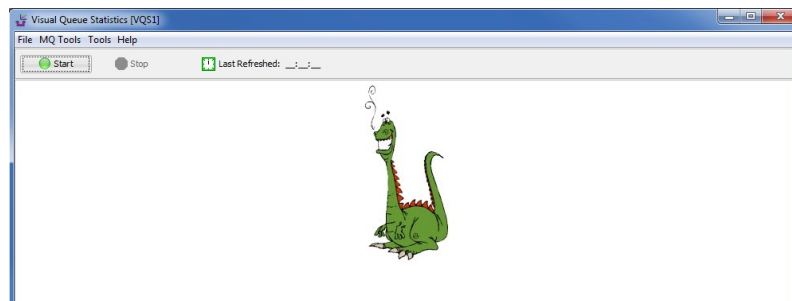
- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM queues (i.e. SYSTEM.*)
- The rate is user selectable: Put, Get or average of Put and Get rates
- The current queue depth of up to 30 queues will be charted. (Charting provided by JFreeChart)
- The user can have multi windows open at the same time monitoring different queues of the same queue manager or monitoring of different queues of different queue managers at the same time.

The chart will display 60 sample points for each queue being charted. Whatever you select for the Refresh Rate will determine the total duration of the chart. For example, if the refresh rate is 60 seconds then the chart will show 1 hour of data (60 1-minute samples). If the refresh rate is 30 seconds then the chart will show 30 minutes of data (60 30-second samples).

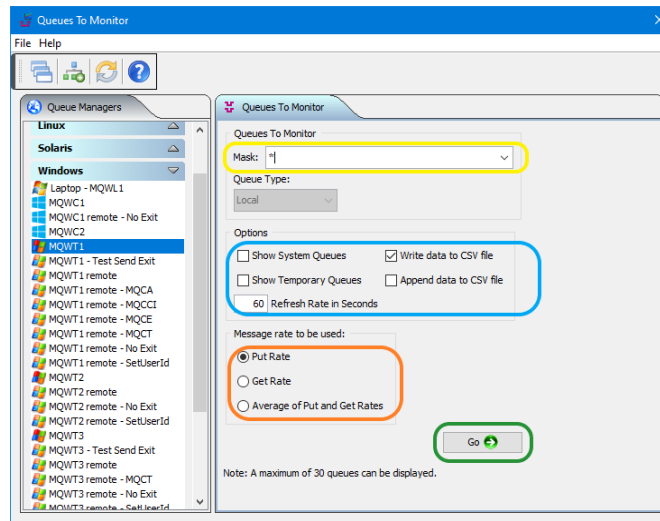
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Visual Queue Statistics**.

This is the main panel of the Visual Queue Statistics. Click the **Start** button to choose the queue manager and options.



This is the 'Queues To Monitor' panel, where the user selects the queue manager, refresh rate, system queues option and queue mask to be used during the monitoring of the queues.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.*;XYZ.*;TEST.*

Hence, only queues that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

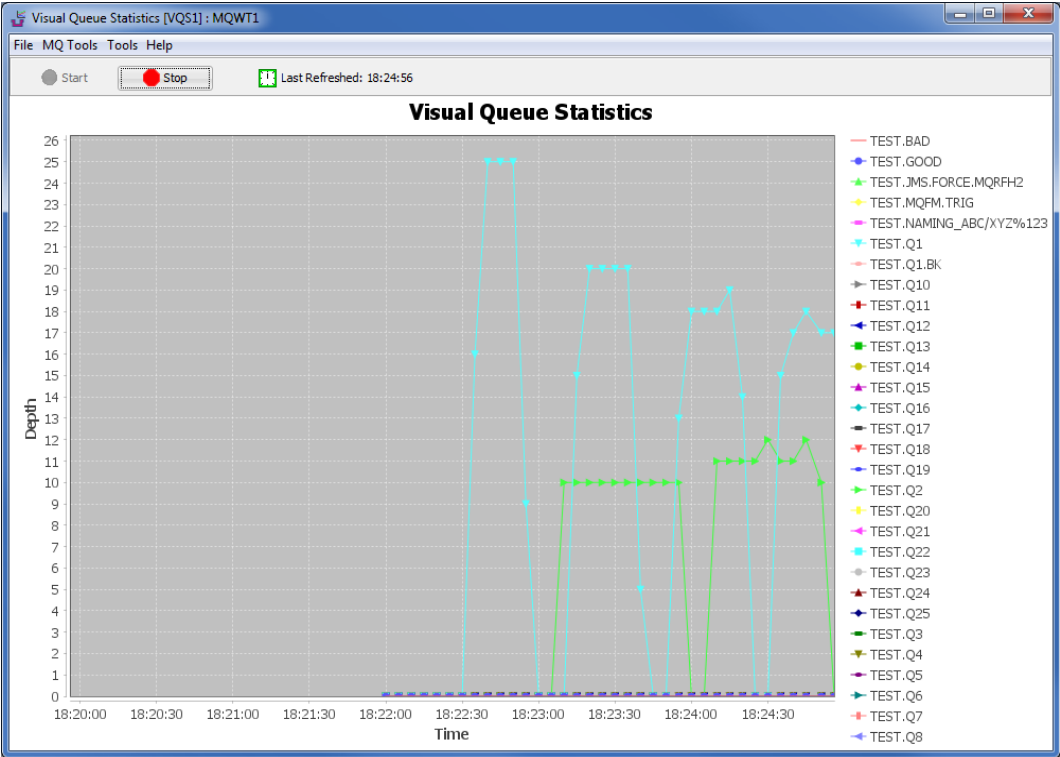
- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Visual Queue Statistics CSV files:

- On Windows: C:\Users\{UserId}\Capitalware\MQVE\VQS\{QMgrName}\
- On Linux or Mac OS X: {home}/Capitalware/MQVE/VQS/{QMgrName}/

- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the queues to be monitored.

While the Visual Queue Statistics is running, the current real-time values are displayed and updated. To stop the execution of the Visual Queue Statistics click the **Stop** button.



14.6 Visual Subscription Rate

This section will describe how to invoke and use the Visual Subscription Rate tool. The Visual Subscription Rate will continuously monitor the subscriptions of a queue manager visually displaying the message count of the subscriptions.

Features:

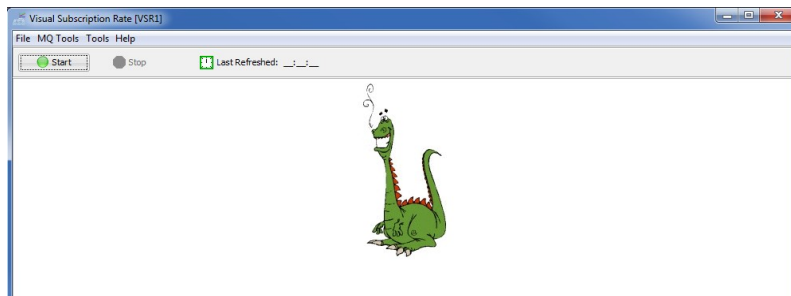
- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The message count of up to 30 subscriptions will be charted. (Charting provided by JFreeChart)
- The user can have multi windows open at the same time monitoring different queues or subscriptions of the same queue manager or monitoring of different queues of different queue managers at the same time.

The chart will display 60 sample points for each queue being charted. Whatever you select for the Refresh Rate will determine the total duration of the chart. For example, if the refresh rate is 60 seconds then the chart will show 1 hour of data (60 1-minute samples). If the refresh rate is 30 seconds then the chart will show 30 minutes of data (60 30-second samples).

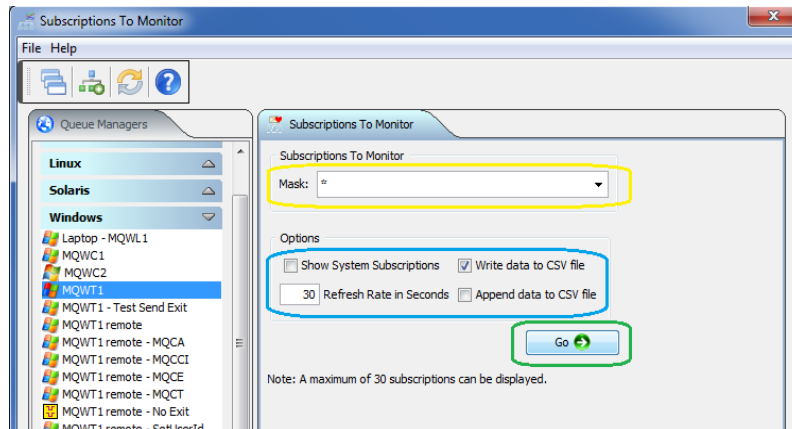
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Visual Subscription Rate**.

This is the main panel of the Visual Subscription Rate. Click the **Start** button to choose the queue manager and options.



This is the 'Subscriptions To Monitor' panel, where the user selects the queue manager, refresh rate and subscription mask to be used during the monitoring of the subscriptions.



- First, the user must select a queue manager which contains the queues to be monitored.
- If the queue mask is set to "*" then the user can select or de-select the system queues from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.*;XYZ.*;TEST.*

Hence, only subscriptions that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

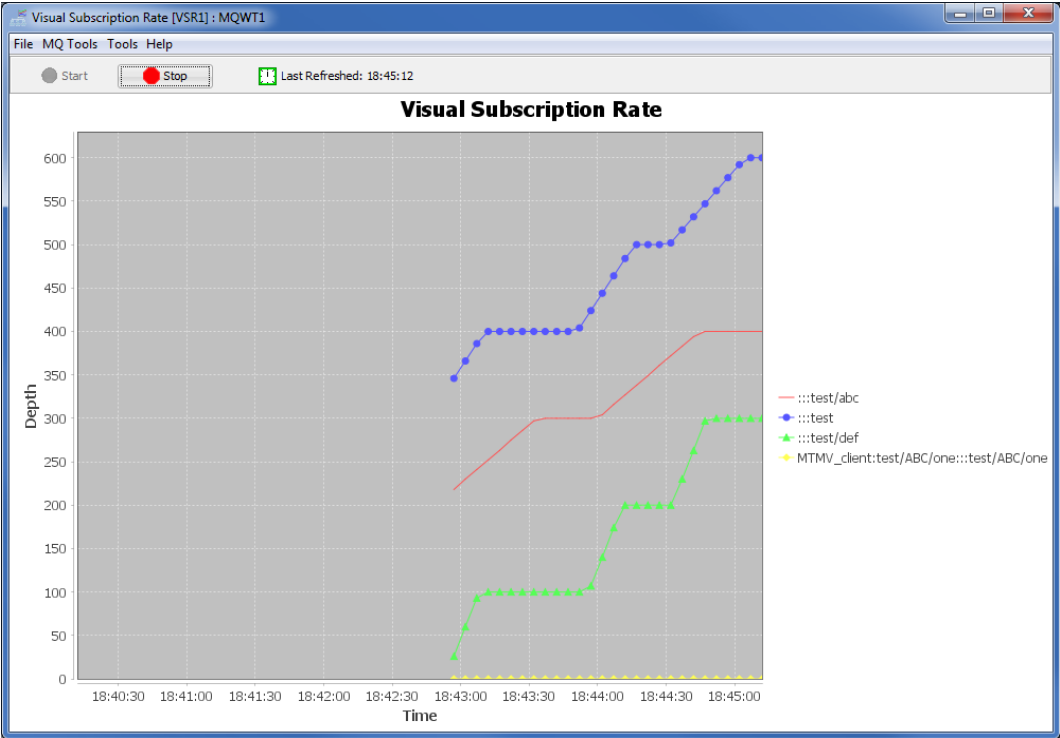
- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Visual Subscription Rate CSV files:

- On Windows: `C:\Users\{UserId}\Capitalware\MQVE\VSR\{QMgrName}\`
- On Linux or Mac OS X: `{home}/Capitalware/MQVE/VSR/{QMgrName}/`

- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all queues ("*") of a queue manager to be monitored or select a partial list ("TEST*") of the subscriptions to be monitored.

While the Visual Subscription Rate is running, the current real-time values are displayed and updated. To stop the execution of the Visual Subscription Rate click the **Stop** button.



14.7 Topic Monitor

This section will describe how to invoke and use the Topic Monitor tool. The Topic Monitor will continuously monitor the topics of a queue manager displaying the Topic String, Topic Name, Durability, Persistence, Publications, Subscriptions, Pub Current and Sub Count.

Features:

- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM topics (i.e. SYSTEM.*)
- The displayed topic attributes are: Topic String, Topic Name, Durability, Persistence, Publications, Subscriptions, Pub Current and Sub Count.
- The user can have multi windows open at the same time monitoring different topics of the same queue manager or monitoring of different topics of different queue managers at the same time.

Whatever you select for the **Refresh Rate** will be the interval that the Pub Count & Sub Count are measured by.

- The **Pub Count** is the Publication Count for the topic.
- The **Sub Count** is the Subscription Count for the topic.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Pub Count was 8, hence, 8 publishers were publishing messages.

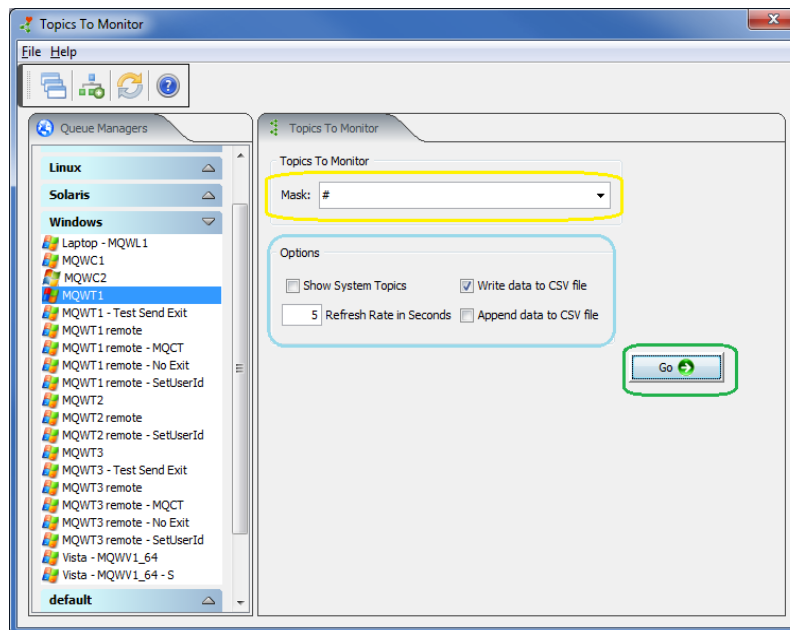
For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Topic Monitor**.

This is the main panel of the Topic Monitor. Click the **Start** button to choose the queue manager and options.



This is the 'Topics To Monitor' panel, where the user selects the queue manager, refresh rate, system topics option and topic mask to be used during the monitoring of the topics.



- First, the user must select a queue manager which contains the topics to be monitored.
- If the topic mask is set to "#" (not '*') then the user can select or de-select the system topics from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.#;XYZ.#;TEST.#

Hence, only topics that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Visual Queue Depth CSV files:

- On Windows: **C:\Users\{UserId}\Capitalware\MQVE\TM\{QMgrName}**
- On Linux or Mac OS X: **{home}/Capitalware/MQVE/TM/{QMgrName}/**

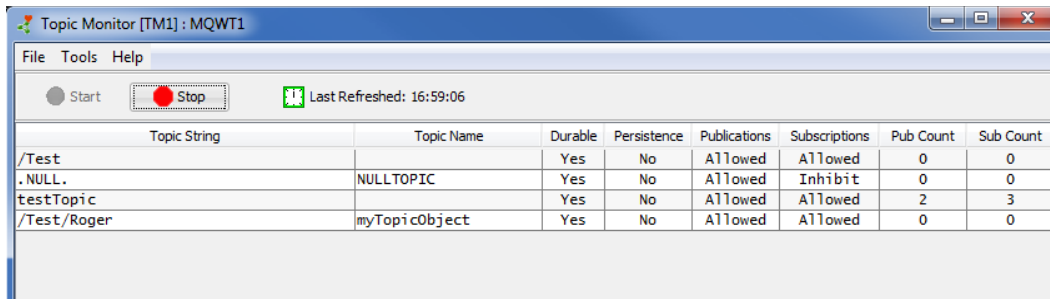
- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all topics ("#") of a queue manager to be monitored or select a partial list ("TEST#") of the topics to be monitored.

While the Topic Monitor is running, the current real-time values are displayed and updated. To stop the execution of the Topic Monitor click the **Stop** button.

Whatever you select for the **Refresh Rate** will be the interval that the Pub Count & Sub Count are measured by.

- The **Pub Count** is the Publication Count for the topic.
- The **Sub Count** is the Subscription Count for the topic.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Pub Count was 2, hence, 3 publishers were publishing messages.



The screenshot shows a window titled "Topic Monitor [TM1] : MQWT1". It has a menu bar with "File", "Tools", and "Help". Below the menu bar, there are two buttons: "Start" (disabled) and "Stop" (active, with a red stop icon). To the right of the buttons, it says "Last Refreshed: 16:59:06". Below this is a table with the following columns: "Topic String", "Topic Name", "Durable", "Persistence", "Publications", "Subscriptions", "Pub Count", and "Sub Count".

Topic String	Topic Name	Durable	Persistence	Publications	Subscriptions	Pub Count	Sub Count
/Test		Yes	No	Allowed	Allowed	0	0
.NULL.	NULLTOPIC	Yes	No	Allowed	Inhibit	0	0
testTopic		Yes	No	Allowed	Allowed	2	3
/Test/Roger	myTopicObject	Yes	No	Allowed	Allowed	0	0

14.8 Subscription Monitor

This section will describe how to invoke and use the Subscription Monitor tool. The Subscription Monitor will continuously monitor the subscriptions of a queue manager displaying the Subscription Name, Topic String, Subscription User Durable, Type, Message Count, Last Message Date and Last Message Time.

Features:

- User selectable refresh rate i.e. 60 or 30 or 10 seconds
- The user can de-select the displaying of the SYSTEM subscriptions (i.e. SYSTEM.*)
- The displayed subscription attributes are: Subscription Name, Topic String, Subscription User Durable, Type, Message Count, Last Message Date and Last Message Time.
- The user can have multi windows open at the same time monitoring different subscriptions of the same queue manager or monitoring of different subscriptions of different queue managers at the same time.

Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

- The **Message Count** is the current number of messages in the published for the subscription.
- The **Last Message Date** is the date when the last message was published.
- The **Last Message Time** is the time when the last message was published.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Message Count was 15, hence, 15 messages, in total, have been published to the subscription.

For the MQ Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the MQ Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **MQ Tools**, then **Subscription Monitor**.

This is the main panel of the Subscription Monitor. Click the **Start** button to choose the queue manager and options.



This is the 'Subscriptions To Monitor' panel, where the user selects the queue manager, refresh rate, system subscriptions option and subscription mask to be used during the monitoring of the subscriptions.

- First, the user must select a queue manager which contains the topics to be monitored.
- If the topic mask is set to "#" (not '*') then the user can select or de-select the system topics from being displayed.

The user can also combine mask filters together. Use a semi-colon (;) to separate each mask. i.e.

ABC.#;XYZ.#;TEST.#

Hence, only topics that begin with 'ABC.', 'XYZ.' and/or 'TEST.' will be shown.

- The monitoring data can be written to a CSV (Comma Separated Value) file. On subsequent invocations, the user can select to append the data to the file or write the data to a new file.

Location of the Visual Queue Depth CSV files:

- On Windows: C:\Users\{UserId}\Capitalware\MQVE\SUBM\{QMgrName}\
- On Linux or Mac OS X: {home}/Capitalware/MQVE/SUBM/{QMgrName}/

- The user can set the rate in seconds at which the display will be refreshed.
- The user can select all topics ("#") of a queue manager to be monitored or select a partial list ("TEST#") of the topics to be monitored.

While the Subscription Monitor is running, the current real-time values are displayed and updated. To stop the execution of the Subscription Monitor click the Stop button.

Whatever you select for the **Refresh Rate** will be the interval that the Depth, Input & Output fields are measured by.

- The **Message Count** is the current number of messages in the published for the subscription.
- The **Last Message Date** is the date when the last message was published.
- The **Last Message Time** is the time when the last message was published.

Example: If the refresh rate is 60 seconds (interval) and during the interval the Message Count was 15, hence, 15 messages, in total, have been published to the subscription.

The screenshot shows a window titled 'Subscription Monitor [SUBM1] - MQWT1'. It has a menu bar with 'File', 'Tools', and 'Help'. Below the menu bar are buttons for 'Start' (disabled), 'Stop' (active), and 'Last Refreshed: 19:52:57'. The main area contains a table with the following data:

Subscription Name	Topic String	Subscription User	Durable	Type	Message Count	Last Message Date	Last Message Time
	testTopic	tester	No	API	934	2016-09-19	19:52:55
	testTopic	tester	No	API	940	2016-09-19	19:52:55
	testTopic	tester	No	API	937	2016-09-19	19:52:55

15 Other Tools

This chapter will describes how the other tools included with MQ Visual Edit.

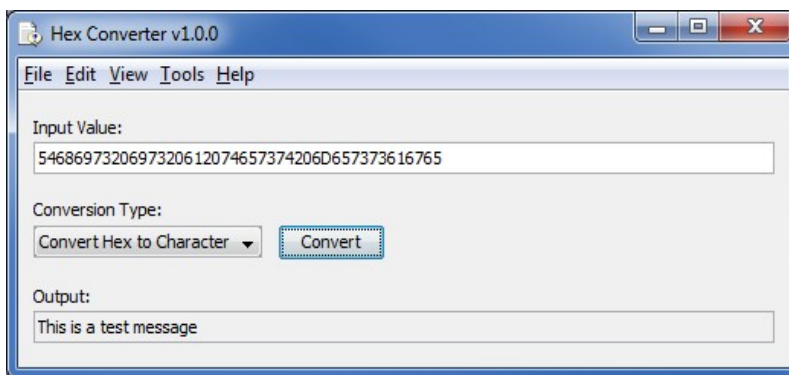
15.1 Hex Converter

This section will describe how to invoke and use the Hex Converter tool. Hex Converter tool can convert a hexadecimal number to its corresponding string representation and vice versa. i.e. 0x'3132333041424344' to '1230ABCD'.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **Hex Converter**.

This is the main panel of the Hex Converter.



- The user first selects the Conversion type: "Hex to Character" or "Character to Hex"
- Input the value hex or character value into the "Input Value" field
- Click the Convert button to convert the data

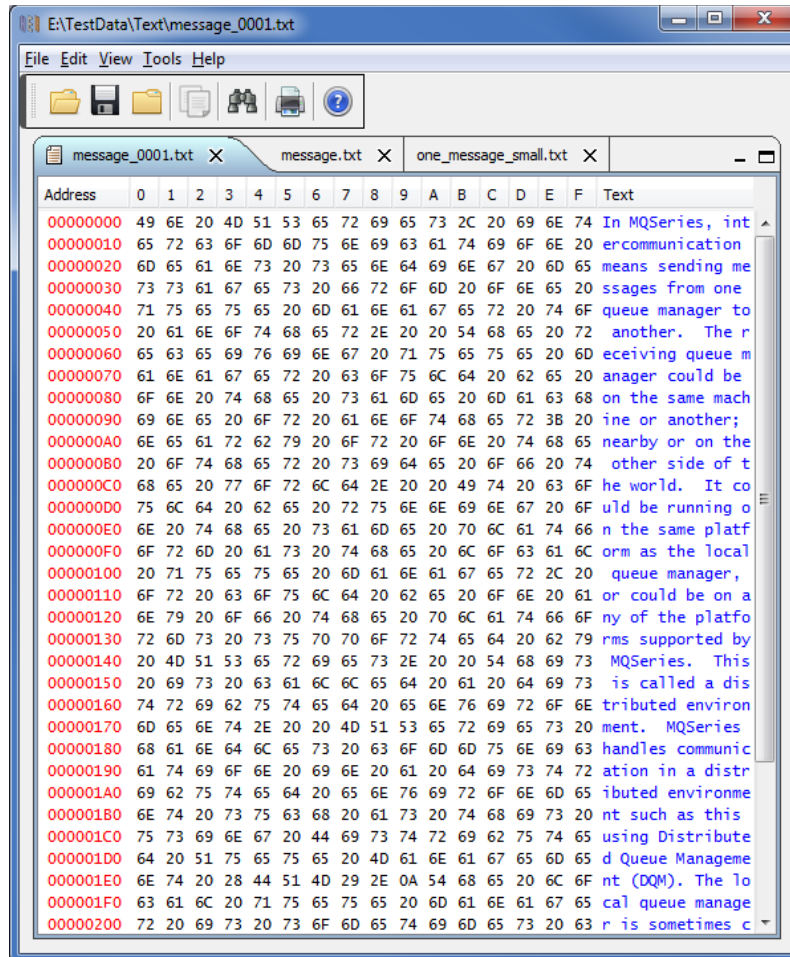
15.2 Hex Editor

This section will describe how to invoke and use the Hex Editor tool. The Hex Editor is a simple multipurpose hex editor. The Hex Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **Hex Editor**.

This is the main panel of the Hex Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

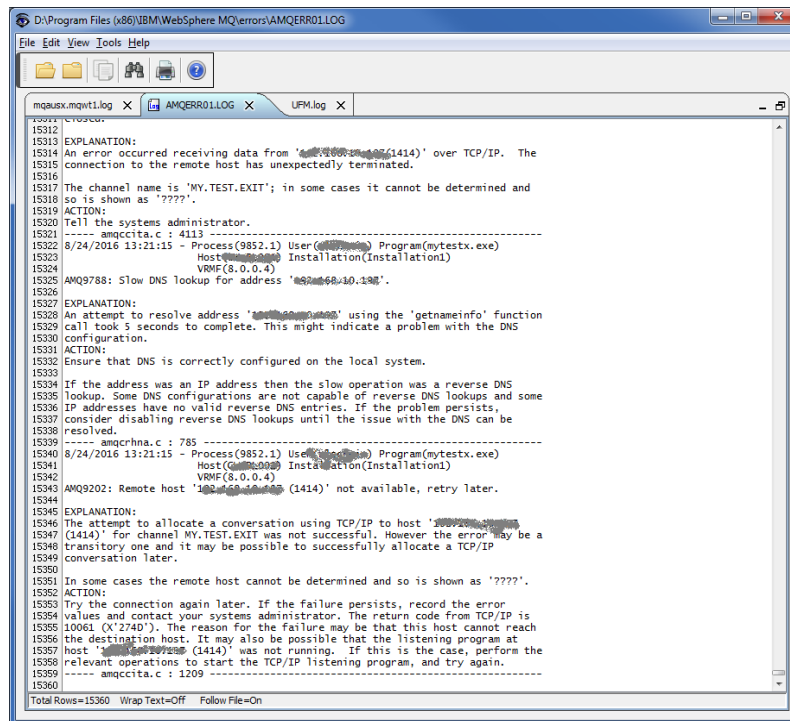
15.3 Tail File

This section will describe how to invoke and use the Tail File tool. The Tail File is a simple multipurpose file monitoring viewer. The Tail File supports monitoring of multiple files at the same time.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **Tail File**.

This is the main panel of the Tail File and it has 3 open files.



```
15312
15313 EXPLANATION:
15314 An error occurred receiving data from '10.20.20.106(1414)' over TCP/IP. The
15315 connection to the remote host has unexpectedly terminated.
15316
15317 The channel name is 'MY.TEST.EXIT'; in some cases it cannot be determined and
15318 so is shown as '????'.
15319 ACTION:
15320 Tell the systems administrator.
15321 ----- amqcitta.c : 4113 -----
15322 8/24/2016 13:21:15 - Process(9852.1) User(ADMIN) Program(mytestx.exe)
15323 Host(10.20.20.106) Installation(Installation1)
15324 WRMF(0.0.0.4)
15325 AMQ9788: Slow DNS lookup for address '10.20.20.106'.
15326
15327 EXPLANATION:
15328 An attempt to resolve address '10.20.20.106' using the 'getnameinfo' function
15329 call took 5 seconds to complete. This might indicate a problem with the DNS
15330 configuration.
15331 ACTION:
15332 Ensure that DNS is correctly configured on the local system.
15333
15334 If the address was an IP address then the slow operation was a reverse DNS
15335 lookup. Some DNS configurations are not capable of reverse DNS lookups and some
15336 IP addresses have no valid reverse DNS entries. If the problem persists,
15337 consider disabling reverse DNS lookups until the issue with the DNS can be
15338 resolved.
15339 ----- amqcrhna.c : 785 -----
15340 8/24/2016 13:21:15 - Process(9852.1) User(ADMIN) Program(mytestx.exe)
15341 Host(10.20.20.106) Installation(Installation1)
15342 WRMF(0.0.0.4)
15343 AMQ9202: Remote host '10.20.20.106(1414)' not available, retry later.
15344
15345 EXPLANATION:
15346 The attempt to allocate a conversation using TCP/IP to host '10.20.20.106
15347 (1414)' for channel MY.TEST.EXIT was not successful. However the error may be a
15348 transitory one and it may be possible to successfully allocate a TCP/IP
15349 conversation later.
15350
15351 In some cases the remote host cannot be determined and so is shown as '????'.
15352 ACTION:
15353 Try the connection again later. If the failure persists, record the error
15354 values and contact your systems administrator. The return code from TCP/IP is
15355 10061 (X'274D'). The reason for the failure may be that this host cannot reach
15356 the destination host. It may also be possible that the listening program at
15357 host '10.20.20.106(1414)' was not running. If this is the case, perform the
15358 relevant operations to start the TCP/IP listening program, and try again.
15359 ----- amqcitta.c : 1209 -----
15360
Total Rows=15360 Wrap Text=Off Follow File=On
```

Supported features:

- Opening of multiple files
- Wrap Text and Recent File List
- Copy, Find, Find Next and Print

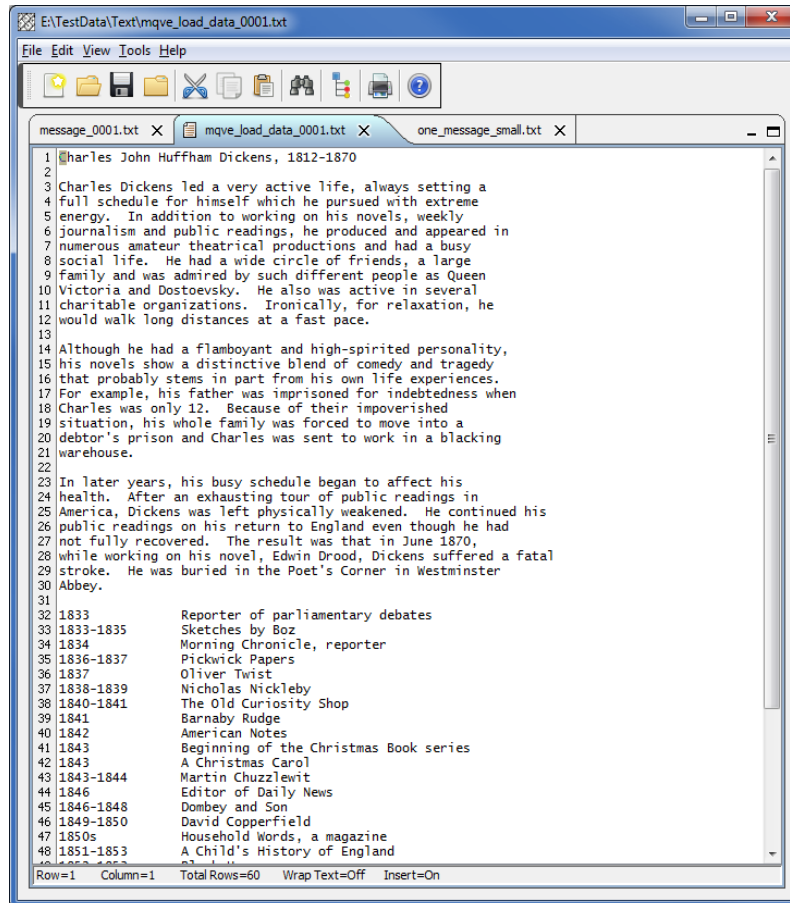
15.4 Text Editor

This section will describe how to invoke and use the Text Editor tool. The Text Editor is a simple multipurpose plain-text editor. The Text Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **Text Editor**.

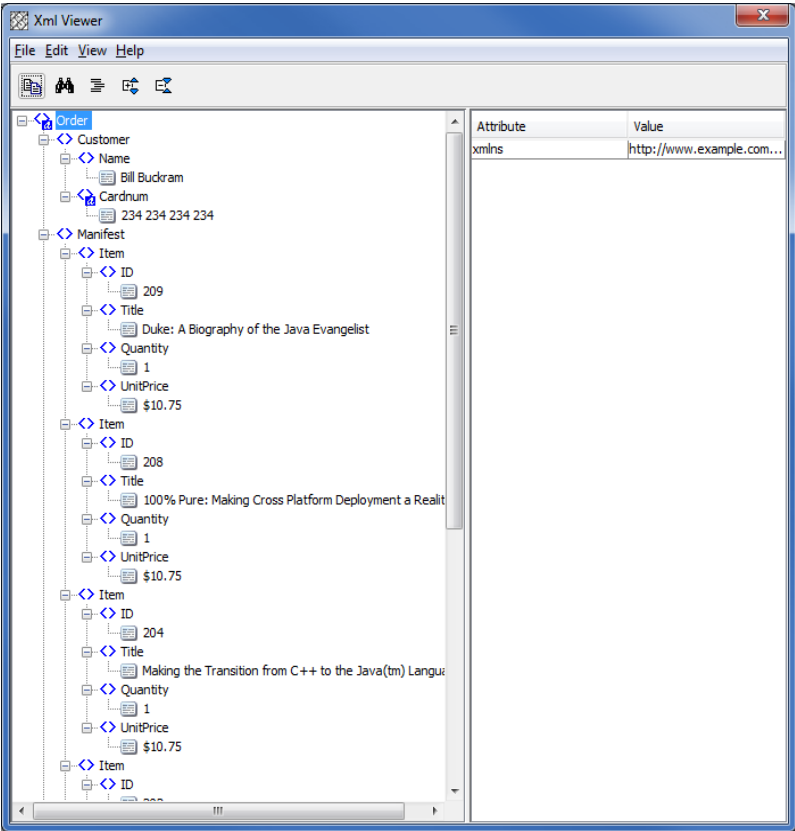
This is the main panel of the Text Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Builtin XML Viewer, Wrap Text
- Recent File List
- Cut, Copy, Paste, Find and Find Next
- Save, Save As and Print

The following shows the Text Editor's builtin XML Viewer.



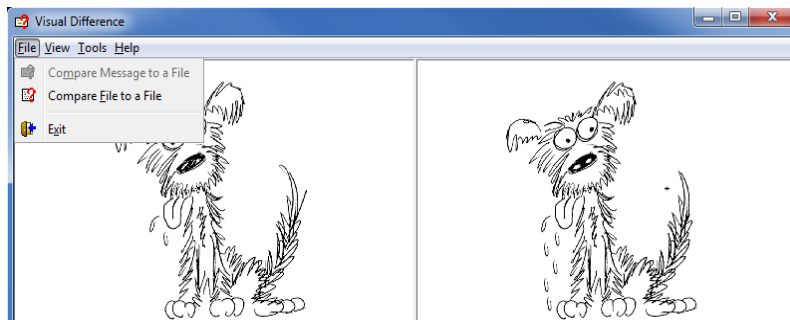
15.5 Visual Difference

This section will describe how to invoke and use the Visual Difference tool. The Visual Difference is a simple file to file comparison tool.

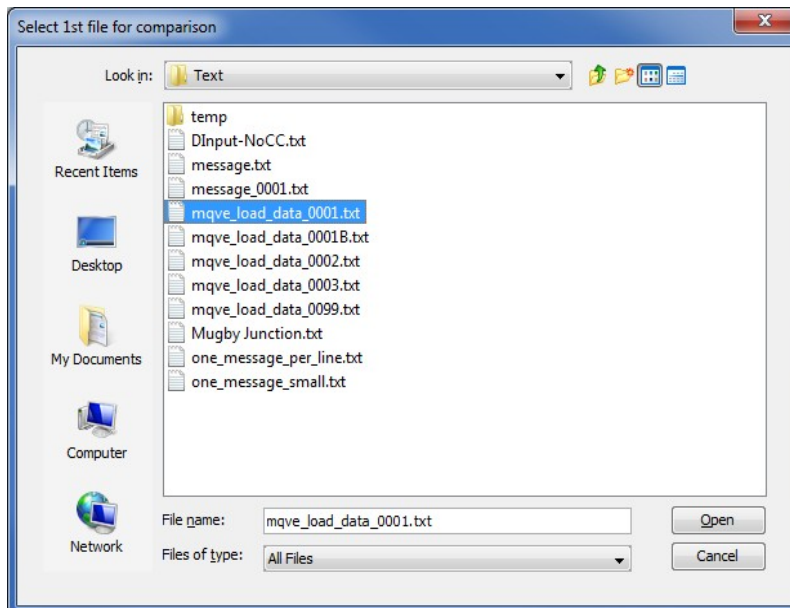
For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **Visual Difference**.

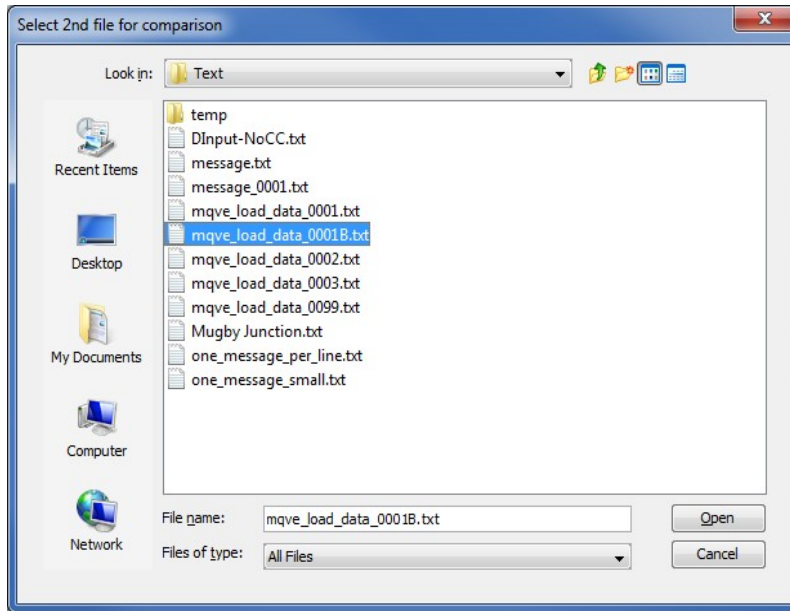
This is the main panel of the Visual Difference. To initiate the file comparison process, click File and then click Compare File to File



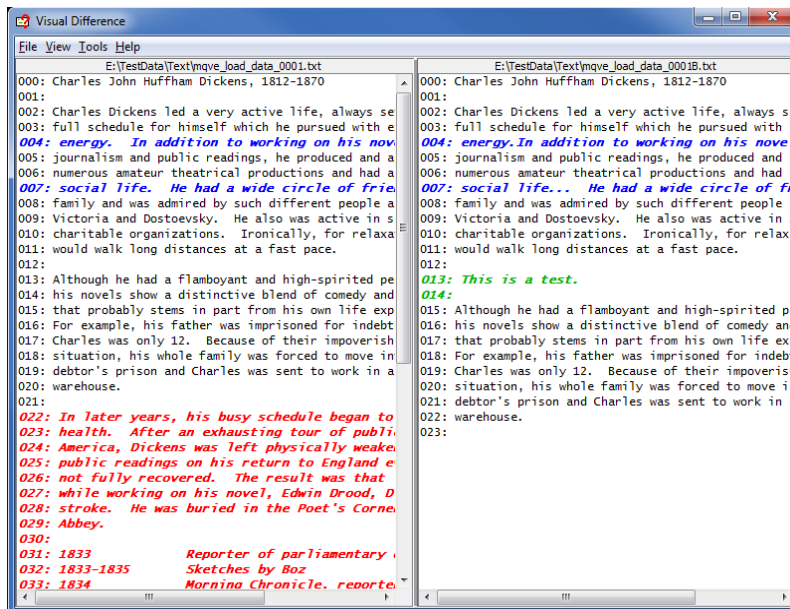
First the user needs to select the first file for the comparison.



Next, the user needs to select the second file for the comparison.



The following shows the difference between 2 files. Differences are highlighted: Green for inserts, Red for deletions and Blue for changes.



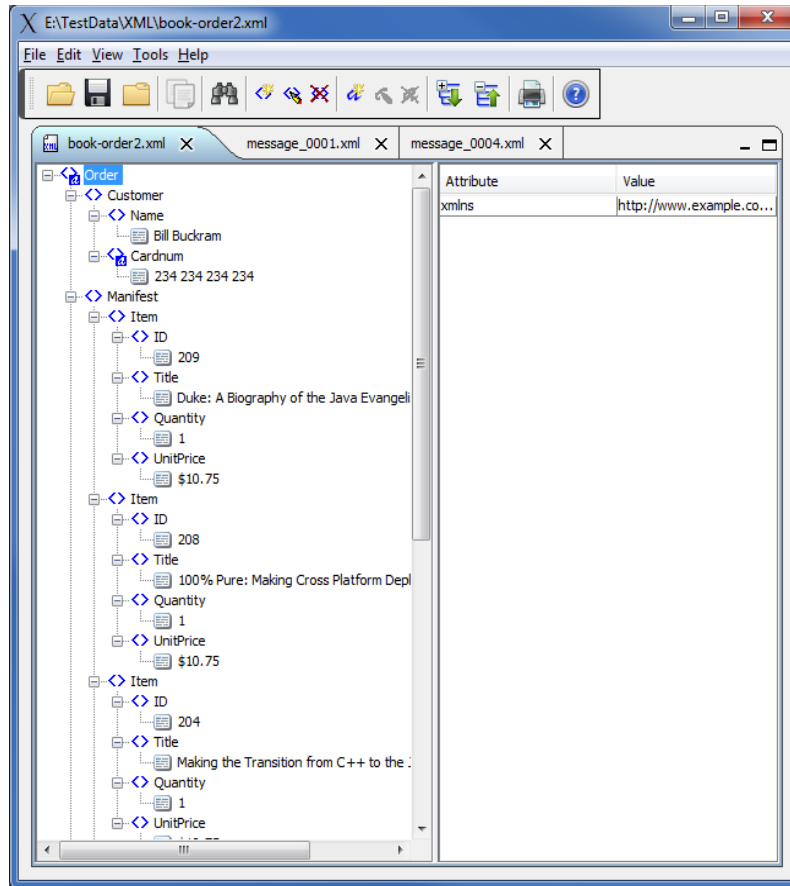
15.6 XML Editor

This section will describe how to invoke and use the XML Editor tool. The XML Editor is a simple multipurpose plain-text editor. The XML Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQ Visual Edit.

From the main panel of MQ Visual Edit, select **Tools**, then **XML Editor**.

This is the main panel of the XML Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

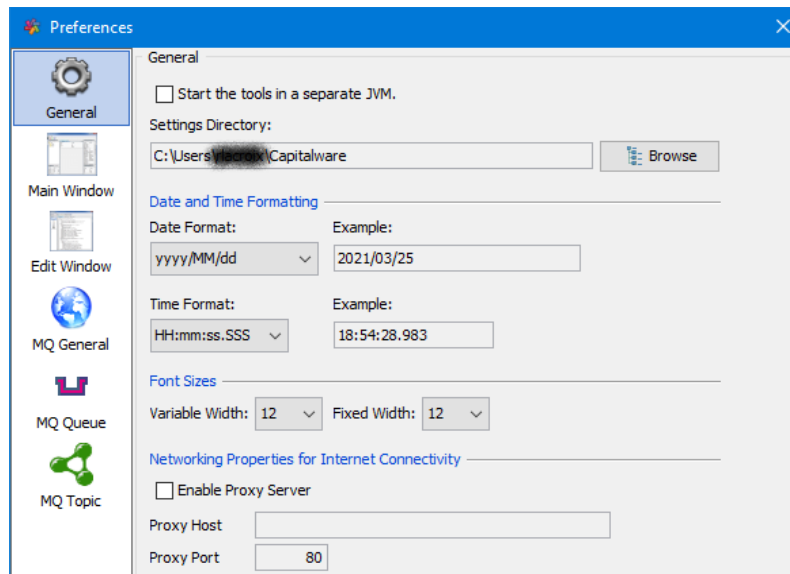
16 Miscellaneous

This chapter will describe how the miscellaneous features of MQ Visual Edit.

16.1 Preferences

This section will describe how to change / update your preferences for MQ Visual Edit.

From the main panel of MQ Visual Edit, select **File** then **Preferences**. The user will be presented with a pop-up window that has 6 panels.



General Preferences:

- **Start the tools in a separate JVM** - If the user wants the tools to be launched in a separate JVM then select this checkbox.
- **User Directory** - You can specify where MQ Visual Edit will store the QMgrInfo.db file. The QMgrInfo.db file contains all of the information necessary to connect to a queue manager.

Date and Time Formatting:

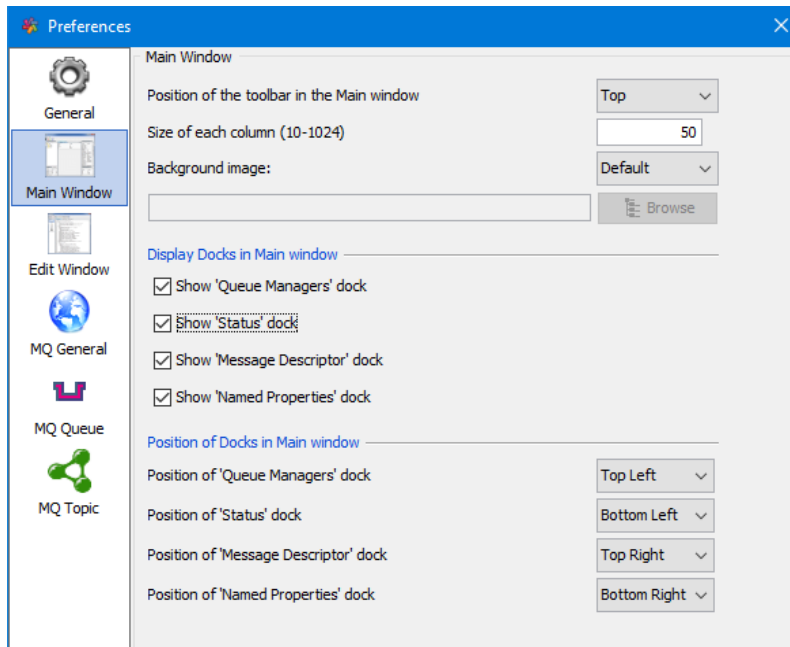
- **Date Format** – User selectable date format to be used when displaying a date within MQ Visual Edit.
- **Time Format** – User selectable time format to be used when displaying a time within MQ Visual Edit.

Font Sizes:

- **Variable Width** – The font size to be used for all variable width fonts in MQ Visual Edit.
- **Fixed Width** – The font size to be used for all fixed width fonts in MQ Visual Edit.

Networking Properties:

- **Enable Proxy Server** - MQ Visual Edit needs to access the internet to register the product and for continued use. Enable this item if your company uses a Proxy Server.
- **Proxy Host** - The Proxy Server address that your company uses.
- **Proxy Port** - The Proxy Port number that your company uses.



Main Window Preferences:

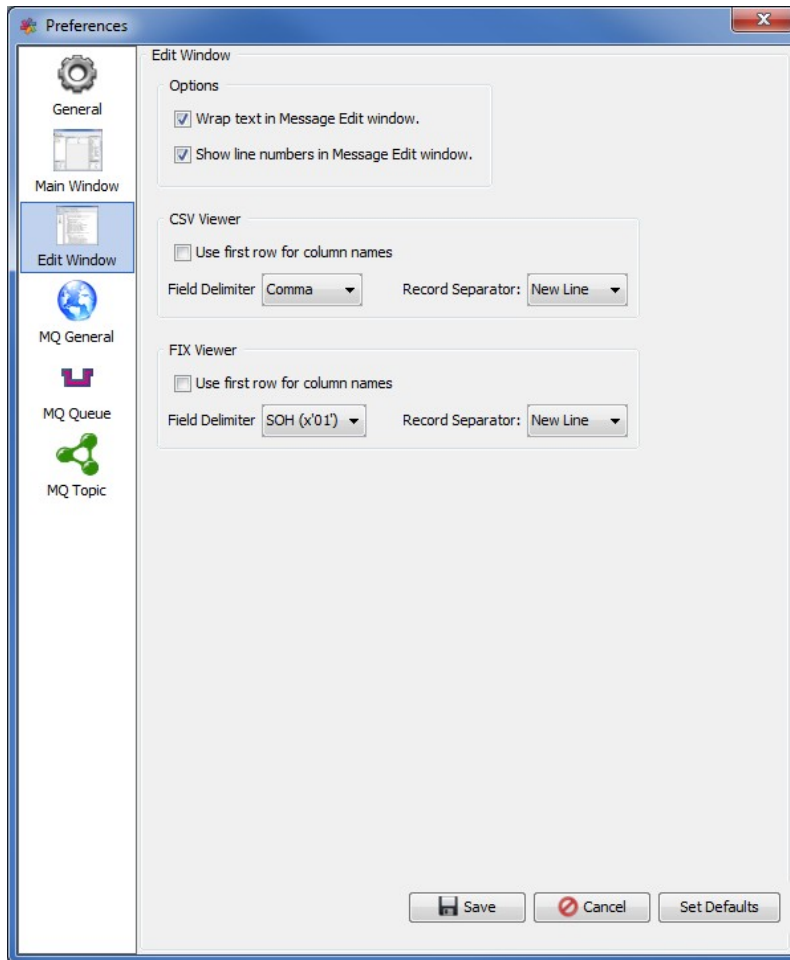
- **Position of toolbar in the Main window** - The user can select Top, Bottom, Left or Right.
- **Size of each column (10-1024)** - The user can set the size of the columns in the Main window. The user can have a column of data as small as 10 characters or as large as 1024 characters.
- **Background Image** - The user can select Default, User or None. The user can change the default image on the main window to either a blank are (None) or select their own image to be used (User). Supported image types are: PNG, GIF, JPG and JPEG.

Display Docks in Main window:

- **Show 'Queue Managers' dock** - The user show or not the 'Queue Managers' dock in the Main window.
- **Show 'Status' dock** - The user show or not the 'Queue Status' dock in the Main window.
- **Show 'Message Descriptor' dock** - The user show or not the 'Message Descriptor' dock in the Main window.
- **Show 'Named Properties' dock** - The user show or not the 'Named Properties' dock in the Main window.

Position of Docks in Main window:

- **Position of 'Queue Managers' dock** - The user can the location of the 'Queue Managers' dock in the Main window.
- **Position of 'Status' dock** - The user can the location of the 'Queue Status' dock in the Main window.
- **Position of 'Message Descriptor' dock** - The user can the location of the 'Message Descriptor' dock in the Main window.
- **Position of 'Named Properties' dock** - The user can the location of the 'Named Properties' dock in the Main window.



Edit Window Preferences:

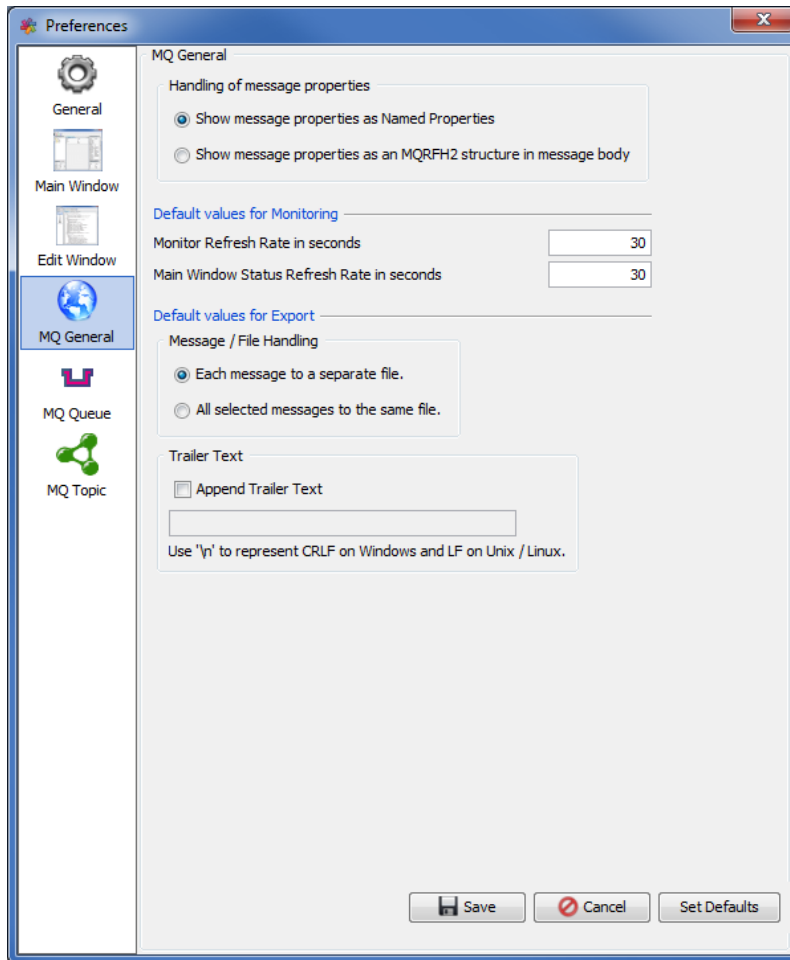
- **Wrap text in Message Edit Window** - Set the default action for 'Wrap Text' in the Message Edit window.
- **Show line numbers in Message Edit Window** - Set the default action for 'line numbers' in the Message Edit window.

The following are default values for the CSV Viewer when no user format is being used:

- **Use first row for column names** – The first row of the data will be used as the column header row.
- **Field Delimiter** – Specifies the default field delimiter to be used for CSV data.
- **Record Separator** – Specifies the default record separator to be used for CSV data.

The following are default values for the FIX Viewer when no user format is being used:

- **Use first row for column names** – The first row of the data will be used as the column header row.
- **Field Delimiter** – Specifies the default field delimiter to be used for FIX data.
- **Record Separator** – Specifies the default record separator to be used for FIX data.



MQ General Preferences:

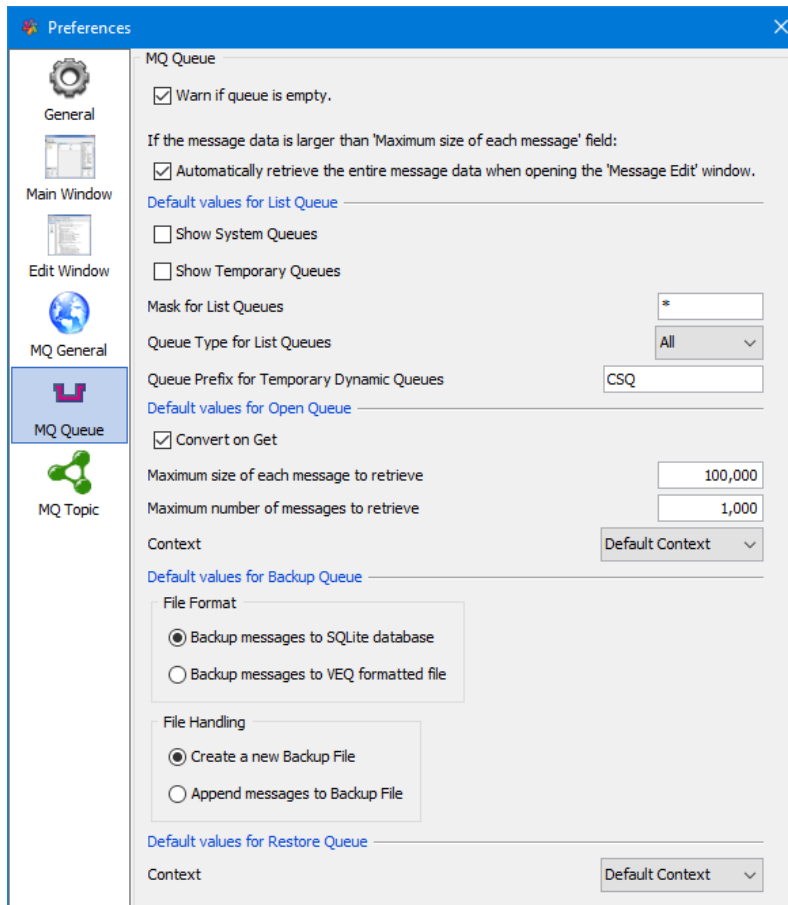
- **Show message properties as Named Properties** - or show them in an MQRFH2 structure

Default values for Monitoring:

- **Monitor Refresh Rate in seconds** - Default value used for Queue Monitor, Queue Statistics Monitor and Queue Status Monitor for the Refresh Rate.
- **Main Window Monitor Refresh Rate in seconds** - Default Refresh Rate value used for Queue Statistics Monitor in the Main window.

Default values for Export:

- **Message / File Handling** - Either create a file for each message or write all message to the same file.
- **Append Trailer Text** – Enable to add trailer text to each message.
- **Trailer Text** – Field for adding trailer text.



MQ Queue Preferences:

- **Warn if Queue is empty** - If you do not want to be told when a newly opened queue is empty, then deselect this checkbox.
- **Automatically retrieve the entire message data when opening the 'Message Edit' window** - if it is not selected then the 'Message Edit' window will use the message data that was in the row of the Main window.

Default values for List Queues:

- **Show System Queues** - The user can set the default value for 'Show System Queues'.
- **Show Temporary Queues** - The user can set the default value for 'Show Temporary Queues'.
- **Mask for List Queues** - The user can set the default value for 'Mask for List Queues'.
- **Queue Type for List Queues** - The user can set the default value for 'Queue Type for List Queues'.
- **Queue Prefix for Temporary Dynamic Queues** - When the user clicks the "List Queue" button in the "Open Queue" window, MQ Visual Edit creates a temporary dynamic queue for communicating with the Queue Manager's Command Server. At some companies, security has been turned on so that a user cannot create queues with a CSQ prefix. Therefore, insert your application specific prefix that allows you to create temporary dynamic queues. e.g. HR.ABC

Default values for Open Queue:

- **Convert on Get** - The user can set the default value for 'Convert on Get'.
- **Max. size of each message to retrieve** - You can limit how much of the messages are retrieve from a local or remote queue manager. Note: This may be important when the messages are

very large. If you have a slow network then it could be minutes or even hours to retrieve all of the large messages of a queue.

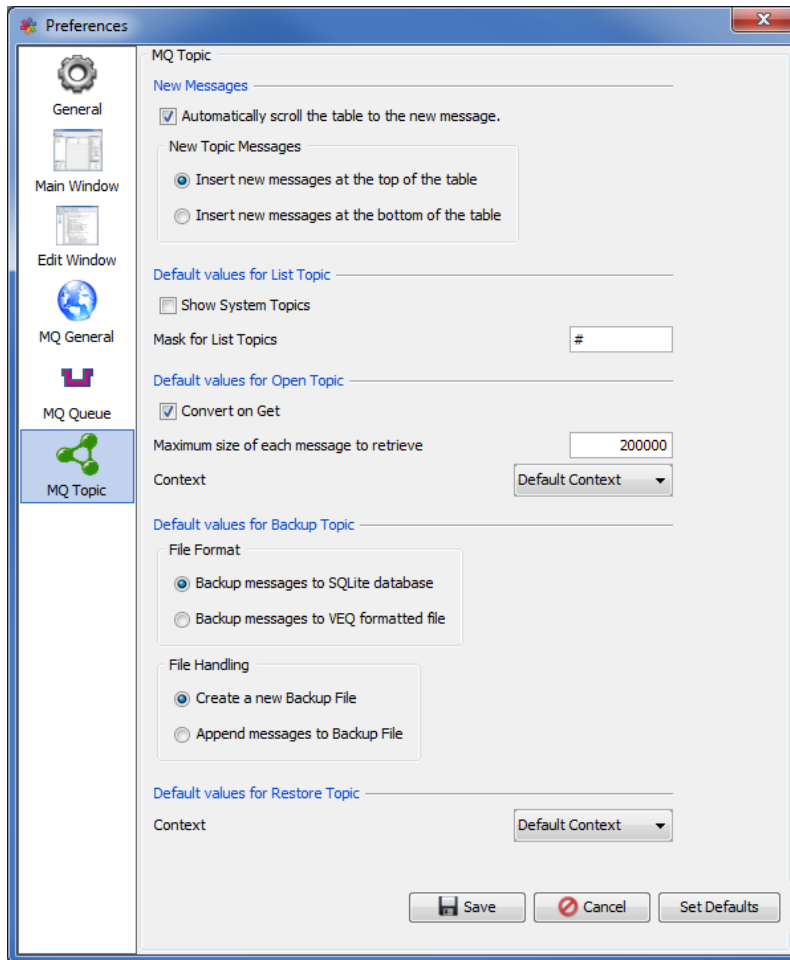
- **Max. number of messages to retrieve** - If you have hundreds or thousands of messages in a queue, it may not be feasible to retrieve all of them. Note: If you have a slow network then it could be minutes or even hours to retrieve all of the large messages of a queue.
- **Context** - The user can set the default value for 'Context'.

Default values for Backup Queue:

- **Backup File Format** - The user can select either SQLite database or VEQ formatted file.
- **Backup File Handling** - The user can select either to create a new Backup file or Append the messages to an existing Backup file.

Default values for Restore Queue:

- **Context** - The user can set the default value for 'Context' for Restore Queue action.



MQ Topic Preferences:

New Messages:

- **Automatically scroll the table to the new message** – Set the default behavior when a new topic is opened whether or not the view should be automatically scrolled to the newest message.
- **Insert new messages at the top of the table** - New messages will be put into the table at top.
- **Insert new messages at the bottom of the table** - New messages will be put into the table at the bottom.

Default values for List Topics:

- **Show System Topics** - The user can set the default value for 'Show System Topics'.
- **Mask for List Topics** - The user can set the default value for 'Mask for List Topics'.

Default values for Open Topic:

- **Convert on Get** - The user can set the default value for 'Convert on Get'.
- **Max. size of each message to retrieve** - You can limit how much of the messages are retrieve from a local or remote queue manager. Note: This may be important when the messages are very large. If you have a slow network then it could be minutes or even hours to retrieve all of the large messages of a queue.
- **Context** - The user can set the default value for 'Context'.

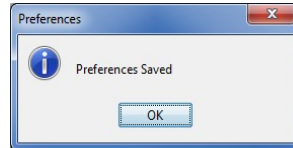
Default values for Backup Topic:

- **Backup File Format** - The user can select either SQLite database or VEQ formatted file.
- **Backup File Handling** - The user can select either to create a new Backup file or Append the messages to an existing Backup file.

Default values for Restore Topic:

- **Context** - The user can set the default value for 'Context' for Restore Topic action.

To save your preferences, click the **Ok** button. To quit or cancel from the Preferences popup menu, click the Cancel button. If you clicked the **Ok** button, then you should receive the "Preferences Saved" popup menu.

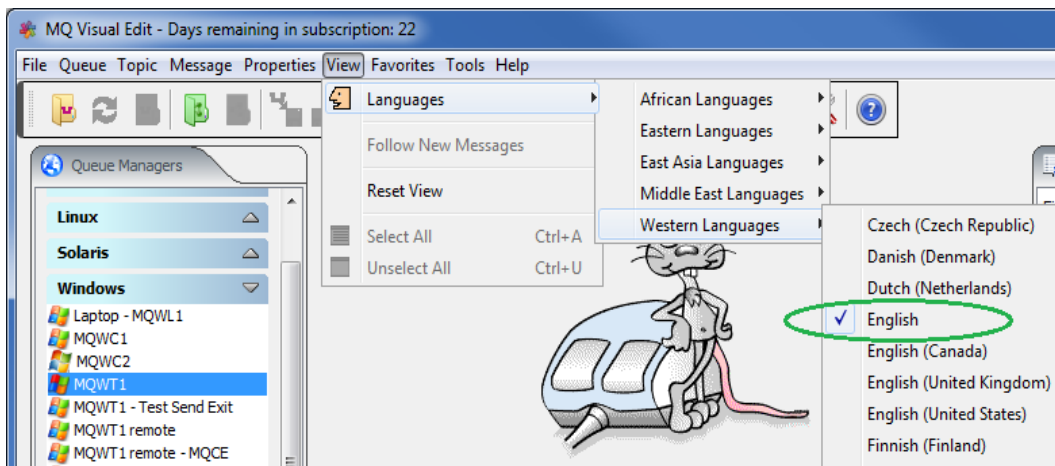


16.2 Language

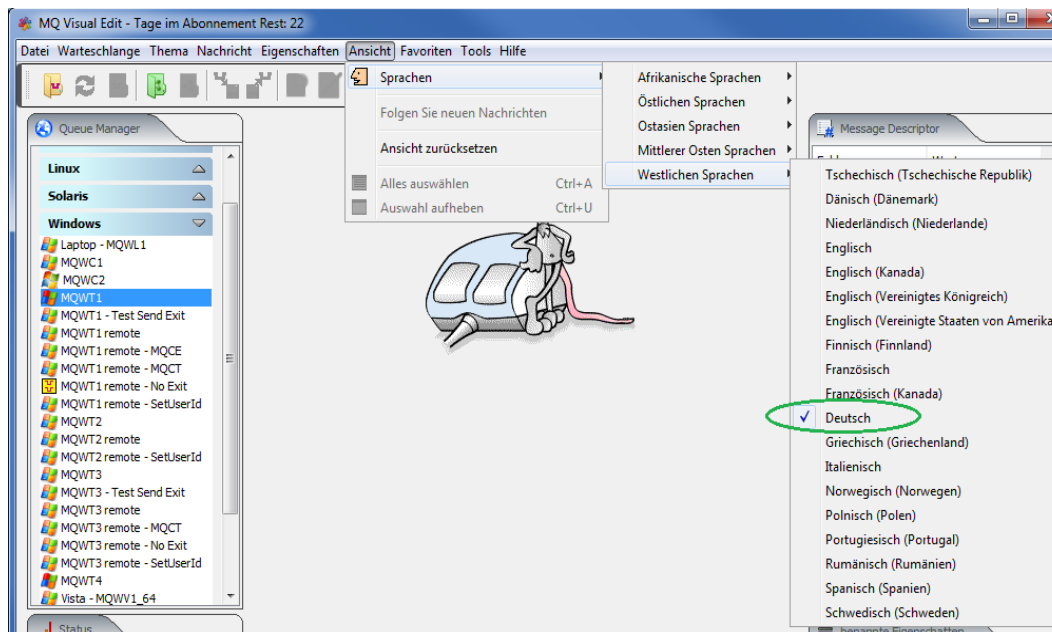
This section will describe how to switch MQ Visual Edit's Language Text to another Language Text. MQ Visual Edit has been designed to support Java's multi-language environment. Currently, MQ Visual Edit has full language support for the following 55 languages:

➤ Amharic (am)	➤ Hungarian (hu)	➤ Shona (sn)
➤ Arabic (ar)	➤ Igbo (ig)	➤ Sindhi (sd)
➤ Azerbaijani (az)	➤ Indonesian (in)	➤ Spanish (es)
➤ Bengali (bn)	➤ Italian (it)	➤ Sundanese (su)
➤ Cebuano (ceb)	➤ Japanese (ja)	➤ Swahili (sw)
➤ Chinese (China) (zh)	➤ Javanese (jv)	➤ Swedish (sv)
➤ Chinese (Taiwan) (zh)	➤ Kannada (kn)	➤ Tamil (ta)
➤ Czech (cs)	➤ Korean (ko)	➤ Telugu (te)
➤ Danish (da)	➤ Malay (ms)	➤ Thai (th)
➤ Dutch (nl)	➤ Malayalam (ml)	➤ Turkish (tr)
➤ English (en)	➤ Marathi (mr)	➤ Ukrainian (uk)
➤ Finnish (fi)	➤ Norwegian (no)	➤ Urdu (ur)
➤ French (fr)	➤ Panjabi (pa)	➤ Uzbek (uz)
➤ German (de)	➤ Pashto (ps)	➤ Vietnamese (vi)
➤ Greek (el)	➤ Persian (fa)	➤ Xhosa (xh)
➤ Gujarati (gu)	➤ Polish (pl)	➤ Yoruba (yo)
➤ Hausa (ha)	➤ Portuguese (pt)	➤ Zulu (zu)
➤ Hebrew (iw)	➤ Romanian (ro)	
➤ Hindi (hi)	➤ Russian (ru)	

From the main panel of MQ Visual Edit, select **View**, then **Language**.



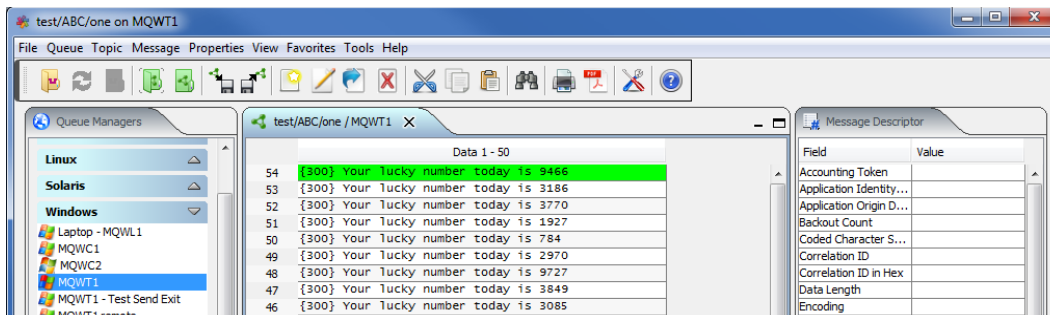
As an example, the user can select German as the Language Text to be used for MQ Visual Edit and then the display would look like:



16.3 Follow New Messages

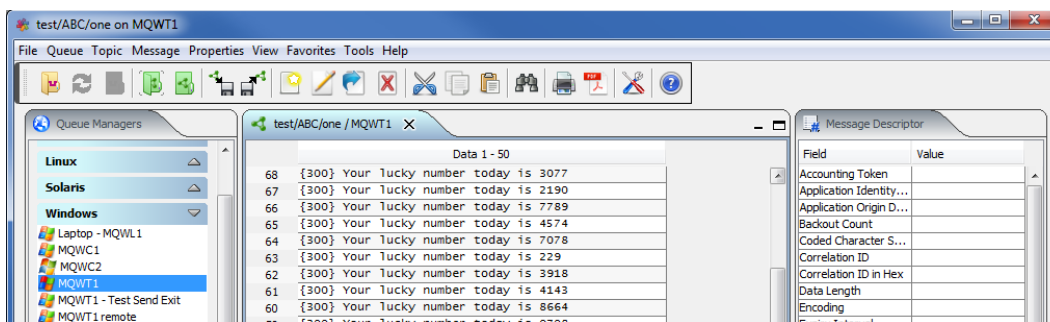
This section will describe how to enable or disable the option of having the view move to the newest message inserted into the Topic table in the main panel.

If you have previously opened Topic **test/ABC/one**, the main panel may look something like:



From the main panel of MQ Visual Edit, select **View**, then **Follow New Messages** (unselect the option).

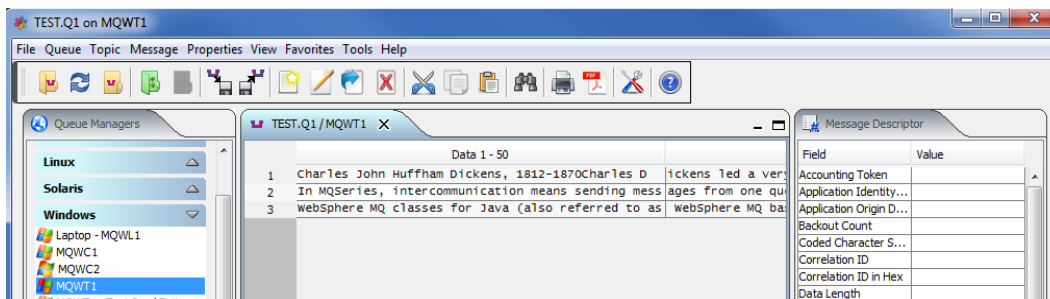
The main panel will not scroll when new messages are inserted, as per below:



16.4 Select All Messages

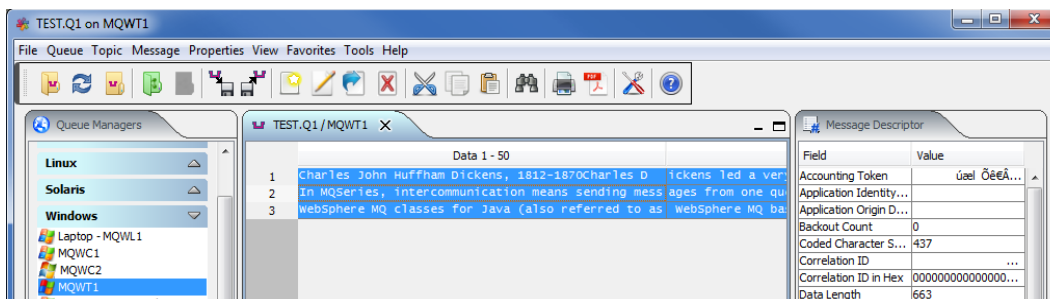
This section will describe how to select all of the messages displayed in the main panel.

If you have previously opened TEST.Q1, the main panel may look something like:



From the main panel of MQ Visual Edit, select **View**, then **Select All**.

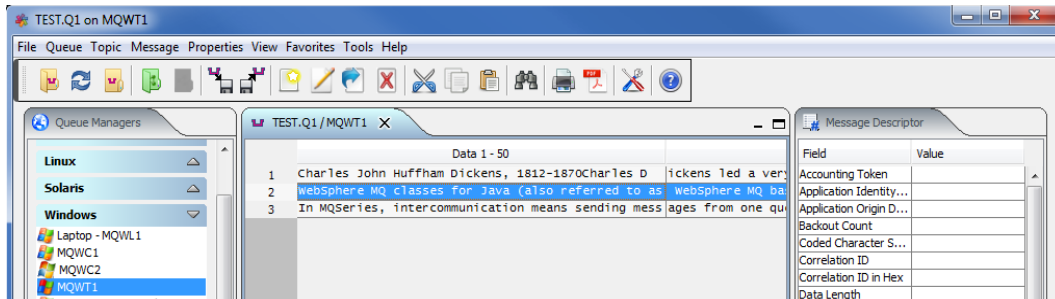
The main panel should have all of the messages selected, as per below:



16.5 Unselect All Messages

This section will describe how to unselect all of the messages displayed in the main panel.

If you have previously opened the queue TEST.Q1 with all messages selected, then the main panel may look something like:



From the main panel of MQ Visual Edit, select **View**, then **Unselect All**.

16.6 Proxy UserId List

This section will describe how to create a Proxy UserId List and how to enable it with MQ Visual Edit. A Proxy UserId is useful when the MQ Administrator does not want to define a workstation UserId on the server where the queue manager is located.

To create a Proxy UserId on the server where the queue manager is located, please follow the Operating System's instructions. Once done, the user may now create the Proxy UserId List for MQ visual Edit to use.

Lets assume 3 Proxy UserIds were create on the server (i.e. pu1, pu2 and pu3). Now you need to map the real UserId to the Proxy UserIds. If you have 6 users called: Fred, Barney, Wilma, Betty, Pebbles and BamBam then create a file called ProxyList.txt with the following entries:

```
fred = pu1
barney = pu3
wilma = pu2
betty = pu2
pebbles = pu3
bambam = pu3
```

Note: UserIds in the Proxy UserId list are case sensitive.

As you can see, Fred is only user that is mapped to the Proxy UserId of pu1. Wilma and Betty are mapped to the Proxy UserId of pu2 and Barney, Pebbles and BamBam are mapped to the Proxy UserId of pu3.

Therefore, when the Proxy UserId List is activated in MQ Visual Edit, ALL MQ API calls will be done under the Proxy UserId. If a UserId is not found in the Proxy UserId List then the regular logged on UserId will be used. You may define a default "catch all" UserId called: DefaultProxyUserId. When this entry is defined in the Proxy UserId List then if a UserId is not found in the Proxy UserId List, the DefaultProxyUserId will be used.

Example:

```
red = pu1
barney = pu3
wilma = pu2
betty = pu2
pebbles = pu3
bambam = pu3
DefaultProxyUserId = pu3
```

To active a Proxy UserId List, the MQ administrator sets an environment variable call JETVMPROP.

Example:

```
set JETVMPROP=-DProxyList=H:\test\proxylst.txt
```

Two important points:

1. When the Proxy UserId List is activated in MQ Visual Edit, the user can no longer change / update their UserId in the Queue Manager Access Profile window.
2. From an administration point of view, the users should ONLY have read access to the Proxy UserId List and the MQ Visual Edit's install directory.

16.7 Locking the CommProfileDB

This section will describe how to Lock the CommProfileDB file within MQ Visual Edit. The CommProfileDB.properties file contains all of the information necessary to connect to a queue manager (remote or local).

There may be times when the MQ Administrator wishes to users access to particular queue managers but not all of them or wishes to restrict which queue managers they can connect to.

Using MQ Visual Edit, create the CommProfileDB.properties file with all of the queue managers that the MQ Administrator wishes the users to access. Store the CommProfileDB.properties file on a network drive or a shareable directory on the server or network.

To active the locked CommProfileDB.properties, the MQ administrator sets an environment variable call JETVMPROP.

Example:

```
set JETVMPROP=-DCommProfileDB=H:\app\sample
```

Two important points:

1. When the lock for the CommProfileDB.properties file is activated in MQ Visual Edit, the user can no longer change their CommProfileDB Directory location in MQ Visual Edit's Preferences dialog box.
2. From an administration point of view, the users should ONLY have read access to the CommProfileDB.properties file and also MQ Visual Edit's install directory.

17 Appendix A – Mouse and Keyboard Actions

This section describes the buttons on MQ Visual Edit's toolbar.

17.1 Toolbar



- **Open Queue** - Clicking the Open Queue button will display the Open Queue window.
- **Refresh Queue** - Clicking the Refresh Queue button will refresh the display so that it is current with the queue on the selected queue manager.
- **Close Queue** - Clicking the Close Queue button will remove the currently displayed dock.
- **Open Topic** - Clicking the Open Topic button will display the Open Topic window.
- **Close Topic** - Clicking the Close Topic button will remove the currently displayed dock.
- **Backup Queue** - Clicking the Backup Queue button will all messages or selected messages to a file. The backup includes both the MQMD and the data.
- **Restore Queue** - Clicking the Restore Queue button will load (restore) messages from a backed up file. The restore will set the MQMD of the message to its original values.
- **Insert Message** - Clicking the Insert Message button will display the Message Edit window. Contents of the Message Edit window will be empty.
- **Edit Message** - Clicking the Edit Message button will display the selected message in the Message Edit window.
- **Forward Message** - Clicking the Forward Message button will display the Forward Message window, so that the selected message can be forwarded (remove from current queue and placed on another queue). One or more messages can be forwarded.
- **Delete Message** - Clicking the Delete Message button will prompt the user to confirm that you wish to delete the selected message(s). One or more messages can be deleted.
- **Cut Message** - Clicking the Cut Message button will "cut" the messages from the queue and put them in the computer's clipboard (messages are deleted from the queue). Note: If you "cut" more than one message, all of the messages will be combined and placed in the clipboard as one message.
- **Copy Message** - Clicking the Copy Message button will "copy" the messages from the queue and into the computer's clipboard (messages remain in the queue). Note: If you "copy" more than one message, all of the messages will be combined and placed in the clipboard as one message.
- **Paste Message** - Clicking the Paste Message button will copy the contains of the clipboard (whatever that may be) to a new message and placed in the queue.
- **Find** - Clicking the Find button will display the Find window. The Find window allows the user to search for a text string that may be contained within one of the messages in the queue.
- **Print Message** - Clicking the Print Message button will prompt the user to confirm that you wish to print the selected message.
- **Generate Report** - Clicking the Generate Repor button will prompt the user to select the values (report type, report format, etc.) for the report generation.
- **Preferences** - Clicking the Preferences button will display the preferences popup dialog box.
- **Help** - Clicking the Help button will display MQ Visual Edit's Help system. The Help system provides various information about how and what features and functions are available in MQ Visual Edit.

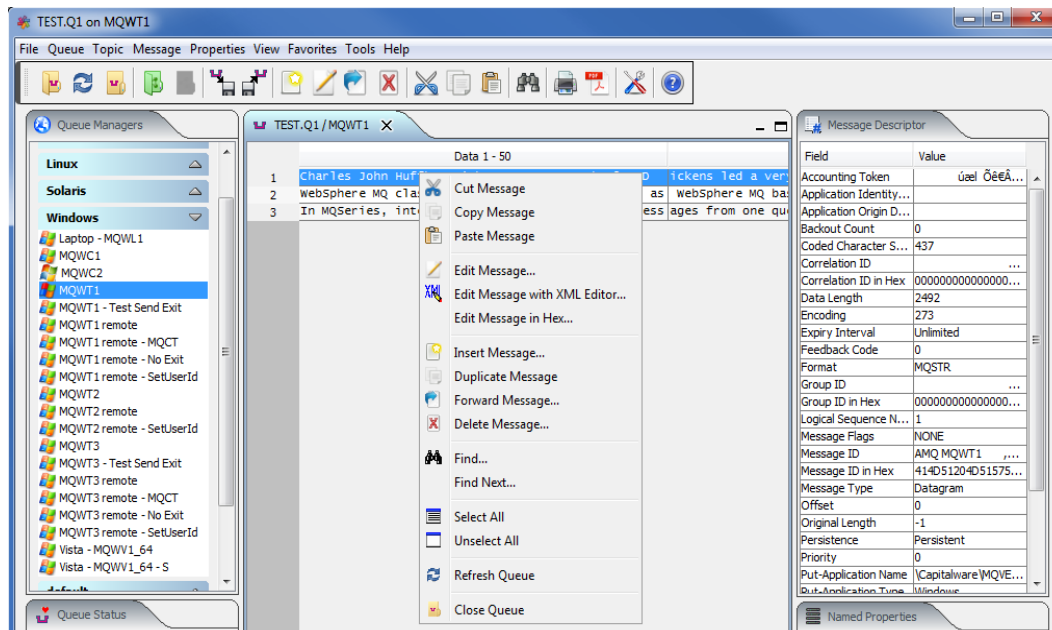
17.2 Mousing Around in MQ Visual Edit

Left Button

- In the main window of MQ Visual Edit, while displaying messages of an opened queue, if the user double clicks the left mouse button, then the selected message will be display in the Message Edit window.

Right Button

In the main window of MQ Visual Edit, while displaying messages of an opened queue, if the user clicks the right mouse button, then the following pop up menu will be displayed.



- **Cut Message** - Selecting the Cut Message menu item will "cut" the messages from the queue and put them in the computer's clipboard (messages are deleted from the queue). Note: If you "cut" more than one message, all of the messages will be combined and placed in the clipboard as one message.
- **Copy Message** - Selecting the Copy Message menu item will "copy" the messages from the queue and into the computer's clipboard (messages remain in the queue). Note: If you "copy" more than one message, all of the messages will be combined and placed in the clipboard as one message.
- **Paste Message** - Selecting the Paste Message menu item will paste the contents of the clipboard (whatever that may be) to a new message and place it in the queue.
- **Edit Message** - Selecting the Edit Message menu item will display the selected message in the Message Edit window.
- **Edit Message in Hex** - Selecting the Edit Message in Hex menu item will display the selected message in the Hex Message Edit window.
- **Edit Message with XML Editor** - Selecting the Edit Message with XML Editor menu item will display the selected message in the XML Editor window.
- **Insert Message** - Selecting the Insert Message menu item will display the Message Edit window. Contents of the Message Edit window will be empty.

- **Duplicate Message** - Selecting the Duplicate Message menu item will replicate all the selected message(s) to the current queue. One or more messages can be duplicated.
- **Forward Message** - Selecting the Forward Message menu item will display the Forward Message window, so that the selected message can be forwarded (remove from current queue and placed on another queue). One or more messages can be forwarded.
- **Delete Message** - Selecting the Delete Message menu item will prompt the user to confirm that you wish to delete the selected message(s). One or more messages can be deleted.
- **Find** - Selecting the Find menu item will display the Find window. The Find window allows the user to search for a text string that may be contained within one of the messages in the queue.
- **Find Next** - Selecting the Find Next menu item will display the Find window but the search will continue from the previous search position.
- **Select All** - Selecting the Select All menu item will select (highlight) all messages in the queue.
- **Unselect All** - Selecting the Unselect All menu item will de-select (un-highlight) all messages in the queue.
- **Refresh Queue** - Clicking the Refresh Queue button will refresh the display so that it is current with the queue on the selected queue manager.
- **Close Queue** - Clicking the Close Queue button will remove the currently displayed tab.

17.3 Keyboard short-cuts in MQ Visual Edit

There are many short-cut (accelerator) key combinations in MQ Visual Edit.

Note: Ctrl means press and hold the Control key and then press the key after the "-" (minus sign).

Ctrl-O	Will display the Open Queue window.
Ctrl-R	Will refresh the contents of the queue.
Ctrl-X	Will "cut" the messages from the queue and put them in the computer's clipboard (messages are deleted from the queue). Note: If you "cut" more than one message, all of the messages will be combined and placed in the clipboard as one message.
Ctrl-C	Will "copy" the messages from the queue and into the computer's clipboard (messages remain in the queue). Note: If you "copy" more than one message, all of the messages will be combined and placed in the clipboard as one message.
Ctrl-V	Will paste the contents of the clipboard (whatever that may be) to a new message and place it in the queue.
Ctrl-E	Will display the selected message in the Message Edit window.
Ctrl-I	Will display the Message Edit window to allow the user to insert a new message. Contents of the Message Edit window will be empty.
Ctrl-W	Will display the Forward Message window, so that the selected message can be forwarded (remove from current queue and placed on another queue). One or more messages can be forwarded.
Ctrl-D	Will prompt the user to confirm that you wish to delete the selected message(s). One or more messages can be deleted.
Ctrl-F	Will display the Find window. The Find window allows the user to search for a text string that may be contained within one of the messages in the queue.
Ctrl-P	Will display the printer selection dialog so that the selected message can be printed.
Ctrl-G	Will display the Find window but the search will continue from the previous search position.
Ctrl-A	Will select (highlight) all messages in the queue.
Ctrl-U	Will de-select (un-highlight) all messages in the queue.
F1	Will display MQ Visual Edit's Help system. The Help system provides various information about how and what features and functions are available in MQ Visual Edit.

18 Appendix B – MQ Visual Edit Upgrade Procedures

To upgrade an existing installation of MQ Visual Edit, please do the following in the appropriate section below.

18.1 Windows Upgrade

- Stop all instances of MQ Visual Edit
- Backup any MQ Visual Edit data files in the MQ Visual Edit install directory
- Go to the Windows **Control Panel** and select **Program and Features**
- Select MQ Visual Edit and then click the **Uninstall** button
- Run the install program called: **mqve3-setup-withjre.exe**
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under **Start -> All Programs** called **MQ Visual Edit**.
- Restore the MQ Visual Edit data files if necessary
- To run MQ Visual Edit, select the MQ Visual Edit icon from within the MQ Visual Edit folder.

18.2 Linux Upgrade

- Stop all instances of MQ Visual Edit
- Backup any MQ Visual Edit data files in the MQ Visual Edit install directory
- Next, run the installer with the following command:
./mqve3-setup-trial-linux.bin
- The installer will prompt the user for the installation directory. The default value will be 'Capitalware/MQVE3/'.
- Restore the MQ Visual Edit data files if necessary
- To run MQ Visual Edit, go to the installation directory and issue the following command:
./mqve

18.3 Mac OS X Upgrade

- Stop all instances of MQ Visual Edit
- Go to the Applications folder and drag the current MQ Visual Edit application to the Trash
- Double click the ***MQ_Visual_Edit_V3.dmg*** file to open it
- Follow the instructions on the opened DMG window and drag the MQ Visual Edit icon to the Applications folder.
- Close the DMG window and then eject the DMG
- To run MQ Visual Edit, go to the Application folder and double click on ***MQ Visual Edit***

19 Appendix C – Frequently Asked Questions (FAQ)

Q. What does reason code 2058 mean?
A. Generally, 2058 means that you have an invalid queue manager name or that the host does not have that particular queue manager. Check the spelling of the queue manager name that you inputted. Also, queue manager names are case sensitive (e.g. MQA1 is not the same as mqa1).
Q. What does reason code 2059 mean?
A. Generally, 2059 means that the queue manager is down. Try restarting the queue manager and command server on the remote box. Reason code 2059 can also occur if you inputted an incorrect port number. Therefore, verify that the port number is correct.
Q. What does reason code 2009 mean?
A. Generally, 2009 means that the channel name is incorrect. Verify that you have inputted the correct server connection channel name. Also, channel names are case sensitive (e.g. JAVA.CHL is not the same as java.chl).
Q. What does reason code 2035 mean?
A. The reason code 2035 means that the user's UserId is not authorized to access the queue on the remote (or local) queue manager. Ask your IBM MQ Administrator to grant your UserId the necessary authority to access the queue.
Q. What does reason code 2206 mean?
A. The reason code 2206 means that z/OS shared queue is indexed by Correlation ID. The user needs to select Correlation ID on the Open Queue window.
Q. When I click the Test button in the Queue Manager Access Profile window, nothing happens. No response from MQ Visual Edit at all.
A. This generally means that the MCA (Message Channel Agent) is timing out on a TCP/IP error. The TCP/IP time-out value appears to be at least 1 minute (maybe even longer). Solutions: <ul style="list-style-type: none">• Assuming the network is stable and working, make sure that both queue manager and the listener are running on the box that you are attempting to connect to (or /etc/inetd and /etc/services have been configured correctly).• The time-out could be from an incorrect value for either the hostname or Port #.<ul style="list-style-type: none">◦ From a Command Prompt or Unix shell, ping the hostname - e.g. ping remotehostname or ping xx.xx.xx.xx◦ Also, verify that you have inputted the same port number that the listener is using on the remote box.
Q. Can I use MQ Visual Edit with my mainframe (OS/390 or z/OS) queue managers?

A. Yes. But you need to have the CAF (Client Attachment Feature) installed on z/OS (mainframe). On the mainframe, go to SDSF and look in the xxxxCHIN (where xxxx is the queue manager name) output for a message:

CSQX099I - xxxx CSQXGIP Client attachment feature available

If this message doesn't show up, then you don't have the feature installed. The CAF is a required for any client program (including MQ Visual Edit) to connect directly to a mainframe queue manager.

Q. Can I install MQ Visual Edit on a network drive (LAN) and run it from that location?

A. Yes. MQ Visual Edit will happily run from a network drive. Each user's preferences will be stored in their own "Home Directory"\Capitalware.

On Windows, the home directory is the **%USERPROFILE%** folder:

i.e.

C:\users\UserID\Capitalware

On Unix and Linux, the home directory is the user's standard logon directory

i.e.

/export/home/UserID/Capitalware

Note: If you going to run MQ Visual Edit from a network drive and share it with other members of your team, please make sure you have purchased sufficient licenses of MQ Visual Edit.

Q. Can I share my queue manager connection information for MQ Visual Edit with another user or put it on a network drive (LAN)?

A. Yes. MQ Visual Edit stores the queue manager connection information in a SQLite database file called: **QMGrInfo.db**. By default, this file is stored in the user's "Home Directory"\Capitalware. You can move the QMGrInfo.db to any directory or network drive that you wish.

20 Appendix D – Support

The support for MQ Visual Edit can be found at the following location:

Online Help Desk Ticketing System at

www.capitalware.com/phpst/

By email at:

support@capitalware.com

By regular mail at:

Capitalware Inc.
Attn: MQ Visual Edit Support
Unit 11, 1673 Richmond Street, PMB524
London, Ontario Canada
N6G 2N3

21 Appendix E – Summary of Changes

- MQ Visual Edit v3.2.0
 - Added support for importing COBOL Copybook into the 'Fixed Width' configuration window for User Format.
 - Added 'Number of threads' for the following MQ Tools: Put Server, SIM Server, SIM Client & Publish Server.
 - Added 12 replaceable tokens for the following MQ Tools: Put Server, SIM Server, SIM Client & Publish Server.
 - Added right-click menu for selecting the replaceable tokens on the text box for: Put Server, SIM Server, SIM Client & Publish Server.
 - Added 'Show Temporary Queues' checkbox on the Open Queue and MQ Monitoring Tools' Open Queue dialog
 - Added the ability to sort the columns by clicking on the column header of List Of Queues and List Of Topics popup windows.
 - Added support for user defined date and time fields in the Preferences window.
 - Added the product version number to the Registration window.
 - Added code to convert Event messages as they are retrieved from the queue rather when the user opens the Message Edit window.
 - For CSV, FIX and Fixed Width Viewers, added the ability to click on the column header to sort the data by that column.
 - For CSV, FIX and Fixed Width layout manager, added 'Type for Table Sorting' column. It tells MQ Visual Edit how to sort the data in a particular column (i.e. String, Integer, Double, etc.).
 - Improved the handling of right-click popup menu on the main window, List of Queues and List of Topics windows
 - Enhanced the logging to include all GUI classes.
 - Fixed issue with preferences being removed when the language is changed.
 - Fixed issue with user selected language not being saved as a Preference.
 - Fixed an issue with the Choose Columns for MQMD.
 - Fixed an issue with the dock width setting not being removed when the Reset View was selected (under the View menu item).
 - Fixed an issue with the SIM Client missing the Browse button for text file.
 - Fixed an issue with handling PCF MQCFT_XR_SUMMARY messages from z/OS queue managers.
 - Fixed an issue with renaming a Group (on main window).

- MQ Visual Edit v3.1.0
 - Added a new MQ tool called Ping Queue Manager. It allows the user to test the response time of a queue manager putting AND getting a series of messages.
 - Added an AMS Keystore setting page on the Queue Manager Access Profile window to allow the user to select the AMS Keystore to be used.
 - Added the ability the set both the variable width and fixed width font sizes on the General panel of the Preferences window.
 - Added a setting On the Preferences's 'Main Window' panel to allow the user to change the default background or to disable it.

- Added code to only retrieve the hostname and canonical hostname values once (on program startup) and set it as a system properties.
- Fixed a bug in Message Edit window for auto column header creation for CSV and FIX data that have more than 700 columns.
- Fixed an issue with getting entire message when 'Automatically retrieve the entire message data when opening the 'Message Edit' window' is selected in options.
- Corrected the fixed width font on macOS and Linux
- Fixed an issue with the import parsers for MQ Explorer, MO71, and CCDT. Now it correctly handles MQ MI or MQ HA hostnames.
- Added code to better handle missing channel exit and/or incorrect path to channel exit.
- Fixed an issue so that the correct queue manager profile is selected after either a rename or move.
- Added support for escaped characters (i.e. \n, \r, etc.) on the Import File window when Delimited File is selected
- Fixed an issue with Clear Queue not recognizing alias or cluster queue when clearing queue.
- Fixed an issue with 'List Queues' from right click on main window not correctly setting queue type.
- Fixed an issue with MQ Tools drop-down when the users is running the trial-only (MQVE only).
- Added code to better handle messages with CCSID of 1200 and 1201.
- Added support for MQMDE structure on the Message Edit window.
- Fixed an issue with data conversion when 'Convert On Get' is selected and the EBCDIC message's MQMD Format field is blank.
- Fixed an issue with Generate Report not properly creating the character display portion of the HEX output in the PDF.
- Enhanced the Mask field processing for the List of Queues window to handle more complex masks.
- Added a popup window to display the mask to be used for a Refresh action on the List Of Queues window. The user can update/change it and then click ok (or press enter) to refresh the queue list.
- Updated the list of SSL/TLS CipherSpec/CipherSuite to be aligned with MQ v9.2.

➤ MQ Visual Edit v3.0.0

- Added a new MQ tool called Visual Queue Statistics. It allows the user to visually display the queue statistic values in a chart.
- Added a new MQ tool called Visual Subscription Rate. It allows the user to visually display the subscription's message count in a chart.
- Added a dialog window to retrieve the context value for 'Put Options' for the Restore Queue/Topic feature.
- Added Context for 'Put Options' on the Open Queue/Topic window for Put Server, SIM Client, SIM Server and Publish Server.
- Added a new viewer on the Message Edit window called: Fixed Width Viewer. Clicking it will parse the message data into a spreadsheet display.
- Added a new viewer on the Message Edit window called: CSV Viewer. Clicking it will parse the message data into a spreadsheet display.
- Added a new viewer on the Message Edit window called: FIX (Financial Information eXchange) Viewer. Clicking it will parse the message data into a spreadsheet display.

- Added a wizard so that the user can quickly create and save Fixed Width format structure, CSV column names and FIX column names.
- Added a new options on the Preferences' Edit Window called: 'For CSV Viewer, use first row for column name', drop selector for field delimiter and a drop selector for record separator.
- Added a new options on the Preferences' Edit Window called: 'For FIX Viewer, use first row for column name' and drop selector for delimiter, drop selector for field delimiter and a drop selector for record separator.
- Added the ability to associate a time zone with a queue manager. Hence, the message's date and time will be in the specified time zone.
- Changed Queue Manager Access Profile, Group and Favorites information to be stored in a SQLite database
- Added code to automatically migrate CommProfileDB, CommProfileGroupDB and FavoritesDB property files to a SQLite database.
- For a fresh install of MQ Visual Edit (Windows and Linux only), added code to automatically collect local queue manager information and display it to the user for importing.
- Added the ability to import queue manager settings from MQ Explorer.
- Added the ability to import queue manager settings from MO71.
- Added the ability to import queue manager settings from MQ Visual Edit V1/V2 property file.
- Added the ability to import queue manager settings from a CCDT file.
- Added the ability to import local queue managers.
- Fixed an issue with resetting the view correctly and also when changing the language.
- Added launching a web browser from the Registration window for the user to register the license key.
- New location for SQLite database and the MQVE logfile. They will now be stored in {home_directory}\Capitalware\ directory. i.e. For Windows: C:\Users\{UserId}\Capitalware\ and for Linux/macOS: /home/{UserId}/Capitalware/
- The MQ Visual Edit logfile will now be called: MQVE.log (rather than MQVE_error.log).
- Moved the MQ Server and Monitor tools to their own menu dropdown called: MQ Tools
- Enhanced the error message regarding an expired license key
- Updated code to better handle "https" call to capitalware.com for registration
- Updated code to set JVM UserId because MQ client library uses it when USE_MQCSP_AUTHENTICATION_PROPERTY is set to true
- Increased the size of the buttons on the windows, so people with Microsoft Surface tablets will find it easier to click buttons with their fingers.
- Added icons to all of the buttons on the windows. The icons for the buttons match the icons for the menu items. Hence, it makes for a better and more consistent look and feel.
- Fixed an issue with parsing PCF messages and displaying them.
- Fixed an issue with Queue Monitor tool and connecting to a z/OS queue manager.
- Fixed a bug on Message Edit window where Wrap Text menu item was not honoring user Preferences.
- Fixed a bug on Message Edit window where Replace menu item was not being enabled/disabled correctly.

- Switched from Apache Xerces to Java's builtin XML parser.
 - Updated docs (English only)
- MQ Visual Edit v2.4.0
- Updated Backup and BackupTopic functions to support writing the messages to a SQLite database.
 - Updated Restore and RestoreTopic functions to support reading the messages from a SQLite database.
 - Updated PutServer, SIMClient, SIMServer and PublishServer functions to support reading the messages from a SQLite database.
 - Changed the web call to capitalware.com server for license registration from http to https.
 - Fixed an issue with Named Properties object being null on Message Edit window
 - Fixed an issue with Backup Queue, Backup Topic and message conversion
 - Fixed an issue with Export Message and message conversion
 - Fixed an issue with MQMD on the Message Edit window
 - Fixed an issue with Named Properties when creating a JMS message
 - Added extra code to handle issues with opening and/or writing to the logfile when the OS is using file redirection.
 - Fixed an issue with the message being deselected when the message is saved in the Message Edit window
 - For z/OS queue managers, added code to allow the user to select the indexing of the z/OS shared queue.
 - Added UserId compatibility mode on the UserId panel of the Queue Manager Access Profile window. Connectivity will use MQCSP structure by default.
- MQ Visual Edit v2.3.0
- Fixed issue with using both Topic Name and Topic String
 - Fixed issue on Subscribe/Publish Server Open Topic window to allow only Topic Name
 - Added code to update screen title with either (1) days remaining in subscription or (2) days remaining in trial.
 - Added code to show resolved topic object for dock title and application title.
 - Fixed an issue with Generate Report and low values being converted to spaces.
 - Fixed an issue with File -> Add Queue Manager Access Profile feature adding the queue manager to the wrong group.
 - Added code on Registration window to remove a single quote (') from the name field when retrieving the Access Code.
 - Added code to make sure all MQExceptions are caught.
 - Added Clear button on Registration window to allow the user to remove name, email address, license key and access code from the saved settings.
 - Fixed an issue where the Refresh Queue option caused another thread (to inquire on the queue) to be launched for the Status dock.
 - Rewrote the internals of MQ Visual Edit to better handle data conversion between codepages.
 - Fixed an issue with writing data to CSV file for Subscription Monitor.
 - MQ Visual Edit is now built as a 64-bit executable for Linux, macOS and Windows.

➤ MQ Visual Edit v2.2.0

- Added Prompt for Password on the UserId panel of the Queue Manager Access Profile window
- Added a JSON Viewer for JSON data on the Message Edit window
- Added back 'Open Read Only' feature on the Open Queue Window
- Added 'Open Read Only' feature on the Open Topic Window
- Added checks for Proxy Host and Port when Proxy Server is enabled
- Added 'Automatically scroll the table to the new message' to the 'MQ Topic' window panel of the Preferences popup window
- Added the 'Follow New Message' menu item under View menu item (it toggles on/off the auto scrolling for Topic messages)
- Added Topic Name to the Open Topic window.
- Added Cut and Delete Message to the main window for Topic Messages (Note: Messages are only removed from the table and not from the topic).
- Added 2 new Topic Stress Testing Tools: Subscribe Server and Publish Server.
- Added support on 'Forward Message' feature to remove MQRFH2 wrapped MQDEAD messages if 'Remove Dead Letter Header' is specified.
- Added support for more internal MQ headers: MQDH, MQRMH, MQTM and MQWIH
- Added support for delimiters to parse file(s) for 'Import File' feature.
- Added support for 30 new languages: Amharic, Arabic, Azerbaijani, Bengali, Cebuano, Gujarati, Hausa, Hebrew, Igbo, Javanese, Kannada, Malay, Malayalam, Mandarin, Marathi, Pashto, Persian, Shona, Sindhi, Sundanese, Swahili, Tamil, Telugu, Turkish, Ukrainian, Urdu, Uzbek, Xhosa, Yoruba & Zulu
- Changed the location of the 'MQVE_error.log' file to be the same directory as the 'CommProfileDB.properties' file.
- Fixed an issue with 'Forward Message' feature
- Fixed an issue when Reset View was invoked and the subscriptions were not stopped.
- Fixed an issue with not being able to select a message when it does not have payload (message data)
- Fixed an issue with MQMD columns not showing when a message does not have payload (message data)
- Fixed an issue with PutApplType being shown when MQMD columns are being displayed.
- Fixed an issue with MQMD columns not honoring column alignment.
- Fixed an issue with the Cut Message on the main screen.
- Fixed an issue with PutDate & PutTime on the MQXQH panel.
- Fixed an issue with acquiring the 'i'th Access Code.
- Fixed an issue with the Button Bar on Mac OS X.
- Fixed button selection coloring on Mac OS X.
- Fixed an issue with coloring the main table when the topic string contains '#' or '+'.
- Fixed an issue with sort columns on List of Topics window.
- Made sure Favorites and MQ Monitoring Tools store the settings/information in the 'User Directory'.
- Switched to JVM v1.8

- MQ Visual Edit v2.1.0
 - Added support for 18 new languages
 - Added Send and Receive Exits on the Exits panel of the Queue Manager Access Profile window
 - Added colored topic messages on main window when a topic was opened using a wildcard
 - Added the 'Reset View' feature (under the View menu item) to reset the framework to its default values
 - Added back the 'Get All Data' button on the Message Edit window. To enable this feature, the 'Automatically retrieve entire message' checkbox on the 'MQ Queue' panel of the Preferences window must be de-selected.
 - Added more checks/verifications around the registration, so that users input the correct information
 - Fixed a variety of bugs related to the framework.
 - Fixed several bugs related to internal message handling

- MQ Visual Edit v2.0.0
 - Initial release.

22 Appendix F1 - License Agreement - Unregistered

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If you find this program useful and continue to use it after a the trial period, you must make a registration payment (see the registration instructions for details). This registration fee will license one user to use one copy of MQ Visual Edit on any one computer at any one time. All users will receive a copy of the latest release when they register, or it will be made available for downloading, and free technical support.

Commercial users must register and pay for their copies within 30 days of first use or their license is withdrawn.

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23 Appendix F2 – License Agreement - Registered

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