

# WebSphere MQ V7

## **Connectivity with MQ Explorer**



Lab material developed by  
IBM EMEA PanIMT zWebSphere team,  
based upon IBM ATS materials

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## Lab Objectives

This lab has two main objectives:

- 1) To introduce the attendees to the workshop environment and the environment.
- 2) To verify connectivity to the tools and systems needed.

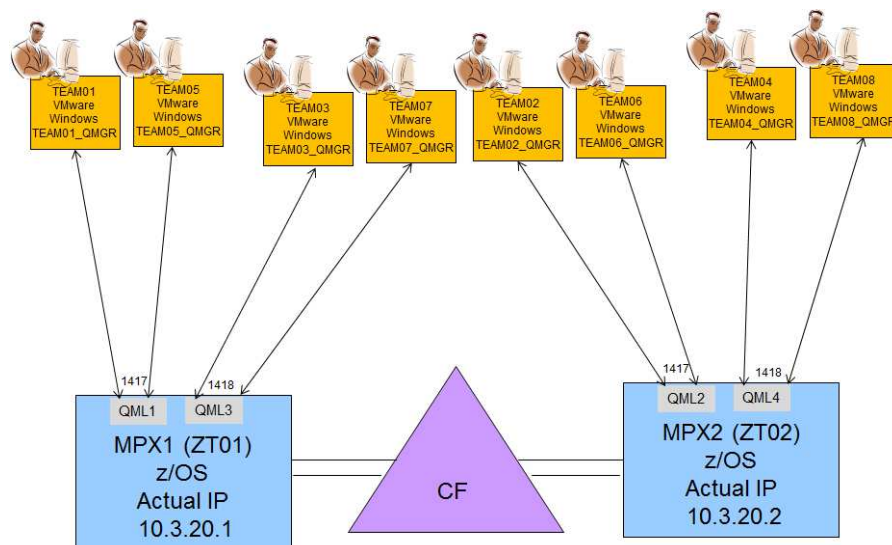
You will be connecting to one of the four available queue managers. Your instructor will assign you a TEAMXX user id which will determine the queue manager which you'll be using as seen in the list and image below. For your information, QML1 and QML3 running on an LPAR that we are calling "MPX1", and to QML2 and QML4 which run on LPAR we call "MPX2" (these may not be the real LPAR names... but we have assigned alias names of the LPARs for consistency in these exercises).

## General Lab Information and Guidelines

- 1) Any time the labels TEAM00 or TEAMXX are used in the exercises that follow, please replace the '00' or 'XX' with your team ID (TEAM01 – TEAM08).
- 2) There are four queue managers for use in this workshop by all students. In this exercise, you should define a connection to your queue managers from your MQExplorer.

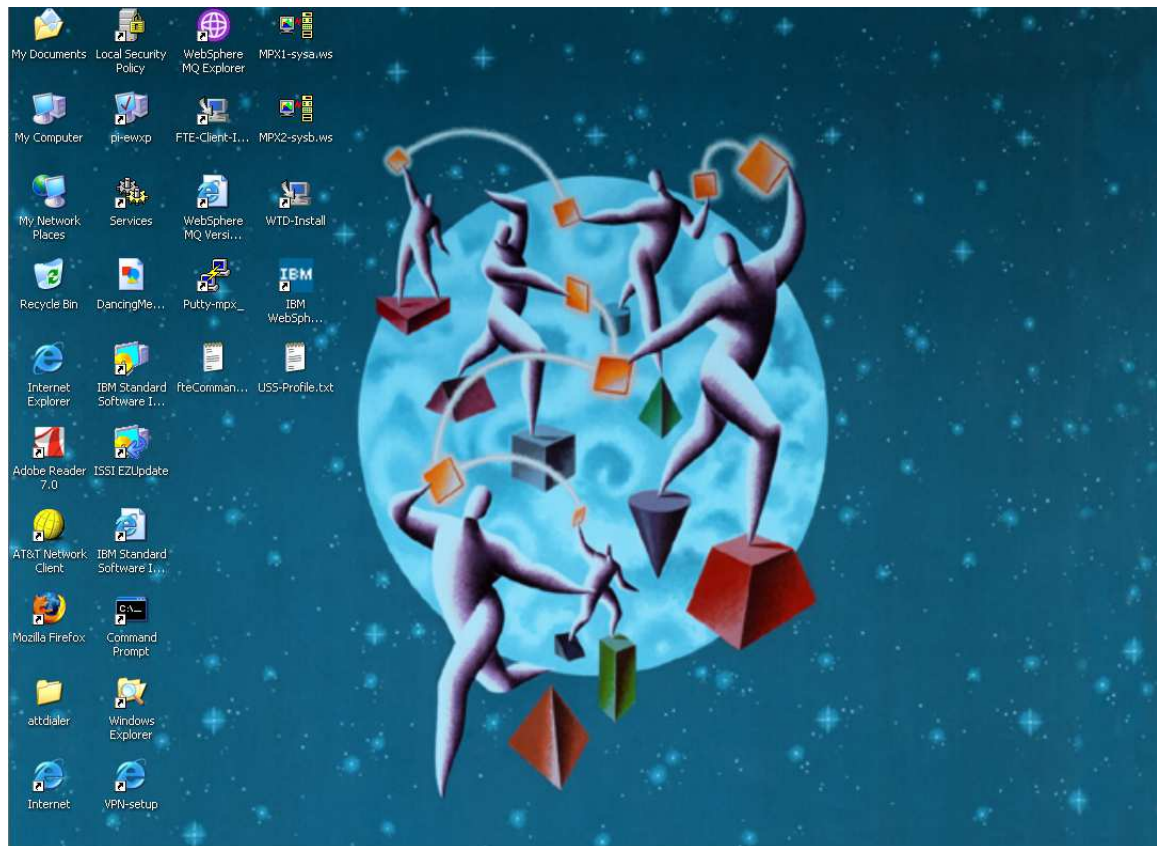
Each team is assigned a queue manager as follows:

- QML1 - TEAM01, TEAM05
- QML2 - TEAM02, TEAM06
- QML3 - TEAM03, TEAM07
- QML4 - TEAM04, TEAM08

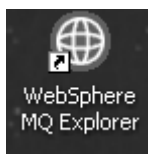


- 3) The passwords for this lab will be provided by the workshop leaders.
- 4) Any difficulty with connectivity should be reported, but please remember that the connections may be slow.

## Step I - MQExplorer Connectivity

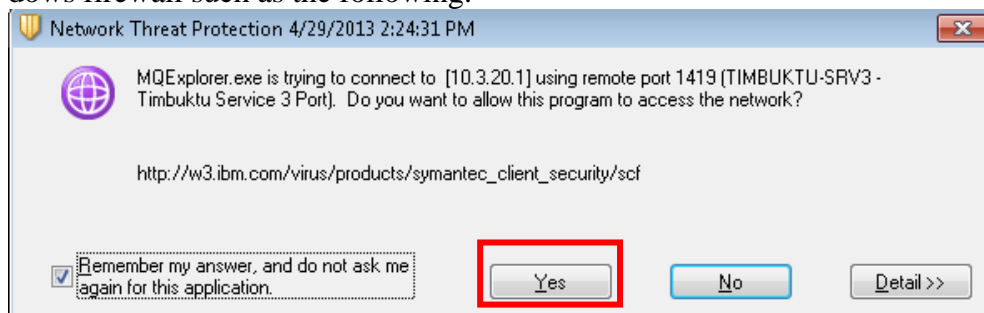


- 5) From the Windows desktop shown above, double click on the WebSphere MQ Explorer icon.



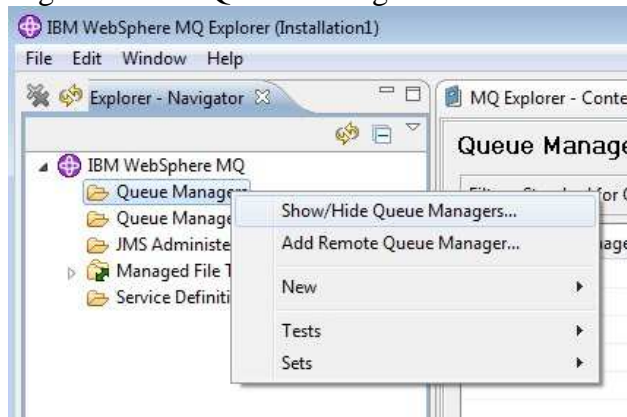
It may take several seconds to come up, so please be patient

- 6) You very possibly will receive at this time a “pop-up” message from the Windows firewall such as the following:



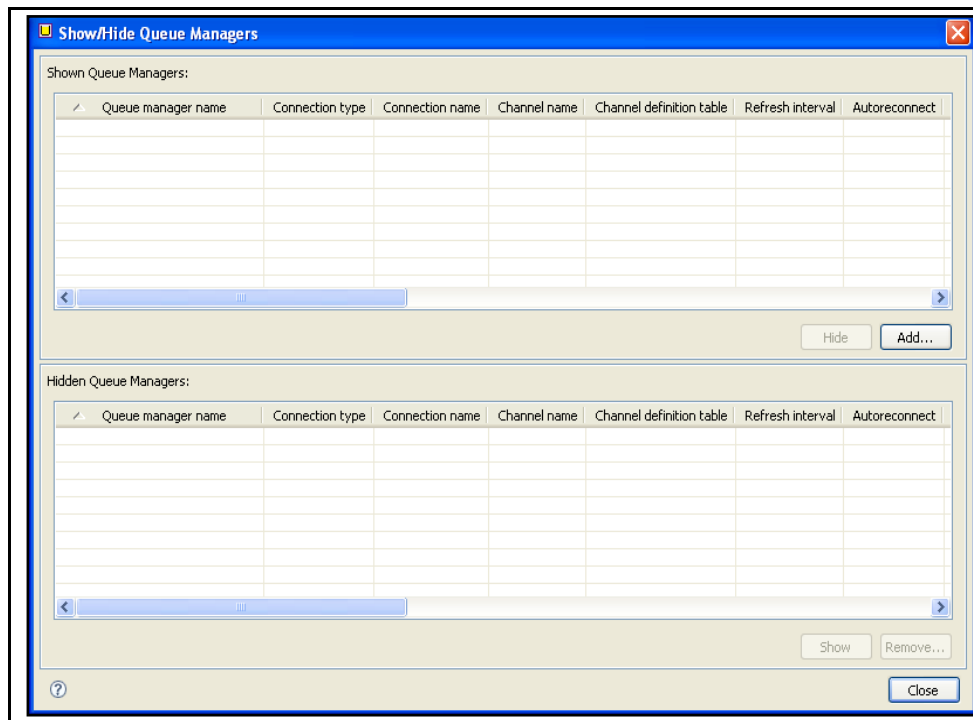
Be sure to allow this connection! You should click on Yes.

- 7) Right click on 'Queue Managers' and select 'Show/Hide queue managers'



Note: All the queue managers in this workshop have the MQ Client Attach Feature implemented (CAF), so you will be able to connect to each of them directly.

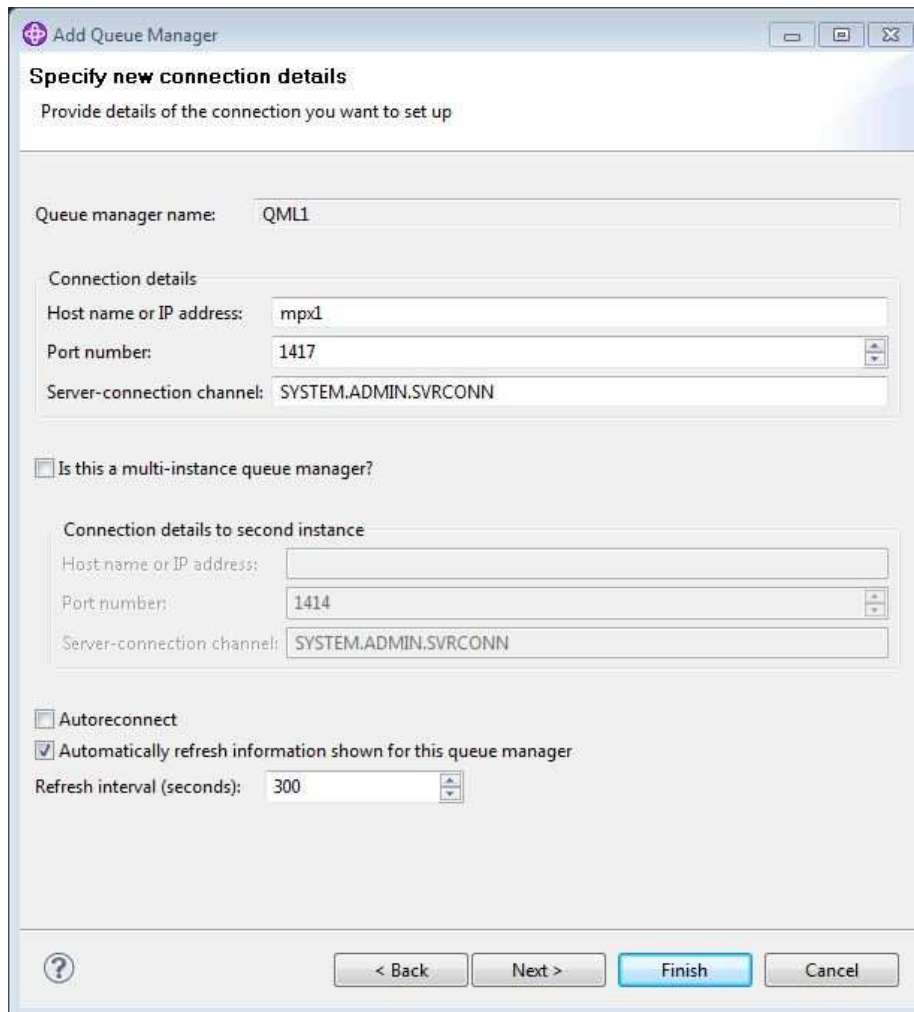
- 8) You should see the 'Show/Hide Queue Managers' panel. Click on the 'Add' button.



- 9) Enter QMLx in the queue manager name, where “x” corresponds to the queue manager that your user id is associated with as seen on page 3, or in the table below. Click on the ‘Next’ button.

User ids	Queue Manager	IP Address (LPAR)	Port
TEAM01, 05	QML1	mpx1	1417
TEAM02, 06	QML2	mpx2	1417
TEAM03, 07	QML3	mpx1	1418
TEAM04, 08	QML4	mpx2	1418

- 10) For the Host name, enter the DNS host name “mpx1” or “mpx2” and the associated port number (1417 or 1418) again depending upon your assigned user id and the LPAR and ports shown in the table above. Then click on the ‘Finish’ button.



**Add Queue Manager**

**Specify new connection details**  
Provide details of the connection you want to set up

Queue manager name: QML1

Connection details

Host name or IP address: mpx1

Port number: 1417

Server-connection channel: SYSTEM.ADMIN.SVRCONN

☐ Is this a multi-instance queue manager?

Connection details to second instance

Host name or IP address:

Port number: 1414

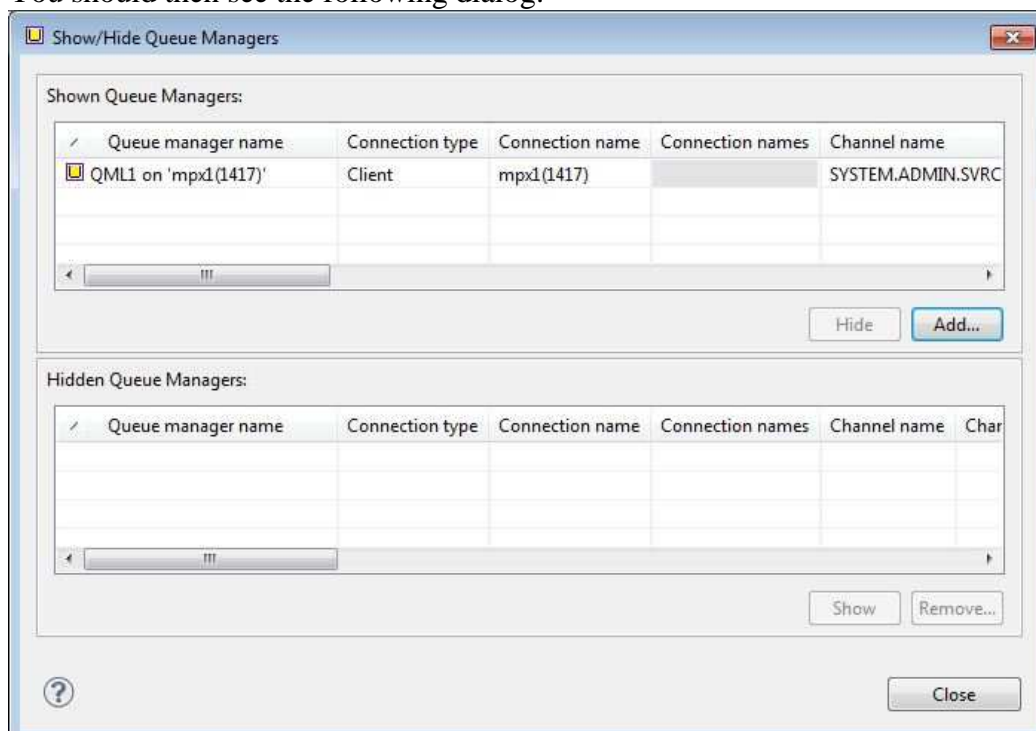
Server-connection channel: SYSTEM.ADMIN.SVRCONN

☐ Autoreconnect

☒ Automatically refresh information shown for this queue manager

Refresh interval (seconds): 300

You should then see the following dialog:



**Show/Hide Queue Managers**

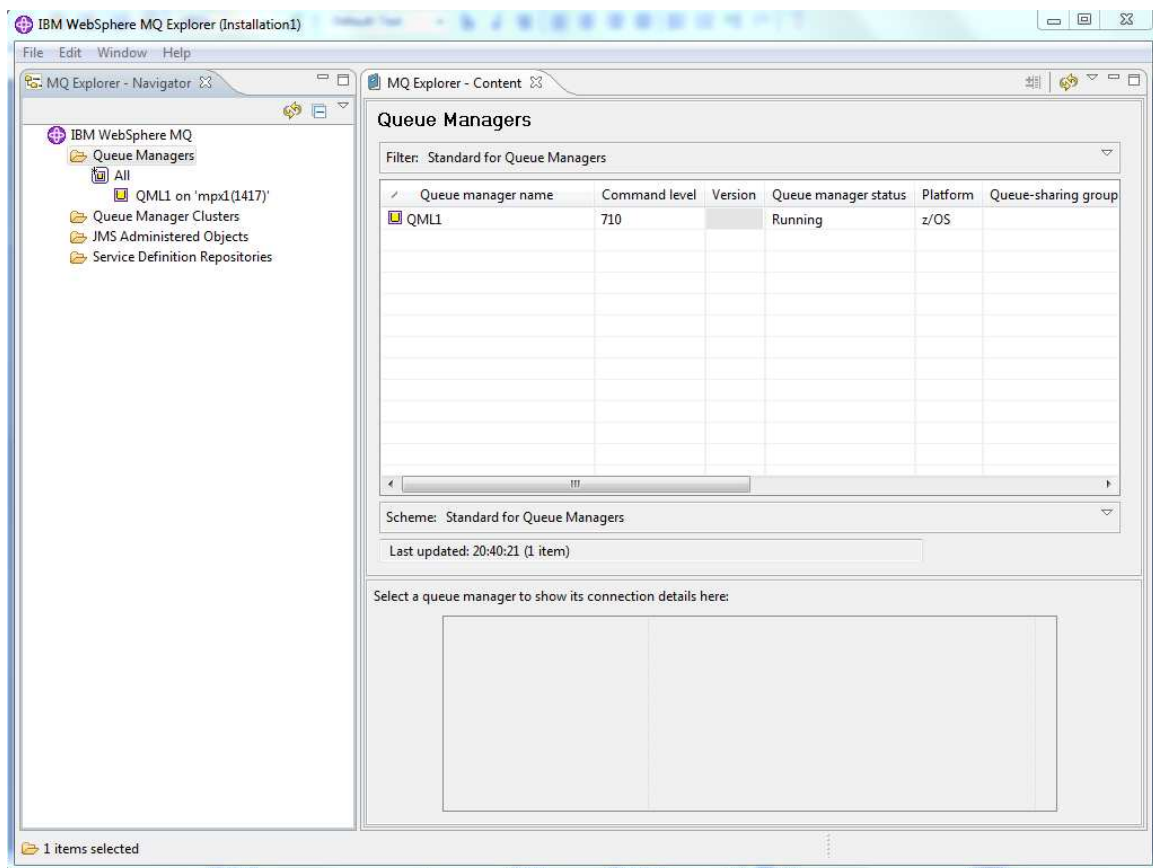
Shown Queue Managers:

Queue manager name	Connection type	Connection name	Connection names	Channel name
QML1 on 'mpx1(1417)'	Client	mpx1(1417)		SYSTEM.ADMIN.SVRCONN

Hidden Queue Managers:

Queue manager name	Connection type	Connection name	Connection names	Channel name	Char
--------------------	-----------------	-----------------	------------------	--------------	------

- 11) Press the 'Close' button to return to the main MQ Explorer window. You should see the queue manager appear in the Queue Managers list as shown below:



- 12) If still in the 'Shown and Hide Queue managers' pane, please close it.



12) Your final list of queue managers should look as shown:

## Queue Managers

Filter: Standard for Queue Managers

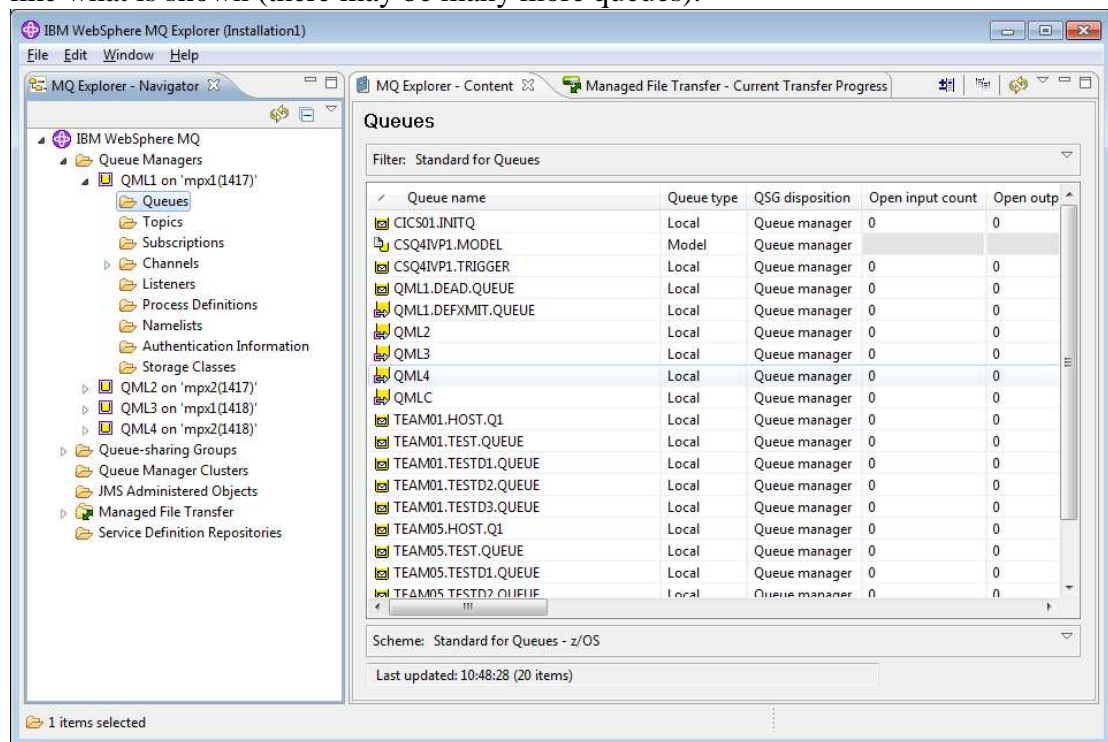
Queue manager name	Command level	Version	Queue manager status	Platform	Queue-sharing group
QML1	710		Running	z/OS	
QML2	710		Running	z/OS	
QML3	710		Running	z/OS	
QML4	710		Running	z/OS	

Scheme: Standard for Queue Managers

## Step II – Setting up Filters

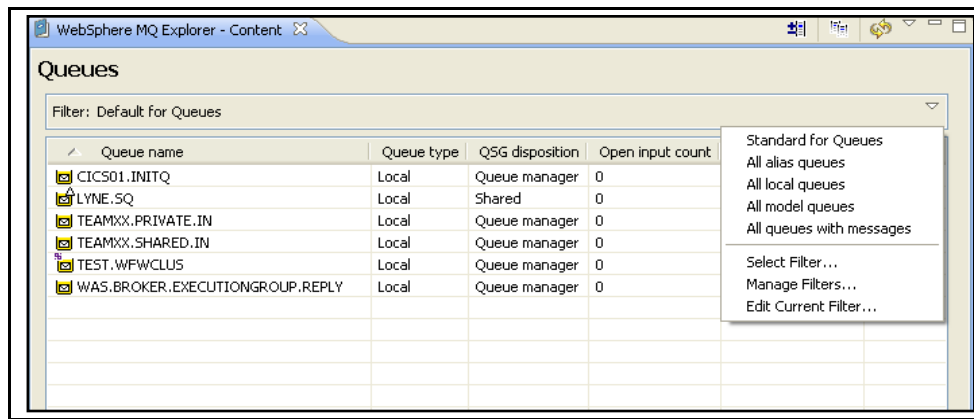
As you probably noticed, each queue manager has exercise queues for (at least) two student user ids. In this section you will set a filter to limit the queues displayed to those you are directly using.

- 12) Listing all the queues defined to your queue manager is done by clicking on the ‘Queues’ folder. Note that depending on the number of queues and the connection speed, this list can take a long time to build. The display will look something like what is shown (there may be many more queues).

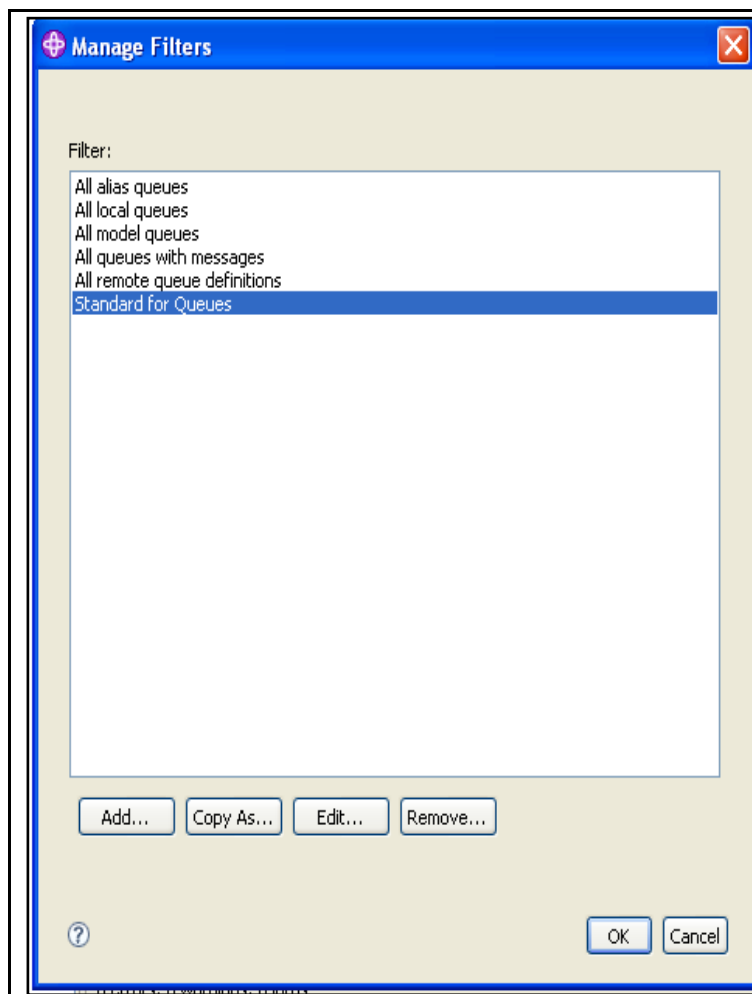


Note: if you click on the “Queues” folder in the left window, and don’t see any queues in the window on the right window, make sure that you have selected the tab “MQ Explorer – Content” for the right window.

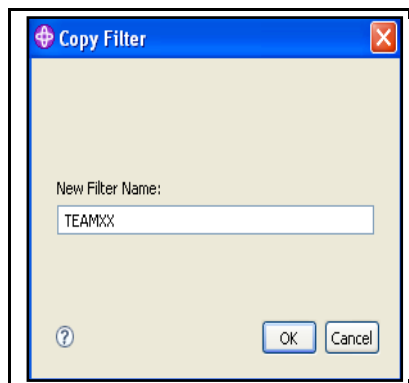
- 13) To create a filter, on the ‘Filter’ line select the down arrow (highlighted above) to select the filter. From the drop down list, select ‘Manage Filters...’.



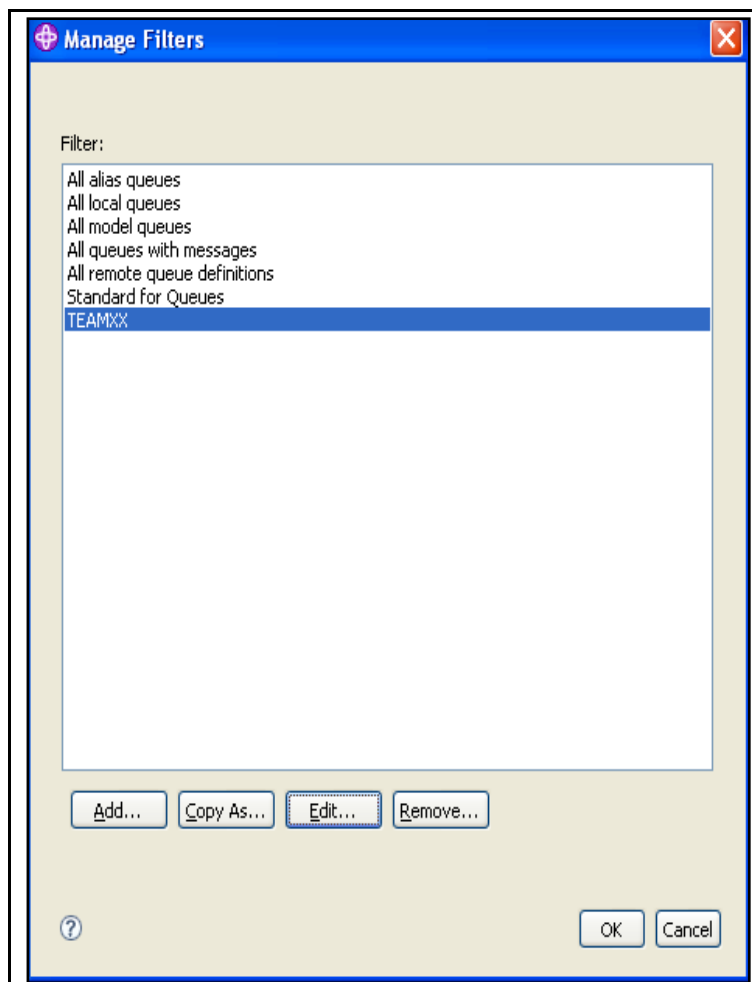
- 14) On the 'Manage Filters' pane, select 'Standard for Queues' and click on the 'Copy As...' button.



- 15) On the 'Copy Filter' pane, enter your team ID as the 'New Filter name' and click on 'OK'. The example shows TEAMXX, replace the 'XX' with your team number please.



- 16) The new Filter will appear in the filters list. Highlight your filter and click on the 'Edit...' button.



- 17) On the 'Edit Filters' panel, set the 'Queue Name like' to TEAMXX\*, where the XX is your team number, and click on the 'OK' button.

**Edit Filter**

Filter Name:  
TEAMXX

Include Queues where:

Queue name like TEAMXX\*

- AND -  
Queue type equal to All Queues

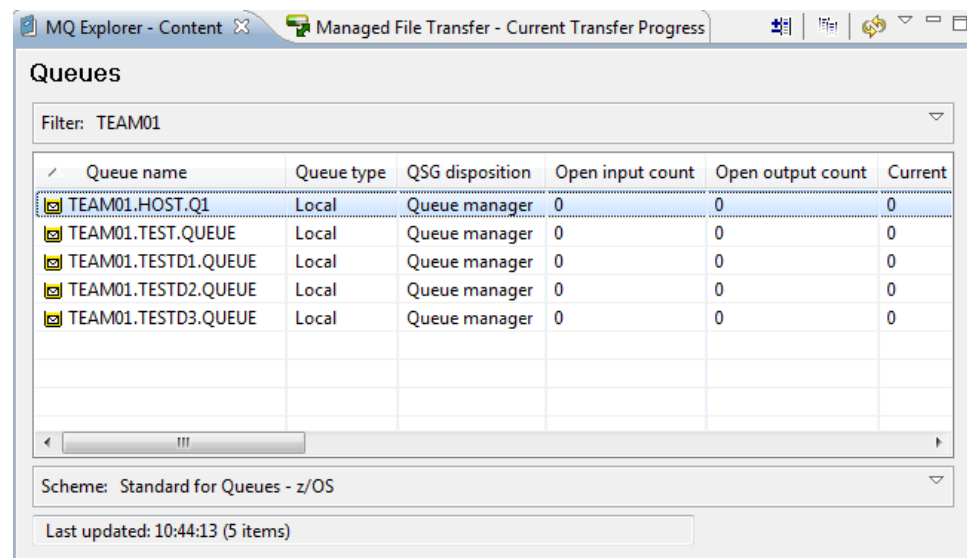
☐ - AND -  
Archive Select... equal to 0

☐ Automatically apply a Column Scheme when this filter is applied  
Standard for Queues

? Clear OK Cancel

- 18) This will return you to the 'Manage Filters' panel. With your new filter still highlighted, click on 'OK' again. Your new list of queues, based on the filter you entered will be displayed. It may take a few seconds to refresh, you should see the moving green bar in the lower right of the queue list pane while the image it being refreshed.

While there may be no queues defined for your team ID at this point, when there are queues defined your list will look something like what is shown below:



The screenshot shows the 'MQ Explorer - Content' window with the 'Managed File Transfer - Current Transfer Progress' tab active. The 'Queues' panel is displayed, showing a list of queues filtered by 'Filter: TEAM01'. The table lists five queues, all of which are 'Local' and managed by the 'Queue manager'. All counts (Open input count, Open output count, and Current) are zero. The 'Scheme' is set to 'Standard for Queues - z/OS', and the last update was at 10:44:13 with 5 items.

Queue name	Queue type	QSG disposition	Open input count	Open output count	Current
TEAM01.HOST.Q1	Local	Queue manager	0	0	0
TEAM01.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM01.TESTD1.QUEUE	Local	Queue manager	0	0	0
TEAM01.TESTD2.QUEUE	Local	Queue manager	0	0	0
TEAM01.TESTD3.QUEUE	Local	Queue manager	0	0	0

Filter: TEAM01

Queue name Queue type QSG disposition Open input count Open output count Current

TEAM01.HOST.Q1 Local Queue manager 0 0 0

TEAM01.TEST.QUEUE Local Queue manager 0 0 0

TEAM01.TESTD1.QUEUE Local Queue manager 0 0 0

TEAM01.TESTD2.QUEUE Local Queue manager 0 0 0

TEAM01.TESTD3.QUEUE Local Queue manager 0 0 0

Scheme: Standard for Queues - z/OS

Last updated: 10:44:13 (5 items)

Please note, for your team number you may not have any queues defined at this time.

## Step III – PCOMM Connectivity

In the workshop PCOMM is used to communication with the z/OS LPARs. In the VMWARE image there are icons for both the LPARs.

- 19) To test the connectivity to your LPAR, minimize the MQ Explorer (please do not shut it down) and double click on the icon labeled “mpx1” (or the icon labeled “mpx2” if your instructor assigns you to this LPAR):



It may take a little while to respond from the VMware image. Once it has connected, you will see:

```

mpx2
File Edit View Communication Actions Window Help
[Icons]

      DDDDDDDD EEEEEEEE MMMM MMMM 0000000
      DD   DD EE      MM MM MM MM 00   00
      DD   DD EE      MM M M MM 00   00 PPPP KK KK GGGGGG
      DD   DD EEEEEEEE MM  MMM MM 00   00 PP  PP KK KK GG
      DD   DD EE      MM  M  MM 00   00 PPPPP KKK  GG GGGG
      DD   DD EE      MM      MM 00   00 PP  KK KK GG  GG
      DDDDDDDD EEEEEEEE MM      MM 0000000 PP  KK  KK GGGGGG

      WELCOME TO IBM
      TESTMVS
      HELP DESK:

      YOUR IP ADDRESS : 9.145.154.136
      YOUR TELNET PORT : 53472

      -----
      !               APPLICATIONS AVAILABLE               !
      !-----!
      !  TSO      !  IMSB      !  CICS      !  CICS      !
      !  IMSA      !  NETVIEW   !  AOF      !  MFN      !
      !  IBMSM     !  OMVIEW    !          !          !
      !-----!

      SELECTION ==>  tso_

MA  A  24/023
Connected to remote server/host mpx2 using lu/pool TCP20053 and port 23
  
```

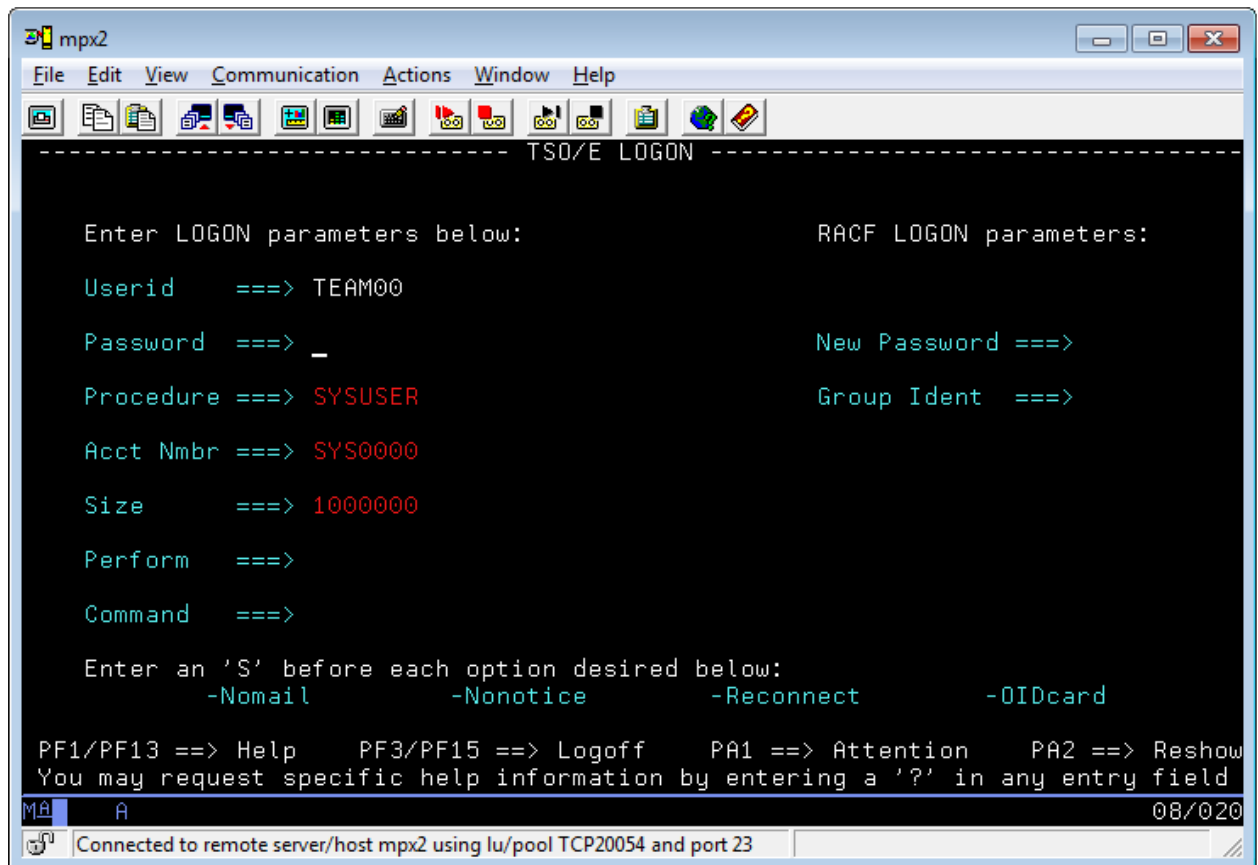
- 20) As seen above, type ‘TSO’ and then press Enter.

*Note: when the exercises say “Enter” for the 3270 emulator, this is referring to the “Ctrl” key on your PC; this PCOM 3270 emulator is configured such that either the PC “Ctrl” key corresponds to the 3270 Enter key. This can, of course, be re-configured. If you would like to reconfigure the emulator, you can ask your instructor for help.*

You should see a prompt to enter your userid as shown below. Enter your team name TEAMXX, where the XX is your team identifier on the command line.

```
IKJ56700A ENTER USERID -
TEAMXX_
```

- 21) You should arrive at the TSO/E LOGON screen shown below. The parameters should be identical to what you see below. Otherwise, please ask your instructor for help. Enter the password your instructor has provided and press Enter.



- 22) When your password has been accepted, you will see the ISPF signon information similar to what's shown below:



```

Host: 9.212.143.123 Port: 23 LU Name: Disconnect
ICH70001I NEYSA LAST ACCESS AT 10:44:53 ON SUNDAY, SEPTEMBER 30, 2012
IKJ56455I NEYSA LOGON IN PROGRESS AT 11:34:33 ON SEPTEMBER 30, 2012
IKJ56951I NO BROADCAST MESSAGES

LOGON PROC IS SYSUSER
ALLOCATING ISPF AND BASE DATASETS
*****
* Welcome to IBM
* EMEA zTEC Montpellier France
* z/OS V1R13 DEM0pkg System
*
* -----
* IBM internal systems must only be used for conducting
* IBM business or for purposes authorized by IBM Management.
* Use is subject to audit at any time by IBM management.
* -----
*
* *****
INMR003I You have no messages or data sets to receive.
***

```

At the end of the text, you'll see "\*\*\*"; you should press Enter again to clear the 3270 screen and pass to the next screen.

23) You should arrive now at the ISPF Primary Option Menu as seen below. Note that you should see the real name of your LPAR in the line labeled "System ID" as shown below:

```

Menu Utilities Compilers Options Status Help
z/OS Primary Option Menu

Option ==>
0 Settings      Terminal and user parameters      User ID   : NEYSA
1 View         Display source data or listings   Time      : 11:35
2 Edit         Create or change source data      Terminal  : 3278A
3 Utilities    Perform utility functions        Screen    : 1
4 Foreground   Interactive language processing  Language  : ENGLISH
5 Batch        Submit job for language processing Appl ID   : ISP
6 Command      Enter TSO or Workstation commands TSO login : SYSUSER
7 Dialog Test  Perform dialog testing           TSO prefix: NEYSA
8 IBM Products IBM program products   System ID : ZT01
9 SCLM         SM Configuration Library Manager MVS level : 040000
10 Workplace   ISPF Object/Action Workplace    Release   : ISPF 6.3
11 z/OS System z/OS system programmer applications
12 z/OS User   z/OS user applications

Enter X to Terminate using log/liat defaults

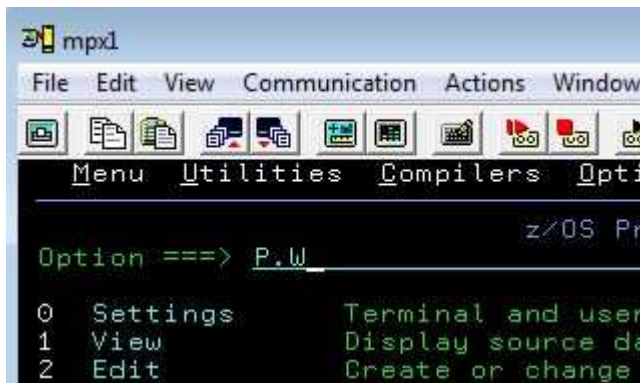
Licensed Materials - Property of IBM
5694-A01 Copyright IBM Corp. 1980, 2011.
All rights reserved.
US Government Users Restricted Rights -
Use, duplication or disclosure restricted
by GSA ADP Schedule Contract with IBM Corp.

F10=Actions F12=Cancel and F8=Forward F9=Swap
HA A 04/014

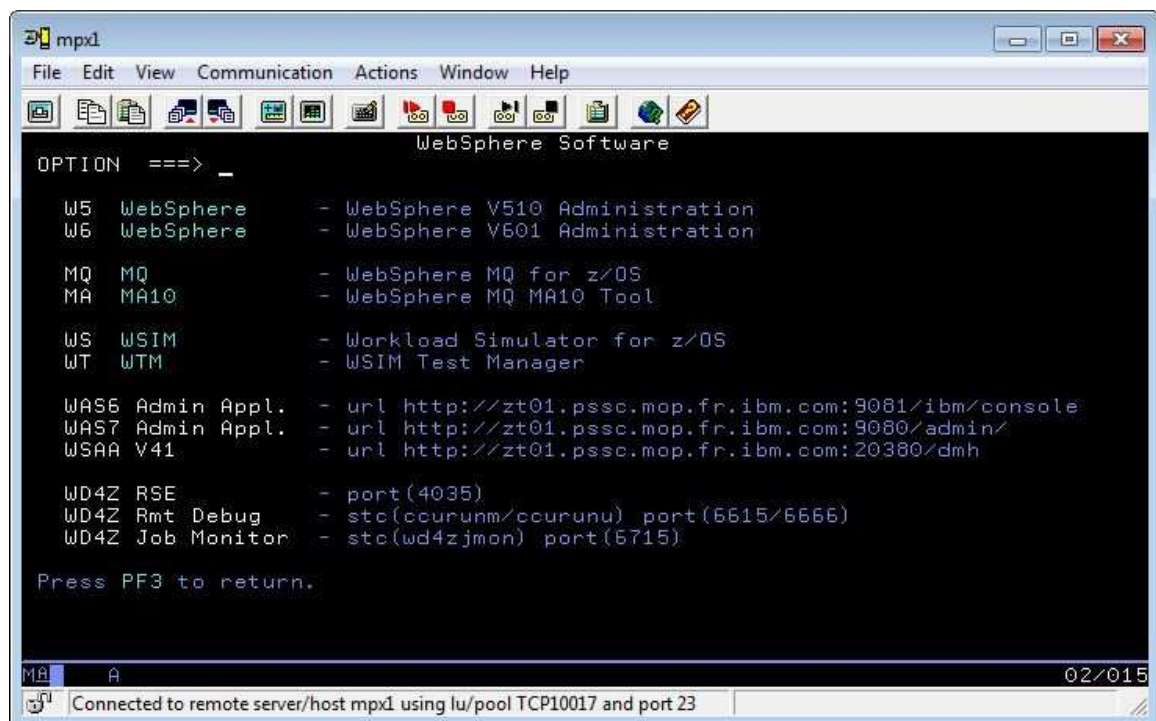
```

We would advise you at this time to show your instructor at this time the System ID that you are signed on to just to ensure that you are indeed on the correct LPAR.

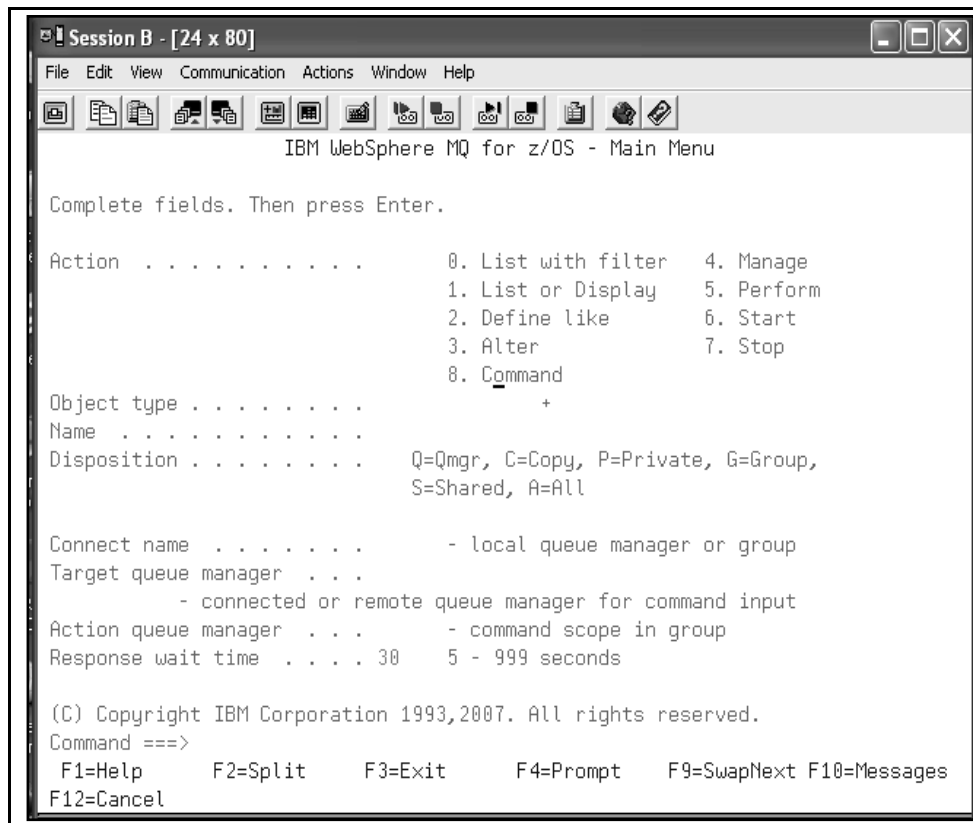
- 24) As seen below, in the Option prompt at the top of the Primary menu, type “P.W” and press Enter:



This is the shortcut to go to the **P**roduct then the **W**ebSphere submenu:



- 25) Now type “MQ” and press Enter. The WMQ V7 main menu should be displayed:



26) Enter the following fields as shown:

Panel Field	Value
Action	1
Object Type	QUEUE
Name	TEAMXX*, where the XX is your team number
Disposition	A (for All)
Connect name	The name of your queue manager as assigned by your instructor, for example QML1
Target queue manager	Your queue manager name
Action queue manager	Your queue manager name

```

IBM WebSphere MQ for z/OS - Main Menu

Complete fields. Then press Enter.

Action . . . . . 1      0. List with filter    4. Manage
                          1. List or Display    5. Perform
                          2. Define like       6. Start
                          3. Alter             7. Stop
                          8. Command

Object type . . . . . QUEUE      +
Name . . . . . TEAMXX*
Disposition . . . . . A  Q=Qmgr, C=Copy, P=Private, G=Group,
                          S=Shared, A=All

Connect name . . . . . QML0 - local queue manager or group
Target queue manager . . . QML0
                          - connected or remote queue manager for command input
Action queue manager . . . QML0 - command scope in group
Response wait time . . . . 30    5 - 999 seconds

(C) Copyright IBM Corporation 1993,2007. All rights reserved.
Command ==>
  F1=Help    F2=Split    F3=Exit    F4=Prompt    F9=SwapNext F10=Messages
  F12=Cancel

```

You may want to change the 'Response Time Wait' to 5 seconds for local queue.

27) Your display should show all the queues defined for your team ID, which may be a very short list:

```
                                List Queues - QML1                                Row 1 of 1
Type action codes, then press Enter.  Press F11 to display queue status.
1=Display  2=Define like  3=Alter  4=Manage

Name                                     Type      Disposition
<> TEAMXX.*                             QUEUE     PRIVATE QML1
TEAMXX.TEST.QUEUE                       QLOCAL    QMGR      QML1
***** End of list *****

Command ==>
```

You have now been successful in connecting to the environment!

# WebSphere MQ V7 **Testing Pub/Sub**



Lab material developed by  
IBM EMEA PanIMT zWebSphere team,  
based upon IBM ATS materials

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## Lab Objectives

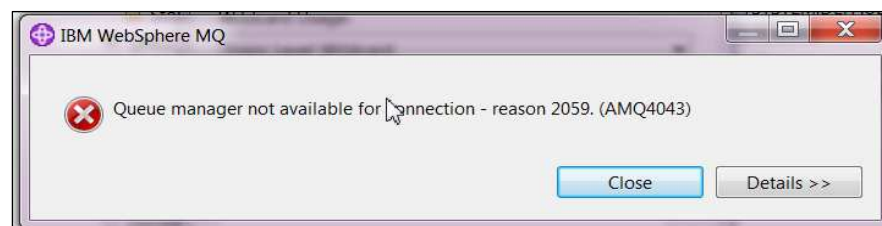
This lab has the following objectives:

- To introduce the attendees to the pub/sub hierarchy
- To create and test defined topic objects
- To create and test subscriptions
- Familiarize you with the MQ Explorer pub/sub test windows
- Take a quick look at Pub/Sub from a z/OS SDSF session

## General Lab Information and Guidelines

- 1) Any time the labels TEAM00 or TEAMXX are used, please replace the '00' or 'XX' with your team ID (TEAM01 – TEAM08).
- 2) There are four queue managers for use in this workshop. Each team is assigned a primary queue manager as follows:
  - QML1 - TEAM01, TEAM05
  - QML2 - TEAM02, TEAM06
  - QML3 - TEAM03, TEAM07
  - QML4 – TEAM04, TEAM08
- 3) The passwords for this lab will be given by the workshop leaders.
- 4) Any difficulty with connectivity should be reported, but please remember that the connections may be slow.

Please note we have seen a number of instances of disconnects during the 'unsubscribe' tests. The error looks like this:

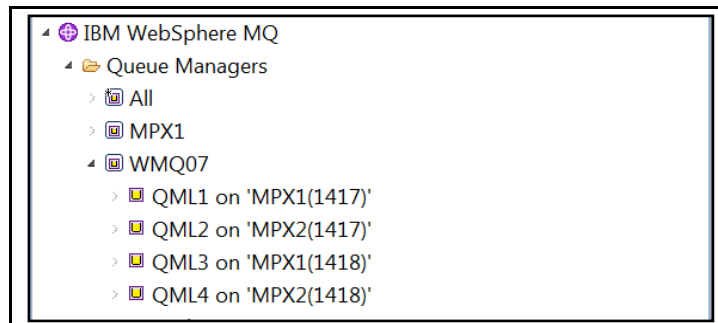


If you repeat the request this typically resolves the problem. It seems that the multiple hops we are doing in the network is probably causing an occasional timeout.

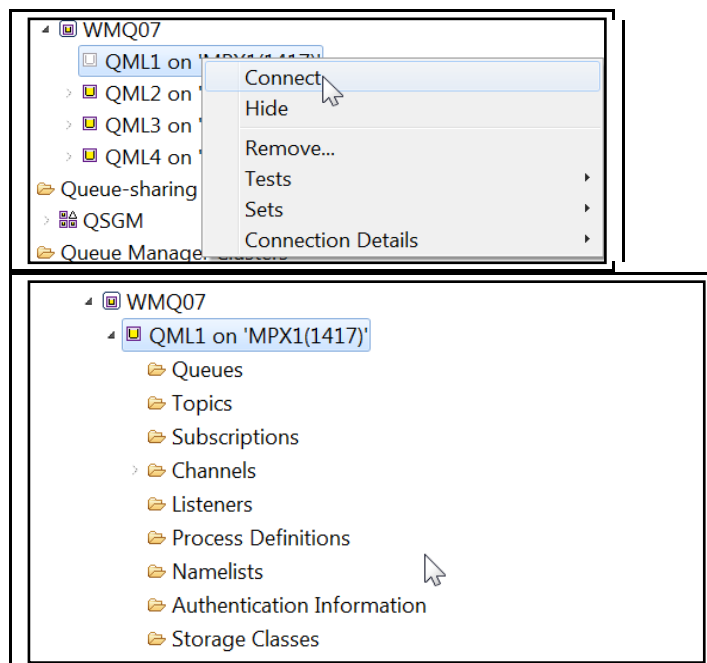


## Step I – Create Topic Object

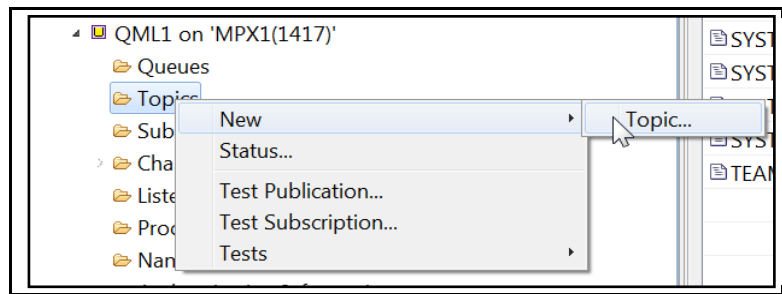
- 1) If you are no longer connected to your primary queue manager, your MQ Explorer will not show any objects :



- 2) Connect to your queue manager by right clicking on the name and selecting 'Connect'. After the 'Connect' you should see the folders, like what is shown below:



- 3) On your primary queue manager, right click on the 'Topics' folder and select 'New' and 'Topic...' as shown below:



- 4) On the first 'New Topic' panel enter your team ID as shown, then click on 'Next'

A screenshot of the 'New Topic' wizard in the MQ V7 for z/OS Workshop. The window title is 'New Topic'. The main heading is 'Create a Topic'. Below this is the instruction 'Enter the details of the object you wish to create'. The 'Name:' label is followed by a text input field containing 'TEAMXX'. Below this is the instruction 'Select an existing object from which to copy the attributes for the new object.' followed by a text input field containing 'SYSTEM.DEFAULT.TOPIC' and a 'Select...' button. At the bottom, there is a checkbox labeled 'Start wizard to create a matching JMS Topic' which is currently unchecked. The bottom of the window contains a help icon (?) and four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

- 5) Enter your team name TEAMXX (replacing 'XX' with your team number) as the topic string and set the Publish, Subscribe and Durable Subscriptions as shown. Then scroll down.

**New Topic**

**Change properties**

Change the properties of the new Topic

**General**

Topic name: TEAMXX

Topic string: \* TEAMXX

Description:

Publish: As parent

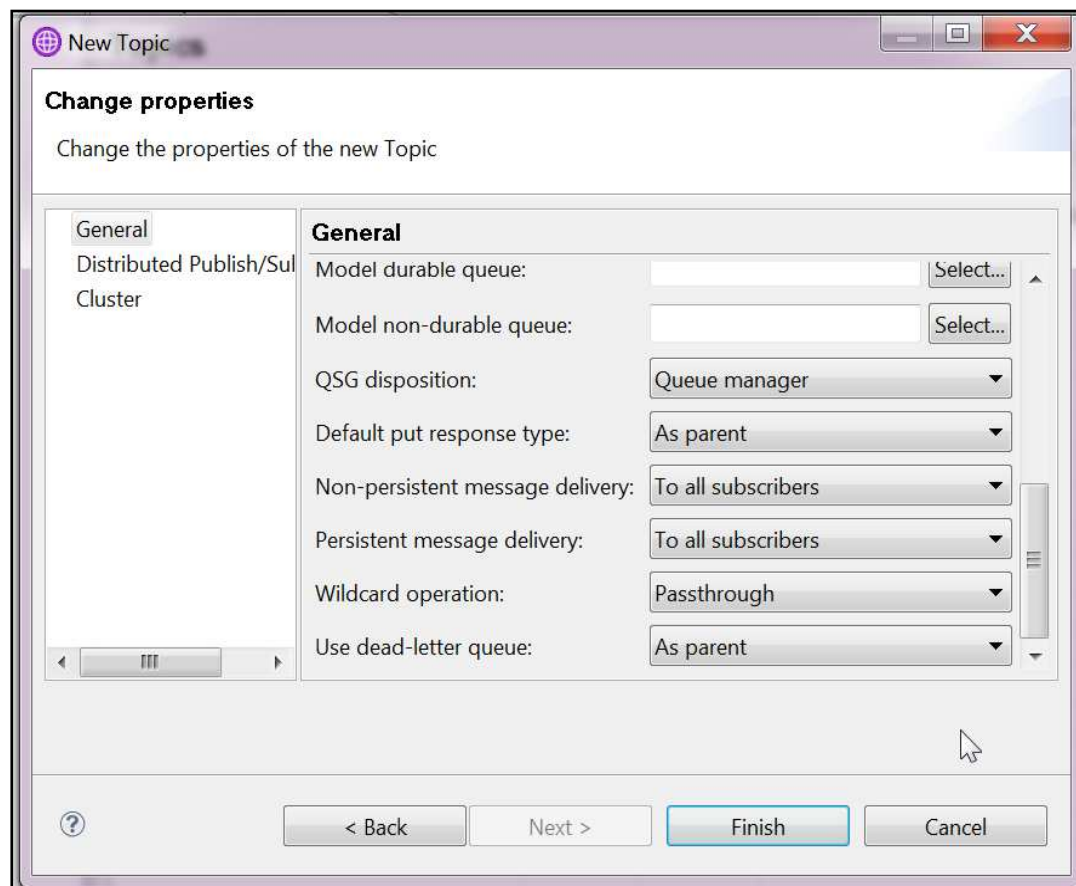
Subscribe: As parent

Durable subscriptions: As parent

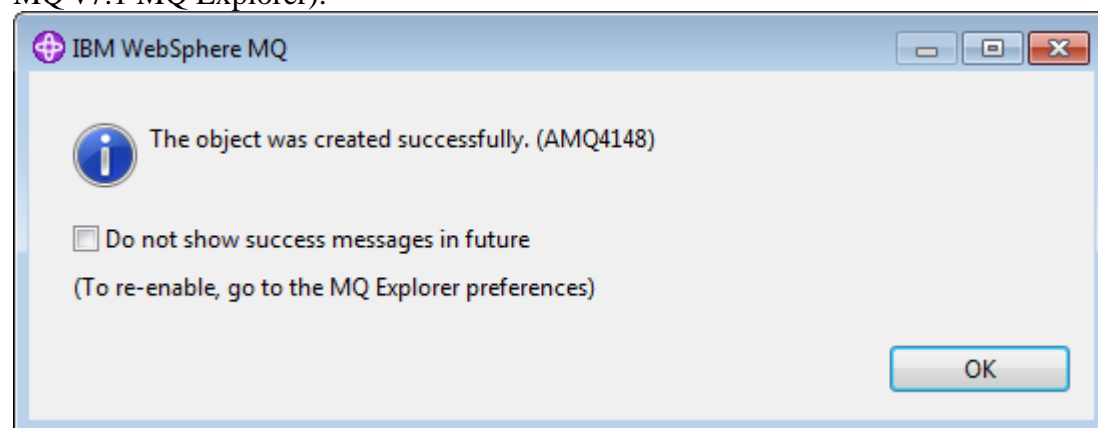
Default priority: ☒ As parent ☐ 0

< Back Next > Finish Cancel

- 6) Set the QSG disposition to 'Queue Manager', and both persistent and non-persistent message subscription to 'To all subscribers'. Then hit the 'Finish' button.



You may receive the following message if you haven't suppressed this message by clicking the "Do not show success messages in future" box (a new option with the MQ v7.1 MQ Explorer).



- 7) You should see the new object in the Topics list as shown.

## WMQ07 – WMQ V7 for z/OS Workshop

MQ Explorer - Content   Managed File Transfer - Current Transfer Progress

### Topics

Filter: Standard for Topics

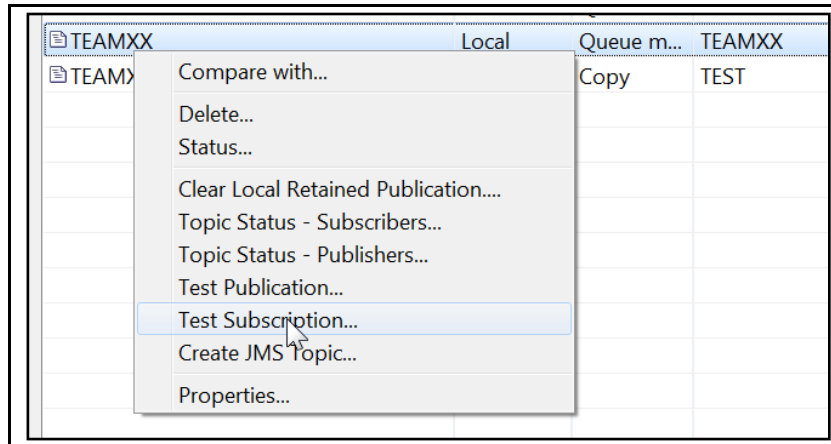
Topic name	Topic type	QSG disposition	Topic string	Description	Publish	Subscribe	Durable subscriptions	Default priority
TEAM02	Local	Queue manager	TEAMXX		As parent	As parent	As parent	As parent

Scheme: Standard for Topics - z/OS

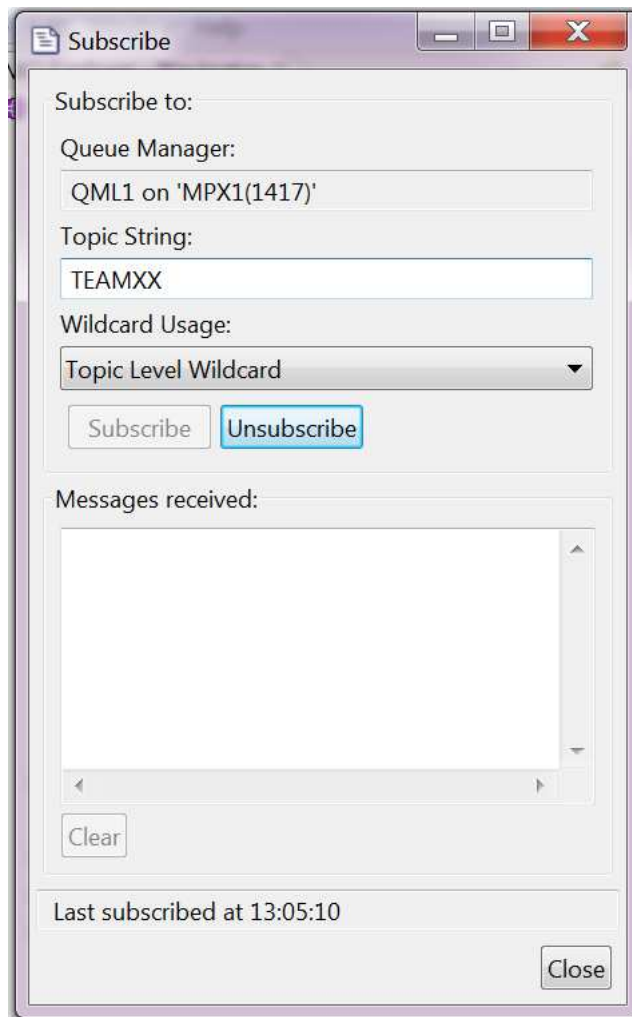
Last updated: 10:46:34 (1 item)

## Step II - Test Publication and Subscription

1) Right click on the topic created and select 'Test Subscription...'.

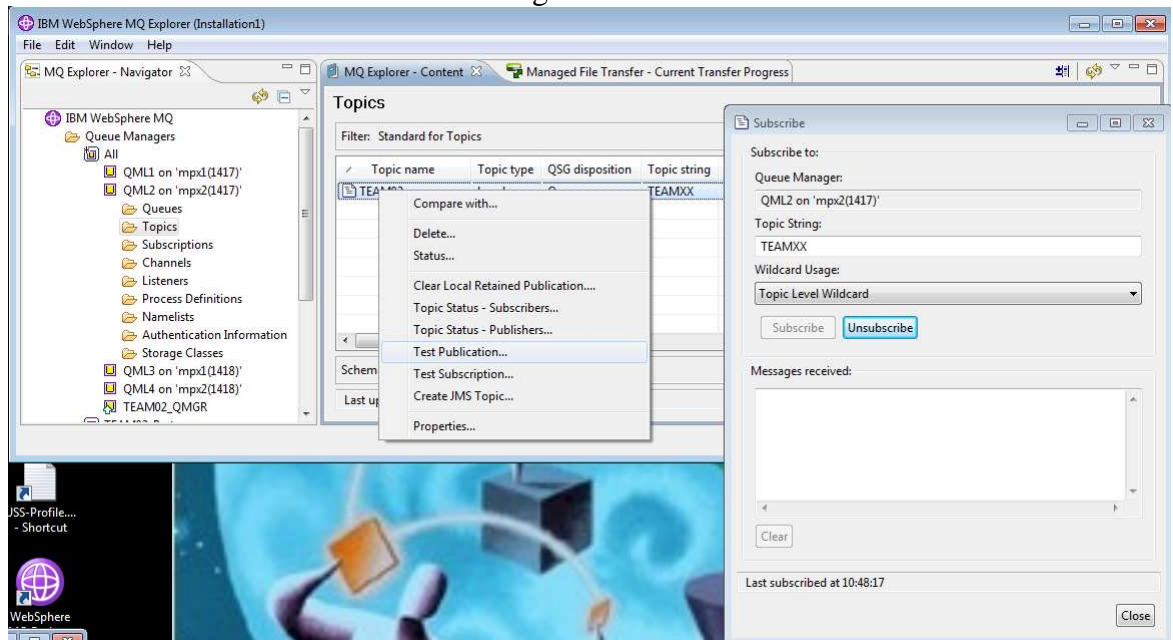


- 2) This will bring up the pane shown below. **DO NOT CLOSE THIS PANE!**  
Just move this panel over to one side of your screen.

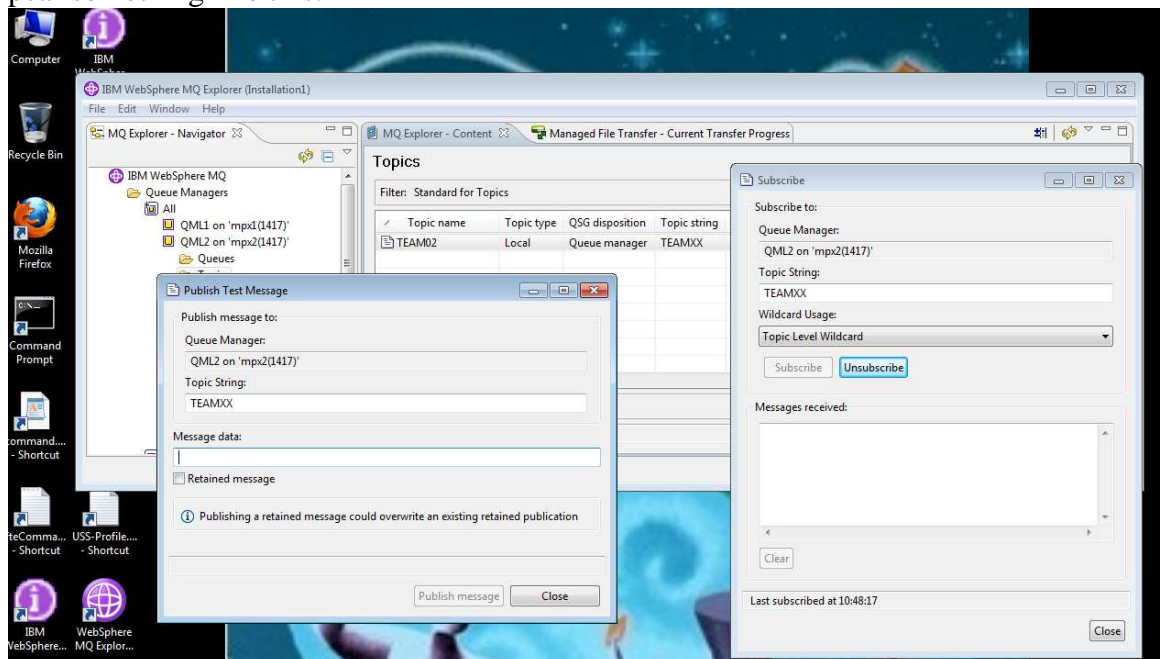


This panel subscribes you to the topic string 'TEAMXX'.

- 3) Right click on the topic name again and select 'Test Publication...'. Your full screen should look similar to the following:

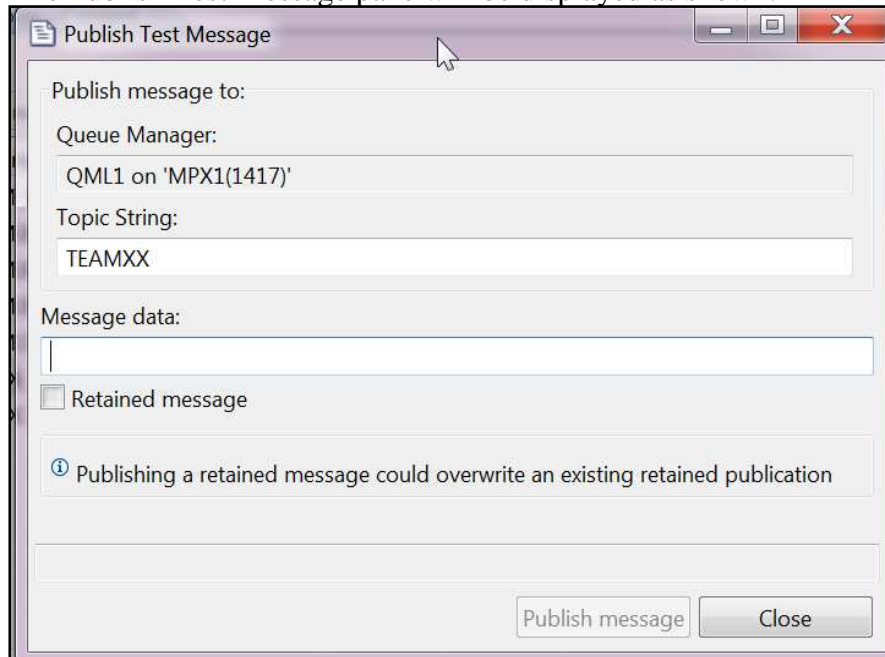


After selecting the 'Test Publication...' item, your full screen should now appear something like this:





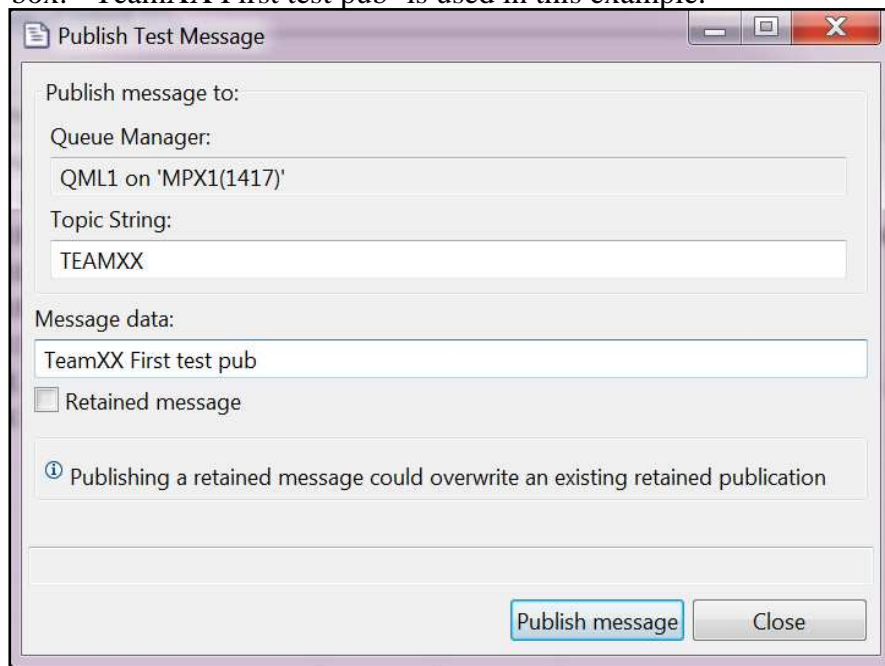
- 4) The Publish Test Message pane will be displayed as shown.



The screenshot shows a Windows-style dialog box titled "Publish Test Message". It contains the following fields and controls:

- Publish message to:**
  - Queue Manager:** A text field containing "QML1 on 'MPX1(1417)'"
  - Topic String:** A text field containing "TEAMXX"
- Message data:** A large empty text area for entering the message content.
- ☐ **Retained message**
- An information icon (i) followed by the text: "Publishing a retained message could overwrite an existing retained publication"
- At the bottom right, there are two buttons: "Publish message" and "Close".

- 5) Enter a message that you can easily identify as your own in the ‘message data’ box. ‘TeamXX First test pub’ is used in this example.



Publish Test Message

Publish message to:

Queue Manager:  
QML1 on 'MPX1(1417)'

Topic String:  
TEAMXX

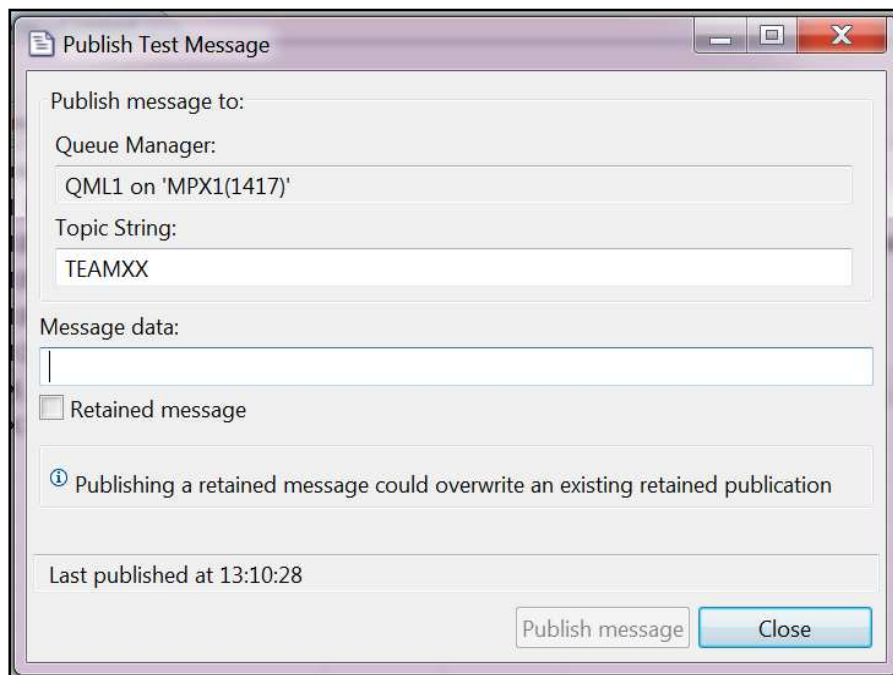
Message data:  
TeamXX First test pub

☐ Retained message

*Publishing a retained message could overwrite an existing retained publication*

Publish message Close

- 6) Click on ‘Publish Message’ button. Successful publication is indicated by the ‘Last published’ message, similar to what is shown below.



Publish Test Message

Publish message to:

Queue Manager:  
QML1 on 'MPX1(1417)'

Topic String:  
TEAMXX

Message data:  
|

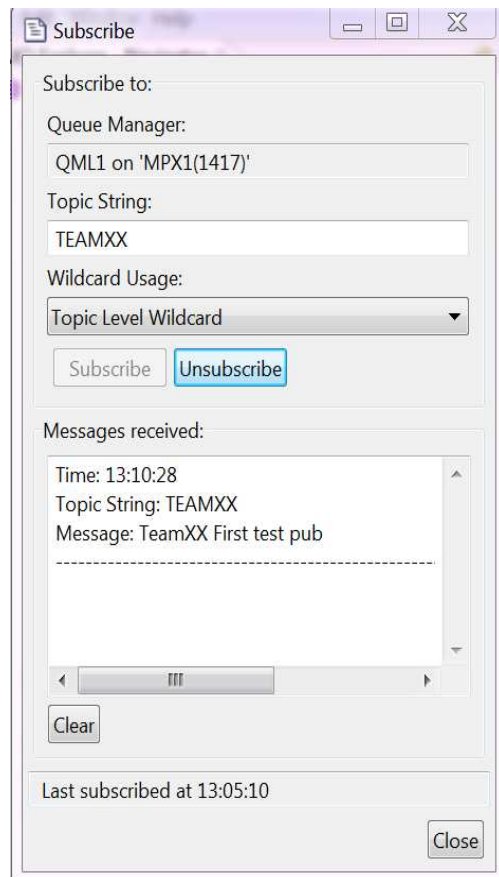
☐ Retained message

*Publishing a retained message could overwrite an existing retained publication*

Last published at 13:10:28

Publish message Close

- 7) In the subscribe panel, your newly published message should appear.



- 8) You can now close both the Subscribe and Publish test windows.

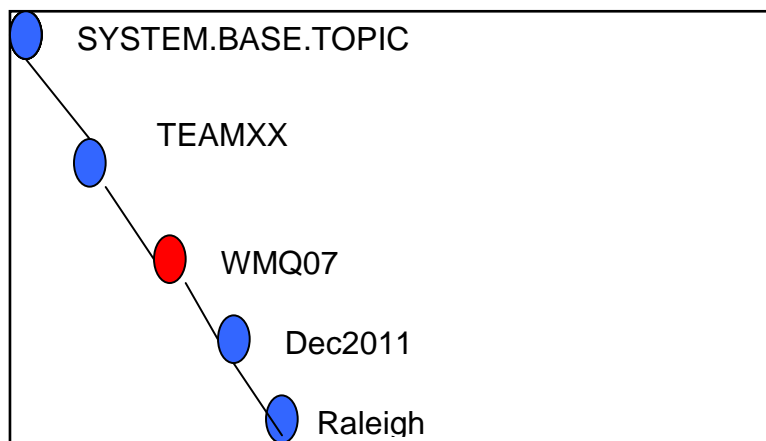
## Step III – Create Topic Object Tree

- 1) Using the steps described above, define the additional two topic objects for your team. Please change the 'XX' to your team name.

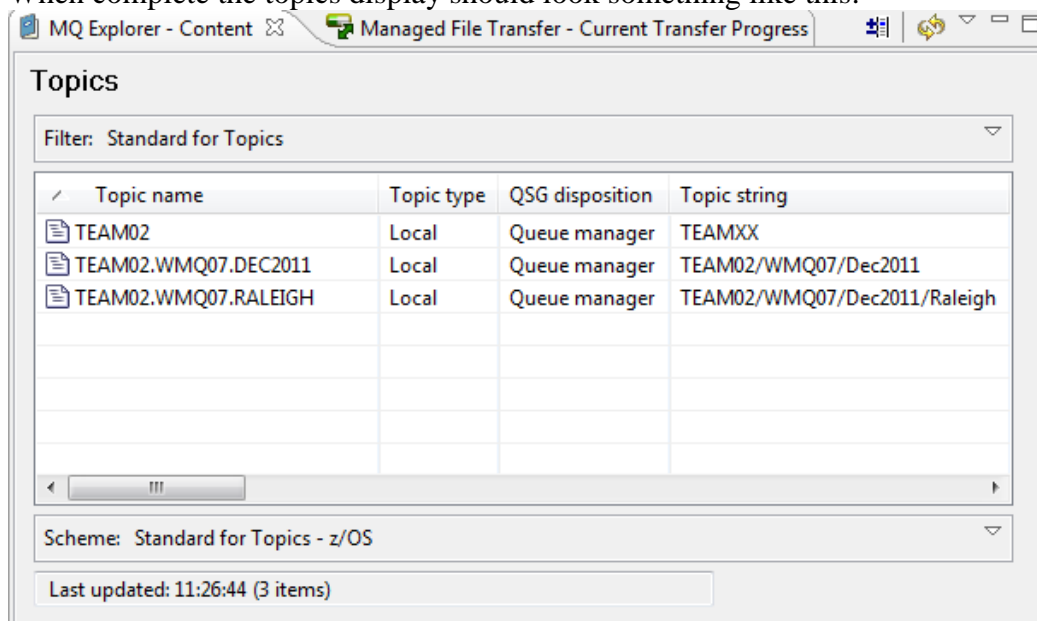
Topic Object Name	Topic Strings
TEAMXX.WMQ07.DEC2011	TEAMXX/WMQ07/Dec2011
TEAMXX.WMQ07.RALEIGH	TEAMXX/WMQ07/Dec2011/Raleigh

*Be careful with the UPPER and lower case characters. Set the same properties as you did above.*

This creates a topic tree with five nodes: the root, TEAMXX, WMQ07, Dec2011 and Raleigh.

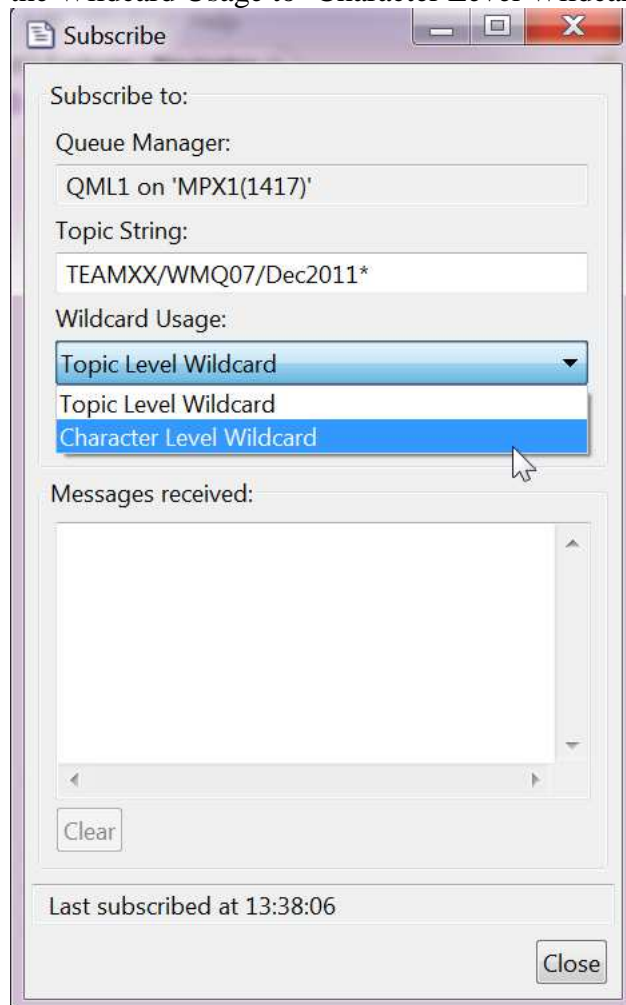


When complete the topics display should look something like this:



- 2) Right click on the TEAMXX.WMQ07.RALEIGH topic object and select 'Test Subscription'.

- 3) Set the Topic String with only 3 “nodes”, and the last node to an asterisk. Set the Wildcard Usage to ‘Character Level Wildcard’, as shown below.

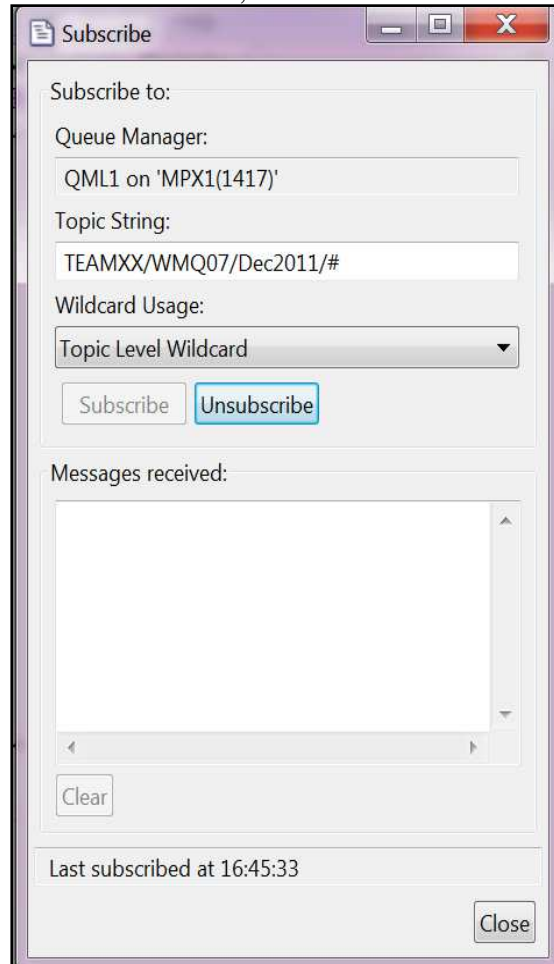


- 4) Click on ‘Unsubscribe’ button and then click on the ‘Subscribe’ button.

**TechTip:** When the test panel is started the subscription is made, you have to unsubscribe and re-subscribe to pick up your changes.

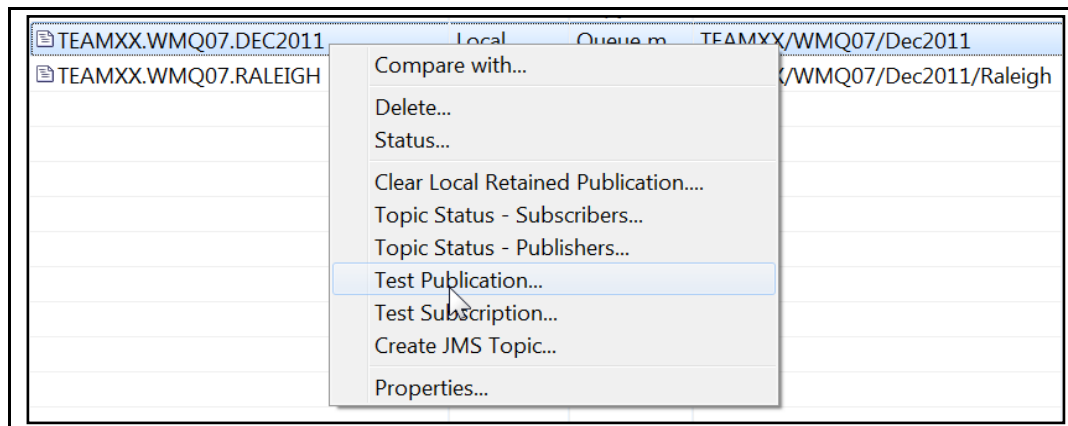
Move this Subscribe window over to the side of your screen so that you can access the MQ Explorer window again.

- 5) On the MQExplorer Topic display, right click again on the TEAMXX.WMQ07.RALEIGH topic object and select 'Test Subscription...'.
- 6) Set the last node to a pound sign and the Wildcard Usage to 'Topic Level Wildcard', as shown

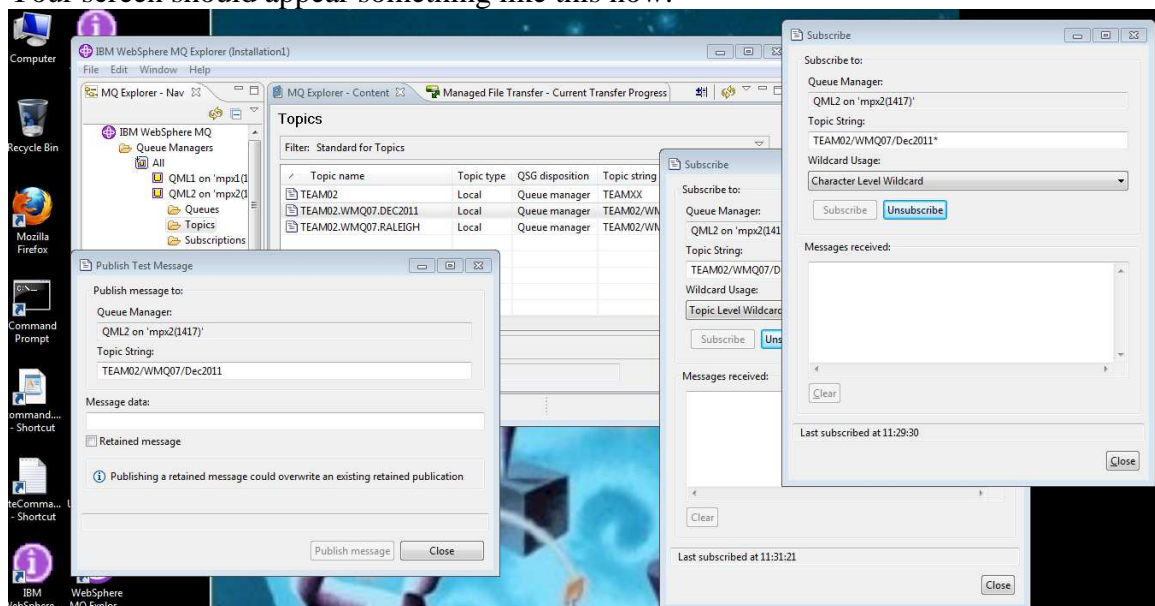


- 7) Click on 'Unsubscribe' button, and then click on the 'Subscribe' button. Once again, move this window to one side.

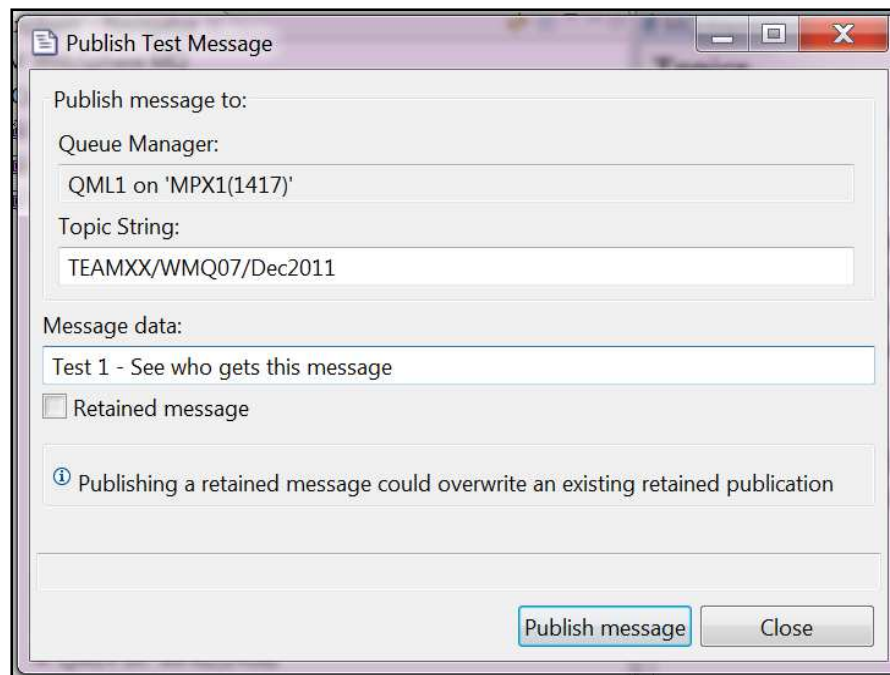
- 8) Now return again to the Topic display in the MQ Explorer, and right click on the topic TEAMXX.WMQ07.DEC2011, and select 'Test Publication...' as shown.



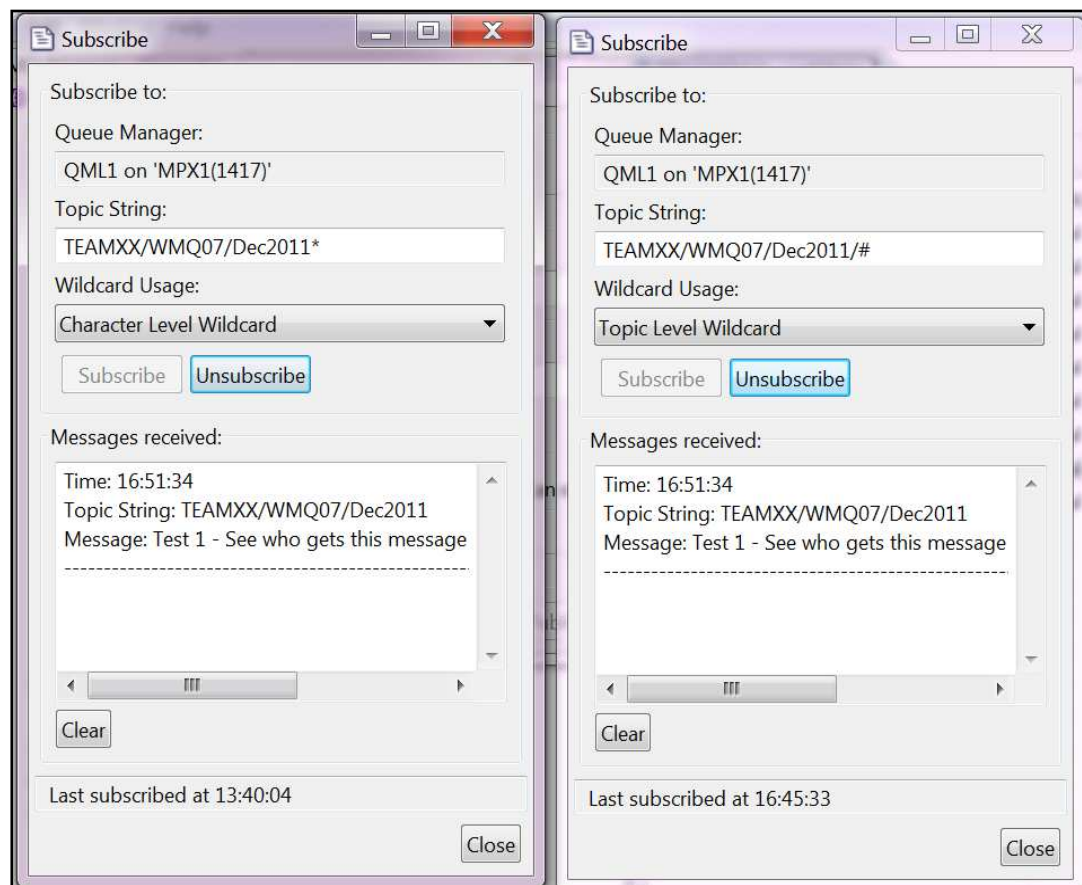
Your screen should appear something like this now:



- 9) In the Publish Test Message window, enter a publication message similar to what is shown below, and the press the 'Publish message' button.

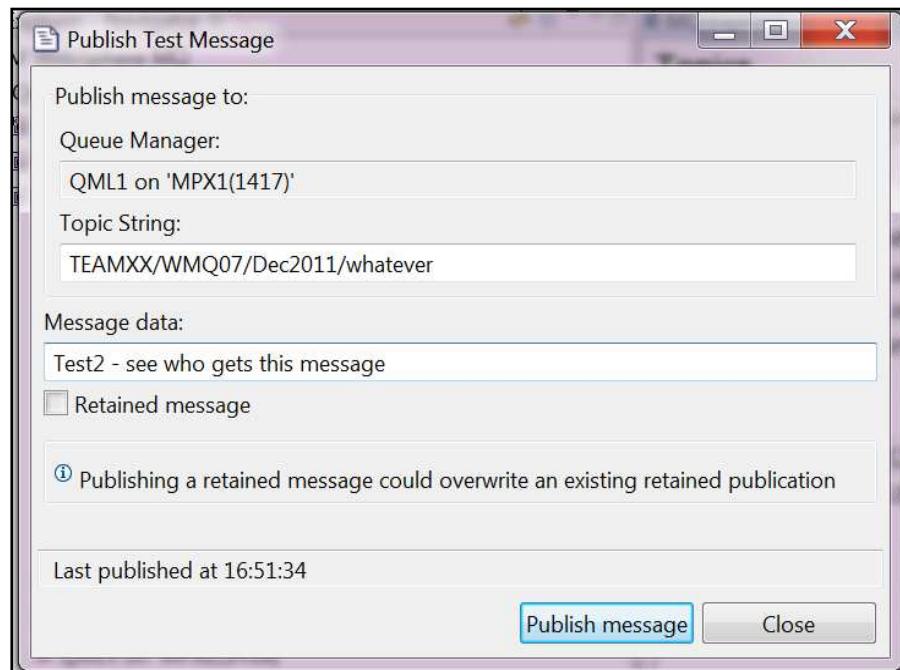


10) Both subscriptions should have received this message, as shown.





- 11) Still in the Publish Test Message window, you can extend the by adding an additional node to the tree in the publication pane as shown. Press 'Publish message'.



The screenshot shows a Windows-style dialog box titled "Publish Test Message". It contains several input fields and a checkbox. The "Queue Manager:" field is set to "QML1 on 'MPX1(1417)'" and the "Topic String:" field is set to "TEAMXX/WMQ07/Dec2011/whatever". The "Message data:" field contains the text "Test2 - see who gets this message". There is an unchecked checkbox labeled "Retained message". Below this is an informational message: "Publishing a retained message could overwrite an existing retained publication". At the bottom, it says "Last published at 16:51:34". There are two buttons at the bottom right: "Publish message" and "Close".

Publish Test Message

Publish message to:

Queue Manager:  
QML1 on 'MPX1(1417)'

Topic String:  
TEAMXX/WMQ07/Dec2011/whatever

Message data:  
Test2 - see who gets this message

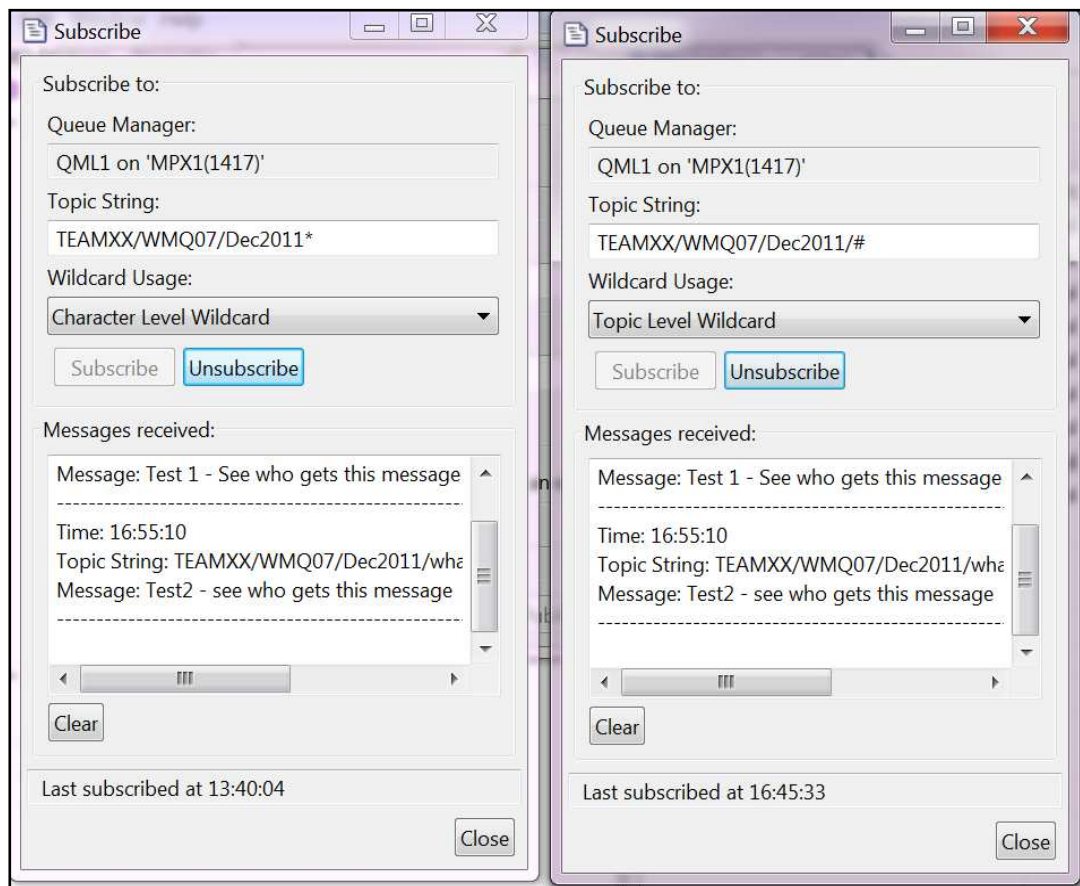
☐ Retained message

*i* Publishing a retained message could overwrite an existing retained publication

Last published at 16:51:34

Publish message Close

- 12) In this case, both subscriptions should once again get a copy of the publication as shown:

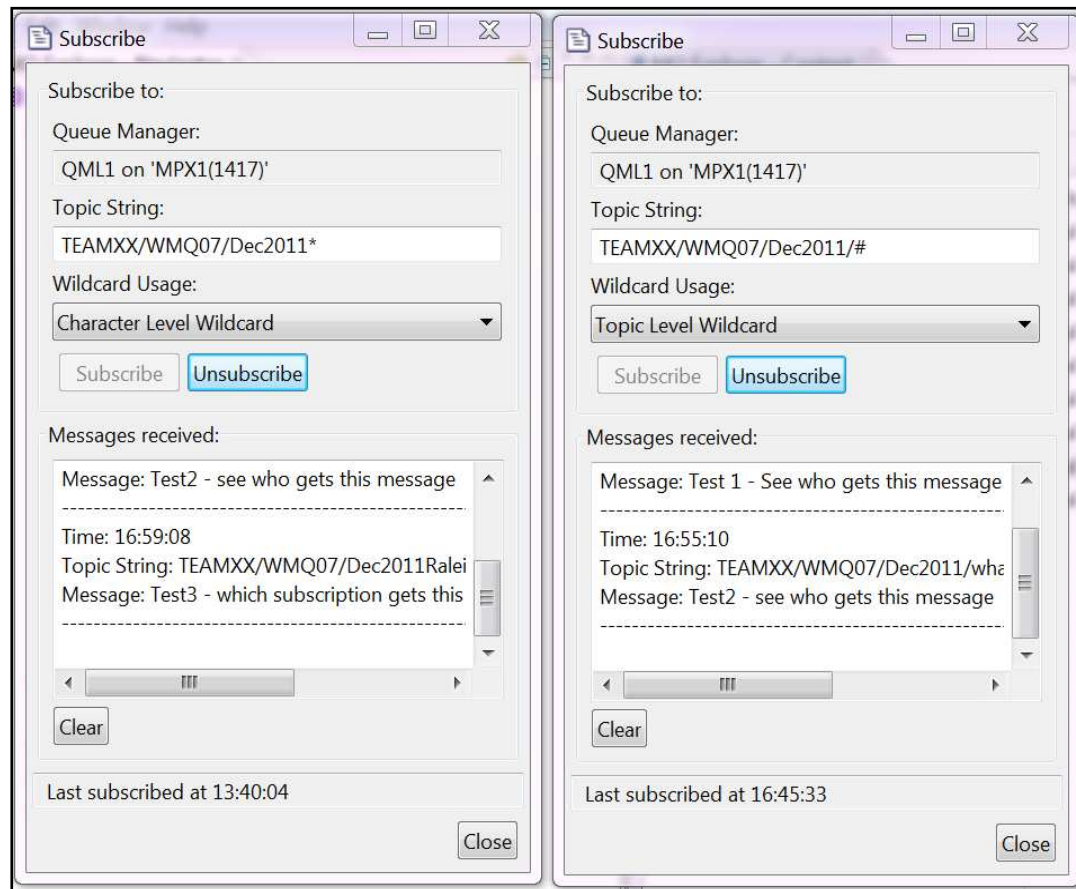


- 13) Enter a third publication as shown below, with the 3<sup>rd</sup> level containing “Dec2011Raleigh” (no slash). Press ‘Publish message’.

The screenshot shows a Windows-style dialog box titled "Publish Test Message". It contains the following fields and controls:

- Publish message to:**
  - Queue Manager:** QML1 on 'MPX1(1417)'
  - Topic String:** TEAMXX/WMQ07/Dec2011Raleigh
- Message data:**
  - Text input field: Test3 - which subscription gets this message
  - ☐ Retained message
  - Information icon (i) with text: Publishing a retained message could overwrite an existing retained publication
- Last published at:** 16:55:10
- Buttons:** "Publish message" (highlighted with a blue border) and "Close"

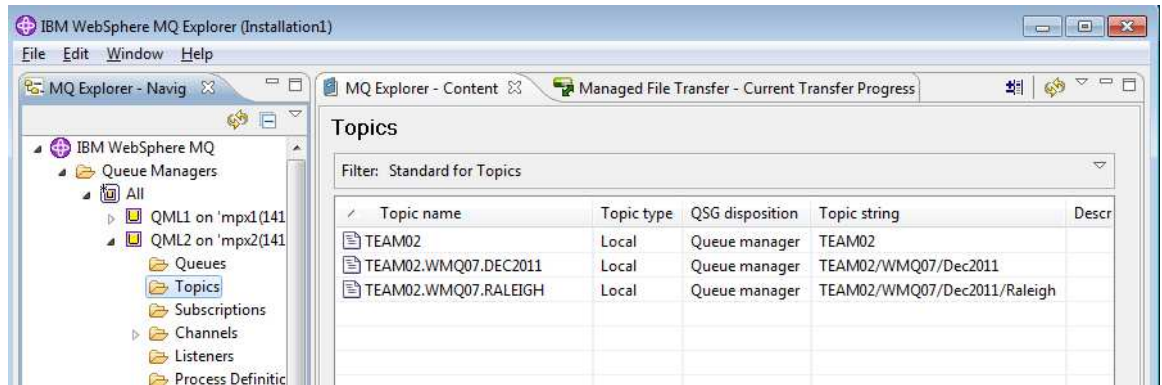
- 14) Only the Character level wildcard subscription should have received the publication as shown.



You have finished defining and testing a Topic Objects tree. You can Close the Publish and the Subscribe windows.

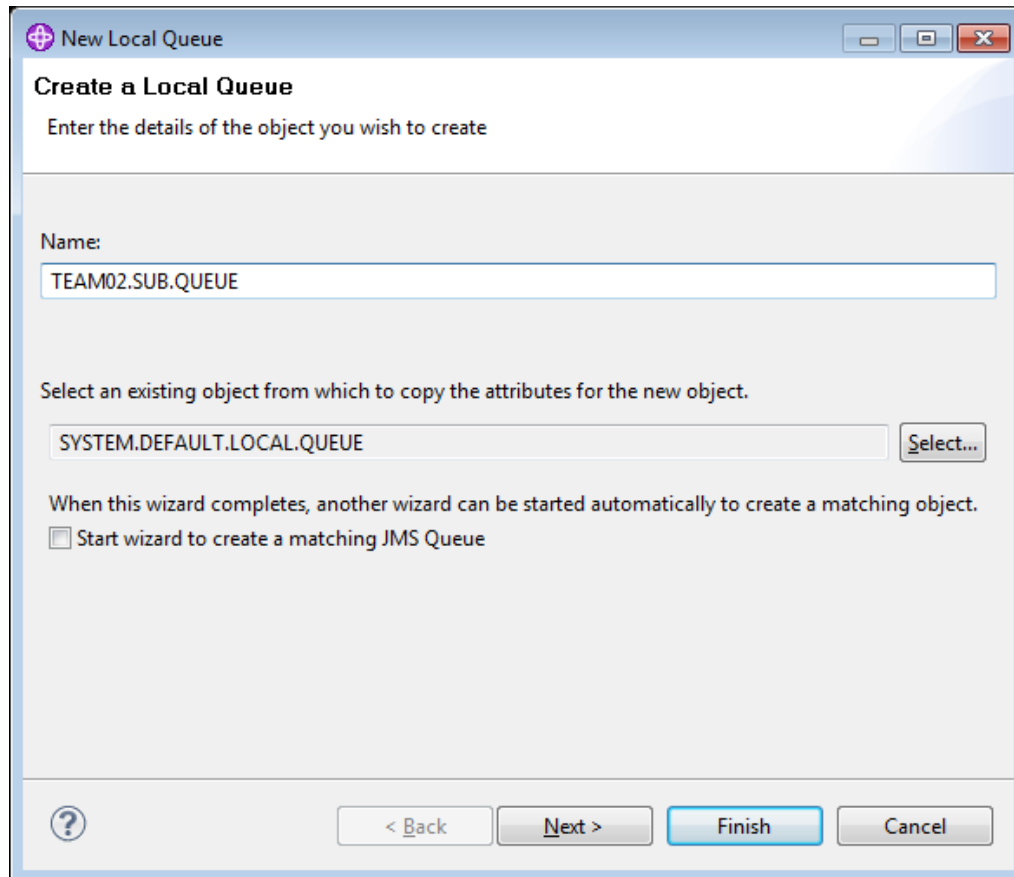
## Step IV – Reviewing your Topics

- 1) In a previous lab you should have defined a number of topics that are available thru the hierarchy. Yours should like something like those shown, using your team ID, and the nodes you selected.

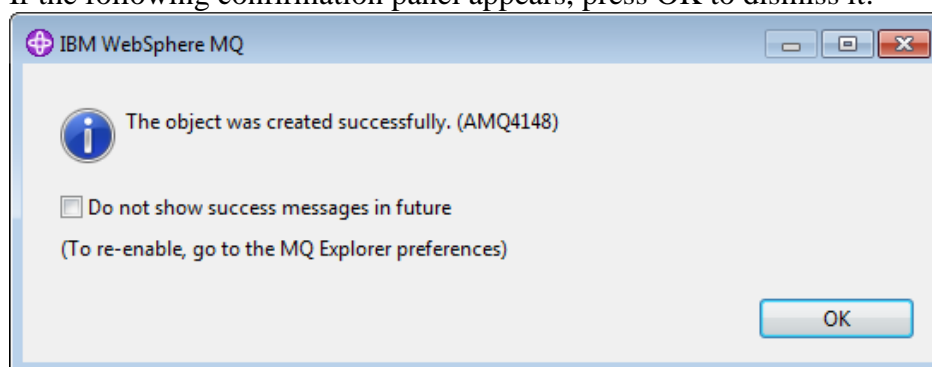


Note that the images seen in this lab were taken with TEAM02. During your lab, however, you should see your team number.

- 2) Use the MQ Explorer to define a local queue, TEAMXX.SUB.QUEUE, where the XX is your team ID. Please make sure the queue is private. To do this, right click on the 'Queues' folder and select 'New' then "Local Queue". When the 'Create a local queue' panel appears enter the queue name as shown, using your team ID for the first node in the queue name, then click on 'Finish'.



If the following confirmation panel appears, press OK to dismiss it:

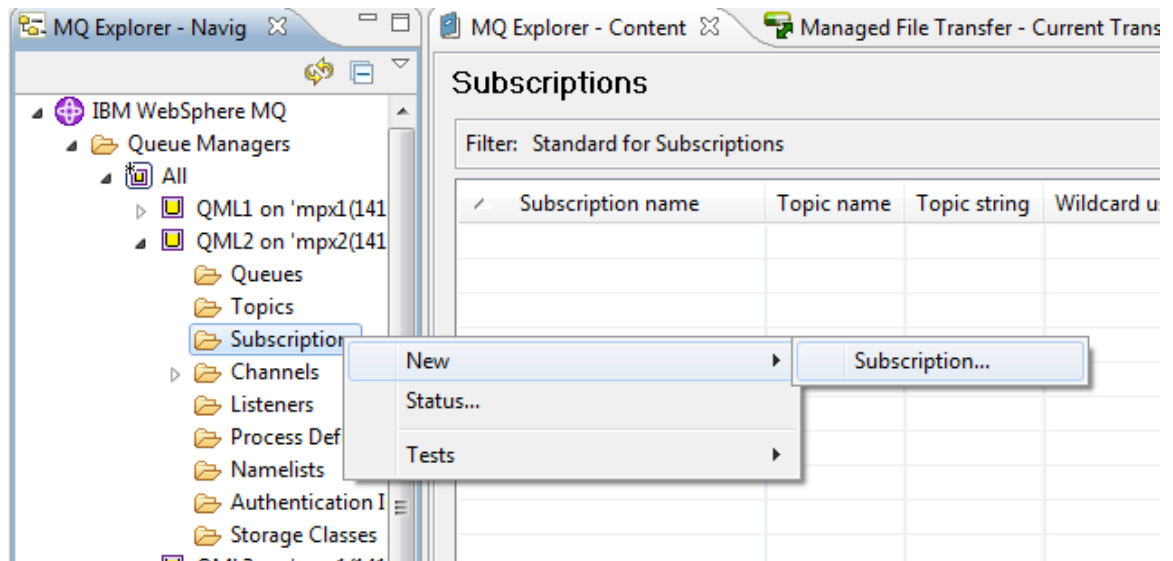


Note that you can check the "Do not show..." option to avoid this confirmation message for the future with the MQ Explorer in v7.1.

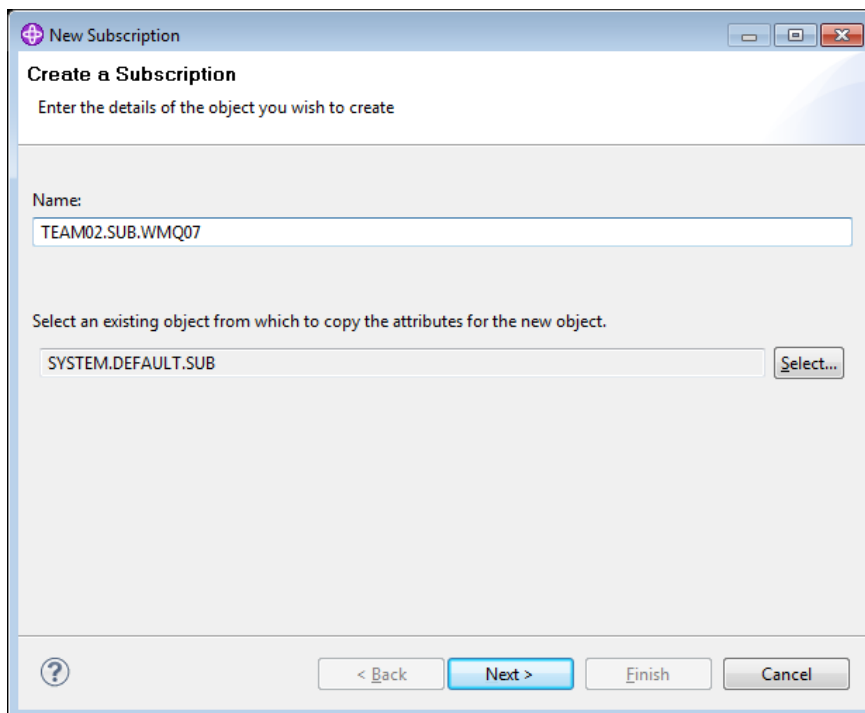
## Step V – Creating Subscriptions

In the earlier exercise, you worked with *temporary* subscriptions. You'll create a *permanent* subscription now.

- 1) To create an administered new subscription, right click on the 'Subscriptions' folder and then select 'New...' and 'Subscription...' as seen below:



- 2) Enter the name of your subscription; please use your team ID as the high level node. You can call the subscription anything you like, but please use your team ID as the first node in the name. In the sample it shows TEAMXX.SUB.WMQ07. After entering the name, click on the 'Next' button.



**New Subscription**

**Create a Subscription**

Enter the details of the object you wish to create

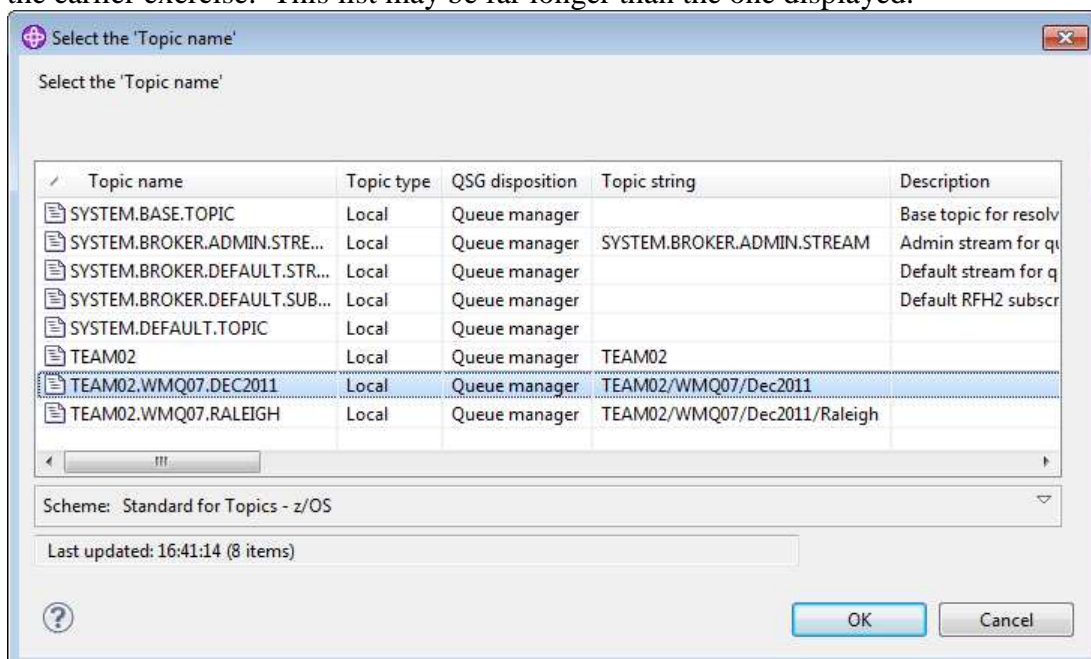
Name:  
TEAM02.SUB.WMQ07

Select an existing object from which to copy the attributes for the new object.

SYSTEM.DEFAULT.SUB Select...

? < Back Next > Finish Cancel

- 3) On the 'Change Properties' panel of the New Subscription wizard, the next action is to identify the topic. Click on the 'Select' button after the 'Topic name' box to get the list of available topics. You'll recognize the Topics created in the earlier exercise. This list may be far longer than the one displayed.



**Select the 'Topic name'**

Select the 'Topic name'

Topic name	Topic type	QSG disposition	Topic string	Description
SYSTEM.BASE.TOPIC	Local	Queue manager		Base topic for resolv
SYSTEM.BROKER.ADMIN.STRE...	Local	Queue manager	SYSTEM.BROKER.ADMIN.STREAM	Admin stream for qu
SYSTEM.BROKER.DEFAULT.STR...	Local	Queue manager		Default stream for q
SYSTEM.BROKER.DEFAULT.SUB...	Local	Queue manager		Default RFH2 subscr
SYSTEM.DEFAULT.TOPIC	Local	Queue manager		
TEAM02	Local	Queue manager	TEAM02	
TEAM02.WMQ07.DEC2011	Local	Queue manager	TEAM02/WMQ07/Dec2011	
TEAM02.WMQ07.RALEIGH	Local	Queue manager	TEAM02/WMQ07/Dec2011/Raleigh	

Scheme: Standard for Topics - z/OS

Last updated: 16:41:14 (8 items)

? OK Cancel

- 4) From the list, highlight the TEAMXX.WMQ07.DEC2011 topic and click on the 'OK' button.

If you wanted to further qualify the subscription, you could enter additional topic hierarchy information in the Topic string field. For this lab, however,



please leave that blank.

- 5) Enter your primary queue manager in the destination queue manager field and fill in the queue name with TEAMXX.SUB.QUEUE, where the XX is your team ID. Note that you may have to scroll down to locate that field.

**New Subscription**

**Change properties**  
Change the properties of the new Subscription

**General**

Subscription name: TEAM02.SUB.WMQ07

Topic

\* Topic name: TEAM02.WMQ07.DEC2011 Select...

Topic string:

Wildcard usage: Topic level wildcard

Scope: All

Destination

Destination class: Provided

Destination queue manager: QML2

Destination name: \* TEAM02.SUB.QUEUE

Correlation identifier:

00000 00 00 00 00 00 00 00 00--00  
00010 00 00 00 00 00 00 00 00--

Edit...

< Back Next > Finish Cancel

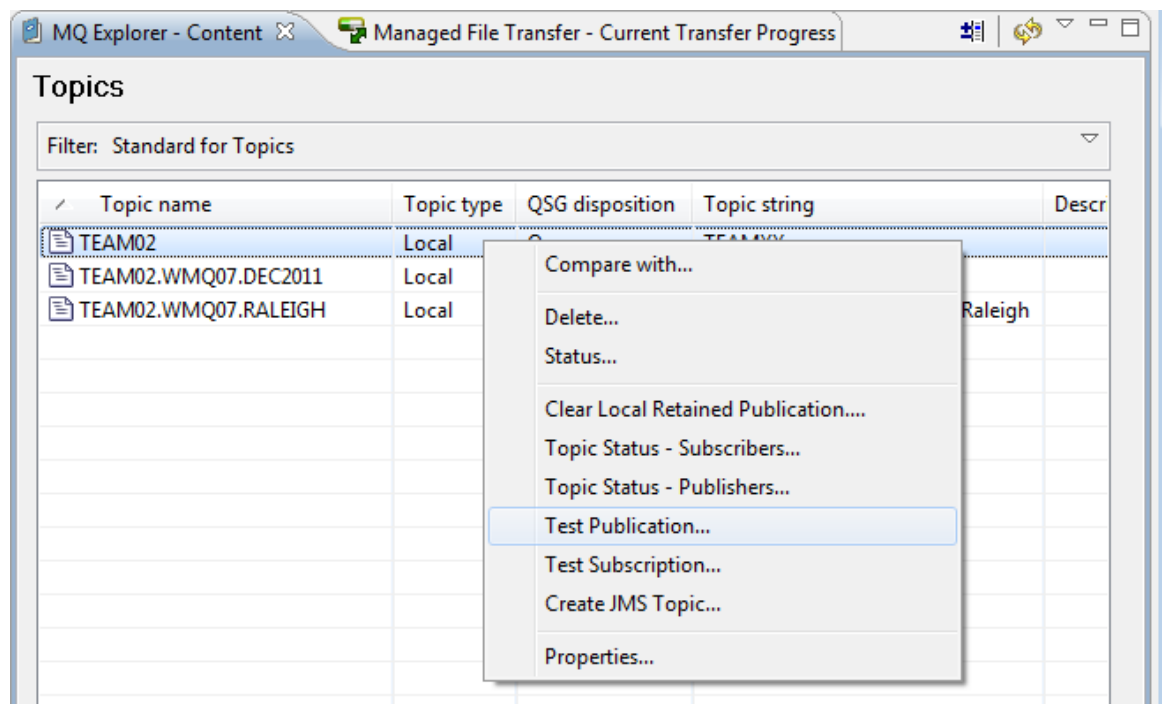
- 6) Press 'Finish' to complete the definition of this Subscription. The list of subscriptions should now include your subscription as seen below:

**Subscriptions**

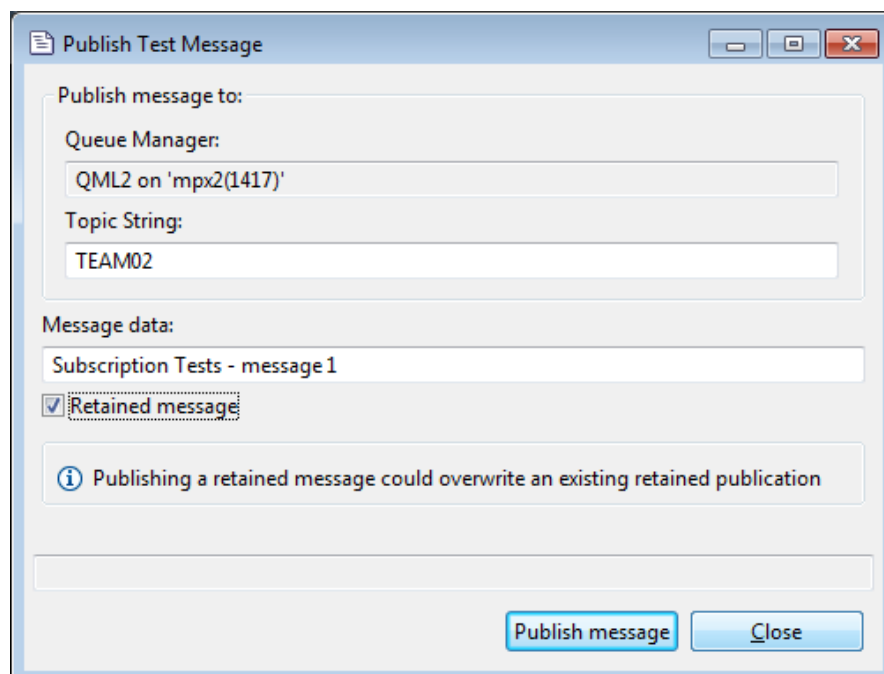
Filter: Standard for Subscriptions

Subscription name	Topic name	Topic string	Wildcard usage
TEAM02.SUB.WMQ07	TEAM02.WMQ07.DEC2011	TEAM02/WMQ07/Dec2011	Topic level wildcard

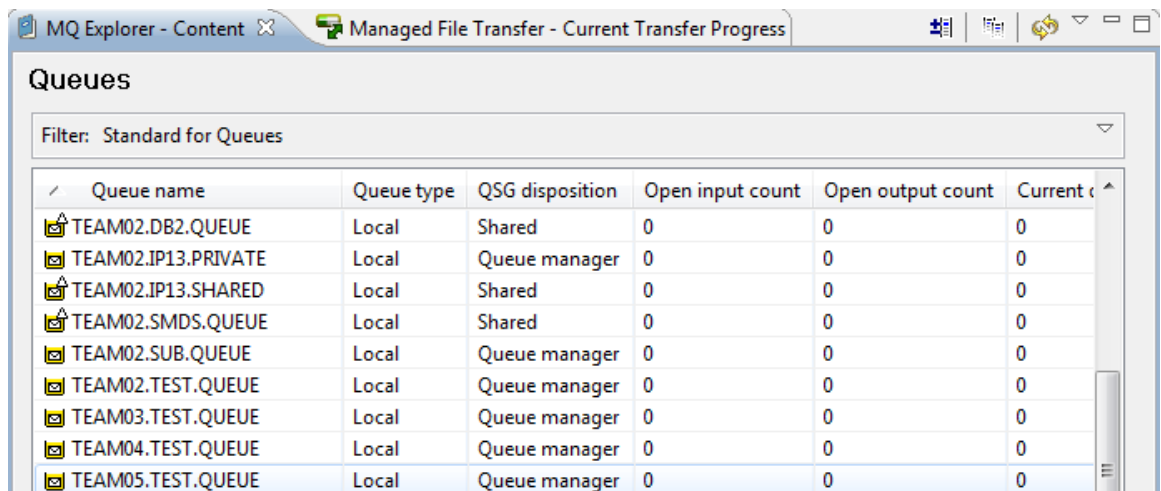
- 7) To test your new subscriptions, select the 'Topics' folder. In the list of topics, right click on the topic that just contains your team name, in this example the 'TEAMXX' topic name, and select 'Test Publication...'.



- 8) Enter a message and click the 'Retained publication' message as shown. Click on 'Publish message' and then click on 'Close'.



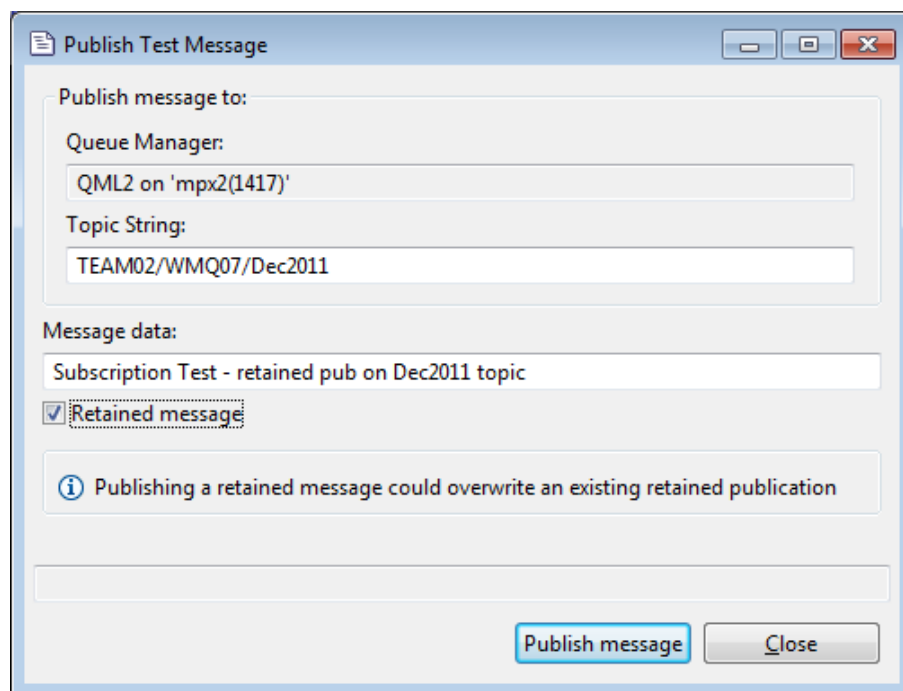
- 9) Did the message appear in your subscription queue?



Queue name	Queue type	QSG disposition	Open input count	Open output count	Current c
TEAM02.DB2.QUEUE	Local	Shared	0	0	0
TEAM02.IP13.PRIVATE	Local	Queue manager	0	0	0
TEAM02.IP13.SHARED	Local	Shared	0	0	0
TEAM02.SMDS.QUEUE	Local	Shared	0	0	0
TEAM02.SUB.QUEUE	Local	Queue manager	0	0	0
TEAM02.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM03.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM04.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM05.TEST.QUEUE	Local	Queue manager	0	0	0

10) Again, select the 'Topics' folder. In the list of topics, right click on the 'TEAMXX.WMQ07.DEC2011' topic where the XX is your team number and select 'Test Publication'.

11) Enter a message and click the 'Retained publication' message as shown. Click on 'Publish message'. *Do not close the Publish Test Message window!*



Publish Test Message

Publish message to:

Queue Manager:  
QML2 on 'mpx2(1417)'

Topic String:  
TEAM02/WMQ07/Dec2011

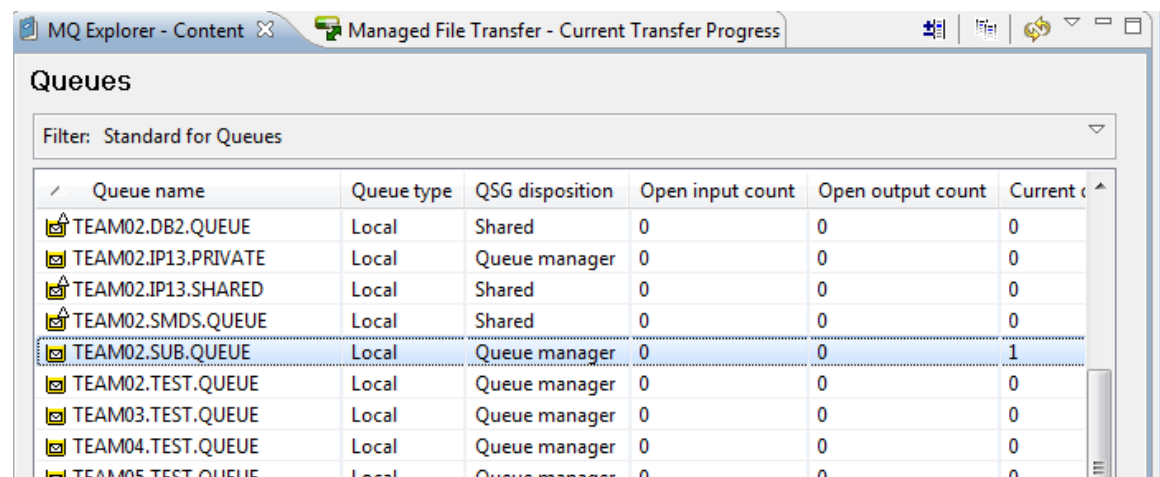
Message data:  
Subscription Test - retained pub on Dec2011 topic

☒ Retained message

*Publishing a retained message could overwrite an existing retained publication*

Publish message Close

12) Leaving the Publish Test Message window open, move to the main MQ Explorer window and examine your subscription queue; you should have the test message in the queue. *Be sure that you **do not close the Publish Test Message window!** Leave it open... you'll use it again in a few minutes.*



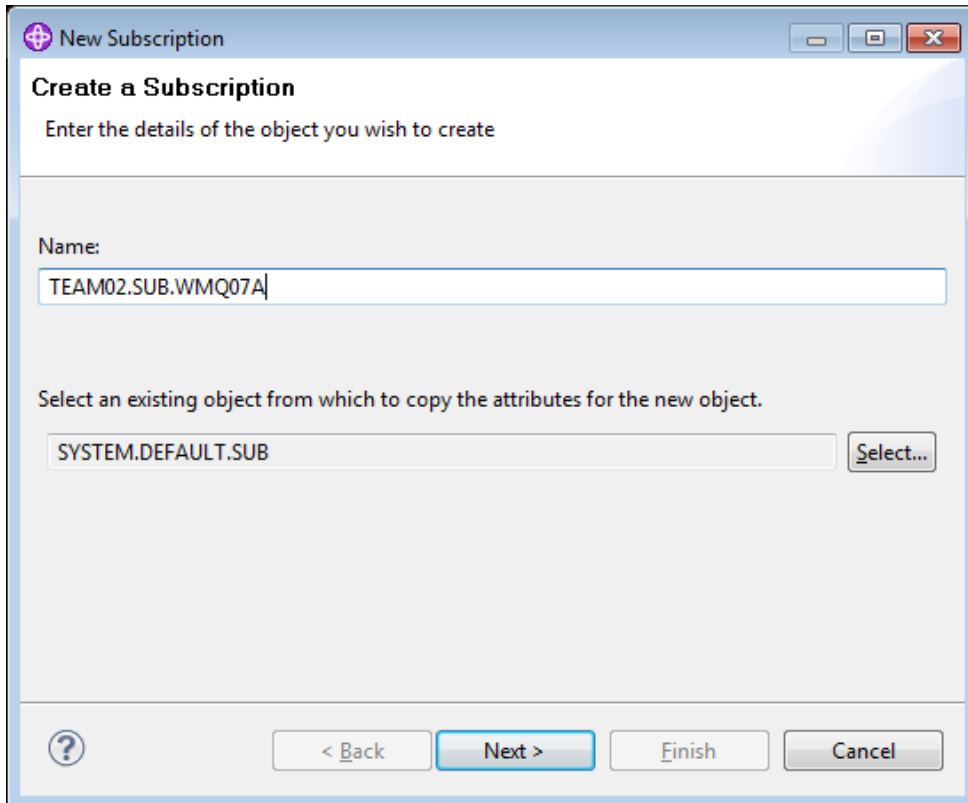
MQ Explorer - Content   Managed File Transfer - Current Transfer Progress

**Queues**

Filter: Standard for Queues

Queue name	Queue type	QSG disposition	Open input count	Open output count	Current count
TEAM02.DB2.QUEUE	Local	Shared	0	0	0
TEAM02.IP13.PRIVATE	Local	Queue manager	0	0	0
TEAM02.IP13.SHARED	Local	Shared	0	0	0
TEAM02.SMDS.QUEUE	Local	Shared	0	0	0
TEAM02.SUB.QUEUE	Local	Queue manager	0	0	1
TEAM02.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM03.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM04.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM05.TEST.QUEUE	Local	Queue manager	0	0	0

- 13) Using the same procedure as above, add a new subscription, this time using TEAMXX.SUB.WMQ07A as the name where the 'XX' is your team ID. Click on the 'Next' button.



The image shows a 'New Subscription' dialog box with the title 'Create a Subscription'. It prompts the user to 'Enter the details of the object you wish to create'. There is a text field for 'Name:' containing 'TEAM02.SUB.WMQ07A'. Below this, it says 'Select an existing object from which to copy the attributes for the new object.' and shows a text field with 'SYSTEM.DEFAULT.SUB' and a 'Select...' button. At the bottom, there are four buttons: a help icon (?), '< Back', 'Next >', 'Finish', and 'Cancel'.

- 14) Use the Select button from the next panel, and select TEAMXX.WMQ07.RALEIGH, where XX is your team ID, as the topic name. Set the queue manager name and destination name exactly as you did for the prior subscription. Then click on the 'Finish' button:

**New Subscription**

**Change properties**

Change the properties of the new Subscription

**General**

Subscription name: TEAM02.SUB.WMQ07A

Topic

\* Topic name: TEAM02.WMQ07.RALEIGH Select...

Topic string:

Wildcard usage: Topic level wildcard

Scope: All

Destination

Destination class: Provided

Destination queue manager: QML2

\* Destination name: TEAM02.SUB.QUEUE

Correlation identifier:

00000 00 00 00 00 00 00 00 00 00--00 00 00  
00010 00 00 00 00 00 00 00 00 00--

Edit...

Properties: Message properties

? < Back Next > Finish Cancel

- 15) Now create an additional (3<sup>rd</sup>) subscription called TEAMXX.SUB.WMQ07B, where the 'XX' is your team ID. This time, however, do not Select a Topic name; manually enter the topic string as TEAMXX/WMQ07/#. Use the same destination queue manager and queue that has been used previously. Then click on 'Finish'.

**New Subscription**

**Change properties**  
Change the properties of the new Subscription

**General**

Subscription name: TEAMXX.SUB.WMQ07B

Topic

Topic name:

Topic string: TEAM02/WMQ07/#

Wildcard usage: Topic level wildcard

Scope: All

Destination

Destination class: Provided

Destination queue manager: QML2

Destination name: \* TEAM02.SUB.QUEUE

Correlation identifier: 00000 00 00 00 00 00 00 00 00--  
00010 00 00 00 00 00 00 00 00--

- 16) You should see a list similar to the one that is illustrated below:

**Subscriptions**

Filter: Standard for Subscriptions

Subscription name	Topic name	Topic string	Wildcard usage
TEAM02.SUB.WMQ07	TEAM02.WMQ07.DEC2011	TEAM02/WMQ07/Dec2011	Topic level wildc
TEAM02.SUB.WMQ07A	TEAM02.WMQ07.RALEIGH	TEAM02/WMQ07/Dec2011/Raleigh	Topic level wildc
TEAM02.SUB.WMQ07B		TEAM02/WMQ07/#	Topic level wildc

- 17) Switch back to the queues folder. How many messages are in the subscription queue now? Please note that you may need to refresh the display to see any changes.

- 18) Why did the number of messages increase?
- 19) Now close your Publish Test Message window, and click again on the Topics folder and right click on TEAMXX.WMQ07.RALEIGH to open a new Publish Test Message. What happens to your queue depth when you submit a test publication to the TEAMXX.WMQ07.RALEIGH topic?

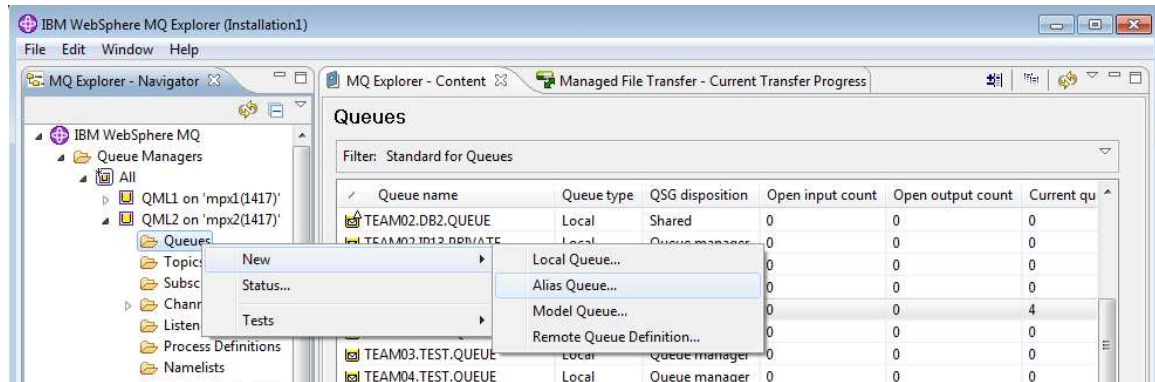
You may now press 'Close' on the Publish Test Message window.



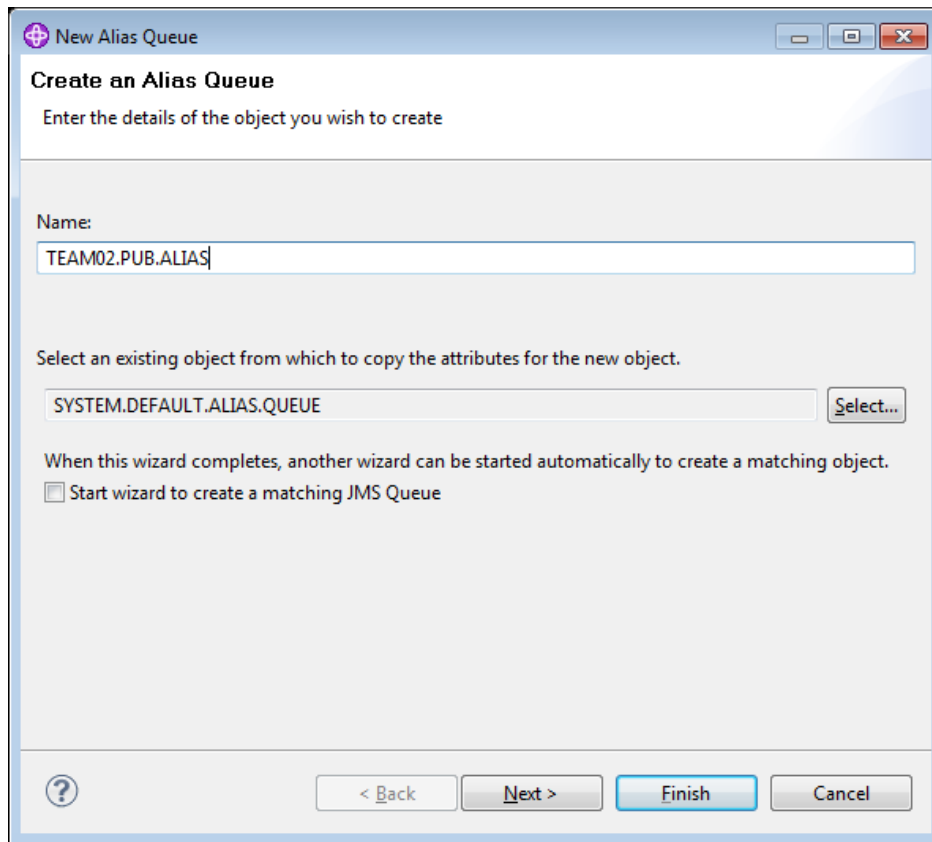
## Step VI – Using a Queue Alias

In this session we will create a queue alias to use as a publication point.

- 6) To create the alias, on the MQExplorer queue folder for your primary queue manager, right click on the Queue folder, select 'New' and 'Alias Queue...'.



- 7) Enter the alias name as TEAMXX.PUB.ALIAS, where XX is your team number, and click on 'Next'.



The screenshot shows a 'New Alias Queue' wizard window. The title bar reads 'New Alias Queue'. The main heading is 'Create an Alias Queue' with the instruction 'Enter the details of the object you wish to create'. The 'Name:' field contains 'TEAM02.PUB.ALIAS'. Below this, the instruction 'Select an existing object from which to copy the attributes for the new object.' is followed by a text box containing 'SYSTEM.DEFAULT.ALIAS.QUEUE' and a 'Select...' button. At the bottom, there is a checkbox labeled 'Start wizard to create a matching JMS Queue' which is currently unchecked. The bottom navigation bar includes a help icon, '< Back', 'Next >', 'Finish', and 'Cancel' buttons.

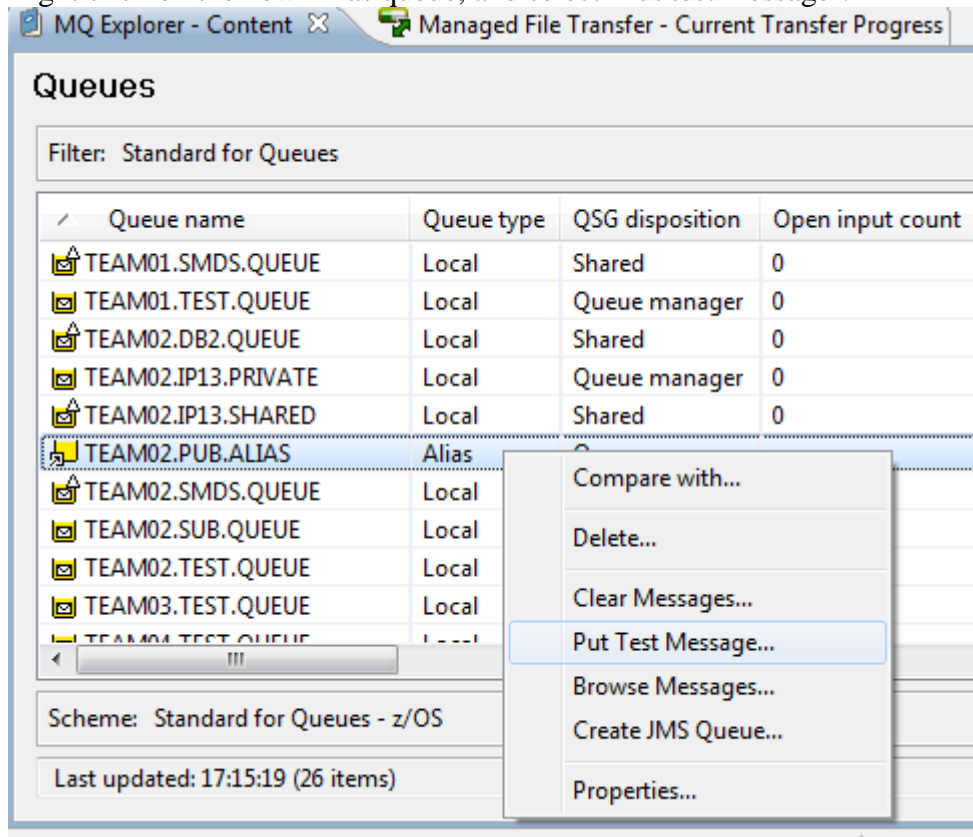
- 8) On the 'Change properties' panel enter 'TEAMXX.WMQ07.DEC2011' for the Base object, where the XX is your team number, and select 'Topic' for the Base type. Click on 'Finish'.

The screenshot shows the 'New Alias Queue' dialog box with the 'Change properties' panel active. The 'General' tab is selected in the left sidebar. The 'General' section contains the following fields:

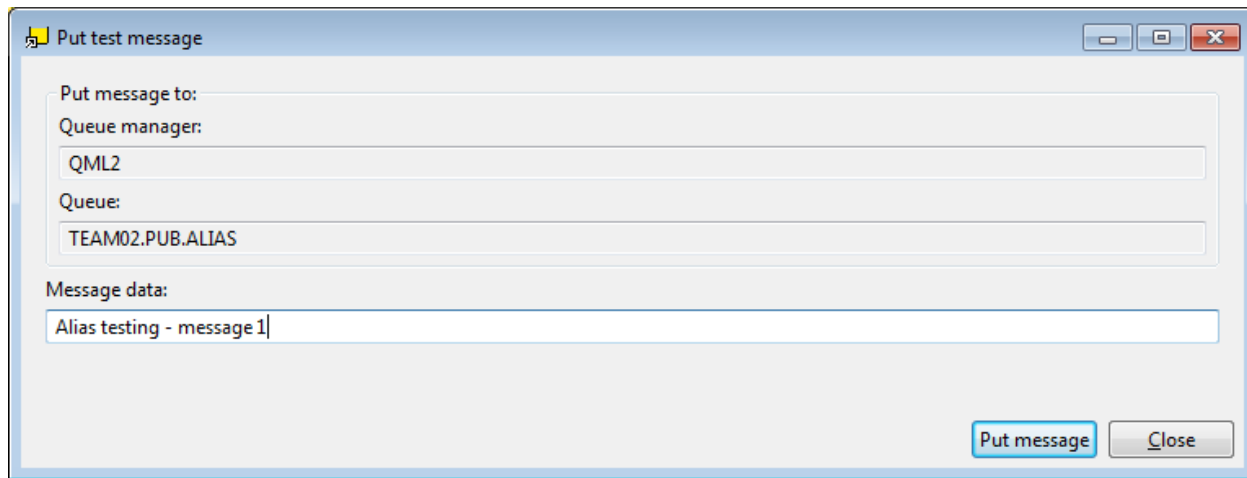
- Queue name: TEAM02.PUB.ALIAS
- Queue type: Alias
- QSG disposition: Queue manager
- Description: (empty)
- Put messages: Allowed
- Get messages: Allowed
- Default priority: 0
- Default persistence: Not persistent
- Base object: TEAM02.WMQ07.DEC2011 (highlighted with a red rectangle)
- Base type: Topic (highlighted with a red rectangle)

At the bottom of the dialog, there are four buttons: '< Back', 'Next >', 'Finish' (highlighted with a blue border), and 'Cancel'.

- 9) Right click on the new Alias queue, and select 'Put test message':



- 10) Enter a message you can easily identify, and click on 'Put Message'. Click on 'Close' afterwards to dismiss the Put test message dialog.

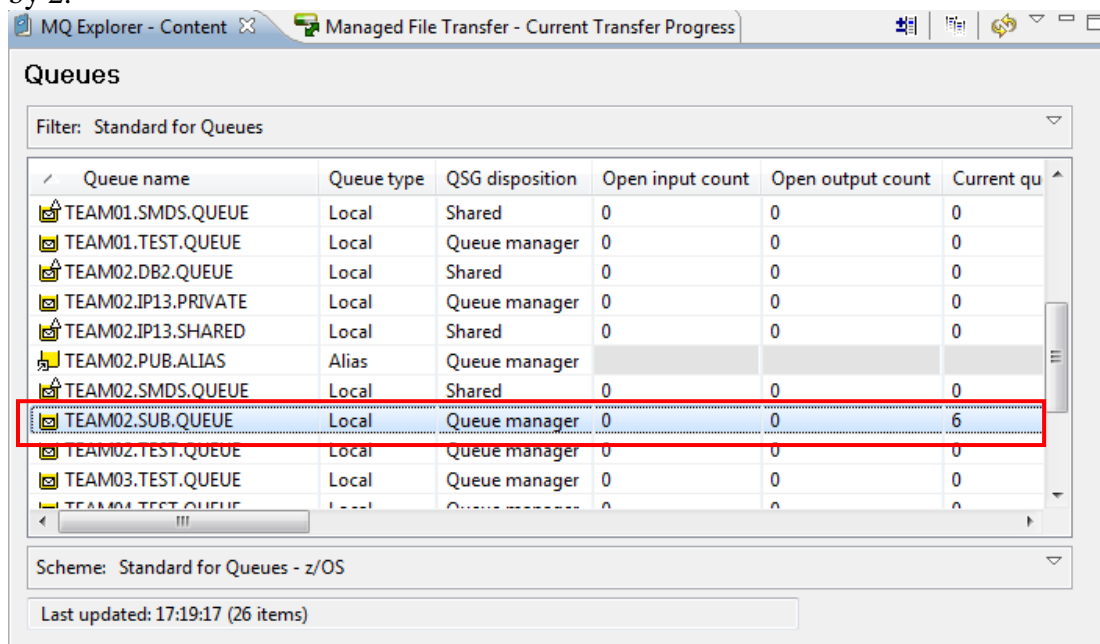


A screenshot of a 'Put test message' dialog box. The dialog has a title bar with a yellow icon and standard window controls. It contains three input fields: 'Put message to:' with 'QML2' entered, 'Queue manager:' with 'TEAM02.PUB.ALIAS' entered, and 'Message data:' with 'Alias testing - message 1' entered. At the bottom right, there are two buttons: 'Put message' and 'Close'.

- 11) Refresh the panel by clicking on the refresh icon in the upper right of the panel.



- 12) Your queue depth on the TEAMXX.SUB.QUEUE should have been increased by 2.



MQ Explorer - Content Managed File Transfer - Current Transfer Progress

Queues

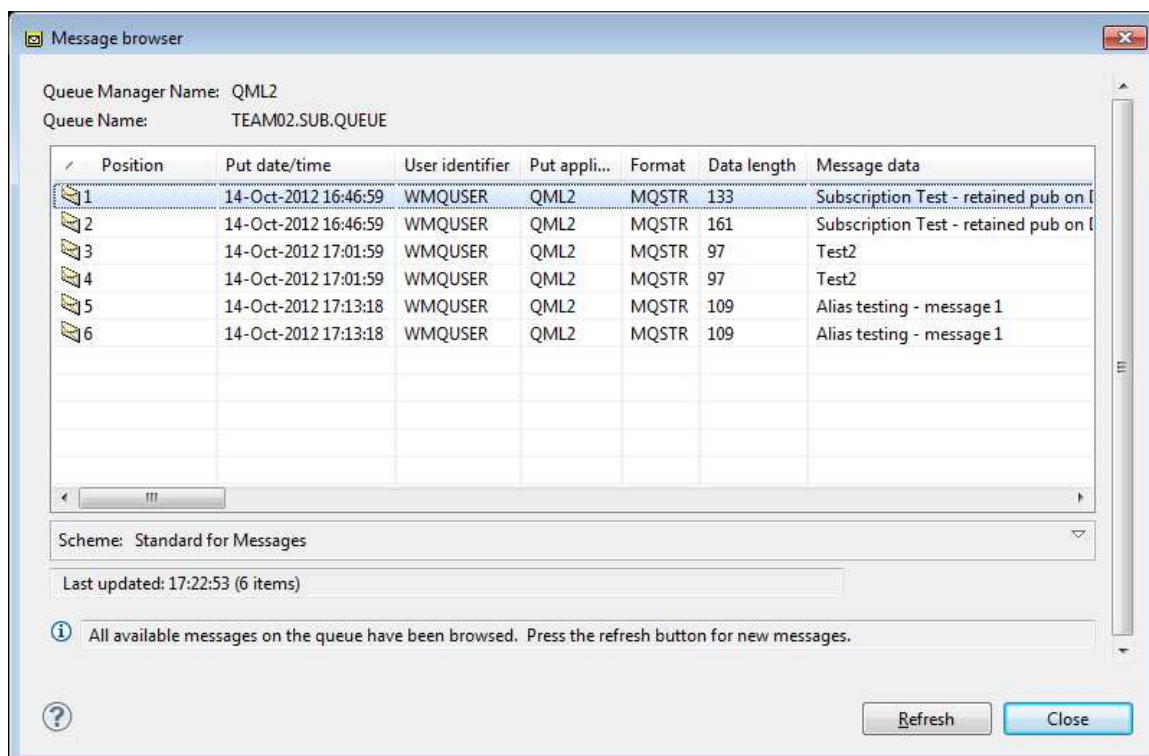
Filter: Standard for Queues

Queue name	Queue type	QSG disposition	Open input count	Open output count	Current qu
TEAM01.SMDS.QUEUE	Local	Shared	0	0	0
TEAM01.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM02.DB2.QUEUE	Local	Shared	0	0	0
TEAM02.IP13.PRIVATE	Local	Queue manager	0	0	0
TEAM02.IP13.SHARED	Local	Shared	0	0	0
TEAM02.PUB.ALIAS	Alias	Queue manager			
TEAM02.SMDS.QUEUE	Local	Shared	0	0	0
TEAM02.SUB.QUEUE	Local	Queue manager	0	0	6
TEAM02.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM03.TEST.QUEUE	Local	Queue manager	0	0	0
TEAM04.TEST.QUEUE	Local	Queue manager	0	0	0

Scheme: Standard for Queues - z/OS

Last updated: 17:19:17 (26 items)

Try Browsing the queue by clicking right on TEAMXX.SUB.QUEUE and select 'Browse messages...'. You should see something similar to the following:



Message browser

Queue Manager Name: QML2

Queue Name: TEAM02.SUB.QUEUE

Position	Put date/time	User identifier	Put appli...	Format	Data length	Message data
1	14-Oct-2012 16:46:59	WMQUSER	QML2	MQSTR	133	Subscription Test - retained pub on l
2	14-Oct-2012 16:46:59	WMQUSER	QML2	MQSTR	161	Subscription Test - retained pub on l
3	14-Oct-2012 17:01:59	WMQUSER	QML2	MQSTR	97	Test2
4	14-Oct-2012 17:01:59	WMQUSER	QML2	MQSTR	97	Test2
5	14-Oct-2012 17:13:18	WMQUSER	QML2	MQSTR	109	Alias testing - message 1
6	14-Oct-2012 17:13:18	WMQUSER	QML2	MQSTR	109	Alias testing - message 1

Scheme: Standard for Messages

Last updated: 17:22:53 (6 items)

All available messages on the queue have been browsed. Press the refresh button for new messages.

Refresh Close

- 13) Do you see why a single MQPUT of a message caused TWO messages to be created? Click on 'Close' to end the browse.

- 14) Now create a new queue. Right click on the 'Queues' folder and select 'New' then "Local Queue'. When the 'Create a local queue' panel appears enter the queue name TEAMXX.SUB.COPYQUEUE, where 'XX' is your team number, as shown, then click on 'Finish'.

**New Local Queue**

**Create a Local Queue**  
Enter the details of the object you wish to create

Name:  
TEAM02.SUB.COPYQUEUE

Select an existing object from which to copy the attributes for the new object.  
SYSTEM.DEFAULT.LOCAL.QUEUE Select...

When this wizard completes, another wizard can be started automatically to create a matching object.  
☐ Start wizard to create a matching JMS Queue

? < Back Next > Finish Cancel

- 15) Now create a new subscription by right clicking on the 'Subscriptions' folder, and then select 'New...' and 'Subscription...' and fill in the name TEAMXX.SUB.WMQ07C (where "XX" is your team number) for the subscription name and press the 'Next' button.
- 16) On the New Subscription panel, click on 'Select...' and choose the 'TEAMXX.WMQ07.DEC2011' line and press 'OK' to return to the New Subscription panel.
- 17) Now fill in the Destination queue manager name with your primary queue manager as before, and type the name of the local queue TEAMXX.SUB.COPYQUEUE that you just created above. Your panel should look similar to the one below:

**Change properties**  
Change the properties of the new Subscription

**General**

Subscription name: TEAM02.SUB.WMQ07C

Topic

\* Topic name: TEAM02.WMQ07.DEC2011 Select...

Topic string:

Wildcard usage: Topic level wildcard

Scope: All

Destination

Destination class: Provided

Destination queue manager: QML2

Destination name: \* TEAM02.SUB.COPYQUEUE

Correlation identifier:

00000	00	00	00	00	00	00	00	00	00--
00010	00	00	00	00	00	00	00	00	00--

Edit...

Properties: Message properties

< Back Next > Finish Cancel

Press 'Finish' when you've filled it in.

18) Your Subscription list should like similar to the following list now:

MQ Explorer - Content    Managed File Transfer - Current Transfer Progress

## Subscriptions

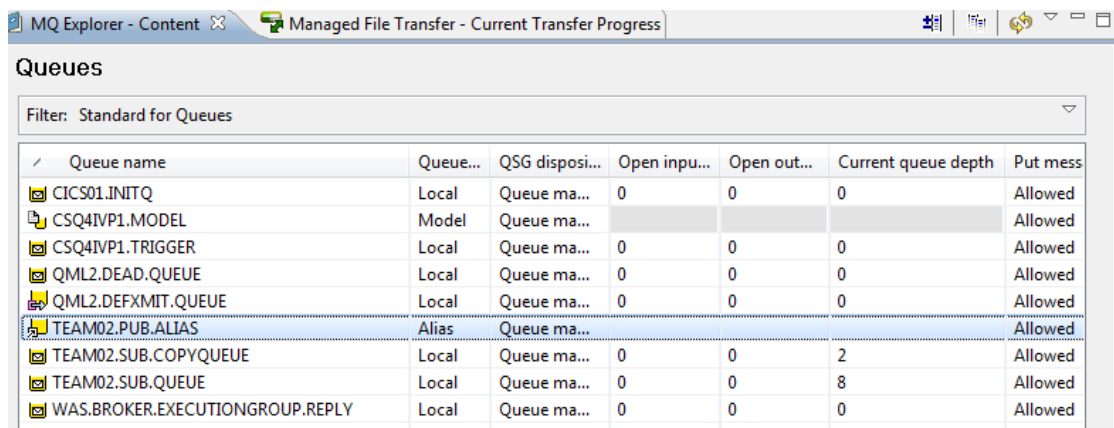
Filter: Standard for Subscriptions

Subscription name	Topic name	Topic string	Destination name	Wildc
TEAM02.SUB.WMQ07	TEAM02.WMQ07.DEC2011	TEAM02/WMQ07/Dec2011	TEAM02.SUB.QUEUE	Topic
TEAM02.SUB.WMQ07A	TEAM02.WMQ07.RALEIGH	TEAM02/WMQ07/Dec2011/Raleigh	TEAM02.SUB.QUEUE	Topic
TEAM02.SUB.WMQ07B	TEAM02.WMQ07.#	TEAM02/WMQ07/#	TEAM02.SUB.QUEUE	Topic
TEAM02.SUB.WMQ07C	TEAM02.WMQ07.DEC2011	TEAM02/WMQ07/Dec2011	TEAM02.SUB.COPYQUEUE	Topic

Note that you'll probably have to scroll to the right to see the "Destination name" column as seen above. In the above example, we've edited the Current MQ Explorer scheme for displaying Subscriptions (you probably learned how to do this in an earlier exercise).



- 19) Now click on the Queues folder and note the number of messages in the TEAMXX.SUB.COPYQUEUE and the TEAMXX.SUB.QUEUE. Be sure to refresh your list by pushing the MQ Explorer “refresh” button! 💰
- 20) Now click right on the TEAM02.PUB.ALIAS, and select ‘Put Test Message’ to the TEAM02.PUB.ALIAS as you did earlier. Type any message text, press ‘Put message’ and then click ‘Close’.
- 21) When you’ve returned to the Queue folder display, wait a few seconds (or click the “Refresh” button 💰). How many messages do you see now? You’ll probably see something like:



Queue name	Queue...	QSG disposi...	Open inpu...	Open out...	Current queue depth	Put mess
CICS01.INITQ	Local	Queue ma...	0	0	0	Allowed
CSQ4IVP1.MODEL	Model	Queue ma...				Allowed
CSQ4IVP1.TRIGGER	Local	Queue ma...	0	0	0	Allowed
QML2.DEAD.QUEUE	Local	Queue ma...	0	0	0	Allowed
QML2.DEFEXIT.QUEUE	Local	Queue ma...	0	0	0	Allowed
TEAM02.PUB.ALIAS	Alias	Queue ma...			8	Allowed
TEAM02.SUB.COPYQUEUE	Local	Queue ma...	0	0	2	Allowed
TEAM02.SUB.QUEUE	Local	Queue ma...	0	0	8	Allowed
WAS.BROKER.EXECUTIONGROUP.REPLY	Local	Queue ma...	0	0	0	Allowed

You just learned how you can easily create multiple copies of a single PUT message into one or more queues, all this auto-magically by administration, with no changes to your application! Neat, eh?

## Step VII – A glimpse of Pub/Sub from z/OS

Now that you’ve seen the basic function and tested using the MQ Explorer, you might want to see how this works if you don’t have a MQ Explorer handy. All of this information is, of course, available from line-mode commands, although you should be aware there is only very limited support for Pub/Sub from the 3270 CSQOOREXX menus. Therefore, administering Pub/Sub from z/OS is, frankly, much less “user friendly”. You’re strongly advised to install a MQ Explorer and connect it to your z/OS queue managers, in particular for Pub/Sub administration. But we’ll take a

quick look anyway, just so you appreciate the MQ Explorer!



- 1) If you’re not already logged onto your TSO session, do so now. You should have already seen how to logon to this z/OS system in an earlier lab.

Navigate to the System Display and Search Facility (SDSF) LOG menus by typing “=13.14;LOG”.

- 2) On the “COMMAND INPUT ==> “ line, type the following command:

```
/QML? DIS SUB(TEAM??*) DEST TOPICSTR
```

replacing the ‘?’ with your primary queue manager number and ‘??’ with your team number. You should see a screen similar to the following:

Display	Filter	View	Print	Options	Search	Help
SDSF SYSLOG	1310.101	ZT02	ZT02	11/20/2012 4W	195,814 COLUMNS 02- 133	
COMMAND INPUT ==>					SCROLL ==> CSR	
NC00000000	ZT02	12325	18:25:49.40	FARKAS	000000290	QML2 DIS SUB (TEAM02*) DEST TOPICSTR
NR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQM293I QML2 CSQMDRTC 4 SUB FOUND MATCHING REQUEST CRITERIA
MR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQM201I QML2 CSQMDRTC DIS SUB DETAILS 606
DR					606 00000090	SUB(TEAM02.SUB.WMQ07)
DR					606 00000090	SUBID(C3E2D8D4D8D4D3F240404040404040CA7FE29FF4B96C2E)
DR					606 00000090	TOPICSTR(TEAM02/WMQ07/Dec2011)
DR					606 00000090	DEST(TEAM02.SUB.QUEUE)
ER					606 00000090	END SUB DETAILS
MR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQM201I QML2 CSQMDRTC DIS SUB DETAILS 607
DR					607 00000090	SUB(TEAM02.SUB.WMQ07A)
DR					607 00000090	SUBID(C3E2D8D4D8D4D3F240404040404040CA7FFF499051C72C)
DR					607 00000090	TOPICSTR(TEAM02/WMQ07/Dec2011/Raleigh)
DR					607 00000090	DEST(TEAM02.SUB.QUEUE)
ER					607 00000090	END SUB DETAILS
MR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQM201I QML2 CSQMDRTC DIS SUB DETAILS 608
DR					608 00000090	SUB(TEAM02.SUB.WMQ07B)
DR					608 00000090	SUBID(C3E2D8D4D8D4D3F240404040404040CA7FE826AD52852D)
DR					608 00000090	TOPICSTR(TEAM02/WMQ07/E)
DR					608 00000090	DEST(TEAM02.SUB.QUEUE)
ER					608 00000090	END SUB DETAILS
MR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQM201I QML2 CSQMDRTC DIS SUB DETAILS 609
DR					609 00000090	SUB(TEAM02.SUB.WMQ07C)
DR					609 00000090	SUBID(C3E2D8D4D8D4D3F240404040404040CA7FEF211A86462D)
DR					609 00000090	TOPICSTR(TEAM02/WMQ07/Dec2011)
DR					609 00000090	DEST(TEAM02.SUB.COPYQUEUE)
ER					609 00000090	END SUB DETAILS
NR00000000	ZT02	12325	18:25:49.42	STC06336	000000090	CSQ9022I QML2 CSQMDRTC ' DIS SUB' NORMAL COMPLETION
F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE						
XX						

You should see all of your team’s subscriptions. Note: you may have to scroll down to the bottom of the display using the F8 key several times to see this data (or alternatively type ‘M’ in the COMMAND INPUT prompt, followed

by F8 to scroll directly to the bottom).

- 3) Now type on the “COMMAND INPUT ==> “ line the following command:

```
/QML? DIS TOPIC(TEAM??*)
```

again replacing the ‘?’ with your primary queue manager number and ‘??’ with your team number. You should see a screen similar to the following:

Display	Filter	View	Print	Options	Search	Help
SDSF SYSLOG	1310.101	ZT02 ZT02	11/20/2012 4W		195,814 COLUMNS 02- 133	
COMMAND INPUT ==>					SCROLL ==> CSR	
NC00000000	ZT02	12325	19:03:32.68	FARKAS	00000290	<b>QML2 DIS TOPIC(TEAM02*)</b>
NR00000000	ZT02	12325	19:03:32.69	STC06336	00000090	CSQM293I QML2 CSQMDRTC 3 TOPIC FOUND MATCHING REQUEST CRITERIA
MR00000000	ZT02	12325	19:03:32.69	STC06336	00000090	CSQM201I QML2 CSQMDRTC DIS TOPIC DETAILS 668
DR				668	00000090	<b>TOPIC(TEAM02)</b>
DR				668	00000090	TYPE(LOCAL)
DR				668	00000090	QSGDISP(QMGR)
ER				668	00000090	END TOPIC DETAILS
MR00000000	ZT02	12325	19:03:32.69	STC06336	00000090	CSQM201I QML2 CSQMDRTC DIS TOPIC DETAILS 669
DR				669	00000090	<b>TOPIC(TEAM02.WMQ07.DEC2011)</b>
DR				669	00000090	TYPE(LOCAL)
DR				669	00000090	QSGDISP(QMGR)
ER				669	00000090	END TOPIC DETAILS
MR00000000	ZT02	12325	19:03:32.69	STC06336	00000090	CSQM201I QML2 CSQMDRTC DIS TOPIC DETAILS 670
DR				670	00000090	<b>TOPIC(TEAM02.WMQ07.RALEIGH)</b>
DR				670	00000090	TYPE(LOCAL)
DR				670	00000090	QSGDISP(QMGR)
ER				670	00000090	END TOPIC DETAILS
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=IFIND	F6=BOOK	F7=UP
F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE	xx	

Once again, you may need to scroll down several times with F8 to see the output of this command.

- 4) How many TOPIC lines were returned? How many Topics did you see in the MQ Explorer?
- 5) Now type on the “COMMAND INPUT ==> “ line the following command:

```
/QML? DIS TPSTATUS('TEAM?#/#')
```

again replacing the ‘?’ with your primary queue manager number and ‘??’ with your team number. Note: you may need to type the “£” sign instead of the “#” sign, depending upon your 3270 emulator and keyboard configuration.

You should see a screen similar to the following:

## WMQ07 – WMQ V7 for z/OS Workshop

Display	Filter	View	Print	Options	Search	Help
SDSF SYSLOG	1310.101	ZT02	ZT02	11/20/2012 4W	195,814 COLUMNS	02- 133
COMMAND INPUT	====>				SCROLL	====> CSR
NC00000000	ZT02	12325	18:53:21.25	FARKAS	00000290	<b>QML2 DIS TPSTATUS('TEAM02/#')</b>
NR00000000	ZT02	12325	18:53:21.26	STC06336	00000090	CSQM293I QML2 CSQMDRTC 6 TPSTATUS FOUND MATCHING REQUEST CRITERIA
MR00000000	ZT02	12325	18:53:21.26	STC06336	00000090	CSQM201I QML2 CSQMDRTC DIS TPSTATUS DETAILS 652
DR				652	00000090	<b>TPSTATUS(Team02/WMQ07)</b>
DR				652	00000090	TYPE(TOPIC)
DR				652	00000090	DEFPRESP(SYNC)
DR				652	00000090	DEFPERSIST(NO)
DR				652	00000090	DEFPRTY(0)
DR				652	00000090	DURSUB(YES)
DR				652	00000090	PUB(ENABLED)
DR				652	00000090	SUB(ENABLED)
DR				652	00000090	ADMIN( )
DR				652	00000090	MDURMDL(SYSTEM.DURABLE.MODEL.QUEUE)
DR				652	00000090	MNDURMDL(SYSTEM.NDURABLE.MODEL.QUEUE)
DR				652	00000090	NPMMSGDLV(ALL)
DR				652	00000090	PMSGDLV(ALL)
DR				652	00000090	RETAINED(NO)
DR				652	00000090	PUBCOUNT(0)
DR				652	00000090	SUBCOUNT(1)
DR				652	00000090	PUBSCOPE(ALL)
DR				652	00000090	SUBSCOPE(ALL)
DR				652	00000090	CLUSTER( )
DR				652	00000090	USEDLQ(YES)
ER				652	00000090	END TPSTATUS DETAILS
MR00000000	ZT02	12325	18:53:21.26	STC06336	00000090	CSQM201I QML2 CSQMDRTC DIS TPSTATUS DETAILS 653
DR				653	00000090	<b>TPSTATUS(Team02/WMQ07/Dec2011)</b>
DR				653	00000090	TYPE(TOPIC)
DR				653	00000090	DEFPRESP(SYNC)
DR				653	00000090	DEFPERSIST(NO)
DR				653	00000090	DEFPRTY(0)
DR				653	00000090	DURSUB(YES)
DR				653	00000090	PUB(ENABLED)
DR				653	00000090	SUB(ENABLED)
DR				653	00000090	ADMIN(Team02.WMQ07.DEC2011)
DR				653	00000090	MDURMDL(SYSTEM.DURABLE.MODEL.QUEUE)
DR				653	00000090	MNDURMDL(SYSTEM.NDURABLE.MODEL.QUEUE)
DR				653	00000090	NPMMSGDLV(ALL)
DR				653	00000090	PMSGDLV(ALL)
DR				653	00000090	RETAINED(YES)
DR				653	00000090	PUBCOUNT(0)
DR				653	00000090	SUBCOUNT(3)
DR				653	00000090	PUBSCOPE(ALL)
DR				653	00000090	SUBSCOPE(ALL)
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=IFIND	F6=BOOK	F7=UP
F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE	xx	

You'll probably need to scroll down several times with F8 to see the full output of this command.

- How many TPSTATUS topic lines were returned? How many Topics did you see in the MQ Explorer?

Congratulations! You've now completed this lab.

You've had the opportunity to experiment with the MQ v7 Pub/Sub.

- You have created Topics and Subscriptions
- You've used the MQ Explorer Pub/Sub test features
- You've used SDSF to see a bit of Pub/Sub (and realized how nice MQ Explorer is!)