Upgrading from MQ 7.5 to MQ 9.0.0.0 LTS and Fix Pack 9.0.0.1 in Windows

https://www.ibm.com/support/pages/node/608619

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IBM MQ Support

+++ Objective

This techdoc provides all the necessary steps to upgrade IBM MQ 7.5 in Windows to MQ 9.0.0.0 Long Term Support (LTS) and then applying Fix Pack 9.0.0.1 (because it was the latest fix pack at the time the tutorial was written – the overall recommendation is to apply the most recent fix pack).

The steps describe a standard upgrade path. They do not use the 'multi-version' feature introduced with MQ 7.1, in which several versions of MQ can co-exist ("side-by-side").
If you want to use 'multi-version' instead, then refer to the following techdoc:
http://www-01.ibm.com/support/docview.wss?uid=swg27036780
Installing WebSphere MQ 7.5 to coexist with MQ 7.0.1 and MQ 7.1 in Windows

You can upgrade from MQ 7.5 to MQ 9.0 without first going through MQ 8.0.

You can upgrade from MQ 7.5 to MQ 8.0 by following the same principles and instructions in this tutorial.

The chapters are:

++ Configuration used in this tutorial

IBM WebSphere MQ 7.5.0.5 already installed in Windows 7.
- No AMS, No MFT/FTE, No Telemetry
- Windows Client installed

One queue manager was created and started under MQ 7.5.

++ Downloading MQ from IBM Passport Advantage

+ Downloading IBM MQ Version 9.0.0.0 from the Passport Advantage web site

http://www-01.ibm.com/support/docview.wss?uid=swg24042096
Downloading IBM MQ Version 9.0.0.0 from the Passport Advantage web site

Part Number Description
CN9GGML MQ V9.0 Long Term Support Release for Windows 64-bit Multilingual

+ Downloading IBM MQ Version 8.0.0.5 from the Passport Advantage web site

http://www-01.ibm.com/support/docview.wss?uid=swg24042095
Downloading IBM MQ Version 8.0.0.5 from the Passport Advantage web site

Rebased for Windows only: Base 8.0.0.0 + Fix Pack 8.0.0.1 + FP 8.0.0.2 + FP 8.0.0.3 + FP 8.0.0.4 + FP 8.0.0.5

Part Number Description
CNA47ML MQ 8.0.0.5 for Windows Multilingual eImage

++
+++ Chapter 1: Uninstalling MQ 7.5
++

Note:
The uninstallation process does NOT delete the data for the MQ queue managers!

Even though it is possible in Windows to keep the existing MQ 7.5 and then install MQ 9.0, it is not recommended because the installer will make a backup of MQ 7.5 in the disk, and this takes a long time.

++ Review of configuration BEFORE the uninstallation of MQ 7.5

Let's review the directories used by MQ 7.5:

a) Location of the code:
C:\Program Files (x86)\IBM\WebSphere MQ

b) Top-Folder for the data for the queue managers (this is the default folder that is specified during the installation of MQ 7.5 and it is the one that needs to be specified during the installation of MQ 8.0):
C:\ProgramData\IBM\MQ

c) The location of the data for the queue managers is under the subdirectory:
C:\ProgramData\IBM\MQ\qmgrs

For example, for the queue manager QM1, it is:
C:\ProgramData\IBM\MQ\qmgrs\QM1

d) Location of the recovery logs for the queue managers:
C:\ProgramData\IBM\MQ\log

For example, for the queue manager QM1, it is:
C:\ProgramData\IBM\MQ\log\QM1

e) Version information

```
C:\> dspmqver
Name:        WebSphere MQ
Version:     7.5.0.5
Level:       p750-005-150424
BuildType:   IKAP - (Production)
Platform:    WebSphere MQ for Windows
Mode:        32-bit
O/S:         Windows 7 Professional x64 Edition, Build 7601: SP1
InstName:    Installation1
```

InstDesc:
Primary: Yes
InstPath: C:\Program Files (x86)\IBM\WebSphere MQ
DataPath: C:\ProgramData\IBM\MQ
MaxCmdLevel: 750
LicenseType: Production

C:\ > set mq
MQ_FILE_PATH=C:\Program Files (x86)\IBM\WebSphere MQ
MQ_JAVA_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_JAVA_INSTALL_PATH=C:\Program Files (x86)\IBM\WebSphere MQ\java
MQ_JAVA_LIB_PATH=C:\Program Files (x86)\IBM\WebSphere MQ\java\lib64;C:\Program Files (x86)\IBM\WebSphere MQ\java\lib
MQ_JRE_PATH=C:\Program Files (x86)\IBM\WebSphere MQ\java\jre

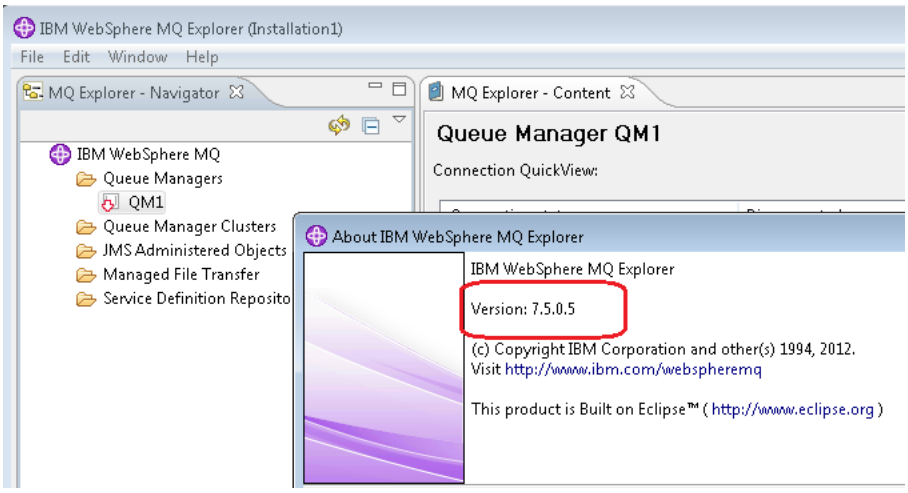
f) Header of the error log for the queue manager.

8/9/2017 09:12:01 - Process(4204.3) User(pmralrmq) Program(amqzmuc0.exe)
Host(POSAUNE) Installation(Installation1)
VRMF(7.5.0.5) QMgr(QM1)

AMQ6287: WebSphere MQ V7.5.0.5 (p750-005-150424).

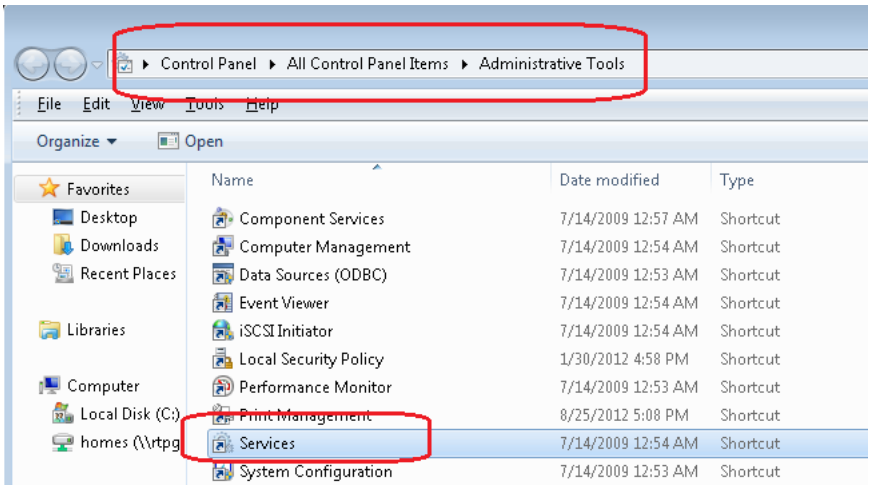
EXPLANATION:
WebSphere MQ system information:
Host Info :- Windows 7 Professional x64 Edition, Build 7601: SP1 (MQ Windows 32-bit)

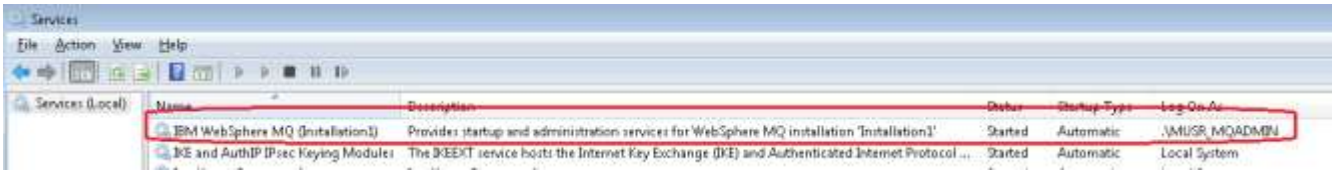
g) Screen capture of MQ Explorer: Help > About IBM WebSphere MQ Explorer



h) The icon on the right side at the bottom of the screen shows that the MQ service is running:

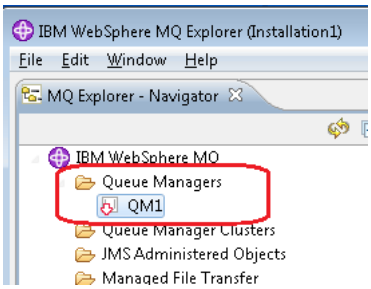
i) The “Services” under the “Administrative Tools”
Control Panel\System and Security\Administrative Tools
… shows that the service whose name is “IBM WebSphere MQ (Installation1)” has started:



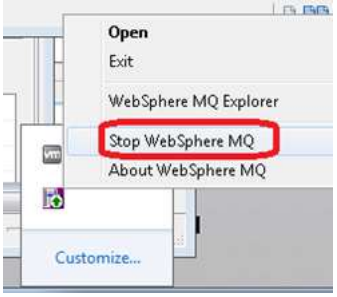


++ Stop all MQ activity

From MQ Explorer, ensure that all the queue managers are stopped.



Stop the MQ Service: from the icon, right click on “Stop WebSphere MQ”



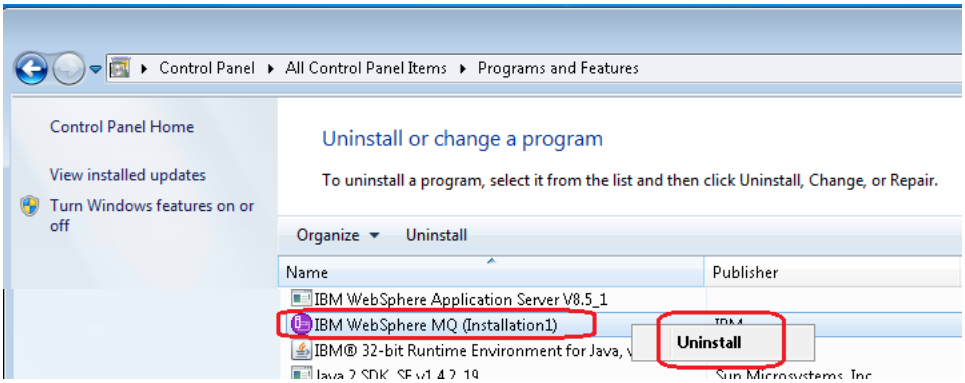
You can check that the “IBM WebSphere MQ” service is NOT running, by ensuring that the column “Status” is blank (that is, is not saying “Started”)

++ Uninstall MQ 7.5

To uninstall MQ 7.5 do the following:

Login as a Windows administrator

Launch "Program and Features"
Start > Control Panel > Programs > Programs and Features



Follow the prompts to uninstall both components.

The “Programs and Features” should not show anymore the above components for MQ.

++
+++ Chapter 2: Installing MQ 9.0.0.0 LTS
++

The specific version and fix pack level of MQ 9.0 that was used for this techdoc was:
9.0.0.0

To download the product, visit IBM Passport Advantage.
It is recommended that you search for "Part Number" inside this web site and the following technote has the mapping of the Part Numbers and the MQ installable filesets.

http://www-01.ibm.com/support/docview.wss?uid=swg24042096
Downloading IBM MQ Version 9.0.0.0 from the Passport Advantage web site

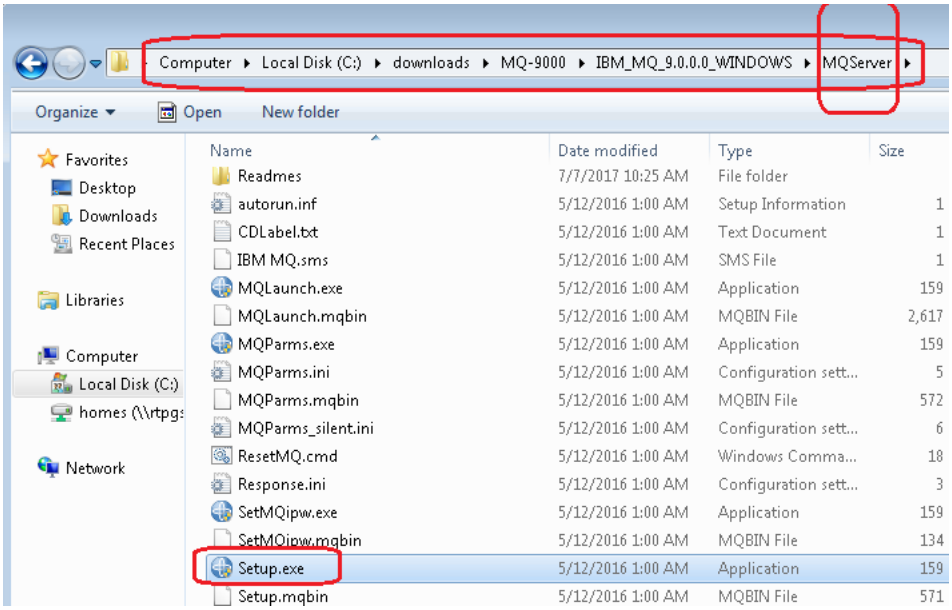
The Part Number that was used for the installation image that was downloaded for MQ 9.0.0.0 for Windows from Passport Advantage is:
Part Number Description
CN9GGML MQ V9.0 Long Term Support Release for Windows 64-bit Multilingual

The downloaded file was:
IBM_MQ_9.0.0.0_WINDOWS.zip

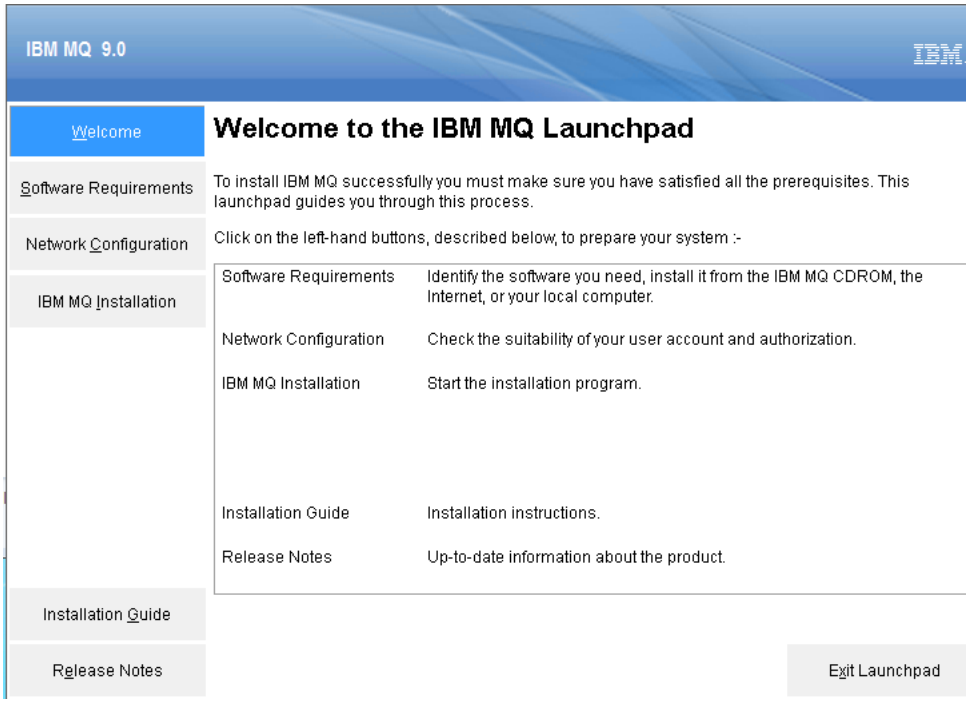
It was downloaded into:
C:\downloads\MQ-9000

To proceed, unzip the zip file. The files will be extracted into a subdirectory called:
MQServer

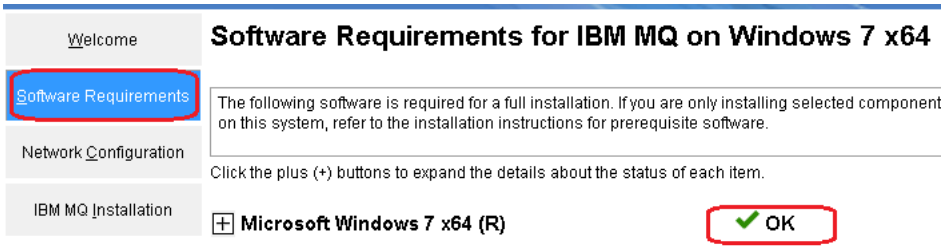
Go to the subdirectory “MQServer” and launch “setup.exe”



You will see the window:



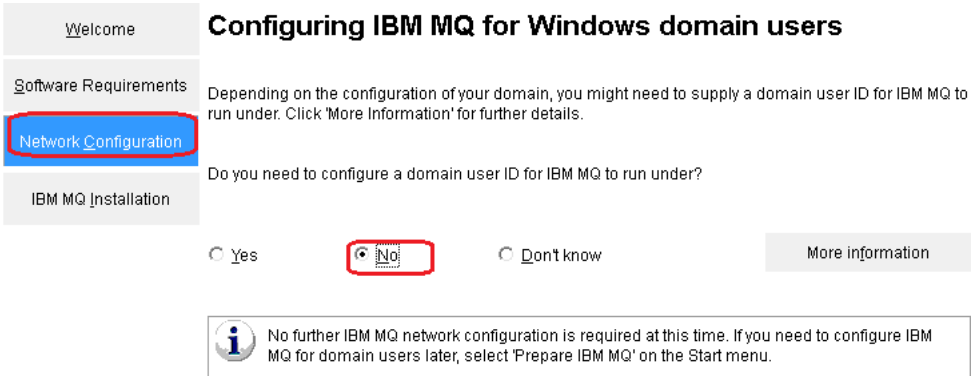
Click on “Software Requirements”



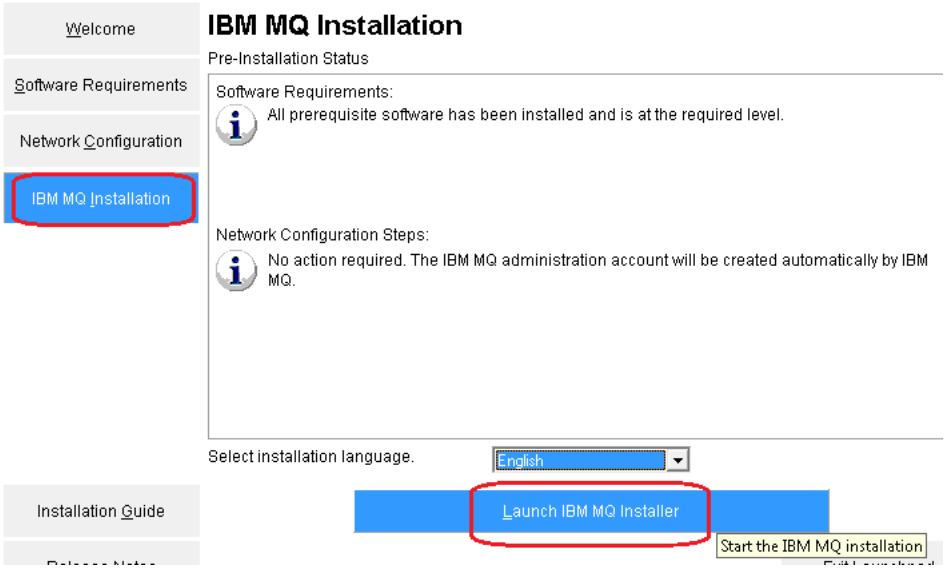
You need to ensure that you have an "OK" in the right pane before proceeding.

Click on “Network Configuration”

Regarding the question:
Do you need to configure a domain user ID for WebSphere MQ to run under?
In this tutorial checkbox for “No” was selected.

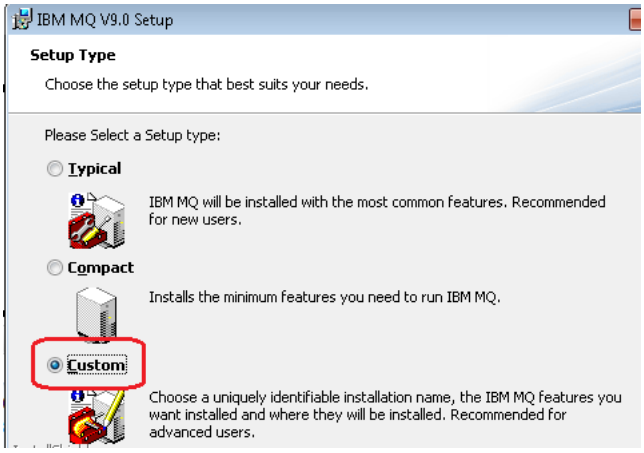


Click on “IBM MQ Installation” and then click on “Launch IBM MQ Installer”



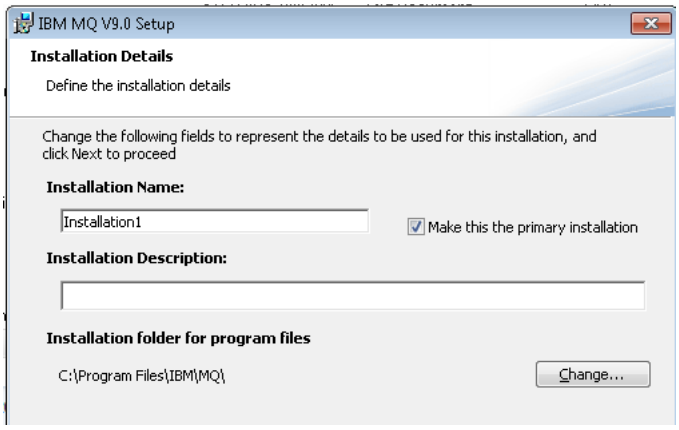
Follow the prompts and accept the licensing terms.

For this tutorial, the Server and the Clients will be installed.
No AMS, No MFT, No Telemetry.
Thus, you need to select:
(*) Custom



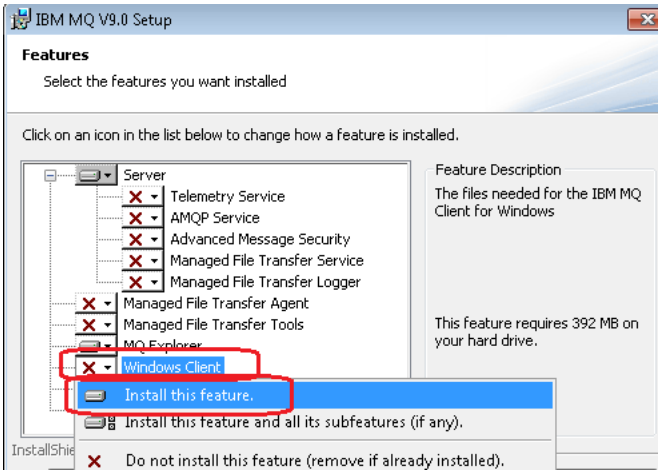
Click Next.

Accept the defaults for:
Installation Name: Installation1
Installation folder for program files: C:\Program Files\IBM\MQ\

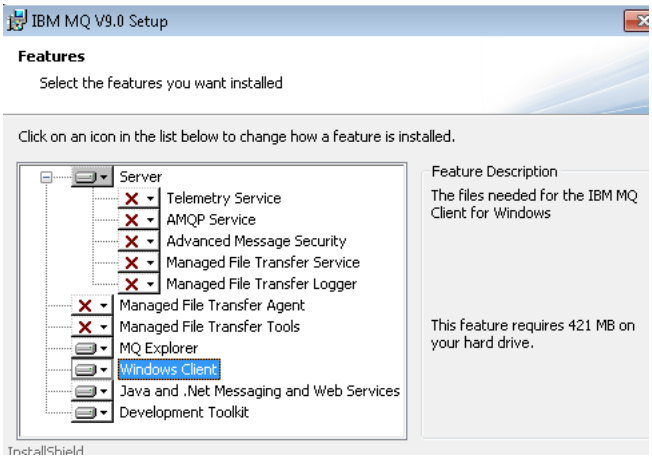


Click Next

Select “Windows Client”, right click and select:
Install this feature.



The dialog will be refreshed and you will see all the components that will be installed:



Click Next

You will see a summary for the installation.

+ Begin of Summary

IBM MQ Installation Summary for Computer X

Installation Mode
  Install

Discovered these queue managers:
  'QM1'

Installation Name
  Installation1

Top-level Folder for Program Files:
C:\Program Files\IBM\MQ\

Top-level Folder for Data Files:
C:\ProgramData\IBM\MQ\

Folder for Log Files:
C:\ProgramData\IBM\MQ\log\

Program Folder:
  IBM MQ

Features to Install:
  Server
  MQ Explorer
  Windows Client
  Java and .NET Messaging and Web Services
  Development Toolkit

+ end of summary

Click “Install”.

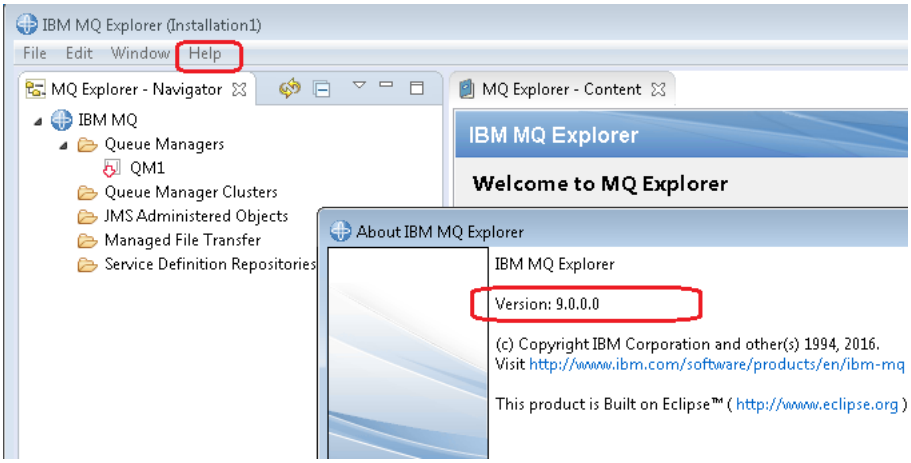
At this point the appropriate files will be installed in the computer.

After the installation of the code you will need to continue with the
“Prepare IBM MQ Wizard”

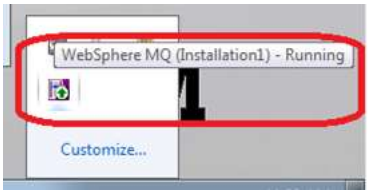
For this tutorial the following option was used for the question:
Are any of the domain controllers in your network using Windows 2000 or later?
The answer was:
(*) No

Continue with the prompts to exit the Wizard.

+ Then proceed to launch the MQ Explorer 9.0.
Help > About IBM MQ Explorer



+ Notice the service icon:



+ Notice the Administrative Tools > Services

The service "IBM MQ (Installation1)" is shown as "Started".
It has a Startup Type of "Automatic" and log on as: .\MUSR_MQADMIN

++
+++ Chapter 3: Running setmqinst to designate the Primary installation
++

Open a command prompt and issue: dspmqver

```
C:\> dspmqver
Name:        IBM MQ
Version:     9.0.0.0
Level:       p900-L160512.4
BuildType:   IKAP - (Production)
Platform:    IBM MQ for Windows (x64 platform)
Mode:        64-bit
O/S:         Windows 7 Professional x64 Edition, Build 7601: SP1
InstName:    Installation1
InstDesc:
Primary:     Yes
InstPath:    C:\Program Files\IBM\MQ
DataPath:    C:\ProgramData\IBM\MQ
MaxCmdLevel: 900
LicenseType: Production
```

Notice the line that indicates that this is a Primary Installation:
Primary: Yes

Issue the MQ command to display the installations in the box: dspmqinst
Notice also that Primary is Yes.

```
C:\>dspmqinst
InstName:      Installation1
InstDesc:
Identifier:    1
InstPath:      C:\Program Files\IBM\MQ
Version:       9.0.0.0
Primary:       Yes
State:         Available
MSIProdCode:   {80B9C730-0533-4060-A44B-16549476F111}
MSIMedia:      9.0 Server
MSIInstanceId: 1
```

+ Miscellaneous

You can use the following command to find out where the "dspmqinst" is located:

C:\>where dspmqinst
C:\Program Files\IBM\MQ\bin64\dspmqinst.exe
C:\Program Files\IBM\MQ\bin\dspmqinst.exe

+ Setting the Primary installation

In case that during the installation setup you did not accept that this installation was going to be the Primary installation and now you have changed your mind and you want to set it up as the Primary installation, then issue: setmqinst

Generic format:
MQ_INSTALLATION_PATH/bin/setmqinst -i -n installationName

The specific command for this tutorial would be:

"C:\Program Files\IBM\MQ\bin\setmqinst" -i -n Installation1

++
+++ Chapter 4: Running setmqenv to use MQ 9.0 commands
++

When you open a Windows command prompt, you will see that automatically some MQ environment variables and some MQ folders in the PATH are being shown.

There are 5 entries in the output:

```
C:\>set mq
MQ_FILE_PATH=C:\Program Files\IBM\MQ
MQ_JAVA_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_JAVA_INSTALL_PATH=C:\Program Files\IBM\MQ\java
MQ_JAVA_LIB_PATH=C:\Program Files\IBM\MQ\java\lib64;C:\Program Files\IBM\MQ\java\lib
MQ_JRE_PATH=C:\Program Files\IBM\MQ\java\jre
```

There are also 5 MQ folders in the PATH

```
C:\> set path
Path=C:\Program Files\IBM\MQ\java\lib;C:\Program Files\IBM\MQ\java\lib64;
C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;
C:\Windows\System32\WindowsPowerShell\v1.0\;
C:\Program Files\Microsoft Windows Performance Toolkit\;C:\Program Files (x86)\Windows
Kits\8.0\Windows Performance Toolkit\;C:\bin\;C:\Program Files\IBM\MQ\bin64;C:\Program
Files\IBM\MQ\bin;C:\Program Files\IBM\MQ\tools\c\samples\bin
```

Here is the list of the folders, for easy visualization:
C:\Program Files\IBM\MQ\java\lib;
C:\Program Files\IBM\MQ\java\lib64;
C:\Program Files\IBM\MQ\bin64;
C:\Program Files\IBM\MQ\bin;
C:\Program Files\IBM\MQ\tools\c\samples\bin

However, there are more MQ related environment variables that are set by the MQ utility "setmqenv". In this case, you could issue:

```
"C:\Program Files\IBM\MQ\bin\setmqenv" -n Installation1
```

Now you will see 4 more entries:

C:\> set mq
MQ_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_ENV_MODE=64
MQ_FILE_PATH=C:\Program Files\IBM\MQ
MQ_INSTALLATION_NAME=Installation1
MQ_INSTALLATION_PATH=C:\Program Files\IBM\MQ
MQ_JAVA_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_JAVA_INSTALL_PATH=C:\Program Files\IBM\MQ\java
MQ_JAVA_LIB_PATH=C:\Program Files\IBM\MQ\java\lib64
MQ_JRE_PATH=C:\Program Files\IBM\MQ\java\jre

+++ Hint:

You can create a batch file that will run the setmqenv command with the specified syntax. Ensure to have this batch file in a directory in your PATH, such as c:\wintools
For example, the batch file set-mq-90.bat can be created with the contents.
Notice that the line for SET PATH is a single physical line, but in this techdoc is shown in 2 lines.

```
============= begin batch file (do NOT include this line!)
REM Setup the environment to run MQ 9.0
CALL "C:\Program Files\IBM\MQ\bin\setmqenv" -n Installation1
REM Adding Samples to the path
SET
PATH=%PATH%;%MQ_FILE_PATH%\tools\c\Samples\Bin;%MQ_FILE_PATH%\tools\c\Samples\Bin64
dspmqver -f 2
============= end batch file  (do NOT include this line!)
```

Notice the following points:

1) Need to use the "CALL" argument when invoking setmqenv. Without this argument, the execution of setmqenv will terminate the batch and will not allow following statements to execute. That is, with the CALL, you allow other statements in the batch file to be executed.

2) The folder with the C-based executables under Samples\Bin64 was not automatically added to the PATH during the installation. Because it is a good idea to have it in the PATH, then this batch file adds the folders with the samples.

3) The option "-f 2" for dspmqver displays only the line that has the version information of MQ. For example:
Version: 9.0.0.0

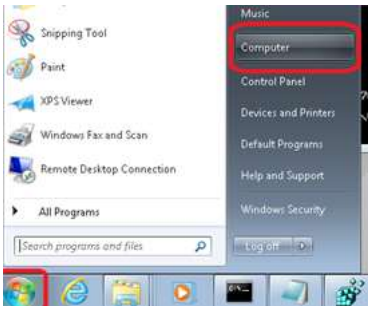
```
C:\wintools> notepad set-mq-90.bat
C:\wintools>set-mq-90
C:\wintools>REM Setup the environment to run MQ 9.0
C:\wintools>CALL "C:\Program Files\IBM\MQ\bin\setmqenv" -n Installation1
Version:     9.0.0.0

C:\wintools>set mq
MQ_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_ENV_MODE=64
MQ_FILE_PATH=C:\Program Files\IBM\MQ
MQ_INSTALLATION_NAME=Installation1
MQ_INSTALLATION_PATH=C:\Program Files\IBM\MQ
MQ_JAVA_DATA_PATH=C:\ProgramData\IBM\MQ
MQ_JAVA_INSTALL_PATH=C:\Program Files\IBM\MQ\java
MQ_JAVA_LIB_PATH=C:\Program Files\IBM\MQ\java\lib64
MQ_JRE_PATH=C:\Program Files\IBM\MQ\java\jre
```

++ How to add a folder into the PATH

Notes:
After you modify the any of the environment variables or add a new one or delete an existing one, you will need to exit any prior command prompt windows because they will NOT recognize the new/modified environment variables.
Open a new command prompt window and verify that the new/modified environment variable is working as expected.

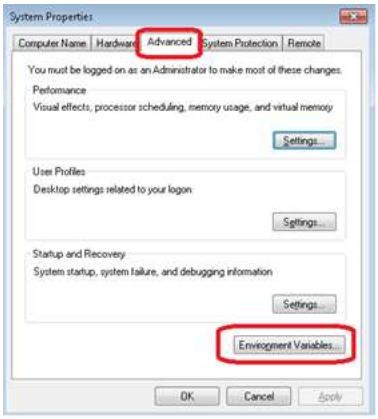
Click on Start and the Computer



Then "System Properties":

Then "Advanced system settings"

Then in the "System Properties" notebook, click on the tab "Advanced" and then on the button "Environment Variables..."

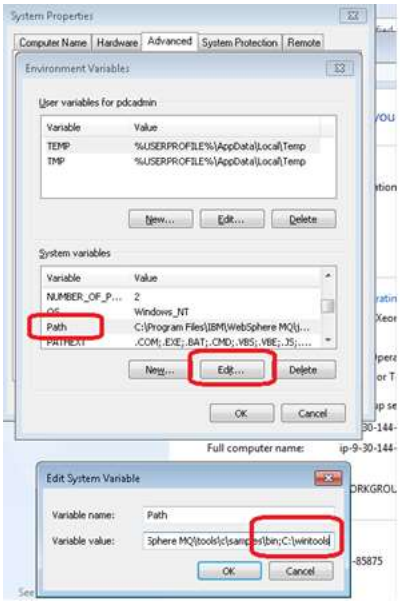


Modify the desired environment variable or add new ones.
In this case is to add at the end of the PATH the directory:

C:\wintools

Select "Path" then "Edit..."

Add the desired folder at the end of the value for Path. Ensure to specify a semicolon:
;C:\wintools



Click on OK to save and proceed to exit the dialog.

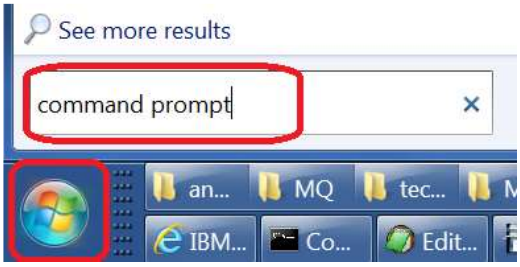
Open a new Windows command prompt and enter "set path" to show the value.
Notice that at the end, you see:
;C:\wintools

C:\> set path
Path=C:\Program Files\IBM\MQ\java\lib;C:\Program Files\IBM\MQ\java\lib64;C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;c:\python27;c:\windows\setup\ibm;C:\Program Files\IBM\MQ\bin64;C:\Program Files\IBM\MQ\bin;C:\Program Files\IBM\MQ\tools\c\samples\bin**;C:\wintools**

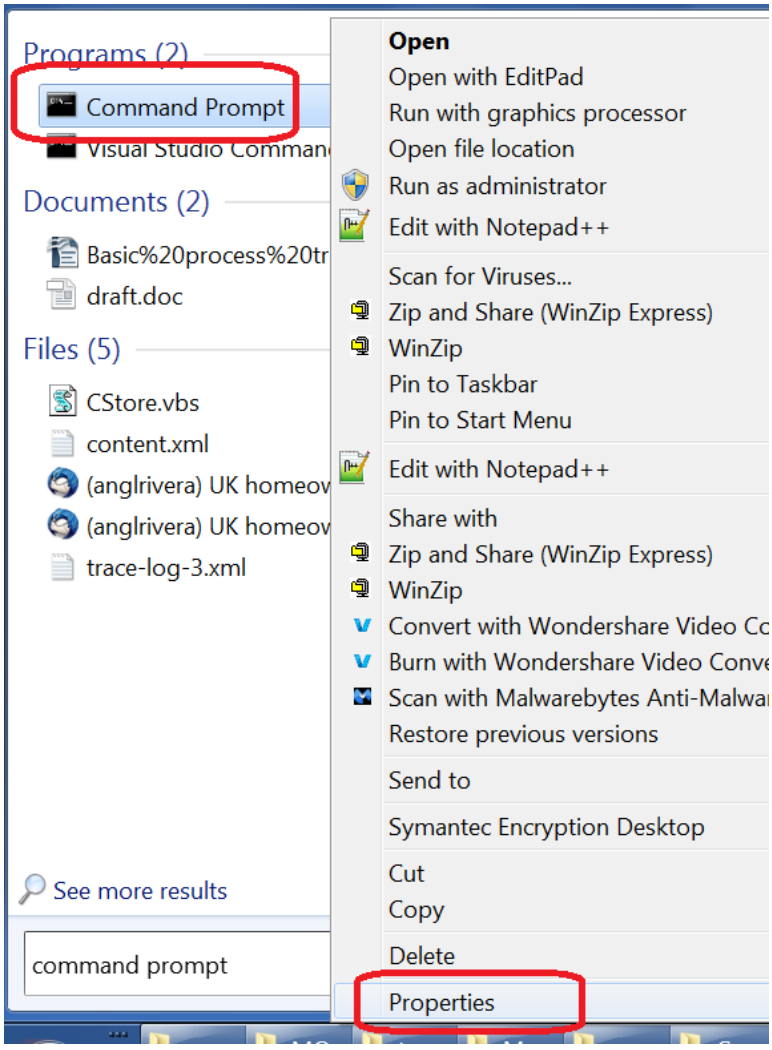
++ How to automatically run a command / batch file upon opening a new command prompt

Another option is to run the set-mq-80.bat file automatically in a new command prompt:

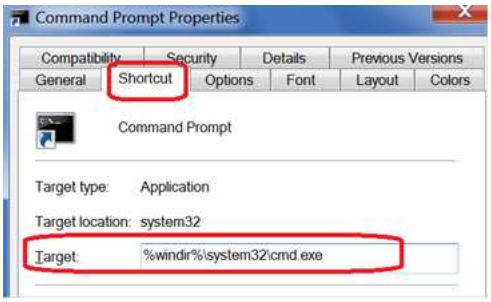
1. Click Start and then search for the command prompt on the Windows Search.



2. Right-click on the Command Prompt icon at the top of the results and select Properties.

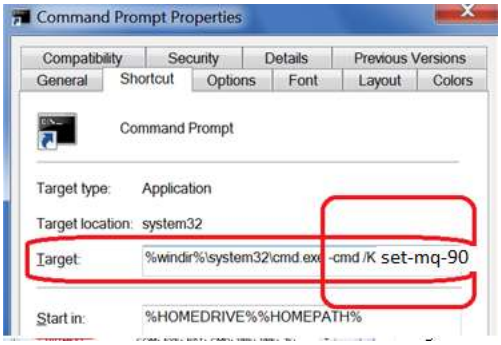


3. Go to the tab "Shortcut" and then select the field "Target":



4. Add the following to the end:
-cmd /K set-mq-90

Thus, the full line will be:
%windir%\system32\cmd.exe -cmd /K set-mq-90



Click OK.

5. Now, every time that you open a new command prompt, the setmqenv command will be run automatically.

++
+++ Chapter 5: Upgrading an existing queue manager to MQ 9.0
++

The uninstallation and installation tasks do NOT affect the data for the queue managers.

You need to keep in mind that the FIRST start of an existing queue manager after installing the new version of MQ, will UPGRADE the data for the queue manager in a manner that is NOT REVERSIBLE!

In this tutorial, the queue manager QM1 was created under MQ 7.5.
Even after the code for MQ 7.5 was uninstalled, the data for this queue manager remains at MQ 7.5.
Even after the code for MQ 9.0 was installed, the data for this queue manager remains at MQ 7.5.
HOWEVER, as mentioned earlier, during the first start, the data will be upgraded.

Let's start the existing queue manager QM1:

C:> strmqm QM1

IBM MQ queue manager 'QM1' starting.
The queue manager is associated with installation 'Installation1'.
5 log records accessed on queue manager 'QM1' during the log replay phase.
Log replay for queue manager 'QM1' complete.
Transaction manager state recovered for queue manager 'QM1'.
Migrating objects for queue manager 'QM1'.
Default objects statistics : 9 created. 0 replaced. 0 failed.
IBM MQ queue manager 'QM1' started using V9.0.0.0.

Notice that the MQ 9.0 code has determined that this queue manager worked with MQ 7.5 the last time, and thus, the MQ 9.0 code will upgrade/migrate the data from 7.5 to 9.0.
The following 2 extra lines are displayed to indicate the migration (copied from above)
Migrating objects for queue manager 'QM1'.
Default objects statistics : 9 created. 0 replaced. 0 failed.

Let's see the VERSION attribute for the queue manager:

runmqsc QM1
display qmgr cmdlevel version
    3 : display qmgr cmdlevel version
AMQ8408: Display Queue Manager details.
  QMNAME(QM1)   CMDLEVEL(900)
  VERSION(09000000)

++
+++ Chapter 6: Creating a queue manager under 9.0
++

Let's create a new queue manager.

```
C:\> crtmqm -u SYSTEM.DEAD.LETTER.QUEUE QM90
IBM MQ queue manager created.
Directory 'C:\ProgramData\IBM\MQ\qmgrs\QM90' created.
The queue manager is associated with installation 'Installation1'.
Creating or replacing default objects for queue manager 'QM90'.
Default objects statistics : 86 created. 0 replaced. 0 failed.
Completing setup.
Setup completed.
```

Start the queue manager. Notice the lines that indicate the installation and the version under which the queue manager is running:

```
C:\>strmqm QM90
IBM MQ queue manager 'QM90' starting.
The queue manager is associated with installation 'Installation1'.
5 log records accessed on queue manager 'QM90' during the log replay phase.
Log replay for queue manager 'QM90' complete.
Transaction manager state recovered for queue manager 'QM90'.
IBM MQ queue manager 'QM90' started using V9.0.0.0.
```

Let's display the status

```
C:\>dspmq -m QM90
QMNAME(QM90)                                              STATUS(Running)
```

Let's do a more advanced display of status. Notice that the new one QM_80 has 3 new pieces of information: INSTNAME, INSTPATH and INSTVER

```
C:\>dspmq -m QM90 -o installation
QMNAME(QM90)                INSTNAME(Installation1)
INSTPATH(C:\Program Files\IBM\MQ) INSTVER(9.0.0.0)
```

++
+++ Chapter 7: Remotely accessing the new MQ 9.0 queue manager
++

You will need to do further customization to the queue manager in order to allow remote access.

NOTE: This is a test queue manager and thus, 2 relative new security features are being relaxed to behave like an MQ 7.0 queue manager. These are items 2 and 3 in the list below.

1: Add listener and SYSTEM.ADMIN.SVRCONN for MQ Explorer.
2: Customize CONNAUTH to allow MQ administrators to not specify passwords, otherwise you will get the generic rc 2035 (MQRC_NOT_AUTHORIZED)
3: Customize the channel authentication records to allow MQ administrators, otherwise you will get the generic rc 2035 (MQRC_NOT_AUTHORIZED)

The rest of this chapter provides more details

Step 1: Let's customize the queue manager to allow it to be monitored remotely by the MQ Explorer and to create a local queue Q1 for initial testing:

```
C:\> runmqsc QM90
define listener(TCP.LISTENER) trptype(tcp) control(qmgr) port(1430)
start listener(TCP.LISTENER)
define channel(SYSTEM.ADMIN.SVRCONN) chltype(SVRCONN) REPLACE
define ql(Q1)
end
```

Now you start the MQ Explorer from a remote host, using a userid that is an MQ Administrator in the host that has the newly created queue manager.

You use the MQ Explorer from another machine to try to remotely access the 9.0 queue manager.
Right click on the folder "Queue Managers" and then select "Add Remote Queue Manager…" and specify the hostname and port 1430.
In the MQ Explorer wizard, under the page "Specify user identification details", you check the box:
(*) Enable user identification
You specify the userid that is the MQ administrator in the box where the queue manager is located (but do not specify a password).

Step 2: Customize CONNAUTH to allow MQ administrators to not specify passwords, otherwise you will get the generic rc 2035 (MQRC_NOT_AUTHORIZED)

When you try to connect from MQ Explorer, you will get the error:

Access not permitted. You are not authorized to perform this operation. (AMQ4036)
Severity: 10 (Warning)
Explanation: The queue manager security mechanism has indicated that the userid associated with this request is not authorized to access the
object.

This error is generated due to a return code 2035 from the MQ queue manager: MQRC_NOT_AUTHORIZED

Let's look at the AMQERR01.LOG file in the folder:
C:\ProgramData\IBM\MQ\Qmgrs\QM90\errors

(timestamp) - Process(1788.13) User(MUSR_MQADMIN) Program(amqzlaa0.exe)
Host(IP-9-30-144-18) Installation(Installation1)
VRMF(9.0.0.0) QMgr(QM90)
AMQ5540: Application 'MQ Explorer 9.0.0' did not supply a user ID and password
EXPLANATION:
The queue manager is configured to require a user ID and password, but none was supplied.
ACTION:
Ensure that the application provides a valid user ID and password, or change the queue manager configuration to OPTIONAL to allow applications to connect which have not supplied a user ID and password.

----- amqzfuca.c : 4279 ----------
(timestamp) - Process(1788.13) User(MUSR_MQADMIN) Program(amqzlaa0.exe)
…
AMQ5541: The failed authentication check was caused by the queue manager CONNAUTH CHCKCLNT(REQDADM) configuration.
EXPLANATION:
The user ID 'pdcadmin' and its password were checked because the user ID is privileged and the queue manager connection authority (CONNAUTH) configuration refers to an authentication information (AUTHINFO) object named 'SYSTEM.DEFAULT.AUTHINFO.IDPWOS' with CHCKCLNT(REQDADM).
This message accompanies a previous error to clarify the reason for the user ID and password check.
ACTION:
Refer to the previous error for more information.
Ensure that a password is specified by the client application and that the password is correct for the user ID. The authentication configuration of the queue manager connection determines the user ID repository. For example, the

local operating system user database or an LDAP server.
To avoid the authentication check, you can either use an unprivileged user ID or amend the authentication configuration of the queue manager. You can amend the CHCKCLNT attribute in the CHLAUTH record, but you should generally not allow unauthenticated remote access.

(timestamp) - Process(3788.5) User(MUSR_MQADMIN) Program(amqrmppa.exe)
AMQ9557: Queue Manager User ID initialization failed for 'pdcadmin'.
EXPLANATION:
The call to initialize the User ID 'pdcadmin' failed with CompCode 2 and Reason 2035.
ACTION:
Correct the error and try again.

+ WORKAROUND:

See the following technote:

http://www.ibm.com/support/docview.wss?uid=swg21680930
MQ 8.0: errors AMQ5540 and AMQ5541, application did not supply a user ID and password, 2035 MQRC_NOT_AUTHORIZED

SUMMARY
There are several ways to address the situation and this section explains four scenarios.
Scenario A) MQ samples: Provide the user and password to the MQ client application
Scenario B) Modify queue manager to avoid requiring password from MQ administrators
  Issue the following 2 runmqsc commands to change the value of CHCKCLNT from REQDADM to OPTIONAL for the AUTHINFO shown below and this will allow users to not necessarily provide a userid/password.
  ALTER AUTHINFO(SYSTEM.DEFAULT.AUTHINFO.IDPWOS) AUTHTYPE(IDPWOS) CHCKCLNT(OPTIONAL)
  REFRESH SECURITY TYPE(CONNAUTH)
Scenario C) MQ Explorer - when connecting to remote queue managers
Scenario D) How to specify the userid/password when using the rfhutilc utility from the SupportPac IH03

Note: At this point, you will still get another security error. You will need to proceed with Step 3.

Step 3: Customize the channel authentication records to allow MQ administrators, otherwise you will get the generic rc 2035 (MQRC_NOT_AUTHORIZED)

When you try to connect from MQ Explorer, you will get the error:

Access not permitted. You are not authorized to perform this operation. (AMQ4036)
Severity: 10 (Warning)
Explanation: The queue manager security mechanism has indicated that the userid associated with this request is not authorized to access the
object.

This error is generated due to a return code 2035 from the MQ queue manager: MQRC_NOT_AUTHORIZED

Let's look at the AMQERR01.LOG file for the queue manager:

(timestamp) - Process(3788.6) User(MUSR_MQADMIN) Program(amqrmppa.exe)
AMQ9776: Channel was blocked by userid
EXPLANATION:
The inbound channel 'SYSTEM.ADMIN.SVRCONN' was blocked from address '9.27.46.202' because the active values of the channel were mapped to a userid which should be blocked. The active values of the channel were 'MCAUSER(pdcadmin) CLNTUSER(pdcadmin) ADDRESS(angelillo)'.
ACTION:
Contact the systems administrator, who should examine the channel authentication records to ensure that the correct settings have been configured. The ALTER QMGR CHLAUTH switch is used to control whether channel authentication records are used. The command DISPLAY CHLAUTH can be used to query the channel authentication records.

+ WORKAROUND:

http://www.ibm.com/support/docview.wss?uid=swg21577137
WMQ 7.1, 7.5, 8.0 queue manager RC 2035 MQRC_NOT_AUTHORIZED or AMQ4036 when using client connection as an MQ Administrator

Summary from the technote:
a) The errors are due to the new feature of MQ 7.1 called "channel authentication records". It is recommended that you use this feature, that is, do not disable it (unless you have a very good reason to disable it).
b) The following 2 runmqsc commands will allow an MQ Administrator to remotely login to the queue manager:

```
SET CHLAUTH(*) TYPE(BLOCKUSER) USERLIST('nobody','*MQADMIN')
SET CHLAUTH(SYSTEM.ADMIN.*) TYPE(BLOCKUSER) USERLIST('nobody')
```

c) If the user is not an MQ administrator, then you will need to create new channel authentication records to allow the user to access the queue manager.

For a variety of examples of channel authentication records, see:
http://www-01.ibm.com/support/docview.wss?uid=swg27041997
CHLAUTH Made Simple: Common Scenarios and Examples and How to Verify them with RUNCHECK

At this point, you should be able to connect from a remote MQ Explorer.

++
+++ Chapter 8: Installing Fix Pack 9.0.0.1
++

Note:
Before you can apply the fix pack, you need to terminate all the activity for MQ: end all the queue managers, end the MQ service, exit MQ Explorer.

The MQ Fix Packs are available from IBM Fix Central:
http://www-01.ibm.com/support/docview.wss?uid=swg27006037
Recommended Fixes for WebSphere MQ

Follow the prompts for the desired version:
IBM WebSphere MQ Version 9.0.0.x (latest 9.0.0.1)
IBM WebSphere MQ Version 8.0 (latest 8.0.0.7)
IBM WebSphere MQ Version 7.5 (latest 7.5.0.8)

For this tutorial, we followed the prompts for MQ 9.0.0.1 LTS:

IBM MQ Version 9.0 LTS	FixPack 9.0.0.1

We landed at:

http://www-01.ibm.com/support/docview.wss?uid=swg24042009
Downloading IBM MQ Version 9.0

Click the tab:
V9.0.0.1 LTS

Then we landed at:
http://www-01.ibm.com/support/docview.wss?uid=swg24043467
Downloading IBM MQ Version 9.0.0.1

Go to the section:
Downloading the release from Fix Central

… and at the bottom of the table, click on the link for Windows:
Windows 64-bit 11 May 2017

You will be taken to IBM Fix Central

You will see a list of the fix packs, such as:

fix pack: 9.0.0-IBM-MQ-Windows-FP0001
Fix Pack 9.0.0.1 for WebSphere MQ on Windows 64

Ensure that 9.0.0.1 is selected and proceed with the prompts.
You will need to sign in / login with your IBM ID.

After login, you will see a web page that will show the zip file to download.
Right click and download the file into your PC

The following files implement this fix.
9.0.0-IBM-MQ-Windows-FP0001.zip (715.11 MB)

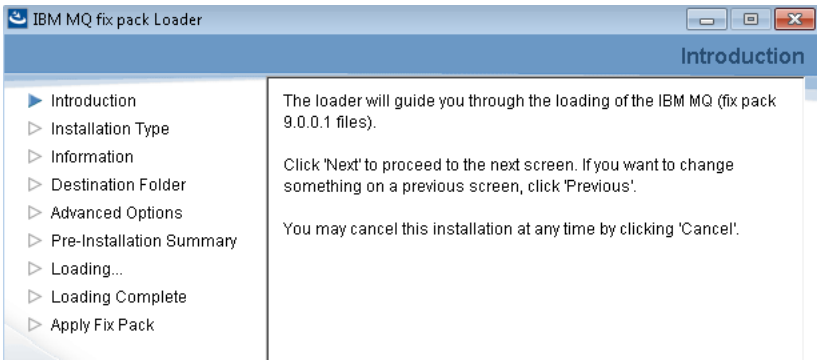
In this tutorial, the zip file was downloaded into:
C:\downloads\MQ-9001

Go to the above directory and launch the installer:
IBM-MQ-9.0.0-FP0001.exe

You will see the following dialog.

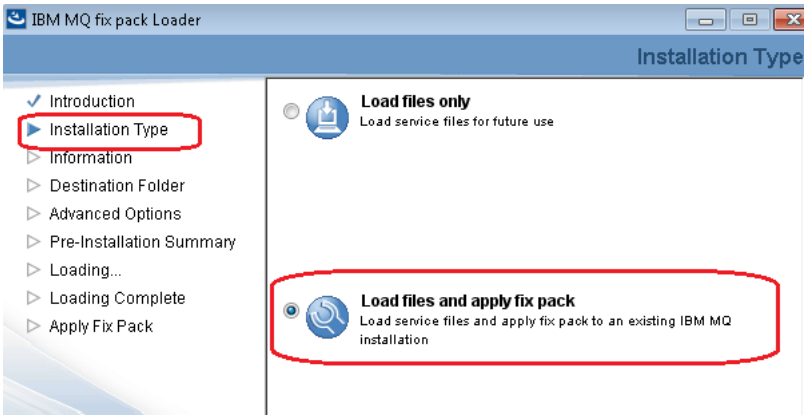
Click OK.

You will see the “IBM MQ fix pack Loader”

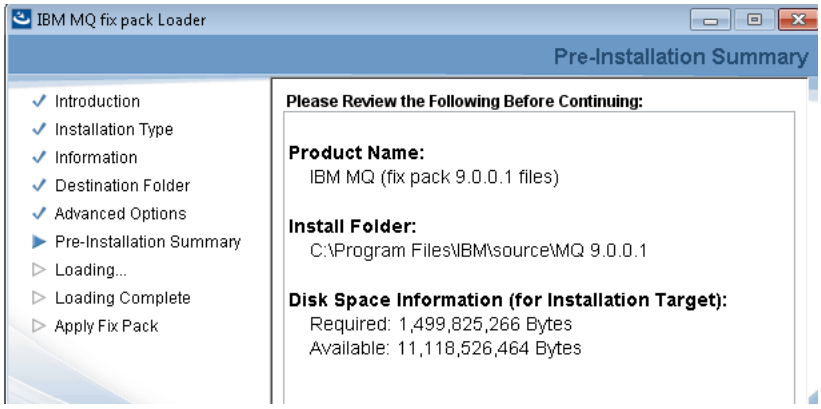


Click Next and follow the prompts.

At the step “Installation Type”, select the check box:
(*) Load files and apply fix pack



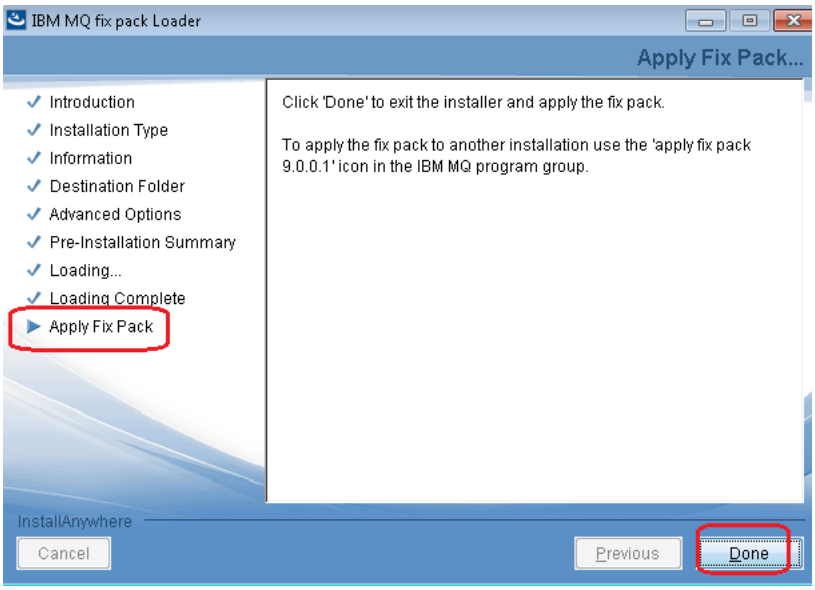
Follow the prompts and accept the subsequent defaults.
You will see:



Click on “Install”.

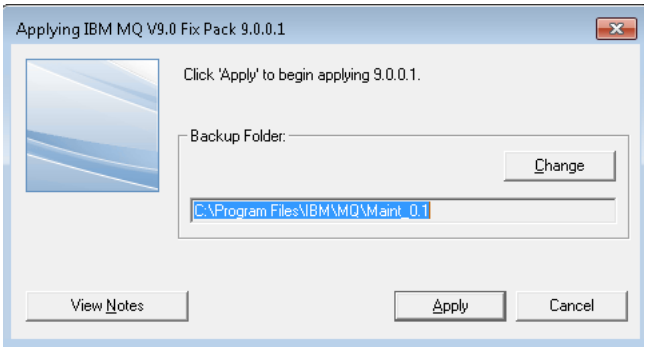
Files will be copied into the computer.

Eventually you will see the dialog at step “Apply Fix Pack”

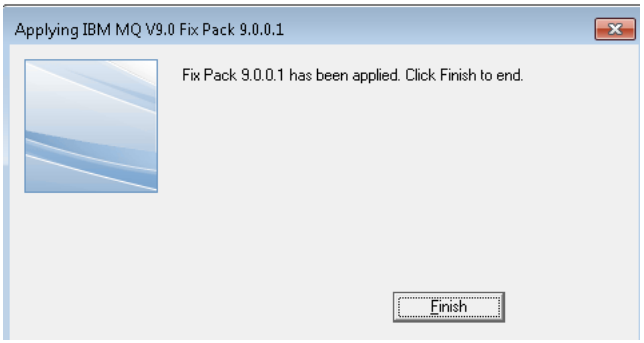


Click Done

Then click Apply



After a while, you will see the following, to indicate the end of the maintenance task:



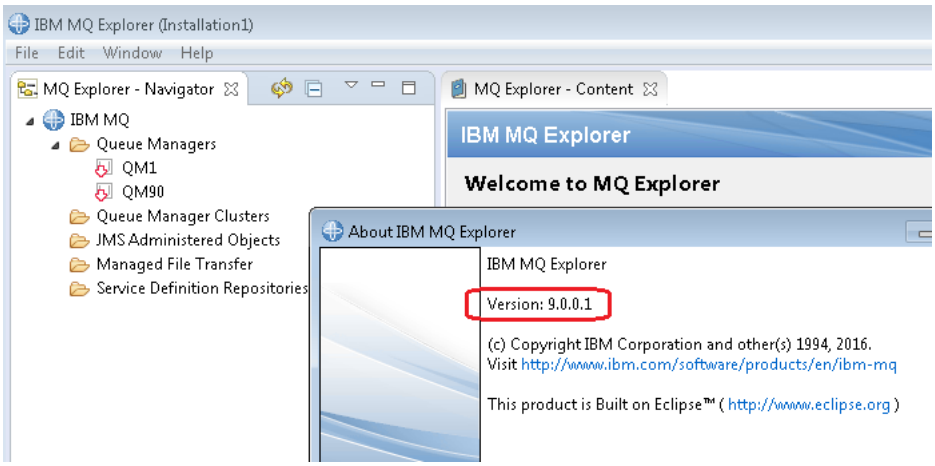
Click Finish.

To confirm that you are using now MQ 9.0.0.1, do the following:

From a command prompt, issue: dspmqver

C:\ >dspmqver
Name: IBM MQ
Version: 9.0.0.1
Level: p900-001-170411
BuildType: IKAP - (Production)
Platform: IBM MQ for Windows (x64 platform)
Mode: 64-bit
O/S: Windows 7 Professional x64 Edition, Build 7601: SP1
InstName: Installation1
InstDesc:
Primary: Yes
InstPath: C:\Program Files\IBM\MQ
DataPath: C:\ProgramData\IBM\MQ
MaxCmdLevel: 900
LicenseType: Production

From MQ Explorer see the Help > About IBM MQ Explorer



+++ end +++