

9.1

IBM MQ GUI Wizard Help

IBM

Note

Before using this information and the product it supports, read the information in [“Notices” on page 21.](#)

This edition applies to version 9 release 1 of IBM® MQ and to all subsequent releases and modifications until otherwise indicated in new editions.

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IBM MQ GUI Wizard help

This help documentation supports the IBM MQ installation and initial configuring process.

During installation using the graphical user interface, you are guided through several screens and wizards to help you apply the relevant options and settings:

Launchpad

Check software requirements, specify network information and start the IBM MQ installation wizard.

IBM MQ installation wizard

Install the software and start the Prepare IBM MQ wizard.

Prepare IBM MQ wizard

Start the IBM MQ service and IBM MQ Explorer.

IBM MQ Explorer

Manage queues and queue managers, access Default Configuration wizard and the Postcard application.

Installing and configuring IBM MQ

Welcome to IBM MQ. This help documentation provides information that you might need when you install and configure IBM MQ.

About this task

When you install IBM MQ using the graphical user interface, you are guided through several screens and wizards to help you apply the relevant options and settings. You use the Launchpad to check software requirements, specify network information, and then start the IBM MQ installation wizard, which you then use to install the software.

After the installation of IBM MQ completes, you can use the Prepare IBM MQ Wizard and the Default Configuration wizard to configure IBM MQ.

Related tasks

[Using the Postcard sample to verify your IBM MQ installation](#)

You can set up and use the Postcard sample application to verify a local installation or a server-to-server installation of IBM MQ, and test that the associated communication links are working properly.

Configuring a user account with the Prepare IBM MQ Wizard

The Prepare IBM MQ Wizard helps you to configure IBM MQ with a user account for your network. You must run the wizard to configure the IBM MQ Service before you can start any queue managers.

About this task

The Prepare IBM MQ Wizard window is displayed when the IBM MQ installation completes. Prepare IBM MQ Wizard. You can also run the wizard at any time from the **Start** menu.

Follow the instructions given by the wizard to configure IBM MQ with a user account which has the correct authorization. Then, when prompted by the wizard, select whether to launch IBM MQ Explorer and the Release notes.

If your user account proves to be unsuitable, see [“Configuring IBM MQ accounts in the Prepare IBM MQ Wizard” on page 7](#) for information about getting your system administrator to create a suitable account for you.

You can use the Prepare IBM MQ Wizard (AMQMJPSE.EXE) with the following parameters:

Table 1. Startup parameters that can be used for the Prepare IBM MQ Wizard

Parameter Name	Parameter description	How parameter is used	Default action if parameter not supplied
-l <i>file</i>	Create log file	<p>The Prepare IBM MQ Wizard appends to a log file with the program actions and results.</p> <p>This parameter specifies the file name to use for this log. If the path is not provided, the IBM MQ Data directory is assumed. If the file name is not provided, AMQMJPSE.LOG is assumed.</p>	Append to log file AMQMJPSE.LOG in IBM MQ Data directory.
-r	Reset MQSeriesService user account	<p>When the Prepare IBM MQ Wizard is first run it creates a local user account MUSR_MQADMIN, with specific settings and permissions. The MQSeriesService component is configured to run under this account. Depending on the LAN configuration, the wizard might reconfigure the MQSeriesService component to run under a domain user account instead.</p> <p>When this parameter is specified, the local user account MUSR_MQADMIN is re-created with all the default settings and permissions. The MQSeriesService component is configured to run under this account.</p>	User account not reset.
-s	silent installation mode	Process silently. Nothing is displayed and there is no user input.	Not silent mode.
-p <i>file</i>	User parameters from file	<p>Load and use parameters from the parameter file. If the path is not provided, the IBM MQ Data directory is assumed. If the file name is not provided, AMQMJPSE.INI is assumed.</p> <p>The following stanzas are loaded:</p> <p>[Services] [SSLMigration]</p>	<p>When in silent mode, the parameter file AMQMJPSE.INI is loaded from IBM MQ Data directory.</p> <p>When not in silent mode, a parameter file is not used.</p>
-m <i>file</i>	Generate a Microsoft System Management Server (SMS) status .MIF file.	<p>When the Prepare IBM MQ Wizard closes, generate a status .MIF file with the specified name. If the path is not provided, the Data directory is assumed. If the file name is not provided, AMQMJPSE.MIF is assumed.</p> <p>The file ISMIF32.DLL (installed as part of SMS) must be in the path.</p> <p>The InstallStatus field in the file will contain either Success or Failed.</p>	.MIF file not created.

Configuring IBM MQ accounts in the Prepare IBM MQ Wizard

IBM MQ must be configured with a user account that has the correct authorization.

About this task

If your enterprise has domain controllers that are running Windows 2000 Server, Windows 2003 Server, or later, you must determine whether they are set up in such a way that IBM MQ cannot use local accounts to check that users who are defined on those domains are authorized to access queue managers or queues. If so, you must provide IBM MQ with a special domain user account to use.

Important: If the special domain user account is required but you carry on anyway and configure IBM MQ without it, many or all parts of IBM MQ might not work, depending upon the particular user accounts involved.

Procedure

1. When IBM MQ is running, it must check that only authorized users can access queue managers or queues. Whenever any user attempts such access, IBM MQ uses its own local account to query information about the user.
2. Domain controllers that are running Windows 2000 Server, Windows 2003 Server, or later, can be set up in such a way that IBM MQ cannot use local accounts to check that users who are defined on those domains are authorized to access queue managers or queues. In this case, you must provide IBM MQ with a special domain user account to use. If you are unsure whether this case applies to you, then you must consult your domain administrator.
3. If a special domain user account is needed, send the [“Configuring Windows accounts” on page 7](#) page to your domain administrator, and ask for one of the special accounts it describes.
4. Enter the account details into the Prepare IBM MQ Wizard. This wizard runs automatically at the end of installation; the wizard can also be run at any time from the **Start** menu.

Configuring Windows accounts

Domain controllers that are running Windows Server 2000 or later, can be set up in such a way that IBM MQ cannot use local accounts to check that users defined on those domains are authorized to access queue managers or queues. In this case, you must provide IBM MQ with a special domain user account to use.

Before you begin

Note: If you are installing or configuring IBM MQ, and you need your domain administrator to give you a special account to use, send this whole page to your administrator, as follows:

- Right-click this page and click **Select All**
- Right-click again and click **Copy**
- **Paste** into the body of a note in your email application

About this task

When you add a local user to the mqm group, this allows that user to administer IBM MQ on the system. This task describes how to do the same using Windows domain user ids.

IBM MQ has a component, running as a Windows service, that checks that any user account attempting to access IBM MQ is authorized. As part of the check, the service must query which groups the account is a member of. The service itself runs under a local user account created by IBM MQ at installation.

If you are using Windows 2000, Windows 2003, or later on any domain controller on your network, it can be set up such that local user accounts do not have authority to query the group membership of its domain user accounts - this prevents IBM MQ from completing its check, and access fails. To handle this situation, complete the following steps:

- Each installation of IBM MQ on the network must be configured to run its service under a domain user account that has the required authority (see the [instructions](#) for creating one).
- **Note:** If an installer continues and configures IBM MQ without a special account, many or all parts of IBM MQ will not work, depending upon the particular user accounts involved, as follows:
 - IBM MQ connections to queue managers running under Windows 2000, Windows 2003, or Windows Server 2016 domain accounts on other computers might fail.
 - Typical errors include AMQ8066: Local mqm group not found and AMQ8079: Access was denied when attempting to retrieve group membership information for user 'abc@xyz'.

The detailed instructions that follow guide a domain administrator to:

1. Create a global or universal domain group and give members of this group the authority to query the group membership of any account
2. Create one or more user accounts, and add them to the group
3. Repeat Step 2 to Step 4 for each domain
4. Use the accounts to configure each installation of IBM MQ
5. Set the password expiry periods.

The following information is aimed at Domain Administrators. Repeat Steps 2 - 4 for each domain that has user names that must administer IBM MQ, to create an account for IBM MQ on each domain:

For more information, see [Administering IBM MQ](#).

Procedure

1. Create a domain group with a special name that is known to IBM MQ and give members of this group the authority to query the group membership of any account:

Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016

- a. Log on to the domain controller as an account with domain administrator authority.
- b. Open **Server Manager > Roles > Active Directory Domain Services**
- c. Find the domain name in the navigation pane, right-click it and select **New Group**
- d. Type `Domain mqm` (this exact string must be used because it is understood and used by IBM MQ).
- e. In **Group scope**, select either **Global** or **Universal**
- f. In **Group type**, select **Security**, then click **OK**
- g. In the Server Manager, click **Tools** then select **Active Directory Users and Computers** from the list box.
- h. Select **View > Advanced features**
 - i. Expand your domain name, then click **Users**
 - j. In the **Users** window, right-click **Domain mqm > Properties**
 - k. On the **Security** tab, click **Advanced > Add...**
 - l. Click **Select principle**, then type `Domain mqm` and click **Check names > OK**

The **Name** field is prefilled with the string `Domain mqm (domain name\Domain mqm)`
- m. In the **Applies to** list, select **Descendant User Objects**
- n. In the **Permissions** list, select the **Read group membership** and **Read groupMembershipSAM** check boxes.
- o. Click **OK > Apply > OK > OK**.

Windows Server 2008 and Windows Server 2008 R2

- a. Log on to the domain controller as an account with domain administrator authority.

- b. Open **Server Manager > Roles > Active Directory Domain Services**
 - c. Find the domain name in the navigation pane, right-click it and select **New Group**
 - d. Type `Domain\mqm` (this exact string must be used because it is understood and used by IBM MQ).
 - e. In **Group scope**, select either **Global** or **Universal**
 - f. In **Group type**, select **Security**, and click **OK**
 - g. In the Server Manager action bar, click **View > Advanced features**
 - h. In the **Users** window, right-click **Domain\mqm > Properties**
 - i. On the **Security** tab, click **Advanced > Add...**, then type `Domain\mqm` and click **Check names > OK**

The **Name** field is prefilled with the string `Domain\mqm` (*domain name\Domain\mqm*)
 - j. Click **Properties**. In the **Apply to** list, select **Descendant User Objects**
 - k. In the **Permissions** list, select the **Read group membership** and **Read groupMembershipSAM** check boxes.
 - l. Click **OK > Apply > OK > OK**.
2. Create one or more accounts, and add them to the group:
 - a. In **Active Directory Users and Computers**, create a user account with a name of your choosing and add it to group `Domain\mqm`.
 - b. Repeat for all the accounts you want to create.
3. Repeat Steps 1 and 2 for each domain that has user names that must administer IBM MQ, to create an account for IBM MQ on each domain.
4. Use the accounts to configure each installation of IBM MQ:
 - a. Either use the same domain user account (as created in Step 1 previously) for each installation of IBM MQ, or create a separate account for each one, adding each to the `Domain\mqm` group.
 - b. When you have created the accounts, give one to each person configuring an installation of IBM MQ, who must enter the account details (domain name, user name, and password) into the Prepare IBM MQ Wizard. Give them the account that exists on the same domain as their installing userid.
 - c. When you install IBM MQ on any computer on the domain, the IBM MQ installation program detects the existence of the `Domain\mqm` group on the LAN, and automatically adds it to the local "mqm" group. (The local "mqm" group is created during installation; all user accounts in it have authority to use IBM MQ). Thus all members of the `Domain\mqm` group have authority to use IBM MQ on this computer.
 - d. However, you do still need to provide a domain user account (as created in Step 1 previously) for each installation, and configure IBM MQ to use it when making its queries. The account details must be entered into the Prepare IBM MQ Wizard that runs automatically at the end of installation (the wizard can also be run at any time from the start menu).
 - e. The account must have the user right to run as a service. Click **Start > Run...** and type `secpol.msc`. Double-click **Logon as a service > Add User or Group...**, and add the domain user. Click **Check Names > OK > OK**.
5. Set the password expiry periods:
 - If you use just one account for all IBM MQ users, consider making the password of the account never expire, otherwise all instances of IBM MQ stop working at the same time when the password expires.
 - If you give each user of IBM MQ their own user account you will have more user accounts to create and manage, but only one instance of IBM MQ stops working at a time when the password expires.

If you set the password to expire, warn the users that they will see a message from IBM MQ each time it expires - the message warns that the password has expired, and describes how to reset it.

Completing the Prepare IBM MQ Wizard

When the process is complete the wizard displays the Completing the Prepare IBM MQ Wizard page, where you can choose to start IBM MQ Explorer or open the release notes.

About this task

The choices on this page are optional, but you are advised to take this opportunity to read and print the Release notes.

Procedure

1. Select whether you want to start IBM MQ Explorer or open the release notes.

IBM MQ Explorer

IBM MQ Explorer is the main interface where you carry out administration of IBM MQ on your computer.

Release notes

The release notes file contains installation information, and includes a link to the online product readme document which provides information about this release of IBM MQ. Read the release notes and readme document and print them if necessary, because important information might not be available anywhere else on your computer or in the published documentation.

2. Click **Finish** to close the wizard.

IBM MQ Explorer and the release notes then open, if you have chosen the options for them to do so.

Creating, viewing or altering the default configuration with the Default Configuration wizard

You can use the Default Configuration wizard to create, view, or alter your default configuration.

The default configuration is a special setup application which enables you to quickly and easily explore IBM MQ with the Postcard application and IBM MQ Explorer.

You can create the default configuration using the Welcome to IBM MQ Explorer **Content** view page. You can use this page at a later time to view, or alter, the cluster configuration.

For the more information about the Default Configuration, see [“Default configuration” on page 10](#).

The use of the Postcard application and its supporting Default Configuration wizard for installation verification is deprecated from IBM MQ 9.1.0.

Default configuration

You can use the **Default Configuration** panel after IBM MQ has been installed, to create, view or alter your default configuration.

The default configuration is a special setup that enables you to quickly and easily explore IBM MQ with the Postcard application and IBM MQ Explorer.

Note that all the fields on this panel are for display only, you cannot alter them directly. To make alterations, click one of the buttons.

Remote administration

The **Allow** and **Prevent** buttons take immediate effect, setting the queue manager shown.

Default Cluster Membership

If the configuration is joined to a cluster, the cluster name is displayed in **Cluster Name**, the **Repository Location** will be either *This computer* or *A remote computer*, and, if it is on a remote computer, the **Repository Computer Name** or **Repository IP Address** will show what computer it is on.

If the **Name** is displayed as *None*, the configuration is not joined to a cluster. To join the default cluster, click **Join Default Cluster** to start the default configuration wizard at the appropriate point.

Set up Default Configuration

If the default configuration has not been set up, click this button to start the Default Configuration wizard. For more information about the panels in the wizard, see the following topics:

- [“Default queue manager configuration” on page 11](#)
- [“Join default cluster” on page 11](#)
- [“Local repository” on page 12](#)
- [“Remote repository” on page 12](#)

Note:

1. You will not be able to create the default configuration after you have created any queue managers. If this is the case and you want to create the default configuration, first delete all existing queue managers.
2. If you choose not to create the default configuration, you can create your own queue manager and use it from the Postcard application.
3. The default configuration cluster is not a typical one because it has only one repository, and it might have only one queue manager.

Default queue manager configuration

On the Default Configuration panel, you can choose whether to allow remote administration for the queue manager, and also whether to join the default cluster.

Note: The name of the default queue manager is based on your computer name. This makes it easy to find when you are remotely administering queue managers on other computers from IBM MQ Explorer.

Remote administration

Check **Allow** to allow this queue manager on this computer to be administered by a user on a remote IBM MQ computer. This is independent of whether this queue manager is joined to a cluster, but you would normally enable remote administration to enjoy the full benefits of single-point administration that clustering provides.

Join the default cluster

Note: The name of the default cluster is set as `DEFAULT_CLUSTER`. This means that all IBM MQ installations on computers connected to the same network are ready to join the same cluster, and thus be ready to start sending messages to each other immediately, using the default configuration.

To join queue managers to the same cluster, each queue manager must specify the same cluster name, one of the computers must be defined as the cluster repository, and all of the others must be set to use that same repository. You will set this up on the next panel, [“Join default cluster” on page 11](#).

Join default cluster

When creating the default configuration, you might be given the option to join the default cluster.

The IBM MQ Default Configuration panel might display the message:

Join the default cluster by clicking "Join default cluster" to complete the default configuration on this computer.

This is only necessary if you want to join a cluster.

To make the default configuration cluster, one of the queue managers in the cluster must hold the cluster repository, and all the others must point to it (this is slightly different from clusters in general).

Table 2. Choices for selecting the Yes and No options for joining the default configuration cluster

Scenario	Option to select
If IBM MQ has not been installed on another computer in this cluster yet...	Select Yes to make this one a <u>local repository</u> . Note: If this computer uses DHCP (dynamic allocation of IP address) you must not normally put a repository on it (because if the IP address changes, other queue managers, even on this computer, are no longer able to find it). However, if it is the only queue manager in the cluster, it is acceptable to make it the repository
If IBM MQ has already been installed on another computer and a queue manager on that computer has been defined as a repository for the cluster...	Select No , and on the next panel (<u>Remote Repository</u>) specify the name of the computer holding the repository queue manager.

Local repository

If IBM MQ has not yet been installed on another computer in the cluster, you can choose to define the local computer that you are using as a local repository.

Tip: When you define a computer as the local repository, make a note of the computer name for future reference.

When you install IBM MQ on another computer on this network, you can install the default configuration on it and specify **remote repository**, entering this computer name as the remote location so that the two computers are joined to the same cluster.

If there is another computer on the network that you want to join to the cluster and this computer already has IBM MQ installed but does not yet have the default configuration installed, use the Default Configuration wizard to install the default configuration.

Remote repository

If you choose not to define a local repository, you must define a remote repository instead.

If on the Join Default Cluster panel, you choose not to define the local computer's queue manager as the local repository, you must instead define which computer holds (or will hold) the queue manager to be the remote repository for this cluster. To define a computer as the remote repository, enter the TCP/IP computer name (or the IP address) of the remote computer.

You can still define a computer as the remote repository at this time even if this computer is not yet ready to be the remote repository, for example, for either of the following reasons:

- You have installed IBM MQ but not yet configured it.
- You have not yet installed IBM MQ.

However, before you can use your cluster, you must reconfigure that machine appropriately by using the Default Configuration wizard.



Uninstalling or modifying IBM MQ for Windows

To uninstall, or to modify your current installation, use the IBM MQ installer.

About this task

To uninstall IBM MQ, complete the following steps.

Procedure

1. Start the wizard by selecting **Start > Settings > Control Panel > Add or Remove Programs**.

- Select **IBM MQ** from the list.
2. Choose from **Change** or **Remove**.
 - Click **Change** to open the IBM MQ installer, and proceed to Step 3.
 - Click **Remove** to instantly remove IBM MQ without further interaction (queue managers will not be removed).
 3. In the IBM MQ installer, choose from:
 - **Modify** allows you to choose to install or uninstall any of the IBM MQ features.
 - **Remove** removes all of the IBM MQ program files. You can also choose to remove all of your queue managers and their objects.
 4. After making your choices, the Installation summary is displayed.

Check that the list of features selected is correct, before committing to install or uninstall them.

Results

IBM MQ is uninstalled or modified.

Using the Postcard sample to verify your IBM MQ installation

You can set up and use the Postcard sample application to verify a local installation or a server-to-server installation of IBM MQ, and test that the associated communication links are working properly.

About this task

The use of the Postcard application and its supporting Default Configuration wizard for installation verification is deprecated from IBM MQ 9.1.0.

To verify your installation, you start two instances of the Postcard sample and exchange messages between these two instances, which can either be on the same computer or on different connected computers.

Procedure

1. Start the Postcard sample:
 - a) Open the correct content view to launch a postcard.

Select IBM MQ in the navigator.
 - b) Start the Postcard application.

Select **Launch Postcard** on the Welcome to IBM MQ Explorer **Content** view page.
 - c) When the Postcard sample starts, sign on and enter a nickname, for example Nick.

There are advanced options available on the sign-on dialog, see [Signing-on](#) for more information.
2. Send a postcard:

Let's say that when you signed on you chose a nickname of Nick. Now you can send a postcard from Nick to another nickname, say Tim. You can either do this by using the same queue manager on the same computer, or by using another queue manager, either on the same computer or on another computer:

 - [When Tim is on the same queue manager on this computer](#)
 - [When Tim is on another queue manager on this or another computer](#)
3. Verify that the postcard has arrived.

Check that Tim has received the postcard.

Results

When the postcard arrives successfully, you know that your IBM MQ installation is working correctly.

Related tasks

[Installing and configuring IBM MQ](#)

Welcome to IBM MQ. This help documentation provides information that you might need when you install and configure IBM MQ.

Postcard: Signing on

The Postcard application can use either the Default Configuration queue manager, or a queue manager that you have created yourself.

About this task

To verify your IBM MQ installation, you start two instances of the Postcard sample and exchange messages between these two instances, which can either be on the same computer or on different connected computers.

When you run the Postcard sample, you can either use the Default configuration queue manager, or a queue manager that you have created yourself.

Using the Default Configuration queue manager

You can use the Default Configuration wizard to add the first configured queue manager to your installation of IBM MQ. For more information about using this wizard, see [“Creating, viewing or altering the default configuration with the Default Configuration wizard”](#) on page 10.

Using the Default Configuration queue manager to send the Postcards is the easiest way to use the Postcard sample, and also the simplest way to send Postcards between two or more computers. If you are using the Postcard sample between two or more computers, make sure that you have run the Default Configuration wizard on all of the computers. If you start the Postcard sample on computer with no queue managers set up, you are asked if you want to launch the Default Configuration wizard or close the Postcard.

Note: If you create a cluster using the Default Configuration wizard, make sure that one of the computers in the cluster hosts the repository for the cluster and that all the other computers use the first computer as their repository so that all the computers are in the same cluster.

Using a different queue manager

If you have other queue managers defined on the computer on which you are running the Postcard sample, you can select the queue manager that the Postcard sample uses. If you want to send postcards between two queue managers on one or more computers, ensure that your installation meets following conditions:

- The queue managers are in the same cluster.
- You have created explicit connections between the queue managers.

Procedure

- Use the Default Configuration queue manager:
 - a) In the **Nickname** field of the first Postcard, type a nickname to use for sending postcards, for example Nick, and in the second Postcard type a nickname to use for receiving postcards, for example Tim.
It doesn't matter what nicknames you choose.
 - b) Click **OK** to continue.The Postcard sample exchanges messages between the two nicknames using the Default Configuration queue manager.
- Use a different queue manager:
 - a) In the **Nickname** field of the first Postcard, type a nickname to use for sending postcards, for example Nick, and in the second Postcard type a nickname to use for receiving postcards, for example Tim.

It doesn't matter what nicknames you choose.

- b) Select the **Advanced** check box.

The dialog extends to display more options.

- c) In the extended dialog, click **Choose queue manager as mailbox**, then select the queue manager from the list.

- d) Click **OK** to continue.

A local queue called postcard is automatically created on the queue manager that you selected.

Ensure that any postcard, on the same computer or on a different computer, uses the name of this queue manager to send messages. The Postcard sample exchanges messages between the two nicknames using the queue manager that you selected.

Related tasks

[Postcard: Exchanging messages using one queue manager](#)

You can start two instances of the Postcard sample and send messages between them using one queue manager.

[Postcard: Exchanging messages between two queue managers](#)

You can start two instances of the Postcard sample and send messages between them using two queue managers.

Related reference

[Postcard: Exchanging messages between different types of Postcard](#)

You can exchange messages between Postcard instances, on different versions of the product and operating systems.

[Postcard: How the postcards work](#)

A description of the internal workings of the Postcard sample.

Postcard: Exchanging messages using one queue manager

You can start two instances of the Postcard sample and send messages between them using one queue manager.

About this task

When you started the Postcard sample as described in [Signing on](#), you specified a nickname to use for that Postcard, for example, Nick. To send a Postcard to a second nickname on this computer, using a single queue manager, complete the following steps:

Procedure

1. Move Nick's Postcard to one side of your screen, then start a second Postcard.
2. In the **Sign-on** dialog for the second Postcard, enter a second nickname, for example, Tim.
3. On Nick's Postcard, complete the **To** field with a second nickname, Tim. You can leave the On field empty and Postcard will fill it in for you, or you can type in the queue manager name that you see beneath the Message box after "**On:**".
4. Click in the **Message** box, type your message, then click **Send**.
5. Look in Tim's Postcard to see the message arrive, and double-click the message to see the postcard itself.
6. Now try using Tim to send a Postcard back to Nick. You can do this easily, by selecting the message that arrived in Tim's list, and clicking **Reply**.

Related tasks

[Postcard: Signing on](#)

The Postcard application can use either the Default Configuration queue manager, or a queue manager that you have created yourself.

[Postcard: Exchanging messages between two queue managers](#)

You can start two instances of the Postcard sample and send messages between them using two queue managers.

Related reference

[Postcard: Exchanging messages between different types of Postcard](#)

You can exchange messages between Postcard instances, on different versions of the product and operating systems.

[Postcard: How the postcards work](#)

A description of the internal workings of the Postcard sample.

Postcard: Exchanging messages between two queue managers

You can start two instances of the Postcard sample and send messages between them using two queue managers.

About this task

When you started the Postcard sample as described in [Signing on](#), you specified a nickname to use for that Postcard, for example, Nick. If you have a second queue manager on this computer or on another computer, and both queue managers are in the same cluster or you have configured channels to communicate between the two queue managers, you can send a Postcard to another nickname on the second queue manager. To send a postcard to a second nickname, complete the following steps:

Procedure

1. Start a second Postcard, either on the same computer as the one on which you started Nick's Postcard, or on another computer, depending on the location of the second queue manager.
2. In the Sign-on dialog for the second Postcard, enter a second nickname, for example, Tim.
3. On Nick's Postcard, type the following information:
 - a) Complete the **To** field with a second nickname, for example, Tim.
 - b) In the **On** field, type the name of the queue manager name on the computer where Tim's Postcard is.

If you don't know this name, in Tim's Postcard, look beneath the Message box after **On**. Alternatively, if both queue managers are in the default configuration cluster, you can just type in the short TCP/IP name of Tim's computer, and Postcard will build that into the queue manager name in the same way that the Default Configuration wizard did.

To select a custom queue manager, click **Advanced**.
4. In Nick's Postcard, type your message, then click **Send**.
5. Look in Tim's Postcard to see the message arrive, and double-click the message to view it.
6. Now try sending one from Tim's computer back to Nick. You can do this by selecting the message that arrived in Tim's list, and clicking **Reply**.

Related tasks

[Postcard: Signing on](#)

The Postcard application can use either the Default Configuration queue manager, or a queue manager that you have created yourself.

[Postcard: Exchanging messages using one queue manager](#)

You can start two instances of the Postcard sample and send messages between them using one queue manager.

Related reference

[Postcard: Exchanging messages between different types of Postcard](#)

You can exchange messages between Postcard instances, on different versions of the product and operating systems.

[Postcard: How the postcards work](#)

A description of the internal workings of the Postcard sample.

Postcard: Exchanging messages between different types of Postcard

You can exchange messages between Postcard instances, on different versions of the product and operating systems.

You can exchange messages between the following different types of Postcard samples as follows:

- The Postcard sample on IBM MQ on Windows
- The Postcard sample on IBM MQ on other operating systems, such as Linux® or UNIX
- The MQI Postcard sample on previous versions of the product on Windows
- The JMS Postcard sample on previous versions of the product on Windows
- The JMS Postcard sample on previous versions of the product on other operating systems, such as Linux or UNIX

Related tasks

[Postcard: Signing on](#)

The Postcard application can use either the Default Configuration queue manager, or a queue manager that you have created yourself.

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You can start two instances of the Postcard sample and send messages between them using one queue manager.

[Postcard: Exchanging messages between two queue managers](#)

You can start two instances of the Postcard sample and send messages between them using two queue managers.

Related reference

[Postcard: How the postcards work](#)

A description of the internal workings of the Postcard sample.

Postcard: How the postcards work

A description of the internal workings of the Postcard sample.

The following table lists the functions performed by the Postcard sample and how its coding achieves them.

Postcard function	Postcard coding
Starting up. When Postcard starts, it checks what queue managers exist on this computer, and initializes the sign-on dialog accordingly (if there are no queue managers at all, it will prompt you to create the default configuration).	Postcard uses the MQI call MQCONN to connect to the default queue manager (its name is a transformation of your computer's TCP/IP name).
Receiving messages. All the time that Postcard is running, it polls a queue called postcard for incoming messages from other Postcards. If there is no queue called postcard, Postcard attempts to create one.	Postcard polls by doing one MQOPEN call, and then regular MQGET calls on the queue, with the Correlation Identifier (CorrelId field) in the Message Descriptor (MQMD) set to the nickname for this Postcard. This means that only messages with a matching nickname are read. Then the words from the message data are displayed in the Postcard window.

Table 3. Postcard functions and the associated coding used to achieve each function (continued)

Postcard function	Postcard coding
<p>Sending messages.</p>	<p>If you do not enter a computer name in the On: field, Postcard assumes that the recipient is on the same queue manager as the sender. If you enter a computer name in the On: field, Postcard checks if the local mailbox is the Default Configuration queue manager and, if so, transforms the computer name into the queue manager name using the same transform rules as the Default Configuration wizard used to name the queue manager; otherwise, the Postcard uses the name entered as the queue manager name. In both cases, Postcard does an MQCONN to connect. Then Postcard does an MQOPEN where in the Object Descriptor (MQOD), it sets the ObjectName (the queue) to postcard, and the ObjectQMgrName to the queue manager name. Finally, it builds an IBM MQ message from your nickname and the words you typed in, and does an MQPUT on the queue.</p>
<p>How the postcards get there. When other instances of Postcard on this computer are using the same queue manager and queue, the messages are just put and got from the one queue. This verifies that the IBM MQ code installed on this computer is configured and working correctly. For the Postcard to send to another queue manager, a connection must exist to it. This connection exists either because both queue managers are members of the same cluster, or because you have explicitly created a connection yourself. Postcard can therefore assume that the queue manager is connectable, and connects to it, opens the queue and puts a message, leaving all the work of getting the message to its destination to the IBM MQ cluster code. That is, Postcard uses only the one piece of code for putting the message, and does not need to know whether the message is going to another computer.</p>	<p>In Postcard, when MQOPEN is called, the cluster code checks the repository to find the other queue manager, and to check that the queue exists, and, if so, returns from MQOPEN with an OK return code. When MQPUT is called, the cluster code opens a channel to the other queue manager (creating it if necessary) and sends the message. The channel might be discarded afterward if the cluster optimizing code does not need it. If the queue managers are on different computers, sending the message to the destination computer is handled by the cluster code.</p>
<p>Tidying up undeliverable messages.</p>	<p>If you sent a Postcard to "John" but never ran a Postcard with the nickname "John", the message would sit on the queue forever. To prevent this, Postcard sets the Message Lifetime (Expiry) field in the Message Descriptor (MQMD) to 48 hours. After that time, the message is discarded, wherever it might be, even if it is still in transmission.</p>

Related tasks

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Related reference

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You can exchange messages between Postcard instances, on different versions of the product and operating systems.

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