

CA MICS[®] Resource Management Q&R Workstation

Getting Started

Release 12.9.00



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CA Technologies Product References

This document references the following CA product:

- CA MICS® Resource Management

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Chapter 1: Overview

Q&R Workstation provides access and reporting facilities on your PC Workstation for use with CA MICS or any Statistical Analysis System (SAS) database on the mainframe. Query, reporting, graphing, and analysis tools are provided to help you meet the challenging task of enterprise management reporting in today's IT environment. Through the ability to create queries and distribute the results, Q&R Workstation provides a unique and effective desktop reporting tool for resource management, performance management, capacity management, and accounting and chargeback. Q&R Workstation also supports automated web publishing and desktop reporting with data collected from CA MICS and SAS databases.

This section contains the following topics:

[Distinctive Features](#) (see page 7)

[System Overview](#) (see page 8)

[Q&R Workstation Applications](#) (see page 8)

[System Requirements](#) (see page 10)

Distinctive Features

The many distinctive features of Q&R Workstation make it a valuable query and reporting tool for today's IT organization. The features include the following:

Q&R Query

Q&R Query lets you use queries to extract information for analysis and reporting from CA MICS or SAS databases on the mainframe and present it on your workstation.

The Q&R Query application also lets you view query results and retrieve query output stored on the Q&R Distributed Server. You can launch Q&R Charting to generate reports and graphics from within Q&R Query.

After a query is created, you can do the following:

- Run immediately
- Schedule to run through MICF production reporting
- Save for future or occasional use
- Share among users

Your query output is stored in a Comma Separated Values (CSV) formatted file, which can easily be imported to a number of applications.

Data Dictionary

The Data Dictionary provides information on all measurement elements that are stored in your CA MICS complex. While editing your query, this feature lets you get information on any element by right-clicking on it and choosing to view the dictionary. The Data Dictionary entry for that element will be pulled from the dictionary in your CA MICS complex and displayed on your screen.

Q&R Charting

This feature provides for visualization of data created with Q&R Query. Charts are automatically generated from the CSV formatted file produced by a query. You can customize the charts and create multiple charts and views from the data produced by a single query. Presentation preferences and settings are automatically saved for use whenever the query results are displayed.

Publish Output to Q&R Web Reporting

This feature provides easy access to web published Q&R Query results and MICF Report output by your internal customers and information consumers. Reports are viewed through a web browser and are displayed in graphical or tabular form according to the visualization settings defined by the query authors.

System Overview

Q&R Workstation is a Client/Server application with Microsoft Windows and mainframe components.

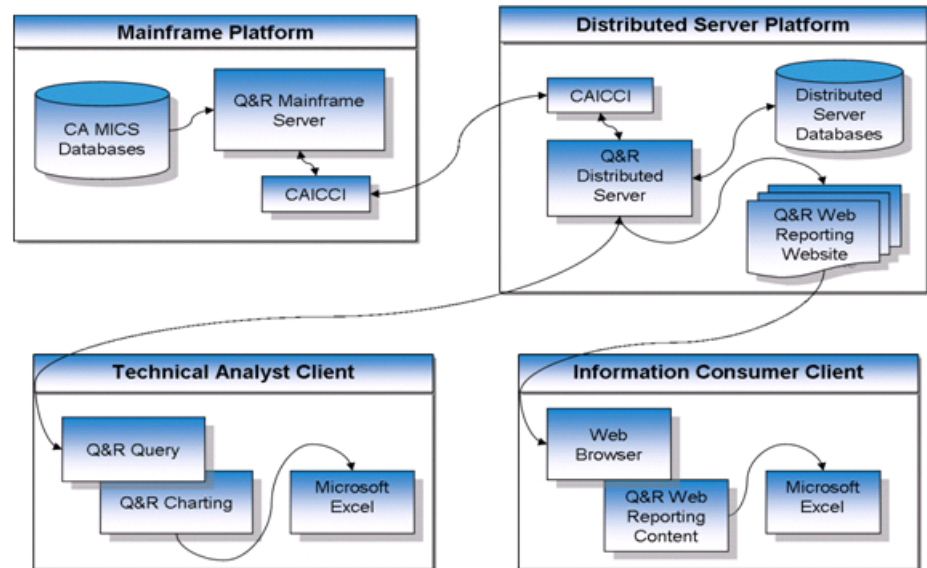
The PC components are grouped into two major branches: Q&R Query and Q&R Distributed Server, which can be installed on the same machine or on separate machines depending on your environment and use of the product.

Q&R Workstation Applications

This section presents an overview of each of the Q&R Workstation applications and explains how each application is used.

Note: For more information, see the *User Guide*.

The following illustration shows the flow of data between the Q&R Workstation applications:



The major applications are described in the following components and descriptions list:

Q&R Mainframe Server

The Q&R Mainframe Server provides Q&R Workstation access to mainframe resources. This server runs on the mainframe to process queries submitted by the Q&R Distributed Server and returns the results to the Q&R Distributed Server which provides you with access to:

- CA MICS and other SAS database that are files that are stored on the mainframe system.
- Meta Database information and element definitions that are stored in a CA MICS complex.

Q&R Distributed Server

The Q&R Distributed Server acts as a middle layer bridging Q&R Query and the Q&R Mainframe Server. The Q&R Distributed Server coordinates the submission of on-demand queries from Q&R Query and manages the output that is returned from the Q&R Mainframe Server. The Q&R Distributed Server also stores Meta Database information, query results, and element definitions for quick access by Q&R Query users.

The Q&R Distributed Server also includes a feature to publish output to a web server for use with Q&R Web Reporting.

Q&R Query

Q&R Query includes all the end-user applications which provide query, reporting, charting, web, and analysis tools for enterprise management reporting.

System Requirements

The minimum installation requirements for Q&R Workstation are listed in this section.

Notes:

- Operating system updates and service packs can cause these requirements to change. If you have questions about current requirements, review the *Readme* and CA Support Online (<http://ca.com/support>) for the latest updates.
- Q&R Query and Q&R Distributed Server can be installed on the same computer.

| Component | Requirements | | | | | | |
|------------------------|--|----------|---|----------|--|-------------------|-----------------|
| Q&R Query | <p>Q&R Query must be installed on the computer of the end user.</p> <hr/> <table> <tr> <td>Hardware</td> <td> <ul style="list-style-type: none"> ■ Dual Core processor with 2 GB RAM ■ 100 MB of disk space with an additional 1 GB of end-user work file space ■ Screen resolution of 1280x1024 pixels is recommended </td> </tr> <tr> <td>Software</td> <td> <p>One of the following:</p> <ul style="list-style-type: none"> ■ Windows Server 2012 ■ Windows 8.1 Enterprise ■ Windows 8 Enterprise ■ Windows Server 2008 R2 ■ Windows 7 Enterprise ■ Windows Vista Professional ■ Windows Vista Enterprise <p>Recommended:</p> <ul style="list-style-type: none"> ■ Adobe Acrobat </td> </tr> <tr> <td>Optional Software</td> <td>Microsoft Excel</td> </tr> </table> | Hardware | <ul style="list-style-type: none"> ■ Dual Core processor with 2 GB RAM ■ 100 MB of disk space with an additional 1 GB of end-user work file space ■ Screen resolution of 1280x1024 pixels is recommended | Software | <p>One of the following:</p> <ul style="list-style-type: none"> ■ Windows Server 2012 ■ Windows 8.1 Enterprise ■ Windows 8 Enterprise ■ Windows Server 2008 R2 ■ Windows 7 Enterprise ■ Windows Vista Professional ■ Windows Vista Enterprise <p>Recommended:</p> <ul style="list-style-type: none"> ■ Adobe Acrobat | Optional Software | Microsoft Excel |
| Hardware | <ul style="list-style-type: none"> ■ Dual Core processor with 2 GB RAM ■ 100 MB of disk space with an additional 1 GB of end-user work file space ■ Screen resolution of 1280x1024 pixels is recommended | | | | | | |
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| Optional Software | Microsoft Excel | | | | | | |
| Q&R Distributed Server | <p>The Q&R Distributed Server must be installed by the Q&R Administrator on a network computer accessible to end-users who access the Q&R Workstation.</p> <hr/> <table> <tr> <td>Hardware</td> <td> <ul style="list-style-type: none"> ■ Dual Core processor with 4 GB RAM ■ 250 GB of disk space ■ 500 GB of disk space if the IIS server is hosted on the same machine as the Q&R Distributed Server </td> </tr> </table> | Hardware | <ul style="list-style-type: none"> ■ Dual Core processor with 4 GB RAM ■ 250 GB of disk space ■ 500 GB of disk space if the IIS server is hosted on the same machine as the Q&R Distributed Server | | | | |
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| Component | Requirements |
|----------------------|--|
| | <p data-bbox="529 317 634 344">Software</p> <p data-bbox="721 317 948 344">One of the following:</p> <ul data-bbox="721 369 1414 863" style="list-style-type: none"><li data-bbox="721 369 1003 396">■ Windows Server 2012<li data-bbox="721 417 1024 445">■ Windows 8.1 Enterprise<li data-bbox="721 466 1003 493">■ Windows 8 Enterprise<li data-bbox="721 514 1036 541">■ Windows Server 2008 R2<li data-bbox="721 562 1003 590">■ Windows 7 Enterprise<li data-bbox="721 611 1062 638">■ Windows Vista Professional<li data-bbox="721 659 1045 686">■ Windows Vista Enterprise<li data-bbox="721 707 1029 735">■ CAICCI-PC 14.0.1 (32 bit)<li data-bbox="721 756 932 783">■ Adobe Acrobat<li data-bbox="721 804 1414 863">■ Web Server - Microsoft Internet Information Services (IIS) is recommended to host the Q&R Web Reporting Web site. |
| Q&R Mainframe Server | <p data-bbox="529 877 1414 1003">The Q&R Mainframe Server must be installed by the CA MICS Administrator. The minimum level system requirements for the Q&R Mainframe Server are listed below. See solution QI45347 on http://ca.com/support for any changes as this solution documents the latest system requirements and configuration information.</p> <ul data-bbox="529 1024 1162 1192" style="list-style-type: none"><li data-bbox="529 1024 1162 1052">■ Product change BAS7767, delivered on CA MICS r12.9<li data-bbox="529 1073 1162 1100">■ CA Common Services for z/OS with CAICCI and CAIENF<li data-bbox="529 1121 764 1148">■ SAS Release 9.1.3<li data-bbox="529 1169 691 1197">■ z/OS 1.9.0 |

Chapter 2: Installing Q&R Workstation

This chapter describes the installation of the Q&R Workstation. The installation includes the Q&R Distributed Server and Q&R Query applications.

This section contains the following topics:

[Package Contents](#) (see page 13)

[Installation Steps](#) (see page 13)

[Upgrade Steps](#) (see page 19)

Package Contents

CA provides the following materials for installation and use of the Q&R Distributed Server and Q&R Query components on the PC platform.

- All Q&R Workstation PC components
- Common Communication Interface (CAICCI-PC) (required for Q&R Distributed Server)
- Microsoft .NET Framework 4.5
- Comprehensive documentation explaining how to use, install, customize, and maintain the Q&R Workstation.

Note: Q&R Workstation requires the BAS mainframe component delivered through the normal CA MICS product distribution.

Installation Steps

Note:

- If you are updating from a prior version of Q&R Workstation, go to Upgrade Steps.
- Users who only view the reports on the Q&R Web Reporting website need not install any Q&R Workstation feature components. They can access the reports using a web browser through a URL provided by the Q&R Administrator.

The following list summarizes the procedures involved in the installation process. Review these procedures before installing the Q&R Workstation.

1. Review System Requirements
2. Install Q&R Workstation
3. Activate the Q&R Mainframe Server (Administrator only)

4. Configure CAICCI-PC (Administrator only)
5. Define Q&R Workstation Users (Administrator only)
6. Build the Meta Database (Administrator only)
7. Remove Allow unauthenticated access from this machine (Administrator only)

More information:

[Upgrade Steps](#) (see page 19)

Step 1. Review System Requirements

Before installing the Q&R Workstation, review the system requirements to make sure that all the requirements are met.

More information:

[System Requirements](#) (see page 10)

Step 2: Install Q&R Workstation

This step describes the procedure for installing Q&R Workstation and its components using the installation media.

To install Q&R Workstation

1. Extract the installation ZIP file to a local or accessible network drive.
2. Run the extracted Setup.exe program to install the PC components of the Q&R Workstation.

If you are installing on Windows 7 or Windows 8, do *one* of the following:

- Install as a member of the local administrator group
 - Verify that your domain account has appropriate administration privileges before you run set up.
3. You are presented with a list of installation options. Use these guidelines to determine the best options to include on your computer:
 - *Q&R Query* - For end users who author and run queries or view output
 - *Q&R Distributed Server* - To be installed only by the Q&R Administrator on a computer that is selected by the Q&R Administrator
 - *Full* - Install both the Q&R Query and Q&R Distributed Server

- *Custom* - The user selects the components to install

Note: This option is only for advanced users.

4. If you are prompted, install the *Microsoft .NET Framework* which is required for both Q&R Query and Q&R Distributed Server components.
5. If you are prompted, install CAICCI-PC (Server Only or Full Install) which is required for Q&R Distributed Server components.
 - CAICCI-PC can be configured during the Q&R Install or after the install completes. For information about configuring CAICCI-PC see, Step 4. Configure CAICCI-PC (Administrator Only)
6. (Optional) For new installs:
 - You can set the Q&R Working Data path to a location other than the default C:\ProgramData\CA\MICS Workstation.
Use the Destination Location panel during the installation to set this new path. Click the change button and select the new location for this directory.
 - Network drive: We recommend that you do not install to a network drive. Only use drives that are local to the computer.
If you must put your \Server directory on a network drive, you must reference it as a UNC share; it cannot be referenced as a network drive.
Note: This may cause the install to fail if you do not have the appropriate access rights to the network share.
7. If you are an end user installing Q&R Query only, contact the Q&R Administrator to obtain the name (or IP address) and Port Number of the Q&R Distributed Server.

If you are an end user installing Q&R Query only, the installation is complete.

Notes:

- For Server or Full installs, you might be prompted to install the CA-CAICCI PC software and the Microsoft Access Database Engine. This software is required for normal functions of the Q&R Distributed Server and its supporting utilities.
- The Q&R Workstation feature documentation is installed with the software and is available through the start menu.

Step 3. Activate the Q&R Mainframe Server (Administrator Only)

In this step, the Q&R Administrator activates the Q&R Mainframe Server. The Q&R Mainframe Server is provided with the CA MICS BAS component and is available to all CA MICS clients.

To activate the Q&R Mainframe Server

1. Set the Q&R Mainframe Server parameters.

2. Generate the Q&R Mainframe Server JCL.
3. Configure the Q&R Mainframe Server User Table – MQRUTAB (Administrator only)
4. Submit the Q&R Mainframe Server job, found in sharedprefix.MICS.CNTL(MQRHOST). This job continues running until it is shut down.

Repeat this step for each CA MICS complex that you want to access.

Note: For more information, see the Set Up the Q&R Mainframe Server section in the *Administration Guide*.

Step 4. Configure CAICCI-PC (Administrator Only)

This step describes the procedure to configure CAICCI-PC and also to validate the TCP/IP configuration.

To configure CAICCI-PC

1. Start the CAICCI-PC configuration process by clicking OK at the prompt to configure CAICCI-PC at the end of CAICCI-PC installation process.

The CAICCI-PC Properties window appears.

Note: Alternatively, you can start the CAICCI-PC configuration process from the Windows Start Menu; select Programs, CA, CA CAICCI-PC. Launch CCIPC Configurator (32 bit).

2. Click the TCP/IP tab.
The TCP/IP view appears. Q&R requires only CAICCI-PC TCP/IP configuration for connectivity from the Q&R Distributed Server to the Q&R Mainframe Server.
3. CCI Server Identification is the network name or IP address of the mainframe where the Q&R Mainframe Server is installed and running.
 - In the Name or IP address field, enter the name (network short-name or fully-qualified network name) of the mainframe where the Q&R Mainframe Server (MQRHOST job) is running.
 - In the Port field, specify the port number for CCI.
Default: 1202.
4. CCI Client Identification is used to uniquely identify this machine on which you have installed Q&R Workstation Distributed Server and CAICCI-PC. Additional information can be found in CAICCI-PC help. In the System Name field, enter a value of up to 8 characters to identify the local machine.
5. Enter the CCI Timeout Intervals values or select the default values that appear.
 - Reply to wait
Default: -1

- Ready to receive

Default: -1

- Ready to send

Default: 60

Additional information can be found in CAICCI-PC help.

6. Click Apply to save configuration changes.

The program configures your CAICCI-PC.

To test the CAICCI configuration and validate the TCP/IP configuration

1. Select the Test tab.

The Test tab displays diagnostic test results. Before using the Start button to test the connection, be sure your CCI Server Identification and CCI Client Identification have been set and applied on the TCP/IP tab.

2. Click on the Start button to validate the TCP/IP configuration.

A series of messages will follow indicating that the test was successful, including:

CCInit was successful

CCIterm was successful

Step 5. Define Q&R Workstation Users (Administrator Only)

This step is required only for computers on which the Q&R Distributed Server is installed.

Note: To become familiar with Q&R Distributed Server administration and security features, see the chapter "Distributed Server" in the *Administration Guide*.

Before anyone can access Q&R Workstation using Q&R Query or Q&R Distributed Server Administration, user access privileges must be defined on the Q&R Distributed Server.

To define user access privileges

1. Double-click the Q&R Distributed Server Administration icon on the Desktop.
2. Click on File ->Security.

The Q&R Distributed Server Administration Security screen appears.

3. Fill in the information about your Q&R Workstation user and click the Add button.
4. Repeat step 3 to define additional Q&R Workstation users and administrators.

Note: For more information, see the *Administration Guide*.

Step 6. Build the Meta Database (Administrator Only)

This step is required only for computers on which the Q&R Distributed Server is installed.

Note: To become familiar with Q&R Distributed Server administration and security features, see the chapter "Distributed Server" in the *Administration Guide*.

Before anyone can access data using Q&R Query, a Meta Database must be populated on the Q&R Distributed Server.

To populate the Meta Database

1. Double-click the Q&R Distributed Server Administration icon on the Desktop.
2. Click File -> Build/Refresh Meta Database.
3. Fill in the information about your CA MICS complexes.
 - a. Specify the Job Name for the Build/Refresh Meta Database Job
 - b. Specify the Q&R Mainframe Server name (MQRHOST). Use the drop down list box to select from the currently available Q&R Mainframe Servers. If the Q&R Mainframe Server is not listed, it has not been started.
 - c. Enter a descriptive label referring to your CA MICS complex in the Complex field.
 - d. Enter the MCOLIB for your CA MICS complex in the sp.MICS.MCOLIB field.
4. Click Add to save you Build/Refresh Meta Database Job.
5. Click Run and wait for the process to complete. This can take several minutes.
6. Click the Log button to view the log. Use the scroll bar to move to the end of the log file.

The message "MQR1316I: Meta Database processing completed successfully" appears. This indicates that the Meta Database is ready for use by Q&R Query.

Note: For more information, see the *Administration Guide*

More information:

[Step 3. Activate the Q&R Mainframe Server \(Administrator Only\)](#) (see page 15)

Step 7. Turn Off Allow Unauthenticated Access from This Machine (Administrator Only)

This step is required only for computers on which the Q&R Distributed Server is installed.

Note: During installation, select *Allow unauthenticated access from this machine* to allow features of the system to be run immediately after installation and provide access to the administrator so that he can configure his own user id. You can clear this option any time after the administrator has configured his user id. Failing to clear this option provides any user logged into the computer where the Q&R Distributed Server is installed, full access to all Q&R features installed on the Q&R Distributed Server computer.

To turn off the Allow unauthenticated access from this machine Feature

1. Double-click the Q&R Distributed Server Administration icon on the Desktop.
2. Click File -> Configuration.
3. Clear the Allow unauthenticated access from this machine option.
4. Click Apply
5. Click Yes to use these setting immediately.

Upgrade Steps

This section provides steps for an orderly phased migration to new versions of Q&R Workstation. You can test the new Q&R Workstation components without having an impact on the current production computer, and can avoid any requirement for simultaneous upgrade of Q&R Workstation components.

Note: Each Q&R Workstation component has been designed to work with the current and prior version of other Q&R Workstation components. Specifically, the current version of the Q&R Mainframe Server supports the current and prior version of the Q&R Distributed Server, and the current version of the Q&R Distributed Server supports the current and prior version of Q&R Query.

To use this process which leverages Q&R Workstation version compatibility, Q&R Workstation components must be upgraded in the following order:

1. Q&R Mainframe Server (MQRHOST)
2. Q&R Distributed Server
3. Q&R Query

The following list summarizes the upgrade process.

1. Review System Requirements
2. Upgrade the Q&R Mainframe Server
3. UnInstall CAICCI-PC (Only required for CAICCI-PC releases below 14.0)
4. (Optional) Install a test version of the Q&R Distributed Server
5. (Optional) Test the compatibility
6. (Optional) Test the Q&R Query
7. Upgrade the Q&R Distributed Server
8. Upgrade the Q&R Query

More information:

[Installation Steps](#) (see page 13)

Step 1. Review System Requirements

Before installing the Q&R Workstation, review the System Requirements to make certain that all the requirements are met.

Note: The link to the Q&R software version required for the Q&R Mainframe Server to support the Q&R distributed platform components is explained in the readme.html file found in the distributed platform installation media. We provide a link in the readme.html to the most current CA Support Online information.

More information:

[System Requirements](#) (see page 10)

Step 2. Upgrade the Q&R Mainframe Server

Upgrade the Q&R Mainframe Server (MQRHOST) to the new version by applying CA MICS product change BAS7767. This product change is delivered with the CA MICS r12.9 installation media.

Perform the following step in the Installation Steps section:

Step 3 Activate the Q&R Mainframe Server.

Step 3. Uninstall CAICCI-PC (Only Required for CAICCI-PC Release Below 14.0)

This version of Q&R Workstation requires CAICCI-PC r14.0.1 (32 bit). CAICCI-PC r14.0.1 is compatible with CA Common Services r12.

Important! Before you install Q&R Workstation r12.9:

- Run the CAICCI-SSL Configuration utility.
- Select the TCP/IP tab.
- Note your settings and configurations because they might be lost when you uninstall.

Releases earlier than CAICCI-PC r14.0.1 must be manually uninstalled.

To uninstall CAICCI-PC earlier than release 14

1. Upgrade Go to C:\CA_APPSW.
2. Run CAINDREG.exe.
3. Select CCI.

If you have other products running on this server that use CCI, consider the impact that CAICCI r14 might have on those products.

CAICCI-PC r14.0.1 is automatically installed during Q&R Workstation r12.9 installation.

(Optional) Step 4. Install a Test Version of the Q&R Distributed Server

You may install and configure a copy of the Q&R Distributed Server for testing purposes.

Note:

- This must be done on a Microsoft Windows machine other than the one where the current production Q&R Distributed Server is installed because only one instance of any Q&R distributed platform component can be installed on a single machine.
- If you do not want to install a version of the Q&R Distributed Server for testing purposes, go to Step 6. Upgrade the Q&R Distributed Server.

Perform the following steps in the Installation Steps section:

Step 2. Install Q&R Workstation

Step 4. Configure CAICCI-PC

Step 5. Define Q&R Workstation Users

Step 6. Build the Meta Database

Step 7. Remove Allow Unauthenticated Access from This Machine

Note: Run the Q&R Meta Database build process using the upgraded Q&R Mainframe Server name and the production CA MICS complex sharedprefix.MICS.MCOLIB data set name. This connects the new test version of the Q&R Distributed Server to the new Q&R Mainframe Server and the production CA MICS complex.

(Optional) Step 5. Test Q&R Query Compatibility

This step provides for testing the compatibility between the current Q&R Query application and the new Q&R Distributed Server.

To connect a copy of Q&R Query to the new test version of the Q&R Distributed Server

1. Start an installed copy of the current Q&R Query.
The Start Q&R Query screen appears.
2. Enter the name of the computer where the new test version of the Q&R Distributed Server is installed in the IP Address field.
3. Click OK.
The Welcome to Q&R Query screen appears.

Test Q&R Query compatibility using normal application functions to compose and run queries and view query output.

(Optional) Step 6. Test the Q&R Query

This step provides for testing of the new version of the Q&R Query application with the new Q&R Distributed Server.

Note: This must be done on a Microsoft Windows computer other than the one where the current Q&R Query is installed because only one instance of any Q&R distributed platform component can be installed on a single computer.

Perform the following step in the Installation Steps section:

Step 2 Install Q&R Workstation

To connect the new test versions of Q&R Query and Q&R Distributed Server

1. Start test version of the Q&R Query.
The Start Q&R Query screen appears.

2. Enter the name of the computer where the new test version of the Q&R Distributed Server is installed in the IP Address field.
3. Click OK.

The Welcome to Q&R Query screen appears.

Test Q&R Query using normal application functions to compose and run queries and view query output.

Step 7. Upgrade the Q&R Distributed Server

Upgrade the production Q&R Distributed Server by installing the new version over the current version.

Note: CA MICS Resource Management Q&R Workstation r12.9 can only be upgraded from Q&R Workstation r12.7 or r12.8. If you are running a release earlier than r12.7, you must do one of the following:

- Upgrade to r12.7 first
- Perform a new installation of Q&R Workstation r12.9.

If you have specific planning questions, contact CA Technical Support.

Notes:

- This process only takes a few minutes, but the Q&R Distributed Server is not available during the upgrade.
- The upgrade process preserves all of the settings on the Q&R Distributed Server and will continue to support end users still running the older version of Q&R Query.

Perform the following steps from the Installation Steps section:

- Step 2. Install Q&R Workstation
- Step 4. Configure CAICCI-PC

Step 8. Upgrade the Q&R Query

Provide the installation media for the new version of the Q&R Query to end users so they can upgrade at their convenience.

Note: CA MICS Resource Management Q&R Workstation r12.9 can only be upgraded from Q&R Workstation 12.7 or 12. If you are running a release earlier than r12.7, you must first upgrade to r12.7 or do a new installation of Q&R Workstation r12.9. If you have specific planning questions contact CA Technical Support.

Note: This process only takes a few minutes. The upgrade process preserves all of the user settings and queries on the Q&R Query.

Perform the following steps in the Installation Steps section:

Step 1. Review System Requirements

Step 2. Install Q&R Workstation

Step 3. Start Q&R Query and verify access.

Chapter 3: Product Tour

A primary feature of the Q&R Workstation is that you can quickly write your own queries without detailed knowledge of the SAS language.

This chapter takes you on a systematic walk through the basics of Q&R Workstation functions.

This section contains the following topics:

[Tour Objectives](#) (see page 25)

[Before You Start the Tour](#) (see page 25)

[Product Tour](#) (see page 26)

Tour Objectives

When you finish this presentation, you will be able to do the following:

- Access the product and specify which query function you want to use.
- Build, submit, and retrieve query output.
- Analyze the information provided when a query completes.
- Display and dynamically change the format of a report.

Before You Start the Tour

The example in this guide illustrates how to write a query that charts the percent processor busy and maximum percent processor busy from the CPU Processor Activity file of the CA MICS Hardware and SCP Analyzer.

Because the guide cannot anticipate differences at your installation, you need to know certain information specific to your installation before attempting the example.

The following information must be obtained from your Q&R Administrator prior to accessing Q&R Workstation using the Q&R Query application:

- Q&R Distributed Server IP address or name
- Q&R Distributed Server port number

Note: If you are the Q&R Administrator, ensure the Q&R Mainframe Server (MQRHOST) and Q&R Distributed Server are both running before users start the Q&R Query application.

Product Tour

Begin by starting the Q&R Query application. To do this, click Start and select Programs, CA, CA MICS Q&R Workstation, Q&R Query.

Access Q&R Query

To access Q&R Query

1. Enter the IP address and port number of the Q&R Distributed Server to connect to on the Q&R Query Connect panel. The combination of IP address and port number uniquely identifies a specific instance of Q&R Distributed Server.

Default port: 20368

2. Click OK.

The Welcome panel appears.

Notes:

- The IP address field can be expressed as either the IP address or the DNS computer name of the computer where the Q&R Distributed Server is deployed.
- Do not change the port number unless the Q&R Administrator changed the Q&R Distributed Server port number at installation time.



When you log on, Q&R Query displays a Welcome panel. The Welcome panel displays the functions that can be performed using Q&R Query.

3. Click Compose a New query on the Welcome panel.

The New Query panel appears with blank fields.

4. Enter identifiers in the following fields and click OK:

Name

Defines the query name

Example: CPUBSY

Default: Maximum length is six characters.

Title

Defines the query title. A descriptive name must be used.

Example: CPU BUSY

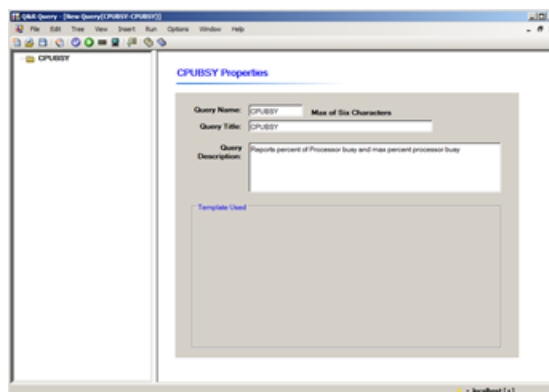
Description

Defines the query being created. Optionally, you can add a more detailed description of the query.

Note: You will use this information to locate the query for later use.

The Query panel appears. This panel has:

- A Query Tree in the left pane that displays steps, where each item under the step is an associated task.
- A Tool Bar at the top that provides easy access to the most commonly used functions. It also provides visual clues to indicate the function of a particular icon.
- A Parameters pane on the right that displays the information that is associated with the selected task.



Add Steps to the Query Tree

This section contains detailed instructions for adding a file selection step, summarization step, and data extract step to a query.

Note: For more information, see the *Administration Guide* and *User Guide*.

More information:

[Add a File Selection Step](#) (see page 28)

[Add a Summarization Step](#) (see page 30)

[Add a Data Extract Step](#) (see page 31)

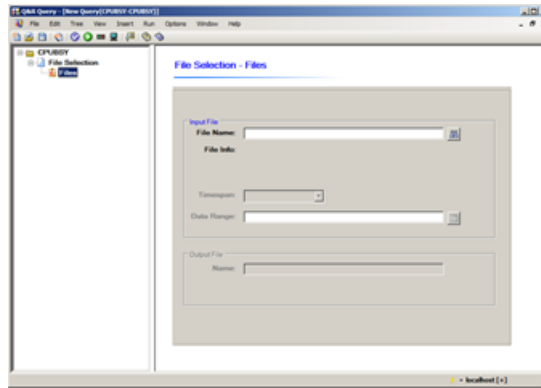
Add a File Selection Step

The File Selection step defines the mainframe CA MICS database file that will provide input to your query.

To add a File Selection step

1. Highlight the query name in the query tree (in this case, CPUBSY). Right-click and select Insert Step and then the File Selection option.

A new File Selection step is added in the query tree immediately after the query information icon. The File Selection panel appears in the right pane where you can input your selection parameters.

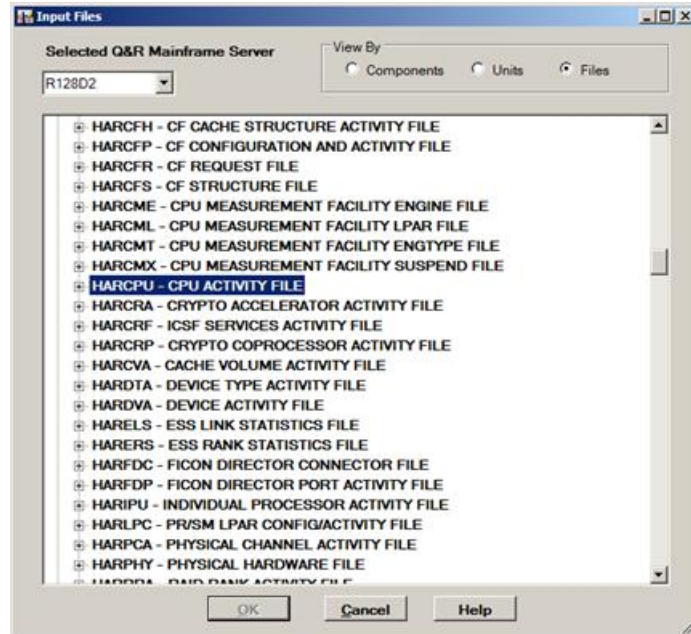


2. Click the Finder button located next to the Filename field on the File Selection pane.

The Input Files dialog opens to show the Q&R Mainframe Servers and the complexes that can be used as query input.

- Select Files in the View By box section in the top right section of this dialog. Then, click the plus sign next to the complex you want to process.

A list of the available CA MICS files appears in alphabetical order.



- Scroll down and click the plus sign next to HARCPU. The available units appear. Select the unit that you want to process and click OK to continue.

You are returned to the Query panel. HARCPU appears as the filename, and File Info displays information about where the file originated.

File Selection - Files

Add a Summarization Step

The Summarization step reduces the volume of data that is returned from a query, aggregating it to the specified level of granularity. In this example, we are only interested in seeing the data by hour of day for each system ID.

To add a Summarization step

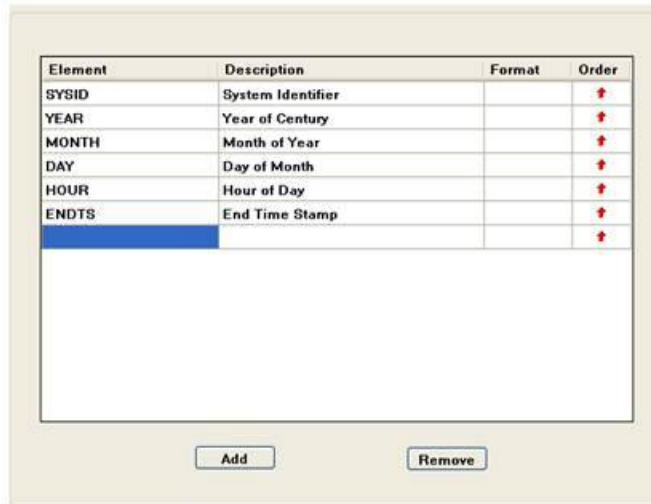
1. Right-click on the File Selection step and select Insert Step and then the Summarization option.

A new Summarization step is added in the query tree under the File Selection step.

2. Click the Key Selection task node of the tree under the Summarization step.

The Key Selection area appears.

Summarization - Key Selection



3. Click the element YEAR to select it, then click Remove.

The YEAR element is removed.

4. To remove the MONTH, DAY, and ENDTS elements, repeat the previous step .

Note: The Summarization step produces one record for every unique combination of SYSID and HOUR found in the input file.

Note: Standard CA MICS algorithms are used to aggregate the data when the query is eventually run.

Add a Data Extract Step

The Data Extract step creates a CSV formatted output file that is returned with your query results.

To add a Data Extract step

1. Right-click on the Summarization Step and select Insert Step and then the Data Extract option.

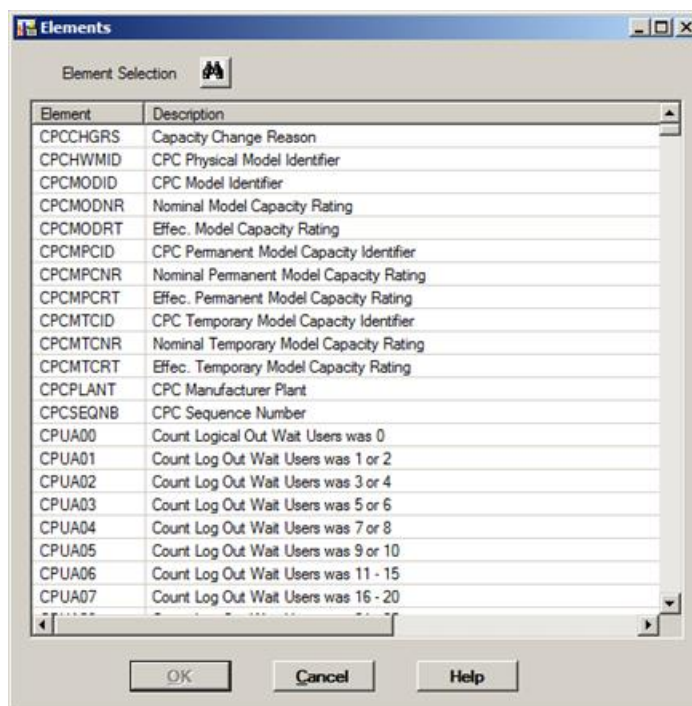
A new Data Extract step is added in the query tree under the Summarization step.

2. Select Element Selection under the Data Extract step.

The Element Selection area appears.

3. Click Add below the grid on the Element Selection task.

The Elements dialog opens showing the available elements from the input file.



4. Scroll through the list. Click the elements that you want to add to the Element Selection list and click OK. Press and hold the control or shift keys while clicking to select multiple elements.

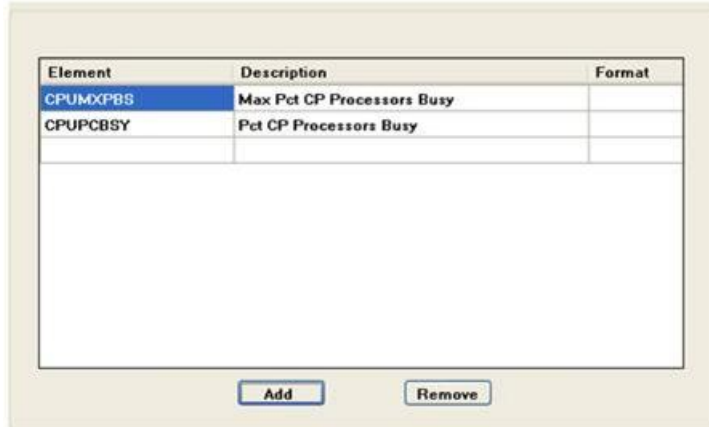
In this example, you use the following elements:

- CPUMXPBS - Max Pct Processor Busy
- CPUPCBSY - Pct Processor Busy

The elements that you selected for extraction appear; they will be included in your query output.

You are now ready to save the query.

Data Extract - Element Selection



Notes:

- The Format column gives you a way to override the default formats that are used for these elements in the output file.
- For more information, see the *User Guide*.

Save a Query

To save a query

1. Click the Save Query button in the toolbar at the top of the Q&R Query panel.
The Save Query As panel appears.
2. Choose the directory and file name you want to save the query under; then click the Save button.

The query is saved and you are returned to the Q&R Query panel.

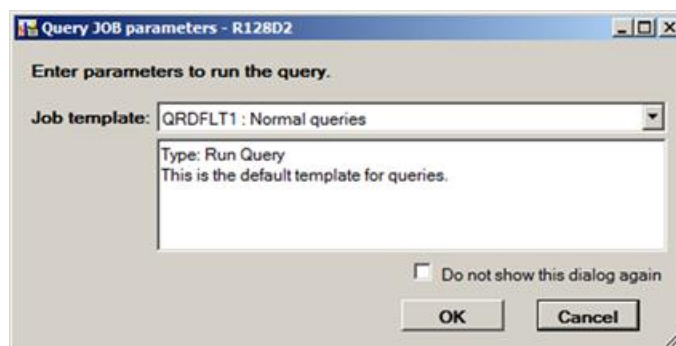
Note: The default file name is based on the query name and title entered in the query information panel.

Run a Query

To run a query

Click Run Query on the toolbar at the top of the Q&R Query window. Next, you are prompted to select a template. If this screen contains a User ID and Password field, you are required to supply a mainframe user Id and password to run the query. Enter the required values and click Ok.

Note: To suppress this dialog for the life of the Q&R Query session, click the Do not show this dialog again check box.



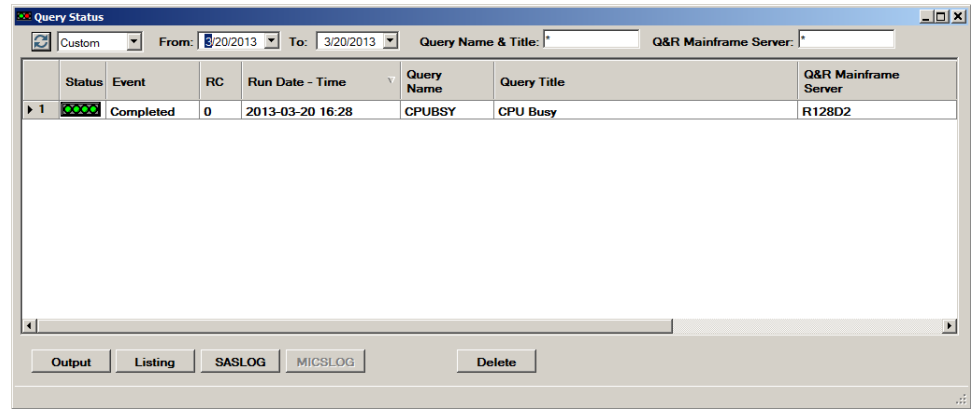
The query is submitted to the Q&R Distributed Server and a message appears to indicate that the query was submitted successfully.

View Query Status

To view query status

Select Query Status on the toolbar to monitor the progress of your query.

The Current Query Status panel displays the progress of your query.



The Query Status icon includes four status indicators that, when read left to right, indicate the following phases when processing your query:

| Phase | Description |
|-------|--|
| 1 | The query is accepted by the Q&R Mainframe Server. |
| 2 | The query has started running. |
| 3 | The query has completed. |
| 4 | The results were stored on the Q&R Distributed Server and are available for retrieval. |

Notes:

- When all four status indicators turn green, select the row. The buttons on the window are enabled depending on the information available for that query.
- If the color of one of the indicators becomes red, an error occurred in that phase.
- If the query completed with a runtime error, the phase three indicator of the Query Status icon is red and you cannot click Output.

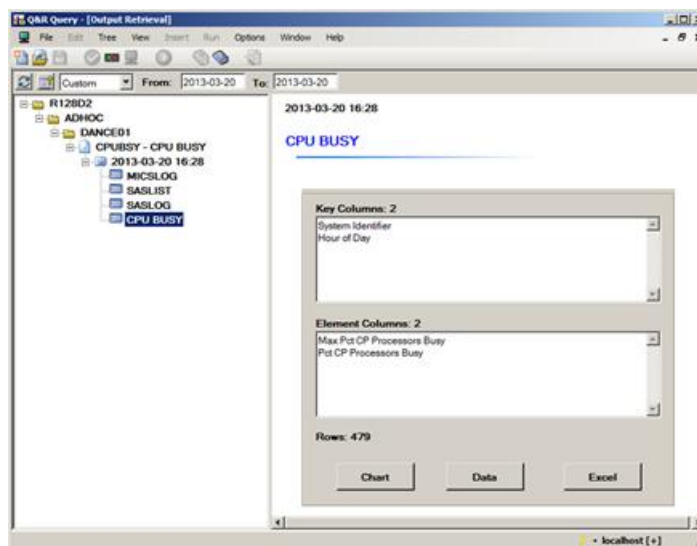
However, the SASLOG button becomes enabled and you can view the log to determine the cause of the error.

View Query Output and Charts

To view query output and charts

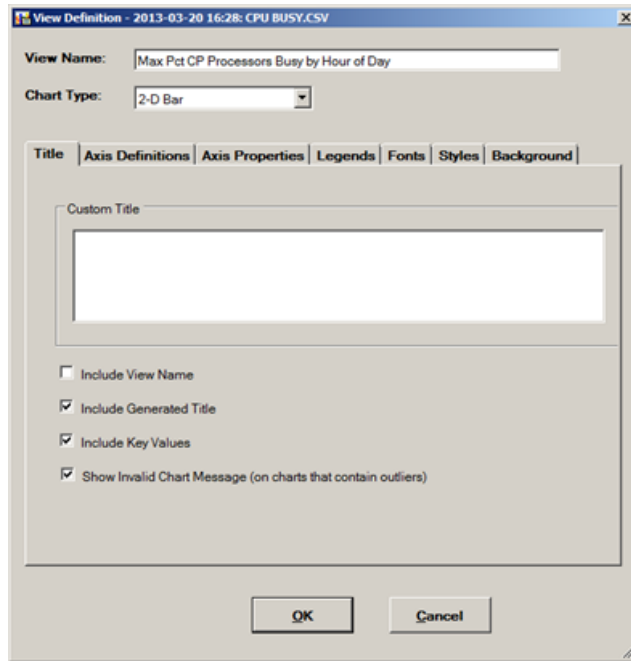
1. Click Output on the Query Status panel.

The Output Retrieval panel appears.

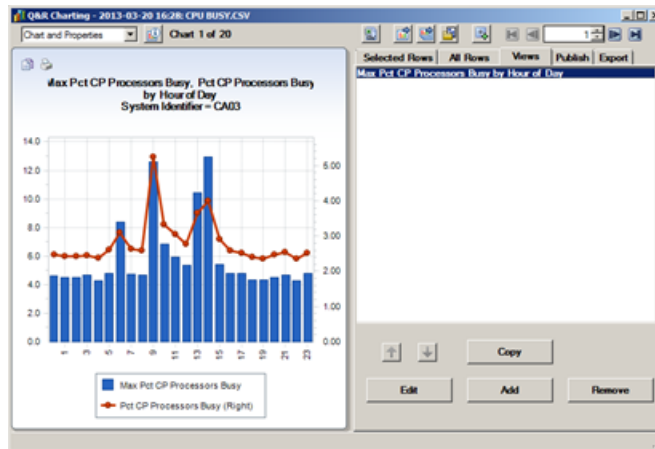


2. Click Chart at the bottom of the Output Retrieval panel.
The Q&R Charting panel appears.
3. Select the Views tab.
4. Click Edit at the bottom right of the panel.
The View Definition dialog appears.
5. Change the View Name to Max Pct CP Processors Busy by Hour of Day
6. Click the Axis Definitions tab and change the axis for Pct CP Processors Busy to Right-Y.
7. Select 2-D Bar from the Chart Type dropdown list.

8. Click OK.

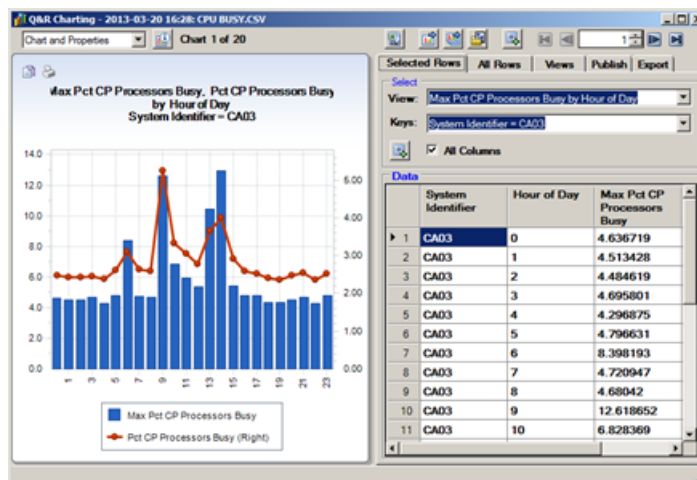


The 2-D Bar Chart appears displaying two Y axes.



- Click the Selected Rows tab.

You can now page through the available charts. Use the navigation controls on the toolbar or select a key value from the keys dropdown.



- Select the Views tab.
- Click Edit at the bottom right of the panel.
The View Definition dialog appears.
- Change the chart type to 2-D Line.
- Click the Axis Definitions tab and change the axis for Pct CP Processors Busy to Left-Y.
- Click OK.

The 2-D Line Chart appears displaying two Y axes.

Congratulations! You have completed the tour. Now you are ready to start building and running queries of your own.

Note: For more information, see the *User Guide*.

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