

QADirector - QA Center Portal

Installation and Configuration Guide

Release 05.01



Technical support is available from our Technical Support Hotline or via our FrontLine Support Web site.

Technical Support Hotline:
1-800-538-7822

FrontLine Support Web Site:
<http://frontline.compuware.com>

This document and the product referenced in it are subject to the following legends:

Access is limited to authorized users. Use of this product is subject to the terms and conditions of the user's License Agreement with Compuware Corporation.

© 1998-2005 Compuware Corporation. All rights reserved. Unpublished - rights reserved under the Copyright Laws of the United States.

U.S. GOVERNMENT RIGHTS

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in Compuware Corporation license agreement and as provided in DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii)(OCT 1988), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 52.227-14 (ALT III), as applicable. Compuware Corporation.

This product contains confidential information and trade secrets of Compuware Corporation. Use, disclosure, or reproduction is prohibited without the prior express written permission of Compuware Corporation.

Compuware, ActiveAnalysis, ActiveData, QACenter, QADirector, QALoad, QARun, Reconcile, TestPartner, and TrackRecord are trademarks or registered trademarks of Compuware Corporation.

Acrobat® Reader copyright © 1987-2002 Adobe Systems Incorporated. All rights reserved. Adobe, Acrobat, and Acrobat Reader are trademarks of Adobe Systems Incorporated.

All other company or product names are trademarks of their respective owners.

US Patent Nos.: Not Applicable.

Doc. CWAQIX510
September 20, 2005

Introduction

| | |
|----------------------------------|---|
| Who Should Read This Guide | 7 |
| Related Publications | 7 |
| World Wide Web Information | 8 |
| Getting Help | 8 |

Chapter 1

Getting Started

| | |
|--|----|
| Overview | 11 |
| Before You Install | 13 |
| Installation Types | 13 |
| Release Notes | 13 |
| Installing the License | 14 |
| Viewing Online Books | 14 |
| System Requirements | 15 |
| QADirector/QACenter Portal Database Server | 15 |
| QADirector Client and Test Execution and Test Management Servers | 15 |
| QACenter Portal Client Machine | 16 |
| QACenter Portal Web Server | 17 |
| Integrated Products Requirements | 17 |

Chapter 2

Completing a Basic Installation

| | |
|--|----|
| Basic Installation | 19 |
| Before You Begin | 20 |
| Installing QACenter Portal | 20 |
| Installing QADirector | 21 |
| Configuring QACenter Portal and QADirector | 21 |

Chapter 3

Completing an Enterprise Installation Including Integrated Products

| | |
|---|----|
| Installing in an Enterprise Environment | 25 |
| Before You Begin | 26 |
| Installing the QACenter Database on the Database Server Machine | 29 |
| Installing a SQL Server Database | 29 |
| Installing an Oracle Database | 30 |
| Installing QACenter Portal on the Web Server Machine | 32 |
| Installing QADirector | 33 |
| Installing QADirector on a Client Machine | 33 |

| | |
|--|----|
| Installing the Test Management and Test Execution Servers | 34 |
| Configuring QACenter Portal | 34 |
| Configuring QACenter Portal For Oracle | 34 |
| Configuring QACenter Portal for SQL Server | 36 |
| Configuring QADirector | 38 |
| Configuring QADirector for Oracle | 38 |
| Configuring QADirector Client For SQL Server | 39 |
| Configuring the Test Management and Execution Servers | 39 |
| Connecting from Within QADirector | 40 |
| Configuring the QA3270 Emulator Server | 40 |
| Using the QADirector Tutorial | 40 |
| Configuring the Windows XP SP2 Firewall for QADirector | 40 |
| Disconnecting QACenter Portal from the Database | 42 |
| Configuring Compuware Open Server | 42 |
| Integrating QACenter with Changepoint Using COS Locally | 42 |
| Integrating QACenter with Changepoint Using COS on a Separate Server ... | 43 |
| Installing TrackRecord on the Web Server | 44 |
| Configuring Changepoint | 45 |
| Preparing Changepoint for QACenter Portal Integration | 45 |
| Configuring QACenter Portal for Changepoint Report Designer | 45 |
| Configuring Defect Reports for a New Changepoint Database | 46 |
| Configuring Defect Reports for an Existing Changepoint Database | 47 |
| Integrating With Other Compuware Products | 47 |

Chapter 4

Upgrading and Migrating Previous Versions of QADirector and QACenter Portal

| | |
|---|----|
| Upgrading QADirector and QACenter Portal | 49 |
| Migrating Databases from 04.05.00 to 05.01.00 | 51 |

Chapter 5

Maintaining the Installation

| | |
|---|----|
| Accessing Maintenance Mode | 53 |
| Modifying an Installation | 54 |
| Repairing an Installation | 54 |
| Uninstalling QADirector | 54 |
| Uninstalling QACenter Portal | 55 |
| Uninstalling the QACenter MSDE Instance | 55 |

Appendix A

Manually Creating and Configuring a Database

| | |
|---|----|
| Manually Creating and Configuring an Oracle Database | 57 |
| Oracle Server Requirements | 57 |
| Creating Database Tables | 58 |
| Manually Creating and Configuring a SQL Server Database | 59 |
| SQL Server Requirements | 59 |
| Creating Database Tables | 59 |
| Adding User Rights to the Database (optional) | 60 |

Appendix B

Setting Up an ODBC Data Source

| | |
|---|----|
| Setting up an ODBC Data Source for Oracle | 63 |
| Setting Up a Net Service | 63 |
| Creating a System DSN | 64 |
| Setting up an ODBC Data Source for SQL Server | 64 |
| Determining the Port Number | 65 |

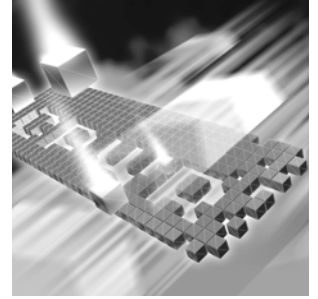
Appendix C

Optional QACenter Portal Configuration

| | |
|---|----|
| Configuring OptimalView for Load Handling on the Web Server | 67 |
| Changing the Default Ports | 69 |
| Preventing Frequent Logging Off During a Session | 69 |
| Configuring the Virus Scanner | 69 |
| Configuring Windows 2003 Server | 70 |

Index

Introduction



- ◆ Who Should Read This Guide
- ◆ Related Publications
- ◆ World Wide Web Information
- ◆ Getting Help

Who Should Read This Guide

This guide is intended for administrators who are installing or configuring QACenter products; it does not contain reference or usage information. You can find that information in the online Help for your product.

Compuware assumes that you are familiar with basic Microsoft Windows navigation. If this is not the case, familiarize yourself with the documentation for Microsoft Windows before reading this guide.

Related Publications

The *Distributed License Management Installation Guide*, which contains instructions for licensing your QACenter product, is available in PDF format. Access this guide from the Compuware FrontLine Customer Support Web site at <http://frontline.compuware.com>. See “World Wide Web Information” on page 8 for specific details.

Because PDF is based on PostScript, a PostScript printer is the most reliable way to print online books. In most cases, you can also print PDF files to PCL printers. If you cannot print the PDF files to your printer, refer to Adobe’s Web site at <http://www.adobe.com> for troubleshooting information.

World Wide Web Information

To access Compuware Corporation's site on the World Wide Web, point your browser at <http://www.compuware.com>. The Compuware site provides a variety of product and support information.

FrontLine Support Web Site: You can access online customer support for Compuware products via the FrontLine support Web site. FrontLine provides fast access to critical information about your QACenter product. You can read or download documentation, frequently asked questions, and product fixes, or e-mail your questions or comments. To access FrontLine, follow these steps:

- 1 Open a Web browser and go to: <http://frontline.compuware.com>
The **Welcome to FrontLine** page appears.
- 2 On the right side of the page, enter your login ID and password and click **Login**.

Note: If you are a first-time visitor, click **Register** to receive your free password to access FrontLine. After you complete the registration form, your login ID and password will be e-mailed to you and your account will be activated.

- 3 From the list in the center of the page, select a product and click **Go**. You will see the product's FrontLine home page, where you can access documentation, technical information, fixes, and other support items.

Getting Help

At Compuware, we strive to make our products and documentation the best in the industry. Feedback from our customers helps us maintain our quality standards. If you need support services, please obtain the following information before calling Compuware's 24-hour product support hotline:

- ◆ The name, release (version), and build number of the QACenter product. This information is displayed when you select the About command from your product's Help menu. The name and release are also on the covers of the product documentation.
- ◆ Installation information, including installed options, whether the product uses local or network databases, whether it is installed in the default directories, whether it is a client or server installation.
- ◆ Environment information, such as the operating system and release on which the product is installed, memory, hardware/network speci-

fications, and the names and releases of other applications that were running.

- ◆ The location of the problem in the QACenter product software, and the actions taken before the problem occurred.
- ◆ The exact product error message, if any.
- ◆ The exact application, licensing, or operating system error messages, if any.
- ◆ Your Compuware client, office, or site number, if available.

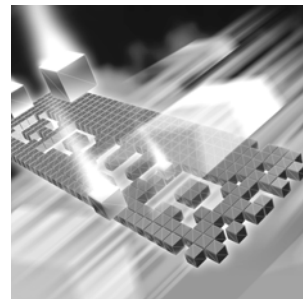


Compuware Customer Support

Compuware Corporation
One Campus Martius
Detroit, MI 48226-5099
1-800-538-7822

Chapter 1

Getting Started



- ◆ Overview
- ◆ Before You Install
- ◆ Viewing Online Books
- ◆ System Requirements
- ◆ Integrated Products Requirements

Overview

QACenter is a suite of automated software quality products for enterprise and e-business applications. QACenter offers a comprehensive solution for IT organizations concerned with assuring quality and performance, while keeping pace with faster development cycles. QACenter includes:

QADirector: Coordinates the entire testing process by organizing, tracking, and executing automated and manual tests. QADirector integrates with Compuware's testing, program analysis, defect tracking, and requirements management tools.

The QADirector **Test Management Server** reads job submissions from the database, manages jobs, tracks available test execution machines, and manages the licenses for manual test Web execution. It also reports on the status of jobs in progress.

The QADirector **Test Execution Server** is installed on the local machine. The Test Execution Server allows jobs to run on a computer, however you do not need a Test Execution Server to run jobs via QACenter Portal.

QACenter Portal: Provides a comprehensive reporting facility that is consistent among the QACenter point products. It enables users with various roles and responsibilities to create and view detail, summary, and

cross-product reports. QACenter Portal ties together requirements planning, test planning, test execution, and defect tracking to provide users with a centralized view of application quality. It also integrates with Reconcile and QADirector and provides QADirector web functionality.

TrackRecord: Records and reports information about products being developed or supported. An object-oriented database contains recorded information on team members, testers, schedules, and defect reports retrievable using TrackRecord's query and reporting features.

Reconcile: Helps create and control project requirements. It stores the project requirements in a relational database. You can view the requirements through Microsoft Word, a reporting view (grid), and the Web. Use Reconcile to help you manage project development from conception through delivery.

TestPartner: Tests Web- and Windows-based applications that use Microsoft technologies. You can record user sessions with the application, add validation functions, and replay the sessions later to ensure that the application works as expected. TestPartner's scripting language is Visual Basic for Applications (VBA); it supports testing of Java, Visual Basic, and Visual C++ applications; browser-based Web applications; and COM components including both ActiveX controls and automation objects.

QAHiperstation+: Works with mainframe QAHiperstation to test host-based applications directly from your Windows desktop. This integrated, workstation-based interface tool uses 32-bit code that provides improved performance and better stability on 32-bit Windows platforms.

QARun: Tests enterprise client/server applications. QARun creates and runs test scripts that support a wide variety of development tools and the diverse components of today's corporate environments. QARun couples advanced verification facilities with error-recovery mechanisms to reliably test local and remote applications.

Changepoint Request Management: Tracks defects managed using a built-in report designer. Allows testers to submit a defect from QADirector into Changepoint's Request Management system. Relevant information from QADirector is stored as a change request, while Changepoint's request management capability provides powerful workflow features allowing you make sure the defect is correctly assigned.

QALoad: Load tests enterprise client/server systems and associated networks. Can stress systems by simulating thousands of users simultaneously performing different operations. Creates and runs test scripts that simulate application transactions on systems without involving end users or their equipment.

QACenter Additional CD Contents: In addition to the QADirector suite of products, the QACenter CD includes Adobe Acrobat Reader, Microsoft Internet Explorer, Java 2 Development Kit, and Microsoft Virtual Machine installation programs. To install one or more of these products from the QACenter CD, click **Install 3rd Party Software**, then click on the product installation you would like to perform.

Before You Install

Review this section before you install QADirector or QACenter Portal.

Installation Types

The following installation options are available when you install QADirector and QACenter Portal:

Basic Installation: Installing QADirector and QACenter Portal on one machine from the CD using the default settings. See “[Basic Installation](#)” on page 19. In a Basic Installation the MSDE database is installed along with all other components on a single machine.

Enterprise Installation Including Integrated Products: Installing QADirector and QACenter Portal in a distributed environment and customizing the install. See “[Installing in an Enterprise Environment](#)” on page 25. In an Enterprise Installation, the SQL or Oracle database is usually installed on a separate machine which is set up as a database server.

If you purchased an integrated product refer to that product’s *Installation and Configuration Guide* for information. There are some products with which QADirector and QACenter Portal integrate that require some configuration.

Release Notes

Review the Release Notes for information about new features, technical notes, and known issues that may enhance or impact your product’s performance. Release Notes contain recent changes that may not be included in your QACenter product documentation.

View Release Notes from the QACenter product CD or on FrontLine, Compuware’s product support Web site. The Release Notes on FrontLine are periodically updated as new information becomes available.

Accessing the Release Notes from the QACenter CD

- 1 Insert the QACenter CD into the CD-ROM drive. If the CD browser does not start automatically, navigate to the CD's root directory and run `setup.exe`.
- 2 Click **View QACenter Release Notes**. The Release Notes open in your default Web browser.
- 3 Read the Release Notes online, or print the document.
- 4 After reading or printing the Release Notes, close the document to return to the CD browser.

Accessing the Release Notes on FrontLine

- 1 Open a Web browser and go to <http://frontline.compuware.com> where the **Welcome to FrontLine** page appears.
 - 2 On the right side of the page, enter your login ID and password and click **Login**.
- Note:** If you are a first-time visitor, click **Register** to receive your free password to access FrontLine. After you complete the registration form, your login ID and password will be e-mailed to you and your account will be activated.
- 3 From the list in the center of the page, select a product and click **Go**. You will see the product's FrontLine home page, where you can access documentation, technical information, fixes, and other support items.

Installing the License

A trial license is supplied with your QACenter product. During this 30-day trial period, you will be informed of how much evaluation time remains.

Install a permanent license at any time during the evaluation period. When the evaluation period expires, you **must** install a license to successfully run this product. Information about permanent license installation can be found in the *Distributed License Management Installation Guide*. Access this guide by clicking **Start>Programs>Compuware>QADirector/QACenter Portal>Documentation**.

Viewing Online Books

Download Adobe Acrobat 6.0 or Acrobat Reader (provided on the QACenter CD) to view the online books in PDF format.

System Requirements

System requirements exist for each QACenter component. Those requirements are listed below.

QADirector/QACenter Portal Database Server

Hardware

- ◆ 1 GHz processor with 512 MB RAM (2 GHz with 1 GB RAM recommended)
- ◆ Minimum 450 MB of free disk space

Operating System

- ◆ Microsoft Windows 2000 Professional SP 4
- ◆ Microsoft Windows 2000 Server SP 4
- ◆ Microsoft Windows 2000 Advanced Server SP 4
- ◆ Microsoft Windows XP Professional SP 1, 1a, or 2
- ◆ Microsoft Windows Server 2003 Standard SP 1
- ◆ Microsoft Windows Server 2003 Enterprise SP 1

Database Management System

- ◆ Microsoft SQL Server 7.0 SP 3 or later
- ◆ Microsoft SQL Server 2000 SP 3 or later
- ◆ Oracle 8.1.7, 9i, 10g

QADirector Client and Test Execution and Test Management Servers

Hardware

- ◆ Mid-level Pentium III PC with 512 MB of RAM (minimum)
- ◆ Minimum 450 MB of free disk space

Operating System

- ◆ Microsoft Windows 2000 Professional SP 4
- ◆ Microsoft Windows 2000 Server SP 4
- ◆ Microsoft Windows 2000 Advanced Server SP 4

- ◆ Microsoft Windows XP Professional SP 1, 1a, or 2
- ◆ Microsoft Windows Server 2003 Standard SP 1
- ◆ Microsoft Windows Server 2003 Enterprise

Software

- ◆ Oracle Client 8.1.7, 9i, 10g, if using an Oracle database

Network

- ◆ TCP/IP protocol installed on all computers
- ◆ Four ports within the range of ports 1024 through 5000 must remain open. QADirector randomly selects four ports to use when executing jobs.

Windows Environment

In order to use QADirector in a Windows environment, users must have specific permission and rights.

Registry

Ensure that users have update access to the following registry keys:

- ◆ HKEY_CURRENT_USER\Software\
- ◆ HKEY_LOCAL_MACHINE\SOFTWARE\

Windows Directories

Users must also have update access to the following directories:

- ◆ QADirector install directory (Example: \Program Files\Common Files\Compuware)
- ◆ System32

MDAC

- ◆ SQLSRV32.DLL driver provided with the MDAC installation must be installed and configured on workstation.

Browser

Microsoft Internet Explorer 6.0 SP 1.

QACenter Portal Client Machine

Browser

Microsoft Internet Explorer 6.0 SP 1

QACenter Portal Web Server

Hardware

- ◆ 1 GHz processor with 512 MB RAM (2 GHz with 1 GB RAM recommended)
- ◆ Minimum 450 MB of free disk space

Operating System

- ◆ Microsoft Windows 2000 Professional SP 4
- ◆ Microsoft Windows 2000 Server SP 4
- ◆ Microsoft Windows 2000 Advanced Server SP 4
- ◆ Microsoft Windows XP Professional SP 1, 1a, or 2
- ◆ Microsoft Windows Server 2003 Web
- ◆ Microsoft Windows Server 2003 Standard SP 1
- ◆ Microsoft Windows Server 2003 Enterprise SP 1

Web Server

- ◆ Microsoft Windows 2000 IIS 5.0
- ◆ Microsoft Windows XP IIS 5.1
- ◆ Microsoft Windows Server 2003 IIS 6.0

Software

Oracle Client 8.1.7, 9i, 10g, if using an Oracle database

Browser

Microsoft Internet Explorer 6.0 SP 1

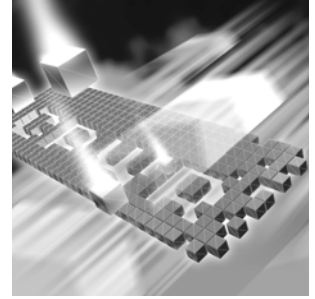
Integrated Products Requirements

QADirector and QACenter Portal integrate with many Compuware automated testing, analysis, defect tracking, and requirements management tools. The QACenter Portal version must be the same as the QADirector version. If you intend to use QADirector or QACenter Portal with any of these tools, please note the minimum version requirements:

- ◆ File-AID/CS (Compare, Converter) Release 03.00.02 or later
- ◆ QAHiperstation Release 07.04.00 or later
- ◆ QAHiperstation+ Release 02.00.00 or later
- ◆ QALoad Release 05.02.00 or later
- ◆ QARun Release 04.09.01 or later
- ◆ Reconcile 02.00 or later
- ◆ TestPartner 05.03.00 or later
- ◆ TrackRecord Release 06.02.00 or later
- ◆ ChangePoint Request Management 10.00.00

Chapter 2

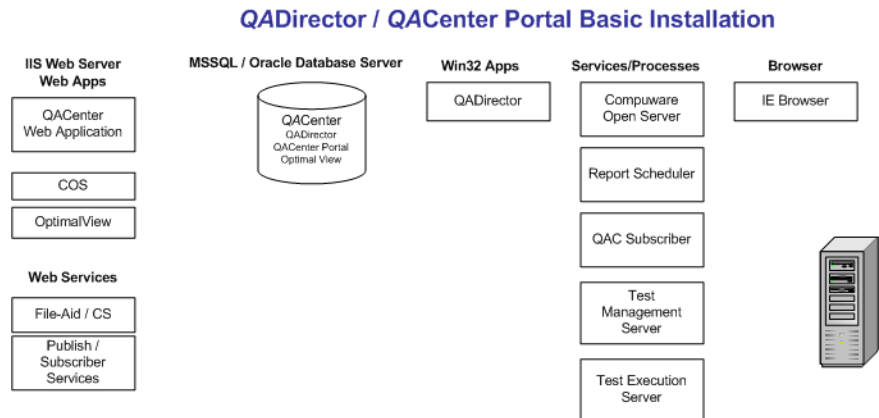
Completing a Basic Installation



- ◆ Basic Installation
- ◆ Installing QACenter Portal
- ◆ Installing QADirector
- ◆ Configuring QACenter Portal and QADirector

Basic Installation

The following example provides the basic installation sequence for QACenter Portal and QADirector using the default database (MSDE) on one machine.



An example of full or enterprise installation in a distributed environment appears in “[Completing an Enterprise Installation Including Integrated Products](#)” on page 25.

Before You Begin

- 1 Exit all non-essential Windows programs. Some Windows programs may interfere with the installation process.
- 2 Do one of the following:
 - ◇ If you are migrating from an earlier version see [“Upgrading and Migrating Previous Versions of QADirector and QACenter Portal”](#) on page 49.
 - ◇ If this is a new installation, continue.

Installing QACenter Portal

- 1 Log in as a user with administrator permissions.
- 2 Insert the QACenter CD into the CD-ROM drive.
- 3 Click **Install QACenter Products**.
- 4 Click **Install QACenter Portal**. The **Welcome** dialog box appears.
- 5 Click **Next**. The **License Agreement** dialog box appears.
- 6 Click **Yes**. The **Customer Information** dialog box appears.
- 7 Type your name and company in the **User Name** and **Company Name** fields.
- 8 Click **Next**. The **Choose Destination Location** dialog box appears.
- 9 Choose the location in which to install QACenter Portal.
By default, QACenter Portal installs in the Windows folder in Program Files\Compuware\QACenter Portal. Click **Browse** to select an existing folder or type the path name in the **Path** field.
- 10 Click **OK**. An **MSDE Install** dialog appears.
- 11 Click **Yes**. The **Choose Database Location** screen appears.
- 12 Specify a database location by typing a folder name or selecting one from the existing folders list.
- 13 Click **Next**. The **Start Copying Files** dialog box appears.
- 14 Click **Next**. The **Setup Status** dialog box appears.
- 15 Click **Next**. The components are installed.
- 16 (Optional) Select the **Display Release Notes** check box when the **Setup Complete** dialog box appears.
- 17 Click **Finish**. The computer is restarted.

Installing QADirector

Follow these steps to install QADirector:

- 1 Insert the QACenter CD into the CD-ROM drive.
- 2 Click **Install QACenter Products**.
- 3 Click **Install QADirector**. The **Welcome** dialog box appears.
- 4 Click **Next**. The **License Agreement** dialog box appears.
- 5 Click **Yes**. The **Customer Information** dialog box appears.
- 6 Type your name and company in the **User Name** and **Company Name** fields.
- 7 Click **Next**. The **Choose Destination Location** dialog box appears.
- 8 Choose the location in which to install QADirector.
By default, QADirector installs in the Windows folder in Program Files\Compuware\QADirector. Click **Browse** to select an existing folder or type the path name in the **Path** field. Click **OK**.
- 9 Click **Next**. The **Select Components** dialog box appears.
- 10 Clear the database server selection.
- 11 Click **Next**. The **Select Program Folder** dialog box appears.
- 12 Specify a location for the QADirector program shortcuts by typing a new folder name or selecting one from the existing folders list.
- 13 Click **Next**. The **Start Copying Files** dialog box appears.
- 14 Click **Next**. The programs are installed.
- 15 (Optional) Select the **Display Release Notes** check box when the **Setup Complete** dialog box appears.
- 16 Click **Finish**. The computer is restarted.

Configuring QACenter Portal and QADirector

Setting Up an ODBC Data Source

Create a Windows ODBC DSN. Use the following MSDE information, which was installed previously:

- ◇ **DSN Name:** QADirector (recommended)
- ◇ **Server Name:** <Machine Name>\QACenter
- ◇ **User Name:** sa
- ◇ **Password:** Do not enter a password
- ◇ **DB Name:** QACenter

For more information see [Appendix B, “Setting Up an ODBC Data Source”](#).

Configuring QADirector

- 1 Shut down the Test Management Server and the Test Execution Server if they are running on the computer.
- 2 Open the database configuration by clicking **Start>Program Files>Compuware>QADirector>Database Configuration Utility**.
The path to the software may vary slightly depending on your operating system.
- 3 Select SQL Server\MSDE.
- 4 Select the DSN created in [“Setting Up an ODBC Data Source”](#) on page 21 and type the following in the appropriate locations:
 - ◇ **DB Name:** QACenter
 - ◇ **Schema:** Default
 - ◇ **User Name:** sa
 - ◇ **Password:** Do not enter a password
- 5 Click **OK**.

To determine the port number see [“Determining the Port Number”](#) on page 65.

Configuring QACenter Portal

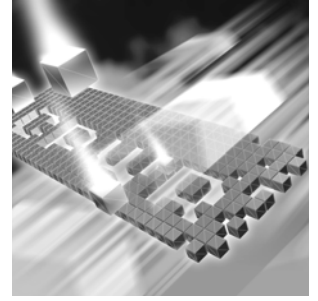
- 1 Open the configuration utility by clicking **Start>Program Files>Compuware>QACenter Portal>Database Configuration Utility**.
The path to the software may vary slightly depending on your operating system.
- 2 Verify the configuration information that appears.
- 3 Click **OK**.

To determine the port number see [“Determining the Port Number”](#) on page 65.

Verifying the Installation

- 1 Click **Start>Program Files>Compuware>QADirector>QADirector**.
The path to the software may vary slightly depending on your operating system.
- 2 Type `admin` for both the user name and password

- 3 Create a project (Example: Test1).
- 4 Click **Start>Programs>Compuware>QACenter Portal**.
The path to the software may vary slightly depending on your operating system.
- 5 Type `admin` for both the user name and password.
- 6 Verify that the project created in [step 3](#) above exists.



Chapter 3

Completing an Enterprise Installation Including Integrated Products

- ◆ Installing in an Enterprise Environment
- ◆ Installing the QACenter Database on the Database Server Machine
- ◆ Installing QACenter Portal on the Web Server Machine
- ◆ Installing QADirector
- ◆ Configuring QACenter Portal
- ◆ Configuring QADirector
- ◆ Configuring the Test Management and Execution Servers
- ◆ Configuring the Windows XP SP2 Firewall for QADirector
- ◆ Disconnecting QACenter Portal from the Database
- ◆ Configuring Compuware Open Server
- ◆ Installing TrackRecord on the Web Server
- ◆ Configuring Changepoint
- ◆ Integrating With Other Compuware Products

Installing in an Enterprise Environment

The following example provides the installation sequence for QACenter Portal and QADirector in a distributed environment and includes instructions for customizing the associated database.

Before You Begin

- 1 Exit all non-essential Windows programs before running this setup program. Some Windows programs may interfere with the installation process.
- 2 Do one of the following:
 - ◇ If you are migrating from an earlier version see [“Upgrading and Migrating Previous Versions of QADirector and QACenter Portal”](#) on page 49.
 - ◇ If this is a new installation, continue.

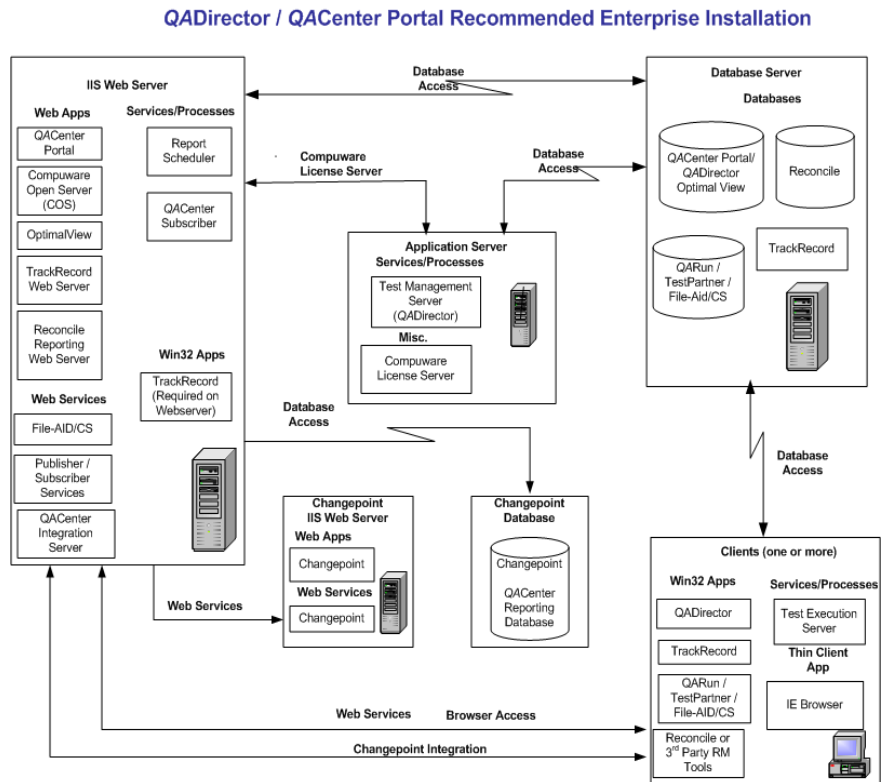


Figure 3-1. The graphic above depicts a recommended Enterprise installation. For further information, refer to each of the product’s online help and *Installation and Configuration Guide*.

IIS Web Server

Web Apps

QACenter Portal: Enables users to create and view reports and provides QADirector web functionality.

Compuware Open Server (COS): Compuware Open Server (COS) is Compuware's server-side framework for managing product and integration services.

Publisher/Subscriber Services: COS message routing services.

OptimalView: Integration portal used to integrate applications into a single point of access.

TrackRecord Web Server: Defect and project tracking tool used to record and report information about products being developed or supported.

Reconcile Reporting Web Server: Reconcile Reporting is a web-based reporting utility modeled on QACenter Portal technology. Used by Reconcile to publish reports to QACenter Portal.

Web Services

File-AID/CS: Provides an integration between QACenter Portal/QADirector and File-AID/CS repository, and script information.

QACenter Integration Server: Allows the user to directly integrate testing with their requirements management solution in order to align testing efforts with business objectives, and provide traceability from requirements to testing results. For installation information go to the FrontLine support Web site and select QADirector. Click QACenter Add-ins.

Services/Processes

Report Scheduler: Used to publish information via COS to Changepoint and move QACenter data to the QACenter reporting database. This supports ad hoc reporting within Changepoint using the Changepoint Report Designer.

QACenter Subscriber: Service used for File-AID/CS integration. Uses File-AID/CS with services and COS messaging services.

Win32 Apps

TrackRecord: Defect and project tracking tool used to record and report information about products being developed or supported.

Application Server

Windows Service

Test Management Server (TMS): Reads job submissions from the database, manages jobs, tracks available test execution machines, and manages the licenses for manual test Web execution. It also reports on the status of jobs in progress.

Compuware License Server: Allows you to run all the Compuware products.

Changepoint

Databases/Web
Server/Web Services

Changepoint: Manages client data in one place via a client portal used to initiate work requests, and track activity and status. For additional Changepoint installation and configuration information, refer to the Changepoint documentation.

QACenter Reporting Database: Used to integrate QACenter with Changepoint Report Designer.

Oracle Database Server

Databases

QACenter: Central repository which holds all QACenter Portal/QADirector assets.

Reconcile: Central repository which holds all Reconcile assets.

QARun/TestPartner/File-AID/CS: Central repository which holds all assets for these products.

TrackRecord: Central repository which holds all TrackRecord assets.

Clients

Win32 Apps

QADirector: Test management solution designed to help testers, developers, and managers deliver thoroughly tested applications. Integrates with Compuware's testing, program analysis, defect tracking, and requirements management tools.

TrackRecord: Defect and project tracking tool used to record and report information about products being developed or supported.

QARun: Tests enterprise client/server applications.

TestPartner: Tests Web- and Windows-based applications that use Microsoft technologies.

File-AID/CS: Data management tool designed to help developers manage and prepare data for testing.

Reconcile: Helps create and control project requirements. It stores the project requirements in a relational database.

3rd Party RM Tools: Helps create and control project requirements.

Services/Processes

Test Execution Server: Allows jobs to run on a computer, however you do not need a Test Execution Server to run jobs via QACenter Portal.

Thin Client App

IE Browser: For the correct browser version, see "[Windows Environment](#)" on page 16.

Installing the QACenter Database on the Database Server Machine

Create a QACenter database manually or using the installation CD. Manually creating and configuring a database consists of a series of procedures. To manually create and configure the database, refer to [Appendix A, “Manually Creating and Configuring a Database”](#).

To simplify this process, Compuware provides a database installation directly from the product CD. This section provides information about installing a QACenter SQL Server or Oracle database using the Database Install on the installation CD.

Note: Compuware recommends using the database installation from the CD if you have no database administration experience.

Installing a SQL Server Database

Requirements

- ◆ An existing database server instance that runs a supported version of SQL Server. See [“System Requirements”](#) on page 15.
- ◆ The following specifics used to configure the database instance:
 - ◇ The SQL Server must be case insensitive at the time of installation.
 - ◇ If the database instance is defined, you must specify code page 1252 and sort order 52 (also known as ISO 8859-1).
 - ◇ If you are using SQL Server 2000, specify the `SQL_Latin1_General_CP1_CI_AS` collation.
- ◆ An SQL Server user ID and password to allow the administrator to set up the database.

Installing the Database

- 1 Log on as a user with administrator permissions.
- 2 Insert the QACenter CD into the CD-ROM drive. The QACenter CD browser should automatically appear. If it does not, navigate to the root directory and run the `setup.exe` file.
- 3 Click **Install QACenter Products**.
- 4 Click **Install Database**. The **Welcome** dialog box appears.
- 5 Click **Next**. The **License Agreement** dialog box appears.

- 6 Click **Yes**. The **Database Management System** dialog box appears.
- 7 Select **Microsoft SQL Server 2000\7.0** and click **Next**. The **SQL Server Login Information** dialog box appears.
- 8 Type the following information in the **Server Login Information** dialog box fields:
 - ◇ **Server** field: Database server name.
 - ◇ **Login** field: Database user name (must have sufficient permissions) Example: sa.
 - ◇ **Password** field: User password.
- 9 Click **Next**. The **Database Selection** dialog box appears.
- 10 Select the QADirector database to install and clear the **Reconcile** selection.
- 11 Click **Next**. The **Database Information** dialog box appears.
- 12 Type the following information in the **Database Information** dialog box fields:
 - ◇ **Database**: Database name.
 - ◇ **Login**: Database User name for new database (optional). New user account is created.
 - ◇ **Password**: Password for new user (optional).
- 13 Click **Next**. The **Review Settings** dialog box appears displaying information specified in the previous setup screens. To change any of the settings, click **Back**.
- 14 Click **Next** to begin creating the database. This may take a few minutes. The **Command Results** dialog box appears.

At the end of the installation, this dialog box displays a log containing all commands executed during the database creation. To save the log, select the text, copy and paste it into a text file, and save it.
- 15 Click **Finish** to complete the database installation.

Installing an Oracle Database

Requirements

- ◆ An existing database server instance that runs supported versions of Oracle. Refer to “[System Requirements](#)” on page 15 for details.
- ◆ The following specifics used to configure the database instance:
 - ◇ When the Oracle database instance is defined, you must specify the Storage Character Set as iso 8859-1 West European.

- ◇ The NLS_LANGUAGE parameter should be set in the parameter file as:

```
NLS_LANGUAGE = 'AMERICAN'
```

If you are using Windows 2000, set the NLS_LANGUAGE parameter to AMERICAN_AMERICA.WE8ISO8859P1 in the following locations:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\NLS_LANG  
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\ALL_HOMES\IDO\NLS_LANG  
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOME-\NLS_LANG
```

- ◇ You must know the Oracle user ID and password to allow the QADirector administrator to set up the Oracle.
- ◆ An Oracle Net Service created before installing an Oracle database. For further information see [Appendix B, “Setting Up an ODBC Data Source”](#).

Installing the Oracle Database

To install the QACenter Oracle database:

- 1 Log on as a user with administrator permissions.
- 2 Insert the QACenter CD into the CD-ROM drive. The QACenter CD browser should automatically appear. If it does not, navigate to the root directory and run the **setup.exe** file.
- 3 Click **Install QACenter Products**.
- 4 Click **Run Install Database**. The **Welcome** dialog box appears.
- 5 Click **Next**. The **License Agreement** dialog box appears.
- 6 Click **Yes**. The **Database Management System** dialog box appears.
- 7 Select **Oracle 8.1.7\9i\10g** and click **Next**. The **Oracle Login Information** dialog box appears.
- 8 Type the following information in the **Oracle Login Information** dialog box fields:
 - ◇ **Service:** Service name.
 - ◇ **Login:** User/schema name (must have sufficient permissions)
Example: sys.
 - ◇ **Password:** User password.
- 9 Click **Next**. The **Database Selection** dialog box appears.
- 10 Select the QADirector database and clear the **Reconcile** selection.

- 11 Click **Next**. The **Review Settings** dialog box appears displaying information specified in the previous setup screens. To change anything, click **Back**.
- 12 Click **Next** to begin creating the database. The **Command Results** dialog box appears.

At the end of the installation, this dialog box displays a log containing all commands that were executed during the database creation. To save the log, select the text, copy and paste it into a text file, and save it.
- 13 Click **Finish** to complete the database installation.

Installing QACenter Portal on the Web Server Machine

- 1 Log on as a user with administrator permissions.
 - 2 Insert the QACenter CD into the CD-ROM drive.
 - 3 Click **Install QACenter Products**.
 - 4 Click **Install QACenter Portal**. The **Welcome** dialog box appears.
 - 5 Click **Next**. The **License Agreement** dialog box appears.
 - 6 Click **Yes**. The **Customer Information** dialog box appears.
 - 7 Type your name and company in the **User Name** and **Company Name** fields.
 - 8 Click **Next**. The **Choose Destination Location** dialog box appears.
 - 9 Choose the location in which to install QACenter Portal.

By default, QACenter Portal installs in the Windows folder in Program Files\Compuware\QACenter Portal. Click **Browse** to select an existing folder or type the path name in the **Path** field.
 - 10 Click **OK**. An **MSDE Install** dialog appears.
- Note:** If you want to install MSDE, click **Cancel** and see [“Completing a Basic Installation”](#) on page 19.
- 11 Click **No**. The **Choose Database Location** screen appears.
 - 12 Specify a database location by typing a folder name or selecting one from the existing folders list.
 - 13 Click **Next** or specify a location. The **Start Copying Files** dialog box appears.
 - 14 Click **Next**. The **Setup Status** dialog box appears.

- 15 Click **Next**. The components are installed.
- 16 (Optional) Select the **Display Release Notes** check box when the **Setup Complete** dialog box appears.
- 17 Click **Finish**. The computer is restarted.

Installing QADirector

Installing QADirector on a Client Machine

Use this process to install QADirector on a client machine and repeat the process for every client in an Enterprise environment.

- 1 Log on as a user with administrator permissions.
- 2 Insert the QACenter CD into the CD-ROM drive.
- 3 Click **Install QACenter Products**.
- 4 Click **Install QADirector**. The **Welcome** dialog box appears.
- 5 Click **Next**. The **License Agreement** dialog box appears.
- 6 Click **Yes**. The **Customer Information** dialog box appears.
- 7 Type your name and company in the **User Name** and **Company Name** fields.
- 8 Click **Next**. The **Choose Destination Location** dialog box appears.
- 9 Choose the location in which to install QADirector.
By default, QADirector installs in the Windows folder in Program Files\Compuware\QADirector. Click **Browse** to select an existing folder or type the path name in the **Path** field.
- 10 Click **OK** and click **Next**. The **Select Components** dialog box appears. Components to install appear as follows:
 - ◇ **Database Server:** Do not select this component.
Note: To install MSDE, click **Cancel** and see [“Completing a Basic Installation”](#) on page 19.
 - ◇ **Test Management Server:** Installs the Test Management Server on the local machine.
 - ◇ **Test Execution Server:** Installs the Test Execution Server on the local machine.
Note: Select these to install them on the same machine. To install them on separate machines, deselect these options and see

“Installing the Test Management and Test Execution Servers”
on page 34.

- ◇ **Windows Client:** Installs QADirector on the local machine.
 - ◇ **IBM S/390 Support:** Includes the QA 3270 Emulator Server, a utility program used to manage communications between your 3270 IBM mainframe emulator and QADirector. The QA 3270 Emulator Server includes the TN3270 Mainframe Emulator, a free emulator you can use for mainframe testing. If you prefer to use your own emulator, refer to the QA 3270 Emulator Server Readme file for a list of supported emulators. After installing QADirector, you can view the Readme file by clicking **Start>Programs>Compuware>QADirector>QA 3270 Emulator Server>Readme**.
- 11 Specify a location. Type a folder name, or select one from the existing folders list. The **Start Copying Files** dialog box appears.
 - 12 Click **Next**. The **Setup Status** dialog box appears.
 - 13 Click **Next**. The components are installed.
 - 14 (Optional) Select the **Display Release Notes** check box when the **Setup Complete** dialog box appears.
 - 15 Click **Finish**. The computer is restarted.

Installing the Test Management and Test Execution Servers

Installing the Test Management Server

To install a Test Management Server, follow [steps 1–11](#) of [Installing QADirector](#). Select to install the Test Management Server only and continue with the process.

Installing the Test Execution Server

To install a Test Execution Server, follow [steps 1–11](#) of [Installing QADirector](#). Select to install the Test Execution Server only and continue with the process.

Configuring QACenter Portal

Configuring QACenter Portal For Oracle

Once the QACenter Portal application and database are installed, the portal must be configured to communicate with the database.

Creating an ODBC Data Source on the Web Server

- 1 Create an Oracle Net Service name using the Oracle Net Configuration Assistant.
- 2 Create a **System DSN** with exactly the same name as the **Net Service Name** created in Step 1.

Note: Compuware recommends that you use the Oracle driver instead of the Microsoft driver when connecting to the QACenter Portal database.

For more information, see [Appendix B, “Setting Up an ODBC Data Source”](#).

Completing the Configuration

- 1 Run the **Database Configuration Utility** located in **Start>Programs>Compuware>QACenter Portal>Database Configuration Utility**.
- 2 Select **Oracle** from the **Database** options and type the following information in the appropriate fields:
 - ◇ **Server Name:** Type the server name.
 - ◇ **Database Name:** Type the database instance.
 - ◇ **DSN/Service Name:** Type the DSN created above.
 - ◇ **User Name:** Type the user name.
 - ◇ **Password:** Type the user password.
- 3 In the **Port** field, type a port number. The default value is 1521.
- 4 Click **Test** to validate the configuration. The **Test Status** dialog box appears.
- 5 Click **OK**.
- 6 Review the default values in the **Publish Message Router** field and change as necessary.
- 7 Click **Test** to verify the web service at the address.
- 8 Review the default values in the **Subscribe Message Router** field and change as necessary.
- 9 Click **Test** to verify the web service at the address.
- 10 Click **OK** to exit the configuration utility.
- 11 If using the Oracle 9.2 Client and above:

- a Locate the Oracle **Install** folder in the Oracle installation directory.
- b Right-click on the folder and select **Properties**. The **Properties** dialog box appears.
- c Click **Security**. If the Security tab is not visible, navigate to Windows Explorer and click **Tools>FolderOptions>View** and clear the **Use Simple File Sharing Option**.
- d Click **Add**. The **Select Users or Groups** dialog box appears.
- e Add the following users with full permissions: IWAM_<Machine-Name>, IUSR_<MachineName>, ASPNET, and Everyone.
- f Click **OK** and then click **Advanced**.
- g Select **Allow inheritable permissions from parent to propagate to this object**.
- h Click **OK** to exit.

Configuring QACenter Portal for SQL Server

To configure QACenter Portal for SQL Server on the Web server:

- 1 Run the Database Configuration Utility located in **Start>Programs>Compuware>QACenter Portal>Database Configuration Utility**.
- 2 Select **SQL Server** from the **Database** options and type the following information in the appropriate fields:
 - ◇ **Server Name:** Type the server name.
 - ◇ **Database Name:** Type the database name.
 - ◇ **Port:** Enter a port value. The default value is 1433.
 - ◇ **User Name:** Type the user ID.
 - ◇ **Password:** Type the user password.

Note: The DSN server name defaults to QACenter. This is a fixed value and cannot be changed.
- 3 Click **Test** to validate the configuration. The **Test Status** dialog box appears.
- 4 Click **OK**.
- 5 Review the default values in the **Publish Message Router** field and change as necessary. Click **Test** to verify the web service at the address.
- 6 Review the default values in the **Subscribe Message Router** field and change as necessary. Click **Test** to verify the web service at the address.

- 7 Click **OK** to exit the configuration utility.

Configuring Windows Permissions for QACenter Portal on Non-English Operating Systems

Configure the following directories to allow permissions to the Everyone user. In non-English versions of Windows, use the language equivalent of the English “Everyone”.

- ◆ \QACenter Portal\UI\qacenterportal\temp\imports
- ◆ \QACenter Portal\UI\qacenterportal\temp\upload\
- ◆ \QACenter Portal\planning\templates

Repeat these steps for each directory:

- 1 Right-click the appropriate directory.
- 2 Select **Properties** from the menu. The **Properties** dialog box appears.
- 3 Click the **Security** tab.
- 4 Click **Add**. The **Select Users** dialog box appears.
- 5 Type `Everyone` or the language equivalent in the **Users** field. For example, in the German version of Windows, type `Jeder`.
- 6 Click **OK**.
- 7 Select **Everyone** or the language equivalent from the **Group or User Names** list.
- 8 Select **Full Control** in the **Allow** column of the **Permissions for** list.
- 9 Click **OK**.

Configuring IIS on a Windows 2003 Server

Windows 2003 requires additional steps in order to use the Internet Information Service (IIS) Web server with QACenter Portal.

To configure IIS on the Windows 2003 server:

- 1 Open the **Internet Information Service Manager**. For more information, refer to the Microsoft Windows documentation.
- 2 Select the **Web Service Extensions** option.
- 3 Select **Allow** from the **All Unknown ISAPI extensions** list.
- 4 If the **ASP.NET v1.1.4322** option exists, select **Allow** and continue with [step 6](#).
- 5 If **ASP.NET v1.1.4322** option does not exist:

- a Open the Windows **Add/Remove Programs** utility.
 - b Click **Add/Remove Windows Components**. The **Windows Component Wizard** opens.
 - c Select **Application Servers** from the **Components** list and click **Details**.
 - d Select **ASP.NET** from the **Subcomponents** list and click **OK**.
 - e Click **Next**.
 - f Open the **Internet Information Service Manager**.
 - g Select **Web Service Extensions** option.
 - h Select **Allow for ASP.NET v1.1.4322** option.
- 6 Click **OK**.

Configuring QADirector

To configure QADirector Client, first shut down the Test Execution Server (TES) and the Test Management Server (TMS).

Database connection information can be changed from within QADirector in the System Administration Center (See [“Connecting from Within QADirector”](#) on page 40.)

Configuring QADirector for Oracle

To configure QADirector for Oracle, ensure that you have an Oracle Net Service and that you create a Windows ODBC data source for the Oracle database. For information see [Appendix B, “Setting Up an ODBC Data Source”](#).

Creating an ODBC Data Source

- 1 Create an Oracle Net Service name using the Oracle Net Configuration Assistant.
- 2 Create a System DSN.

Completing the Configuration

- 1 Run the **Database Configuration Utility** located in **Start>Programs>Compuware >QADirector>Database Configuration Utility**.
- 2 Select **Oracle**.
- 3 Click the list and select the data source name you created previously.

- 4 Type the schema name and the Oracle database user name and password.
- 5 Click **OK**.

For more information see [Appendix B, “Setting Up an ODBC Data Source”](#).

Configuring QADirector Client For SQL Server

To connect to the database before logging in to QADirector, create a data source and SQL Server DSN. Follow these steps:

Creating an ODBC Data Source

Create an ODBC DSN. For more information see [Appendix B, “Setting Up an ODBC Data Source”](#).

Completing the Configuration

- 1 Click **Start>Program Files>Compuware>QADirector>Database Configuration Utility**. The **Select Database Connection** dialog box appears.
- 2 Select **SQL Server / MSDE**.
- 3 Click the list and select the data source name you created previously.
- 4 Type the database name, schema name, and the SQL Server database user name and password.

Configuring the Test Management and Execution Servers

Multiple Test Management Servers can be created and configured with different priorities. The prioritized Test Management Server list appears in the TM Server List panel in the System Administration Center. These Test Management Servers will start according to priority.

Only one Test Management Server is the active Test Management Server at any particular time even though other Test Management Servers may be running. For example, if a Test Management Server with the priority of 1 fails to start, the Test Management Server with the priority of 2 will start in its place.

Completing the Configuration

Follow the steps for [“Configuring QADirector for Oracle”](#) on page 38 or [“Configuring QADirector Client For SQL Server”](#) on page 39.

Connecting from Within QADirector

To connect to the database from within QADirector, follow these steps:

- 1 Navigate to the **System Administration Center**.
- 2 From the **Datasource** panel click **Actions>Change**. The **Select Database Connection** dialog box appears.
- 3 Follow the steps for “[Configuring QADirector for Oracle](#)” on page 38 or “[Configuring QADirector Client For SQL Server](#)” on page 39.

Configuring the QA3270 Emulator Server

If you installed the optional IBM S/390 Support component, you may need to configure the QA 3270 Emulator Server to work with your mainframe emulator. To access the QA 3270 Emulator Server readme file, click **Start>Programs>Compuware>QADirector>QA 3270 Emulator Server>Readme**.

Using the QADirector Tutorial

To complete the QADirector tutorial, install TestPartner. The tutorial database is located in Program Files\Compuware\QADirector\Tutorial\MIBQADB\QAD4.MDB. For detailed instructions on using the tutorial, refer to the *QADirector Tutorial*, which can be accessed through online Help.

Configuring the Windows XP SP2 Firewall for QADirector

With the release of Windows XP, Microsoft introduced a set of security technologies to improve the ability of Windows XP-based computers to withstand malicious attacks from viruses and worms. The Windows Firewall prevents unsolicited, inbound TCP/IP connections. Therefore, the Test Management Server, Test Execution Server, and various other test execution components may not communicate with each other while the Windows Firewall is active.

Consider the following when configuring QADirector:

- ◆ Networking should be configured to use the TCP/IP protocol with a static port of 1433.
- ◆ By default, SQL Server allows network connections using port 1433.
- ◆ The SQL Server machine should have the latest MS Data Access Components (MDAC2.71a). These are available with SQL Server Service Pack 3a or later. Without this version of MDAC, it is not possible to

connect to the SQL Server 2000 installed on a Windows XP with Service Pack 2 operating system.

- ◆ By default the Web Server (IIS) Port 80 is blocked. Enable the port using the Windows Firewall dialog box.

Use this process in conjunction with Microsoft Windows XP Service Pack 2 to ensure that QADirector 05.01.00 works properly when the Windows Firewall is active:

- 1 Click **Start>Control Panel>Windows Firewall**. The **Windows Firewall** dialog box appears.
- 2 Click the **Exceptions** tab.
- 3 Click **Add Program**. The **Add a Program** dialog box appears.
- 4 Browse to the directory where QADirector is installed.
- 5 Select the following programs from the list of available programs:
"QC_TESRV.EXE, QC_TMSRV.EXE, TDRV.EXE
"TENG.EXE

If necessary, select the programs one at a time. It may be necessary to go back to the **Exceptions** tab each time a program is selected. Make sure the check box is selected for each of the QADirector programs.

Obtaining the Correct Port Number For the Firewall

The correct port number must be used for SQL Server to properly set up the Firewall. After the port number is obtained, you will return to the Exceptions tab to complete the setup.

- 1 Click **Start>Programs>Microsoft SQL Server>Server Network Utility**. The **SQL Server Network Utility** dialog box appears:
- 2 Select **TCP/IP** and click **Properties**. The **Properties** dialog box appears. The default port number is displayed in the Default port field.
- 3 Click **Start>Control Panel>Windows Firewall**. The **Windows Firewall** dialog box appears
- 4 Select the **Exceptions** tab.
- 5 Click **Add Port**. The **Add a Port** dialog box appears.
- 6 In the **Port number** field, type the port number from the **SQL Server Network Utility**.
- 7 Select the **TCP** option.
- 8 In the **Name** field, type a meaningful name.

- 9 Click OK. The **Windows Firewall** dialog box appears.
- 10 Click OK.

Disconnecting QACenter Portal from the Database

Only one Web server can access the database at a time. In order to connect to another database or to access an existing database from a different Web server machine, disconnect the Web server from the current database.

To disconnect from a SQL or Oracle database:

- 1 Run the Database Configuration Utility located in **Start>Programs>Compuware>QACenter Portal>Database Configuration Utility**.
- 2 Click **Disconnect**.
- 3 Click **Cancel**.

Configuring Compuware Open Server

The Compuware Open Server (COS) must be configured to work with the Changepoint integration for QACenter. COS is Compuware's server-side framework for managing product and integration services. The COS Administration utility enables you to set up and to configure core components used by Compuware for product integration.

Integrating QACenter with Changepoint Using COS Locally

Follow these instructions for integrating QACenter with Changepoint using COS installed locally.

Configuring the Data Source

- 1 Navigate to COS the installation directory. Example: C:\Program Files\Common Files\Compuware\CWJBoss.
- 2 Use Notepad to open the file CWChangepoint-ds.xml located within the \server\cpwr\deploy directory.
- 3 Locate the following line and change *server/database* to reflect your actual Changepoint database installation:

```
<connection-url>jdbc:jtds:sqlserver://server/database  
</connection-url>
```

- 4 Locate the following line and change *user* to an actual user with database access:
`<user-name>user</user-name>`
- 5 Locate the following line and change *password* to an actual password for the user account:
`<password>password</password>`
- 6 Click **Save** and then **Close**.

Completing the Configuration

- 1 Launch Internet Explorer.
- 2 In the address field, type `http://localhost:18080/CWAdmin`. If necessary, change the port number (18080) to the current COS port.
- 3 Open the COS page.
- 4 Click the **Message SQL** link. The **Message SQL Service** page displays.
- 5 Replace the filter with `CPMessageSource = 'QACenter'`.
- 6 Click **On** in the **In Service State** field.
- 7 Click **Submit**. The SQL Service is enabled.

Integrating QACenter with Changepoint Using COS on a Separate Server

Follow these instructions for integrating QACenter with Changepoint using COS installed on a separate server.

Updating the COS Installation

- 1 Open Windows Explorer.
- 2 Insert the QACenter CD and navigate to the `<root>\cpwr\cosupdate\` directory.
- 3 Navigate to the COS installation directory. Example: `C:\Program Files\Common Files\Compuware\CWJBoss`.
- 4 Copy the `CWChangepoint-ds.xml` file from the Installation CD directory to the `\server\cpwr\deploy` directory.
- 5 Copy the `CWChangepoint.sar` file from the Installation CD directory to the `\server\cpwr\deploy` directory.
- 6 Copy the `AAFault.xml` file from the Installation CD directory to the `\CWJBoss\server\cpwr\data\CWMsgSQL\xslt` directory. Create this directory if it does not exist.

Configuring the Data Source

- 1 Navigate to the COS installation directory. Example: C:\Program Files\Common Files\Compuware\CWJBoss.
- 2 Use Notepad to open the CWChangeoint-ds.xml file located within the \server\cpwr\deploy directory.
- 3 Locate the following line and replace *server/database* with your Changeoint database installation:

```
<connection-url>jdbc:jtds:sqlserver://server/database</connection-url>
```
- 4 Locate the following line and change *user* to the actual user with database access:

```
<user-name>user</user-name>
```
- 5 Locate the following line and change *password* to the one set for the SQL User account:

```
<password>password</password>
```
- 6 Click **Save** and then **Close**.

Completing the Configuration

- 1 Launch Internet Explorer.
- 2 In the Address field, type `http://<MachineName>:18080/CWAdmin`. If necessary, change the port number (1080) to the current COS port.
- 3 Open the COS page.
- 4 Click the **Message SQL** link. The Message SQL Service page displays.
- 5 Replace the filter with `CPMessageSource = 'QACenter'`.
- 6 Click **On** in the **In Service State** field.
- 7 Open **DBConfig** from the QACenter Web Server.
- 8 Change the Publisher URL to point to the new server.

Installing TrackRecord on the Web Server

If you purchased TrackRecord and plan to install it using the Web Server option from the QACenter CD, refer to the *TrackRecord Installation and Configuration Guide*.

Configuring Changepoint

This section details the steps necessary to prepare and configure Changepoint for use with QACenter. For additional Changepoint installation and configuration information, refer to the Changepoint documentation.

Note: Changepoint should be set up using NTLM Authentication.

Preparing Changepoint for QACenter Portal Integration

Follow these steps to prepare Changepoint for QACenter Portal integration:

- 1 Ensure the Changepoint application is already installed. See the online help and documentation for Changepoint for information regarding creating reports from Data Providers.
- 2 Insert the QACenter CD and navigate to the Changepoint Integration Update utility.
- 3 Type the following information used to create the Reporting database in the appropriate fields:
 - ◇ **Database Server Name:** The same server name as the Changepoint Database Server name.
 - ◇ **Changepoint Database Name:** The actual Changepoint database which is installed.
 - ◇ Login
 - ◇ Password

Configuring QACenter Portal for Changepoint Report Designer

Follow these steps to configure QACenter Portal for ad-hoc reporting from Changepoint:

QACenter Portal

- 1 Open the QACenter Portal homepage and click **Administration>Application Configuration Page**.
- 2 Type the Scheduler Interval time.
- 3 Type the following information:
 - ◇ Database Server Name
 - ◇ DB Name (read only)
 - ◇ User ID
 - ◇ Password

Changepoint

- 4 Log in to Changepoint and click **Administration>System Manager>Reporting>Data Provider Configuration>Actions>Import Providers Page**.

- 5 Navigate to the QACP_CP_ReportandProviderXMLS folder.
- 6 Following the instructions in the Changepoint documentation, import the following to create data providers:
 - ◇ QAC_CP_DP_AssetRequirementMap.xml
 - ◇ QAC_CP_DP_AssetScriptMap.xml
 - ◇ QAC_CP_DP_Classes.xml
 - ◇ QAC_CP_DP_ExecutionResults.xml
 - ◇ QAC_CP_DP_FunctionalRequirements.xml
 - ◇ QAC_CP_DP_Jobs.xml
 - ◇ QAC_CP_DP_Procedures.xml
 - ◇ QAC_CP_DP_Projects.xml
 - ◇ QAC_CP_DP_ResultFolders.xml
 - ◇ QAC_CP_DP_Scripts.xml
 - ◇ QAC_CP_DP_Sites.xml
 - ◇ QAC_CP_DP_Suites.xml
 - ◇ QAC_CP_DP_TestRequirements.xml
- 7 Repeat Step 4. Re-importing will create the data provider relationships.
- 8 Provide access to the QACenter data providers from **Administration>System Manager>Reporting>Data Provider Access page**. QACenter data providers will start with the letters “QAC_”

For further information on importing and configuring data providers for reporting purposes, refer to the Changepoint documentation.

Configuring Defect Reports for a New Changepoint Database

Follow these steps to configure Changepoint if you are using a new database:

Log in to CARS and click **Administration>System Manager>Reporting>Data Provider Configuration>Actions>Import Providers Page**.

- 1 Browse to the folder **QAC_CP_ReportandProviderXMLS** on the QACenter CD and import the data provider QAC_CP_DP_DefectTrend.xml.
- 2 Click **Administration>System Manager>Reporting>Data Provider Access**. Give user’s access to the CARS_Report_Provider.
- 3 Click **My Applications>Report Designer>Import Report**.
- 4 Browse to the folder **QAC_CP_ReportandProviderXMLS** on the QACenter CD and import the following reports:
 - ◇ QAC_CP_RPTS_Defect Report Status by Priority.xml
 - ◇ QAC_CP_RPTS_Defect Trend by Priority.xml
 - ◇ QAC_CP_RPTS_Overall Defect Trend.xml

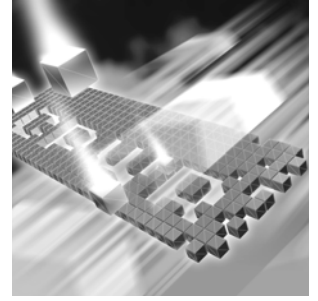
Configuring Defect Reports for an Existing Changepoint Database

Follow these steps to configure Changepoint if you are using an existing database:

- 1 Click **My Applications>Report Designer>Import Report**.
- 2 Navigate to the QAC_CP_ReportandProviderXMLS folder on the QACenter CD and import the following reports:
 - ◇ QAC_CP_RPTS_Defect Report Status by Priority-2.xml
 - ◇ QAC_CP_RPTS_Defect Trend by Priority-2.xml
 - ◇ QAC_CP_RPTS_Overall Defect Trend-2.xml

Integrating With Other Compuware Products

QADirector and QACenter Portal integrate with many Compuware automated testing, analysis, defect tracking, and requirements management tools. If you purchased an integrated product refer to that product's *Installation and Configuration Guide* for information.



Chapter 4

Upgrading and Migrating Previous Versions of QADirector and QACenter Portal

- ◆ Upgrading QADirector and QACenter Portal
- ◆ Migrating Databases from 04.05.00 to 05.01.00

Upgrading QADirector and QACenter Portal

Upgrade QADirector after logging in as Admin. For QACenter Portal, you will be prompted to upgrade during configuration.

Upgrading from Release 05.00.00 or 05.00.01 to 05.01.00

When upgrading QADirector from Release 05.00.00 or 05.00.01 to 05.01.00, during database connection configuration, type **DEFAULT** in the **Database Name** and **Schema/Owner Name** field. This ensures a proper database upgrade to 05.01.00.

Upgrading from Release 04.05.01 to 05.01.00

When upgrading QADirector Release 04.05.01 to Release 05.01.00, you must upgrade to Release 05.00.00 or 05.00.01 first, and then upgrade again to Release 05.01.00:

When upgrading from QADirector Release 04.05.01 to Release 05.00.01, keep in mind the following:

User Defined Tools: All user-defined tools will be removed when you uninstall QADirector 04.05.01. Manually recreate them in QADirector 05.00.01.

Test Servers: Make sure the Test Management Server and the Test Execution Server are shut down. If necessary, stop or shut them down.

Suites: Each suite from QADirector 04.05.01 will be placed in its own project of the same name in QADirector 05.00.01. QADirector 04.04.00

suites and earlier must be upgraded to 04.05.01. All users with access to a suite will be added as testers to the project.

Permissions and Passwords: All user names over 50 characters in length will be truncated. Spaces will be replaced with underscores. Passwords with fewer than five characters will be replaced with the `qadirector` password.

Scripts: Any user-defined scripts with duplicate names will be renamed with the original name plus the test ID number. All user-defined script names must be unique in QADirector 05.00.01. If a different naming convention is preferred, change all user-defined script names, as well as data, before uninstalling QADirector 04.05.01 and upgrading the database.

Databases:

Note: Make a backup of the 04.05.01 database in the relevant DBMS (SQL Server or Oracle) before migrating.

- ◆ Create an ODBC connection to the new database on the machine where the migration will be performed (the machine must contain the current QADirector 05.00.01 release). Specify the desired database as the default database in the ODBC setup.
- ◆ When migrating from Microsoft Access to MSDE/SQL Server, the 04.05.01 database cannot be used. A new, blank MSDE/SQL Server database must be created. Therefore, ODBC connections are needed for both the 04.05.01 Access database and the new 05.00.01 MSDE/SQL Server database. MSDE/SQL Server must be installed on the machine where the new database will be created.
- ◆ The database login and user name used during the migration process must have the proper settings. In SQL Server and MSDE, the database login should have privileges for the database being migrated (or for Access>MSDE, for the new MSDE database). This login should have “System Administrators” server role and “public” and “db_owner” database roles. The default database for this login should be the database being migrated. Note that the login may have access to several databases.

Note: The **Test** button on the **Configuration** screen does not work when QADirector is pointing to a 04.05.01 database. However, the migration can still execute successfully in spite of this. The **Test** button works properly when pointing to a 05.00.01 database.

Filters: Filter field names have changed in QADirector 05.00.01; some of the fields from 04.05.01 no longer have a counterpart field in 05.00.01. The fields that do not have a counterpart will remain intact in the Filter

definitions. In order for the Filters to function properly in 05.00.01, you may need to update your Filters to remove these fields.

The following table lists the filter fields in 04.05.01 and their counterpart fields in 05.00.01. These fields will be upgraded to the 05.00.01 format:

Table 4-1. QADirector Filter Fields

| 04.05.01 | 05.00.01 |
|--------------------|------------------|
| QC_SUMMARY | Summary |
| QC_NAME | Name |
| QC_DEFECT_ID | DefectIds |
| QC_EXP_RESULT | ExpectedResult |
| QC_MANUAL | IsManual |
| QC_CREATED_BY | CreatedBy |
| QC_IS_CLASS | IsClass |
| QC_IS_PROC | IsProc |
| QC_RUN_IN_PARALLEL | ParallelChildren |

Migrating Databases from 04.05.00 to 05.01.00

QADirector 05.00.00, 05.00.01 and 05.01.00 do not support Microsoft Access. If Access is the current database, migrate it to an MSDE database with the upgrade utility. You must migrate the Access database to Release 05.00.00 or 05.00.01 first, then migrate it to Release 05.01.00.

Note: To perform a migration you must be an Administrator.

If the schema of the QADirector database is older than the client, the following message appears:

Current version of QADirector has schema version x whereas required schema version is x . Would you like to upgrade QADirector database to the required schema level? Before you upgrade the database please make sure that all the clients are logged out of QADirector database.

If the schema of the QADirector database is newer than the client, the following message appears:

Current version of QADirector has schema version x whereas required schema version is x . Please use appropriate release of QADirector to work with this schema of the database or change datasource.

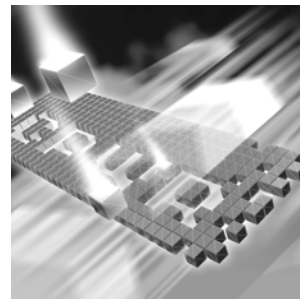
To upgrade and migrate from an Access database to an MSDE/SQL Server database:

- 1 Create a blank MSDE database to serve as the destination for the data in the 04.05.01 Access database after the migration is finished. Refer to the MSDE Help system for information.
- 2 Create an ODBC connection to both the blank MSDE database you just created and to the Access database from which you are migrating.
- 3 At the **QADirector Log In** screen, click the **Configure** button to point to the Access database from which you will be migrating. The **Select a Database** dialog appears.
- 4 From the **Data Source Type** options, select **Access**.
- 5 In the **Data Source Name** field, select the exact name of the Access Database/ODBC connection you created in [step 2](#).
- 6 Click **OK**. The **QADirector Log In** screen appears.
- 7 At the **QADirector Log In** screen, type the **User Name** and **Password**.
- 8 Click **OK**.
- 9 If necessary, click **Yes** to upgrade the database schema to the required schema level. The **QADirector Data Migration Information** dialog appears with the **Datasoure Type**, **Datasoure Name**, **Database Name**, and **Schema/User Name** fields filled in by default.
- 10 In the **User Name** and **Password** fields, type the user name and password for the blank MSDE database you created in [step 1](#).
- 11 Click **Test** to verify that the information provided is correct. A test confirmation dialog appears.
- 12 Click **OK** to acknowledge the successful test. The **QADirector Data Migration Information** dialog appears.
- 13 Click **Continue** to continue the upgrade process. The **QADirector/Portal Database Upgrade** screen appears.
- 14 Click **Begin Upgrade**. The Current Item Progress, Overall Progress, and Upgrade Item indicators will display the ongoing progress of the database migration.
- 15 When the upgrade is complete, click **Close**.

Note: If you plan to use QACenter Portal, refer to [“Installing QACenter Portal on the Web Server Machine”](#) on page 32 for details.

Chapter 5

Maintaining the Installation



- ◆ Accessing Maintenance Mode
- ◆ Modifying an Installation
- ◆ Repairing an Installation
- ◆ Uninstalling QADirector
- ◆ Uninstalling QACenter Portal
- ◆ Uninstalling the QACenter MSDE Instance

Accessing Maintenance Mode

To access maintenance mode for QACenter products, Compuware recommends using the Windows Control Panel.

Required: Compuware recommends that you exit all non-essential Windows programs before running this setup program. Some Windows programs may interfere with the installation process.

Accessing Maintenance Mode from the Windows Control Panel

- 1 Click the Windows **Start** button and select **Settings>Control Panel**. The **Control Panel** dialog box appears.
- 2 Select the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box appears.
- 3 Select the QACenter product to maintain and click **Change/Remove**. Three maintenance mode options display: modify, repair, and remove. For more information about these options, see the appropriate section in this chapter.

Modifying an Installation

For products with optional components, you may want to add or remove a component. Rather than uninstall and re-install the product, you can modify your installation.

Modifying Products With Optional Components

- 1 Access maintenance mode described at the beginning of this chapter.
- 2 Select the **Modify** option and click **Next**. The **Select Components** dialog box appears allowing you to add or remove components.
- 3 Click **Next**. Setup will add or remove the appropriate components.
- 4 After modifying, you may be prompted to restart your computer. If you are prompted to restart your computer, you may choose to restart it now (recommended) or to restart it later.
- 5 Click **Finish** to complete the maintenance.

Repairing an Installation

There may be times when you will need to repair a damaged QACenter product installation. This could be due to an inadvertent deletion or corruption of the program. To repair your QACenter product, follow these steps:

- 1 Access maintenance mode described at the beginning of this chapter.
- 2 Select the **Repair** option and click **Next**. Setup will repair the specified QACenter product.
- 3 After repairing, you may be prompted to restart your computer. If you are prompted to restart your computer, you may choose to restart it now (recommended) or to restart it later.
- 4 Click **Finish** to complete the maintenance.

Uninstalling QADirector

If you want to remove QADirector, follow these steps:

- 1 Access maintenance mode as described at the beginning of this chapter.
- 2 Select the **Remove** option and click **Next**. The **Confirm File Deletion** dialog box appears.

- 3 Click **OK**. Setup will remove QADirector from your machine.
- 4 After uninstalling, you may be prompted to restart your computer. If you are prompted to restart your computer, you may choose to restart it now (recommended) or to restart it later.
- 5 Click **Finish** to complete the maintenance.

Uninstalling QACenter Portal

Because QACenter Portal uses several different Compuware applications, removing the product requires special steps. To uninstall QACenter Portal:

Note: To ensure a clean removal of the applications, uninstall the products in the exact order described in these steps.

- 1 Disconnect from the database.
- 2 Access maintenance mode as described at the beginning of this chapter.
- 3 Uninstall OptimalView 3.3.
- 4 Uninstall QACenter Portal.
- 5 Delete the QACenter Portal installation folder on the machine. For example, the folder may be located in the x:\Program Files\Compuware\QACenter Portal\ directory.

Uninstalling the QACenter MSDE Instance

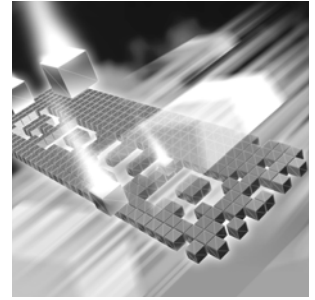
To remove the QACenter MSDE instance, follow these steps:

Caution: All associated data will be lost when you uninstall the MSDE instance.

- 1 Access maintenance mode as described at the beginning of this chapter and remove the **Microsoft SQL Server Desktop Engine (QACENTER)**.
- 2 Delete any remaining files from the installation directory.

Appendix A

Manually Creating and Configuring a Database



- ◆ Manually Creating and Configuring an Oracle Database
- ◆ Manually Creating and Configuring a SQL Server Database

Manually Creating and Configuring an Oracle Database

This section provides information about configuring QADirector to use an Oracle database.

Oracle Server Requirements

- ◆ An existing database server that runs the supported versions of Oracle. Refer to “[System Requirements](#)” on page 15 for details.
- ◆ Oracle ODBC drivers for a supported version of Oracle. Refer to “[System Requirements](#)” on page 15 for details.
- ◆ A database instance set up on the Oracle database server to store QADirector data. Use the following specifics to configure the database instance:

- ◇ When the Oracle database instance is defined, you must specify the Storage Character Set as iso 8859-1 West European.
- ◇ The NLS_LANGUAGE parameter should be set in the parameter file as:

```
NLS_LANGUAGE = 'AMERICAN'
```

If you are using Windows 2000, set the NLS_LANGUAGE parameter to AMERICAN_AMERICA.WE8ISO8859P1 in the following locations:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\NLS_LANG  
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\ALL_HOMES\IDO\NLS_LANG
```

HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOME-\NLS_LANG

- ◆ Access to a valid owner name (also known as a *schema*) on the Oracle database server for QADirector. This owner name is the user ID that will be associated with each of the product databases.

Creating Database Tables

Before any client machines can connect to the Oracle database, you must create the database and the database tables for QADirector. The SQL*Plus utility allows you to create the database tables. To create QADirector tables, perform the following for each database:

- 1 Do one of the following:
 - ◇ On the Oracle server or client machine, open SQL*Plus Worksheet by clicking **Start>Programs>OracleHome>Database Administration>SQL*Plus Worksheet**, where *OracleHome* indicates the home directory where your Oracle database was originally installed.
 - ◇ In Windows XP, click the **Start** menu and choose **All Programs>OracleHome>Database Administration>SQL*Plus Worksheet**, where *OracleHome* indicates the home directory where your Oracle database was originally installed
- 2 Select **Connect Directly to a Database**.
- 3 Type a user name in the **Username** field. This will be the name of the schema where the QADirector tables reside.
- 4 Type a password in the **Password** field.
- 5 Type the name of the service running the database in the **Service** field.
- 6 On the database server from within SQL*Plus Worksheet, click **Menu Worksheet** and then click **Run Local Script**. The **Run Local Script File** dialog box appears.
- 7 Click the **Look In** list and navigate to `\cpwr\database\sql-scripts\oracle` on the installation CD.
- 8 Execute the following scripts in order:
 - ◇ `1_orcl_qacenter.sql`
 - ◇ `2_orcl_procedures.sql`
 - ◇ `3_orcl_delete_procedures.sql`
 - ◇ `4_orcl_optimalview.sql`
 - ◇ `5_qacenter_appinserts.sql`

- ◇ 6_orcl_qacenter_appupdates.sql
- ◇ 7_orcl_optimalview_appinserts.sql

Manually Creating and Configuring a SQL Server Database

This section provides information about configuring QADirector to use a SQL Server database.

SQL Server Requirements

- ◆ An existing database server that runs a supported version of SQL Server. Refer to “[System Requirements](#)” on page 15 for details.
- ◆ A database instance on the SQL Server database server to store QADirector data. Use the following specifics to configure the database instance:
 - ◇ If you are using SQL Server 7.0 and the database instance is defined, you must specify code page 1252 and sort order 52 (also known as ISO 8859-1).
 - ◇ If you are using SQL Server 2000, specify the `SQL_Latin1_General_CP1_CI_AS` collation.
- ◆ An SQL Server user ID and password to allow the QADirector administrator to set up the database server.

Creating Database Tables

Once you have created the database, you can create the QADirector database tables. QADirector includes files that execute scripts and automatically create the tables for you.

- 1 To start the SQL Server Query Analyzer, select **SQL Server Query Analyzer** from the **Tools** menu in the SQL Server Enterprise Manager.
- 2 Select the database from the **DB** list.
- 3 Click **File>Open**. The **Open Query File** dialog box appears.
- 4 Click the **Look In** list and browse to `<drive>:\cpwr\database\sql-scripts\mssql` on the installation CD.
- 5 Select one script at a time, click **Open**, and click the **Run** (green arrow) icon on the toolbar to run each script in the following order:
 - ◇ 1_sql_qacenter.sql
 - ◇ 2_sql_procedures.sql

- ◇ 3_sql_delete_procedures.sql
- ◇ 4_sql_optimalview.sql
- ◇ 5_qacenter_appinserts.sql
- ◇ 6_sql_qacenter_appupdates.sql
- ◇ 7_sql_optimalview_appinserts.sql

Adding User Rights to the Database (optional)

Once the database and tables have been built, add users and give them access rights using SQL Server Enterprise Manager. Using SQL Server authentication login, create a new login ID and password specifically for SQL Server access. Use this option to create one convenient user name and password to access the QADirector database and have each QADirector user use the same user name and password to connect to the database. If preferred, create multiple SQL Server user names and passwords.

Note: The user name and password used to connect to the SQL Server database is not the same user name and password that is used to connect to QADirector.

To create a SQL Server authentication, follow these steps:

- 1 In the left pane of the SQL Server Enterprise Manager, expand the SQL Server Group, and expand the server machine name.
- 2 Expand the **Security** group.
- 3 Select the **Add New User** icon from the menu. The **SQL Server Login Properties** dialog box appears.
- 4 Select the **General** tab.
- 5 Type a user name in the **Name** field (for example, QATeam).
- 6 Select **SQL Server Authentication**.
- 7 Type the password in the **Password** field.
- 8 From the **Database** drop down menu, select the QADirector database.
- 9 Select the **Database Access** tab and permit the user to access the created database.
- 10 Set up roles and permissions for the Login account:
 - ◇ Option A: Ensure the Login account has the db_owner role.
 - ◇ Option B: Ensure all privileges on all QACenter database objects are granted to the newly created Login account. The following is a sample script for granting all privileges on all objects to a user.

Note: Compuware does not assume any responsibility for the use of this script.

```
USE <Database Name>
```

```
Go
```

```
DECLARE @ExecSQL varchar(255)
```

```
Declare @User varchar(64)
```

```
Set @User = <Login Account>
```

```
DECLARE curGrants CURSOR FOR
```

```
SELECT 'GRANT ALL ON' + NAME + 'TP' + rtrim(@User)
```

```
From SYSOBJECTS
```

```
WHERE TYPE = 'U' or TYPE = "P"
```

```
OPEN curGrants
```

```
FETCH NEXT FROM curGrants INTO @ExecSQL
```

```
WHILE @@FETCH_STATUS = 0
```

```
BEGIN
```

```
Exec(@ExecSQL)
```

```
FETCH NEXT FROM curGrants INTO @ExecSQL
```

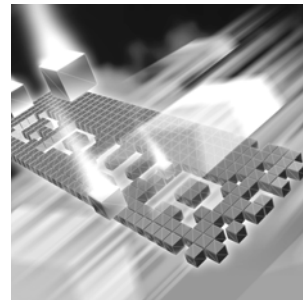
```
END
```

```
CLOSE curGrants
```

```
DEALLOCATE curGrants
```


Appendix B

Setting Up an ODBC Data Source



- ◆ Setting up an ODBC Data Source for Oracle
- ◆ Setting up an ODBC Data Source for SQL Server

Setting up an ODBC Data Source for Oracle

Setting Up a Net Service

- 1 Open the Oracle Net Configuration Assistant and click **Next**.
- 2 Click **Local Net Service Name Configuration** and click **Next**.
- 3 Click **Add** and click **Next**.
- 4 Click **Oracle 8i or later** and click **Next**.
- 5 Type the Service Name to which you are trying to connect. This may be the database name.
- 6 Click **Next**.
- 7 Click **TCP**.
- 8 Type the Host Name. This may be the machine name on which the Oracle server is installed.
- 9 Click **Next**.
- 10 Click **Perform A Test** and click **Next**.
- 11 Change the user name and password to the user ID you want to use and test the connection.
- 12 Click **Next**.
- 13 Type the Service Name and click **Finish**.

Creating a System DSN

- 1 Do one of the following:
In Windows 2000:
 - a Click the **Start** menu and select **Settings>Control Panel>Data Sources (ODBC)**. The **ODBC Data Source Administrator** opens.
 - b Click the **Drivers** tab and select **Oracle ODBC Driver**.**In Windows XP:**
 - a Select **Control Panel>Administrative Tools>Data Sources (ODBC)**. The **ODBC Data Source Administrator** opens.
 - b Click the **Drivers** tab and select **Oracle ODBC Driver**.
- 2 Click the **System DSN** tab.
- 3 Click **Add**.
- 4 Select **Oracle** from the **Driver** list.
- 5 Click **Finish**. The **Create a New Data Source** dialog box appears.
- 6 Type a Data Source Name (DSN) in the **Data Source Name** field.
- 7 Type a description in the **Description** field.
- 8 Type the database service name in the **Service Name** field. If the database is not local to the computer, type the full name, such as `aqw.qac1ab`.
- 9 Type the user name in the **UserID** field.
- 10 Keep the default settings in the remaining fields and click **OK**.

Setting up an ODBC Data Source for SQL Server

At this point you have a database, tables, and users, but no connection to the database. You must set up an ODBC data source on the QADirector client machine:

- 1 Do one of the following:
In Windows 2000:
 - a Click the **Start** menu, and select **Settings>Control Panel**.
 - b Double click the **Data Sources (ODBC)** icon. The **ODBC Data Source Administrator** opens.**In Windows XP:**

- a Click the **Start** menu and select **Control Panel>Administrative Tools>Data Sources (ODBC)**.
 - b Skip to step 3.
- 2 Click the **System DSN** tab.
- 3 Click **Add**.
- 4 Select **SQL Server** from the **Driver** list.
- 5 Click **Finish**. The **Create a New Data Source to SQL Server** dialog box appears.
- 6 Type an ODBC connection name in the **Name** field.
- 7 Type a description for the ODBC connection in the **Description** field.
- 8 Type the server name in the **Server** field.
- 9 Click **Next**.
- 10 Select the **With SQL Server Authentication using a login ID and password entered by a user** option.
- 11 Type a user name in the **Login** field.
- 12 Type a password in the **Password** field.
- 13 Click **Client Configure**.
- 14 Verify that TCP/IP is selected under the network libraries.
- 15 Click **OK**.
- 16 Click **Next**.
- 17 Select the **Change the Default Database to** check box.
- 18 Select the QADirector database from the database menu.
- 19 Click **Next**.
- 20 Click **Finish**. The **ODBC Microsoft SQL Server Setup** dialog box appears.
- 21 Click **Test Datasource**.
- 22 Click **OK** to exit the **ODBC Microsoft SQL Server Setup** dialog box.
- 23 Click **OK** to exit the ODBC Data Source Administrator.

Determining the Port Number

To find the port number from the Registry:

- 1 Navigate to HKEY_LOCAL_MACHINE\Software\Microsoft\Microsoft SQL Server\\MSSQLServer\SuperSocketNetLib\Tcp. You should see a folder with the same name as the instance that was created for MSDE. For example:
HKEY_LOCAL_MACHINE\Software\Microsoft\Microsoft SQL Server\QACenter\MSSQLServer\SuperSocketNetLib\Tcp

- 2 Remember the number for the Tcpport entry.

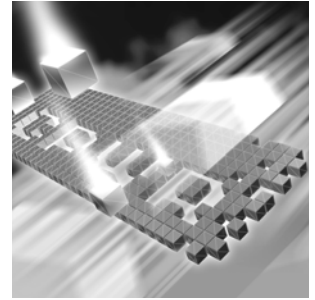
To find the port number using SQL Enterprise Manager:

- 1 Open SQL Enterprise Manager.
- 2 Connect to the instance for the MSDE installation. Example: qacenter.
- 3 Right click on the instance and select **Properties**.
- 4 Click **Network Configuration**.
- 5 Select TCP/IP from the **Enabled Protocols** list and click **Properties**.

The port number is located in the **Default Port** field.

Appendix C

Optional QACenter Portal Configuration



- ◆ Configuring OptimalView for Load Handling on the Web Server
- ◆ Changing the Default Ports
- ◆ Preventing Frequent Logging Off During a Session

Configuring OptimalView for Load Handling on the Web Server

To improve the performance when there are numerous concurrent users, configure the following settings according to the anticipated user load:

- 1 Open the **COS Installation** directory.
For example, open the C:\Program Files\Common Files\Compuware\CWJboss directory.
- 2 Open the server\cpwr\deploy\jbossweb-tomcat41.sar\META-INF\jboss-service.xml file.
- 3 Locate the following section:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
```
- 4 Change the number of the following areas according to the number of users working concurrently:
 - ◇ **minProcessors**: The minimum number of threads that the server will attempt to maintain.
 - ◇ **maxProcessors**: The maximum number of threads that are available to perform the requested processing. This is also the limit of the maximum number of concurrent clients.

- ◇ **acceptCount:** The maximum queue length for incoming connections requests when all possible requests processing threads are in use. Any requests received when the queue is full will be refused.

For example:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8009" minProcessors="100" maxProcessors="200"
enableLookups="true" redirectPort="8443"
acceptCount="300" debug="0" connectionTimeout="20000"
useURIValidationHack="false"
protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler"/>
```

5 Save the changes and close the file.

6 Open the **COS Installation** directory.

For example, open the C:\Program Files\Common Files\Compuware\cwjboss directory.

7 Do one of the following:

- ◇ If using SQL Server, open the Server\cpwr\Deploy\optimal-view.war\web-inf\ovmssql.properties file.
- ◇ If using Oracle, open the Server\cpwr\Deploy\optimal-view.war\web-inf\ovoracle.properties file.

8 Change the number of the following areas according to the number of users working concurrently on the server:

- ◇ **JDBCMAXPPOOL:** The maximum number of connections OptimalView will attempt to open. Lowering the maximum connection number will increase the response time of OptimalView when the load is high.
- ◇ **JDBCMINPOOL:** The minimum number of connections OptimalView will maintain when the load is not high.

For example:

```
JDBCMAXPPOOL=120
JDBCMINPOOL=50
```

9 Save the changes and close the file.

10 Restart the COS.

Changing the Default Ports

- | | |
|-----------------|---|
| COS | <ol style="list-style-type: none">1 Open the COS Installation directory. For example, open the C:\Program Files\Common Files\Compu-ware\cwjboss directory.2 Open the Server\CPWR\CONF\jboss_service.xml file.3 Locate the following section: <code>service-configuration="jboss.web:service=Webserver"</code>.4 Locate the <code><bindingport= ></code> tag.5 Insert the correct port and save your changes. |
| OptimalView | <ol style="list-style-type: none">6 Within the COS Install directory, navigate to the Server\CPWR\Deploy\jbossweb-tomcat41.sar\META-INF\worker.properties file and open it.7 Take the port number from step 4 above and subtract 71 from this value.8 Locate the following section: <code>worker.ajp13.port=</code>9 Insert the value from step 7 and save your changes. |
| QACenter Portal | <ol style="list-style-type: none">10 Locate the UI\QACenterportal\Web.config file.11 Locate the following section: <code>add key="orWebPort" value.</code>12 Insert the value from step 7 and save your changes.13 Restart IIS and COS from the Services Panel. |

Preventing Frequent Logging Off During a Session

Some factors, such as virus scanners, can interfere with the session.

Configuring the Virus Scanner

Some virus scanners interfere with IIS and may scan the configuration files which can cause IIS to be recycled. To prevent this, exclude the following files from the server's virus scanner:

- ◆ Machine.config in the .NET framework 1.1 Installation Folder. Example: C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322\CONFIG.

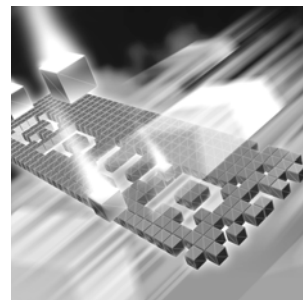
- ◆ Web.Config in the QACenter Portal Installation Folder. Example:
C:\Program Files\Compuware\QACenter Portal\UI\qacenterportal.
- ◆ Global.asax in the QACenter Portal Installation Folder. Example:
C:\Program Files\Compuware\QACenter Portal\UI\qacenterportal.

Configuring Windows 2003 Server

Use the following to prevent unintentional logging off from QACenter Portal.

- 1 Open the Internet Information Service Manager. For more information, refer to the Microsoft Windows documentation.
- 2 Click AppPool>Default AppPool.
- 3 Click the **Performance** Tab. You will see the Shutdown Worker Processes check box.
- 4 Do one of the following:
 - ◆ Select this check box and increase the number of minutes to 1440 (24 hours)
 - ◆ Deselect this check box. This will disable worker process recycling.

Index



A

access methods
 maintenance [53](#)
audience [7](#)

B

basic installation [19](#)

C

change point [45](#)
Compuware
 FrontLine Web site [8](#)
 technical support [8](#)
 World Wide Web sites [8](#)
configuring
 change point [45](#)
 change point with QACenter [42](#)
 OptimalView for load handling [67](#)
 Oracle [38](#)
 QACenter Portal [34](#)
 SQL Server [36](#)
 Windows 2003 Web Server [37](#)
 Windows XP SP2 Firewall [40](#)
configuring a database [57](#)
COS [42](#)
creating a database [57](#)
customer support [8](#)

D

database
 disconnecting [42](#)
 MSDE [19](#)
 Oracle [57](#)
 SQL Server [59](#)
determining a port number [65](#)

F

FrontLine technical support
 Web site [8](#)

G

getting started [11](#)

H

help [8](#)

I

Installing [34](#)
installing
 basic installation [19](#)
 enterprise environment [25](#)
 modify product components [54](#)
 QACenter prerequisites [11](#)
 repairing a product installation [54](#)
 TMS/TES [34](#)
 types [13](#)
installing QACenter Portal [25](#)

installing the test execution server [34](#)
installing the test management server [34](#)
Internet Information Service (IIS) [37](#)
introduction [7](#)

L

license [7](#)

M

maintaining the installation [53](#)
maintenance
 access methods [53](#)
 modify [54](#)
 remove [54](#)
 repair [54](#)
migration [49](#)
modify
 maintenance [54](#)

O

Oracle
 database schema [58](#)
 server requirements [57](#)

P

prerequisites [11](#)

Q

qa3270 emulator [40](#)
QACenter
 FrontLine Web site [8](#)
 help [8](#)
 product descriptions [11](#)
 technical support [8](#)
QADirector
 ODBC drivers [16](#)
 Oracle
 NLS_LANGUAGE parameter [31, 57](#)
 storage character set [30, 57](#)
 SQL Server, ODBC driver [16](#)
QAHiperstation+ [12](#)
QARun [12](#)

R

Reconcile [12](#)
release notes [13](#)
 on FrontLine [14](#)
 on the QACenter CD [13](#)
remove
 maintenance [54](#)
repair
 maintenance [54](#)

S

SQL Server
 creating database tables [59](#)
 creating the database [59](#)
 server requirements [59](#)
 setting up an ODBC data source [64](#)
 user rights [60](#)
support
 FrontLine Web site [8](#)
system dsn [64](#)
system requirements [15](#)

T

technical support [8](#)
 FrontLine Web site [8](#)
Test Management Server [39](#)
TestPartner [12](#)
TrackRecord [12](#)

U

uninstalling
 MSDE [55](#)
 QACenter Portal [55](#)
 QADirector [54](#)
upgrading from a previous release [49](#)

W

World Wide Web, Compuware sites [8](#)