



QAD Enterprise Applications

# Installation Guide **QAD Enterprise Edition**

78-0950-2016EE-Rev 5  
QAD Enterprise Applications  
Enterprise Edition 2016  
August 2017

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**QAD Inc.**

100 Innovation Place  
Santa Barbara, California 93108  
Phone (805) 566-6000  
<http://www.qad.com>

# Enterprise Edition Installation Change Summary

The following table summarizes significant differences between this document and previous versions.

<b>Date/Version</b>	<b>Description</b>	<b>Reference</b>
August 2017/2016 EE-Rev5	Included information that YAB 1.5 is restricted to Windows-only installations.	page 4
April 2017/2016 EE-Rev 4	Added new requirements for installing on a Windows server.	page 4
	Added a new chapter detailing how to install Enterprise Edition on a Windows server.	page 17
	Updated the process for installing an add-on product.	page 37
September 2016/2016 EE-Rev3	Added Appendix D to explain how to customize database structure files.	page 65
July 2016/2016 EE-Rev2	Updated information on the operating system account.	page 4
	Added more detail to pre-installation configuration information.	page 5
	Added Appendix A about settings dependent on operating systems.	page 59
	Added Appendix B to describe SSH and Telnet Protocols.	page 61
	Added Chapter 6 and Appendix C to describe installation and use of the QAD Reporting Service.	page 41 and page 63
May 2016/2016 EE-Rev1	Updated Planning and Sizing topic	page 3
March 2016/2016 EE	Changed the name of the book to <i>QAD Enterprise Edition Installation Guide</i> .	
	Introduced the Enterprise Edition installer for installing QAD Enterprise Edition and removed the QDT install instructions.	
	Updated the installation process for the QAD .NET UI.	page 34
	Added high-level instructions for add-on products that use YAB for installation.	page 38
September 2015/2015 EE-Rev2	Numerous editorial changes	---
	Revised the Korn Shell section	page 5
	Added the Red Hat Enterprise Linux 7 (64-bit) section	page 5
March 2015/2015 EE-Rev 1	Documented 2015 EE Progress OpenEdge 11.4 hotfix requirements	page 7
	Updated database server requirements	page 7
	Updated applications server requirements	page 8

Date/Version	Description	Reference
March 2015/2015 EE	Numerous editorial changes	---
	Documented Korn shell considerations	page 5
	Documented AIX maximum file size considerations	page 6
	Removed Red Hat 6 considerations section	page 5
	Documented that use of 2015 EE with Progress OpenEdge 11.4 requires HotFix 10 for OpenEdge 11.4	page 7
	Updated database server requirements	page 7
	Documented a functionality change that affects the selection of components for installation	page 21
	Revised the procedure for enabling AIA compression	page 36
	Revised the QXtend Configuration section	page 36
	Added text to Next Steps section to back up environment installation and configuration settings	page 39
	Removed references to Windows Vista	page 52, 55
September 2014/2014 EE-Rev 1	Numerous editorial changes	---
	Revised Installing QDT	page 12
	Revised Configure Telnet Connection Settings	page 48
	Revised Setting Up the Reporting Service to mention setting up multiple Reporting Service instances	page 55
	Revised the procedure in create-instance.bat Script to better describe how to set up multiple Reporting Service instances	page 71
March 2014/2014 EE	Numerous editorial changes	---
	Added information on starting QDT in AIX environments	page 6, page 24
	Updated OpenEdge requirements	page 7
	Updated supported Java versions	page 7
	Updated the Tomcat Web server information	page 8
	Editing Database Locations section added	page 33
	Revised Bulk Data Load procedure	page 35
	Revised Set Up the Reporting Service	page 55
September 2013/2013.1 EE	Numerous editorial changes	---
	Revised Figure 1.1	page 2
	Added section for Supported Installation	page 3
	Updated Database Server and Application Server OpenEdge requirements	page 7 page 8
	Documented Data Bulk Load feature	page 35
	Added section for Adding Custom Databases	page 36 page 70
	Added section for Citrix Configuration	page 54

Date/Version	Description	Reference
March 2013/2013 EE	Documented that QAD UI Process Maps are deployed as a separate WebApp and the related QDT Process Navigation field in System Default Settings GUI	page 16 page 29
	Described the Connection Method field in the Update UI Configuration screen	page 24
	Documented configuration required to use QXtend with Tomcat 6.0.30 and later and Tomcat 7	page 36
	Revised the Set Up SSH section	page 50
January 2013/2012.1 EE	Revised Web Server Tomcat requirements	page 8
September 2012/2012.1 EE	Documented Database Type pull-down menu	page 21
	Reorganized Environment Configuration chapter	page 23
	Documented RAM Disk support	page 30
	Revised QXtend installation and configuration section	page 36
March 2012/2012 EE	Described ability to specify <qadhme> and <qadu.i> WebApp names	page 16
	Documented Thai language support	page 70
	New customization scripts documented	page 70
September 2011/2011.1 EE	Documented Red Hat 6 installation considerations	page 6 page 14
	Documented a consideration for configuring Enterprise Edition installation on Windows	page 24
	Documented the Advanced Database Configuration screens	page 33
	Documented considerations for cloning an Enterprise Edition Windows installation	page 29
	Documented a new requirement to enter port values when installing QXtend in Windows environments	page 37



# Installation Summary and Requirements

This chapter describes the QAD Enterprise Edition installation process, system requirements, and software prerequisites.

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## Overview

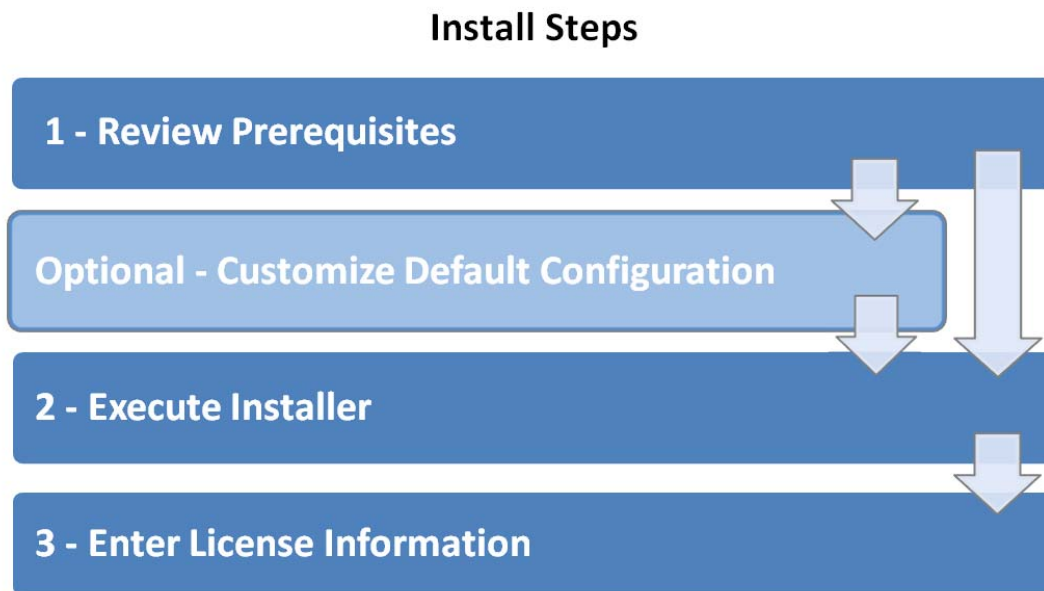
The following sections describe the QAD Enterprise Edition installation prerequisites and configuration considerations.

## Installation Summary

QAD Enterprise Edition is installed using the QAD YAB installer and is managed using the QAD YAB console. YAB is a deployment and management toolset that covers all products installed into an Enterprise Edition environment. It is automatically installed with the QAD YAB installer. You do not need to take any steps to install YAB separately. For more information, see *QAD Enterprise Edition Configuration and Administration Guide*.

This installation guide describes the installation process in a standard Linux environment or a standard Windows environment. Configuration settings can vary across different operating systems. Appendix A, “Operating System-Dependent Settings,” on page 59 outlines some of these settings and explains how to define them.

**Fig. 1.1**  
QAD Enterprise Edition Installation Process



## System Components

A QAD Enterprise Edition system consists of server components installed on either a UNIX or Windows host and the QAD .NET UI client installed on Windows hosts.

## Supported Installations

YAB supports installing all server components on a single host. To distribute server components over several hosts, contact QAD Services.

## Sizing and Capacity Planning

The server contains QAD Enterprise Edition and Progress server software, as well as your production data. Before you begin an installation, estimate the eventual size of your production database and the demands expected of the different database components.

QAD Enterprise Edition needs a minimum of 4 GB system memory and 20 GB of disk space for installation testing and training. Production environments require more hardware capacity. For assistance with hardware sizing and capacity planning, contact QAD Services.

## General Prerequisites

Before installing QAD Enterprise Edition, you should have:

- The QAD Enterprise Edition media or product download
- A valid QAD product license key for each module you have purchased
- A Progress database administrator who can manage Progress client processes
- A UNIX administrator for UNIX/Linux installs or a Windows administrator for Windows-server installs
- A 100 Mbps or faster network
- Easy access to this guide

## Software and Hardware Prerequisites

The following sections describe the software and hardware prerequisites for installing QAD Enterprise Edition.

Refer to the Product Compatibility Guide in the QAD Store for up-to-date requirements and compatibility information:

<http://store.qad.com/content/compatibility-guide>

### OpenEdge 11.6

Consult the Progress documentation for the complete requirements for Progress components. When you install Progress components, always select a Complete installation, not a Typical or Custom installation.

**Note** It is recommended that you disable OpenEdge Fathom to avoid conflicts if multiple instances of an EE environment are installed on the same host. In the directory where Progress is installed, open the `fathom.init.params` file and change the value of the “`fathomEnabled`” property to `false`:

```
fathomEnabled=false
```

### Java SE Development Kit 7

Install Java using the documentation provided by your Java vendor.

### Windows-Only Requirements

Windows QAD Enterprise Edition installations require the following additional components.

#### YAB 1.5 Patch

Download the latest YAB 1.5 patch from QAD. You must have at least `yab-patch-1.5.1.3`.

**Note** YAB 1.5 is restricted to Windows-only installations. You must submit a software request to QAD to be granted access to the YAB 1.5 package.

#### EE Windows Compatibility Pack

Download the EE Windows Compatibility Pack from QAD.

#### Georgia Softworks Telnet and SSH Server for Windows

Download the latest version of Georgia Softworks Telnet and SSH Server for Windows to obtain the most recent patches and functionality from Georgia Softworks:

<http://www.georgiasoftworks.com/>

For more information on Georgia Softworks software, including registration instructions, see the *QAD .NET User Interface Release Notes* for QAD .NET UI 3.2.

#### Python 2.7

Install Python using the documentation provided by Python.

#### QXtend Patch

Download the latest QXtend bundled patch from QAD. You must have at least `qxtend-bundled-patch-1.8.7.3.zip`.

#### QAD .NET UI Patch

Download the latest QAD .NET UI 3.2 cumulative patch for QAD Enterprise Applications 2016. Ensure that you have at least `netui-module-32-cumulative-installer-3.2.33.0.zip`.

#### QAD Enterprise Financials Patch

Download the latest QAD Enterprise Financials patch. Ensure that you have at least `qad-ee-fin-patch-2016-0-8-0.zip`.

### Operating System Account

An operating system account is required to install, administer, and start the environment. It is also required by certain application components that start terminal sessions. You can use the same operating system account in both cases or you can choose to use a separate account for each. It is

recommended that the account should not be the root account (for security reasons) and that it should be created specifically to support the environment. All administrative YAB processes (yab update, yab start, yab stop, and so on) should be run as the user who executed the installation.

If you assign a separate account for the application components, that account must be granted read, write, and execute permissions on the following directories:

- build/work/connmgr
- build/work/telnet
- build/work/qxtend
- build/work/qxtend/qgen
- build/work/client-chui
- build/work/client-aim
- build/logs/client
- databases

This account and any account that needs to start an application session (for example, a character client session) also require read and write permission on all of the files in the databases directory.

## Pre-Installation Configuration Considerations

Before you begin your installation, you can choose to define certain configuration settings found in the `install.conf` file. You can find this file on your QAD physical media or as one of the files you extracted from the zip file from QAD Fulfillment. This file contains the default settings for your installation and the prompts you will see as you progress through the installation. If you decide to make changes to the file, you have two options:

- You can edit the file directly, if you have write access, and your settings will automatically load when you run the installer.
- You can copy the file, edit the copy, and then point the installer to your edited version.
  - For Linux: `./install -install-conf:FILE|URL`
  - For Windows: `install.py -install-conf:FILE|URL`

This choice preserves the original file while allowing customized configurations for different instances of Enterprise Edition in a multi-instance installation.

You should consider the following settings before you begin your installation:

- Log file location. The installation writes log messages to a file in the temporary folder by default. To configure a different log file, set the `INSTALL_LOG_FILE` environment variable.
  - For UNIX, the default location is `/tmp/install.[USER].log`. To configure a different location, enter `export INSTALL_LOG_FILE=[FILE]`.
  - For Windows, the default location is `[TEMP]/install.[USER].log`. To configure a different location, enter `set INSTALL_LOG_FILE=[FILE]`.
- Operating system-dependent settings. See Appendix A, “Operating System-Dependent Settings,” on page 59.
- Secure Shell (SSH) and Telnet protocols. See Appendix B, “SSH and Telnet Protocols,” on page 61.
- Customized database structure files. See Appendix D, “Customized Database Structure Files,” on page 65.

## Upgrading QAD Enterprise Edition

For information on upgrading from a previous Enterprise Edition release, see *QAD Enterprise Edition Conversion Guide*.

# Installing QAD Enterprise Edition on Linux and UNIX

This chapter describes how to install QAD Enterprise Edition.

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**Enterprise Edition Installation** 8

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## Overview

QAD Enterprise Edition is installed using the YAB installer.

## Enterprise Edition Installation

Determine if you are downloading the installation zip file or mounting the install image from DVD and follow the appropriate steps to install a new instance of Enterprise Edition.

### Prepare the Installation Environment

- 1 Shut down any anti-virus programs running on your system. A virus scanner would severely degrade performance.
- 2 Unset the environment variables. These environment variables can cause problems with web services and conflicts with Progress utilities. Enter:

```
unset DLC
unset PROMSGS
unset PROTERMCP
```

You also should remove any references to Progress from the PATH.

- 3 Add the Java you installed for QAD Enterprise Edition to the PATH.

```
export PATH=[PATH TO JAVA]:$PATH
```

### Installing with a Downloaded Zip File

- 1 Download the zip file from QAD Fulfillment.
- 2 Unzip the file into a subdirectory.  

```
unzip qad-ee-VERSION.zip -d directory
```
- 3 Change to the directory where the zip file was extracted.
- 4 Continue with “Start the YAB Installer.”

### Installing from DVD

- 1 Create the directory where the image will be mounted.  

```
mkdir directory
```
- 2 Mount the DVD.  

```
mount qad-ee-2016.VERSION.zip directory
```
- 3 Change to the directory where the image was mounted.

### Start the YAB Installer

You can run the YAB installer in silent mode (without prompts) or interactive mode (with prompts). The installer defaults to interactive mode.

To show the help for the installer, enter:

```
./install --help
```

**Note** The installer has a command mode that allows you to go back to previous questions, proceed to the next question, quit the installation, or return to interactive mode. You can move to command mode at any prompt by entering an exclamation point, !.

The following procedure describes installation using interactive mode. To run in silent mode, add `-install-ui:FALSE` to the install command.

**1** Start the installer:

```
./install
```

**Note** If you customized the installation file as described in “Pre-Installation Configuration Considerations” on page 5, enter:

```
./install -install-conf:FILE|URL
```

**2** The YAB installer starts. Press Enter to proceed with the installation.

**Fig. 2.1**  
Installer Welcome

```
This installer will guide you through the process of installing QAD Enterprise Edition 2016.

The installation is being recorded in the file:
/tmp/install.b3s.log

At the prompt the ENTER key submits a response and moves to the next question.
'!' will enter command mode to navigate through the questions.

Hit ENTER to continue
> █
```

**3** Read and accept the software license agreement to proceed. If you do not accept the license agreement, the installation stops.

**Fig. 2.2**  
License Agreement

```
Hit ENTER to continue
>
[License Agreement]

-----

IMPORTANT - Please read carefully BEFORE you install, copy or otherwise use the
software products in this package.

-----

The license to the software you are currently installing is granted under the
terms and conditions of a license agreement between a QAD company or a QAD
partner, on the one hand, and you or your direct or indirect parent company,
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QAD Inc., 100 Innovation Place, Santa Barbara, CA 93108, USA.
Tel: 1 805 566 6000
Fax: 1 805 565 4257

QAD Europe B.V. , Beech Avenue 125, 1119 RB Schiphol-Rijk, Netherlands.
Tel: 31 20 654 7200
Fax: 31 20 654 7100

QAD Asia Limited, 300 2 8 Office Tower, Convention Plaza, 1 Harbour Road,
Wanchai, Hong Kong
Tel: 852 2827 1283
Fax: 852 2827 1709

QAD Australia Private Limited, Level 7, 15 Talavera Road, North Ryde, NSW 2113,
Australia
Tel: 61 2 9857 3000
Fax: 61 2 9870 7340

-----

Do you accept all the terms of the License Agreement?
If you choose no, the installation will stop.

n - No
y - Yes

> █
```

### 4 Enter the Enterprise Edition install location.

**Fig. 2.3**  
Enterprise Edition Install Location

```
[Enterprise Edition 2016]

Enter the location where Enterprise Edition 2016 should be installed.
> █
```

### 5 Specify the Progress OpenEdge location.

**Fig. 2.4**  
Progress OpenEdge Location

```
[Progress OpenEdge 11.6]

Enter the location of Progress OpenEdge:
> █
```

**6** Specify the Java location.**Fig. 2.5**

## Java Location

```
[Java 1.7]
Enter the location of Java 1.7:
> █
```

**7** Specify the OS account that should be used by application components that start terminal sessions. For more information, see “Operating System Account” on page 4.**Fig. 2.6**

## OS Account

```
[OS Account Name]
Enter the OS account that should be used to execute internal application functions.
> █
```

**8** Enter the password for the OS account.**Fig. 2.7**

## OS Account Password

```
[OS Account Password]
Enter the password of the OS account that should be used to execute internal application functions.
> ***** █
```

**9** Enter the list of languages for your installation. The default is “us” (U.S. English). Accept the default language or specify a different language or languages from the options provided.**Fig. 2.8**

## Optional Languages to Install

```
[Languages]
Enter a (comma-delimited) list of languages to install. Available: us,ch,cs,cz,du,fr,ge,it,
,jp,ko,ls,pl,po,tw
> us █
```

**Table 2.1** Available languages in Enterprise Edition

Language	Option
Chinese (simplified)	ch
Chinese (traditional)	tw
Czech	cz
Dutch	du
English	us
French	fr
German	ge
Italian	it
Japanese	jp
Korean	ko
Polish	pl
Portuguese	po
Spanish (Castilian)	cs
Spanish (Latin)	ls

- 10** Select the features to install. An X next to a feature indicates that it will be included in the installation. To add or remove an X, type the number that corresponds to the feature and press Enter.

**Note** Demo Data is sample data you can install for use in a test environment. An installation with Demo Data takes considerably longer than an installation without the additional data.

**Fig. 2.9**  
Features

```
[Feature Selection]
Choose the features to install:

[X] 1 - Enterprise Edition
[X] 2 - QXtend
[ ] 3 - Demo Data

Hit ENTER to move to the next question.
> █
```

- 11** The installer prompts you to start Enterprise Edition installation. Enter y to begin the install.

**Fig. 2.10**  
Start Enterprise Edition Installation?

```
[Start Installation]
Start installing QAD Enterprise Edition 2016?

n - No
y - Yes

> █
```

- 12** The installation begins. Status messages appear that show the progress of the installation.

**Note** Some install actions take several minutes to complete.

- 13** Wait for the install to finish.

**Note** The installation could take more than 60 minutes. You can follow the installation's progress on your screen or review the installation log file. See "Log File" on page 58 for more information.

- 14 The installation ends with either **INSTALL SUCCESSFUL** or **INSTALL FAILED**. If your install fails, see "Install Failed" on page 58 for details.

**Fig. 2.11**

**Enterprise Edition Installation Successful**

```
275/286 copy-mfg-configs-update          OK (0.054 s)
276/286 copy-mfg-auditing-progress-configs-update  OK (0.012 s)
277/286 copy-mfg-auditing-qad-configs-update      OK (0.025 s)
278/286 report-archiving-update                OK (2.330 s)
279/286 report-cmr-update                      OK (25.065 s)
280/286 report-fin-update                     OK (14.234 s)
281/286 report-mrc-update                     OK (9.470 s)
282/286 report-periodic-costing-update          OK (1.204 s)
283/286 metadata-gracore-update                OK (24.840 s)
284/286 metadata-fincore-update                OK (0.788 s)
285/286 metadata-mfgcoreplus-update            OK (0.628 s)
286/286 qxtend-application-id-update           OK (0.122 s)
-----
Cleaning up                                  OK
INSTALL SUCCESSFUL
vmb3s01:92 /qad/local/sandbox/user/b3s/image $ █
```

## Verify Your Installation

Use the status command to validate that all servers started correctly.

```
$yab status
```

**Fig. 2.12**  
Services Started

```
vmb3s01:92 /qad/local/sandbox/user/b3s/image/foo $ yab status

                                status (30 tasks)
-----
1/30 adminserver-status          STARTED (1.047 s)
2/30 nameserver-status           STARTED (0.491 s)
3/30 database-qadam-status       STARTED (0.094 s)
4/30 database-qaddb-status       STARTED (0.024 s)
5/30 database-qadhlp-status      STARTED (0.022 s)
6/30 database-qxevents-status    STARTED (0.022 s)
7/30 database-qxodb-status       STARTED (0.033 s)
8/30 appserver-fin-status        STARTED (0.498 s)
9/30 appserver-mfg-status        STARTED (0.480 s)
10/30 appserver-qra-status       STARTED (0.491 s)
11/30 appserver-qxosi-status     STARTED (0.490 s)
12/30 appserver-qxoui-status     STARTED (0.485 s)
13/30 appserver-qxtnative-status STARTED (0.647 s)
14/30 webspeed-default-status    STARTED (0.489 s)
15/30 tomcat-default-status      STARTED (0.029 s)
16/30 tomcat-qxtend-status       STARTED (0.011 s)
17/30 aia-default-status         STARTED (0.781 s)
18/30 daemon-xmldaemon-status    STOPPED (0.805 s)
19/30 daemon-balancedaemon-status STOPPED (0.698 s)
20/30 daemon-budgetdaemon-status STOPPED (0.627 s)
21/30 daemon-crosscompanydaemon-status STOPPED (0.585 s)
22/30 daemon-eventdaemon-status STOPPED (0.618 s)
23/30 daemon-historydaemon-status STOPPED (0.571 s)
24/30 daemon-replicationdaemon-status STOPPED (0.592 s)
25/30 daemon-scandaemon-status   STOPPED (0.577 s)
26/30 daemon-timeoutdaemon-status STARTED (0.557 s)
27/30 daemon-cubedaemon-status   STOPPED (0.626 s)
28/30 daemon-reportdaemon-status STOPPED (0.583 s)
29/30 daemon-status              OK (1.728 s)
30/30 qxo-services-status        STARTED (0.091 s)
-----

BUILD SUCCESSFUL (16.485 s)
vmb3s01:92 /qad/local/sandbox/user/b3s/image/foo $
```

Review the status list to ensure that required services display **STARTED**. Multiple daemons should read **STOPPED** after initial installation, as illustrated in Figure 2.12. If other services are stopped or for more information, see “Troubleshooting” on page 55.

### Add YAB Client to the PATH Variable

For convenience, you can add the YAB client to the PATH variable, which will allow you to execute YAB commands without returning to the installation directory.

```
> export PATH=/dr01/qadapps/qea/build/client:$PATH
```

## Registering QAD Enterprise Edition

You must register your QAD Enterprise Edition license the first time you log in. These steps require that you have the license code sheet included with your release media.

**Note** If you chose to install Demo Data, the installer automatically included evaluation licenses. You can skip this section and go directly to Chapter 4, “Installing the QAD .NET UI,” on page 33.

To register QAD Enterprise Edition, do the following:

- 1 Change to the directory where you installed Enterprise Edition.

```
cd directory
```

- 2 Launch the character client by executing:

```
scripts/client-lang.sh
```

where *lang* is the language for your system. For example,

```
scripts/client-us.sh
```

- 3 At the Login screen, enter `mfg` and press Enter. Leave the password field blank.
- 4 In the License Details screen, select Register.

**Fig. 2.13**  
License Details screen

- 5 In the Registered Products screen, highlight Add and press enter.

**Fig. 2.14**  
Registered Products

- 6 In the Add Product screen, complete the License Code fields by entering the codes from the license code sheet included with your release media. Select OK.

**Fig. 2.15**  
Add Product

- 7 In the Add Authorized Users screen, enter All for User and press enter.

**Fig. 2.16**  
Add Authorized Users

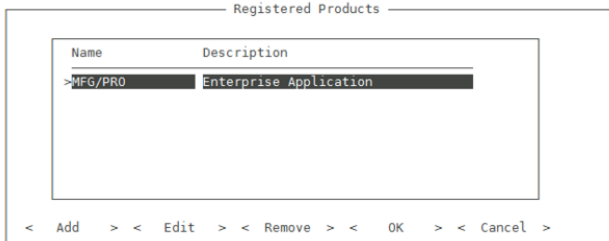
- 8 In the User Selector screen, press the `<F1>` key. At the “Is all information correct” prompt, enter `y` for yes and press enter.

**Fig. 2.17**  
User Selector



9 The Registered Products screen reappears with a list of the license codes you have added.

**Fig. 2.18**  
Registered Products



10 Repeat step 5 through step 9 for additional license codes. Select OK when all codes have been entered.

11 Reload the character client as described in step 2 to verify that license setup was successful.

# Installing QAD Enterprise Edition on Windows

This chapter describes how to install QAD Enterprise Edition.

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***Verify Your Installation 28***

***Register QAD Enterprise Edition 29***

## Overview

QAD Enterprise Edition is installed using the YAB installer. Before you begin, ensure that you have the minimum versions of the packages in Table 3.1.

**Table 3.1**  
Required Packages

Name	Package Name	Minimum Version
Enterprise Edition 2016	qad-ee	2016
YAB patch	yab-patch	1.5.1.3
EE Windows Compatibility Pack	ee-win-compatibility	2016.0.0.0
QXtend patch	qxtend-bundled-patch	1.8.7.3
Financials patch	qad-ee-fin-patch	2016.0.8.0
QAD .NET UI patch	netui-module-32-cumulative-installer	3.2.33.0

## Prepare the Installation Environment

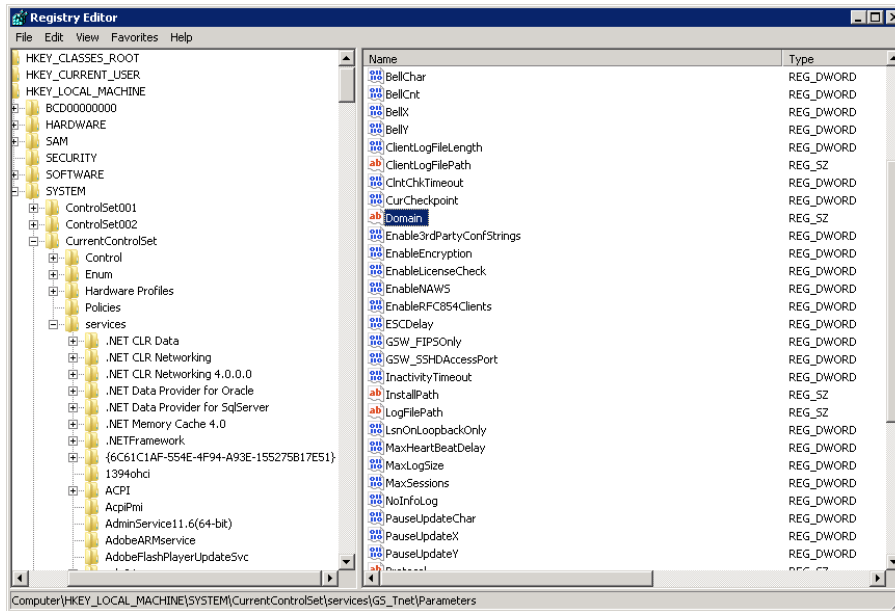
- 1 Shut down any anti-virus programs running on your system. A virus scanner would severely degrade performance.
- 2 Set JAVA\_HOME. You must run this command from a command prompt as an administrator.

```
>set -m JAVA_HOME [PATH TO JAVA]
```

**Note** For the environment variable to take effect, you must close and re-open the command prompt.

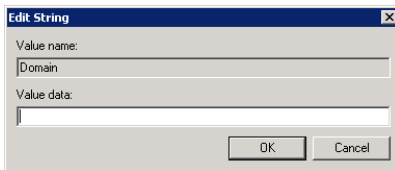
- 3 Register your Georgia Softworks domain information.
  - a Open the Windows Registry. You can search for `regedit` in the Windows Start menu.
  - b In the menu tree on the left, open the following:  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\GS\_Tnet\Parameters

**Fig. 3.1**  
Windows Registry



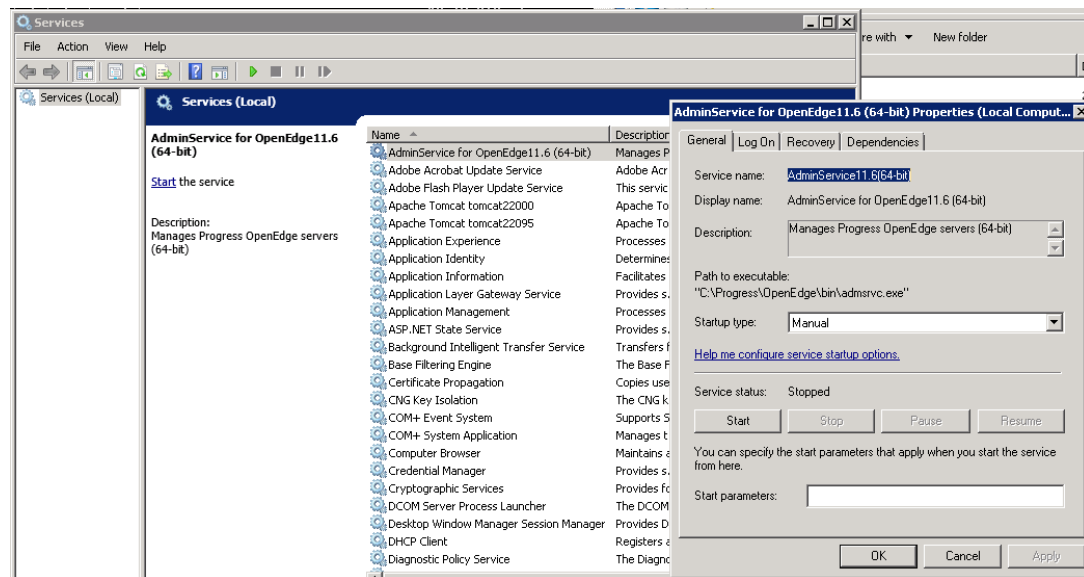
- c** On the right side, double-click Domain. Change UNKNOWN to blank.

**Fig. 3.2**  
Domain



- d** Restart the Telnet service.
- 4** Set AdminServices to start manually.
- a** Open Services.
- b** Right-click AdminService for OpenEdge and select Properties.

**Fig. 3.3**  
AdminServices



- c Stop the service with the Stop button under Service status.
  - d Select Manual for Startup type as in Figure 3.3. Click OK.
- 5 If you are using SSH protocol for the connection manager, you must install the full cipher algorithm libraries to the JDK. You can download the libraries from Oracle:

<http://www.oracle.com/technetwork/java/javase/downloads/jce-7-download-432124.html>

After you have downloaded the libraries, extract them to  
\$JAVA\_HOME/jre/lib/security.

## Perform a Delayed Installation

- 1 Determine if you are downloading the Enterprise Edition zip file or mounting the install image from DVD. Follow the steps below that match your environment.

Install from a downloaded zip file:

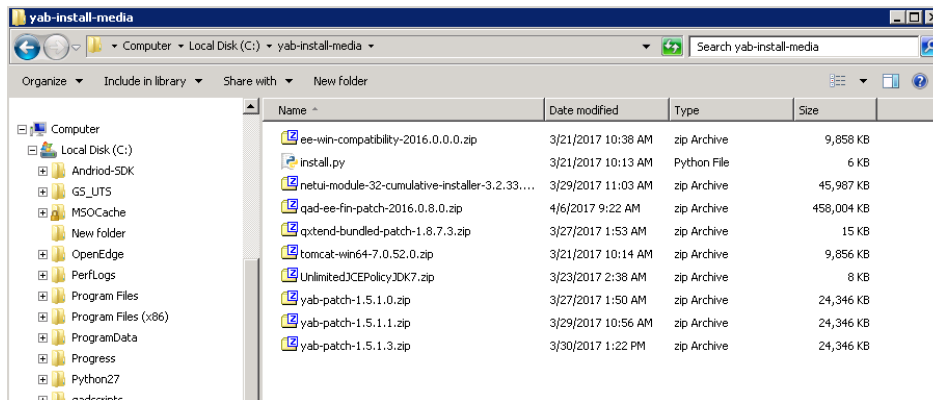
- Download the zip file from QAD Fulfillment.
- Unzip the file into a subdirectory.
- Move to the directory where the zip file was extracted.

Install from DVD:

- Create the directory where the image will be mounted.
- Insert the DVD and copy the image to the new directory.
- Move to the new directory.

- 2 Extract the Tomcat zip file and the `install.py` script from the EE Windows Compatibility Pack. Then copy `ee-win-compatibility/data/tomcat-win64-7.0.52.0.zip` and `ee-win-compatibility/data/install.py` to your working directory.

**Fig. 3.4**  
Working Directory



- 3 Run a command prompt as an administrator and change to the working directory. You can run the YAB installer in silent mode (without prompts) or interactive mode (with prompts). The installer defaults to interactive mode and is described in the following procedure.

To show the help for the installer, enter:

```
install.py --help
```

**Note** Ensure that you do not apply the update until instructed by including `-install-update:false`, as shown in the following examples.

- a Start the installer:

```
install.py -install-image:Z:\qad-ee-2016 -install-update:false
```

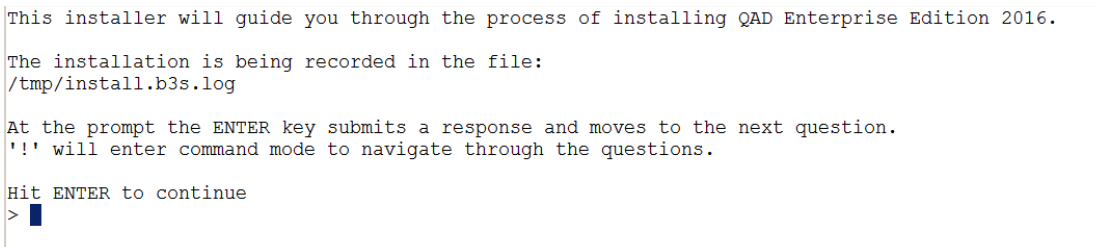
**Note** If you customized the installation file as described in “Pre-Installation Configuration Considerations” on page 5, enter:

```
install.py -install-image:[PATH TO qad-ee-VERSION.zip] -install-update:false -install-conf:FILE|URL
```

- b The YAB installer starts. Press Enter to proceed with the installation.

**Note** The installer has a command mode that allows you to go back to previous questions, proceed to the next question, quit the installation, or return to interactive mode. You can move to command mode at any prompt by entering an exclamation point, !.

**Fig. 3.5**  
Installer Welcome



- c Read and accept the software license agreement to proceed. If you do not accept the license agreement, the installation stops.

**Fig. 3.6**

### License Agreement

```
Hit ENTER to continue
>
[License Agreement]

-----
IMPORTANT - Please read carefully BEFORE you install, copy or otherwise use the
software products in this package.
-----

The license to the software you are currently installing is granted under the
terms and conditions of a license agreement between a QAD company or a QAD
partner, on the one hand, and you or your direct or indirect parent company,
on the other hand. If no license agreement as indicated in the first sentence
exists or if you have obtained the software through another channel (i.e. it
was not shipped to you by a QAD company or a QAD partner), you are not
permitted to install the software. By installing the software without a
license agreement, you are infringing on the intellectual property rights of
QAD and are committing a criminal offense. Please notify QAD if you encounter
illegal copies of any QAD software.

QAD Inc., 100 Innovation Place, Santa Barbara, CA 93108, USA.
Tel: 1 805 566 6000
Fax: 1 805 565 4257

QAD Europe B.V. , Beech Avenue 125, 1119 RB Schiphol-Rijk, Netherlands.
Tel: 31 20 654 7200
Fax: 31 20 654 7100

QAD Asia Limited, 300 2 8 Office Tower, Convention Plaza, 1 Harbour Road,
Wanchai, Hong Kong
Tel: 852 2827 1283
Fax: 852 2827 1709

QAD Australia Private Limited, Level 7, 15 Talavera Road, North Ryde, NSW 2113,
Australia
Tel: 61 2 9857 3000
Fax: 61 2 9870 7340
-----

Do you accept all the terms of the License Agreement?
If you choose no, the installation will stop.

n - No
y - Yes

> █
```

- d** Enter the Enterprise Edition install location.

**Fig. 3.7**

### Enterprise Edition Install Location

```
[Enterprise Edition 2016]

Enter the location where Enterprise Edition 2016 should be installed.
> █
```

- e** Specify the Progress OpenEdge location.

**Fig. 3.8**

### Progress OpenEdge Location

```
[Progress OpenEdge 11.6]

Enter the location of Progress OpenEdge:
> █
```

- f** Specify the Java location.

**Fig. 3.9**  
Java Location

```
[Java 1.7]
Enter the location of Java 1.7:
> █
```

- g** Specify the OS account that should be used by application components that start terminal sessions. For more information, see “Operating System Account” on page 4.

**Fig. 3.10**  
OS Account

```
[OS Account Name]
Enter the OS account that should be used to execute internal application functions.
> █
```

- h** Enter the password for the OS account.

**Fig. 3.11**  
OS Account Password

```
[OS Account Password]
Enter the password of the OS account that should be used to execute internal application functions.
> ***** █
```

- i** Enter the list of languages for your installation. The default is “us” (U.S. English). Accept the default language or specify a different language or languages from the options provided.

**Fig. 3.12**  
Optional Languages to Install

```
[Languages]
Enter a (comma-delimited) list of languages to install. Available: us, ch, cs, cz, du, fr, ge, it,
, jp, ko, ls, pl, po, tw
> us █
```

**Table 3.2**  
Available languages in Enterprise Edition

Language	Option
Chinese (simplified)	ch
Chinese (traditional)	tw
Czech	cz
Dutch	du
English	us
French	fr
German	ge
Italian	it
Japanese	jp
Korean	ko
Polish	pl
Portuguese	po
Spanish (Castilian)	cs
Spanish (Latin)	ls

**j** Select the features to install. An X next to a feature indicates that it will be included in the installation. To add or remove an X, type the number that corresponds to the feature and press Enter.

**Note** Demo Data is sample data you can install for use in a test environment. An installation with Demo Data takes considerably longer than an installation without the additional data.

**Fig. 3.13**  
Features

```
[Feature Selection]
Choose the features to install:

[X] 1 - Enterprise Edition
[X] 2 - QXtend
[ ] 3 - Demo Data

Hit ENTER to move to the next question.
> █
```

**k** The installer prompts you to start Enterprise Edition installation. Enter y to begin the install.

**Fig. 3.14**  
Start Enterprise Edition Installation?

```
[Start Installation]
Start installing QAD Enterprise Edition 2016?

n - No
y - Yes

> █
```

**l** The installation begins. Status messages show the progress of the installation.

**Fig. 3.15**  
Enterprise Edition Installation Progress

```
[Start Installation]
Start installing QAD Enterprise Edition 2016?
n - No
y - Yes
> y
Validating                                OK
Initializing instance                      OK
Reconfiguring instance                    OK
Resolving and copying packages            \
```

**m** Wait for the install to finish. When it is complete, you should see an **INSTALL SUCCESSFUL** message.

**Note** The delayed installation should take about 10 minutes.

**Fig. 3.16**  
Enterprise Edition Installation Successful

```
[Start Installation]
Start installing QAD Enterprise Edition 2016?
n - No
y - Yes
> y
Validating                                OK
Initializing instance                      OK
Reconfiguring instance                    OK
Resolving and copying packages            OK
Cleaning up                               OK
INSTALL SUCCESSFUL
C:\yab-install-media>_
```

## Install the Required Minimum Application Patches

**1** Install the YAB patch. Change to the directory where Enterprise Edition is installed and add the YAB patch. For example:

```
>C:\yab\2016ee-image\build\client\yab install C:\yab-install-media\yab-patch-1.5.1.3.zip
```

**Fig. 3.17**  
Install the YAB Patch

```
C:\DocInstall>C:\DocInstall\build\client\yab install C:\yab-install-media\yab-patch-1.5.0.11.zip
Validating                                OK
Initializing instance                      OK
Reconfiguring instance                    OK
Resolving and copying packages            OK
Cleaning up                               OK
INSTALL SUCCESSFUL
C:\DocInstall>_
```

**2** Install the QXtend patch for Windows to the local catalog.

**Note** Ensure that you do not apply the update by including `-install-update:false`, as shown in the following example.

```
>yab install [PATH TO qxtend-bundled-patch-VERSION.zip] -install-update:false
```

**Fig. 3.18**  
Install QXtend Patch

```
C:\DocInstall2>yab install C:\yab-install-media\qxtend-bundled-patch-1.8.7.3.zip -install-update:false
Validating OK
Initializing instance OK
Reconfiguring instance OK
Resolving and copying packages OK
Cleaning up OK

INSTALL SUCCESSFUL

C:\DocInstall2>_
```

- 3 Install the QAD .NET UI patch for Windows to the local catalog when the connection manager is configured to use SSH protocol.

**Note** Ensure that you do not apply the update by including `-install-update:false`, as shown in the following example.

```
>yab install [PATH TO netui-module-32-cumulative-installer-VERSION.zip] -
install-update:false
```

**Fig. 3.19**  
Install QAD .NET UI Patch

```
C:\DocInstall2>yab install C:\yab-install-media\netui-module-32-cumulative-installer-3.2.33.0.zip -install-upd
ate:false
Validating OK
Initializing instance OK
Reconfiguring instance OK
Resolving and copying packages OK
Cleaning up OK

INSTALL SUCCESSFUL

C:\DocInstall2>_
```

- 4 Install the Financials patch.

**Note** Ensure that you do not apply the update by including `-install-update:false`, as shown in the following example.

```
>yab install [PATH TO qad-ee-fin-patch-VERSION.zip] -install-update:false
```

**Fig. 3.20**  
Install QAD Enterprise Financials Patch

```
C:\DocInstall2>yab install C:\yab-install-media\qad-ee-fin-patch-2016.0.7.0.zip -install-update:false
Validating OK
Initializing instance OK
Reconfiguring instance OK
Resolving and copying packages OK
Cleaning up OK

INSTALL SUCCESSFUL

C:\DocInstall2>_
```

- 5 Add Tomcat for Windows to the local catalog.

**Note** This command uses `>yab -i` instead of `>yab install`.

```
>yab -i:[PATH TO tomcat-VERSION.zip]
```

**Fig. 3.21**  
Add Tomcat

```
C:\DocInstall2>yab -i:C:\yab-install-media\tomcat-win64-7.0.52.0.zip
BUILD SUCCESSFUL (9.500 s)

C:\DocInstall2>_
```

## Customize the Configuration

Open the `build\config\configuration.properties` file to add new settings. These configuration settings include enabling SSH. If you are using Telnet, see “Telnet” on page 62 for additional required parameters.

### 1 Add Python settings.

```
# Point to python.exe where Python has been installed
python.executor=C:\Python27\python.exe
```

### 2 Add Windows Tomcat.

```
# To use the windows tomcat
packages.tomcat=tomcat-win64-7.0.52.0
```

### 3 Configure operation system settings.

```
# OS Specific Settings
netui.connmgr.loginprompt=login
netui.connmgr.passwordprompt=password:
netui.connmgr.serverprompt=>
```

### 4 Define TCP/IP connections.

```
# All databases must accept TCP/IP connections on Windows
dbserver.qxodb.fourgl.network=true
dbserver.qadadm.fourgl.network=true
dbserver.qadarc.fourgl.network=true
dbserver.qaddb.fourgl.network=true
dbserver.qadhlp.fourgl.network=true
dbserver.qadmodule.fourgl.network=true
dbserver.qxevents.fourgl.network=true
```

### 5 Configure the Georgia Softworks server.

```
# Point to Georgia Softworks telnet server installation directory
georgiasoftworks.install.dir=C:\GS_UTS
```

## Execute a YAB Update

You must update YAB to finalize your Enterprise Edition installation with the customizations you have made. Enter:

```
>yab update
```

The update could take more than 60 minutes. You can follow the update progress on your screen or review the installation log file. See “Log File” on page 58 for more information.

The installation ends with either `INSTALL SUCCESSFUL` or `INSTALL FAILED`. If your install fails, see “Install Failed” on page 58 for details.

**Fig. 3.22**  
Enterprise Edition Installation Successful

```

266/287 appserver-qrá-trim          OK (0.980 s)
267/287 appserver-qxosi-trim        OK (1.028 s)
268/287 appserver-qxoui-trim        OK (0.909 s)
269/287 appserver-qxtnative-trim    OK (0.912 s)
270/287 copy-electronic-signature-update OK (0.610 s)
271/287 config-content-update        SKIPPED (0.000 s)
272/287 docs-content-update            SKIPPED (0.000 s)
273/287 patches-content-update        SKIPPED (0.000 s)
274/287 customizations-content-update   SKIPPED (0.004 s)
275/287 copy-mfg-configs-update       OK (0.053 s)
276/287 controller-update              SKIPPED (0.000 s)
277/287 daemon-configure              OK (0.236 s)
278/287 copy-mfg-auditing-progress-configs-update OK (0.079 s)
279/287 copy-mfg-auditing-qad-configs-update OK (0.077 s)
280/287 report-update                 OK (1:08 m)
281/287 metadata-qracore-update        OK (38.506 s)
282/287 metadata-customizations-update SKIPPED (0.029 s)
283/287 metadata-fincore-update       OK (0.829 s)
284/287 metadata-mfgcoreplus-update    OK (0.614 s)
285/287 qxtend-application-id-update  OK (0.240 s)
286/287 help-update                   OK (35.171 s)
287/287 search-index-restart          OK (0.965 s)
-----
BUILD SUCCESSFUL (52:41 m)
C:\DocInstall>

```

## Verify Your Installation

Use the status command to validate that all servers started correctly.

```
$yab status
```

**Fig. 3.23**  
Services Started

```

vmb3s01:92 /qad/local/sandbox/user/b3s/image/foo $ yab status

-----
status (30 tasks)
-----
1/30  adminserver-status          STARTED (1.047 s)
2/30  nameserver-status           STARTED (0.491 s)
3/30  database-qadadm-status      STARTED (0.094 s)
4/30  database-qaddb-status       STARTED (0.024 s)
5/30  database-qadhlp-status      STARTED (0.022 s)
6/30  database-qxevents-status    STARTED (0.022 s)
7/30  database-qxodb-status       STARTED (0.033 s)
8/30  appserver-fin-status        STARTED (0.498 s)
9/30  appserver-mfg-status        STARTED (0.480 s)
10/30 appserver-qrá-status        STARTED (0.491 s)
11/30 appserver-qxosi-status       STARTED (0.490 s)
12/30 appserver-qxoui-status      STARTED (0.485 s)
13/30 appserver-qxtnative-status  STARTED (0.647 s)
14/30 websppeed-default-status    STARTED (0.489 s)
15/30 tomcat-default-status       STARTED (0.029 s)
16/30 tomcat-qxtend-status        STARTED (0.011 s)
17/30 aia-default-status          STARTED (0.781 s)
18/30 daemon-xmldaemon-status     STOPPED (0.805 s)
19/30 daemon-balancedaemon-status STOPPED (0.698 s)
20/30 daemon-budgetdaemon-status  STOPPED (0.627 s)
21/30 daemon-crosscompanydaemon-status STOPPED (0.585 s)
22/30 daemon-eventdaemon-status   STOPPED (0.618 s)
23/30 daemon-historydaemon-status STOPPED (0.571 s)
24/30 daemon-replicationdaemon-status STOPPED (0.592 s)
25/30 daemon-scandaemon-status    STOPPED (0.577 s)
26/30 daemon-timeoutdaemon-status STARTED (0.557 s)
27/30 daemon-cubedaemon-status    STOPPED (0.626 s)
28/30 daemon-reportdaemon-status  STOPPED (0.583 s)
29/30 daemon-status              OK (1.728 s)
30/30 qxo-services-status        STARTED (0.091 s)
-----

BUILD SUCCESSFUL (16.485 s)
vmb3s01:92 /qad/local/sandbox/user/b3s/image/foo $

```

Review the status list to ensure that required services display STARTED. Multiple daemons should read STOPPED after initial installation, as illustrated in Figure 3.23. If other services are stopped or for more information, see “Troubleshooting” on page 55.

## Add YAB Client to the PATH Variable

For convenience, you can add the YAB client to the PATH variable, which will allow you to execute YAB commands without returning to the installation directory. The /m switch at the end sets the variable in the system environment. Enter:

```
> setx path "%path%;C:\yab\2016ee-image\build\client" /m
```

**Note** It is important that you follow the example syntax. If you do not include %path%, all existing values of PATH will be replaced with only the new PATH you entered.

You must close and then reopen the command prompt for this update to take effect.

## Register QAD Enterprise Edition

You must register your QAD Enterprise Edition license the first time you log in. These steps require that you have the license code sheet included with your release media.

**Note** If you chose to install Demo Data, the installer automatically included evaluation licenses. You can skip this section and go directly to Chapter 4, “Installing the QAD .NET UI,” on page 33.

To register QAD Enterprise Edition, do the following:

- 1 Open a command prompt and change to the directory where you installed Enterprise Edition.

```
cd directory
```

- 2 Launch the character client by executing:

```
scripts\client-lang.py
```

where *lang* is the language for your system. For example,

```
scripts\client-us.py
```

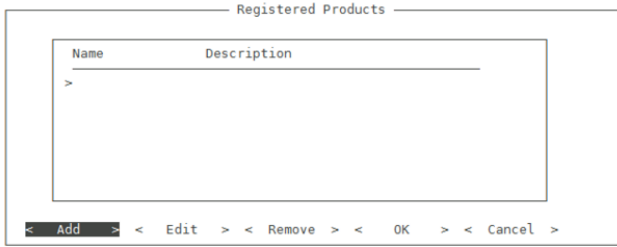
- 3 At the Login screen, enter mfg and press Enter. Leave the password field blank.
- 4 In the License Details screen, select Register.

**Fig. 3.24**  
License Details screen

The screenshot shows a window titled "License Details". Inside, it displays "Product: MFG/PRO" and "License Code" with "Product Not Registered" underneath. There is a "Status" field. At the bottom, there are buttons for "< Register >", "OK", and ">".

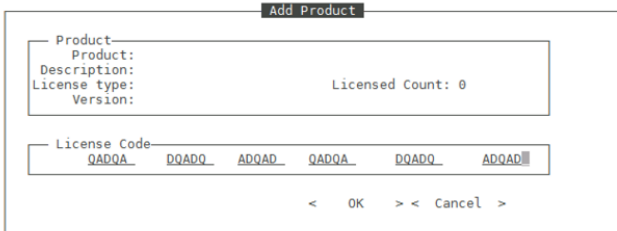
5 In the Registered Products screen, highlight Add and press enter.

**Fig. 3.25**  
Registered Products



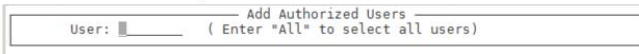
6 In the Add Product screen, complete the License Code fields by entering the codes from the license code sheet included with your release media. Select OK.

**Fig. 3.26**  
Add Product



7 In the Add Authorized Users screen, enter All for User and press enter.

**Fig. 3.27**  
Add Authorized Users



8 In the User Selector screen, press the <F1> key. At the “Is all information correct” prompt, enter y for yes and press enter.

**Fig. 3.28**  
User Selector



9 The Registered Products screen reappears with a list of the license codes you have added.

**Fig. 3.29**  
Registered Products



- 10** Repeat step 5 through step 9 for additional license codes. Select OK when all codes have been entered.
- 11** Reload the character client as described in step 2 to verify that license setup was successful.



# Installing the QAD .NET UI

This chapter describes how to install the QAD .NET UI client for Enterprise Edition.

**Overview 34**

**QAD .NET UI Installation 34**

## Overview

Once you have installed Enterprise Edition on a UNIX machine or a Windows server, you can install the QAD .NET UI on multiple Windows computers.

## QAD .NET UI Installation

Follow these steps to install the QAD .NET UI.

### Find the QAD Home URL

Use the following steps to find the location of the `qadhome` URL:

- 1 Go to the Enterprise Edition install directory.
- 2 Enter the following command:  

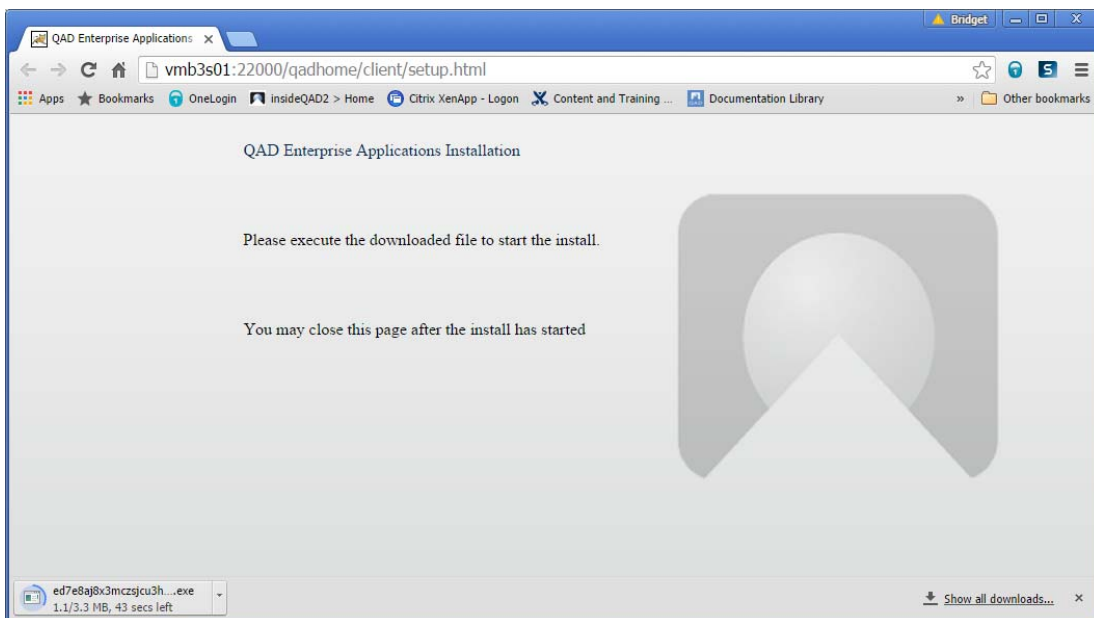
```
yab env-info
```
- 3 Go to the Client listing and note the QAD Home location. For example:

```
Client  
QAD Home http://hostname:port/qadhome
```

### Run the QAD .NET UI Executable

- 1 Open your web browser.
- 2 Paste or enter the QAD Home URL into the browser's address bar and press Enter.
- 3 The QAD Enterprise Applications Installation page appears and the executable file automatically downloads to your machine.

**Fig. 4.1**  
QAD Enterprise Application Client Download



- 4 The .exe file may launch automatically after the download is complete or you may need to click the downloaded file.

## Install the QAD Enterprise Edition QAD .NET UI

- 1 The QAD Enterprise Applications Setup Wizard appears.

**Note** The application setup wizard and QAD .NET UI login screen apply to the Enterprise Application suite of products. The following procedure is intended to cover Enterprise Edition.

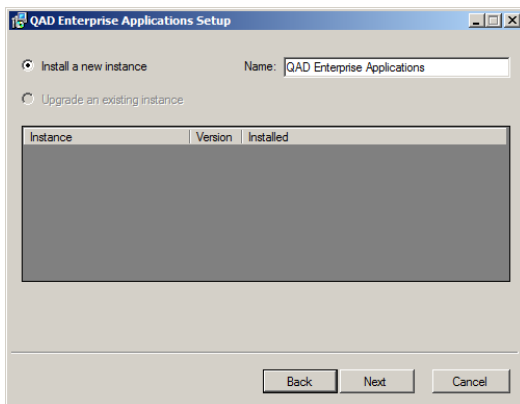
Click Next to begin the QAD .NET UI client installation.

**Fig. 4.2**  
Setup Wizard



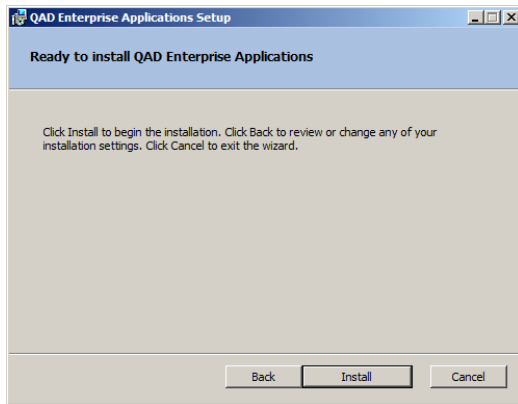
- 2 Choose whether to install a new instance of the QAD .NET UI or upgrade an existing instance. Click Next.

**Fig. 4.3**  
Install an Instance



- 3 You are now ready to install an instance of the QAD .NET UI. Click Install.

**Fig. 4.4**  
Ready to Install



- 4 The setup wizard displays the installation progress, and then the Setup Wizard Complete screen appears. Click Finish.
- 5 The QAD Enterprise Applications shortcut appears on your desktop and is ready to launch.

## Start the QAD .NET UI

- 1 Double-click the QAD Enterprise Applications icon on your desktop. The login window appears.

**Fig. 4.5**  
QAD Enterprise Applications Login Window



Make the following entries:

- User: mfg
  - Password: leave blank
- 2 Click OK.
  - 3 The QAD .NET UI appears, indicating that the install was successful.

# Installing QAD Add-ons and Updates

This chapter describes how to install QAD add-on products into Enterprise Edition.

**Overview 38**

***Installing a QAD Add-on Product 38***

***Installing an Update 39***

## Overview

Enterprise Edition supports multiple add-on products to expand and enhance your ERP environment. For additional information on which add-on products are compatible with this release of Enterprise Edition and fully supported by a YAB installation, refer to the Product Compatibility Guide in the QAD Store and to the individual add-on installation guides.

For detailed pre-installation requirements, see the installation guide for your specific add-on product. Ensure that those requirements are met before proceeding with the installation.

## Installing a QAD Add-on Product

If you have updated YAB with any patches, you must use a delayed installation to install add-on products. The following procedure demonstrates a delayed installation.

- 1 Download the add-on file from the QAD Store or from QAD Release Fulfillment.
- 2 Move the file to a file system that is accessible from the UNIX host where your Enterprise Edition environment is installed.
- 3 Change to the directory where Enterprise Edition is installed.

```
cd [DIRECTORY]
```

- 4 Enter:

```
yab install [ZIP FILE] -install-update:false
```

For example:

```
yab install i19-br-bundle-installer-4.0.0.14.zip -install-update:false
```

- 5 Reinstall the most recent YAB patch to upgrade the compatible YAB component for the add-on product. This ensures that you have the latest version of the installation logic for your add-on.

**Note** If YAB has not been upgraded, you can skip this step.

```
yab install yab-patch-VERSION.zip
```

- 6 Check the environment information and verify that the updated versions are as expected.

Enter:

```
yab info
```

There will be (new) beside the new or upgraded packages. For example:

```
yab-eam                1.5.0.33                local (new)
```

- 7 Execute a YAB update to install the add-on product.

```
yab update
```

- 8 For post-installation requirements and configuration information, see the installation guide for your specific add-on product.

## Installing an Update

Follow these steps to install an update to Enterprise Edition.

- 1 Download the update from the QAD Store or from QAD Release Fulfillment.
- 2 Move the file to a file system that is accessible from the UNIX host where your Enterprise Edition environment is installed.
- 3 Change to the directory where Enterprise Edition is installed.

```
cd directory
```

- 4 Enter:

```
yab install [ZIP FILE]
```

where *zip file* is the name of the file you received from QAD. For example:

```
yab install financials-2016ee-patch2.zip
```

- 5 The update installs.



# Setting Up the Reporting Service

This chapter describes how to install, configure, and troubleshoot the QAD Reporting Service.

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**Prerequisites 42**

**Installation 43**

**Configuration 49**

**Monitoring 50**

## Overview

QAD Enterprise Edition uses the QAD Reporting Service to distribute financial reports to application users. The QAD Reporting Service is installed on a Windows machine.

If your users want to submit batch jobs to generate Financials reports, you must install and configure the QAD Reporting Service. This service invokes a Crystal Reports generator.

You can configure the QAD Reporting Service installation location. The default location is Program Files or Program Files (x86), depending on your Windows machine's operating system.

The server reporting service must run on a Windows Server machine. The service connects to the Financials AppServer (qadfin<environment\_name>) by obtaining the AppServer URL from the configuration for the environment held under QAD Home. After connecting to the AppServer, the AppServer spawns a reporting service daemon that connects back to the Windows Reporting Service using the configuration in the following configuration file:

```
c:\Program Files\QAD\QAD.CBFReportingService\
QAD.CBFReportingService.exe.config
```

You can only install the QAD Reporting Service once. By default, it creates one Windows service to run the QAD Reporting Service. For information on how to configure multiple Reporting Service instances, refer to “QAD Reporting Service Scripts” on page 64.

The required setup steps are:

- Determine the current version of Microsoft .NET Framework.
- Download and install the reporting service.
- Configure the service for your environment.
- Verify that the service is working correctly.

## Prerequisites

The QAD Reporting Service depends on Microsoft .NET Framework Version 2.0 or above.

- 1 To determine if the framework is installed, run the Add or Remove Programs control panel applet and look for any of the following entries:
  - Microsoft .NET Framework 2.0
  - Microsoft .NET Framework 2.0 Service Pack 1
  - Microsoft .NET Framework 3.0
  - Microsoft .NET Framework 3.5
  - Microsoft .NET Framework 4.0
- 2 If an acceptable framework version is not installed, you must install one on the target computer before running the QAD Reporting Service installer.

To download the framework, go to:

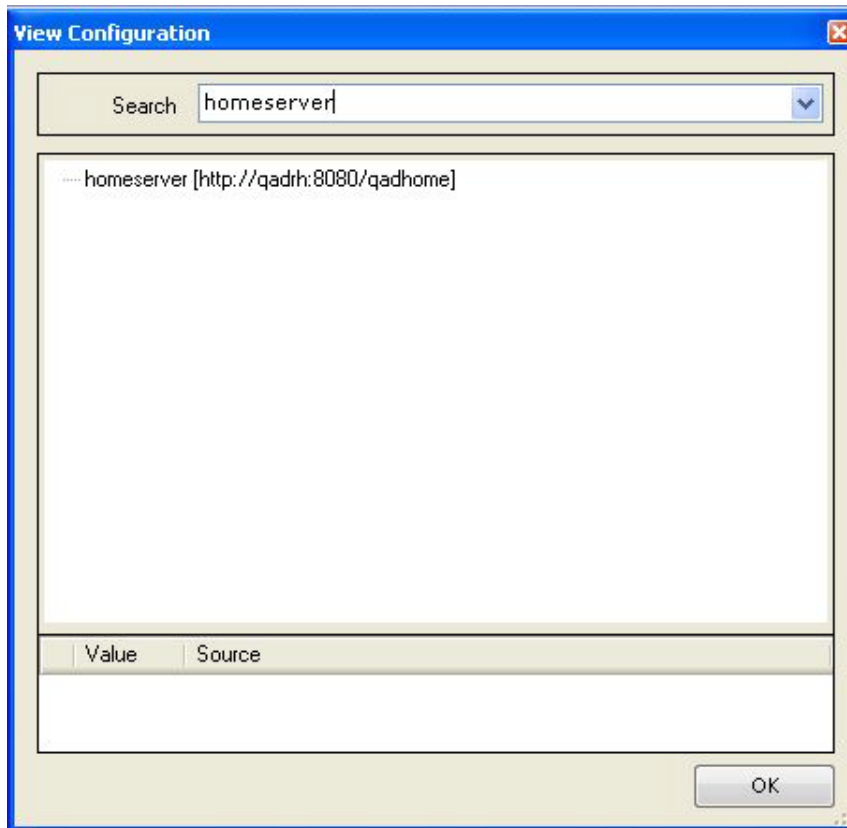
<http://www.microsoft.com/en-us/download/details.aspx?id=17851>

## Installation

The Reporting Service is installed with an installer hosted by the QAD Applications Home Server.

- 1 You can display the location of the QAD Applications Home Server from the QAD Applications Client by choosing Help|View Configuration in the client and entering `homeserver` in the search text box.

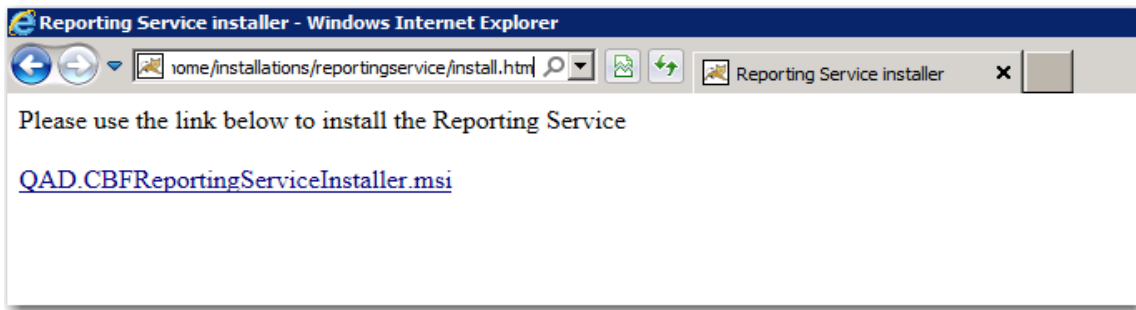
**Fig. 6.1**  
QAD Applications Home Server



- 2 Go to the Windows server where you want to install the QAD Reporting Service. Use Internet Explorer to connect to the setup. Navigate to:
 

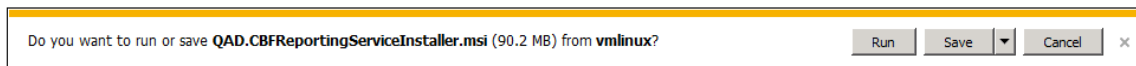
```
<home_server>/installations/reportingservice/install.htm
```
- 3 Click the Install button.

**Fig. 6.2**  
QAD Reporting Service Installation

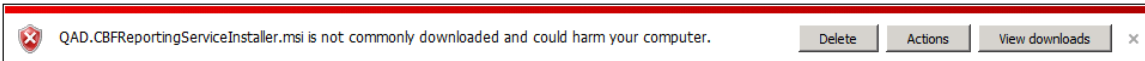


- 4 You may see one of the following security dialog boxes, depending on how Internet Explorer is configured.

**Fig. 6.3**  
Internet Explorer Security Warning



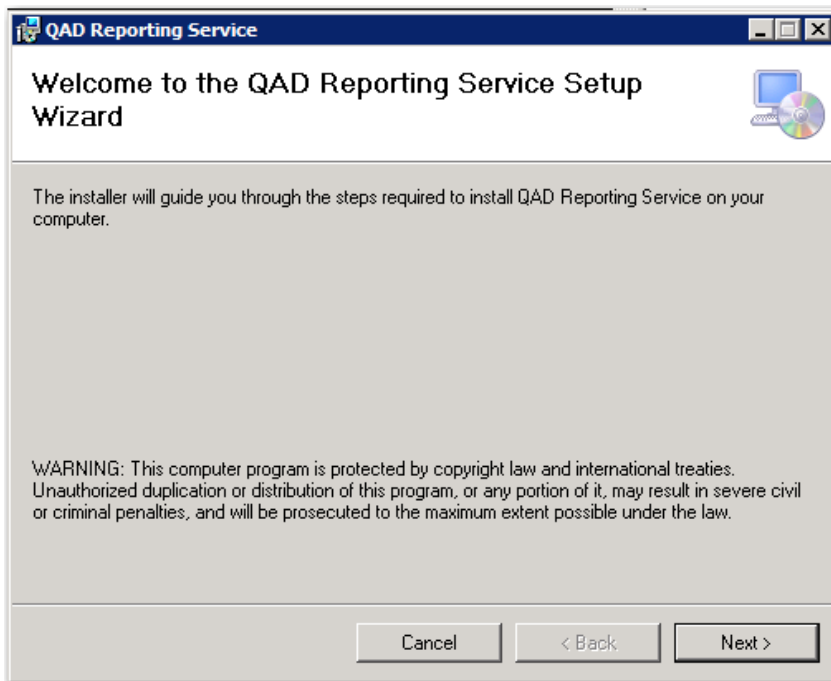
**Fig. 6.4**  
Internet Explorer Security Warning



If you see either dialog box, click Run to continue.

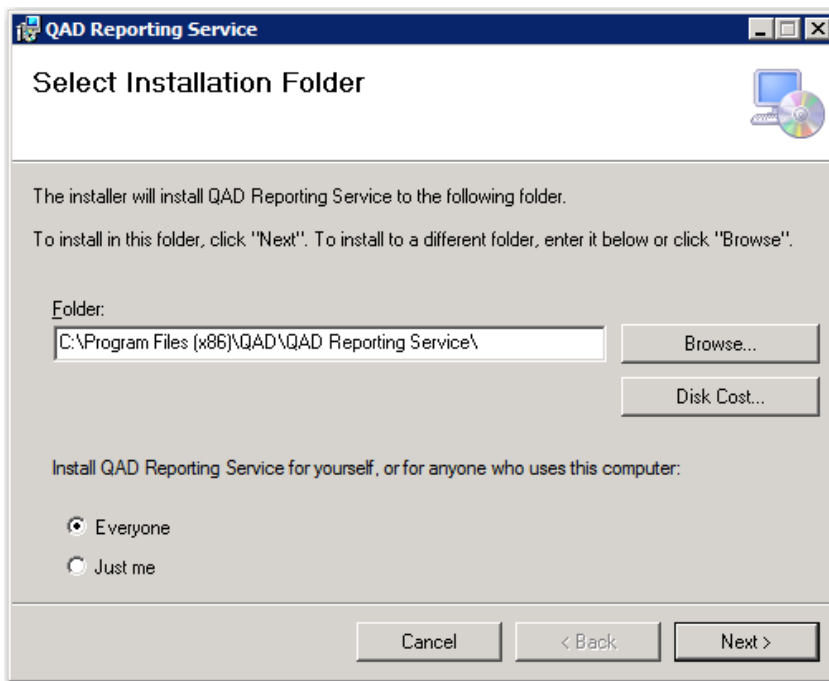
- 5 The QAD Reporting Service Setup Wizard begins.

**Fig. 6.5**  
QAD Reporting Service Setup Wizard



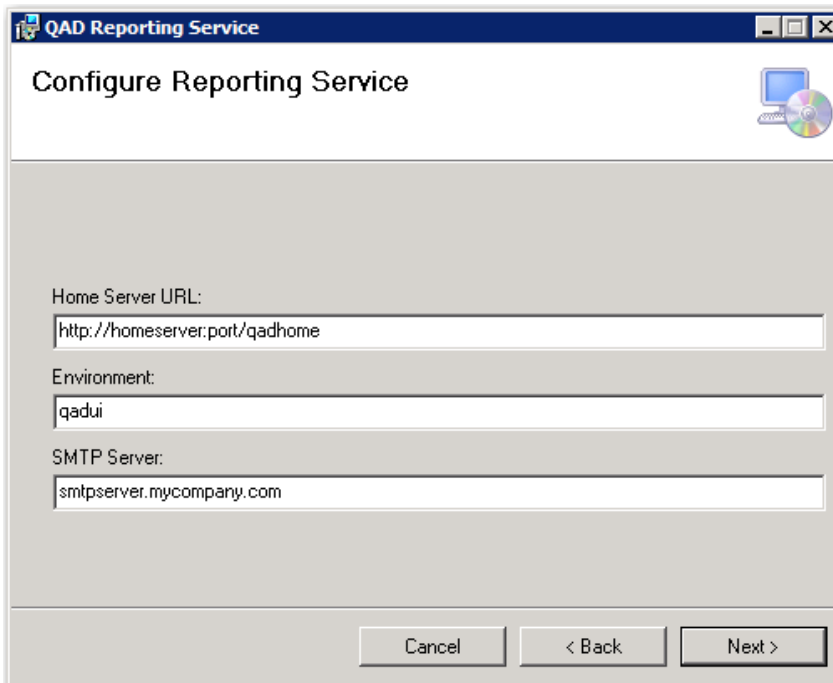
6 Click Next.

**Fig. 6.6**  
Select Installation Folder Screen



7 Enter an installation folder or accept the default location. Click Next.

**Fig. 6.7**  
Configure Reporting Service Screen

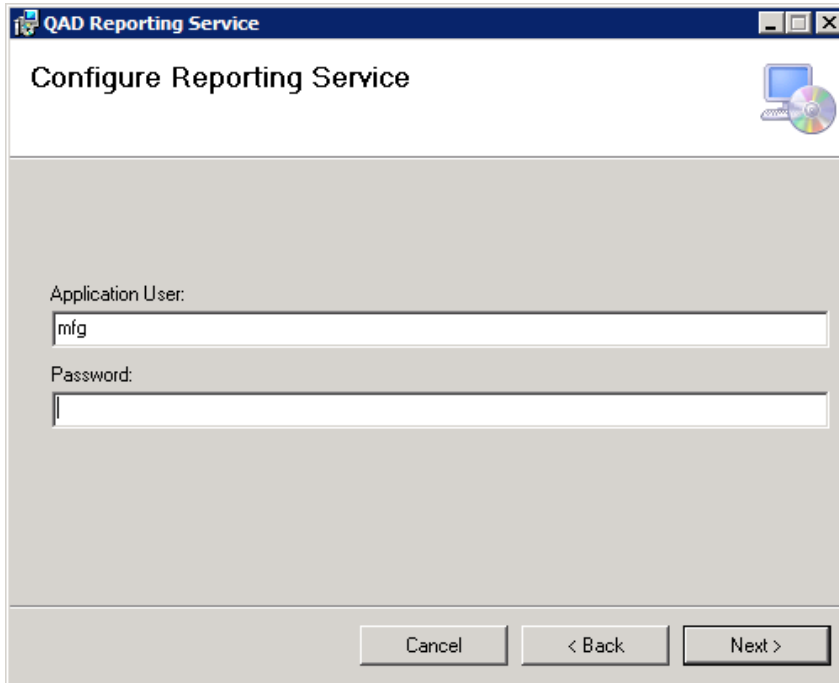


8 Enter the configuration parameters listed in the following table. Then click Next.

**Table 6.1**  
Reporting Service Configuration Settings

Parameter	Description
Home Server URL	The URL to the QAD Applications Home Server.
Environment	The name of the Home Server environment for which this instance provides reporting services. The environment name displays in the title of the QAD Applications Client. It is the value to the left of the colon (:).
SMTP Server	The IP address or host name of the server supporting the Simple Mail Transfer Protocol on port 25.

**Fig. 6.8**  
Configure Reporting Service Screen

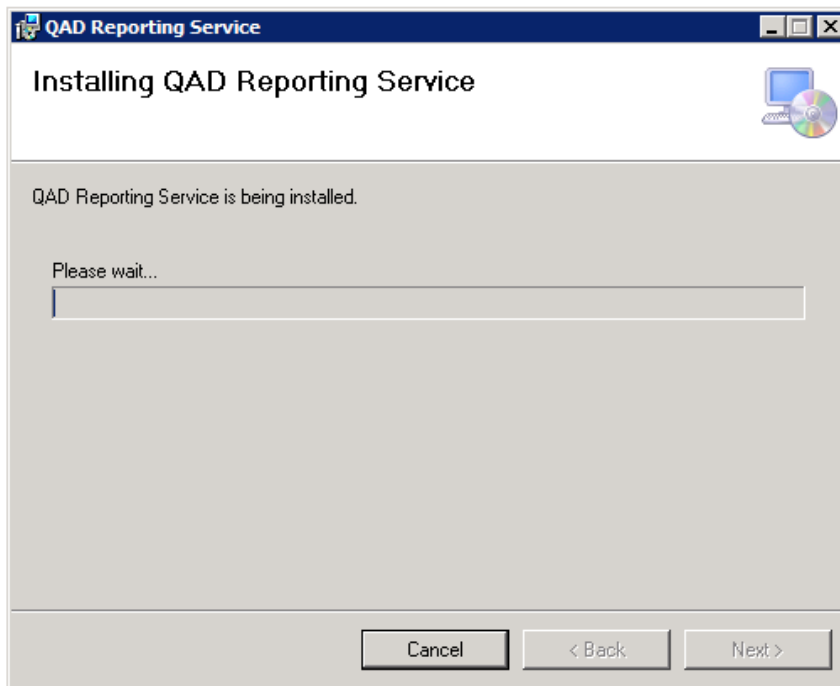


9 Enter the configuration parameters listed in the following table. Then click Next.

**Table 6.2**  
Reporting Service Configuration Settings

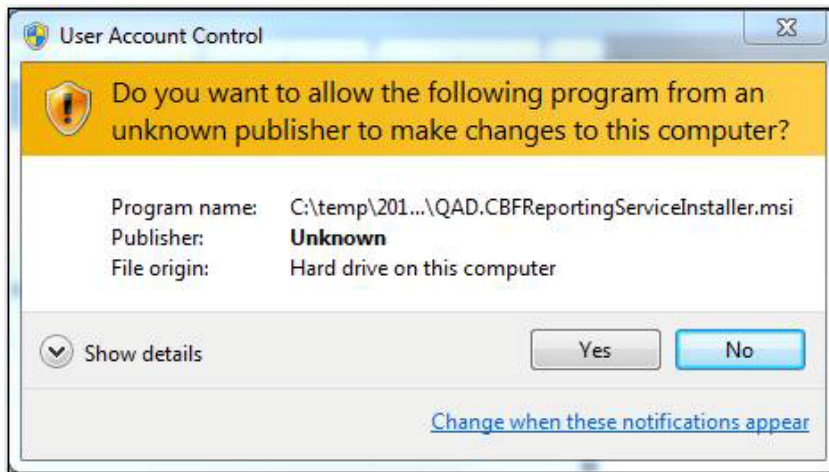
Parameter	Description
Application User	The QAD user account the service uses to connect to other QAD services.
Password	The password associated with the application user account.

**Fig. 6.9**  
Confirm Installation Screen



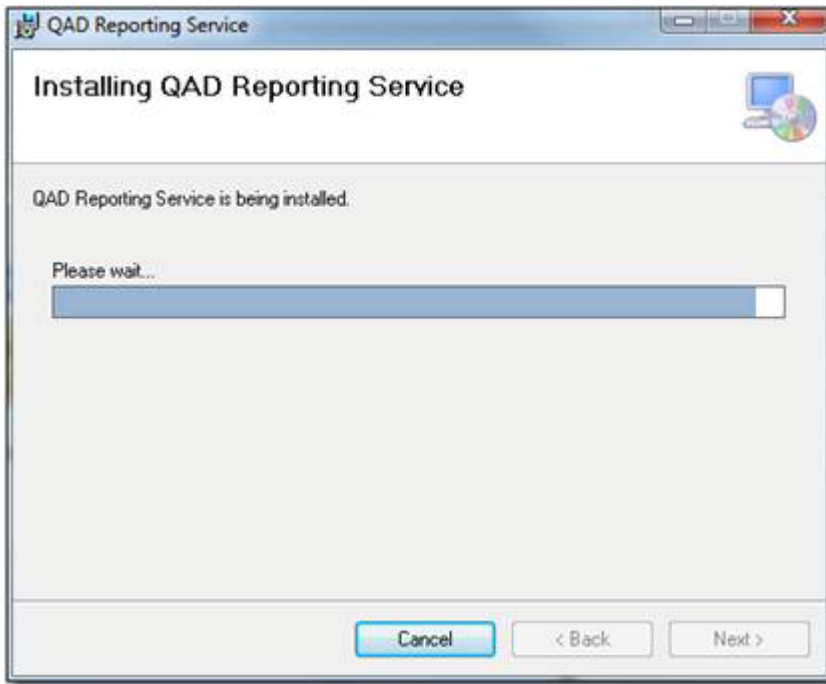
- 10 Click Next to begin the installation.

**Fig. 6.10**  
User Account Control Screen



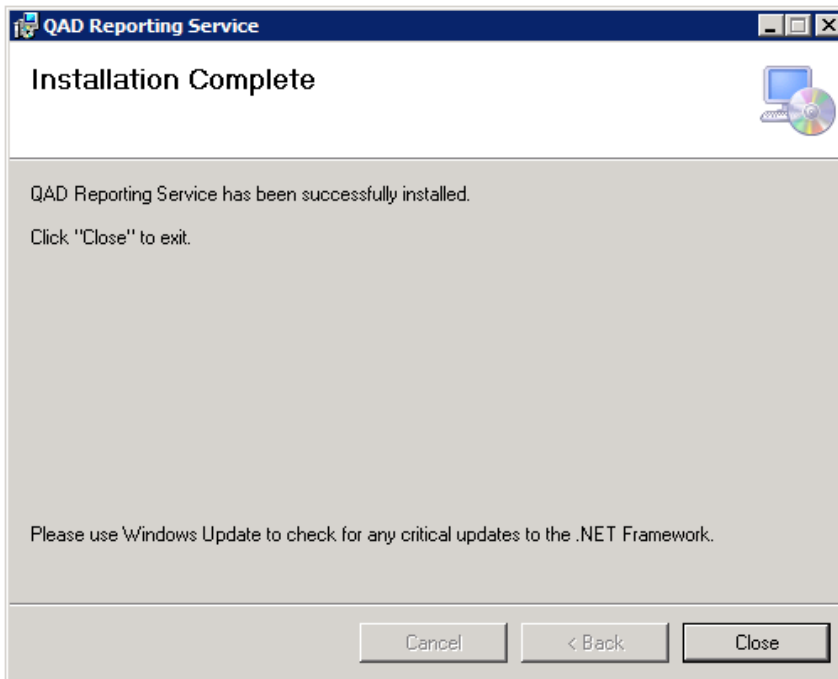
- 11 Click Yes to continue with the installation. You can monitor the installation with the progress bar on the Installing QAD Reporting Service screen.

Fig. 6.11  
Installation Progress Screen



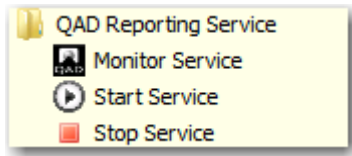
12 Click Close.

Fig. 6.12  
Installation Complete Screen



The installer configures the Reporting Service as a Windows Service named “QAD Reporting Service” running on TCP/IP port 4331 and creates shortcuts to start, stop, and monitor the service.

**Fig. 6.13**  
Reporting Service Shortcuts



## Configuration

### QAD Reporting Service

You can change the configuration values defined during the installation by editing the file:

```
<ReportingService>\ QAD.CBFReportingService.exe.config
```

where *<ReportingService>* is the location where the service was installed. The default location is:

```
C:\Program Files\QAD\QAD Reporting Service
```

To change the configuration value:

- 1 Edit the Reporting Service configuration file.
- 2 Save the changes.
- 3 Stop and restart the service using the shortcuts.

### Application Server

The application server manages a pool of report daemons (background processes) that send Financials reports to the QAD Reporting Service for distribution. By default, the application server is configured with an empty pool. To support sending reports through the QAD Reporting Service, set the number of instances in the pool to a value greater than 0.

To increase the number of report daemon instances in the pool:

- 1 Start a QAD Applications Client that is connected to the same Home Server and environment as the QAD Reporting service being configured.
- 2 Run the program Report Daemon Configure.
- 3 Change the number of instances from 0 to 1.
- 4 Save the changes.

## Testing

To test the Reporting Service, use the following steps:

- 1 Start a QAD Applications Client that is connected to the Home Server and environment for which the QAD Reporting service you are testing provides reporting services.
- 2 In the client, select the menu item that corresponds to a Financials report (for example, a GL Transaction Report).
- 3 At the bottom of the report, click the down arrow associated with the Server Output Processing section to expand the section.
- 4 Enter a suitable e-mail address and subject for the test.

**Fig. 6.14**  
Server Output Processing Configuration

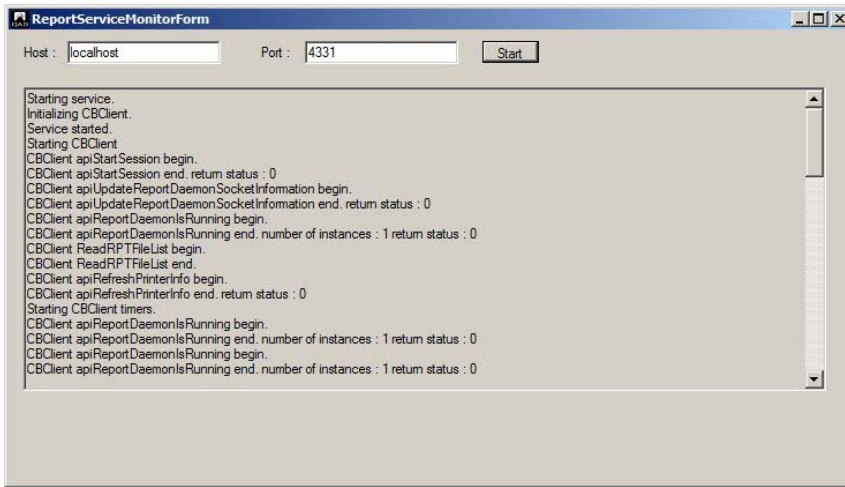
- 5 Click Execute to use the QAD Reporting Service to send the report to the configured e-mail account.

## Monitoring

The QAD Reporting Service is distributed with a utility to monitor the service. To start the utility:

- 1 Click the Monitor Service shortcut.
- 2 Enter localhost in the Host text box.
- 3 Click the Start button to begin monitoring the local service.

**Fig. 6.15**  
Reporting Service Monitor




### QAD Reporting Service Does Not Start

The QAD Reporting Service is designed to run as an unattended Windows Service. After the Reporting Service is installed, you must start it manually. It is not automatically started during installation. To determine if the service is running, check the QAD Reporting Service entry in the Windows Services application.

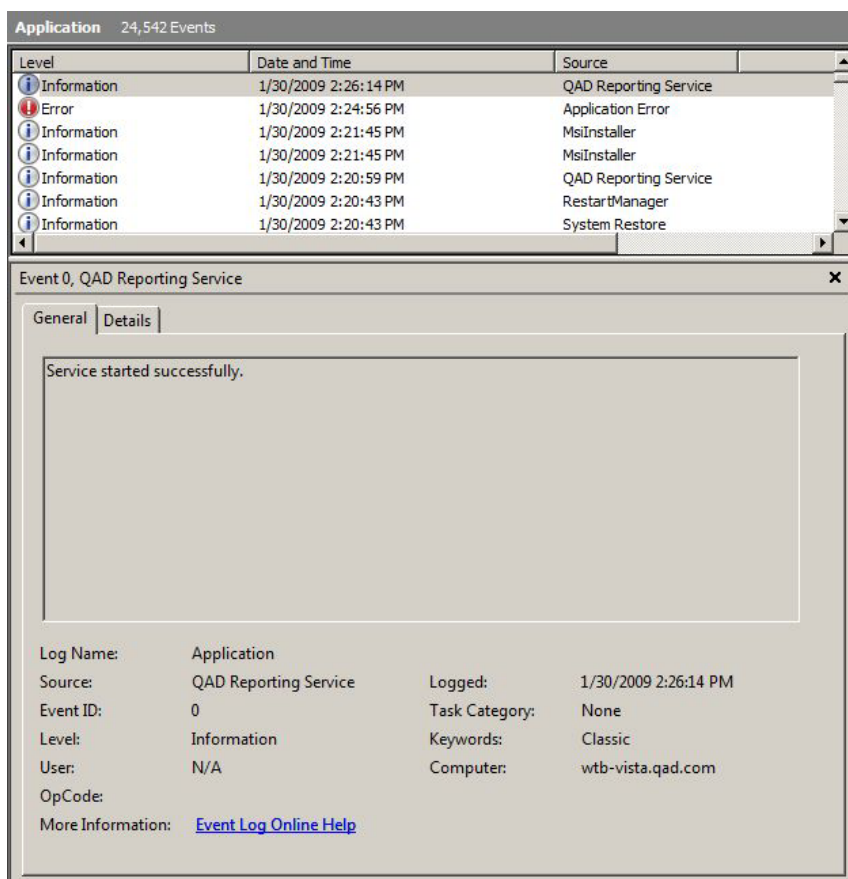
**Note** Press function key F5 within the Windows Services application to ensure that you are presented with up-to-date information.

**Fig. 6.16**  
Windows Service Entry for Reporting Service

Name	Description	Status	Startup Type	Log On As
 QAD Reporting Service			Automatic	Local System

Errors that occur while running the service are recorded in the Windows Event Log, which you can view with the Windows Event Viewer.

**Fig. 6.17**  
Windows Event Log



You can run the service as a stand-alone console application to bypass the Windows service layer while testing. To run the QAD Reporting Service from the console:

- 1 Start a command prompt.
- 2 Enter:
 

```
cd <ReportingService>\
```
- 3 Enter:
 

```
QAD.CBFReportingService.exe -configfile
QAD.CBFReportingService.exe.config -noservice
```
- 4 To stop the service, press CTRL+c.

### QAD Reporting Service is Not Communicating with the Application Server

One way to determine if the reporting service is communicating with the application server is to attempt to send a test report (see “Testing” on page 50). If you receive warning message QADFC-610, it indicates that the reporting service and the application server cannot communicate. After a short time, you can review the Windows Event Log on the server where the QAD Reporting Service is installed for a more detailed explanation of the failure.

## QAD Reporting Service to Application Server

The QAD Reporting Service obtains the address of the application server from the configuration associated with the Home Server environment with which it is associated. In a typical deployment, an XML document specifies this configuration as:

```
<home_server>/configurations/<environment_name>/client-session.xml
```

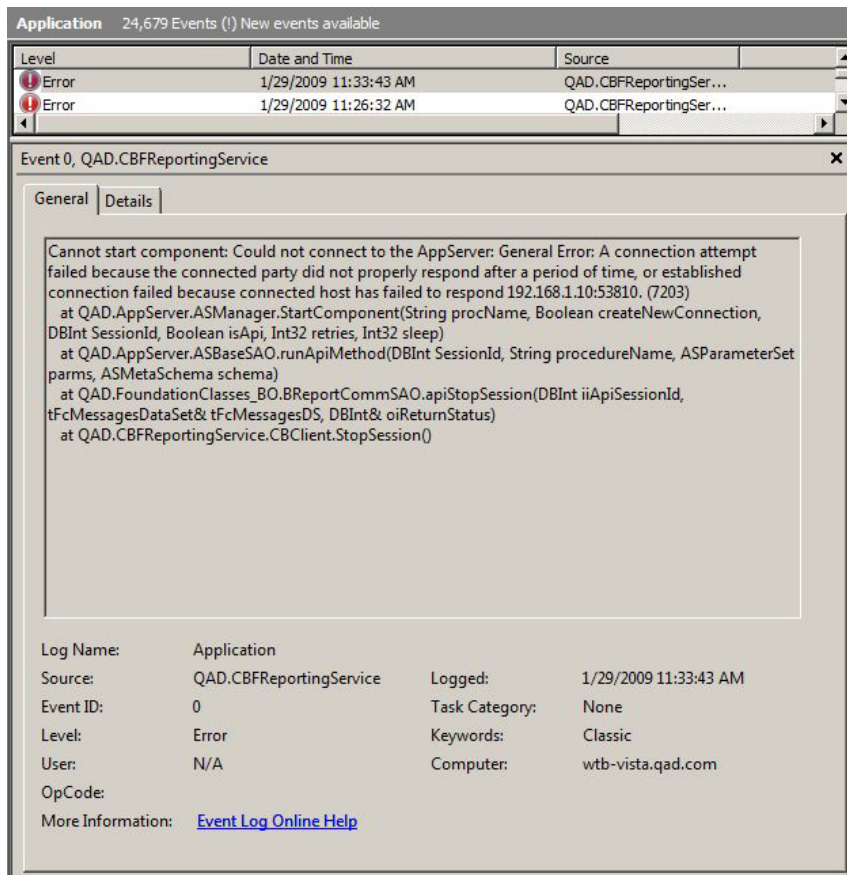
In this document, the following fragment defines the application server address:

```
<qad.appserver url="appserverdc://qadrh.qad.com/pilot"/>
```

**Note** If a host name is specified (for example, `qadrh`) instead of an IP address, the Windows server on which the QAD Reporting Service is installed must be able to resolve the host name.

In some network deployments, the Progress NameServer can return an IP address that cannot be routed.

**Fig. 6.18**  
Progress Server Error Listings



As a test, you can change the configuration to bypass the Progress NameServer using a direct connection to the application server.

For example:

```
<qad.appserver url="appserverdc://qadrh.qad.com/pilot"/>
```

## Application Server to QAD Reporting Service

By default, the QAD Reporting Service is configured to send the name of the Windows server to the application server. The host where the application server is installed must be able to resolve this name, or the QAD Reporting Service must be configured to send its IP address. To send the IP address rather than the host name, edit the QAD Reporting Service configuration file by setting the value of the key `ExternalHostName` to the Windows server IP address, as described in “Configuration” on page 49. Then stop and start the service to activate the change.

For example:

```
<add key="ExternalHostName" value="nnn.nnn.nnn.nnn"></add>
```

## Reporting Service Cannot Connect to SMTP Server

If a host name identifies the SMTP server, the Windows server containing the QAD Reporting Service installation must be able to resolve the host name and the SMTP server must be listening on TCP/IP port 25.

**Note** Many anti-virus programs block TCP/IP port 25 to protect against malicious programs that use e-mail as part of their attack strategy. For example, McAfee blocks Port 25 for all processes, except those processes specified in a configurable list of exclusions. You can configure programs like McAfee to allow outgoing mail by using the process name `QAD.CBFReportingService.exe`.

## Invalid E-mail Addresses

If a report request contains an invalid sender (From) or recipient (To) address, the detailed error is logged in the Windows Event Log. The application server is informed that the request failed. You can review the failure from the QAD Applications Client using the Report Daemon Monitor.

**Note** The sender e-mail address is the address associated with the user account that is executing or scheduling the report. The e-mail address for a user account is specified with the User Maintenance program.

# Troubleshooting

This chapter addresses troubleshooting topics.

**Overview 56**

**General 56**

**Installation 57**

## Overview

This chapter introduces troubleshooting techniques to use during Enterprise Edition installation. The information is divided into two sections.

- General – Information you can use during both installation and administration.
- Installation – Information specific to installation.

## General

The troubleshooting techniques detailed in this section can apply to both installation and administration questions.

## Diagnosis

### Log Threshold

The default log threshold is `DEBUG`, which records detailed information in the install and administration log files. You can change the logging level to `TRACE` using the `-log-level` option, which will print more verbose information to help diagnose a problem.

```
-log-level: [OFF | FATAL | ERROR | INFO | DEBUG | TRACE]
```

### Temporary Files

Temporary files are files that are created while servicing a request and which are deleted when they are no longer needed. In some cases, the key to diagnosing a problem is to be in a position to view these files.

To retain temporary files created in subsequent requests, define the following environment variable:

```
> export KEEP_TEMP_FILES=true
```

To resume cleaning up the files, unset the variable:

```
> unset KEEP_TEMP_FILES
```

By default temporary files are written into the `/tmp` directory. YAB can be configured to write temporary files into a different directory by configuring the `YAB_JAVA_OPTS` environment variable:

```
> export YAB_JAVA_OPTS=-Djava.io.tmpdir=PATH
```

## Errors

### Java Command Not Found

If you do not have a Java Runtime configured you will see the following error when you execute the installer:

```
> ./install
/qad/sandbox/user/wtb/2016/image/packages/yab-client/1/4/0/0/yab: line 38:
java: command not found
```

### Unsupported Class Version

If you have an incorrect version of the Java Runtime configured, you will see the following error when you execute the installer:

```
> ./install
Exception in thread "main" java.lang.UnsupportedClassVersionError: Bad version
number in .class file
```

Enterprise Edition requires Java 1.7, which is also supported by the YAB administration tool and the installer.

The following command prints the version of the Java Runtime resolved from the PATH.

```
> java -version
java version "1.7.0_45"
Java(TM) SE Runtime Environment (build 1.7.0_45-b18)
Java HotSpot(TM) 64-Bit Server VM (build 24.45-b08, mixed mode)
```

If you have the JAVA\_HOME environment variable set, the Java Runtime that the java -version command locates will take precedence over the Java Runtime located by the PATH environment variable. You can check the setting of the JAVA\_HOME environment variable and unset it if necessary.

```
> echo $JAVA_HOME
/usr/java/jdk1.5
> unset JAVA_HOME
> echo $JAVA_HOME
```

## Installation

The troubleshooting techniques detailed in this section are specific to the installation process.

## Diagnosis

### Log File

The Enterprise Edition installer records detailed information in the log file. The default log file location is:

```
/tmp/install.[USER].log
```

If an error occurs while installing the product, you should review the log file. It may contain information that was not displayed on the console.

If the installation fails before the update command has started (Starting update... in the following code text), the install should be executed again after the problem has been resolved.

```
Validating OK
Initializing instance OK
Reconfiguring instance OK
Resolving and copying packages OK
Starting update...
                                update (282 tasks)
-----
1/282  qad-rd-permissions-mkdirs      OK (0.032 s)
2/282  qxtend-stage                     OK (54.844 s)
3/282  adminserver-script              OK (0.023 s)
4/282  nameserver-script               OK (0.017 s)
...

```

If the installation fails during the update command, it may be more efficient to diagnose the problem using the techniques outlined in the *QAD Enterprise Edition Configuration and Administration Guide* and to execute the update command directly when the problem is resolved.

```
> yab update
```

### Install Failed

If the install fails, it displays **INSTALL FAILED**, with limited information on the cause of the failure. Review the log files and contact QAD Support if further guidance is required.

# Operating System-Dependent Settings

This appendix addresses operating system-dependent settings.

***Dependent Settings*** 60

***Configuring Server Prompt*** 60

***Configuring Login and Password Prompts*** 60

## Dependent Settings

The following settings can differ depending on the operating system:

```
netui.connmgr.loginprompt
netui.connmgr.passwordprompt
netui.connmgr.serverprompt
```

These settings can be defined in the `install.conf` file before installing QAD Enterprise Edition or by editing the `configuration.properties` file in an existing environment.

The following example outlines how to define the server prompt setting. This process also can be followed to define the login and password prompts.

## Configuring Server Prompt

The default prompt displayed for the server depends on the default shell and can vary based on user configuration and operating system. In a standard Linux operating system, the default shell can be determined in the `/etc/passwd` file. By default, the server prompt used for the `netui.connmgr.user` is set to `$`.

This example changes the server prompt from the default `$` to `>`.

### Install.conf File

To set the server prompt before installing, add the following to the `install.conf` file:

```
netui.connmgr.serverprompt=>
```

### Configuration.properties File

To determine the server prompt used in an existing environment, use `yab config`:

```
> yab config netui.connmgr.serverprompt
netui.connmgr.serverprompt=$
```

Define the setting in `configuration.properties`

```
netui.connmgr.serverprompt=>
```

To apply the configuration change execute:

```
> yab reconfigure
```

## Configuring Login and Password Prompts

The login and password prompt settings can also vary depending on the user profile and operating system defaults. In a standard Linux operating system, the default settings are:

```
netui.connmgr.loginprompt=login:
netui.connmgr.passwordprompt=Password:
```

Depending on the default shell, these settings also may need to be changed.

# SSH and Telnet Protocols

This appendix addresses configuration settings for Secure Shell (SSH) and Telnet protocols.

**SSH 62**

**Telnet 62**

## SSH

By default, a YAB-installed QAD Enterprise Edition environment is configured to use SSH protocol for connection manager and terminal sessions.

To run programs in the QAD .NET client in terminal mode, the client must have the Granados SSH library for .NET (Routrek.Granados.dll) installed. QAD cannot distribute this file due to export restrictions. This file can be downloaded from:

<http://granados.sourceforge.net/>

The Routrek.Granados.dll file should be copied into the `webapp_homeserver` directory. To determine the location of the directory, execute:

```
> yab config webapp.homeserver.dir
```

## Telnet

The environment can be switched to use the Telnet protocol by configuring the following settings in `configuration.properties`:

```
netui.connmgr.protocol=telnet
netui.telnet.protocol=telnet
netui.connmgr.port=23
netui.telnet.port=23
```

To apply the change execute:

```
> yab reconfigure restart
```

Appendix C

# Scripts

This appendix describes the QAD Reporting Service scripts.

***QAD Reporting Service Scripts*** 64

## QAD Reporting Service Scripts

QAD Enterprise Edition includes the following scripts to make QAD Reporting Service installation and use easier:

- `create-instance.bat`
- `register-instance.bat`

The scripts are automatically placed in `$<install_directory>\utilities` during QAD Enterprise Edition installation.

Example:

```
C:\Program Files\QAD\QAD Reporting Service\utilities\create-
instance.bat
C:\Program Files\QAD\QAD Reporting Service\utilities\register-
instance.bat
```

### create-instance.bat Script

The QAD Reporting Service installer can only install a single instance of the service on a target computer. You can create additional QAD Reporting Service instances by using the `create-instance.bat` script to copy an existing instance.

To create additional QAD Reporting Service instances:

- 1 Use the QAD Reporting Service installer to install the first instance of the service on the target computer.
- 2 To create the instance, start the `create-instance.bat` script by right-clicking on the script and selecting Run as Administrator. You can also open a command window as the administrator, go to the directory, and run the script from the command line. After `create-instance.bat` starts, respond to the script prompts.
- 3 Edit the configuration file:
 

```
<install_directory>\QAD.CBFReportingService.exe.config
```
- 4 Change the `TCPPort` value to an available TCP/IP port.
- 5 Edit the `homeserver` and `environment` settings to specify the environment the instance will service.

After you edit the configuration file, you can start the service through the Windows Services control panel applet.

### register-instance.bat Script

This script is used to register or unregister a QAD Reporting Service instance as a Windows service.

# Customized Database Structure Files

This appendix describes how to install QAD Enterprise Edition 2016 using database structure files that are different than the standard structure files used by the installer.

<b><i>Delayed Installation</i></b>	<b>66</b>
<b><i>Generate Standard Structure Files</i></b>	<b>66</b>
<b><i>Customize Standard Structure Files</i></b>	<b>66</b>
<b><i>Configure Customized Structure Files</i></b>	<b>67</b>
<b><i>Resume Enterprise Edition Creation</i></b>	<b>67</b>
<b><i>Create Databases with Custom Structure Files</i></b>	<b>68</b>

## Delayed Installation

To obtain access to the QAD standard structure files before creating the Enterprise Edition databases, you must perform a delayed installation. Install Enterprise Edition as described in Chapter 2, “Installing QAD Enterprise Edition on Linux and UNIX,” on page 7, but include the argument `-install-update:false` when executing the `install` script to initialize the environment but postpone the creation of Enterprise Edition.

```
> ./install -install-update:false ...
```

After the install process completes, change to the directory where you initialized Enterprise Edition.

```
cd installation directory
```

## Generate Standard Structure Files

Run the following command to generate the standard structure files for all databases into `build/work/st-files`.

```
> yab qxtend-stage database-qadadm-structure-file-update database-qadcpl-
structure-file-update database-qaddb-structure-file-update database-qadhlp-
structure-file-update database-qadrcode-structure-file-update database-qxodb-
structure-file-update
```

This creates structure files for six of the eight databases.

```
> ll build/work/st-files
total 24
-rw-rw-r-- 1 wtb devel  556 Mar 29 12:39 admdb.st
-rw-rw-r-- 1 wtb devel 1099 Mar 29 12:39 cpldb.st
-rw-rw-r-- 1 wtb devel  403 Mar 29 12:39 hlpdb.st
-rw-rw-r-- 1 wtb devel 1105 Mar 29 12:39 mfgdb.st
-rw-rw-r-- 1 wtb devel  550 Mar 29 12:39 qxodb.st
-rw-rw-r-- 1 wtb devel  125 Mar 29 12:39 rcddb.st
```

**Note** The final two databases (`qxedb`, `arcdb`) are not associated with a database structure file.

## Customize Standard Structure Files

Create a new directory to hold the customized structure files. This directory can be located anywhere.

```
> mkdir -p customizations/st-files
```

Copy the standard structure files into the new directory and create files for the two databases that are not associated with a database structure file.

```
> cp build/work/st-files/*.st customizations/st-files
> cp customizations/st-files/rcddb.st customizations/st-files/qxedb.st
> cp customizations/st-files/rcddb.st customizations/st-files/arcdb.st
```

Customize the structure files.

```
> vi customizations/st-files/*.st
```

**Note** The names of the data areas in the structure files, such as MFG and MFG\_IDX, are important because they correspond to the schema files that you will load into the databases when you create the environment.

The original 2016 release did not allow customization of the qxodb database. You can check if you have that limitation by executing the following command:

```
> yab info | grep yab-qxtend
yab-qxtend 1.3.0.27 local
```

If your version of the yab-qxtend module is 1.3.0.27, you must copy your customized qxodb structure file to the following location.

```
cp customizations/st-files/qxodb.st build/work/system/processes/qxtend-
stage/qxtend/qxoserver/db/qxodb.st
```

## Configure Customized Structure Files

Edit the `build/config/configuration.properties` file and add the following settings. You must set the `st.dir` setting to locate your customized structure files if you chose an alternate location:

```
st.dir=${customizations.dir}/st-files
db.qadadm.structurefile=${st.dir}/admdb.st
db.qadcpl.structurefile=${st.dir}/cpldb.st
db.qaddb.structurefile=${st.dir}/mfgdb.st
db.qadhlp.structurefile=${st.dir}/hlpdb.st
db.qadrcode.structurefile=${st.dir}/rcddb.st
db.qxevents.structurefile=${st.dir}/qxedb.st
db.qadarc.structurefile=${st.dir}/arcdb.st
db.qxodb.structurefile=${st.dir}/qxodb.st
# If yab-qxtend = 1.3.0.27 then comment out the previous line and uncomment
the following line:
# db.qxodb.structurefile=${appdir}/build/work/system/processes/qxtend-
stage/qxtend/qxoserver/db/qxodb.st
```

## Resume Enterprise Edition Creation

Execute the update command:

```
> yab update
```

## Create Databases with Custom Structure Files

If your system has version 1.3.0.27 of the `yab-qxtend` module, you must reverse the configuration workaround that you applied before running `yab update`. Edit the `build/config/configuration.properties` file again to make an adjustment to the QXO database. Find the following line:

```
db.qxodb.structurefile=${appdir}/build/work/system/processes/qxtend-  
stage/qxtend/qxoserver/db/qxodb.st
```

Replace it with the following:

```
db.qxodb.structurefile=${st.dir}/qxodb.st
```

# Product Information Resources

QAD offers a number of online resources to help you get more information about using QAD products.

[QAD Forums \(community.qad.com\)](https://community.qad.com)

Ask questions and share information with other members of the user community, including QAD experts. The YAB Installations forum can be found under the Technology heading in the Forum menu.

[QAD Knowledgebase \(knowledgebase.qad.com\)\\*](https://knowledgebase.qad.com)

Search for answers, tips, or solutions related to any QAD product or topic.

[QAD Document Library \(documentlibrary.qad.com\)](https://documentlibrary.qad.com)

Get browser-based access to user guides, release notes, training guides, and so on; use powerful search features to find the document you want, then read online, or download and print PDF.

[QAD Learning Center \(learning.qad.com\)\\*](https://learning.qad.com)

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