QAD Enterprise Applications

Installation Guide

Enterprise Asset Management

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Contents

QAD Enterprise Asset Management Install Guide Change Summary

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

Date/Version	Description	Reference
September 2014/EAM 12.8	Numerous editorial changes	---
	Reorganized the guide to remove the default installation option and to document a single installation work flow that includes interfacing to QAD EE and SE	---
	Revised Installation Process Overview	page 2
	Revised Installing the QAD Deployment Toolkit	page 9
	Removed the Installing a Complete EAM Configuration chapter	---
	Changed the name of the Installing a Custom EAM Configuration chapter to EAM Configuration	page 19
	Revised EAM Configuration	page 19
March 2014/EAM 12.7	Added section to set up Progress editor	page 58
	Added information on starting QDT in AIX environments	page 4
	Updated supported Java versions	page 6 page 6 page 6
	Updated the Tomcat Web server information	page 6
November 2013/EAM 12.6 Rev 1	Added note regarding users upgrading from QAD SE to EE	page 4
October 2013/EAM 12.6	Revised QDT Installation	page 10
	Moved Installing Media to Linux to Ch. 2	page 16
	Revised Custom EAM Configuration	page_25
	Added the Configure QXtend procedure	page 42
April 2013/EAM 12.5.2	Rebranded 12.5.2	--
	Added Upgrading From a Previous Version of EAM section	page 7
December 2012/EAM 12.5.1	Updated EAM 11 to EAM 12 conversion information.	page 7
September 2012/EAM 12.5.1	Updated Progress database server software requirements	page 6
	Updated Fixed Asset patch procedure.	page 35
April 2012/EAM 12.5	Removed obsolete language-specific scripts information.	--
	Removed editing language details information.	--
September 2011/EAM 12.4	Updated installation media add-on files information.	page 7
	Added fixed asset patch installation procedure detailing upgrade procedures. Updated other version-specific information.	page 35

Chapter 1

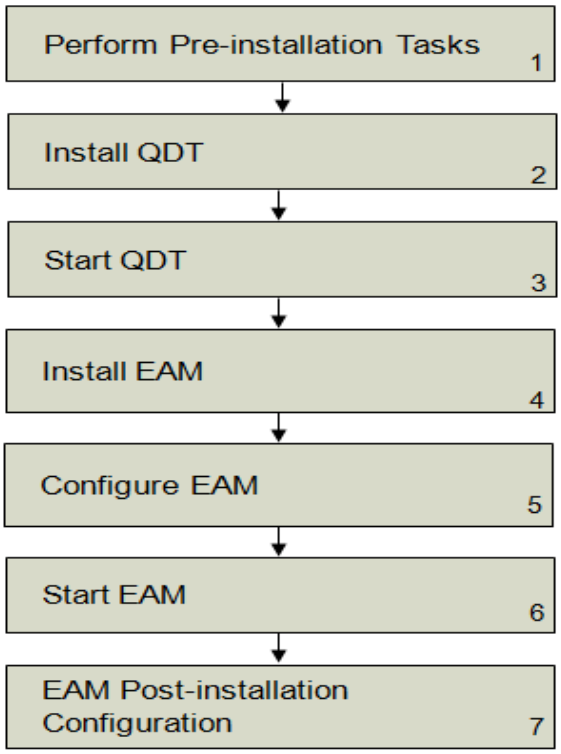
Installation Overview

This chapter describes the Enterprise Asset Management installation process and provides system requirements and software prerequisites.

Installation Process Overview

EAM is installed using the QAD Deployment Toolkit (QDT), which automates much of the installation process on properly set-up systems. The following figure represents the overall flow of the installation process.

Fig. 1.1
QAD EAM Installation Process



The procedure for installing EAM is as follows:

1. Determine if your system hardware, software, and configuration meet the requirements for EAM installation. Then set up your system according to the requirements defined in this chapter or with the assistance of QAD Services.
2. Install QDT.
3. Launch QDT.

   QDT reads the product image and displays a choice of products and components to install.

   Select the appropriate components.

   QDT automatically discovers system information, such as the location of required software, by reading environment variable settings.
4. Install EAM.

   QDT installs and configures the selected components using default configuration values generated during the auto-discovery process or using your custom configuration values.
5. Configure the EAM environment.

6 Start your new EAM installation and log in.

7 Perform post-installation EAM configuration.

System Overview

An EAM system consists of:

- A Progress database server that contains EAM software
- A Progress Enterprise application server
- A Tomcat Web server
- Multiple client workstations (with QAD .NET User Interface software), as needed

The database server, application server, and Web server are all installed on the same machine in a single-tier environment. The QAD .NET User Interface clients are installed on machines that access the EAM environment.

Sizing and Capacity Planning

The database server contains EAM and Progress server software, as well as your production data. Before starting an installation, estimate the eventual size of your production database and the demands to be placed on the different database components so that you can lay out your disks appropriately.

EAM requires a minimum of 12 GB to install and configure the product as-is for one environment. This memory requirement does not include the additional space needed for warehousing or sizable changes to the production databases.

For assistance with hardware sizing and capacity requirements planning, contact QAD Services.

General Prerequisites

The following general prerequisites apply:

- The system administrator must be an experienced Progress database administrator who can manage Progress client processes.
- A 100 Mbps or faster network is required.

Supported Versions

You can install QAD EAM 12 with the following ERP application versions on a Progress database (Oracle is not currently supported):

- QAD 2009 Enterprise Edition or greater
- QAD 2008 Standard Edition or greater

Note You can find the supported versions of QAD Enterprise Edition and QAD Standard Edition that integrate with QAD EAM 12 in the *QAD Enterprise Asset Management Release Notes* and on the drop-down menu of the QDT installation.

Important If you are upgrading from QAD SE to EE, there is currently no migration tool for EAM. For further assistance, contact QAD Support.

Software and Hardware Prerequisites

The following sections describe the software and hardware requirements for QAD EAM installation.

Note

For the most current requirements information, refer to the Product Availability Guide on the QAD Online Support Center.

Refer to the Progress documentation for the complete requirements for Progress components. When installing Progress components, always select a Complete installation, not a Typical or Custom installation.

Important You must install these programs before beginning QAD Enterprise Asset Management installation.

UNIX Considerations

X terminal

Verify that X terminal is installed. It is required for QAD EAM Linux and UNIX installations.

AIX

If Concurrent I/O (CIO) is enabled, you cannot launch QDT on AIX. You must disable CIO or move QDT to another file system on the server and launch QDT from the new location.

Red Hat 6

Red Hat 6 does not contain the Korn shell by default. This prevents use of `./install.ksh` to start up QDT and perform subsequent EAM installation. To use QDT and install EAM in Red Hat 6 environments, run the following command as root:

```
yum install compat-libstdc++-296
```

Installation of QAD EAM in Red Hat 6 environments requires use of the `qadinst_RH6_64bit` or `qadinst_RH6_32bit executable`.

Installation Group and User

Installations on UNIX require a group called `qad` and a user called `mfg` on the database server. All installation and maintenance programs store pertinent information under the `mfg` user home directory. This enables QAD scripts to automatically find data about installed products. You maintain your system without logging on as root.

Follow these steps to create the installation group and user:

1. Create a group called `qad` with a group ID (gid) of `65535` with your UNIX system administration utility (`65535` is the user ID of the files on the QAD media).
2. Create a user called `mfg` with a user ID of `65535`.
   a. Assign the Korn shell to this user. All of the scripts delivered on QAD media use Korn shell (`ksh`) syntax.
   b. For the mfg user, set the `$HOME` environment to a user directory where working and temporary files can be written.
   c. Use the standard `umask` of `022` to set permissions and security.

Environment Variables

Update the mfg user `.profile` to include the `DLC` and `PATH` variables. Set the variables as follows:

- `DLC`: Progress installation directory
- `JAVA_HOME`: Java directory location
- `CATALINA_HOME`: Tomcat installation directory
- `PATH`: To include `$DLC`, `$DLC/bin`, `$JAVA_HOME`, `$JAVA_HOME/bin`, `$CATALINA_HOME`, `$CATALINA_HOME/bin`

Depending on your flavor of UNIX, you may also need to set the following variables for the shared library path and ID library path:

- `SHLIB_PATH`
- `LD_LIBRARY_PATH`

Expat XML Parser (HP-UX Only)

If you are installing on an HP Platform running HP-UX, you must install a C library for parsing XML. The Expat XML Parser is a free, open source application that provides this functionality.

You can obtain the source code using the project's SourceForge page at:

http://expat.sourceforge.net/

Precompiled depot files for HP are available at:

http://hpux.connect.org.uk/hppd/hpux/Development/Tools/expat-2.1.0/

Because of a limitation of the QAD Deployment Toolkit on HP ia64 (Itanium) platforms, you should install depot files for both the Itanium 2 and PA-RISC 2.0 before installing QAD software.

Database Server

The following table lists the software and hardware requirements for the database server.

Table 1.1
Database Server Requirements

Software	Hardware	Notes
Progress OpenEdge 10.2B or higher, including the following: • Latest Progress version-specific patches with a minimum patch of 10.2B07 or higher. • Enterprise DB Server for appropriate number of users • 4GL Development, one license • Progress Enterprise application server Progress language-specific releases for each language in multi-language installation Java 6 or higher Graphical Web browser Operating system patches	5 GB free disk space Operating system patches Approximately 10 GB of free disk space for data structures. This estimate is based on a 5-7 GB production database. 100 Mbps network card ISO 9660 DVD Two disk controller channels (minimum) Internet connection	Perform a Complete installation, not a Typical or Custom installation, of Progress components. If Progress installs its own version of Java and it differs from the version required by the Web server (see below), do not remove the Progress-installed Java version when installing the Web server version.

Application Server

The following table lists the software and hardware requirements for the application server.

Table 1.2
Application Server Requirements

Software	Hardware	Notes
Progress OpenEdge 10.2B08 or higher, including the following: • Latest Progress version-specific patches with a minimum patch of 10.2B08 or higher. • Enterprise DB Server for appropriate number of users • Application DB Server • 4GL Development, one license • Progress AdminServer. Java 6 or higher Operating system patches	At least 12 GB free disk space per environment (pilot, production, and so on)	Perform a Complete installation, not a Typical or Custom installation, of Progress components. If Progress installs its own version of Java and it differs from the version required by the Web server (see below), do not remove the Progress-installed Java version when installing the Web server version. Depending on your Progress release, you may need to install Java before installing the Progress component. If so, use Java 6 or higher.

Web Server

The following table lists the software and hardware requirements for the Web server.

Table 1.3
Web Server Requirements

Software	Hardware	Notes
Tomcat 7 Java 6 or higher	10 MB free disk space for Tomcat installation files 100 MB free disk space for QAD user interface client application (see below)	Tomcat is not included on the EAM installation media and must be downloaded from `www.tomcat.apache.org` or acquired from another source.

EAM Add-On Files

In the `add_ons` directory of the QDT EAM 12 installation media, there are two subdirectories that you may need to complete your installation:

- `QAD_patches` contains patches for Fixed Assets integration and older versions of QXtend.
- `v12upgrade` contains instructions and tools to help upgrade older versions of EAM 12.

Upgrading EAM 11 to EAM 12

Upgrading an EAM 11.x installation to EAM 12.x requires use of a conversion utility. Contact QAD Support to obtain the latest version of the utility and for assistance with how to use it.

Upgrading From a Previous Version of EAM

If you are upgrading from a previous version of EAM, check your installation media for any additional upgrade instructions.

Chapter 2

Installing the QAD Deployment Toolkit

The QAD Deployment Toolkit (QDT) is a streamlined, comprehensive set of tools for product installation and configuration. This chapter covers QDT installation, startup, and configuration.

Overview

The QAD Deployment Toolkit (QDT) is used to install EAM and other QAD products. QDT streamlines the installation process by automatically finding system information (such as component locations) and modifying the EAM configuration profile appropriately. You must install QDT before installing EAM.

Important Before installing QDT and EAM, verify that the environment variables for the prerequisite Java and Tomcat installations on your target system are set. The user ID you use to complete the process must have permission to access the locations that you intend to use.

Installing QDT

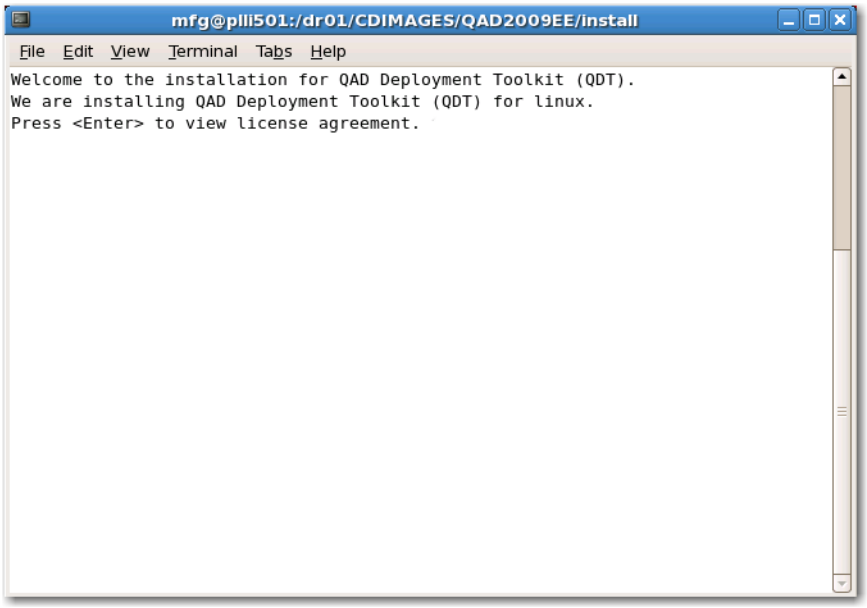
QDT is installed from the QAD application media. For example, if you are installing EAM, you perform the QDT install from the installation media. QDT uses a graphical user interface and requires X-Windows when installing on UNIX or Linux. In such cases, the install is performed from the server console.

Note If you intend to view the UNIX or Linux QDT graphical user interface on a machine other than the machine on which QDT is installed, you must have a graphical environment with full X-Windows capability installed on that machine. One option is the TightVNC open source cross-platform remote desktop software. This requirement does not apply to servers that will be installed on Windows.

To install QDT:

1. Shut down any virus protection programs.
2. Open an x-terminal window.
3. Ensure that the OpenEdge Admin Server and Name Server are running.
4. Launch QDT installation by going to the `/install` directory and using the `./install.ksh` script for Linux/UNIX or `install.exe` script for Windows. The QDT welcome message appears.

Fig. 2.1
Installation Window for a UNIX/Linux Installation



5 Press Enter to view the license agreement.

6 The license agreement displays. Press the space bar or press `q` to skip the agreement and continue with the installation.

7 The installer prompts you to accept the agreement. Select `y` to continue or `n` to exit the installation.

8 You are prompted to enter the QDT installation location. Accept the default location or enter a different directory. Write down this path for future reference. Press Enter.

Note It is common to select an alternate target location for the QDT installer files. Keeping in mind that this is not the EAM installation folder, but EAM's QDT installation folder, you might choose `/<qad_apps_folder>/qdt-qadeam-pilot`, `/<qadappsfolder>/qdt-qadeam-prod`, or something similar.

Verify that the QDT installation location has enough free space to uncompress and hold the QDT files.

9 You are prompted to enter the location for the log directory. Accept the default location or enter a different directory. Write down this path for future reference. Press Enter.

10 If the `logs` directory does not exist, you are prompted to create it. Press Enter to accept the default (y).

11 You are prompted to enter the location for installation of the QDT XML files. Accept the default location or enter a different directory. Write down this path for future reference. Press Enter.

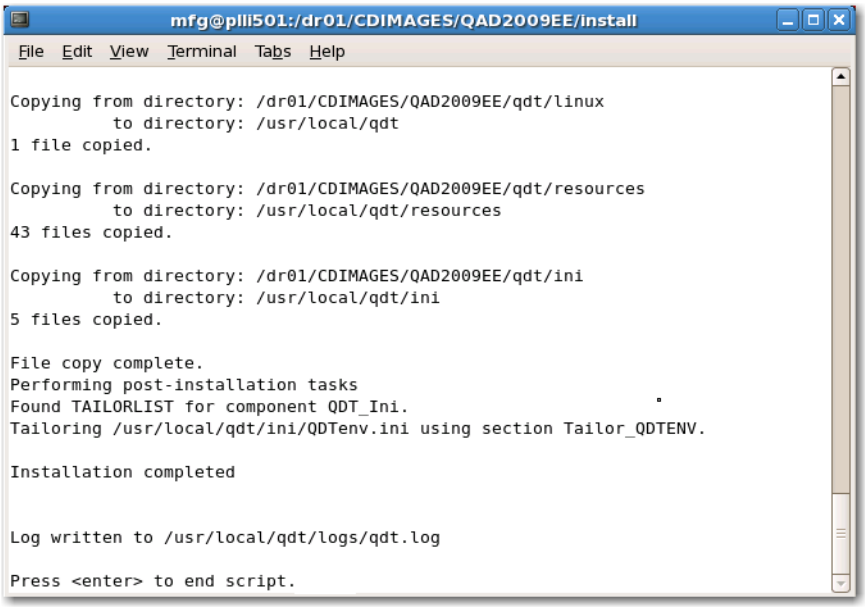
12 If the `xml` directory does not exist, you are prompted to confirm its creation. Press Enter to accept the default (y).

13 On Windows, the installer prompts you for a folder name for the QDT shortcut. The default is QAD Deployment Toolkit. Accept the default location or specify a different directory. Press Enter.

14 You are prompted to continue with the install. If you want to continue, press Enter.

15 The installation begins. Installation status messages are displayed.

Fig. 2.2
Installation Summary



16 When the installation is completed, press Enter to exit the installation script.

17 You can verify that there were no errors during the installation by going to the QDT logs directory and reading the `qdt.log` file.

Look for any lines beginning with five stars (`*****`) or two stars (`**`). Five stars indicate QDT errors; two stars indicate Progress errors.

18 Correct any errors and attempt the QDT install again. Otherwise, proceed to the next section.

Patch Installation

Install the latest patches. Refer to the QDT patch README for installation instructions.

Starting QDT

To start QDT, do the following:

1 If you are using Windows, select Start|All Programs|QAD Deployment Toolkit|Start QDT.

If you are using Linux or UNIX, go to `<qdt_install_directory>/qdt` and run the `./qadinst` installation script.

To start QDT in Red Hat 6 environments, run the `qadinst_RH6_64bit` or `qadinst_RH6_32bit` executable.

To start QDT on HP, run `qadinst.ksh`.

To start QDT on AIX environments, you must first disable Concurrent I/O (CIO).

2 The QDT Deployment Toolkit displays. The toolkit contains information about the current host including the operating system and currently installed versions of Progress, Java, and Tomcat.

Fig. 2.3
QAD Deployment Toolkit Main Screen

QDT has two modules:

- Install. The Install function moves files from the product delivery media onto the target host drive.
- Admin. Admin completes the installation process and provides tools for updating and configuring the products installed by QDT. When the install is complete, you use the Admin function to create databases, compile application code, and create server start and stop scripts for the installed products.

  Note The Admin function is very similar to MFG/UTIL, which was available in earlier QAD applications. Although MFG/UTIL and Admin are similar, the process used with MFG/UTIL is not valid for this install. You should continue following the instructions in this guide.

Each of the functions is accessed by selecting a button on the QDT main screen.

To view information about the host machine where QDT is installed, select Edit|System Default Settings.

Configuring QDT

You may need to perform the following actions to configure QDT:

- Setting system defaults, including port settings

- Adding additional authorized users

Setting System Defaults

If the environment variables on your host machine were previously set at the operating-system level, QDT automatically discovers and displays relevant system information on its main screen.

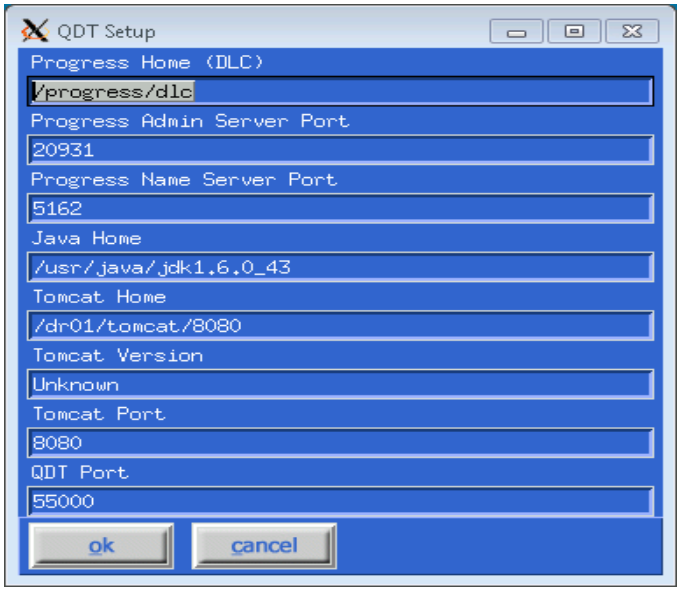
If system information is not displayed on the QDT main screen or incorrect information is displayed, you must set these system defaults through QDT's System Default Settings function.

Important Port settings, such as Tomcat and Progress AdminServer ports, are automatically set to default values within QDT. If you are not using the default values for these ports, or are installing multiple environments (which requires multiple Tomcat instances), use QDT's System Default Settings function to set the correct port values.

To set system defaults (including port settings), do the following:

1 On the QDT main screen, select Edit|System Default Settings. The QDT Setup screen displays.

Fig. 2.4
System Default Settings



2 Enter changes to the appropriate settings.

3 Select OK to close the screen and save the changes.

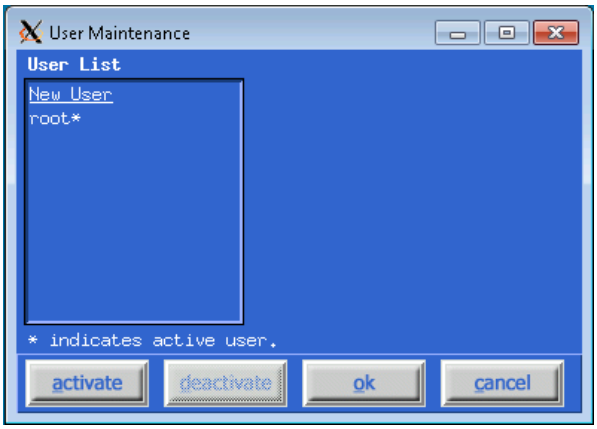
Adding Users

The person who initially installs QDT is the only person who is able to use it. All others will receive errors and cannot run the toolkit. To specify additional users to run QDT, do the following:

1 Select Edit|User Maintenance.

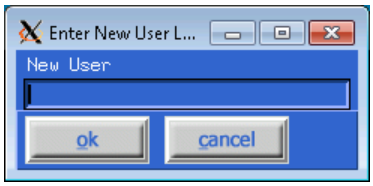
2 To add a user, make sure New User is highlighted in the User Maintenance dialog box and click Activate.

Fig. 2.5
User Maintenance Dialog Box



3 In the Enter New User dialog box, enter the user ID and click OK.

Fig. 2.6
Enter New User Dialog Box



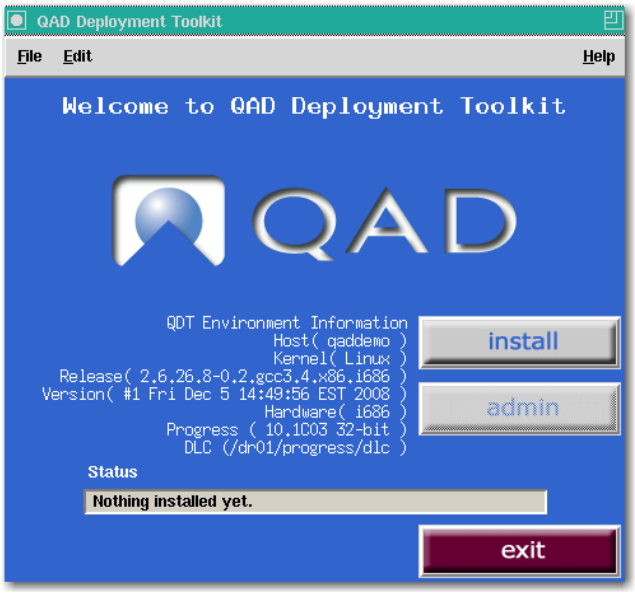
4 In the User Maintenance dialog box, select OK to close the screen and add the users.

Note Authorized user information is stored in the `<qdt_install_dir>/xml/users.xml` file. If you have several users to add, you can add them by directly editing the file.

Installing the Media to Linux/UNIX

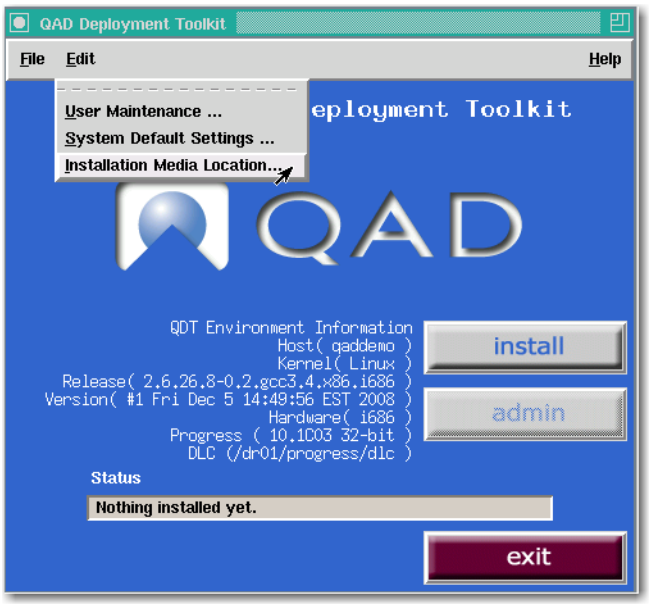
1 If the QDT welcome screen is not open, launch QDT. Go to `<qdt_install_directory>/qdt` and run `./qadinst`. For Red Hat 6 environments, run `qadinst_RH6_64bit` or `qadinst_RH6_32bit`. On HP, run `qadinst.ksh`.

Fig. 2.7
Select Install



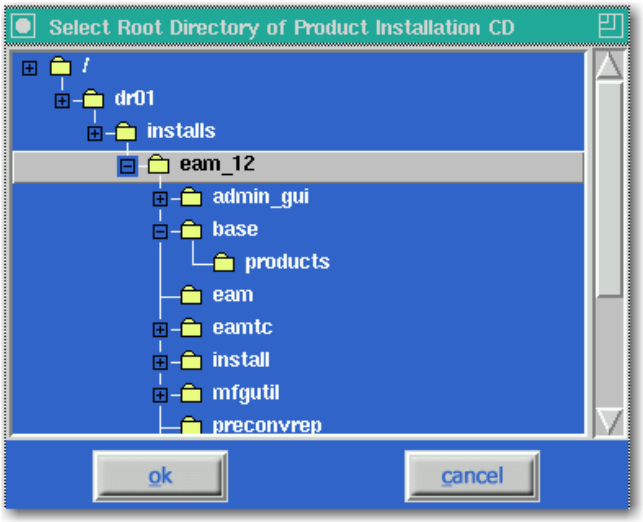
2 Select Edit|Installation Media Location.

Fig. 2.8
Select Edit|Installation Media Location



3 Browse to the `installs/EAM_<version>` directory in the install folder. Click OK.

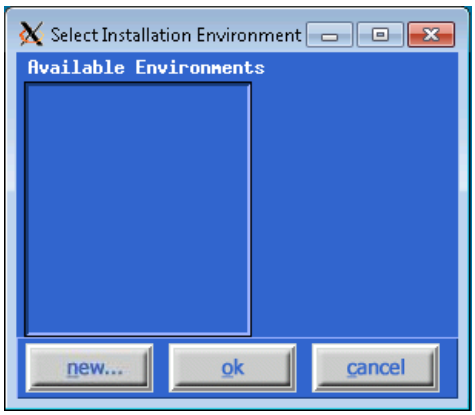
Fig. 2.9
Select Edit|Installation Media Location



4 Click Install to install the environment.

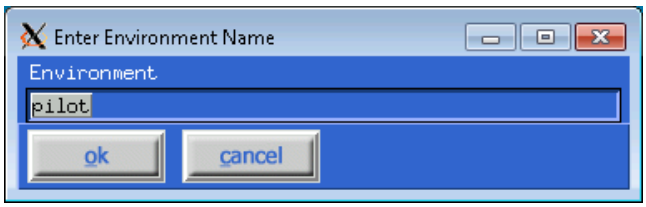
5 In the Select Installation Environment dialog box, click New.

Fig. 2.10
Select Edit|Installation Media Location



6 Accept the default name or enter a name in the Enter Environment Name dialog box and click OK.

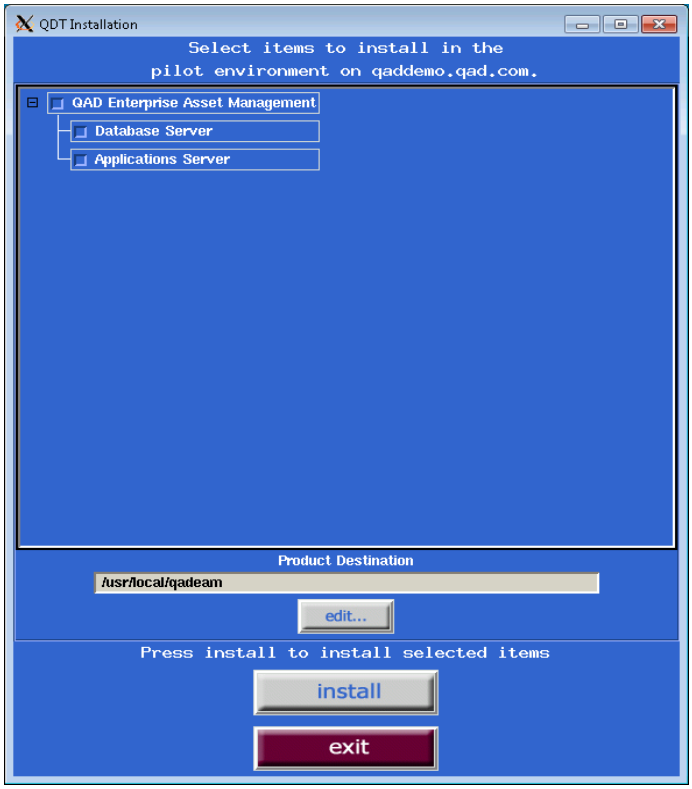
Fig. 2.11
Enter Environment Name



7 Click OK.

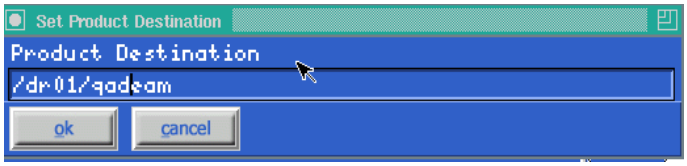
8 Verify that all of the products are selected.

Fig. 2.12
Verify Products to Install



9 Verify that the EAM destination is correct. To edit the destination, click Edit and enter the correct destination in the Set Product Destination window.

Fig. 2.13
Verify Path



Note It is common to pick an alternate destination. For example, assuming EAM's copy of QDT was installed into `/<qadappsfolder>/qdt-qadeam-pilot`, a logical choice would be `/<qadappsfolder>/qadeam-pilot`.

10 Click OK.

11 On the QDT Installation Screen (Figure 2.12), click Install.

12 A window displays the log file. When the message, "End of install process" appears, click Close.

Next Steps

After you install EAM, you must configure the EAM installation. Refer to "EAM Environment Configuration" on page 19.

Chapter 3

EAM Environment Configuration

This chapter describes how to configure the EAM environment following installation.

Overview

The QAD Deployment Toolkit (QDT) automatically finds the previously defined system information that is required to install EAM. However, you must modify the default configuration data for your EAM environment following installation.

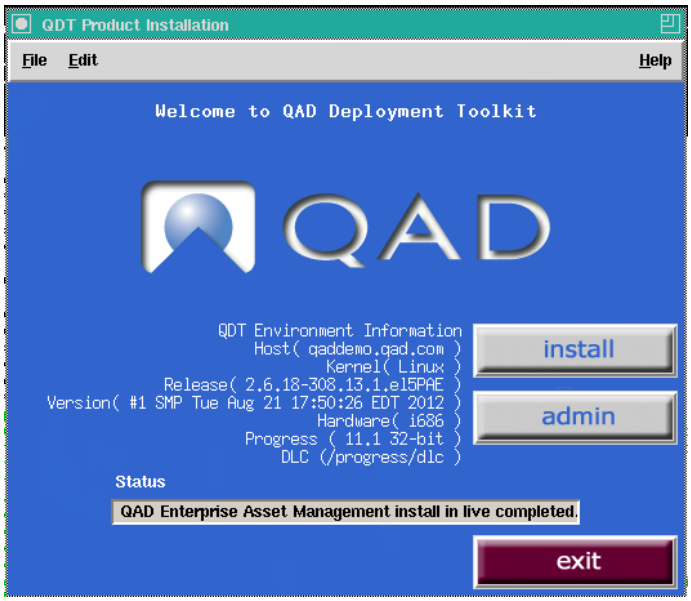
Important Incorrect modifications can cause configuration problems. Proceed with care.

Configuring the Admin Environment

After QDT installs the EAM files on your server, you must configure the environment.

1 Return to the main QDT screen and click Admin.

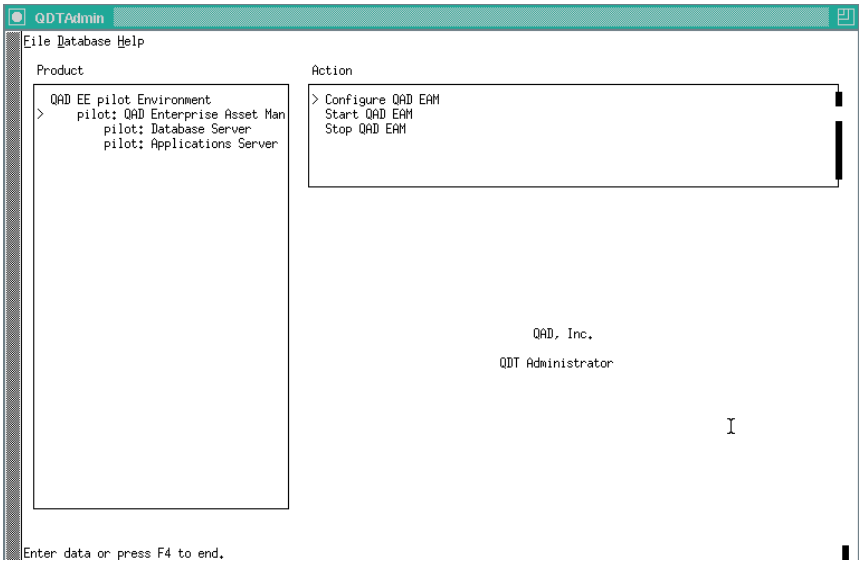
Fig. 3.1
Select Admin



2 The QDTAdmin window opens. In the Product pane, select the environment to configure.

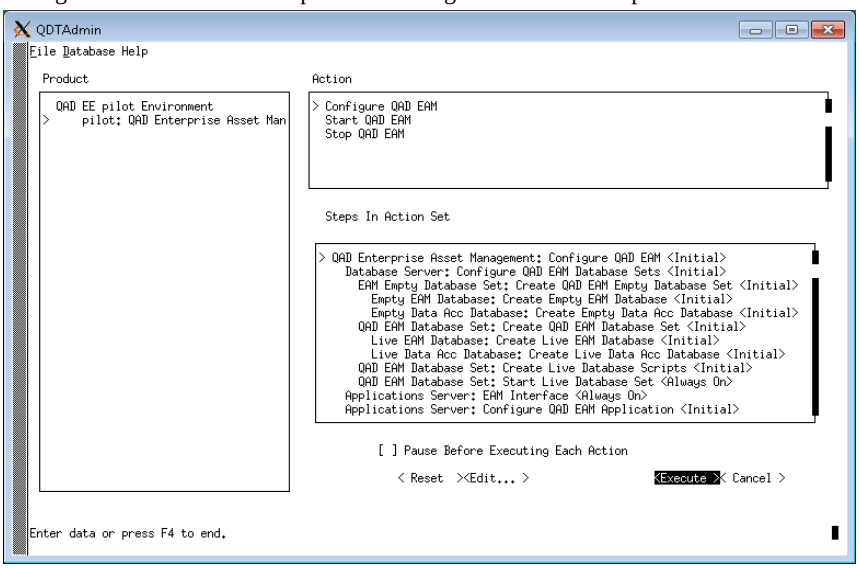
Note To expand the tree, highlight an item and press Enter.

Fig. 3.2
QDT Admin



3 Select Configure QAD EAM. The configuration steps appear in the Steps in Action Set pane.

Fig. 3.3
Configure EAM Screen with Update UI Configuration Action Step



4 Select Execute to begin the configuration process.

5 The system prompts you to confirm execution of the configuration process. Select Yes.

6 You are prompted to clear the log. Select yes.

7 Select Close. The configuration process begins and the installation script launches. A window displays the `qdtadmin.log` file, which records the configuration progress. Wait for the configuration process to finish.

Note A message displays during full synchronization that says a default set of roles was not provided for the installation. Use of this capability is optional. The warning is for information purposes only and does not affect the system.

8 When the configuration process finishes, go to the logs directory and review the `qdtadmin.log` file for errors.

9 Correct any errors and attempt the configuration again. Otherwise, select Close to exit.

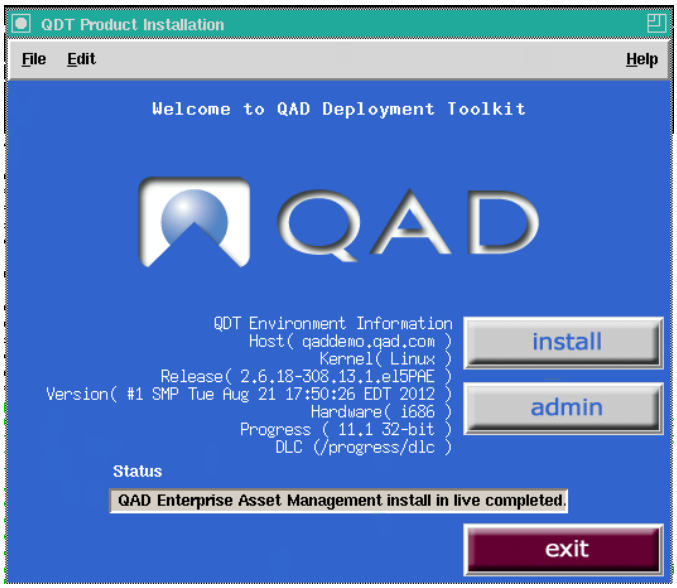
Configuring an Installation

After QDT installs the EAM files on your server, you configure the environment.

To configure the EAM environment, use the following steps:

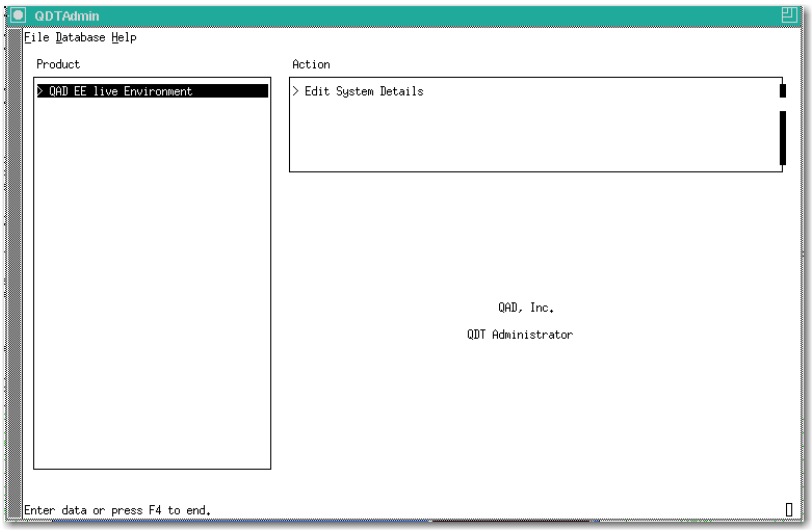
1 Click Admin on the QDT main screen. The QDTAdmin window opens.

Fig. 3.4
QDT Main Screen



2 In the Product pane, highlight the environment that you are configuring by using the up and down arrows.

Fig. 3.5
QDT Admin Screen

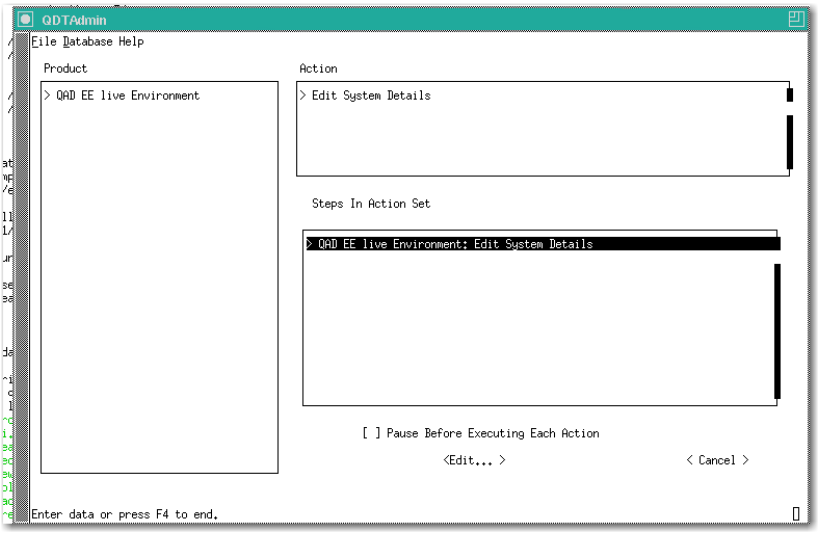


3 Press Tab to navigate to the Action pane.

4 Highlight Edit System Details and press Enter.

5 The Steps in Action Set pane appears. Press Enter to edit the system details.

Fig. 3.6
QDT Admin Screen

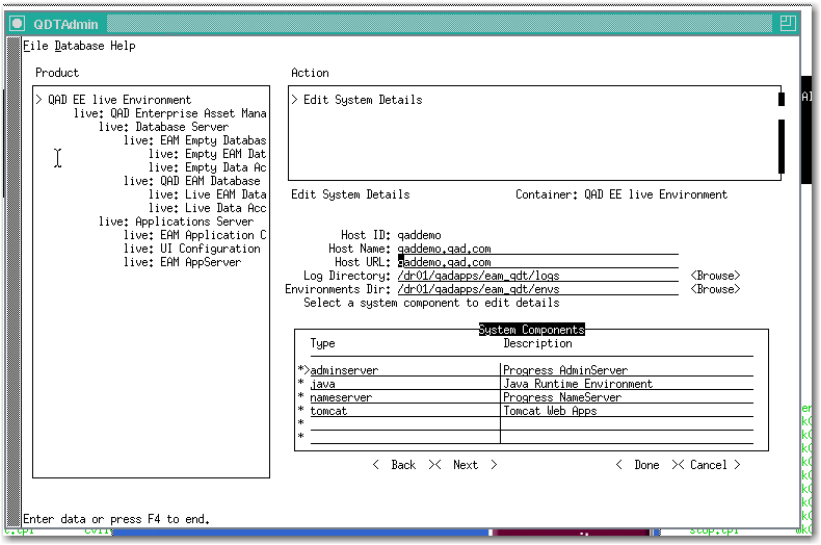


Editing System Details

The Edit System Details function allows you to specify the versions and locations of prerequisite third-party software. Under normal circumstances, the system automatically gathers this information and nothing needs to be changed.

You can edit system details for an entire environment by highlighting the environment or an individual component by highlighting the component. For example, selecting EAM allows for the sequential editing of all system details. However, highlighting `<env>:database server` just edits the database settings.

Fig. 3.7
Edit System Details



6 Highlight <*environment_name*>: Edit System Details in the Steps In Action Set pane.

7 In the Edit System Details window, verify that the following settings are correct:

- Host ID
- Host Name
- Host URL
- Log Directory
- Environments Directory
- Progress AdminServer
- Java Runtime Environment
- Progress NameServer
- Tomcat Web Apps

To change a setting, highlight the setting and press Enter.

8 After you have verified the system details, select Done.

Configuring Databases

There are four EAM databases: the empty and live EAM databases and the empty and live DATAACC databases. For each database, verify the following settings:

- Database Location
- Database Properties
- Structure File Information

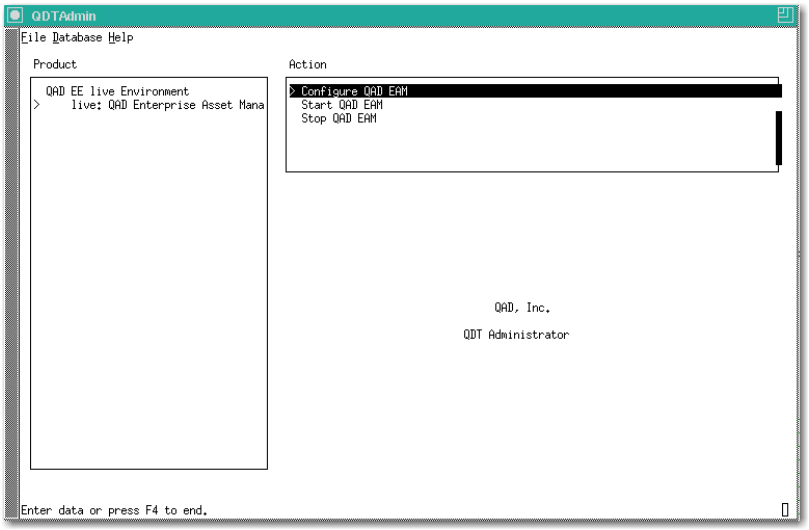
- Schema File Information
- BI Truncation Information
- Data Load Options

Once you verify the settings for a database, cycle through the settings again for the next database. Continue until you have verified these settings for all four databases.

9 In the Product pane, press Enter to expand the tree menu.

10 Highlight QAD Enterprise Asset Management.

Fig. 3.8
Edit System Details

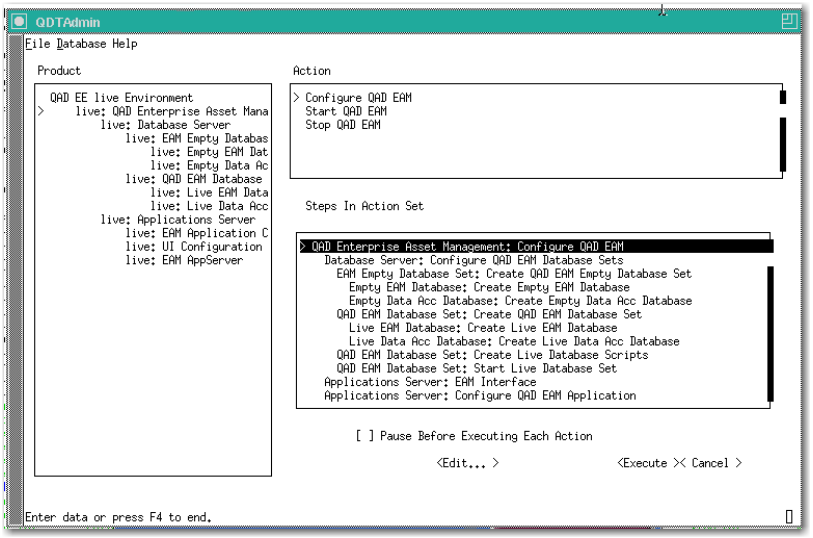


11 Press Tab to highlight Configure QAD EAM in the Action pane.

12 Press Enter.

13 The Steps in Action Set pane appears.

Fig. 3.9
Configure EAM Database Action Steps

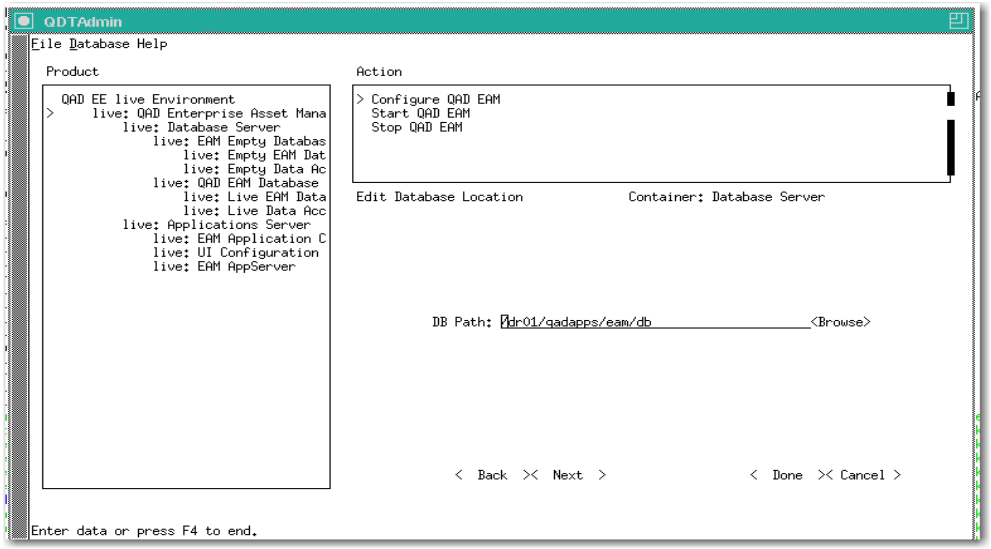


14 Highlight the first step in the Step in Action Set pane. Press Enter.

Note If Pause Before Executing Each Action is selected, the system waits after each action is performed. This option is primarily used to create conversion restore points.

15 Verify that the Database Location is correct. Select Next.

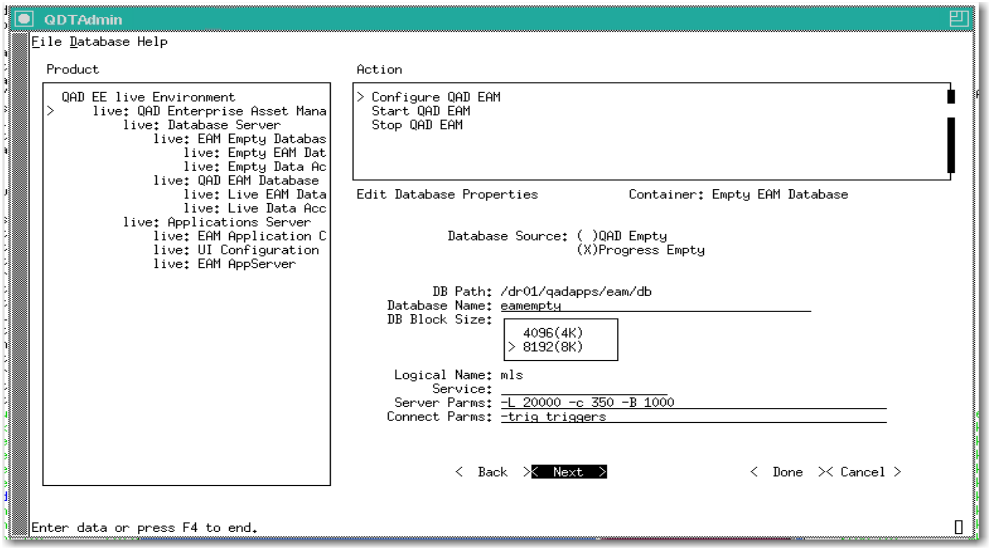
Fig. 3.10
Edit Database Location



16 Verify that the following Database Properties are correct:

- Database Source
- DB Path
- Database Name
- DB Block Size
- Logical Name
- Service. For the EAM and DATAACC databases, verify that Service Numbers are available. For the empty EAM and DATAACC databases, the Service Number should be blank.
- Server Parms
- Connect Parms

Fig. 3.11
Edit Database Properties



17 Once you verify that the Database Properties are correct, select Next to go to the Edit Structure File Information screen.

Structure File Information

The Edit Structure File Information screen defines how databases are created on the disk—the storage areas, their sizes, locations, and whether they are of fixed length.

The Structure File Information Detail screen lets you edit the Storage Area Path and the Extent Size for fixed-length extents.

- Use the Extent Pathname to distribute your database onto drives to maximize performance and optimize disk access.
- Use the Extent Size on fixed-length extents to control the size of each storage area. This field does not appear for variable-length extents.

Note Most storage areas consist of two extents—one fixed length and one of variable length to allow for growth. For performance reasons, the goal is to keep all of the data in fixed database extents. QAD Services can aid in the optimal configuration of the structure file.

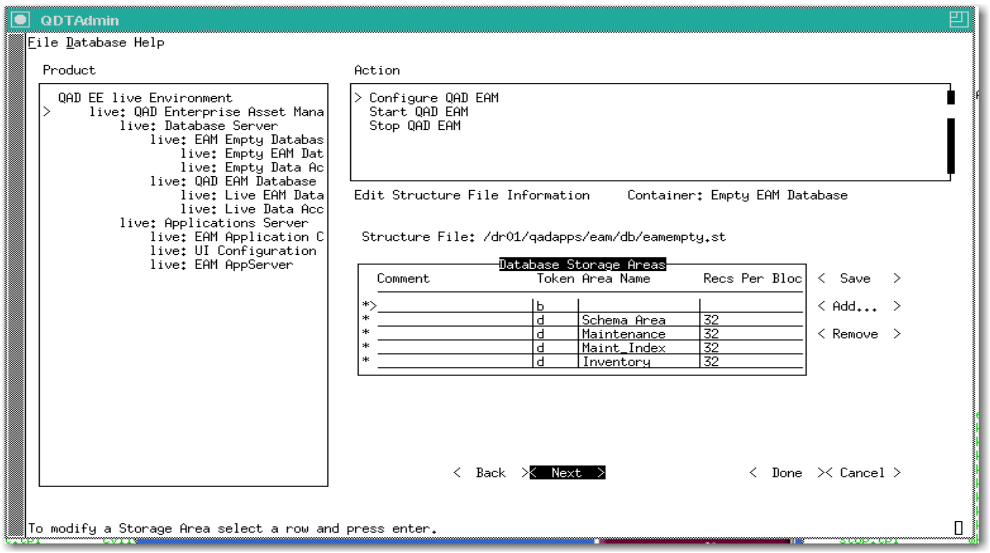
Warning Do not edit the Comment line in a storage area. Editing this line converts the storage area definition to a comment and nullifies it. To add a comment to the file, select a comment line (#) from the Database Storage Area's selection list and press Enter.

Warning Do not change the storage Area Name. This name matches the Area definition in the data definition (`.df`) files for the database. When Progress encounters data files without defined storage areas, it creates them in the system storage area, which is also used to maintain the structure of the database.

18 Verify that the Structure File Information is correct.

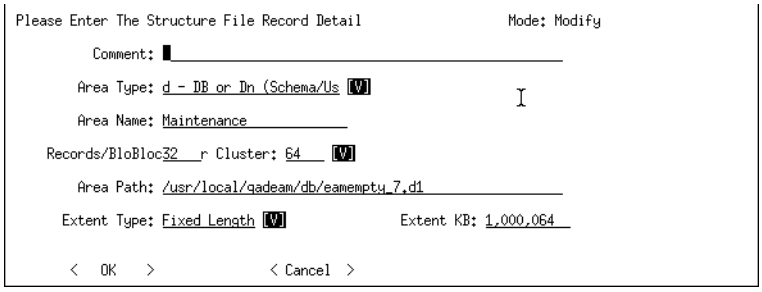
Scroll through the Progress structure file line-by-line and make any necessary modifications. You can add lines by selecting Add or edit the content of any line by selecting the line so that the line detail displays.

Fig. 3.12
Edit Structure File Information



If you select a line, the Structure File Record Detail Screen appears.

Fig. 3.13
Structure File Record Detail Screen



If necessary, modify the following parameters:

- Comment
- Area Type
- Area Name
- Records/BloBloc
- Cluster
- Area Path
- Extent Type
- Extent KB

Select OK to save the changes and return to the Edit Structure File Information screen.

Note If error messages are generated during this process, you can usually disregard them. Continue with the process. If you are unable to continue, contact QAD Support for assistance.

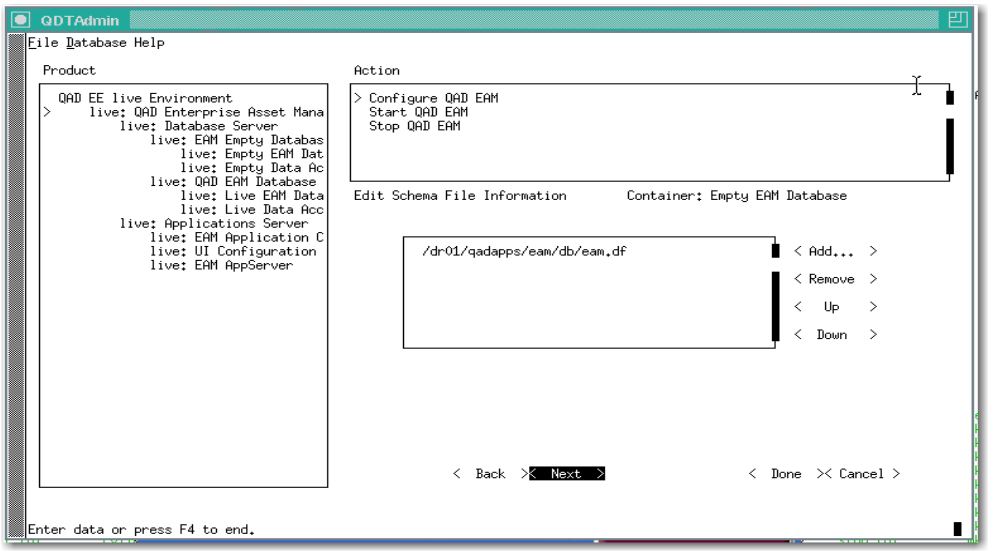
19 Once you verify that the Structure File Information is correct, select Next.

20 You may be asked if you want to save changes to the structure file. Choose whether to save the changes and select Next.

Schema File Information

21 Verify that the Schema File Information is correct. Select Next.

Fig. 3.14
Edit Schema File Information



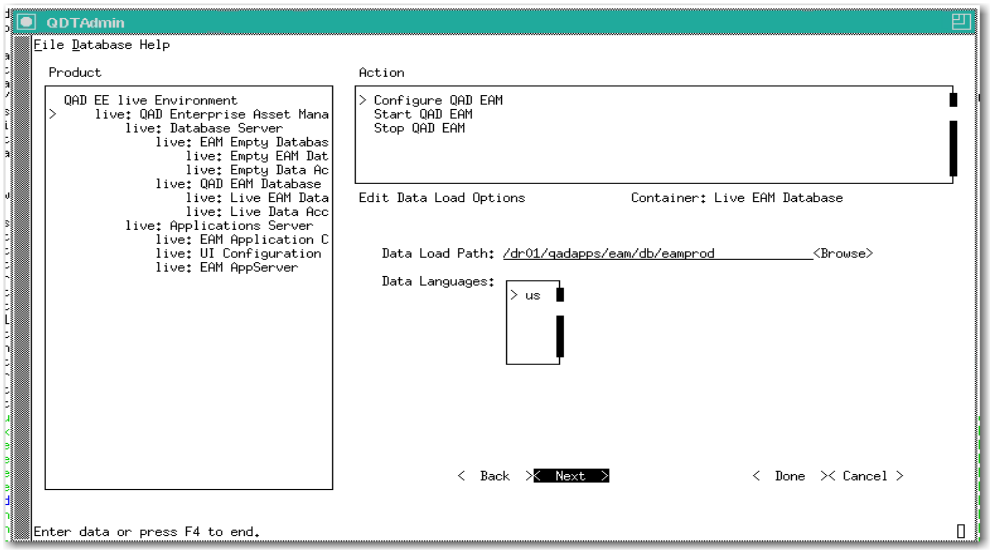
Editing Data Load Options

This screen only appears when you are configuring the Live EAM Database and Live Data Acc Database. If this screen does not appear, proceed to “BI Truncation Parameters” on page 30.

22 Verify the Data Load Options. Select Next.

Note Not all databases have data load options. If a database does not have data load options, the Edit Data Load Options screen does not display.

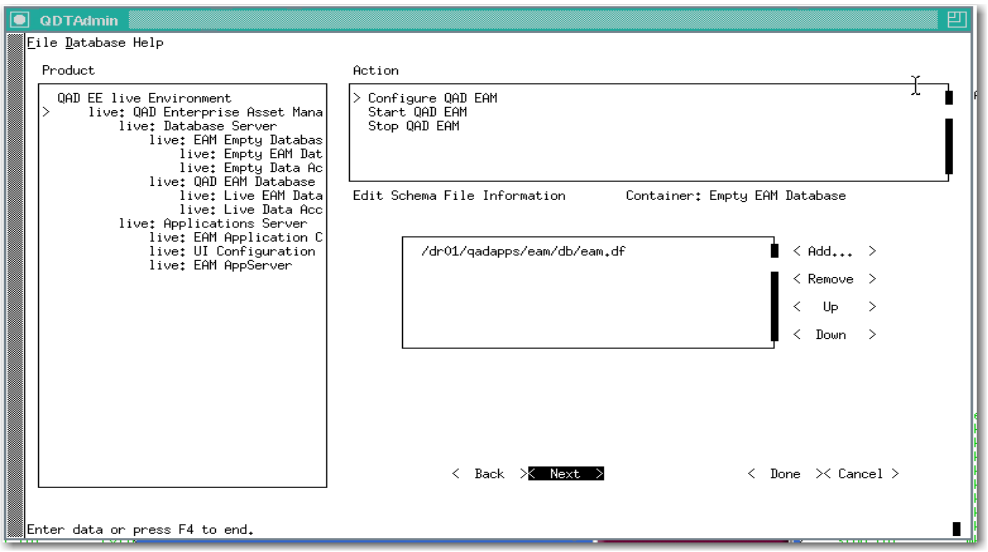
Fig. 3.15
Edit BI Truncation Parameters



BI Truncation Parameters

23 Verify that the BI Truncation Parameters are correct. Select Next.

Fig. 3.16
Edit BI Truncation Parameters



Configure the Settings for the Remaining Databases

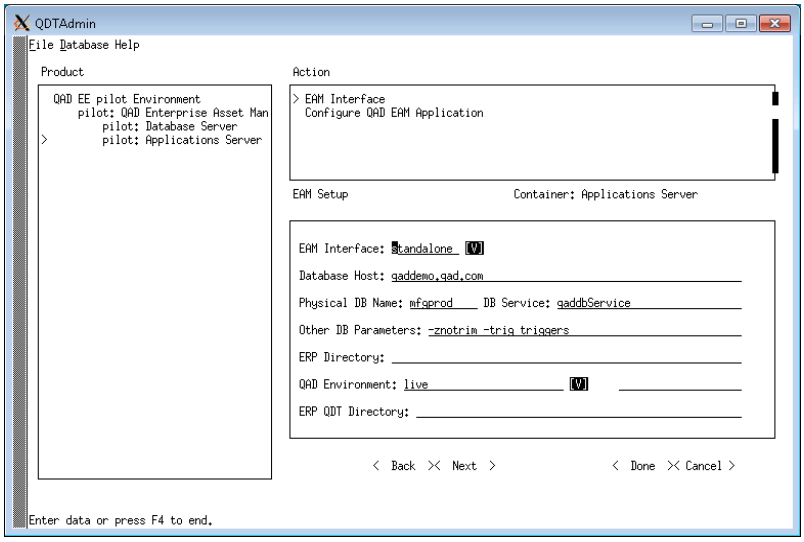
24 After you verify the BI Truncation Parameters and select Next. You are brought to the Edit Database Properties screen for the next database. Return to step 16 and repeat the configuration steps for the remaining databases.

Interfacing to QAD SE and EE

Use the following steps to interface EAM with QAD Standard or Enterprise Edition.

25 If the EAM Setup screen is not already open, select Configure EAM Interface from the Steps In Action Set pane.

Fig. 3.17
Configure EAM Application Screen



26 Select the appropriate QAD installation from the drop-down EAM Interface menu. This menu lists the available QAD environments compatible with EAM. `Standalone` is the default selection.

27 Edit the Database Host field as needed. This is the server where the QAD (qaddb) database resides. This value is used for the `-H` (host) parameter in the `qaddb.pf` database connection file.

28 Edit the DB Service field as needed. This is the Progress service for the QAD (qaddb) database. This value is used for the `-S` (service) parameter in the `qaddb.pf` database connection file.

29 Edit the Other DB Parameters field as needed. Values in this field are added to the `qaddb.pf` database connection file.

Note You can use any valid Progress database parameter in this field.

If you are interfacing with QAD SE, skip the following steps and proceed to “Completing the Configuration” on page 34.

For QAD Enterprise Edition (EE) interfaces only, follow these steps:

30 Edit the ERP Directory field as needed. This field specifies the location of the QAD EE code. If this code resides on another server, leave this field blank.

31 Select the QAD EE environment from the QAD Environment drop-down menu. If this menu is blank or does not contain the preferred environment, you can use the field next to the menu to enter the appropriate value.

32 Edit the ERP QDT Directory field as needed. This field specifies the directory containing the QAD EE (not EAM) installation code. This value cannot be the same as the EAM QDT installation code directory.

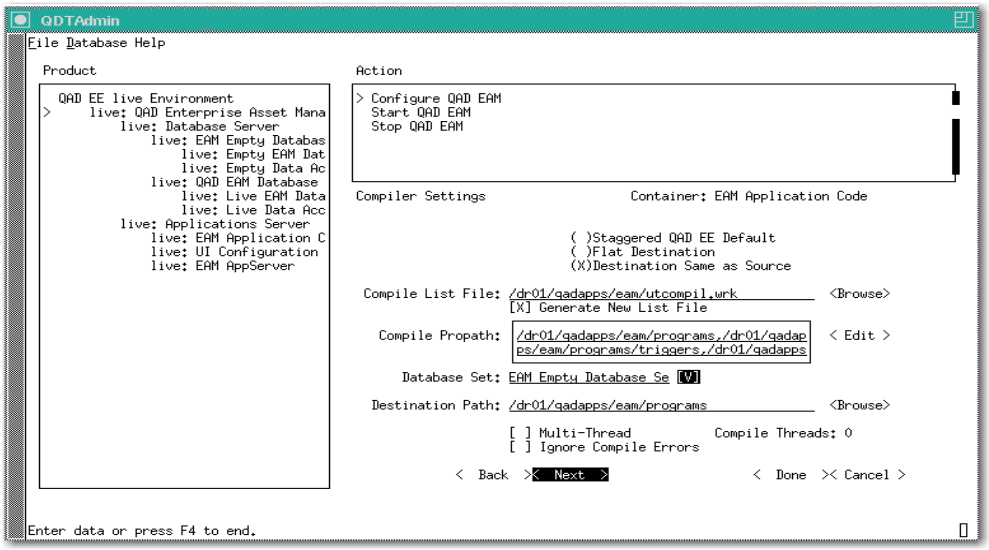
Note QDT tries to extract the QAD EE financial components from the ERP Directory and the ERP QAD Directory. If you prefer to get these components from the provided EAM files, leave these fields blank; QDT will extract the values from the EAM directory.

33 Select Next.

Configuring Environment Settings

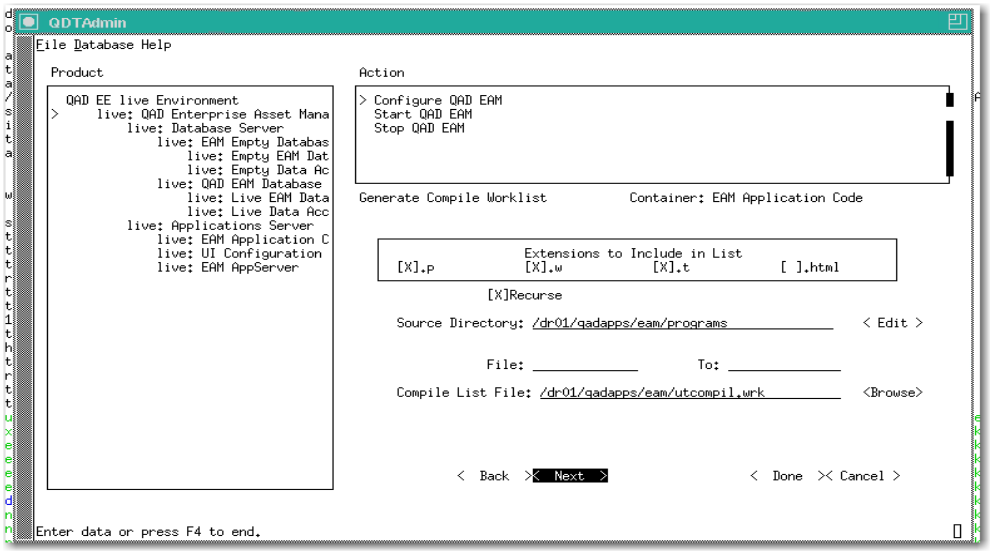
34 Verify that the Compiler Settings are correct. Select Next.

Fig. 3.18
Edit Compiler Settings



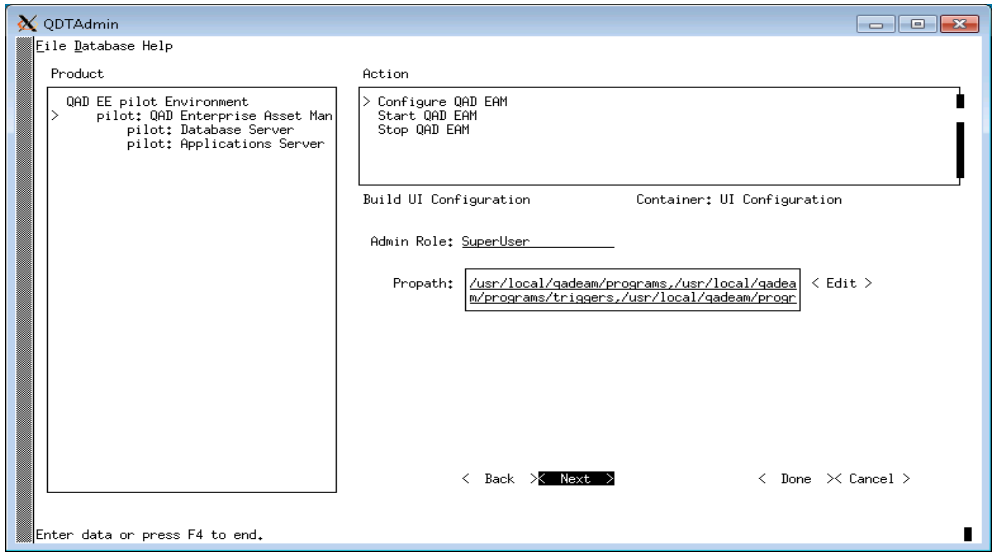
35 Verify that the settings on the Generate Compiler Worklist screen are correct. Select Next.

Fig. 3.19
Generate Compiler Worklist



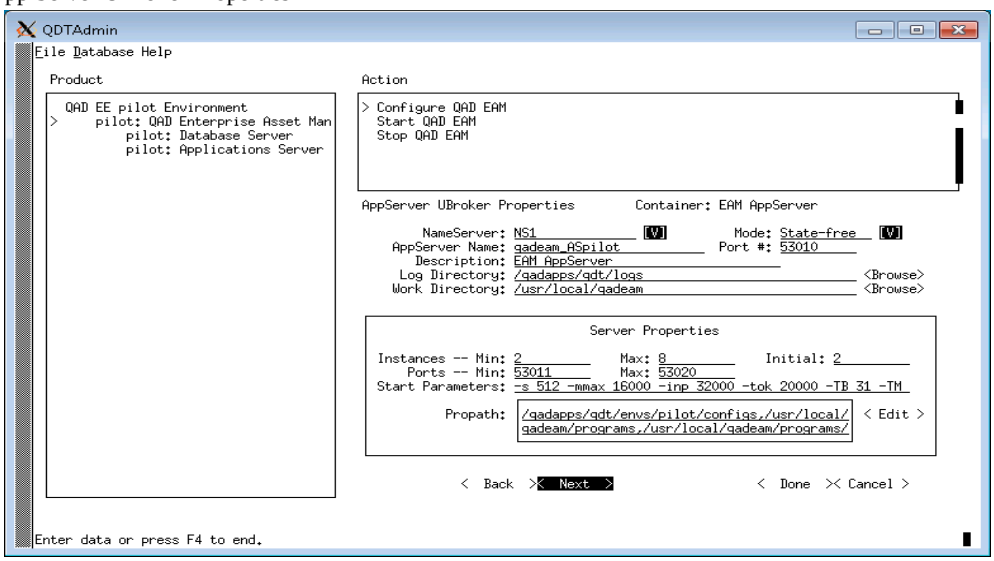
36 Verify that the settings on the Build UI Configuration screen are correct. Select Next.

Fig. 3.20
Build UI Configuration



37 Verify that the App Server UBroker Properties are correct.

Fig. 3.21
App Server UBroker Properties



38 If you are installing EAM to work with Standard Edition, go to “Completing the Configuration” on page 34. Otherwise, proceed to the next section.

Manually Setting Up QAD EE Financial Components

Modification of QAD EE financial component files is required to interface EAM with QAD EE. When EAM and QAD EE are installed on the same server, QDT automatically makes these modifications.

However, if EAM is installed on a different server than QAD EE, follow the procedure in this section to manually modify the financial component files. If EAM and EE are installed on the same server, skip this section and proceed to “Completing the Configuration” on page 34.

To manually set up the QAD EE financial components files:

1. Copy `<EAM_directory>/programs/fin_src/<QAD_EE_version>/cbserver.tpl` to the `<QAD directory>/envs/<EAM_environment>/configs` directory.
2. Rename `<QAD_directory>/envs/<EAM_environment>/configs/cbserver.tpl` to `<QAD_directory>/envs/<EAM_environment>/configs/cbserver.xml`.
3. In this file, enter the appropriate information for these values:
   - `host` = The QAD EE server name
   - `nsport` = The Progress NameServer port
   - `qadfinas` = The QAD Financial AppServer name
4. Copy `<EAM_directory>/programs/fin_src/<QAD_EE_version>/env.p` and `<EAM_directory>/programs/fin_src/<QAD_EE_version>/proxy.pl` to the `<EAM_directory>/programs/fin` directory.

   Note This step overwrites the existing `env.p` and `proxy.pl` files in the target `fin` directory.
5. Create a `proxy` sub-directory in the `<EAM_directory>/programs/fin` directory.
6. Copy the directories `<EAM_directory>/programs/fin_src/<QAD_EE_version>/bposting` and `<EAM_directory>/programs/fin_src/<QAD_EE_version>/datasets` to the `<EAM_directory>/programs/fin/proxy` directory.

Completing the Configuration

To complete the custom configuration, do the following:

1. If you have no further configuration changes, go to the QDTAdmin screen and select Execute.
2. The system prompts you to confirm execution of the configuration process. Select Yes.
3. You are prompted to clear the log. Select Yes. The configuration process begins. The installation script launches.
4. Select Close. A window displays the `qdtadmin.log` file, which records the configuration progress.

   Note A message displays during full synchronization that says a default set of roles was not provided for the installation. Use of this capability is optional. The warning is for information purposes only and will not impact the system.
5. When the configuration process finishes, go to the logs directory and review the `qdtadmin.log` file for errors.
6. Correct any errors and attempt the configuration again. Otherwise, select Close to exit.

Applying the Fixed Asset Patch (EE Only)

If you are integrating EAM with Enterprise Edition 2010.1 through 2013.1, you must install the following patch to complete the integration. Skip this section if you are integrating with any SE version or 2014 EE or higher.

The files described in this section are found in: *<add_ons>*/QAD_patches/fa.

1 Update the QXtend installation's controllers.xml file.

   a Locate the controllers.xml file in:

   <qad_application location>/qxtend/config or

   <qad_applications location>/qea.

   b Edit controllers.xml by adding the following code directly above the </controllers> line:

   When integrating with EE 2010.1, add:

```
<component>
  <name>FixedAssets</name>
  <apiMethod>
    <apiName>maintainFixedAssets</apiName>
    <apiType>transaction</apiType>
    <className>com.qad.mfgpro.api.FixedAssetsController</className>
     <extProgram>faapimt.p</extProgram>
        </apiMethod>
 </component>
```

   When integrating with EE 2011 - 2013.1, add:

```
<component>
  <name>FixedAssets</name>
  <apiMethod>
    <apiName>maintainFixedAssets</apiName>
    <apiType>transaction</apiType>
    <className>com.qad.erp.api.FixedAssetsController</className>
    <extProgram>faapimt.p</extProgram>
  </apiMethod>
</component>
```

2 Apply the fixed asset API code to the ERP system's xrc folder.

   a When integrating with EE 2010.1, copy the contents of *<add_ons>*/QAD_patches/fa-2010.1 to:

   <qad_application_location>/xrc

   Then copy FixedAssetsController.cls to:

   <qad_application_location>/xrc/com/qad/mfgpro/api

   b When integrating with EE 2011, copy the contents of *<add_ons>*/QAD_patches/fa-2011 to:

   <qad_application_location>/xrc

   Then copy FixedAssetsController.cls to:

   <qad_application_location>/xrc/com/qad/mfgpro/api

   c When integrating with EE 2012 - 2013.1, copy the contents of <add_ons>/QAD_patches/fa-2012+ to:

   <qad_application_location>/xrc/us/fa

Then copy `FixedAssetsController.cls` to:

`<qad_application_location>/xrc/com/qad/erp/api`

3 Use QDT to recompile Enterprise Edition, or if practical, individually compile each of these modified files.

4 Move the file `FixedAssetsController.r` to its final location.

a Using the Linux `find` command, locate the file. It should be located in:

`<qad_application_location>/qxtend`

If you cannot locate this file, contact QAD Support for assistance.

b Move this file to:

`<qad_application_location>/qxtend/com/qad/<mfgpro or erp>/api`

5 Add `faapimt.p` to the EE's Menu Security and grant access to the EAM integration login ID (which is usually `mfg`).

Multiple Environments

You can install EAM in multiple environments (for example, test and production). Repeat the installation process described in this chapter for each environment. Use separate Tomcat Web server directories and ports for each environment. For example, the original webapp could be `qadhome_eam` (to be used in production) and a second might be `qadhome_eam_pilot`.

If you install EAM in multiple environments, perform the applicable configuration procedures in this chapter separately for each environment. Then launch the application and perform post-installation configuration for each environment.

Next Steps

Proceed to "Launching EAM" on page 37. If you have installed EAM in multiple environments, launch the application and perform post-installation configuration for each environment.

Chapter 4

Launching EAM

This chapter describes how to launch the EAM product.

Starting EAM

The applications server build creates launch scripts for UNIX and Linux or icons and Start menu links for Windows.

Test your startup scripts with the following steps. You can use these same steps to start Progress database servers and character clients.

Note Before starting EAM, completely exit from the QDT. Exiting QDT updates the EAM prerequisites in the QDT XML files.

Windows Installations

To start EAM, select EAM from the Start menu. EAM starts.

UNIX and Linux Installations

Follow these steps for UNIX and Linux installations:

1. Verify that Tomcat, Progress, and Java have started. If they have not started, launch them using the following scripts:

   Note You must have permission to run these scripts.

   Linux/UNIX:

   Progress Admin Server: `$DLC/bin/proadsv -start`

   Progress Name Server: `$DLC/bin/nsman -i NS1 -start`

   Tomcat: `/dr01/tomcat/8080/bin/startup.sh`

   Windows:

   Tomcat: `/dr01/tomcat/8080/bin/startup.bat`

   Progress: Use Progress Explorer to start the Progress Admin Server and Progress NameServer.

2. Navigate to the `QDT/eam/envs/<EnvironmentName>/scripts` directory and launch the server script:

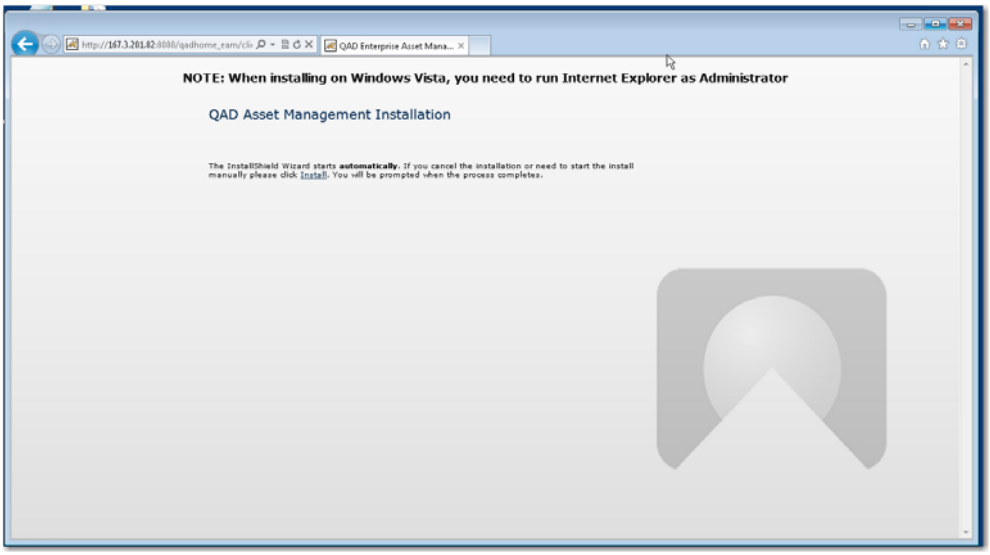
   Databases: `./start.EnvironmentName`

   AppServer broker: `./startqadeam_AS.ksh`

3. Install the client by opening the following URL:
   `http://tomcat_server:port_number/qadhome_eam`

   Note Multiple environments require multiple installation URLs. For example, if a `qadhome_eam_pilot` environment was created in addition to a `qadhome_eam_production` environment, the installation URL for the pilot environment would be `http://tomcat_ server:<port number>/qadhome_eam_pilot`.

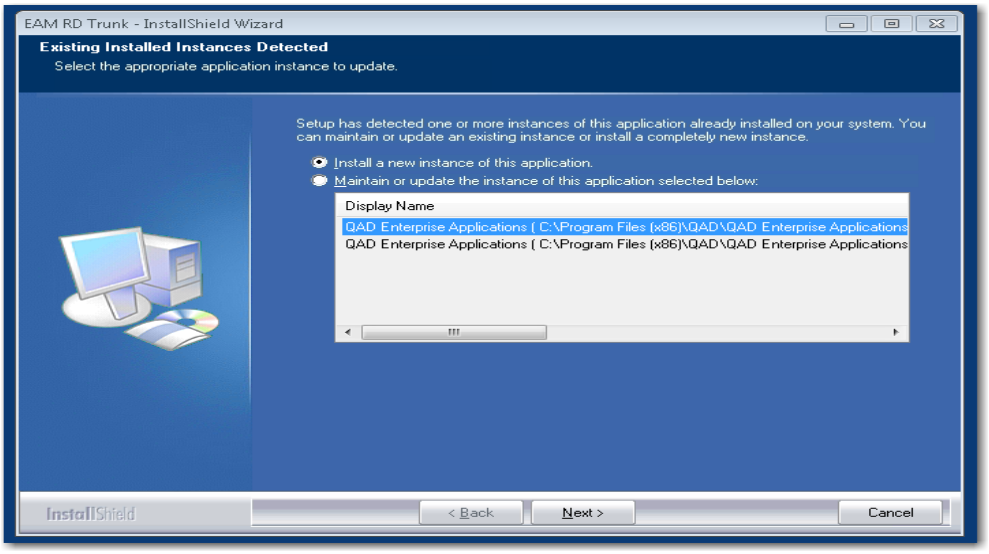
Fig. 4.1
Installing the Client



4 A window appears asking if you want to run this setup. Select the “I understand” option and click OK.

5 Select Install New Instance of this Application. Click Next.

Fig. 4.2
Install New Instance



6 Verify that the install location is correct. Click Next.

7 Select that you want a shortcut on the desktop and in the programs folder. Click Next.

8 Enter the shortcut name. Click Next.

9 The Client starts loading.

Log In to EAM

Verify that you can log in to EAM using the following username and password:

- Username: sysadm
- Password: Leave this field blank
- Log On To: qadeam

Exiting EAM

To exit EAM, select End on the EAM Main Menu.

Backing Up the Database

At this point, you should do a complete backup of the entire database and directory structure.

Chapter 5

Post-Installation Configuration

This section describes activities to perform after completing an installation to ensure that the application is ready for use.

Overview

You can integrate Enterprise Asset Management with QAD Enterprise Edition by using QXtend. However, QXtend is not preconfigured for EAM and you must use the steps in this section for an integration to work properly. This section describes the steps required for this integration to work properly.

Note The “Configure QXtend”section assumes a working knowledge of the QXtend product, including QXtend configuration and administration.

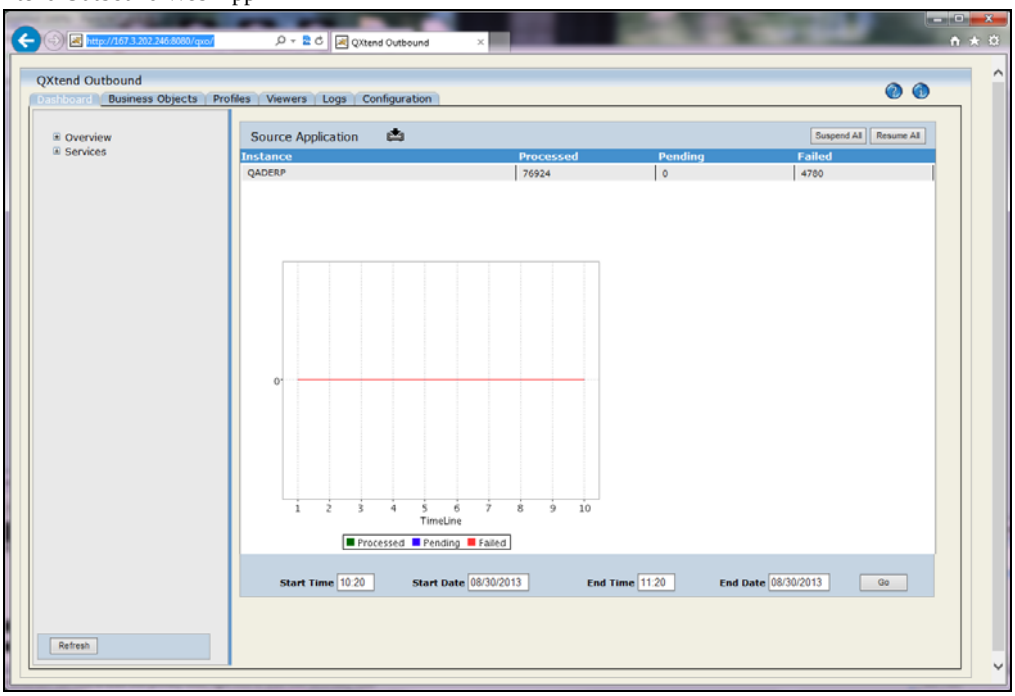
Configure QXtend

Follow these steps to configure QXtend for use with EAM:

1 In Windows Explorer, navigate to QXtend Outbound Web App:
`http://tomcat_server:port_number/qxo`

Note Run newer versions of Windows Explorer in compatibility mode.

Fig. 5.1.
QXtend Outbound Web App

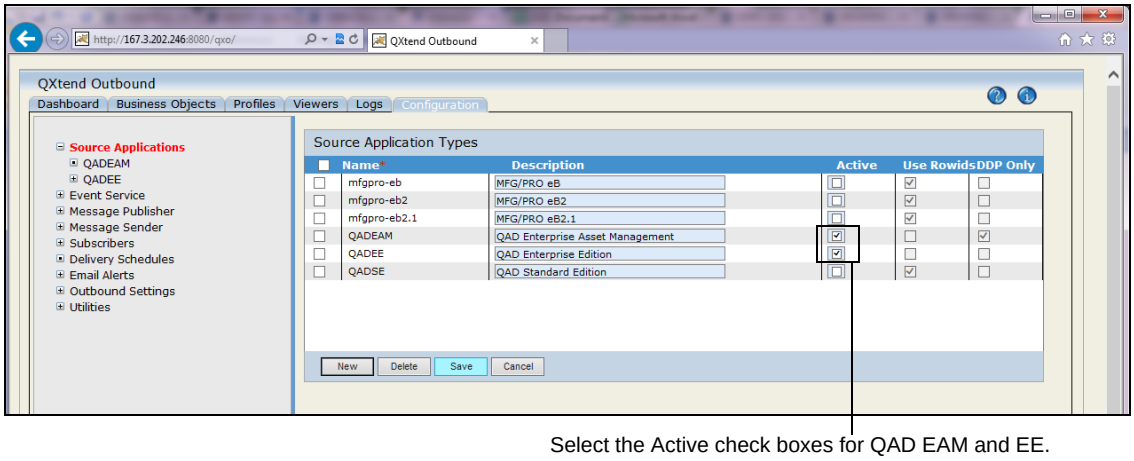


QXO Source App and XML Import

2 Select the Configuration tab.

3 Select Source Applications. For the QADEE Source Application Type, select the Active check box. Verify that the Active check box for QAD Enterprise Asset Management is selected.

Fig. 5.2.
Source Application Types



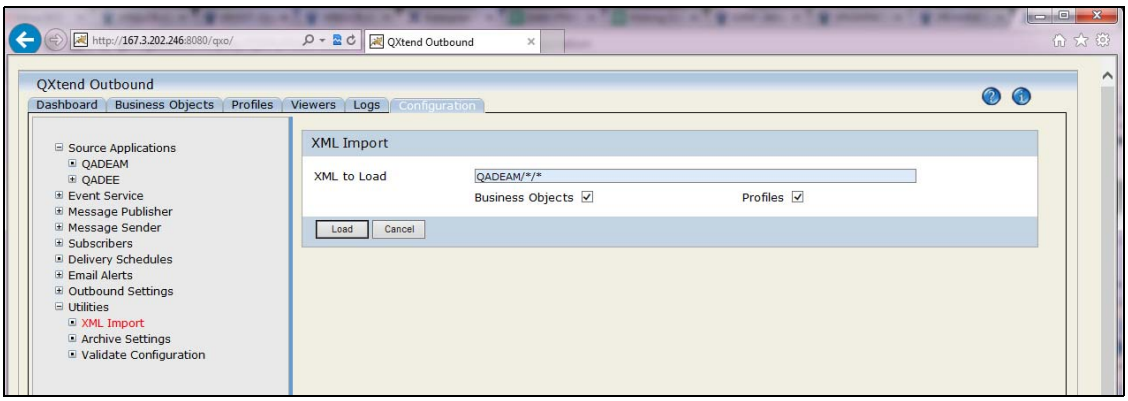
4 Select Utilities|XML Import.

5 Enter QADEAM/*/* in the XML to Load field.

6 Select the Business Object and Profiles check boxes.

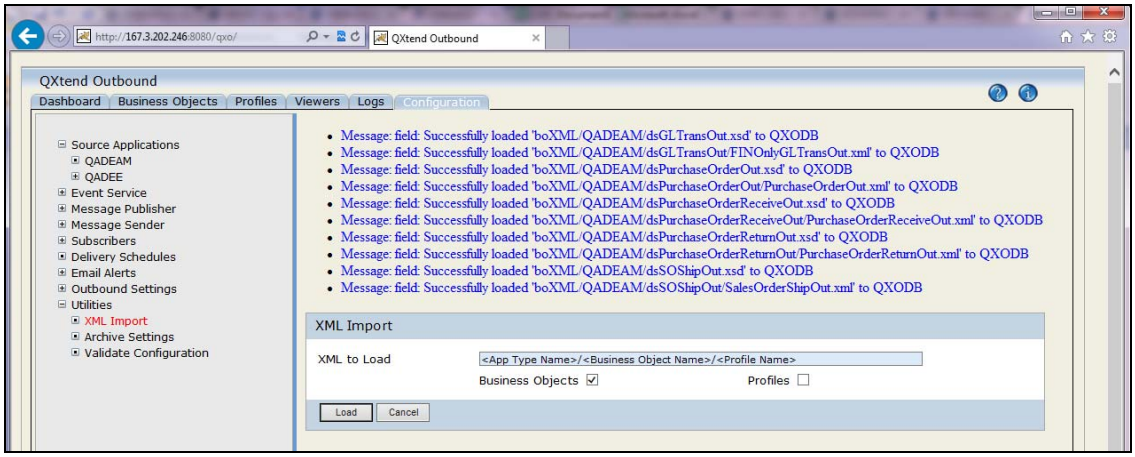
7 Click Load.

Fig. 5.3.
XML Import



8 Once the XML loads, verify that a list of messages appears indicating that the XML successfully loaded.

Fig. 5.4.
XML Loading Messages.

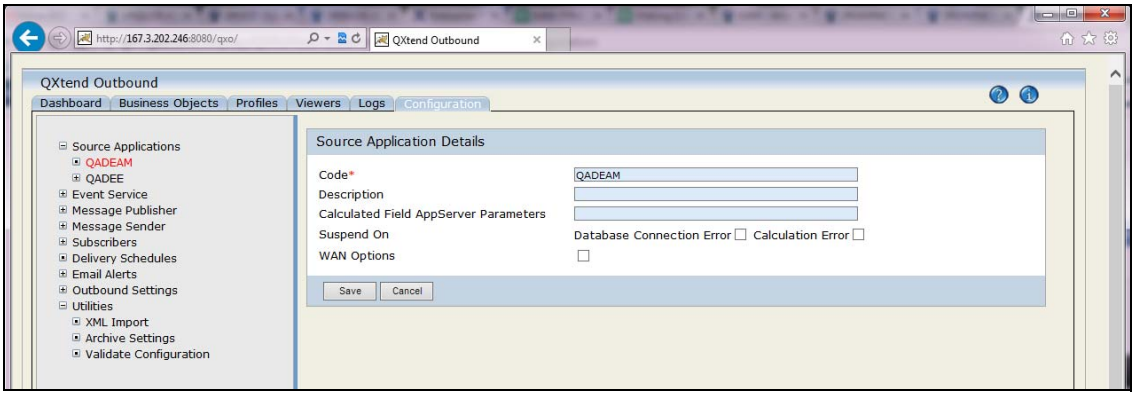


QXO Event Types

9 Select Source Application|QAD EAM. Click New.

10 Enter QADEAM in the Code field. Click Save.

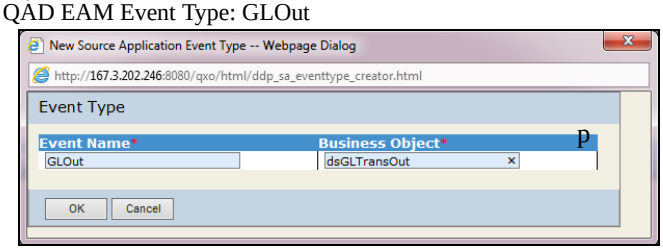
Fig. 5.5.
QADEAM Source Application Details



11 Expand the QADEAM menu option and select Event Types. Click New.

12 Enter GLOut in the Event Name field. Enter dsGLTransOut in the Business Object field. Click OK.

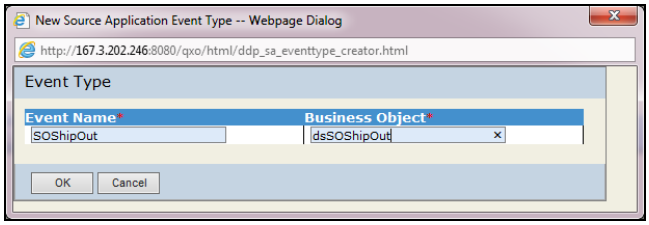
Fig. 5.6.
QAD EAM Event Type: GLOut



13 Click New.

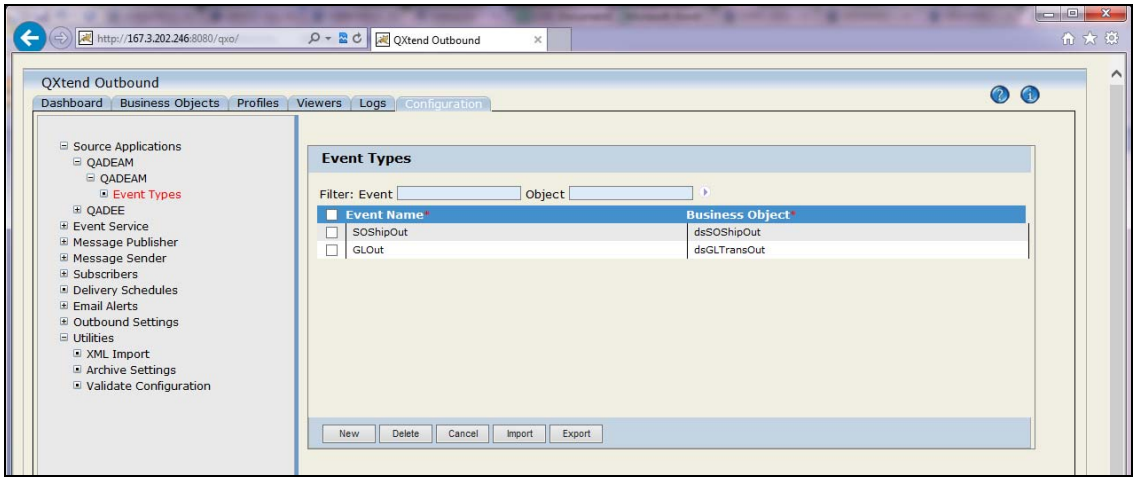
14 Enter SOShipOut in the Event Name field. Enter dsSOShipOut in the Business Object field. Click OK.

Fig. 5.7.
QAD EAM Event Type: SOShipOut



15 Verify that the GLOut and SOShipOut Event Types are listed on the screen.

Fig. 5.8.
QADEAM Event Types

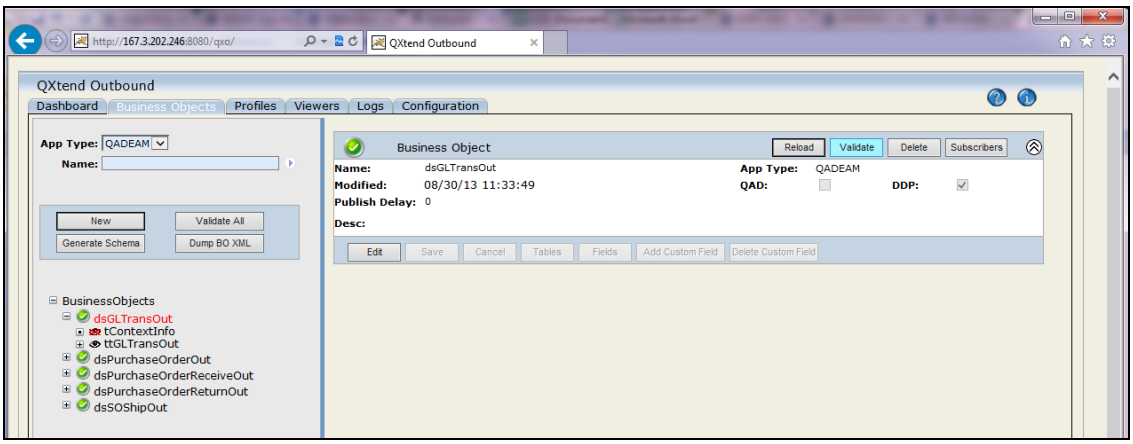


QXO Business Object Validation

16 Select the Business Objects tab.

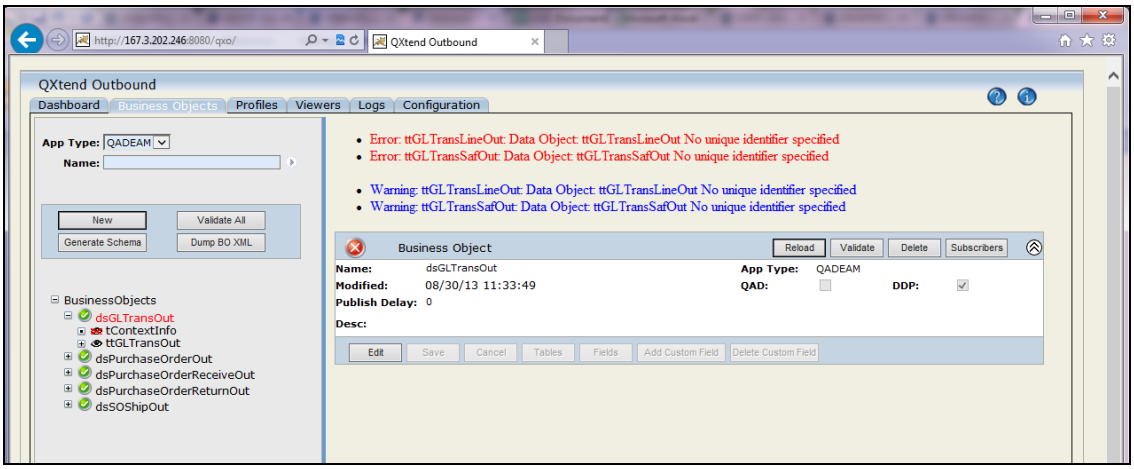
17 Select QADEAM from the App Type drop-down menu. Click Validate.

Fig. 5.9.
Validating Business Objects



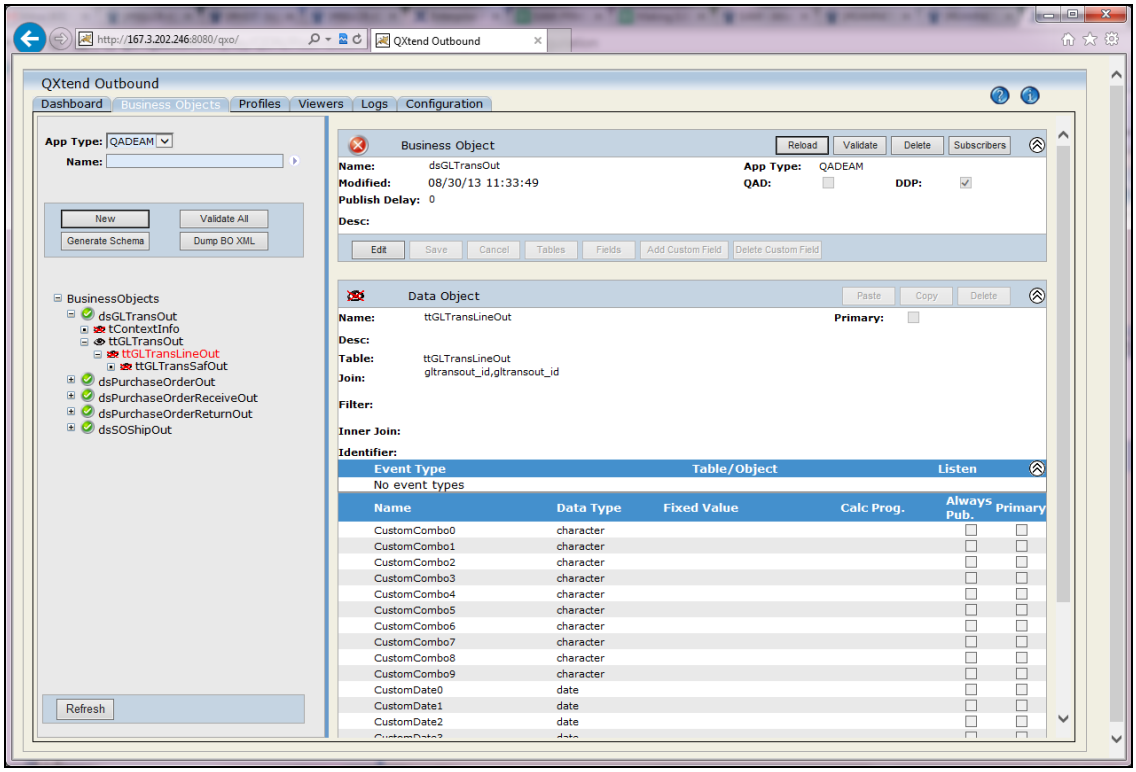
18 Note the validation errors.

Fig. 5.10.
Business Object Validation Errors



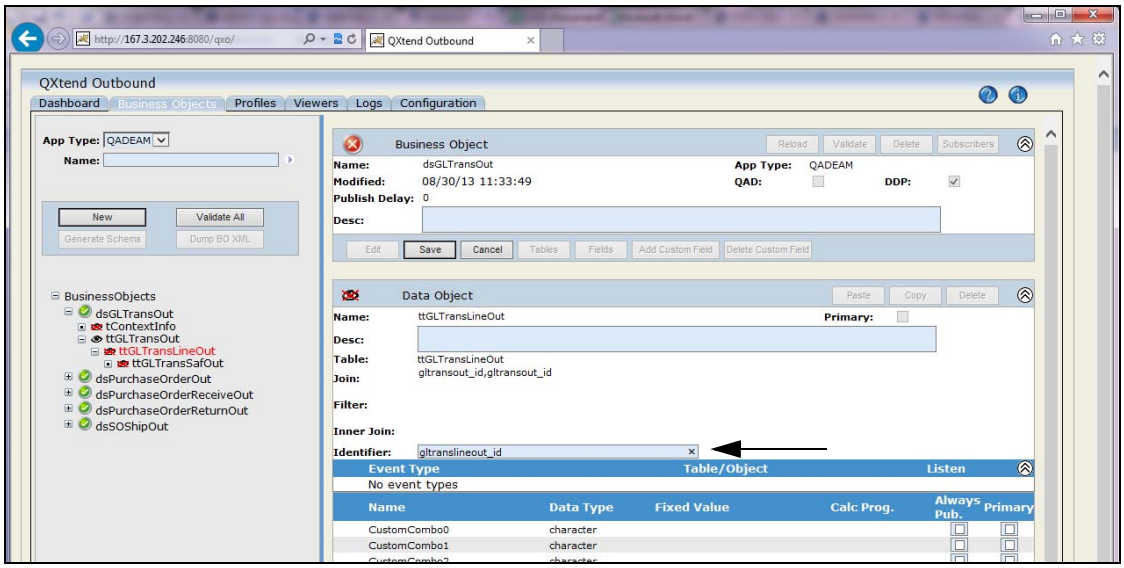
19 Expand the dsGLTransOut menu option and select ttGLTransLineOut. Click Edit

Fig. 5.11.
Editing the ttGLTransLineOut Data Object



20 Enter gltranslineout_id in the Identifier field. Click Save.

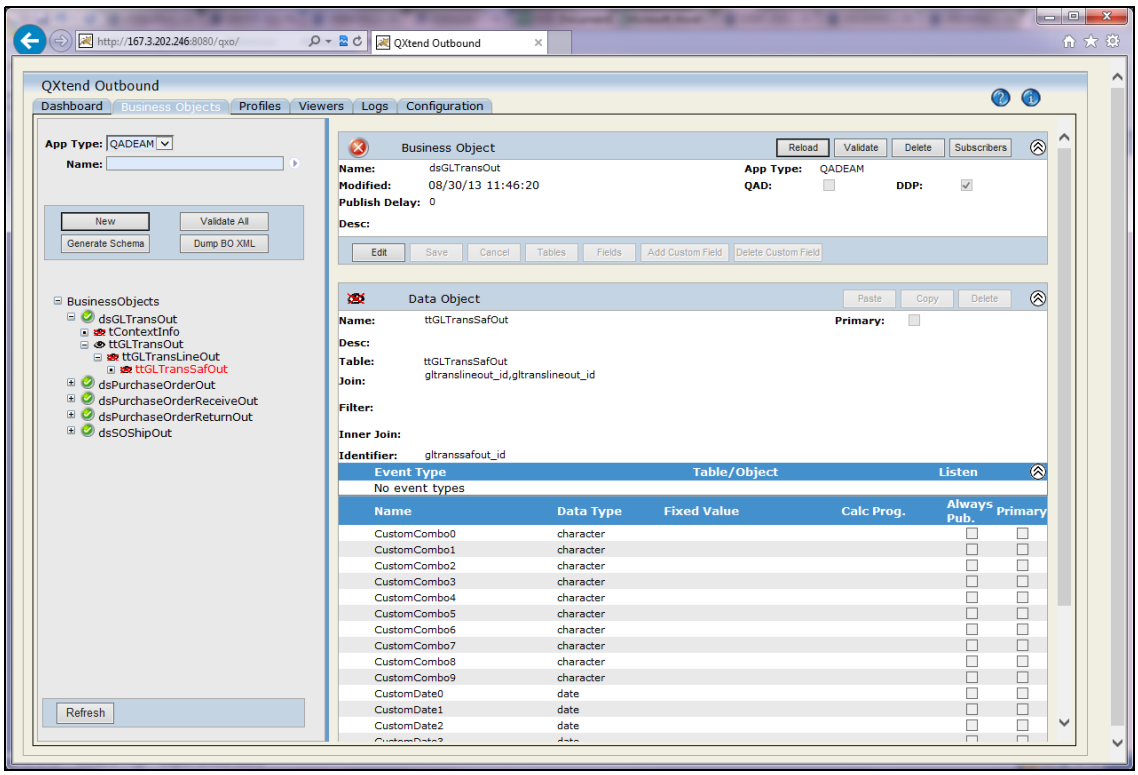
Fig. 5.12.
Editing the ttGLTransLineOut Data Object



21 Select ttGLTransSafOut menu option. Click Edit.

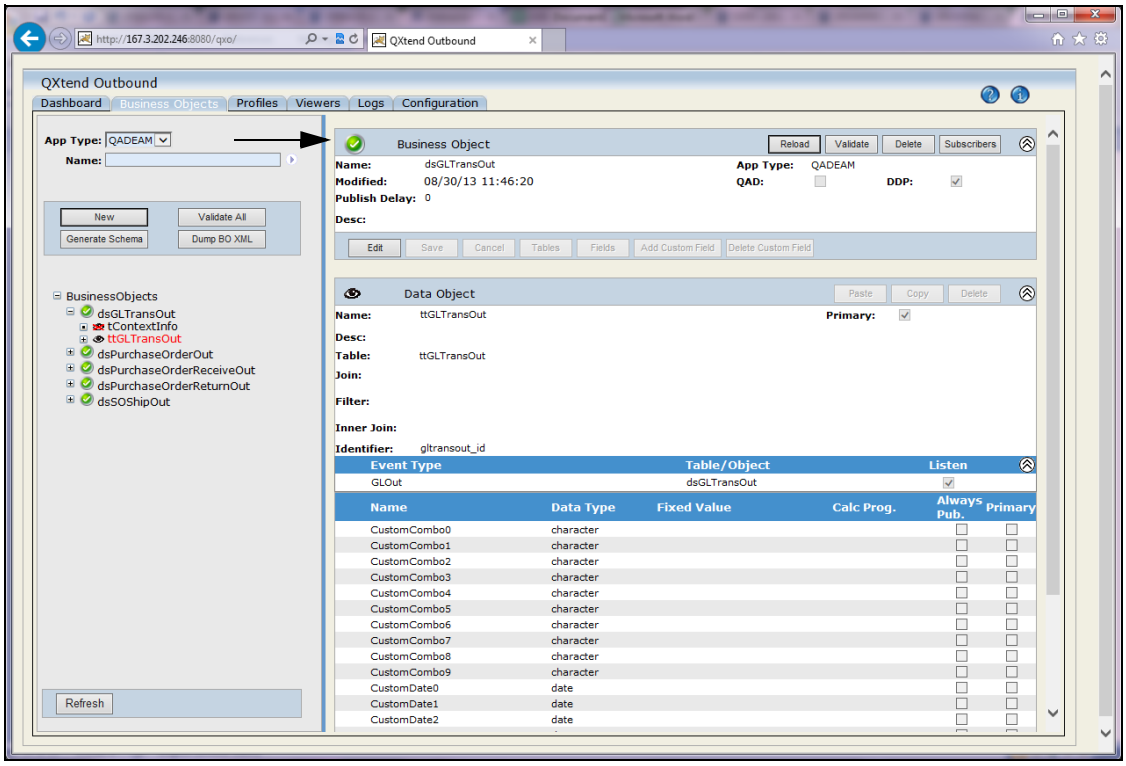
22 Enter gltranssafout_id in the Identifier field. Click Save.

Fig. 5.13.
Editing the ttGLTransSafOut Data Object



23 Select dsGLTransOut menu option and click Validate. Verify that there are no errors or warnings. A green check mark should appear in the Business Object header.

Fig. 5.14.
Verify No Validation Errors



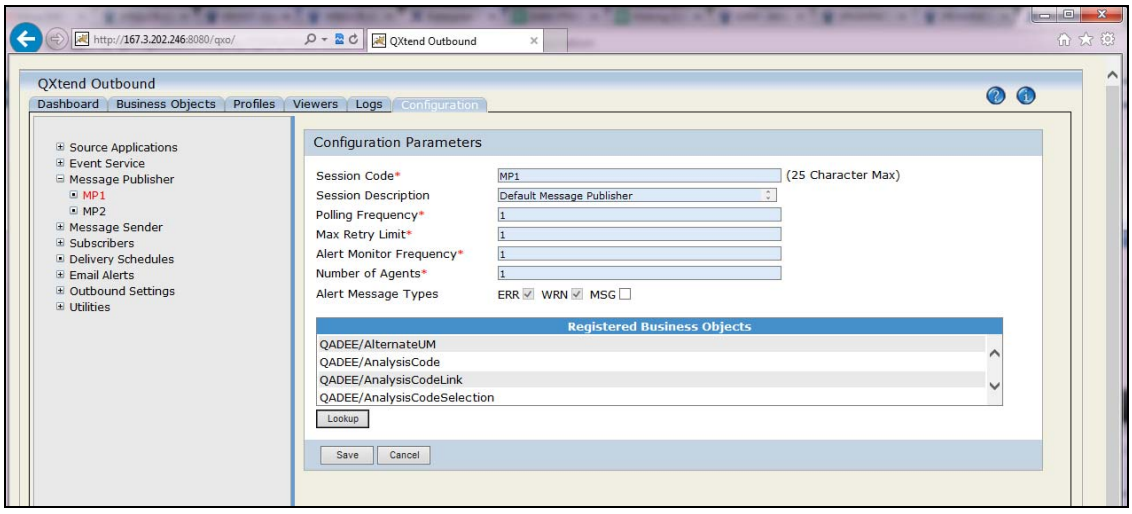
QXO Publisher

Register QADEAM/dsGLTransOut with the Message Publisher.

24 Select the Configuration tab.

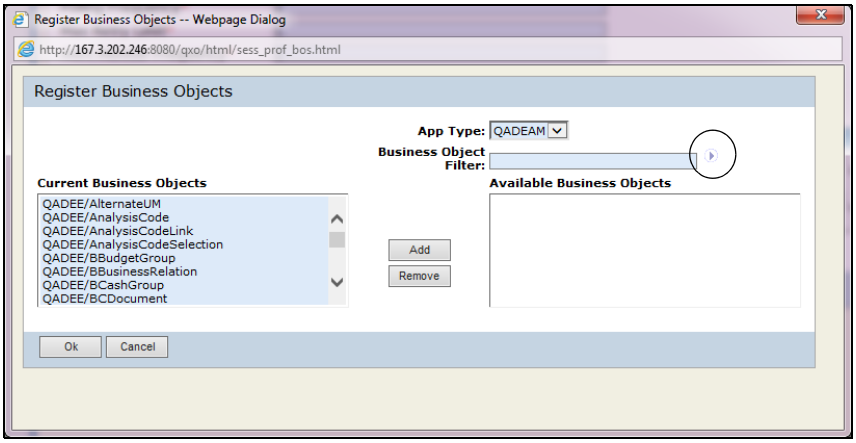
25 Select Message Publisher|MP1.

Fig. 5.15.
MP1 Message Publisher



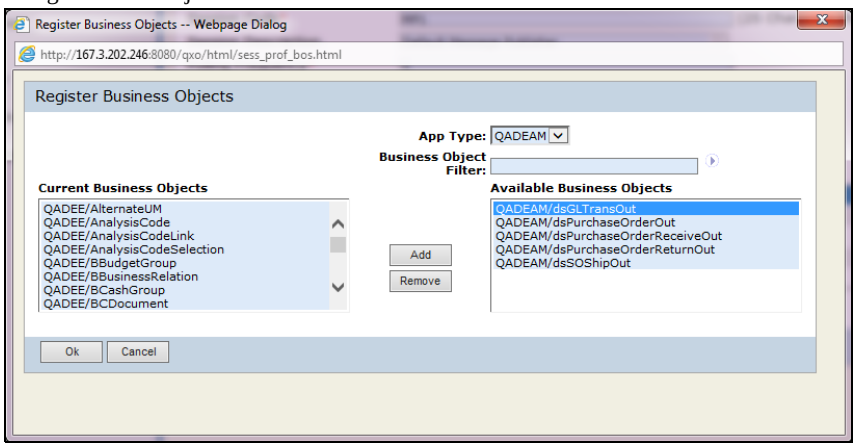
26 Click Lookup. Populate the available business objects by clicking the arrow next to the Business Object Filter field.

Fig. 5.16.
Register Business Objects



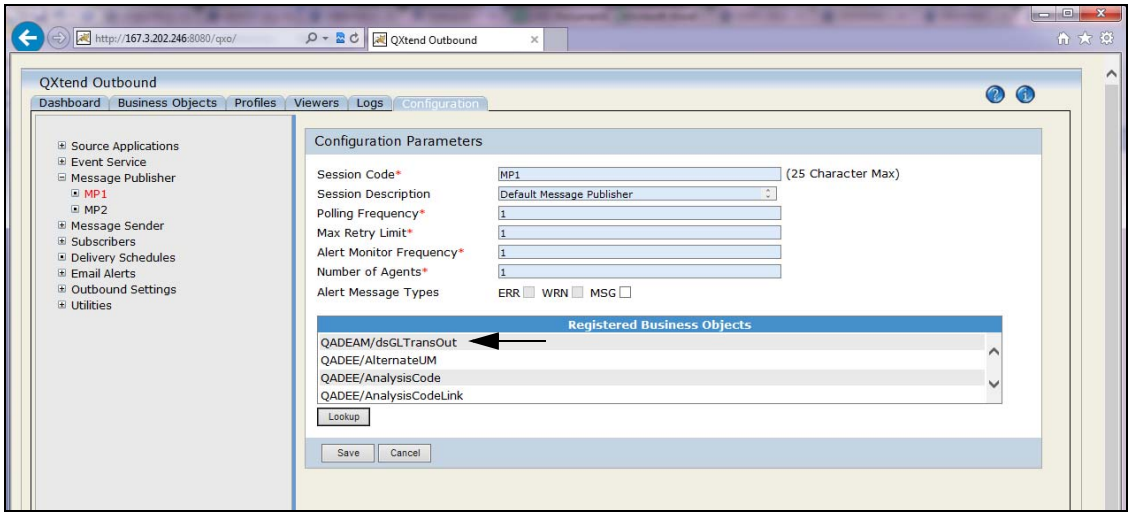
27 A list of available business objects appears in the pane. Select QADEAM/dsGLTransOut and click Add. Then click OK.

Fig. 5.17.
Adding Business Objects



28 Verify that QADEAM/dsGLTransOut is listed as a Registered Business Object. Click Save.

Fig. 5.18.
Saving Registered Business Objects



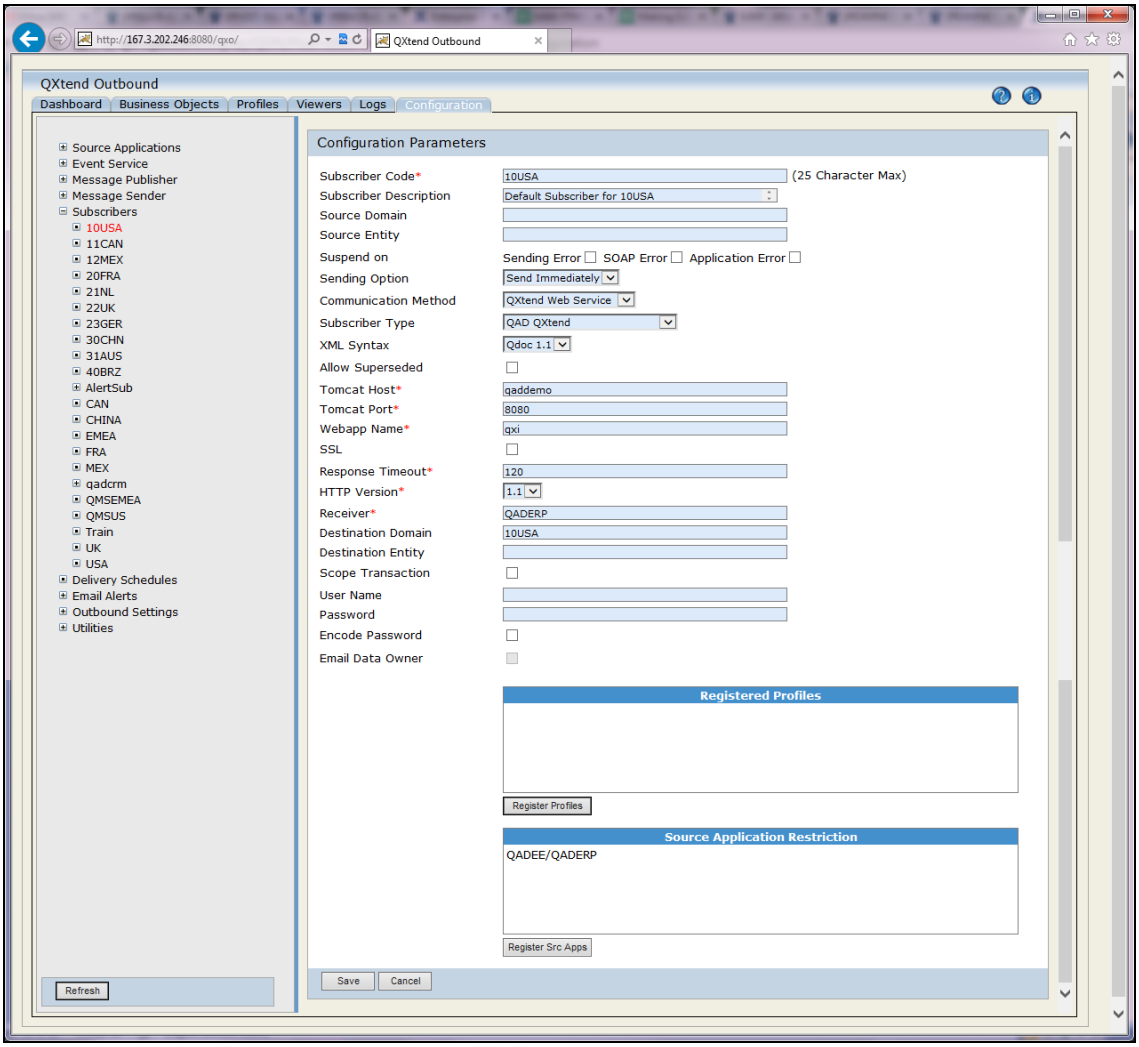
QXO Subscriber

EAM's integration requires one subscriber per Domain/Entity pair if the system is using multiple domains and/or entities. Create new subscribers as needed and register the FINOnlyGLTransOut and SalesOrderShipOut with each.

Each subscriber must be assigned a receiver that is configured for both FINAPI and UIAPI connection pools. Verify in QXtend Inbound that the receiver is configured for both before completing this step. Verify that the receiver is assigned the bjournalentry (version ERP3_1) and shipSalesOrder (version eB2_2) QDocs. If you have not made these assignments, do so now.

29 Expand the Subscribers menu option and select the domain where you register the FINOnlyGLTransOut Profile.

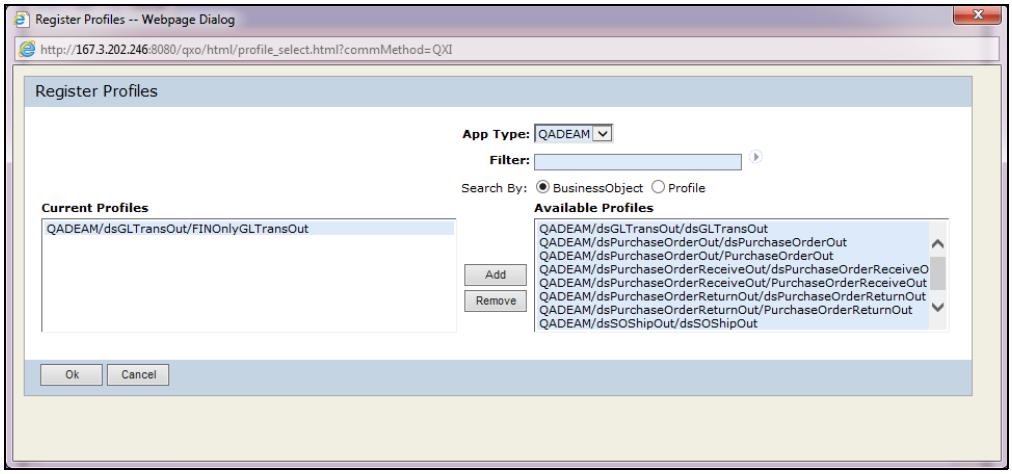
Fig. 5.19.
QXO Subscriber



30 Click Register Profiles. Verify that the QADEAM App Type is selected and that you search by Business Object. Click the search arrow.

31 Select the *QADEAM/dsGLTransOut/FINOnlyGLTransOut* profile and click Add. Then click OK.

Fig. 5.20.
Register Profiles

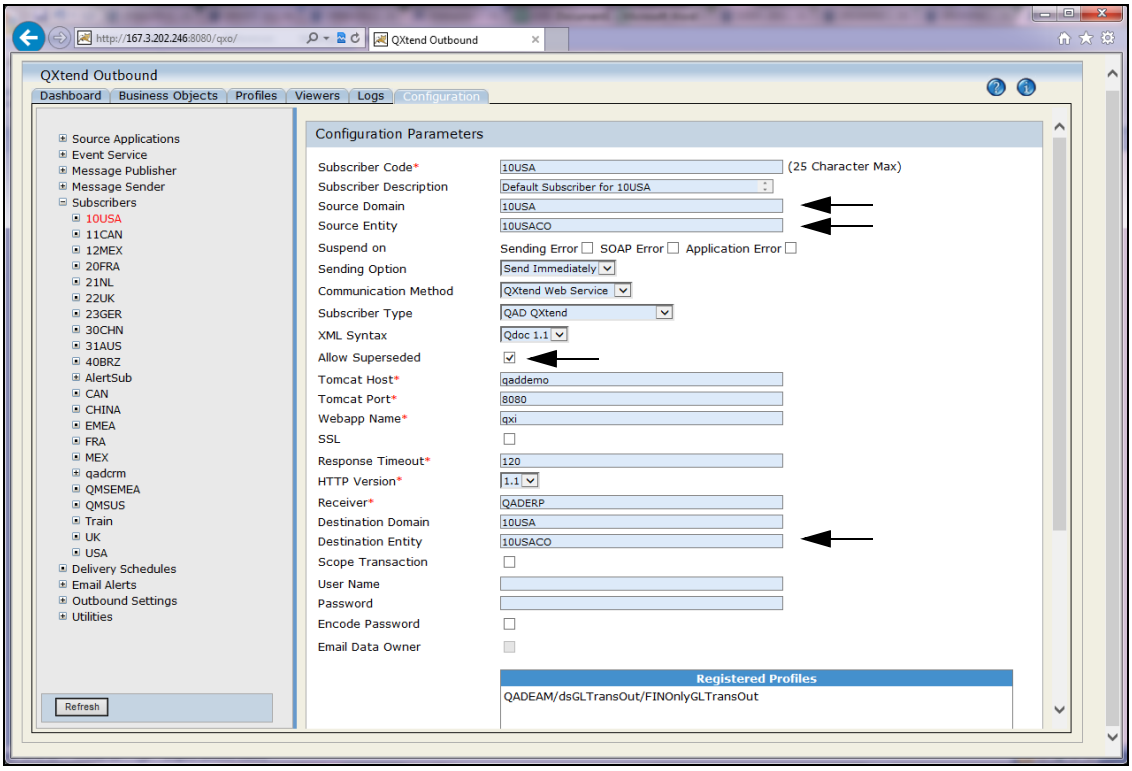


32 Select the Allow Superseded check box.

33 Enter the domain, entity, and destination entity in the Source Domain, Source Entity, and Destination Entity fields.

34 Click Save.

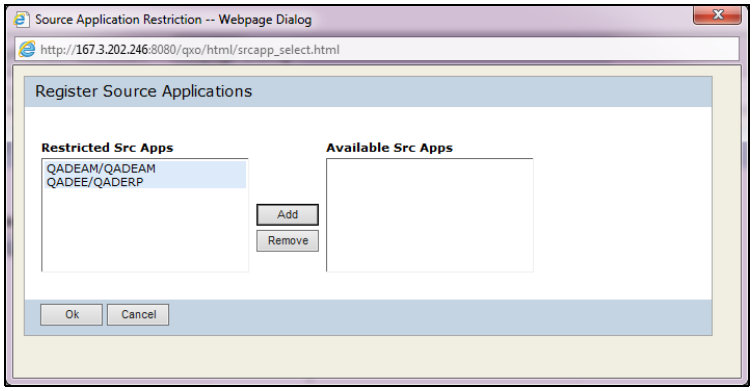
Fig. 5.21.
Enter Domain, Entity, and Destination Entity



35 Click Register Src Apps.

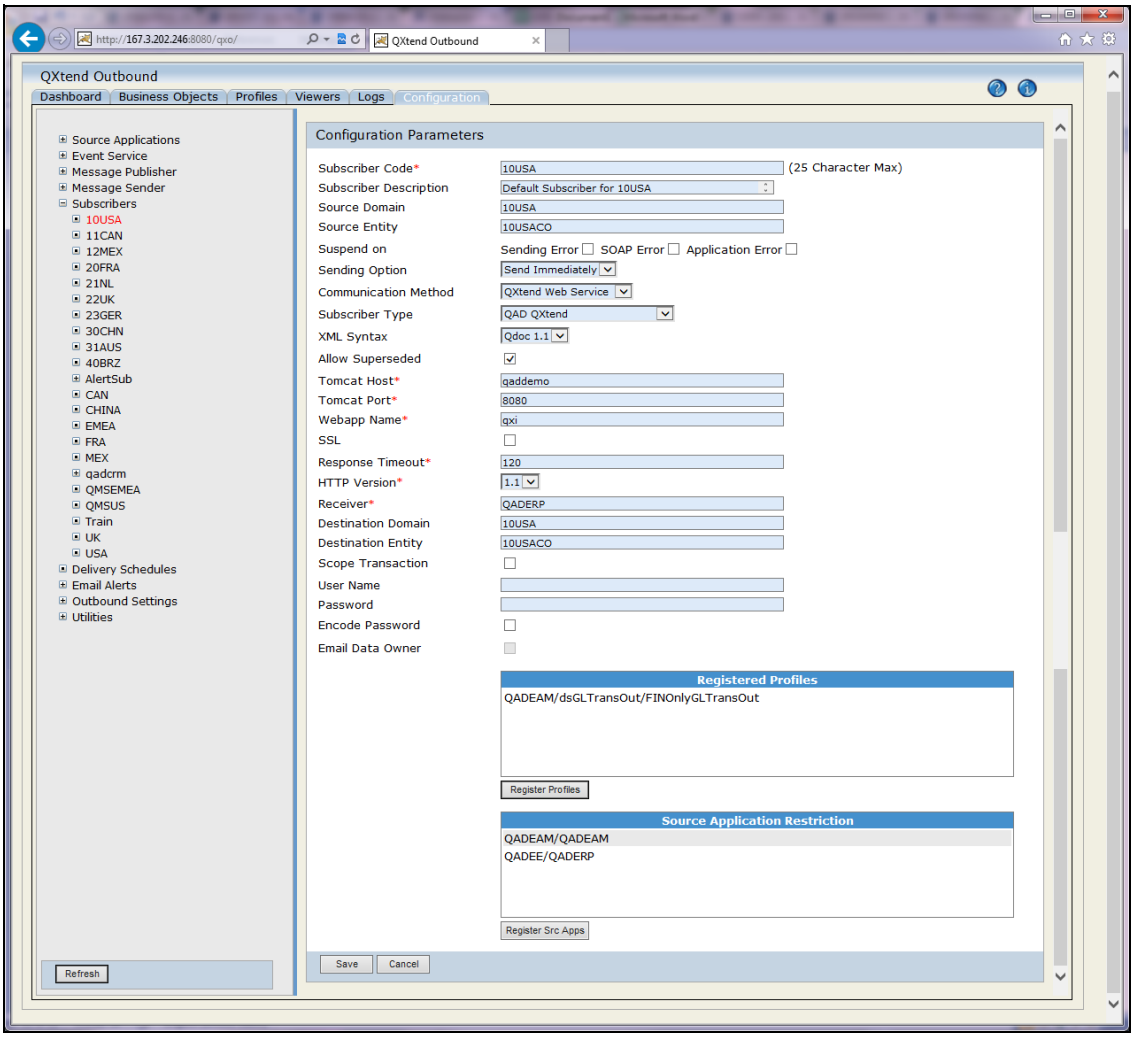
36 Select the EAM/QADEAM source application and click Add. Then click OK.

Fig. 5.22.
Register Source Applications



37 Click Save.

Fig. 5.23.
QXO Subscriber



QXI Receiver

In QXI, make sure that the bJournalEntry QDoc is registered with the receiver assigned to the Subscriber.

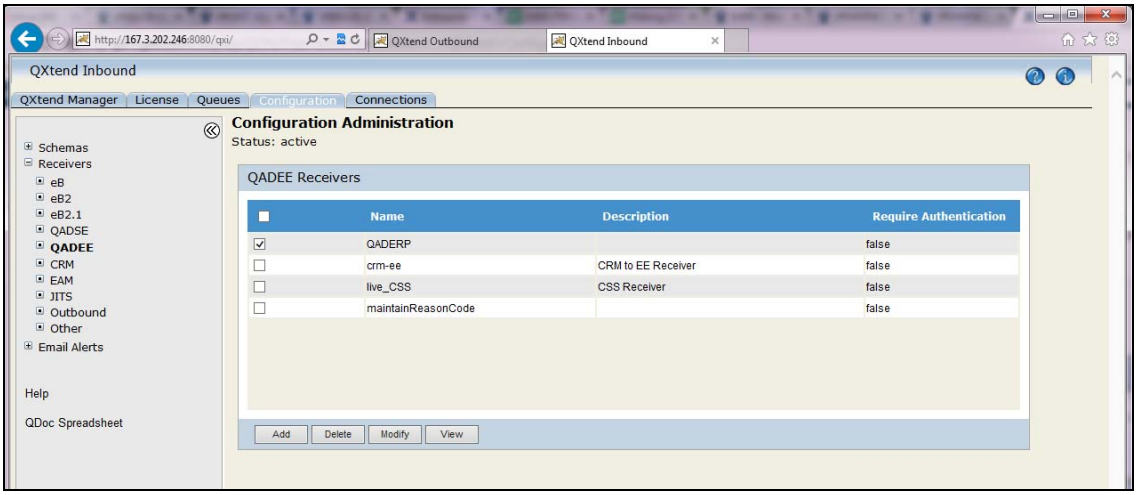
38 Open another Explorer window and navigate to the QXtend Inbound Web App: http://tomcat_server:port_number/qxi

39 Select the Configuration tab.

40 Expand the Receivers menu option and select QADEE.

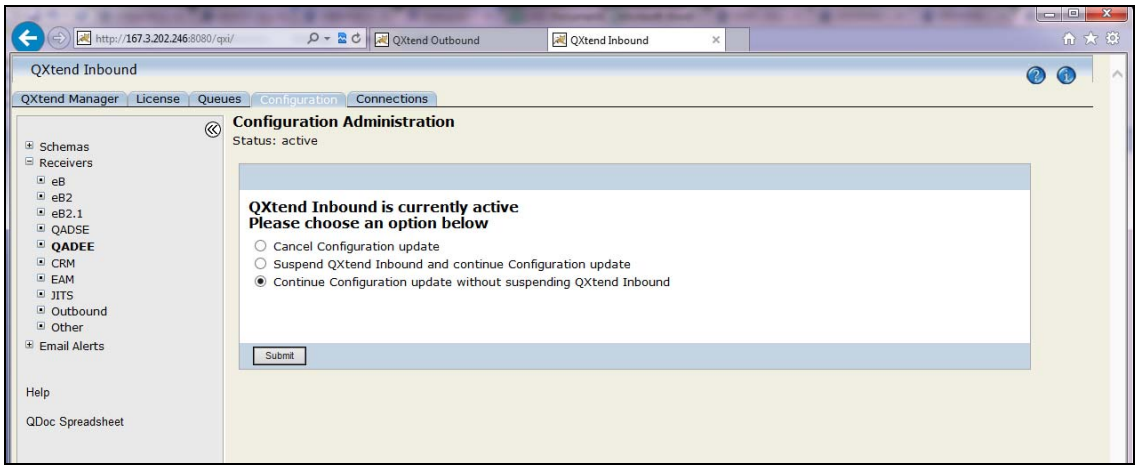
41 Select the QADERP checkbox and click Modify.

Fig. 5.24.
QXI Receiver



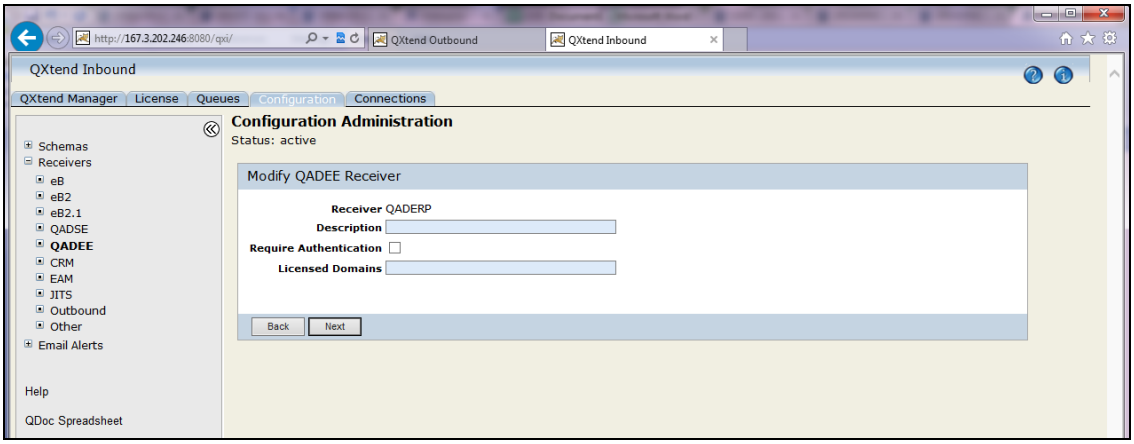
42 Select the Continue Configuration Update option. Click Submit.

Fig. 5.25.
QXI Receiver



43 Click Next.

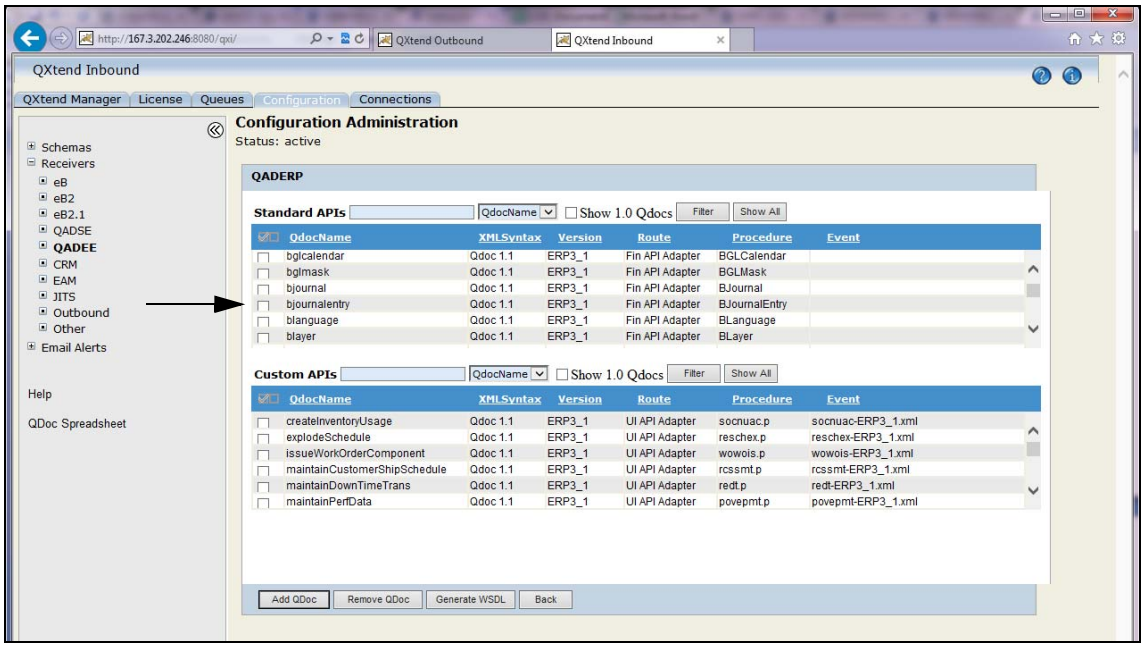
Fig. 5.26.
QXI Receiver



44 Scroll through the Standard API list and verify that the bJournalEntry API is available.

Note If the bJournalEntry API is not listed, contact QAD Support.

Fig. 5.27.
Verify bJournalEntry API Available



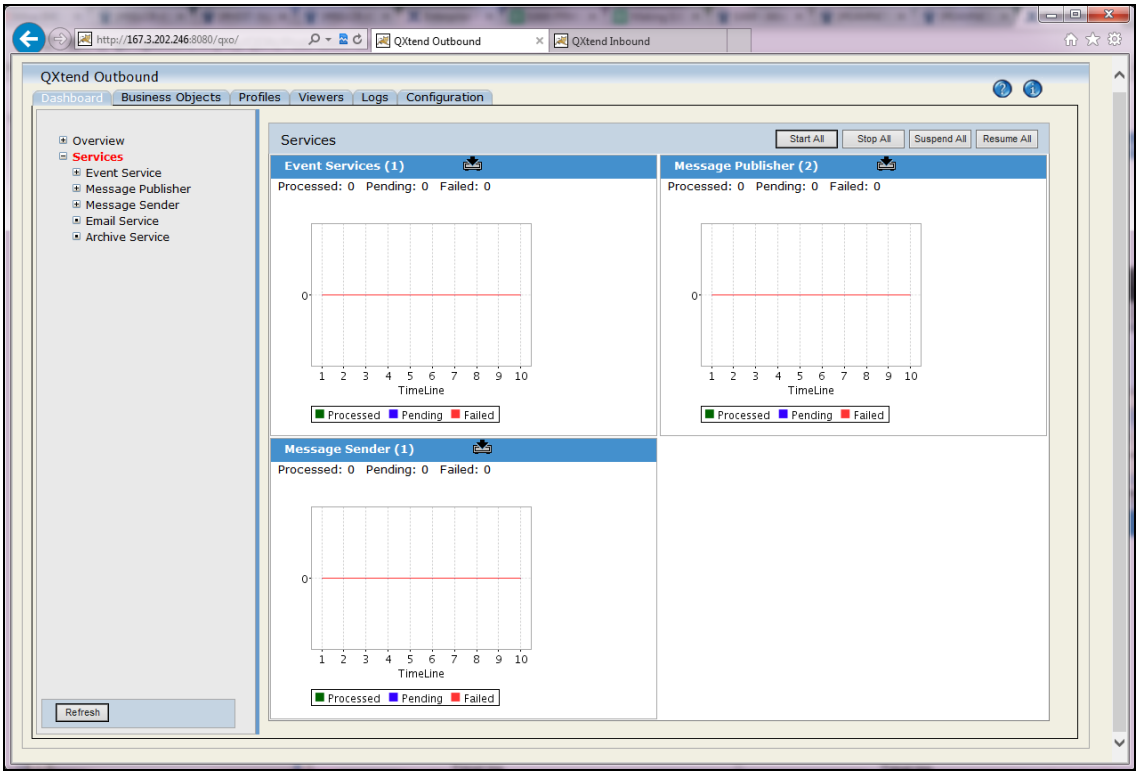
Restart QXO Outbound Services

45 In the QXtend Outbound Web App, select the Dashboard tab.

46 Click Stop All and wait a few moments.

47 Click Start All.

Fig. 5.28.
Restart QXO Outbound Services



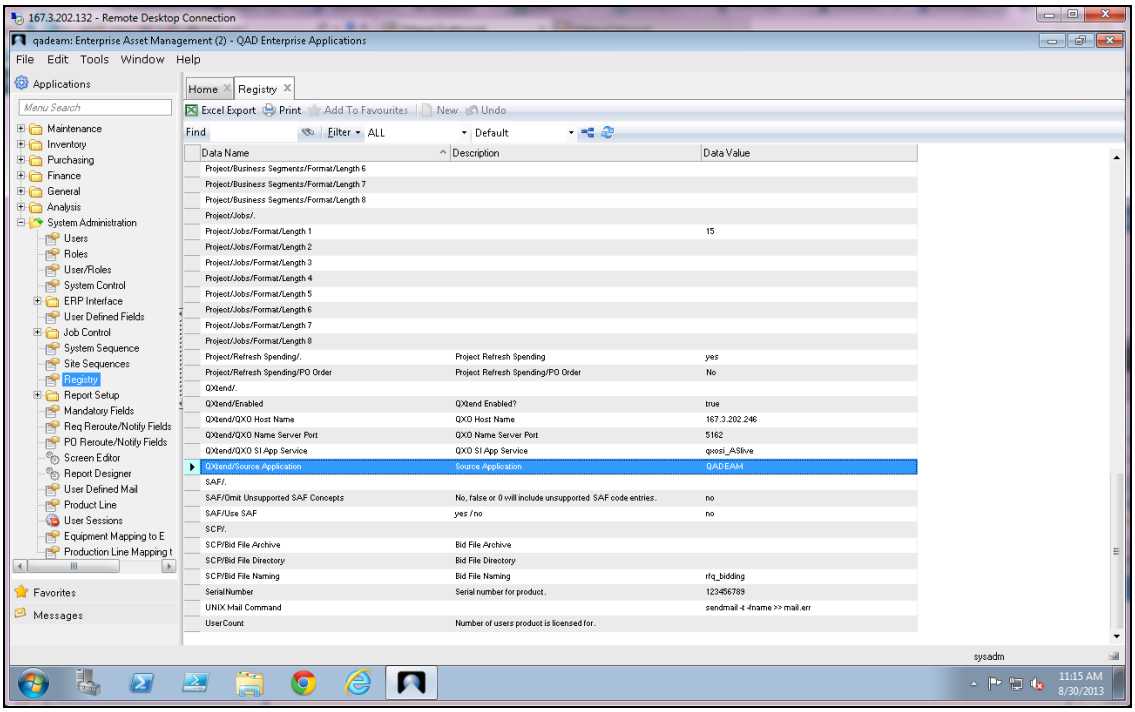
Configure EAM System Registry

Configure the EAM system registry for QAD EE integration using the following steps:

1 Log in to EAM.

2 Open the Registry browse located in System Admin|Registry.

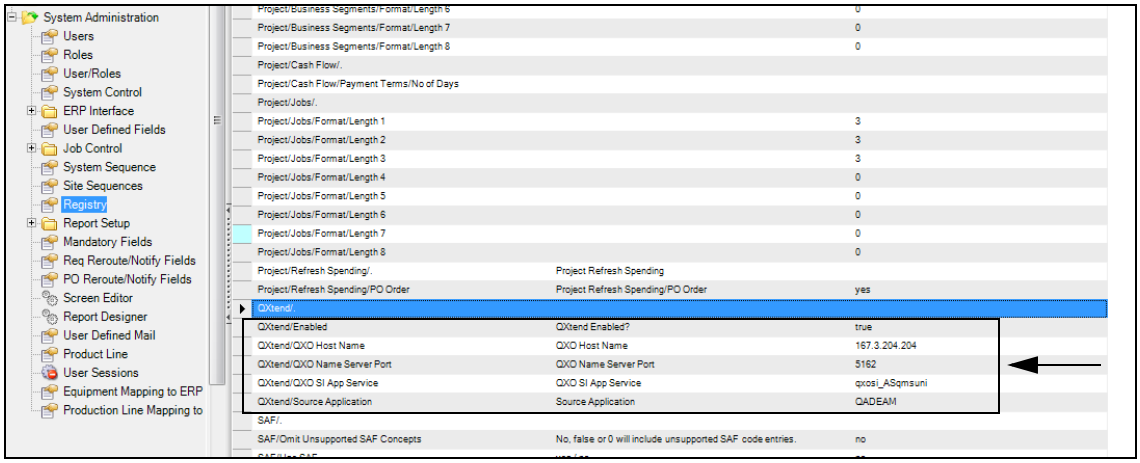
Fig. 5.29.
EAM System Registry Browse



3 Click in the Data Value fields and enter the following values:

Data Name	Data Value
QXtend Enabled	True
QXO Host Name	IP Address or DNS name of the server that hosts the QXO ASSI appserver
QXO Name Server Port	Default is 5162, but this may differ depending on the installation.
QXO SI App Service	The ASSI appserver that EAM connects to when sending messages to QXtend. This is the app server that connects to the QXODB and runs the startup procedure com/qad/qxtend/siAppServerStart.r
QXtend/Source Application	QADEAM

Fig. 5.30.
QXtend Registry Settings



Set Up Progress Editor

EAM now features a Progress editor similar to QAD SE's and EE's mgeditor menu option. The editor uses SSH (Secure Shell) rather than standard telnet. SSH is a protocol that can create a secure connection between the EAM .NET UI client, and the server. The safeguards that SSH provides include:

- User authentication and key exchange
- Negotiated encryption, compression, and message integrity verification
- All data is encrypted using a symmetric key algorithm and verified against a keyed-hash message authentication code (HMAC)

Follow these steps to set up SSH:

1. Download Granados 2.0 (`granados200.tar.gz`) from the following link:

   http://www.routrek.co.jp/en/product/varaterm/granados.html

   Note This file is not included with QAD software because of encryption export control laws.

2. Save the file to a temporary directory on the Tomcat server.

3. Extract `Routrek.granados.dll` from the archive using `gunzip` and `tar`.

4. The `gunzip` and `tar` programs are Linux/UNIX utilities. Some WinZip versions support `*.tar.gz` files.

   a. Create `granados200.tar`:

   ```
   gunzip granados200.tar.gz
   ```

   b. Extract the tar archive:

   ```
   tar -xf granados200.tar
   ```

   The DLL file is located in the temporary directory's `/bin` directory.

5. Copy the DLL to *<tomcat_install_directory>/webapps/<qadhome_eam>*.

6 Open the EAM client's *client-session.xml* file. The client session file defines the client session characteristics of the QAD .NET UI. By default, the file is located in:

```
<tomcat_install_directory>/webapps/<qadhome_eam>/configurations
/qadeam/client-session.xml
```

Make the following changes:

a Locate the SshProviderUrl tag in `client-session.xml`. If the tag does not say the following, update it:

```
<SshProviderUrl>${HomeServer}/Routrek.granados.dll</SshProvider
Url>
```

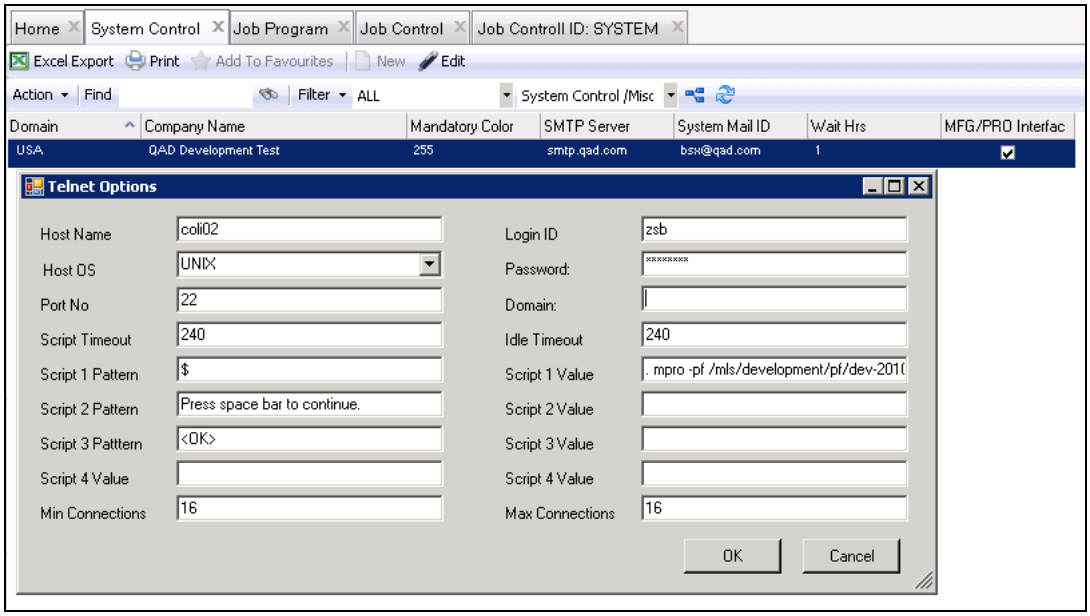
b Change the terminal protocol entry from telnet to SSH2:

```
<TerminalProtocol>SSH2<TerminalProtocol/>
```

7 Save the `.xml` file.

8 In EAM, open the System Control browse and select Telnet Options from the Actions drop-down.

Fig. 5.31.
Telnet Options



Note If the Action is not available, review the Role security settings.

Table 5.1
Role Security Settings

Field Name	Setting
Host Name	DNS name or IP address of the EAM DB server
Login ID	ID used to log into the EAM DB server (for example, mfg)
Host OS	Verify that UNIX is selected
Password	Password used to log into the DB server. NOTE: The password is encrypted before it is stored in the database.
Port No	DB Server's SSH port (usually 22)

Field Name	Setting
Domain	Reserved for future use
Script Timeout	Reserved for future use. Leave this at 240
Idle Timeout	Reserved for future use. Leave this at 240
Script 1 Pattern	This is the pattern EAM is looking for before it runs Script 1 Value. This is usually the OS's command line prompt. Example: $
Script 1 Value	The command line value to enter once EAM sees the DB server write Script 1 Pattern. This should be used to run mpro and pass it the .pf file used by the EAM appserver. **Note:** Place a period followed by a space (.) at the beginning of this line so that the Progress Editor window closes after the Progress session ends. Without this, users are left at the server's command prompt. Example: . mpro -pf /qadapps/eam/pf/eamtest.pf
Script 2 Pattern	(Optional) This is the next pattern EAM is looking for. It runs Script Value 2 when it sees it. This can be used to skip through Progress messages related to codepage, if they occur. Example: Press space bar to continue.
Script 2 Value	The keyboard strokes / text that EAM automatically writes to the telnet session when Script 2 Pattern is detected. An Example would be a space (" " without the double quotes).
Script 3 Pattern	(Optional) If more keyboard automation is required, EAM looks for this pattern.
Script 3 Value	(Optional) If more keyboard automation is required, EAM automatically enters these keystrokes when Script 3 Pattern is detected.
Script 4 Pattern	(Optional) If more keyboard automation is required, EAM looks for this pattern.
Script 4 Value	(Optional) If more keyboard automation is required, EAM automatically enters these keystrokes when Script 4 Pattern is detected.
Min Connections	Reserved for future use
Max Connections	Reserved for future use

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)
Ask questions and share information with other members of the user community, including QAD experts.

QAD Knowledgebase (knowledgebase.qad.com)*
Search for answers, tips, or solutions related to any QAD product or topic.

QAD Document Library (www.qad.com/documentlibrary)
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)*
Visit QAD's one-stop destination for all courses and training materials.

*Log-in required