Deltek Know more. Do more.™

Deltek Time & Expense with Employee Self Service™ Version 9.0.1

Upgrade from Version 8.3.0 for Microsoft SQL Server

July 31, 2013

Contents

Overview

This document provides instructions for installing the Deltek Time & Expense with Employee Self-Service 9.0.1 (9.0.1.0) software. During this installation, you will perform the following steps:

- Ensure that your system meets the installation prerequisites. Refer to the sections titled "Installation Prerequisites" and "System Requirements" for additional information.

- Make backups of the following:

    - Deltek Time & Expense 8.3.0 WebLogic® Server software

    - Deltek Time & Expense 8.3.0 Actuate® iServer System software

    - Deltek Time & Expense 8.3.0 Internet Information Server (IIS) software (**if applicable**)

    - Deltek Time & Expense 8.3.0 database

- Uninstall the Actuate® iServer System software.

> Starting with version 9.0.1, the Deltek Time & Expense with Employee Self-Service software has streamlined its reporting architecture. **Actuate is no longer used.** The applications now use the Jasper Report library, which is automatically installed as an integral part of the applications. No Report Tier or post install configuration is required to print or view reports.

- Install the Oracle's WebLogic® Server software.

- Install and configure the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

- Upgrade your database to Deltek Time & Expense with Employee Self-Service 9.0.1.

Installation Package Contents

This package includes the following:

- Deltek Time & Expense with Employee Self-Service 9.0.1 install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 Database install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 IIS install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 Mobile Time install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 Costpoint Interface install.

- Deltek Time & Expense with Employee Self-Service 9.0.1 License file.

- Deltek Time & Expense with Employee Self-Service Version 9.0.1 Upgrade from Version 8.3.0 for Microsoft SQL Server document.

Installation Prerequisites

The following prerequisites must be met before upgrading to Deltek Time & Expense with Employee Self-Service 9.0.1:

- Deltek Time & Expense with Employee Self-Service 8.3.0 General Availability software and database must be installed and operational.

- You must have Administrative access to the WebLogic Server that hosts your Time & Expense 8.3.0 software.
- You must have Administrative account access to the Actuate iServer System Server that hosts your Time & Expense 8.3.0 report software.
- You must have Administrative access to your Time & Expense 8.3.0 database.

Platforms Not Supported in Deltek Time & Expense with Employee Self-Service 9.0.1

The Deltek Time & Expense with Employee Self-Service 9.0.1 system does not currently support Web servers other than Internet Information Server (for example, Apache).

> Deltek Time & Expense with Employee Self-Service may support other platforms in a future release.

Discussion of Appendices

The Deltek Time & Expense with Employee Self-Service 9.0.1 installation instructions contain several important appendices that are listed in the following table:

Appendix	Title	Description
A	Documentation	Instructions for accessing the Deltek Time & Expense with Employee Self-Service 9.0.1 documents
B	Using Sample Data Domain	Instructions for connecting to the Deltek Time & Expense with Employee Self-Service 9.0.1 sample data domain
C	Using Microsoft's Internet Information Server with Deltek Time & Expense with Employee Self-Service 9.0.1	Instructions for integrating the Deltek Time & Expense with Employee Self-Service 9.0.1 software with Microsoft's Internet Information Server
D	Creating Additional Domains	Instructions for creating additional Deltek Time & Expense with Employee Self-Service 9.0.1 domains
E	Starting/Stopping Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server	Instructions for starting and stopping the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server
F	Installing Costpoint Interface Programs	Instructions for installing the Deltek Time & Expense with

Appendix	Title	Description
		Employee Self-Service 9.0.1 to Costpoint Interface programs, including the steps necessary to access Deltek Employee Self-Service 9.0.1.
G	Implementing Secure Sockets Layer (SSL) Encryption with Deltek Time & Expense with Employee Self-Service 9.0.1.	Discussion of support for SSL encryption and the WebLogic licenses available for implementing SSL, references to information you can use to learn more about implementing SSL, and directions for changing the WebLogic license included with the standard distribution of Deltek Time & Expense with ESS
H	Lightweight Directory Access Protocol (LDAP)	Instructions for setting up Lightweight Directory Access Protocol (LDAP), a protocol used to access Directory Servers. The Directory is a special database that holds information in a tree structure.
I	Single Sign-On	Instructions for implementing Single Sign-On with Windows Authentication. Also included is information on using this solution with Windows Network Load Balancing (NLB), ideas on troubleshooting problems, and some general considerations

Naming Conventions

This section discusses the naming conventions used throughout these installation instructions.

Drive Letters

The drive letters used in these installation instructions are listed in the following table:

Drive	Description
C:	This is the drive where the Deltek Time & Expense with Employee Self-Service 9.0.1 system files are installed.

Drive	Description
Y	This is the network drive where the Costpoint files are installed for this particular upgrade. This drive is referenced in To start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Windows Command Prompt, complete the following steps: 1. Open a Windows Command Prompt and launch the following command script: **StartTE90** > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights. > > It will take several minutes for the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to start. > > You will see a series of messages scrolling down the screen. 2. If your WebLogic server starts successfully, the following message will display near the bottom of the command line shell window: "**<The server started in RUNNING mode.>**" > If your WebLogic server encounters errors during the startup process, the "<The server started in RUNNING mode.>" message will not display. > > If you do not receive this message, you must do the following tasks: > > 1. Locate the actual error by scrolling up in the Windows Command Prompt screen until you see the WebLogic server error message. > 2. Document the error message. > 3. Contact Deltek Technical Support. ## Stopping the WebLogic Server ### As Windows Service **Purpose** This step provides instructions for stopping your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server when it is running as a Windows service. **Where** This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. **To stop your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server when it is installed as a Windows service, complete the following steps:** 1. Click **Start » Programs » Administrative Tools » Services**. 2. When the Services window opens, scroll down the Services list to find the **Time & Expense with ESS 9.0.1 service**. Right-click the **Time & Expense with ESS**

Drive	Description

9.0.1 service, and click **Properties** on the shortcut menu.

3. When the Time & Expense with ESS 9.0.1 Properties screen displays, click the General tab.

4. Click **Stop** to stop the Time & Expense with ESS 9.0.1 service.

5. Click **OK** to close the Time & Expense with ESS 9.0.1 Properties screen.

6. Close the Services window.

From Web Browser

Purpose

This step provides instructions for stopping your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from the WebLogic console.

Where

This step must be performed from a machine that has Web browser client access via TCP/IP to the WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available to download for free at http://java.com.

To stop your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Web browser, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

   - **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

   For example, http://10.2.2.154:7009/console

2. When the WebLogic Server Administration Console screen displays, perform the following:

   - **Username** — Enter **system**.

   - **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

Drive	Description
	3. Click **Login**. 4. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane. > It may take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add **http://<IPAddress or ComputerName>** (for example, http://10.2.2.154) to your Internet Browser Trusted Sites and/or install Sun Microsystems' latest JVM™. See the note on the previous page for instructions. 5. When the Settings for DeltekTE screen displays, click the **Control** tab, and perform the following: ▪ **DeltekTEServer (admin)** — Select the check box that displays to the left. 6. Click **Shutdown**, and then select **Force Shutdown Now**. 7. When the Domain Life Cycle Assistant screen displays, click either of the **Yes** buttons. 8. Close the Web browser screen. > It can take several minutes for your Deltek Time & Expense with Employee Self-Service WebLogic Server to process the shutdown request. > > The shutdown request has completed if either of the following conditions on your WebL application server is true: > > ▪ The Windows Command Prompt that was used to launch your Deltek Time & with Employee Self-Service 9.0.1 WebLogic Server has terminated. > > ▪ The status of the Deltek Time & Expense with Employee Self-Service 9.0.1 W service that was used to start your Deltek Time & Expense with Employee Se Service 9.0.1 WebLogic Server has changed from **Started** to blank. Appendix F: Installing Costpoint Interface Programs on page 77 of this document.

Directory Names

The directory names used in these installation instructions are listed in the following table:

Directory Name	Description
ORACLE\MIDDLEWARE	This is the name of the directory where the WebLogic and Deltek Time & Expense with Employee Self-Service 9.0.1 software is installed.
DELTEKTE90	This is the name of the directory where the Deltek Time & Expense with Employee Self-Service 9.0.1 software is installed.

Database Name

The database name used in these installation instructions is listed in the following table:

Database Name	Description
DELTEKTE	The name of the Time & Expense 9.0.1 database.

Internet Information

Software installs, install instructions, technical guides, and release notes are available for download from the Deltek Software Manager (DSM). This is also where you will download software corrections and enhancements (hot fixes). DSM will be the only place to download the hot fix files. Deltek Knowledge Base articles will still exist explaining the fixes, but will contain links to DSM for retrieving the actual files.

Deltek Software Manager Requirements

You must meet the following requirements in order to run DSM:

- Can be run from any desktop (that is, does not have to be run on Deltek application servers)
- Requires Windows XP or later
- Requires Microsoft .NET Framework 3.5 SP1 (3.5.1)
  - The following Deltek Knowledge Base article has a link to download the framework and also has a few examples of what you may see if you do not have the framework installed:

    https://deltek.custhelp.com/app/answers/detail/a_id/52469

    Refer to the **DeltekSoftwareManager.pdf** to learn more about DSM and how it works.

To Launch DSM

Go to https://dsm.deltek.com.

When downloading the Time & Expense with Employee Self-Service 9.0.1 software, if you are prompted to download Hot Fixes as well, please do so.

Logon

Use the same username/password as for Deltek Customer Care Connect.

Deltek Knowledge Base articles will also exist on the Deltek Website (http://www.deltek.com).

To view Knowledge Base articles:

1. Go to http://www.deltek.com.

2. Click **Support Login** in the upper right corner of the screen.

3. When the Deltek Support Login screen displays, perform the following:

   ▪ **Username** — Enter your Support user name.

   ▪ **Password** — Enter your Support user's password.

4. Click **Log In**.

> If you have forgotten your username or password, click **Account Assistance**. If you have forgotten your username, enter your email address and click **Email My Username**. If you have forgotten your password, enter your username and click **Reset My Password**.

5. When the Deltek Support Home Screen displays, click the **Knowledge Center** tab, and perform the following:

   ▪ **Refine by Product** — Select **Time & Expense** from the drop-down list.

   ▪ **Refine by Category/Version** — Expand **Service Pack / Hot Fix** from the drop-down list, and select **9.0.1**.

   ▪ **Search Type** — Leave as **Phrases** or select how you want to search from the drop-down list.

   ▪ **Search by Keyword** — Enter the specific text you are looking for, or leave blank to return all records for this version.

6. Click **Search**.

7. When the search results display, perform the following:

   ▪ Click the link for the desired correction (under the **Summary** column).

   ▪ When the desired correction loads, click the links in the **Answers** section to download the files.

System Requirements

The Deltek Time & Expense with Employee Self-Service 9.0.1 system uses the following components:

▪ Database Server.

▪ Application Server (with integrated Web Server).

▪ Browser Client.

▪ IIS Web Server (optional).

The hardware and software requirements for each of these components are listed in the following table:

Component	Hardware Requirements	Software Requirements

Component	Hardware Requirements	Software Requirements
Database Server	Hardware requirements vary among the different Relational Database Management System (RDBMS) platforms. Consult with Deltek's Systems Solutions team or your RDBMS platform vendor to determine the hardware requirements for your database server.	▪ Microsoft SQL Server 2012, Microsoft SQL Server 2008 R2, Or Microsoft SQL Server 2008. **Please note that Microsoft SQL Server 2005 is <u>NO LONGER</u> supported.** ▪ Database Compatibility 110 (SQL Server 2012) Or Database Compatibility 100 (SQL Server 2008 R2, SQL Server 2008).
Application Server	▪ At least 900 MB of free disk space. ▪ Pentium IV 2.0 GHz processor, or higher. Dual processors (recommended). ▪ 2 GB of RAM, or higher. ▪ Raid 5 disk array (recommended).	▪ Windows Server 2008 R2 Or Windows Server 2008 64-bit. **Please note that Windows Server 2008 32-bit and Windows Server 2003 are <u>NO LONGER</u> supported.** ▪ WebLogic 12.1.1 (provided with this installation package).

Component	Hardware Requirements	Software Requirements
Browser Client **Windows**	▪ Pentium IV 1.4 GHz processor, or higher. ▪ 512 MB of RAM, or higher.	▪ Windows 7 (32-bit or 64-bit), Windows XP Professional SP2, Or Windows Vista SP2 (32-bit or 64-bit). ▪ Internet Explorer Version 9.0.1* (with latest service pack recommended), Or Internet Explorer Version 8.0 (with latest service pack recommended). ▪ Firefox 10*. ▪ Chrome 11*. ▪ Adobe Acrobat 8.1, or higher (required to display or print Deltek Time & Expense with Employee Self-Service 9.0.1 reports). **Please note that if you are planning on fax attaching items to expense reports/expense authorizations, the PDF created by Fax/copier must be version 1.4 or earlier.** ▪ Microsoft Excel 2007 SP1 (required to use offline timesheets). *** indicates the latest version tested at the time of release, newer versions should work.**

Component	Hardware Requirements	Software Requirements
Browser Client **Mac**	▪ Must meet the hardware requirements support by the Mac OS X 10.5 or greater.	▪ Mac OS X 10.5 or greater. ▪ Safari 5.0*. ▪ Firefox 10*. ▪ Chrome 11*. ▪ Adobe Acrobat 8.1, or higher (required to display or print Deltek Time & Expense with Employee Self-Service 9.0.1 reports). **Please note that if you are planning on fax attaching items to expense reports/expense authorizations, the PDF created by Fax/copier must be version 1.4 or earlier.** *** indicates the latest version tested at the time of release, newer versions should work.**
Browser Client **Linux**	▪ Intel or AMD x86 (32/64 bit) processor, 1.4 GHz, or higher. ▪ 512 MB of RAM, or higher.	▪ Linux Red Hat Enterprise OS 5 Desktop. ▪ Firefox 10*. ▪ Chrome 11*. ▪ Adobe Acrobat 8.1, or higher (required to display or print Deltek Time & Expense with Employee Self-Service 9.0.1 reports). **Please note that if you are planning on fax attaching items to expense reports/expense authorizations, the PDF created by Fax/copier must be version 1.4 or earlier.** *** indicates the latest version tested at the time of release, newer versions should work.**

Component	Hardware Requirements	Software Requirements
Web Server (optional)	Hardware requirements vary among the different Web server platforms. Consult with Deltek's Systems Solutions team or your Web server platform vendor to determine the hardware requirements for your Web server.	▪ Microsoft Internet Information Server 7.0 (with latest service pack recommended).

The Microsoft Internet Information Server component is optional. As part of this installation, you will install Oracle's WebLogic Server application server software. The WebLogic Server software includes an integrated Web server component that you can use with the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

Preparing Time & Expense 8.3.0 Image Receipts

Version 8.3 had an issue that allowed users to "image receipts" solely based on expense type rules and it was not looking at whether there was a task configured in the expense report type. The 8.3 to 9.0.1 conversion assumed that an "Image receipts" task existed in 8.3 whether it was completed or pending.

Clients will be impacted if all the following is true:

- Client has Deltek Expense
- Client has existing expense reports
- Client has expense reports where receipts have been "Imaged"
- Client has expense report types that have receipts "Imaged" but do not have an "Image Attachment" task in the expense report type

In order for the conversion to operate as intended, there needs to be an "Image Receipt" Task created by clients in 8.3 prior to upgrade, conversion, and migration of attachments.

This section provides instructions for fixing this issue in Time & Expense 8.3 before beginning the upgrade.

Step 1: Adding Image Receipt Task to Time & Expense 8.3.0 Expense Report Types

Purpose

This step provides instructions for adding an image receipt task to your Time & Expense 8.3.0 expense report types.

Where

You can perform this step from any supported browser client that has TCP/IP access to your Deltek Time & Expense with Employee Self-Service 8.3 WebLogic application server.

To fix your Time & Expense 8.3.0 expense report types, complete the following steps:

1. Determine of you already have Image Receipts task for all of your Expense Report Types:

Example of Expense Report Type WITH "Image Receipts" Task
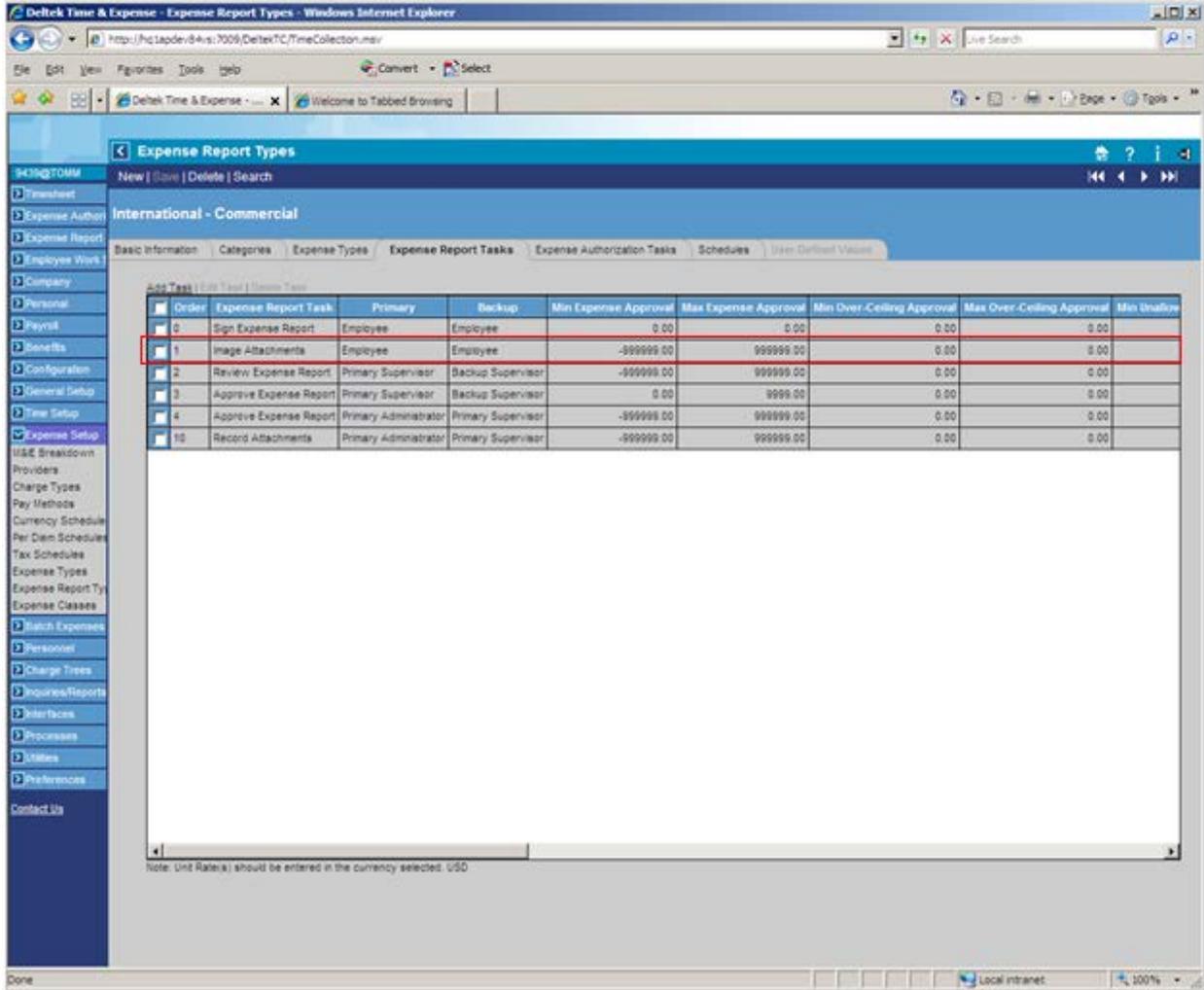
Note: Your system may say "Image Receipts" or "Image Attachments"

Example of Expense Report Type WITHOUT "Image Receipts" Task
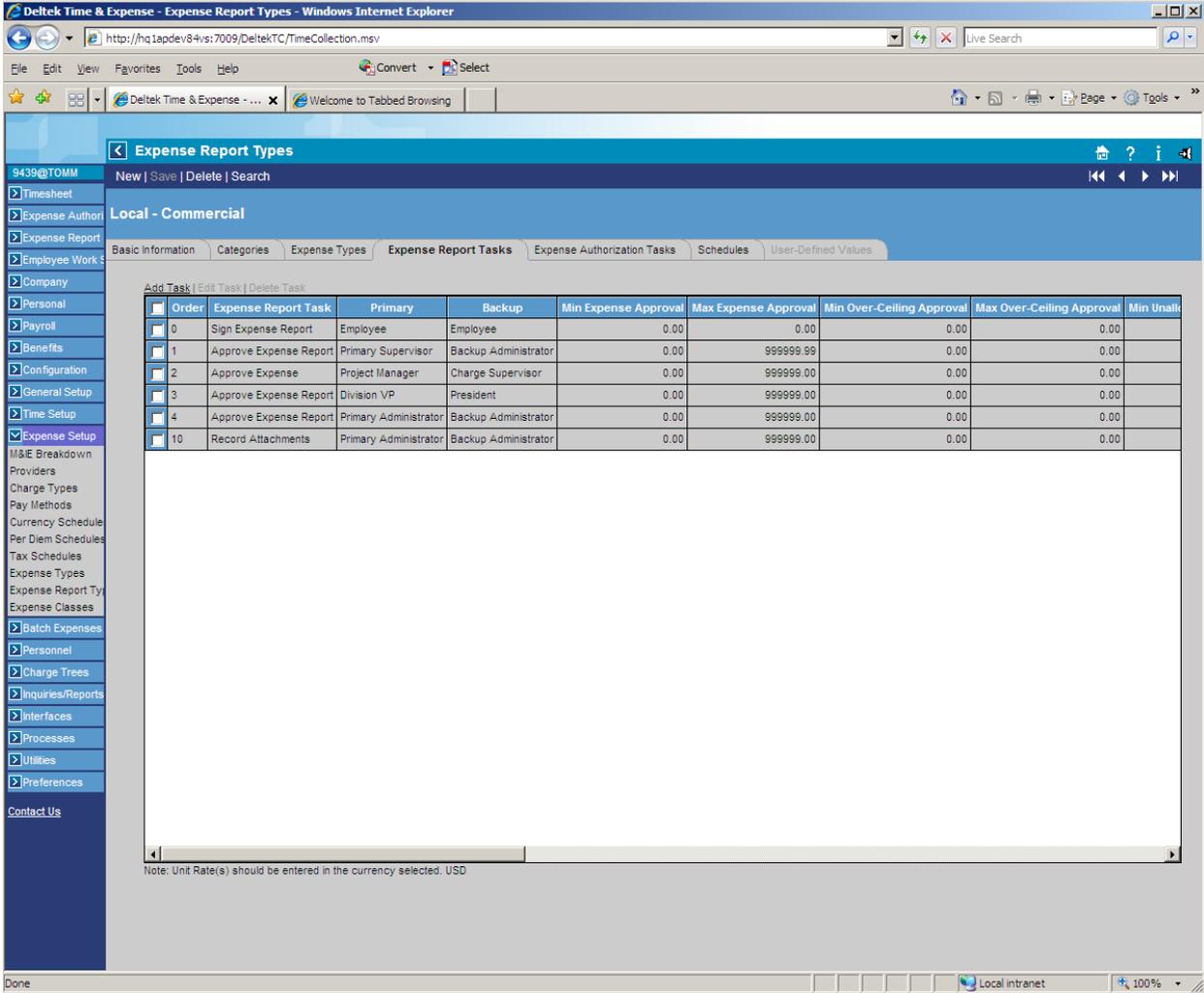
Note: Your system may say "Image Receipts" or "Image Attachments"

2. For any Expense Report types with attached receipts that do not have an Image Receipt task, please create one now:
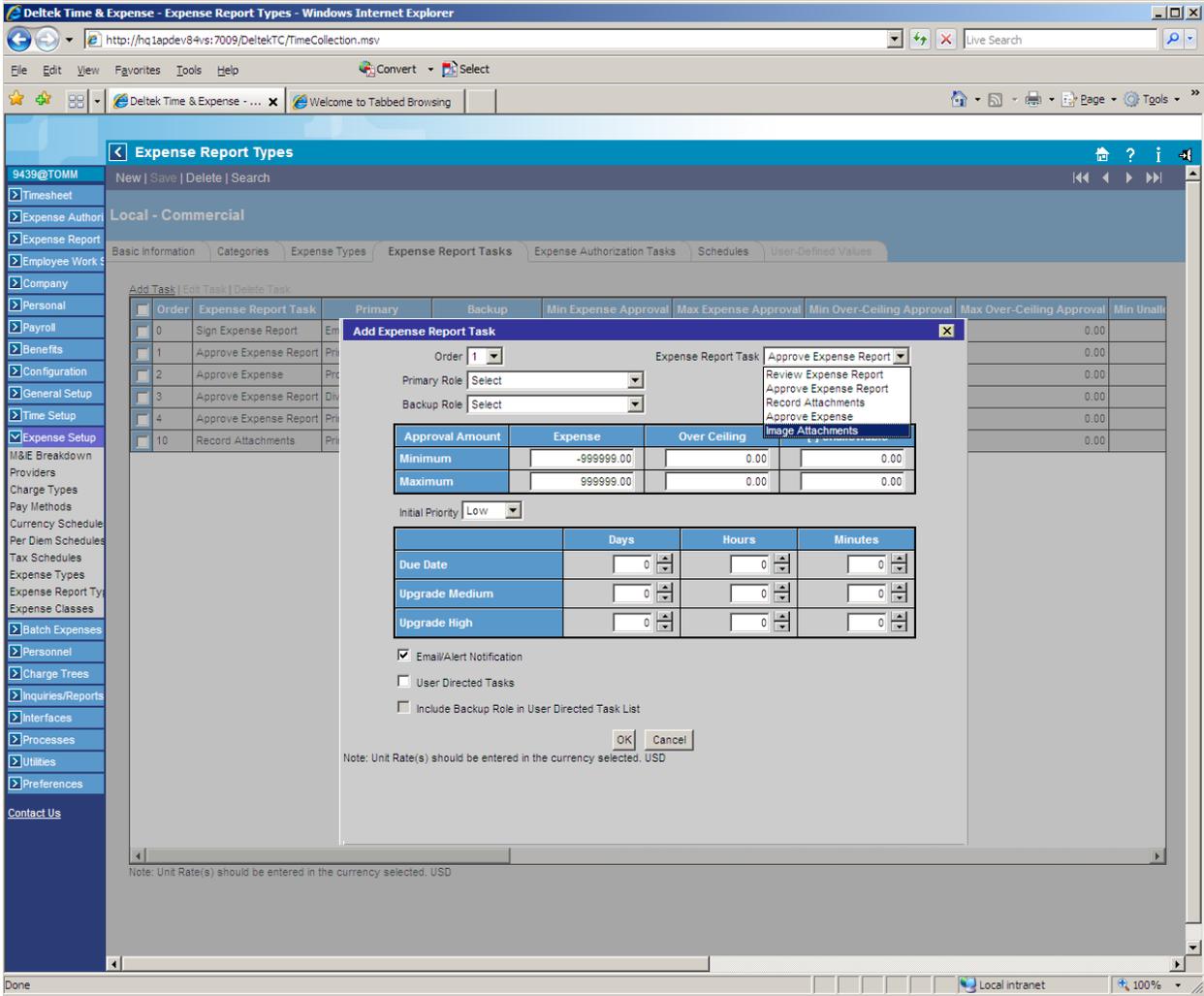
Note: Your system may say "Image Receipts" or "Image Attachments"

Backing Up Time & Expense 8.3.0 Software

This section provides instructions for backing up your Time & Expense 8.3.0 software. During the backup process, you will complete the following steps:

1. Stop your Time & Expense 8.3.0 WebLogic Server

2. Stop your Time & Expense 8.3.0 Actuate service

3. Backup the Time & Expense 8.3.0 system

4. Preserve your Time & Expense 8.3.0 files

5. Backup your Time & Expense 8.3.0 database

> For the Deltek Time & Expense with Employee Self-Service 8.3.0 system to function properly, your WebLogic application server and the database server that hosts your Deltek Time & Expense with Employee Self-Service 8.3.0 database must have their system clocks synchronized with each other. Failure to do this may result in login and other system problems.

> You must **stop** any **scheduled imports** in the Import Console of Time & Expense 8.3.0 prior to beginning this upgrade to Deltek Time & Expense with Employee Self-Service 8.3.0.

> This upgrade will drop and recreate your SAMPLE (TC_0001) database schema, if you wish to preserve it you must perform a **Copy Domain** at this time to create a new copy of it.

Step 1: Stopping Time & Expense 8.3.0 WebLogic Server

Purpose

This step provides instructions for stopping your Time & Expense 8.3.0 WebLogic Server from the WebLogic console.

Where

You must perform this step on your Time & Expense 8.3.0 WebLogic **application** server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available free for download at http://java.com.

To stop your Time & Expense 8.3.0 WebLogic Server, complete the following steps:

1. Open your Web browser, and enter the following case-sensitive URL:

   http://<IP Address or Computer Name>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Time & Expense 8.3.0 WebLogic application server.

- **<Port>** is the unique port number that your Time & Expense 8.3.0 WebLogic application server uses to listen for connections. You specified this port value during the Time & Expense 8.3.0 software installation. The default is **7009**.

  For example, http://10.2.2.154:7009/console

2. When the WebLogic Server Administration Console screen displays, complete the following steps:

   - **Username** — Enter **system**.
   - **Password** — Enter the password for the WebLogic Administrative user. The default is **weblogic**.

3. Click **Log In**.

4. When the Oracle WebLogic Server Administration Console Home screen displays in your browser, select the **DeltekTE** link that displays under the Domain Structure section in the middle of the left pane.

   > It can take several minutes for the hierarchical tree to appear in the left pane. If the hierarchical tree does not appear or a new blank browser opens, you must add http://**<IPAddress or ComputerName>** (that is, **http://10.2.2.154**) to your Internet Browser Trusted Sites and/or install Sun Microsystems' latest JVM™. See the note on the previous page for instructions for more information.

5. When the Settings for DeltekTE screen displays, click the **Control** tab, and perform the following:

   - **DeltekTEServer (admin)** — Select the check box that displays to the left.

6. Click **Shutdown**, and select **Force Shutdown Now**.

7. When the Domain Life Cycle Assistant screen displays, click either of the **Yes** buttons.

   > It can take several minutes for your Time & Expense 8.3.0 WebLogic Server to process the shutdown request.
   >
   > The shutdown request has completed if either of the following conditions on your Time & Expense 8.3.0 WebLogic application server is true:
   >
   > - The Windows Command Prompt that was used to launch your Time & Expense 8.3.0 WebLogic Server has terminated.
   > - The status of the Time & Expense 8.3.0 Windows service that was used to start your Time & Expense 8.3.0 WebLogic Server has changed from **Started** to **blank**.

8. Close the Web browser screen.

Step 2: Stopping Time & Expense 8.3.0 Actuate Service

Purpose

This step provides instructions for stopping your Time & Expense 8.3.0 Actuate service.

Where

You must perform this step on your **Actuate iServer System** server.

To stop the Time & Expense 8.3.0 Actuate service, complete the following steps:

1. Click **Start » All Programs » Administrative Tools » Services**.

2. When the Services screen displays, scroll down the **Services**, and double-click the **Actuate iServer 10** service.

3. When the Actuate iServer 10 Properties screen displays, click the General tab.

4. Click **Stop** to shutdown the Actuate iServer 10 service.

5. After the service stops, click **OK** to close the Actuate iServer 10 Properties screen.

6. Close the Services screen.

Step 3: Backing Up Time & Expense 8.3.0 System

Purpose

This step provides instructions for backing up your Time & Expense 8.3.0 system.

Where

You must perform this step on your Time & Expense 8.3.0 WebLogic **application** server, **report** server, and **Web** server.

To backup your Time & Expense 8.3.0 system, complete the following step:

1. Make full system backups of the following servers:

   - Time & Expense 8.3.0 WebLogic Application Server
   - Actuate iServer System Server
   - Microsoft IIS Web Server that hosts your Time & Expense 8.3.0 software

Step 4: Preserving Time & Expense 8.3.0 Files

Purpose

This step provides instructions for preserving some of your Time & Expense 8.3.0 config and license files.

Where

You must perform this step on your Time & Expense 8.3.0 WebLogic **application** server.

To preserve your Time & Expense 8.3.0 config and license files, complete the following steps:

1. Copy the **C:\Oracle\Middleware\DeltekTE83\config\config.xml** file to a secure location.

2. Copy the **C:\Oracle\Middleware\DeltekTE83\config\jdbc** folder to a secure location.

3. Copy the **C:\Oracle\Middleware\DeltekTE83\scripts\DELTEKTE.LIC** file to a secure location.

> If you have made any customizations to your Time & Expense 8.3.0 database's stored procedures, you need to reapply those customizations after the upgrade to Deltek Time & Expense with Employee Self-Service 8.3.0 has been completed. Please make sure you have reliable backups of your database and any customized stored procedure scripts before proceeding with the installation.

Step 5: Backing Up Time & Expense 8.3.0 Database

Purpose

This step provides instructions for performing a backup of your Time & Expense 8.3.0 database.

Where

This step must be performed from the **Microsoft SQL Server database** server that hosts your Time & Expense 8.3.0 database, or a Windows client workstation that can connect to your Time & Expense 8.3.0 database with the Microsoft SQL Server Enterprise Manager client software.

To back up your Time & Expense 8.3.0 database, complete the following steps:

1. Click **Start » All Programs » Microsoft SQL Server 2005/2008 » SQL Server Management Studio**.

2. Do the following:
   - **Server Type** — Select **Database Engine**.
   - **Server Name** — Select your SQL server.
   - If you choose **SQL Authentication** in **Authentication** on the Connect to Server dialog box, enter **sa** in **Login**. In **Password**, enter the password you established for this username during the Microsoft SQL Server 2005 installation process.
   - Click **Connect**.

3. Expand the <your database server name> node.

4. Click the **+** on the Databases folder.

5. Right-click your Time & Expense database (**DELTEKTE**).

6. Click **Tasks » Back Up** to display the Back Up Database screen.

7. Click the General tab.

8. Do the following:
   - Source
     - **Database** — Select your Time & Expense Database (DELTEKTE)
     - **Backup type** — **Full**
   - Backup Set
     - **Name** — Enter a name for this backup set (that is, **DELTEKTE.BAK**).
     - **Description** — Enter a description for this backup set (optional).
     - **Backup set will expire** — Leave the default of **0** days.

- **Destination** — Select either the **Backup to Tape** or **Backup to Disk** option, and then specify a backup destination. If no backup destinations display, click **Add** to add an existing destination or to create a new one.

- Click **Source in Select a Page** on the right and do the following:

    - **Overwrite Media** — Select **Append to media** (to append the backup to an existing backup on the backup device) or **Overwrite existing media** (to overwrite an existing backup on the backup device).

9. Click **OK** to begin the backup procedure. When the backup is completed, the following message displays:

    "The backup operation has been completed successfully."

10. Click **OK**.

11. Close the SQL Server Management Studio screen.

For additional information on backing up your Microsoft SQL Server database, consult the Microsoft SQL Server documentation. **Deltek strongly recommends that you regularly test and verify your database backups before proceeding with the remainder of this installation.**

Uninstalling Time & Expense 8.3.0 Actuate

This section provides instructions for uninstalling your Deltek Time & Expense with Employee Self-Service 8.3.0 Actuate iServer System.

> Starting with version 9.0.1, the Deltek Time & Expense with Employee Self-Service software has streamlined its reporting architecture. **Actuate is no longer used.** The applications now use the Jasper Report library, which is automatically installed as an integral part of the applications. No Report Tier or post install configuration is required to print or view reports.

Uninstalling Actuate iServer System

Purpose

This step provides instructions for uninstalling the Actuate iServer System software.

Where

This step must be performed on your **Actuate iServer System** server.

To uninstall the Actuate iServer System software, complete the following steps:

1. Click **Start » All Programs » Control Panel » Programs and Features** or **Add/Remove Programs**.

2. When the Programs and Features (or Add/Remove Programs) screen displays, perform the following:

   - Select **Time & Expense with Employee Self Service 8.3 Actuate iServer System**.

   - Click the **Uninstall/Change** button.

3. When the Uninstall Time & Expense with Employee Self Service 8.3 Actuate iServer System screen displays, click **Uninstall**.

4. When the Uninstall Complete screen displays, click **Done**.

5. When the Programs and Features (or Add/Remove Programs) screen displays, perform the following:

   - Select **Actuate iServer 10**.

   - Click **Uninstall**.

6. When the "Are you sure you want to completely remove the selected application and all of its components?" message displays, click **Yes**.

7. When the "Setup has detected that the directory of C:\Program Files (x86)\Actuate10\iServer has not been removed. Do you want to remove this entire directory?" message displays, click **Yes**.

   > It can take several minutes for this message to display.

8. When the "To complete uninstall you must reboot your machine." message displays, click **Yes**.

WebLogic Application Server Installation

The Deltek Time & Expense with Employee Self-Service 9.0.1 system uses Oracle's WebLogic Server for its application server tier. During this step, you will install the WebLogic Server 12.1.1 application server software and the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

> The Time & Expense with Employee Self-Service 9.0.1 WebLogic application server should not contain any previous versions of WebLogic or Time & Expense with Employee Self-Service.
>
> This installation will **automatically remove** all previous versions of the WebLogic and Time & Expense with Employee Self-Service software.

Prerequisites

The application server that will host the WebLogic Server and Deltek Time & Expense with Employee Self-Service 9.0.1 software must meet the following prerequisites:

- Hardware
    - At least 900 MB of free disk space.
    - Pentium IV 2.0 GHz processor, or higher. Dual processors (recommended).
    - 2 GB of RAM, or higher.
    - Raid 5 disk array (recommended).
- Software
    - Windows Server 2008 R2 or Windows Server 2008 64-bit.
- Other Servers
    - On your Database Server, SQL Server Listen Port **1433** must be open for **Inbound** and **Outbound** traffic through your firewall.
    - On your Database Server, please make sure **Network discovery and file sharing** are turned on.

Step 1: Installing WebLogic Server

Purpose

This step provides instructions for installing Oracle's WebLogic Server 12.1.1 application server software.

Where

This step must be performed on the machine that will serve as your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To install the WebLogic Server 12.1.1 software, perform the following:

1. Run **DeltekTimeAndExpense901WebLogic.exe** to launch the WebLogic Server installation program.

> Due to enhanced security in Windows Server 2008 it is advised to use the option to **Run as Administrator** when launching the installation executables even when the logged in user has local administrative rights. This option is accessed by right-clicking the installation executable file name in Windows Explorer and selecting **Run as Administrator** to launch the program.

2. When the Introduction screen displays, click **Next**.

3. When the Previous Version of Time & Expense WebLogic Exists message displays, click **OK**.

4. When the License Agreement screen displays, review the license agreement, select the **I accept the terms of the License Agreement** option to agree with the terms of the license, and click **Next**.

5. When the Choose WebLogic Home Directory screen displays, perform the following:

    ▪ **Please choose WebLogic Home directory** — Enter a folder name. The default is **C:\Oracle\Middleware** (recommended).

> Do NOT install the WebLogic Server software in a directory path or folder that contains a space. The Deltek Time & Expense with Employee Self-Service 9.0.1 software will not function properly if the WebLogic Server software is installed to a directory path or folder that contains a space.
>
> Take note of the WebLogic install directory. You will be prompted to enter this WebLogic install directory when performing the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation.

6. Click **Next**.

7. When the Pre-Installation Summary screen displays, review the installation parameters you have selected. If you want to change any settings, click **Previous** to go back and make the necessary changes. If you are satisfied with these settings, click **Install** to begin the installation.

> This install will take several minutes to complete. Do not interrupt it. You will notice a Windows Command Prompt. Please do not close this screen—when the installation has completed this screen will close.

8. When the Install Complete screen displays, click **Done** to exit the installation.

9. Review the log file, **C:\Oracle\Middleware\logs\Time_&_Expense_with_ESS_9.0.1_Oracle_WebLogic_12.1_InstallLog.log**. Scroll down to the **Summary** section, and report any Warnings, NonFatalErrors, or FatalErrors to Deltek Technical Support.

Step 2: Installing Deltek Time & Expense with Employee Self-Service 9.0.1 Software

Purpose

During this step, you will install the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

Where

This step must be performed on the WebLogic application server that will host your Deltek Time & Expense with Employee Self-Service 9.0.1 software.

To install the Deltek Time & Expense with Employee Self-Service 9.0.1 software, complete the following steps:

1. Run **DeltekTimeAndExpense901.exe** to launch the Deltek Time & Expense with Employee Self-Service 9.0.1 installation program.

    > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching the installation executables even when the logged in user has local administrative rights. This option is accessed by right-clicking the installation executable file name in Windows Explorer, and selecting **Run as Administrator** to launch the program.

2. When the Introduction screen displays, click **Next**.

3. When the Previous Version of Time & Expense Exists message displays, click **OK**.

4. When the License Agreement screen displays, review the license agreement, select the **I accept the terms of the License Agreement** option, and click **Next**.

    > It can take several minutes for the License Agreement screen to display.

5. When the Enter your WebLogic Home Directory screen displays, select the WebLogic Install folder you specified during the WebLogic Server installation. If the default (**C:\Oracle\Middleware**) is not the correct location, click **Choose** to select the correct folder. When you have chosen your WebLogic Home folder, click **Next**.

    > The WebLogic Server software cannot reside in a directory path or folder that contains a space. If you have installed to a directory path or folder that contains a space, you must remove the WebLogic Server software and reinstall it to a directory path and folder that does not contain a space.
    >
    > After you click **Next** to continue, the program will attempt to locate the **registry.dat** file located in the folder specified. The installation searches for the registry.dat file to verify that you have correctly specified the WebLogic Install folder. The installation will not allow you to proceed if this file is not found.

6. When the Enter WebLogic Server Information screen displays, perform the following:

    - **IP Address or Hostname** — Accept the default hostname (for example, **appsvr01**) or enter the IP address (for example, **10.2.2.154**) of your WebLogic application server.

      > The IP Address or Hostname cannot be 127.0.0.1 or localhost.

    - **Listen Port** — Enter the port that you want your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to use to listen for connections. The default is **7009** (recommended).

      > Deltek recommends using 7009 as the listen port unless it conflicts with other applications installed on this server.

7. Click **Next**.

8. When the Select Database Platform screen displays, select the **Microsoft SQL Server** option, and click **Next**.

9. When the Enter Microsoft SQL Server Database Information screen displays, perform the following:

   - **IP Address or Hostname** — Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Deltek Time & Expense with Employee Self-Service 9.0.1 database server. The Deltek Time & Expense with Employee Self-Service 9.0.1 software uses this information to communicate with your Deltek Time & Expense with Employee Self-Service 9.0.1 database server.

     > The IP Address or Hostname cannot be 127.0.0.1 or localhost.

   - **Port** — Enter the port that your database server software uses to listen for requests. The default port for Microsoft SQL Server is **1433**.

   - **Database Name** — Enter the Deltek Time & Expense with Employee Self-Service 9.0.1 Database Name you entered during the Database Installation "Step 1: Installing Deltek Time & Expense with Employee Self-Service 9.0.1 Database Scripts and Programs" item 7. The default is **DELTEKTE**.

10. Click **Next**.

11. When the Enter Microsoft SQL Server Database Passwords screen displays, enter the passwords for the following accounts/schemas and then click **Next**:

    > You created these schemas and assigned passwords to them during the Deltek Time & Expense with Employee Self-Service 9.0.1 Database installation. You must enter the actual passwords that are currently assigned to these database accounts/schemas. **This installation will not assign new passwords to these schemas.**

    - TC_0001
    - TC_0002
    - TCDSI
    - TCLOGIN

12. When the Confirm Microsoft SQL Server Database Passwords screen displays, re-enter the passwords for the preceding accounts/schemas, and click **Next**.

    > The program will compare the entries with those from the previous screen to make sure you have correctly typed the password values.

13. When the Choose Shortcut Folder screen displays, select the menu location for the Start Time & Expense with ESS 9.0.1 Server product icon. The default is **Deltek Time & Expense with ESS 9.0.1** (recommended). If you want the product icon installed for all users, select the **Create Icons for All Users** check box.

14. Click **Next**.

15. When the Pre-Installation Summary screen displays, review the installation parameters you have selected. If you want to change any settings, click **Previous** to go back and make the necessary changes. If you are satisfied with these settings, click **Install** to begin the installation.

16. When the process is complete, the Install Complete screen displays. Perform the following:

   ▪ Select the **Yes, restart my system** option.

   ▪ Click **Done** to exit the installation and reboot your Deltek Time & Expense 9.0.1 WebLogic application server.

17. Review the log file, **C:\Oracle\Middleware\DeltekTE90\Time_&_Expense_with_Employee_Self_Service_ 9.0.1_InstallLog.log**. Scroll down to the **Summary** section, and report any Warnings, NonFatalErrors, or FatalErrors to Deltek Technical Support.

After you upgrade to Deltek Time & Expense with Employee Self-Service 9.0.1, a new server location is established. Therefore, any scheduled reports or processes linked to the previous server location are no longer valid and will not run. To correct this, you will have to delete the existing scheduled processes and then re-create them prior to the next scheduled run.

To delete or add a scheduled process, click **Processes » Scheduling** on the Time and Expense with Employee Self-Service main menu. In the Scheduling screen, select the process you want to delete and click the **Delete Process** link. To add a process, click the **Add Process** link. The new server path automatically displays in the **Server** field of the Add Process dialog box.

Please make sure that your WebLogic Listen port, 7009 (the default), is opened for Inbound and Outbound traffic through your firewall.

Please make sure Network discovery and file sharing are turned on.

Deltek Time & Expense with Employee Self-Service 9.0.1 System Configuration

This section includes the following steps needed to configure your Deltek Time & Expense with Employee Self-Service 9.0.1 software:

1. Start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

2. Use the browser-based WebLogic console utility to upgrade your Time & Expense 8.3.0 database schemas.

3. Install the help files for the company domains.

4. Restart your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

5. Preserve your Deltek Time & Expense with Employee Self-Service 9.0.1 license file.

Prerequisites

The browser client workstation that will access the WebLogic console utility should meet the following prerequisites:

- **Hardware**
  - Pentium IV 1.4 GHz processor, or higher.
  - 512 MB of RAM, or higher.

- **Software**
  - Internet Explorer Version 9.0.1 (with latest service pack recommended), Internet Explorer Version 8.0 (with latest service pack recommended), Firefox 10, or Chrome 11.
  - Windows 7, Windows Vista SP2, Windows XP Professional (with Service Pack 2), or Windows Server 2008.

- **Servers**
  - On your Database Server, SQL Server Listen Port **1433** must be open for **Inbound** and **Outbound** traffic through your firewall.
  - On your Database Server, make sure **Network discovery and file sharing** are turned on.
  - On your Application Server, WebLogic Listen Port **7009** must be open for **Inbound** and **Outbound** traffic through your firewall.
  - On your Application Server, make sure **Network discovery and file sharing** are turned on.

Step 1: Starting Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server

Purpose

This step provides instructions for starting your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server. You must start the WebLogic Server on your application server to gain access to the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic **application** server.

To start your WebLogic server, complete the following steps:

1. In order for the Start Time & Expense with ESS 9.0.1 Server Windows Command Prompt to have scrolling capability, perform the following:

    a. Click **Start » Programs » Deltek Time & Expense with ESS 9.0.1**.

    b. Right-click **Start Time & Expense with ESS 9.0.1 Server**, and click **Properties** on the shortcut menu.

    c. When the Start Time & Expense with ESS 9.0.1 Server Properties screen displays, click the Layout tab and increase the Screen buffer size **Height** from **300** to **3000**.

    d. Click **OK** to save the changes.

    > Before starting Time & Expense with ESS 9.0.1, make sure that all of your ports are opened for **Inbound** and **Outbound** traffic through your firewall:
    >
    > Database Server Port
    >
    > - **Listen** — **1433** (the default)
    >
    > Application Server Port
    >
    > - **Listen** — **7009** (the default)

2. Click **Start » Programs » Deltek Time & Expense with ESS 9.0.1 » Start Time & Expense with ESS 9.0.1 Server**. This will open a Windows Command Prompt and launch a command script that starts the WebLogic Server. When the Windows Command Prompt window opens, you will see a series of messages scrolling down the screen.

    > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
    >
    > It will take several minutes for the WebLogic Server to start.

3. If your WebLogic Server starts successfully, the following message displays near the bottom of the command line shell window:

    <The server started in RUNNING mode.>

> If your WebLogic Server encounters errors during the startup process, the **<The server started in RUNNING mode.>** message will not display and the command line shell (DOS window) may terminate. If you do not receive the **<The server started in RUNNING mode.>** message or the command line shell terminates, you must do the following tasks:
>
> - Make a copy of the C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log file.
>
> - Contact Deltek Technical Support.

Step 2: Upgrading Time & Expense 8.3.0 Database Schemas

Purpose

This step provides instructions for upgrading your Time & Expense 8.3.0 database schemas to Deltek Time & Expense with Employee Self-Service 9.0.1.

Where

This step must be performed from a workstation that has Web browser client access via TCP/IP to the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this workstation.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available free for download at http://java.com.

To upgrade your Time & Expense 8.3.0 database schemas to Deltek Time & Expense with Employee Self-Service 9.0.1, perform the following:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server; and

   - **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is 7009 (for example, **http://10.2.2.154:7009/console**).

2. When the WebLogic Server Administration Console screen displays, perform the following:

   - **Username** — Enter **system**.

   - **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

   - Click **Login**.

---

3. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

> It can take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add http://<IPAddress or ComputerName> (for example, **http://10.2.2.154**) to your Internet Browser Trusted Sites and/or install Sun Microsystems' latest JVM.

4. When the Settings for DeltekTE screen displays, click the **Application Configuration** tab.

5. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **MASTER** link.

6. When the Database Login screen displays, perform the following:

    ▪ **Database Login ID**: Accept the default of **sa**.

    ▪ **Database Password**: Enter the Microsoft SQL Server **sa** user's password.

    ▪ Click **Ok**.

7. When the Domain MASTER screen displays, click the **Apply Upgrade** link.

8. When the Apply Upgrade for MASTER screen displays, perform the following:

    ▪ **Current Version** — Accept the default of **8.3.x.x** (that is, 8.3.0.3 or higher).

    ▪ **Target Version** — Accept the default of **9.0.1.0**.

    ▪ **TC_0000's password**: Enter the password for the TC_0000 user.

    > You specified this password during the Deltek Time & Expense with Employee Self-Service initial software installation.

    ▪ Click **Execute** to begin the upgrade process.

    > It can take several minutes to perform the upgrade. Upon successful completion, you will receive the following message:
    >
    > **Process Completed Successfully!**
    >
    > If you receive an error code instead of the above message, please complete the following steps:
    >
    > ▪ Execute the following SQL statement in SQL Query Analyzer, connected to your DELTEKTE database as the sa user:
    >
    > SELECT * FROM TC_0000.DB_SCRIPT_AUDIT
    >
    > ▪ Contact Deltek Technical Support.

9. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays near the bottom of the screen.

10. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **SAMPLE** link.

11. When the Domain SAMPLE screen displays, click the **Apply Upgrade** link.

12. When the Apply Upgrade for SAMPLE screen displays, perform the following:

- **Current Version** — Accept the default of **8.3.x.x** (that is, 8.3.0.3 or higher).
- **Target Version** — Accept the default of **9.0.1.0**.
- Click **Execute** to begin the upgrade process.

> It can take several minutes to perform the upgrade. Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please complete the following steps:
>
> - Execute the following SQL statement in SQL Query Analyzer, connected to your DELTEKTE database as the sa user:
>
>   SELECT * FROM TC_0001.DB_SCRIPT_AUDIT
>
> - Contact Deltek Technical Support.

13. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays near the bottom of the screen.

14. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **<Your_Domain_Name>** link for the **TC_0002** Schema.

    Where:

    - **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002 database schema when you originally installed the Time & Expense 8.3.0 software.

15. When the Domain **<Your_Domain_Name>** screen displays, click the **Apply Upgrade** link.

16. When the Apply Upgrade for **<Your_Domain_Name>** screen displays, perform the following:

    - **Current Version** — Accept the default of **8.3.x.x** (that is, 8.3.0.3 or higher).
    - **Target Version** — Accept the default of **9.0.1.0**.
    - Click **Execute** to begin the upgrade process.

> It can take several minutes to perform the upgrade. Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please complete the following steps:
>
> - Execute the following SQL statement in SQL Query Analyzer, connected to your DELTEKTE database as the sa user:
>
>   SELECT * FROM TC_0002.DB_SCRIPT_AUDIT
>
> - Contact Deltek Technical Support.

17. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays near the bottom of the screen.

18. When the Deltek Application Configuration Home screen displays, under the **Disconnected Domain List** heading, for your **<Your_Additional_Domain_Name>**

Schema (for the **TC_0003, or higher**), in the fields that appear in the last column, click the **Connect Chain Link** icon.

Where:

- **<Your_Additional_Domain_Name>** identifies the company domain you assigned to the TC_0003, or higher, database schema when you originally installed the Time & Expense 8.3.0 software.

> You must repeat items #18 through #24 of this step for EACH of the remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on) that you want reconnected/upgraded.
>
> **If you do not have any additional company domains, you may proceed to item #25 of this step.**

19. When the Create Connection screen displays, enter <Your_Additional_Domain_Name> **Schema Password**, and click **OK**.

> It can take several minutes for the Create Connection screen to display.

20. When the "Process Completed Successfully!" message displays, click the **Deltek Application Configuration Home** link that displays at the bottom of the screen.

> It can take several minutes for the "Process Completed Successfully!" message to display.

21. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **<Your_Additional_Domain_Name>** link for the **TC_0003, or higher,** Schema.

22. When the Domain **<Your_Additional_Domain_Name>** screen displays, click the **Apply Upgrade** link.

23. When the Apply Upgrade for **<Your_Additional_Domain_Name>** screen displays, perform the following:

- **Current Version** — Accept the default of **8.3.x.x** (that is, 8.3.0.3 or higher).
- **Target Version** — Accept the default of **9.0.1.0**.
- Click **Execute** to begin the upgrade process.

> It can take several minutes to perform the upgrade. Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please complete the following steps:
>
> - Execute the following SQL statement in SQL Query Analyzer, connected to your DELTEKTE database as the sa user:
>
>   SELECT * FROM TC_0003.DB_SCRIPT_AUDIT
>
> - Contact Deltek Technical Support.

24. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays at the bottom of the screen.

> You **MUST** repeat items #18 through #24 of this step for **EACH** of your remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on) that you want reconnected/upgraded.

25. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **SAMPLE** link.

26. When the Domain SAMPLE screen displays, enter the following:

- **Domain Name** — Accept the default of **SAMPLE**.

- **Schema Name** — Accept the default of **TC_0001**.

- **Status** — Accept the default selection of the **Enabled** option.

- **Locale** — Accept the default of **English (United States)** or change to your preferred locale.

- **Company Logo** — Enter the directory path location and name of the company logo graphics file that will display in the heading of your Deltek Time & Expense with Employee Self-Service 9.0.1 reports by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied company logo graphics file:

    /DeltekTC/com/deltek/tc/framework/images/companyLogo.gif

  Or

  - Specify your company's logo graphics file by performing the following:

    a. Copy your company's logo graphics file to the **DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images** directory located beneath your WebLogic home folder (that is, **C:\Oracle\Middleware**) on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application **server**.

    b. Enter the following value in the **Company Logo** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Company_Logo.gif>

    Where:

    - **<Your_Company_Logo.gif>** identifies the name of your company's logo graphics file (that is, MyCompanyLogo.gif).

> For example, if your company's logo graphics file is named MyCompanyLogo.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Company Logo** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanyLogo.gif
>
> - The Deltek Time & Expense with Employee Self-Service 9.0.1 reports will not function properly unless you supply a valid value for this field. If you do not have your own company logo graphics file, you must specify the Deltek supplied sample file by entering **/DeltekTC/com/deltek/tc/framework/images/companyLogo.gif**.
>
> - The dimensions for the company logo graphics file are as follows:
>   - Resizable in width — up to 100 pixels.
>   - Resizable in height — up to 50 pixels.

- **Branding Area Graphic** — Enter the directory path location and name of the branding area graphics file that will display at the top of your Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied branding area graphics file:

    /DeltekTC/com/deltek/tc/framework/images/TC_branding_Area.jpg

  - Specify your company's branding area graphics file by performing the following:

    a. Copy your company's branding area graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

    b. Enter the following value in the **Branding Area Graphic** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Branding_Area.jpg>

    Where:

    - <Your_Branding_Area.jpg> identifies the name of your company's branding area graphics file (that is, MyCompanyBranding.jpg).

> For example, if your company's branding area graphics file is named MyCompanyBranding.jpg, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Branding Area Graphic** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanyBranding.gif
>
> - The dimensions for the branding area graphics file are as follows:
>   - Resizable in width — up to 780 pixels.
>   - Fixed in height — 50/25 pixels (50 pixels above the navigation area and 25 pixels above the application name area on the Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages).
> - For additional information on the branding area graphics file, see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Splash Screen Graphic** — Enter the directory path location and name of the splash screen graphics file that will display when users login to your Deltek Time & Expense with Employee Self-Service 9.0.1 system by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied splash screen graphics file:

    /DeltekTC/com/deltek/tc/framework/images/splashScreen.gif

  - Specify your company's splash screen graphics file by performing the following:

    a. Copy your company's splash screen graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

    b. Enter the following value in the **Splash Screen Graphic** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Splash_Screen.gif>

    Where:

    - <Your_Splash_Screen.gif> identifies the name of your company's splash screen graphics file (that is, MyCompanySplash.gif).

> For example, if your company's splash screen graphics file is named MyCompanySplash.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Splash Screen Graphic** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanySplash.gif
>
> - The dimensions for the splash screen graphics file are as follows:
>   - Resizable in width — up to 680 pixels.
>   - Resizable in height — up to 335 pixels.
> - For additional information on the splash screen graphics file, please see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Authentication Method** — Select the authentication method you want to use: **Database**, **LDAP**, or **SSO**. The default is **Database**.

> Select **LDAP** if your WebLogic server will be working with a Microsoft Active Directory Lightweight Directory Access Protocol (LDAP) server.

- **Login ID Source** — Select the type of login you want to use: **LOGIN_ID** or **CONTEXT_ID**. The default is **LOGIN_ID**.
- **Case Sensitive Login ID** — Select this check box to make your login case-sensitive. The default is selected. To log in to all new domains that you create as the install user, you must select this check box.
- **Mixed Case Password** — Accept the default.
- **Attachment Storage Method** — Select the method of storage for expense attachments: **File System** (default) or **Database**.
- **Export Location** — Accept the default.
- **Import Location** — Accept the default.
- **Trash Location** — Accept the default.
- **Traveler Import Location** — Accept the default.
- **Traveler Rejection Location** — Accept the default.
- **Traveler Examination Level** — Accept the default of **1 - fastest**.
- **Save Login Id to Cookie** — Accept the default.
- **Save Domain to Cookie** — Accept the default.
- **Receipt Storage Location** — Accept the default.
- **Mobile Message Bundle Location** — Accept the default.
- **Employee Password Self Reset** — Accept the default.
- **German** — Accept the default.
- **English (United States)** — Accept the default.
- **Spanish** — Accept the default.

- **System Email Address** — Accept the default.
- **Time Sender Email Address** — Accept the default.
- **Expense Sender Email Address** — Accept the default.
- **ESS Sender Email Address** — Accept the default.
- **SMTP Server Name** — Accept the default.
- **SMTP Port** — Accept the default.
- **SMTP User ID** — Accept the default.
- **SMTP Password** — Accept the default.
- **Timesheet Pre Save** — Accept the default.
- **Timesheet Post Save** — Accept the default.
- **Timesheet Pre Sign** — Accept the default.
- **Timesheet Post Sign** — Accept the default.
- **Timesheet Pre Approve** — Accept the default.
- **Timesheet Post Approve** — Accept the default.
- **ER Pre Sign** — Accept the default.
- **ER Post Sign** — Accept the default.
- **ER Pre Save** — Accept the default.
- **ER Post Save** — Accept the default.
- **EA Pre Save** — Accept the default.
- **EA Post Save** — Accept the default.
- **EA Pre Sign** — Accept the default.
- **EA Post Sign** — Accept the default.

27. Click **Save Changes**.

> When the Update Domain SAMPLE screen displays, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive any error codes instead of the above message, please contact Deltek Technical Support.

28. When the "Process Completed Successfully!" message displays, click the **Deltek Application Configuration Home** link that displays near the bottom of the screen.

29. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **<Your_Domain_Name>** link for the **TC_0002** Schema.

Where:

- **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002 database schema when you originally installed the Time & Expense 8.3.0 software.

30. When the Domain **<Your_Domain_Name>** screen displays, enter the following:

- **Domain Name** — Accept the default of **<Your_Domain_Name>**.

- **Schema Name** — Accept the default of the schema associated with **<Your_Domain_Name>** (that is, TC_0002).

- **Status** — Accept the default selection of the **Enabled** option.

- **Locale** — Accept the default of English (United States) or change to your preferred locale.

- **Company Logo** — Enter the directory path location and name of the company logo graphics file that will display in the heading of your Deltek Time & Expense with Employee Self-Service 9.0.1 reports by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied company logo graphics file:

    /DeltekTC/com/deltek/tc/framework/images/companyLogo.gif

  Or

  - Specify your company's logo graphics file by performing the following:

    a. Copy your company's logo graphics file to the **DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images** directory located beneath your WebLogic home folder (that is, **C:\Oracle\Middleware**) on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application **server**.

    b. Enter the following value in the **Company Logo** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Company_Logo.gif>

    Where:

      - **<Your_Company_Logo.gif>** identifies the name of your company's logo graphics file (that is, MyCompanyLogo.gif).

        For example, if your company's logo graphics file is named MyCompanyLogo.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Company Logo** field:

        /DeltekTC/com/deltek/tc/framework/images/MyCompanyLogo.gif

          - The Deltek Time & Expense with Employee Self-Service 9.0.1 reports will not function properly unless you supply a valid value for this field. If you do not have your own company logo graphics file, you must specify the Deltek supplied sample file by entering **/DeltekTC/com/deltek/tc/framework/images/companyLogo.gif**.

          - The dimensions for the company logo graphics file are as follows:

            - Resizable in width — up to 100 pixels.

            - Resizable in height — up to 50 pixels.

- **Branding Area Graphic** — Enter the directory path location and name of the branding area graphics file that will display at the top of your Deltek Time & Expense

with Employee Self-Service 9.0.1 system's Web pages by performing one of the following:

▪ Accept the default directory path location and name of the Deltek supplied branding area graphics file:

/DeltekTC/com/deltek/tc/framework/images/TC_branding_Area.jpg

▪ Specify your company's branding area graphics file by performing the following:

a. Copy your company's branding area graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

b. Enter the following value in the **Branding Area Graphic** field:

/DeltekTC/com/deltek/tc/framework/images/<Your_Branding_Area.jpg>

Where:

▪ <Your_Branding_Area.jpg> identifies the name of your company's branding area graphics file (that is, MyCompanyBranding.jpg).

For example, if your company's branding area graphics file is named MyCompanyBranding.jpg, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Branding Area Graphic** field:

/DeltekTC/com/deltek/tc/framework/images/MyCompanyBranding.gif

▪ The dimensions for the branding area graphics file are as follows:

▪ Resizable in width — up to 780 pixels.

▪ Fixed in height — 50/25 pixels (50 pixels above the navigation area and 25 pixels above the application name area on the Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages).

▪ For additional information on the branding area graphics file, see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

▪ **Splash Screen Graphic** — Enter the directory path location and name of the splash screen graphics file that will display when users login to your Deltek Time & Expense with Employee Self-Service 9.0.1 system by performing one of the following:

▪ Accept the default directory path location and name of the Deltek supplied splash screen graphics file:

/DeltekTC/com/deltek/tc/framework/images/splashScreen.gif

▪ Specify your company's splash screen graphics file by performing the following:

a. Copy your company's splash screen graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

b. Enter the following value in the **Splash Screen Graphic** field:

/DeltekTC/com/deltek/tc/framework/images/<Your_Splash_Screen.gif>

Where:

- <Your_Splash_Screen.gif> identifies the name of your company's splash screen graphics file (that is, MyCompanySplash.gif).

> For example, if your company's splash screen graphics file is named MyCompanySplash.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Splash Screen Graphic** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanySplash.gif
>
> - The dimensions for the splash screen graphics file are as follows:
>   - Resizable in width — up to 680 pixels.
>   - Resizable in height — up to 335 pixels.
> - For additional information on the splash screen graphics file, please see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Authentication Method** — Select the authentication method you want to use: **Database**, **LDAP**, or **SSO**. The default is **Database**.

> Select **LDAP** if your WebLogic server will be working with a Microsoft Active Directory Lightweight Directory Access Protocol (LDAP) server.

- **Login ID Source** — Select the type of login you want to use: **LOGIN_ID** or **CONTEXT_ID**. The default is **LOGIN_ID**.
- **Case Sensitive Login ID** — Select this check box to make your login case-sensitive. The default is selected. To log in to all new domains that you create as the install user, you must select this check box.
- **Mixed Case Password** — Accept the default.
- **Attachment Storage Method** — Select the method of storage for expense attachments: **File System** (default) or **Database**. Because previous versions only supported **File System** storage method, you now have the opportunity to change to **Database** method. The method of storage selected will be used in a later Conversion Utility step, when you convert your existing attachments. Please note that this conversion will be required even if you do not change your storage method to **Database**.
- **Export Location** — Accept the default.
- **Import Location** — Accept the default.
- **Trash Location** — Accept the default.
- **Traveler Import Location** — Accept the default.
- **Traveler Rejection Location** — Accept the default.
- **Traveler Examination Level** — Accept the default of **1 - fastest**.
- **Save Login Id to Cookie** — Accept the default.

- **Save Domain to Cookie** — Accept the default.
- **Receipt Storage Location** — Accept the default.
- **Mobile Message Bundle Location** — Accept the default.
- **Employee Password Self Reset** — Accept the default.
- **English (United States)** — Accept the default.
- **System Email Address** — Accept the default.
- **Time Sender Email Address** — Accept the default.
- **Expense Sender Email Address** — Accept the default.
- **ESS Sender Email Address** — Accept the default.
- **SMTP Server Name** — Accept the default.
- **SMTP Port** — Accept the default.
- **SMTP User ID** — Accept the default.
- **SMTP Password** — Accept the default.
- **Timesheet Pre Save** — Accept the default.
- **Timesheet Post Save** — Accept the default.
- **Timesheet Pre Sign** — Accept the default.
- **Timesheet Post Sign** — Accept the default.
- **Timesheet Pre Approve** — Accept the default.
- **Timesheet Post Approve** — Accept the default.
- **ER Pre Sign** — Accept the default.
- **ER Post Sign** — Accept the default.
- **ER Pre Save** — Accept the default.
- **ER Post Save** — Accept the default.
- **EA Pre Save** — Accept the default.
- **EA Post Save** — Accept the default.
- **EA Pre Sign** — Accept the default.
- **EA Post Sign** — Accept the default.

31. Click **Save Changes**.

> When the Update Domain SAMPLE screen displays, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive any error codes instead of the above message, please contact Deltek Technical Support.

32. When the "Process Completed Successfully!" message displays, click the **Deltek Application Configuration Home** link that displays near the bottom of the screen.

33. When the Deltek Application Configuration Home screen displays, under the **Connected Domain List** heading, in the fields that display below the **Domain Name** heading, click the **<Your_Additional_Domain_Name>** link for the **TC_0003, or higher,** Schema.

Where:

- **<Your_Additional_Domain_Name>** identifies the company domain you assigned to the TC_0003, TC_0004, TC_0005, and so on database schema when you originally installed the Time & Expense 8.3.0 software.

> You must repeat items #33 through #36 of this step for EACH of the remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on) that you want reconnected/upgraded.
>
> **If you do not have any additional company domains you may proceed to item #37 of this step.**

34. When the Domain **<Your_Additional_Domain_Name>** screen displays, enter the following:

- **Domain Name** — Accept the default of **<Your_Additional_Domain_Name>.**

- **Schema Name** — Accept the default of the schema associated with **<Your_Additional_Domain_Name>** (that is, TC_0003).

- **Status** — Accept the default selection of the **Enabled** option.

- **Locale** — Accept the default of English (United States) or change to your preferred locale.

- **Company Logo** — Enter the directory path location and name of the company logo graphics file that will display in the heading of your Deltek Time & Expense with Employee Self-Service 9.0.1 reports by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied company logo graphics file:

    /DeltekTC/com/deltek/tc/framework/images/companyLogo.gif

  Or

  - Specify your company's logo graphics file by performing the following:

    a. Copy your company's logo graphics file to the **DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images** directory located beneath your WebLogic home folder (that is, **C:\Oracle\Middleware**) on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application **server**.

    b. Enter the following value in the **Company Logo** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Company_Logo.gif>

    Where:

    - **<Your_Company_Logo.gif>** identifies the name of your company's logo graphics file (that is, MyCompanyLogo.gif).

> For example, if your company's logo graphics file is named MyCompanyLogo.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Company Logo** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanyLogo.gif
>
> - The Deltek Time & Expense with Employee Self-Service 9.0.1 reports will not function properly unless you supply a valid value for this field. If you do not have your own company logo graphics file, you must specify the Deltek supplied sample file by entering **/DeltekTC/com/deltek/tc/framework/images/companyLogo.gif**.
>
> - The dimensions for the company logo graphics file are as follows:
>
>   - Resizable in width — up to 100 pixels.
>
>   - Resizable in height — up to 50 pixels.

- **Branding Area Graphic** — Enter the directory path location and name of the branding area graphics file that will display at the top of your Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied branding area graphics file:

    /DeltekTC/com/deltek/tc/framework/images/TC_branding_Area.jpg

  - Specify your company's branding area graphics file by performing the following:

    a. Copy your company's branding area graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

    b. Enter the following value in the **Branding Area Graphic** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Branding_Area.jpg>

    Where:

    - <Your_Branding_Area.jpg> identifies the name of your company's branding area graphics file (that is, MyCompanyBranding.jpg).

> For example, if your company's branding area graphics file is named MyCompanyBranding.jpg, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Branding Area Graphic** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanyBranding.gif
>
> - The dimensions for the branding area graphics file are as follows:
>   - Resizable in width — up to 780 pixels.
>   - Fixed in height — 50/25 pixels (50 pixels above the navigation area and 25 pixels above the application name area on the Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages).
> - For additional information on the branding area graphics file, see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Splash Screen Graphic** — Enter the directory path location and name of the splash screen graphics file that will display when users login to your Deltek Time & Expense with Employee Self-Service 9.0.1 system by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied splash screen graphics file:

    /DeltekTC/com/deltek/tc/framework/images/splashScreen.gif

  - Specify your company's splash screen graphics file by performing the following:

    a. Copy your company's splash screen graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

    b. Enter the following value in the **Splash Screen Graphic** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Splash_Screen.gif>

    Where:

    - <Your_Splash_Screen.gif> identifies the name of your company's splash screen graphics file (that is, MyCompanySplash.gif).

> For example, if your company's splash screen graphics file is named MyCompanySplash.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server and enter the following value in the **Splash Screen Graphic** field:
>
> /DeltekTC/com/deltek/tc/framework/images/MyCompanySplash.gif
>
> - The dimensions for the splash screen graphics file are as follows:
>   - Resizable in width — up to 680 pixels.
>   - Resizable in height — up to 335 pixels.
> - For additional information on the splash screen graphics file, please see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Authentication Method** — Select the authentication method you want to use: **Database**, **LDAP**, or **SSO**. The default is **Database**.

> Select **LDAP** if your WebLogic server will be working with a Microsoft Active Directory Lightweight Directory Access Protocol (LDAP) server.

- **Login ID Source** — Select the type of login you want to use: **LOGIN_ID** or **CONTEXT_ID**. The default is **LOGIN_ID**.
- **Case Sensitive Login ID** — Select this check box to make your login case-sensitive. The default is selected. To log in to all new domains that you create as the install user, you must select this check box.
- **Mixed Case Password** — Accept the default.
- **Attachment Storage Method** — Select the method of storage for expense attachments: **File System** (default) or **Database**. Because previous versions only supported **File System** storage method, you now have the opportunity to change to **Database** method. The method of storage selected will be used in a later Conversion Utility step, when you convert your existing attachments. Please note that this conversion will be required even if you do not change your storage method to **Database**.
- **Export Location** — Accept the default.
- **Import Location** — Accept the default.
- **Trash Location** — Accept the default.
- **Traveler Import Location** — Accept the default.
- **Traveler Rejection Location** — Accept the default.
- **Traveler Examination Level** — Accept the default of **1 - fastest**.
- **Save Login Id to Cookie** — Accept the default.
- **Save Domain to Cookie** — Accept the default.
- **Receipt Storage Location** — Accept the default.
- **Mobile Message Bundle Location** — Accept the default.

- **Employee Password Self Reset** — Accept the default.
- **English (United States)** — Accept the default.
- **System Email Address** — Accept the default.
- **Time Sender Email Address** — Accept the default.
- **Expense Sender Email Address** — Accept the default.
- **ESS Sender Email Address** — Accept the default.
- **SMTP Server Name** — Accept the default.
- **SMTP Port** — Accept the default.
- **SMTP User ID** — Accept the default.
- **SMTP Password** — Accept the default.
- **Timesheet Pre Save** — Accept the default.
- **Timesheet Post Save** — Accept the default.
- **Timesheet Pre Sign** — Accept the default.
- **Timesheet Post Sign** — Accept the default.
- **Timesheet Pre Approve** — Accept the default.
- **Timesheet Post Approve** — Accept the default.
- **ER Pre Sign** — Accept the default.
- **ER Post Sign** — Accept the default.
- **ER Pre Save** — Accept the default.
- **ER Post Save** — Accept the default.
- **EA Pre Save** — Accept the default.
- **EA Post Save** — Accept the default.
- **EA Pre Sign** — Accept the default.
- **EA Post Sign** — Accept the default.

35. Click **Save Changes**.

> When the Update Domain **<Your_Domain_Name>** screen displays, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive any error codes instead of the above message, please contact Deltek Technical Support.

36. When the "Process Completed Successfully!" message displays, click the **Deltek Application Configuration Home** link that displays near the bottom of the screen.

> You **MUST** repeat items #33 through #36 of this step for **EACH** of your remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on).

37. Click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

38. When the Settings for DeltekTE screen displays, click the **Control** tab, and perform the following:

   ▪ **DeltekTEServer (admin)** — Select the check box that displays to the left.

   ▪ Click **Shutdown**, and select **Force Shutdown Now**.

39. When the Domain Life Cycle Assistant screen displays, click either of the **Yes** buttons.

40. Close the Web browser screen.

It can take several minutes for your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to process the shutdown request. The shutdown request has completed if the Windows command line shell that was used to launch your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server has terminated.

Deltek recommends that you establish a Database Maintenance Plan for your Microsoft SQL Server Deltek Time & Expense with Employee Self-Service 9.0.1 database. Your Database Maintenance Plan should include a regularly scheduled task that updates the database statistics used by the SQL Server query optimizer. Regular updating of the statistics will ensure that the query optimizer has up-to-date information about the distribution of data values in the Deltek Time & Expense with Employee Self-Service 9.0.1 database's tables. Please consult your Microsoft SQL Server documentation for additional information on creating a Database Maintenance Plan for your Deltek Time & Expense with Employee Self-Service 9.0.1 databas.

Step 3: Installing Help Files for Deltek Time & Expense 9.0.1 Company Domains

Purpose

This step provides instructions for installing the help files for your Deltek Time & Expense 9.0.1 company domains.

Where

This step must be performed on your **Deltek Time & Expense 9.0.1 WebLogic application** server.

To install the help files for your Deltek Time & Expense 9.0.1 company domains, complete the following steps:

1. Open a Windows Command Prompt and launch the following command script:

   TEHelpFiles <Your_Domain_Name>

   Where:

   ▪ **<Your_Domain_Name>** identifies the domain name you will use when logging into your Time & Expense company domain. The Domain name cannot contain spaces.

   For example, if your company domain name is ACME, you would enter the following:

   TEHelpFiles ACME

> Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
>
> When you launch the TEHelpFiles <Your_Domain_Name> script, the Windows Command Prompt will display the message "Copying files…." If you are prompted with an "Overwrite C:\Oracle\Middleware\DeltekTE90\... <Yes/No/All>" message, you must enter **Y** to overwrite your file with the latest one. A "Copy complete…" message displays when the copy process is finished.

2. Launch this command script, as described above, for each of your other company domains.

3. Close the Windows Command Prompt.

Step 4: Backing Up Time & Expense 9.0.1 Database

Purpose

This step provides instructions for performing a backup of your Time & Expense 9.0.1 database.

Where

This step must be performed from the **Microsoft SQL Server database** server that hosts your Time & Expense 9.0.1 database, or a Windows client workstation that can connect to your Time & Expense 9.0.1 database with the Microsoft SQL Server Enterprise Manager client software.

To back up your Time & Expense 9.0.1 database, complete the following steps:

1. Click **Start » All Programs » Microsoft SQL Server 2005/2008 » SQL Server Management Studio**.

2. Do the following:

    ▪ **Server Type** — Select **Database Engine**.

    ▪ **Server Name** — Select your SQL server.

    ▪ If you choose **SQL Authentication** in **Authentication** on the Connect to Server dialog box, enter **sa** in **Login**. In **Password**, enter the password you established for this username during the Microsoft SQL Server 2005 installation process.

    ▪ Click **Connect**.

3. Expand the <your database server name> node.

4. Click the **+** on the Databases folder.

5. Right-click your Time & Expense database (**DELTEKTE**).

6. Click **Tasks » Back Up** to display the Back Up Database screen.

7. Click the General tab.

8. Do the following:

    ▪ Source

        ▪ **Database** — Select your Time & Expense Database (**DELTEKTE**)

        ▪ **Backup type** — **Full**

    ▪ Backup Set

> ▪ **Name** — Enter a name for this backup set (that is, **DELTEKTE.BAK**).
>
> ▪ **Description** — Enter a description for this backup set (optional).
>
> ▪ **Backup set will expire** — leave the default of **0** days.
>
> ▪ **Destination** — Select either the **Backup to Tape** or **Backup to Disk** option, and then specify a backup destination. If no backup destinations display, click **Add** to add an existing destination or to create a new one.

9. Click **Source in Select a Page** on the right and do the following:

   ▪ **Overwrite Media** — Select **Append to media** (to append the backup to an existing backup on the backup device) or **Overwrite existing media** (to overwrite an existing backup on the backup device).

10. Click **OK** to begin the backup procedure. When the backup is completed, the following message displays:

    "The backup operation has been completed successfully."

11. Click **OK**.

12. Close the SQL Server Management Studio screen.

> For additional information on backing up your Microsoft SQL Server database, consult the Microsoft SQL Server documentation. **Deltek strongly recommends that you regularly test and verify your database backups before proceeding with the remainder of this installation.**

Step 5: Installing and Starting Deltek Time & Expense with ESS 9.0.1 Service

Purpose

This step provides instructions for setting up and starting the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server instance to run as a Windows service.

Where

This step must be performed on your **Deltek Time & Expense 9.0.1 WebLogic application** server.

To install and start the Deltek Time & Expense with Employee Self-Service 9.0.1 to run as a Windows service, complete the following steps:

1. Open a Windows Command Prompt and launch the following command script:

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.

   InstallTEService

2. When the *"Time & Expense with ESS 9.0.1 installed"* message displays, close the Windows Command Prompt.

3. Click **Start » Programs » Administrative Tools » Services**.

---

4. When the Services window displays, scroll down the **Services** list, right-click the **Time & Expense with ESS 9.0.1** service, and click **Properties** on the shortcut menu.

5. When the Time & Expense with ESS 9.0.1 Properties screen displays, click the **Recovery** tab, and perform the following:

   ▪ **First failure** — Change the drop-down selection from **Take No Action** to **Restart the Service**.

   ▪ **Second failure** — Accept the default of **Take No Action.**

   ▪ **Subsequent failures** — Accept the default of **Take No Action**.

   ▪ **Reset fail count after** — Change from **0** to **1** days.

   ▪ **Restart service after** — Accept the default of **1** minutes.

6. Click **Apply**.

7. In the Time & Expense with ESS 9.0.1 Properties screen, click the General tab, and click the **Start** button to start the Time & Expense with ESS 9.0.1 service.

   > The service will indicate that it started immediately. Please note, however, that it will take several minutes for the Time & Expense with ESS 9.0.1 service to fully initialize.
   >
   > After starting the service, you must wait several minutes before attempting to connect to the software.
   >
   > If you encounter problems with the Time & Expense with ESS 9.0.1 service, check the C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log file and report any errors to Deltek Technical Support.

8. Click **OK** to close the Time & Expense with ESS 9.0.1 Properties screen.

9. Close the Services window.

Step 6: Running Conversion Utility to Migrate Receipt Attachments by Storage Method

Purpose

This step provides instructions for converting receipt attachments for your Deltek Time & Expense 9.0.1 company domains.

Because previous versions only supported **File System** storage method, you now have the opportunity to change to **Database** method. The method of storage selected previously will now be used to convert your existing attachments.

> Please note that this conversion is required even if you do not change your storage method to **Database**.

Where

This step must be performed on your **Deltek Time & Expense 9.0.1 WebLogic application** server.

To migrate receipt attachments for your Deltek Time & Expense 9.0.1 company domains, complete the following steps:

1. Open a Windows Command Prompt, navigate to the **C:\Oracle\Middleware\DeltekTE90\Utility** directory, and launch the following command script:

   doMigration <Your_sa_User_Password> <Your_Schema_Name>

   Where:

   - **<Your_sa_User_Password>** identifies the password for your SQL Server **sa** user.
   - **<Your_Schema_Name>** identifies the TC_000x schema for your company domain.

   > For example, if your sa password is **Password1** and your company schema is under the **TC_0002** user, you would enter the following:
   >
   > **doMigration Password1 TC_0002**

2. Launch this command script, as described above, for **each** of your other company domains.

3. Close the Windows Command Prompt.

4. Review the C:\Oracle\Middleware\DeltekTE90\Utility**ExpenseReceiptsMigration.log** file, reporting any errors to Deltek Technical Support.

Step 7: Preserving Deltek Time & Expense with Employee Self-Service 9.0.1 License File

Purpose

This step provides instructions for preserving your Deltek Time & Expense with Employee Self-Service 9.0.1 license file.

> Deltek recommends that you copy your Deltek Time & Expense with Employee Self-Service 9.0.1 license file, DELTEKTE.LIC, to a secure location. You will need this file to be contained in the **C:\Oracle\Middleware\DeltekTE90\scripts** directory each time you create a new Deltek Time & Expense with Employee Self-Service 9.0.1 company domain.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic **application** server.

To preserve your Deltek Time & Expense with Employee Self-Service 9.0.1 license file, complete the following step:

1. Copy the **DELTEKTE.LIC** license file you received to the **C:\Oracle\Middleware\DeltekTE90\scripts** directory.

Logging into Deltek Time & Expense with Employee Self-Service 9.0.1

This section provides instructions for verifying your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server installation. To confirm that your system is functioning properly, you will log in to your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain(s).

Prerequisites

This step requires you to use a supported browser client that meets the following hardware and software prerequisites:

- Hardware
  - Pentium IV 1.4 GHz processor, or higher.
  - 512 MB of RAM, or higher.
- Software
  - Internet Explorer Version 9.0.1 (with latest service pack recommended), Internet Explorer Version 8.0 (with latest service pack recommended), Firefox 10, or Chrome 11.
  - Adobe Acrobat 8.1, or higher (required to display or print Deltek Time & Expense with Employee Self-Service 9.0.1 reports). **Please note that if you are planning on fax attaching items to expense reports/expense authorizations, the PDF created by Fax/copier must be version 1.4 or earlier.**

Logging into your Deltek Time & Expense with Employee Self-Service 9.0.1 Company Domain

Purpose

This step provides instructions for logging into your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain(s).

Where

You can perform this step from any supported browser client that has TCP/IP access to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To login to your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/DeltekTC/welcome.msv

   Where:

   - **<IPAddress or ComputerName>** identifies your WebLogic application server.
   - **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

For example, http://10.2.2.154:7009/DeltekTC/welcome.msv

2. When the Deltek Time & Expense with Employee Self-Service screen displays, perform the following:

- **Login ID** — Enter your login ID.

  The Login ID is case-sensitive.

- **Password** — Enter your login user's password.

  The password is case-sensitive.

- **Domain** — Enter **<Your_Domain_Name>**.

  Where:

  - **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002, TC_0003, TC_0004, TC_0005, and so on, database schema when you originally installed the Time & Expense 8.3.0 software.

- **Language** — Select your language from the drop-down box (for example, **English/United States**).

3. Click **Login**.

4. When the Welcome screen displays, you can begin using the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

You must repeat this procedure for each of the company domains that you have upgraded to Deltek Time & Expense with Employee Self-Service 9.0.1.

The following three screens were added to the Expense module for this release:

- Process ›› Export Expense Commitments
- Process ›› Compute Commitments
- Audit ›› Commitment Inquiry/Report

These screens display for users only after you assign Browse Only or Full rights in **Administration** ›› **Users & Group** ›› **Security Roles**. To learn more about the purpose and functionality of these screens, refer to the *New Features* section of the Deltek Time & Expense with Employee Self Service 9.0.1 Release Notes.

Please note that export of commitments is limited to Costpoint 7.0.

Please note that if you are planning on fax attaching items to expense reports/expense authorizations, the PDF created by Fax/copier must be version 1.4 or earlier.

Deltek Employee Self-Service 9.0.1 users must proceed to "Appendix F: Installing Costpoint Interface Programs."

You must have Adobe Acrobat Reader installed on **any browser client** that intends to display or print timesheets or any other reports from the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Hot Fix Bundle Installation

Several defects were repaired and tested after during the installation release testing. To reduce the installation effort applying these, an installation has been created to install the latest files. These bundles are released as hot fixes in DSM. You should have been prompted to download any hot fixes when you downloaded the software. If not, you will need to go download all hot fixes for Time & Expense 9.0.1 now. During this step, you will install the latest Deltek Time & Expense with Employee Self-Service 9.0.1 Hot Fix Bundle software.

Step 1: Installing Deltek Time & Expense with Employee Self-Service 9.0.1 Hot Fix Bundle

Purpose

During this step, you will install the latest Deltek Time & Expense with Employee Self-Service 9.0.1 Hot Fix Bundle software.

Where

This step must be performed on the WebLogic application server that will host your Deltek Time & Expense with Employee Self-Service 9.0.1 software.

To install the latest Deltek Time & Expense with Employee Self-Service 9.0.1 Hot Fix Bundle software, complete the following steps:

1. Run **DeltekTimeandExpense901HotFixBundleXXX.exe** to launch the latest Deltek Time & Expense with Employee Self-Service 9.0.1 Hot Fix Bundle installation program.

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching the installation executables even when the logged in user has local administrative rights. This option is accessed by right-clicking the installation executable file name in Windows Explorer, and selecting **Run as Administrator** to launch the program.

2. When the Introduction screen displays, click **Next**.

3. When the License Agreement screen displays, review the license agreement, select the **I accept the terms of the License Agreement** option, and click **Next**.

   > It can take several minutes for the License Agreement screen to display.

4. When the Choose Install Folder screen displays, select the location of your Time & Expense 9.0.1 software. If the default (**C:\Oracle\Middleware\DeltekTE90**) is not the correct location, click **Choose** to select the correct folder. When you have chosen your Time & Expense 9.0.1 folder, click **Next**.

   > After you click **Next** to continue, the program will check the registry to verify that you have installed Time & Expense 9.0.1 (9.0.1.0). The installation will not allow you to proceed if you have not.

5. When the Pre-Installation Summary screen displays, review the installation parameters you have selected. If you want to change any settings, click **Previous** to go back and

make the necessary changes. If you are satisfied with these settings, click **Install** to begin the installation.

6. When the Install Complete screen displays, click **Done** to exit the installation.

7. Review the log file, **C:\Oracle\Middleware\DeltekTE90\DeltekTimeandExpense901HotFixBundleXXX_InstallLog.log**. Scroll down to the **Summary** section, and report any Warnings, NonFatalErrors, or FatalErrors to Deltek Technical Support.

Step 2: Logging into your Deltek Time & Expense with Employee Self-Service 9.0.1 Company Domain

Purpose

This step provides instructions for logging into your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain(s).

Where

You can perform this step from any supported browser client that has TCP/IP access to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To login to your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

    http://<IPAddress or ComputerName>:<Port>/DeltekTC/welcome.msv

    Where:

    ▪ **<IPAddress or ComputerName>** identifies your WebLogic application server.

    ▪ **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

    For example, http://10.2.2.154:7009/DeltekTC/welcome.msv

2. When the Deltek Time & Expense with Employee Self-Service screen displays, perform the following:

    ▪ **Login ID** — Enter your login ID.

    > The Login ID is case-sensitive.

    ▪ **Password** — Enter your login user's password.

    > The password is case-sensitive.

    ▪ **Domain** — Enter **<Your_Domain_Name>**.

    Where:

- **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002, TC_0003, TC_0004, TC_0005, and so on, database schema when you originally installed the Time & Expense 9.0.1 LA software.

- **Language** — Select your language from the drop-down box (for example, **English/United States**).

3. Click **Login**.

4. When the Welcome screen displays, you can begin using the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Appendix A: Documentation

This appendix lists the Time & Expense 9.0.1 documentation and provides a brief description of each.

Online Help

- The online help is fully updated for Time & Expense 9.0.1. From within Time & Expense 9.0.1, click ☐ on the Global menu and select **Help** to open the help topic for the currently displayed screen. You can navigate to any help topic from the table of contents that displays in the left navigation pane.

Release Notes

- **DeltekTimeAndExpense901ReleaseNotes.pdf** — This document describes version 9.0.1 enhancements, software corrections, and database changes.

> If you are upgrading from version 8.3, see the 9.0 release notes (DeltekTimeAndExpense90ReleaseNotes.pdf) to learn about enhancements, software corrections, and database changes made in the last release that are also included in the 9.0.1 upgrade.
>
> **DeltekTimeAndExpense90ReleaseNotes.pdf** is included in the 9.0.1 upgrade package and is also available from Deltek Customer Connect.

Technical Guides

- **DeltekTimeAndExpense901GettingStartedGuideTimeCollection.pdf** — This document describes important concepts and how to implement and use Deltek Time.

- **DeltekTimeAndExpense901GettingStartedGuideExpense.pdf** — This document describes important concepts and how to implement and use Deltek Expense.

- **DeltekTimeAndExpense90GettingStartedGuideEmployeeSelfService.pdf** — This document describes important concepts and how to implement and use Deltek Employee Self Service.

- **DeltekTimeAndExpense901TechnicalGuide.pdf** — This document describes a technical overview of the system along with valuable materials about the database, security, integration, and so on.

Documentation for Deltek Mobile Time

Deltek Mobile Time is available to all Web Time customers.

- **DeltekMobileTime901SupplementalInformation.pdf** — Attention Deltek Mobile Time Customers: Review the information contained in this document _before_ installing Deltek Mobile Time.

- **DeltekMobileTime901NewInstallGuide.pdf** — This document provides instructions on installing and deploying Deltek Mobile Time.

- **DeltekMobileTime901UpgradeInstallGuide.pdf** — This document provides instructions on installing and deploying Deltek Mobile Time for existing Mobile Time users.

- **DeltekMobileTime901LoginScreenQRC.pdf** — This document provides a graphical overview of logging on to Deltek Mobile Time.

- **DeltekMobileTime901OverviewQRC.pdf** — This document provides a graphical overview of Deltek Mobile Time.

- **DeltekMobileTime901TimesheetOptionsQRC.pdf** — This document provides a graphical overview of the mobile timesheet features.

- **DeltekMobileTime901EnterTimesheetInformationQRC.pdf** — This document provides a graphical overview of entering timesheet data in Deltek Mobile Time.

- **DeltekMobileTime901NavigationQRC.pdf** — This document provides a graphical overview of navigating Deltek Mobile Time.

- **DeltekMobileTime901UserOptionsQRC.pdf** — This document provides a graphical overview of user options in Deltek Mobile Time.

Entity Relationship Diagram (ERD)

- **DeltekTimeAndExpense901ERD.zip** — This zip file contains the Deltek Time & Expense ERD. To access the ERD extract all files from the zip and execute the following:

   o **TE 901 ERD Company Report**— Under this folder, launch **index.htm** to view the "Company" schema(s) containing the configuration, master, and transactional data for Deltek Time, Expense, and Employee Self Service. Each domain has their own "Company" schema.

   o **TE 901 ERD Master Report**— Under this folder, launch **index.htm** to view the "Master" schema (TC_0000) containing system data that is common for all T&E domains (company data schemas). It contains user security information, import staging tables, and high level T&E domain settings.

Appendix B: Using the Sample Data Domain

A sample domain (SAMPLE) has been created to help you familiarize yourself with the Deltek Time & Expense with Employee Self-Service 9.0.1 software. The SAMPLE domain is a database schema that Deltek provides to help customers familiarize themselves with the Deltek Time & Expense with Employee Self-Service 9.0.1 software. The SAMPLE domain is stored in the TC_0001 database schema, and it includes a fully functional collection of data for a fictitious company. This appendix provides instructions for connecting to the Deltek Time & Expense with Employee Self-Service 9.0.1 SAMPLE domain.

The procedure in this appendix can be performed from any supported browser client that has TCP/IP access to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

See the "System Requirements" section for a list of supported browser clients.

To connect to the SAMPLE domain, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

    http://<IPAddress or ComputerName>:<Port>/DeltekTC/welcome.msv

    Where:

    - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

    - **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

    For example, http://10.2.2.154:7009/DeltekTC/welcome.msv

2. When the Deltek Time & Expense with Employee Self-Service screen displays, perform the following:

    - **Login ID** — Enter **10010**.

    - **Password** — Enter the password for the 10010 user. The default was **sample**.

    - **Domain** — Enter **SAMPLE**.

    - **Language** — Select your language from the drop-down box (for example, **English/United States**).

3. Click **Login**.

4. When the MyDesktop screen displays, you may begin using the SAMPLE domain to familiarize yourself with the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

Appendix C: Using Microsoft's Internet Information Server with Deltek Time & Expense with Employee Self-Service 9.0.1

This appendix provides instructions for integrating your Deltek Time & Expense with Employee Self-Service 9.0.1 software with Microsoft's Internet Information Server.

The procedures in this appendix must be performed on a Web server that is using Microsoft's Internet Information Server.

> This installation will **automatically remove** all previous versions of the Time & Expense with Employee Self-Service software running in IIS.

Prerequisites

The Web server that will host your Internet Information Server software must meet the following prerequisites:

- Hardware
  - Hardware requirements vary among the different Web server platforms. Consult with Deltek's Systems Solutions team or your Web server platform vendor to determine the hardware requirements for your Web server.
- Software
  - Microsoft Internet Information Server 7.0.

Step 1: Installing Deltek Time & Expense 9.0.1 IIS Software

To install the Deltek Time & Expense 9.0.1 IIS software, complete the following steps:

1. Run **DeltekTimeAndExpense901IIS.exe** to launch the Deltek Time & Expense with Employee Self-Service 9.0.1 Internet Information Server installation program.

   > Due to enhanced security in Windows Server 2008 it is advised to use the option to **Run as Administrator** when launching the installation executables even when the logged in user has local administrative rights. This option is accessed by right-clicking the installation executable file name in Windows Explorer and selecting **Run as Administrator** to launch the program.

2. When the Introduction screen displays, click **Next**.

3. When the Previous Version of Time & Expense Exists message displays, click **OK**.

4. When the License Agreement screen displays, review the license agreement, select the **I accept the terms of the License Agreement** option, and click **Next**.

   > It can take several minutes for the License Agreement screen to display.

5. When the Choose Install Folder screen displays, enter the location of your Microsoft IIS Web server's default folder by accepting the default folder (C:\inetpub\wwwroot), or

choose a different folder by clicking the **Choose** button. After you have chosen the appropriate folder, click **Next**.

6. When the Enter WebLogic System Information screen displays, perform the following:

    ▪ **IP Address or Hostname** — Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **appsvr01**) of your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

    > The IP Address or Hostname cannot be 127.0.0.1 or localhost.

    ▪ **Listen Port** — Enter the Listen Port for your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. You specified this port during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default port is **7009** (recommended).

    > Your Microsoft IIS Web server will use the IP address or hostname and listen port information to forward requests to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

7. Click **Next**.

8. When the Pre-Installation Summary screen displays, review the installation parameters you have selected. If you want to change any settings, click **Previous** to go back and make the necessary changes. If you are satisfied with these settings, click **Install** to begin the installation.

9. When the Install Complete screen displays, click **Done** to exit the installation.

10. Review the log file, **C:\Inetpub\wwwroot\DeltekTC\Time_&_Expense_with_Employee_Self_Service_9.0. 1_Internet_Information_Server_InstallLog.log**. Scroll down to the **Summary** section, and report any Warnings, NonFatalErrors, or FatalErrors to Deltek Technical Support.

Step 2: Configuring IIS for Deltek Time & Expense 9.0.1

To configure IIS for Deltek Time & Expense 9.0.1, complete the following steps:

1. Click **Start » Administrative Tools » Server Manager**.

2. Expand the **Roles** tree in the left pane, and click **Web Server (IIS)**.

3. When the Web Server (IIS) screen displays, click **Add Roll Services** in the right pane.

4. When the Select Role Services screen displays, perform the following actions:

    ▪ **ISAPI Extensions** — Select this check box.

    ▪ Click **Next >**, and then click **Install**.

    > If the ISAPI Extensions have already been installed, click **Cancel**.

5. Expand the **Web Server (IIS)** tree in the left pane, and click **Internet Information Services (IIS) Manager**.

6. When the Internet Information Services (IIS) Manager screen displays, expand your IIS computer name, expand **Sites**, and expand the **Default Web Site** node.

7. Click the new **DeltekTC** folder, and double-click **Handler Mappings**.

8. When the Handler Mappings screen displays, under **Actions** in the right pane, click **Add Script Map…**.

> If you already have the TEjspProxy and TEmsvProxy script maps created skip to item 15 of this step.

9. When the Add Script Map screen displays, perform the following:

   ▪ **Requested path** — Enter *****.jsp**.

   ▪ **Executable** — Enter, or browse to, **C:\inetpub\wwwroot\DeltekTC\iisproxy.dll** (where C:\inetpub\wwwroot\DeltekTC is the directory where your Deltek Time & Expense with Employee Self-Service 9.0.1 IIS files were copied).

   ▪ **Name** — Enter **TEjspProxy**.

   ▪ Click **OK**.

10. When the "Do you want to allow this ISAPI extension?" message displays, click **Yes**.

11. When the Handler Mappings screen displays, under **Actions** in the right pane, click **Add Script Map...**.

12. When the Add Script Map screen displays, perform the following:

   ▪ **Requested path** — Enter *****.msv**.

   ▪ **Executable** — Enter, or browse to, **C:\inetpub\wwwroot\DeltekTC\iisproxy.dll** (where C:\inetpub\wwwroot\DeltekTC is the directory where your Deltek Time & Expense with Employee Self-Service 9.0.1 IIS files were copied).

   ▪ **Name** — Enter **TEmsvProxy**.

   ▪ Click **OK**.

13. When the "Do you want to allow this ISAPI extension?" message displays, click **Yes**.

14. When the Handler Mappings screen displays, under **Actions** in the right pane, click **Add Script Map...**.

15. When the Add Script Map screen displays, perform the following:

   ▪ **Requested path** — Enter *****.serv**.

   ▪ **Executable** — Enter, or browse to, **C:\inetpub\wwwroot\DeltekTC\iisproxy.dll** (where C:\inetpub\wwwroot\DeltekTC is the directory where your Deltek Time & Expense with Employee Self-Service 9.0.1 IIS files were copied).

   ▪ **Name** — Enter **TEservProxy**.

   ▪ Click **OK**.

16. When the "Do you want to allow this ISAPI extension?" message displays, click **Yes**.

17. Right-click your IIS computer name icon that displays in the left pane of the Internet Information Services (IIS) Manager window, and click **Stop** on the shortcut menu..

18. Right-click your IIS computer name icon that displays in the left pane of the Internet Information Services (IIS) Manager window, and click **Start** on the shortcut menu.

19. Close the Server Manager window.

Step 3: Installing IIS Help Files for Deltek Time & Expense 9.0.1 Company Domains

To install the IIS help files for your Deltek Time & Expense 9.0.1 company domains, complete the following steps:

1. Open a Windows Command Prompt.

2. Navigate to the directory where the files that integrate your Deltek Time & Expense 9.0.1 software with Microsoft's IIS were installed (C:\inetpub\wwwroot\DeltekTC), and launch the following command script:

   TEiisHelp <Your_Domain_Name>

   Where:

   - **<Your_Domain_Name>** identifies the domain name you will use when logging into your Time & Expense company domain. The Domain name **cannot** contain spaces.

   For example, if your company domain name is ACME, you would enter the following:

   TEiisHelp ACME

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
   >
   > When you launch the TEiisHelp <Your_Domain_Name> script, the Windows Command Prompt will display the message "Copying files...." If you are prompted with an "Overwrite C:\inetpub\wwwroot\DeltekTC\... <Yes/No/All>" message, you must enter **Y** to overwrite your file with the latest one. A "Copy complete..." message will display when the copy process finishes.

3. Launch the **TEiisHelp <Your_Domain_Name>** command script for **each** of your other company domains.

4. Close the Windows Command Prompt.

Step 4: Accessing Deltek Time & Expense 9.0.1 through IIS

To access Deltek Time & Expense 9.0.1 through IIS, complete the following steps:

1. You can now access the Deltek Time & Expense with Employee Self-Service 9.0.1 software by entering the following, case-sensitive, URL in your browser:

   http://<IPAddress or ComputerName>/DeltekTC/welcome.msv

   Where:

   - **<IPAddress or ComputerName>** identifies your Microsoft Internet Information Web server that will forward requests to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

   For example, http://10.2.2.154/DeltekTC/welcome.msv

Appendix D: Creating Additional Domains

This appendix provides instructions for creating additional Deltek Time & Expense with Employee Self-Service 9.0.1 company domains. To create a new company domain you will perform the following steps:

- Create your new company domain.
- Install help files for the new company domain.
- Log in to your new company domain.

Step 1: Creating Additional Deltek Time & Expense with Employee Self-Service 9.0.1 Domains

Purpose

The Deltek Time & Expense with Employee Self-Service 9.0.1 system requires you to create and license each of the database schemas that you plan to use as domains for storing and accessing your timesheet data. This step provides instructions for creating and licensing additional Deltek Time & Expense with Employee Self-Service 9.0.1 domains.

This step must be performed from a machine that has Web browser client access via TCP/IP to the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available to download for free at http://java.com.

To complete this step, you must have access to the **DELTEKTE.LIC** license file supplied to you by Deltek. This is the same license file you used when creating your initial company domain.

To create and license additional Deltek Time & Expense with Employee Self-Service 9.0.1 domains, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

   - **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

   For example, http://10.2.2.154:7009/console

2. When the WebLogic Server Administration Console screen displays, perform the following:

   - **Username** — Enter **system**.

- ▪ **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

- ▪ Click **Login**.

3. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

> It can take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add **http://<IPAddress or ComputerName>** (for example, http://10.2.2.154) to your Internet Browser Trusted Sites and/or install Sun Microsystems' latest JVM™. See the note on the previous page for more information.

4. When the Settings for DeltekTE screen displays, click the Application Configuration tab, and then click the **Create New Domain** link.

5. When the Database Login screen displays, perform the following:

- ▪ **Database Login ID** — Accept the default of **sa**.

- ▪ **Database Password** — Enter the Microsoft SQL Server sa user's password.

6. Click **Ok**.

7. When the Deltek Application Configuration Home screen displays, enter the following:

- ▪ **Target Version** — Accept the default of **9.0.1.0**.

- ▪ **Schema** — Accept the default of the next available database schema (that is, **TC_0003**).

- ▪ **Domain Name** — Enter the name you want to use to log into your new company domain. The domain name is an alias for the TC_000x database schema and will typically be shorthand for your company, division, or department name. The domain name you choose cannot be greater than 30 characters nor contain spaces. This domain name will be referred to as <Your_New_Domain_Name> throughout the remainder of these instructions.

- ▪ **Domain Password** — Enter a password for the database schema being created (that is, the TC_0003 schema).

- ▪ **Domain Password (Verify)** — Re-enter the password.

- ▪ **License File** — Click **Browse**, navigate to your **C:\Oracle\Middleware\DeltekTE90\scripts** directory, select the **DELTEKTE.LIC** file, and click **Open**. If you are not on the WebLogic application server, enter the actual location of your license file on the application server (for example, **C:\Oracle\Middleware\DeltekTE90\scripts\DELTEKTE.LIC)**.

- ▪ **Default Database** — Enter your Deltek Time & Expense with Employee Self-Service 9.0.1 database name. The default is **DELTEKTE**.

8. Click **Execute** to create the new domain.

> It can take several minutes to create the domain. Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please complete the following steps:
>
> - Execute the following SQL statement in SQL Query Analyzer, connected to your DELTEKTE database as the sa user, where <Schema_Name> identifies the name of the schema you just created (that is, TC_0003):
>
>   SELECT * FROM <Schema_Name>.DB_SCRIPT_AUDIT
>
> - Contact Deltek Technical Support.

9. When the *"*Process Completed Successfully*!"* message displays, click the **Application Configuration Home** link that displays near the bottom of the screen.

10. When the Deltek Application Configuration Home screen displays, under the Connected Domain List heading, in the fields that display below the **Domain Name** heading, click the **<Your_New_Domain_Name>** link.

11. When the Domain <Your_New_Domain_Name> screen displays, enter the following:

   - **Domain Name** — Accept the default of <Your_New_Domain_Name>.

   - **Schema Name** — Accept the default of TC_000x (that is, TC_0003, TC_0004, and so on).

   - **Status** — Accept the default selection of the **Enabled** option.

   - **Locale** — Accept the default of **English (United States)** or change to your preferred locale.

   - **Company Logo** — Enter the directory path location and name of the company logo graphics file that will display in the heading of your Deltek Time & Expense with Employee Self-Service 9.0.1 reports by performing one of the following:

      - Accept the default directory path location and name of the Deltek supplied company logo graphics file:

        /DeltekTC/com/deltek/tc/framework/images/companyLogo.gif

      - Specify your company's logo graphics file by performing the following:

        a. Copy your company's logo graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

        b. Enter the following value in the **Company Logo** field:

        /DeltekTC/com/deltek/tc/framework/images/<Your_Company_Logo.gif>

        Where:

        - **<Your_Company_Logo.gif>** identifies the name of your company's logo graphics file.

> For example, if your company's logo graphics file is named **MyCompanyLogo.gif,** you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your WebLogic application server and enter the following value in the **Company Logo** field:
>
> **/DeltekTC/com/deltek/tc/framework/images/MyCompanyLogo.gif**
>
> - The Deltek Time & Expense with Employee Self-Service 9.0.1 reports will not function properly unless you supply a valid value for this field. If you do not have your own company logo graphics file, you must specify the Deltek supplied sample file by entering **/DeltekTC/com/deltek/tc/framework/images/companyLogo.gif.**
>
> - The dimensions for the company logo graphics file are as follows:
>   - Resizable in width — up to 100 pixels.
>   - Resizable in height — up to 50 pixels.

- **Branding Area Graphic** — Enter the directory path location and name of the branding area graphics file that will display at the top of your Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages by performing one of the following:

  - Accept the default directory path location and name of the Deltek supplied branding area graphics file:

    /DeltekTC/com/deltek/tc/framework/images/TC_branding_Area.jpg

  - Specify your company's branding area graphics file by performing the following:

    a. Copy your company's branding area graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

    b. Enter the following value in the **Branding Area Graphic** field:

    /DeltekTC/com/deltek/tc/framework/images/<Your_Branding_Area.jpg>

    Where:

    - **<Your_Branding_Area.jpg>** identifies the name of your company's branding area graphics file.

> For example, if your company's branding area graphics file is named MyCompanyBranding.jpg, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your WebLogic application server and enter the following value in the **Branding Area Graphic** field:
>
> **/DeltekTC/com/deltek/tc/framework/images/MyCompanyBranding.gif**
>
> - The dimensions for the branding area graphics file are as follows:
> - Resizable in width — up to 780 pixels.
> - Fixed in height — 50/25 pixels (50 pixels above the navigation area and 25 pixels above the application name area on the Deltek Time & Expense with Employee Self-Service 9.0.1 system's Web pages).
>
> For additional information on the branding area graphics file, please see the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Splash Screen Graphic** — Enter the directory path location and name of the splash screen graphics file that will display when users login to your Deltek Time & Expense with Employee Self-Service 9.0.1 system by performing one of the following:

    - Accept the default directory path location and name of the Deltek supplied splash screen graphics file:

    /DeltekTC/com/deltek/tc/framework/images/splashScreen.gif

    - Specify your company's splash screen graphics file by performing the following:

        a. Copy your company's splash screen graphics file to the DELTEKTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory located beneath your WebLogic home folder (that is, C:\Oracle\Middleware) on your WebLogic application server.

        b. Enter the following value in the **Splash Screen Graphic** field:

        /DeltekTC/com/deltek/tc/framework/images/<Your_Splash_Screen.gif>

        Where:

        - **<Your_Splash_Screen.gif>** identifies the name of your company's splash screen graphics file.

> For example, if your company's splash screen graphics file is named MyCompanySplash.gif, you would copy this file to the C:\Oracle\Middleware\DeltekTE90\applications\TC\DeltekTC\com\deltek\tc\framework\images directory on your WebLogic application server and enter the following value in the **Splash Screen Graphic** field:
>
> **/DeltekTC/com/deltek/tc/framework/images/MyCompanySplash.gif**
>
> - The dimensions for the splash screen graphics file are as follows:
> - Resizable in width — up to 680 pixels.
> - Resizable in height — up to 335 pixels.
>
> For additional information on the splash screen graphics file, refer to the DeltekTimeAndExpense83TechnicalGuideTimeAndExpensewithESS.pdf file.

- **Authentication Method** — Select the authentication method you want to use: **Database**, **LDAP**, or **SSO**. The default is **Database**.

> Select **LDAP** if your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic server will be working with a **Microsoft Active Directory Lightweight Directory Access Protocol (LDAP)** server.

- **Login ID Source** — Select the type of login you want to use: **LOGIN_ID** or **CONTEXT_ID**. The default is **LOGIN_ID**.
- **Case Sensitive Login ID** — Select this check box to make your login case-sensitive. This check box is selected by default. To log into all new domains that you create as the install user, you must select this check box.
- **Mixed Case Password** — Accept the default.
- **Attachment Storage Method** — Select the method of storage for expense attachments: **File System** (default) or **Database**.
- **Export Location** — Accept the default.
- **Import Location** — Accept the default.
- **Trash Location** — Accept the default.
- **Traveler Import Location** — Accept the default.
- **Traveler Rejection Location** — Accept the default.
- **Traveler Examination Level** — Accept the default of **1 - fastest**.
- **Save Login Id to Cookie** — Accept the default.
- **Save Domain to Cookie** — Accept the default.
- **Receipt Storage Location** — Accept the default.
- **Mobile Message Bundle Location** — Accept the default.
- **Employee Password Self Reset** — Accept the default.
- **English (United States)** — Accept the default.
- **System Email Address** — Accept the default.

- **Time Sender Email Address** — Accept the default.
- **Expense Sender Email Address** — Accept the default.
- **ESS Sender Email Address** — Accept the default.
- **SMTP Server Name** — Accept the default.
- **SMTP Port** — Accept the default.
- **SMTP User ID** — Accept the default.
- **SMTP Password** — Accept the default.
- **Timesheet Pre Save** — Accept the default.
- **Timesheet Post Save** — Accept the default.
- **Timesheet Pre Sign** — Accept the default.
- **Timesheet Post Sign** — Accept the default.
- **Timesheet Pre Approve** — Accept the default
- **Timesheet Post Approve** — Accept the default.
- **ER Pre Sign** — Accept the default.
- **ER Post Sign** — Accept the default.
- **ER Pre Save** — Accept the default.
- **ER Post Save** — Accept the default.
- **EA Pre Save** — Accept the default.
- **EA Post Save** — Accept the default.
- **EA Pre Sign** — Accept the default.
- **EA Post Sign** — Accept the default.

12. Click **Save Changes**.

> When the Update Domain <Your_New_Domain_Name> screen displays, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive any error codes instead of the above message, please contact Deltek Technical Support.

> You may not be able to immediately log into your new Deltek Time & Expense with Employee Self-Service 9.0.1 domain. You **must** wait several minutes for the system to recognize the new domain.

13. When the "Process Completed Successfully!" message displays, click the **Deltek Application Configuration Home** link that displays near the bottom of the screen.

14. Close the Web browser screen.

Step 2: Installing Help Files for Deltek Time & Expense 9.0.1 Company Domains

Purpose

This step provides instructions for installing the help files for your Deltek Time & Expense 9.0.1 company domains.

Where

This step must be performed on your Deltek Time & Expense 9.0.1 WebLogic application server.

To install the help files for your Deltek Time & Expense 9.0.1 company domains, complete the following steps:

1. Open a Windows Command Prompt and launch the following command script:

   TEHelpFiles <Your_Domain_Name>

   Where:

   - **<Your_Domain_Name>** identifies the domain name you will use when logging into your Time & Expense company domain. The domain name cannot contain spaces.

   For example, if your company domain name is ACME, you would enter the following:

   TEHelpFiles ACME

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
   >
   > When you launch the TEHelpFiles <Your_Domain_Name> script, the Windows Command Prompt will display the message "Copying files…." If you are prompted with an "Overwrite C:\Oracle\Middleware\DeltekTE90\... <Yes/No/All>" message, you must enter **Y** to overwrite your file with the latest one. A "Copy complete…" message will display when the copy process is finished.

2. Close the Windows Command Prompt.

Step 3: Installing IIS Help Files for Deltek Time & Expense 9.0.1 Company Domains

Purpose

This step provides instructions for installing the help files for your Deltek Time & Expense 9.0.1 company domains on your Microsoft IIS Web server.

> You must skip this step if you are not running Deltek Time & Expense 9.0.1 with Microsoft IIS.

Where

You must perform this step on your Deltek Time & Expense 9.0.1 Microsoft IIS **web** server.

To install the IIS help files for your Deltek Time & Expense 9.0.1 company domains, complete the following steps:

1. Open a Windows Command Prompt, navigate to the directory where the files that integrate your Deltek Time & Expense 9.0.1 software with Microsoft's IIS were installed (C:\inetpub\wwwroot\DeltekTC), and launch the following command script:

   TEiisHelp <Your_Domain_Name>

   Where:

   - **<Your_Domain_Name>** identifies the domain name you will use when logging into your Time & Expense company domain. The domain name cannot contain spaces.

   For example, if your company domain name is ACME, you would enter the following:

   TEiisHelp ACME

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
   >
   > When you launch the TEiisHelp <Your_Domain_Name> script, the Windows Command Prompt will display the message "Copying files…." If you are prompted with an "Overwrite C:\inetpub\wwwroot\DeltekTC\... <Yes/No/All>" message, you must enter **Y** to overwrite your file with the latest one. A "Copy complete…" message will display when the copy process is finished.

2. Close the Windows Command Prompt.

Step 4: Logging in to Additional Domains

Purpose

This step provides instructions for logging into your new Deltek Time & Expense with Employee Self-Service 9.0.1 company domain.

Where

This step can be performed from any supported browser client that has TCP/IP access to your WebLogic application server.

> See the System Requirements section for a list of supported browser clients.

To login to your new Deltek Time & Expense with Employee Self-Service 9.0.1 company domain, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/DeltekTC/welcome.msv

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.
   - **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You

specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

For example, http://10.2.2.154:7009/DeltekTC/welcome.msv

2. When the Deltek Time & Expense with Employee Self-Service screen displays, perform the following:

   ▪ **Login ID** — Enter **install**.

   > The Login ID is case-sensitive and MUST be entered in lowercase.

   ▪ **Password** — Enter password.

   > The password is case-sensitive and MUST be entered in lowercase.

   ▪ **Domain** — Enter **<Your_New_Domain_Name>**.

   Where:

   ▪ **<Your_New_Domain_Name>** identifies the company domain you assigned to the TC_000x (that is, TC_0003) database schema in Step 1 of this appendix.

   ▪ **Language** — Select your language from the drop-down box (for example, **English/United States**).

3. Click **Login**.

4. When the Select Time Zone window displays, for the logged in user (that is, **install**) accept the default time zone (that is, **Eastern Standard Time (America/New_York)** or select a different time zone from the drop down list, and click **OK**.

   > After you select a default time zone for the user, you will no longer be prompted with this window.

5. When the Welcome screen displays, you can begin configuring and using the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Appendix E: Starting/Stopping Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server

This appendix discusses the following methods for starting and stopping your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server:

- Starting the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server
    - As a Windows service
    - From the Windows Start menu
    - From a Windows Command Prompt
- Stopping the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server
    - As a Windows service
    - From a Web browser

Starting WebLogic Server

As Windows Service

Purpose

This step provides instructions for starting your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server as a Windows service.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server when it is installed as a Windows service, complete the following steps:

1. Click **Start » Programs » Administrative Tools » Services**.
2. When the Services window displays, scroll down the Services list to find the **Time & Expense with ESS 9.0.1 service**. Right-click the **Time & Expense with ESS 9.0.1 service**, and click **Properties** on the shortcut menu.
3. When the Time & Expense with ESS 9.0.1 Properties screen displays, click the General tab.
4. Click **Start** to start the Time & Expense with ESS 9.0.1 service.

   > The service will indicate that it started immediately. Please note, however, that it will take several minutes for the Time & Expense with ESS 9.0.1 service to fully initialize. After starting the service, you must wait several minutes before attempting to connect to the software. If you encounter problems with the Time & Expense with ESS 9.0.1 service, check the C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log file and report any errors to Deltek Technical Support.

5. Click **OK** to close the Time & Expense with ESS 9.0.1 Properties screen.

6. Close the Services window.

From Start Menu

Purpose

This step provides instructions for starting your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from the Windows Start menu.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from the Windows Start menu, complete the following steps:

1. Click **Start » Programs » Deltek Time & Expense with ESS 9.0.1 » Start Time & Expense with ESS 9.0.1 Server**. A Windows Command Prompt displays and a command script automatically launches that starts the WebLogic server. You will see a series of messages scrolling down the Windows Command Prompt screen.

    > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
    >
    > It will take several minutes for the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to start.

2. If your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server starts successfully, the following message displays near the bottom of the command line shell window:

    "<The server started in RUNNING mode. >"

    > If your WebLogic server encounters errors during the startup process, the "<The server started in RUNNING mode.>" message will not display and the Windows Command Prompt may terminate.
    >
    > If you do not receive this message or the Windows Command Prompt terminates, you must do the following tasks:
    >
    > 1. Make a copy of the C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log file.
    >
    > 2. Contact Deltek Technical Support.

From Windows Command Prompt

Purpose

This step provides instructions for starting your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Windows Command Prompt.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Windows Command Prompt, complete the following steps:

3. Open a Windows Command Prompt and launch the following command script:

    StartTE90

    > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching this command even when the logged in user has local administrative rights.
    >
    > It will take several minutes for the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to start.
    >
    > You will see a series of messages scrolling down the screen.

4. If your WebLogic server starts successfully, the following message will display near the bottom of the command line shell window:

    "**<The server started in RUNNING mode.>**"

    > If your WebLogic server encounters errors during the startup process, the "<The server started in RUNNING mode.>" message will not display.
    >
    > If you do not receive this message, you must do the following tasks:
    >
    > 4. Locate the actual error by scrolling up in the Windows Command Prompt screen until you see the WebLogic server error message.
    >
    > 5. Document the error message.
    >
    > 6. Contact Deltek Technical Support.

Stopping the WebLogic Server

As Windows Service

Purpose

This step provides instructions for stopping your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server when it is running as a Windows service.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To stop your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server when it is installed as a Windows service, complete the following steps:

7. Click **Start » Programs » Administrative Tools » Services**.

8. When the Services window opens, scroll down the Services list to find the **Time & Expense with ESS 9.0.1 service**. Right-click the **Time & Expense with ESS 9.0.1 service**, and click **Properties** on the shortcut menu.

9. When the Time & Expense with ESS 9.0.1 Properties screen displays, click the General tab.

10. Click **Stop** to stop the Time & Expense with ESS 9.0.1 service.

11. Click **OK** to close the Time & Expense with ESS 9.0.1 Properties screen.

12. Close the Services window.

From Web Browser

Purpose

This step provides instructions for stopping your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from the WebLogic console.

Where

This step must be performed from a machine that has Web browser client access via TCP/IP to the WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available to download for free at http://java.com.

To stop your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Web browser, complete the following steps:

9. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

   - **<Port>** is the unique port number that your WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

   For example, http://10.2.2.154:7009/console

10. When the WebLogic Server Administration Console screen displays, perform the following:

    - **Username** — Enter **system**.

    - **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

11. Click **Login**.

12. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

> It may take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add **http://<IPAddress or ComputerName>** (for example, http://10.2.2.154) to your Internet Browser Trusted Sites and/or install Sun Microsystems' latest JVM™. See the note on the previous page for instructions.

13. When the Settings for DeltekTE screen displays, click the **Control** tab, and perform the following:

- **DeltekTEServer (admin)** — Select the check box that displays to the left.

14. Click **Shutdown**, and then select **Force Shutdown Now**.

15. When the Domain Life Cycle Assistant screen displays, click either of the **Yes** buttons.

16. Close the Web browser screen.

> It can take several minutes for your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to process the shutdown request.
>
> The shutdown request has completed if either of the following conditions on your WebLogic application server is true:
>
> - The Windows Command Prompt that was used to launch your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server has terminated.
>
> - The status of the Deltek Time & Expense with Employee Self-Service 9.0.1 Windows service that was used to start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server has changed from **Started** to blank.

Appendix F: Installing Costpoint Interface Programs

This appendix provides instructions for copying the Costpoint interface programs to your Costpoint programs directory (that is, Y:\CP61 or C:\CP70). It also provides instructions for applying updates to your Costpoint database (that is, DELTEKCP).

> The steps in this appendix must be performed by all Deltek Time & Expense with Employee Self-Service 9.0.1 clients that interface into Costpoint, including all Deltek Employee Self-Service 9.0.1 clients.

The procedures in this appendix must be performed on a computer that has write access to your Costpoint directory.

Prerequisites

- Time — The following must be installed:
  - Costpoint version 6.1 with Service Pack 2 or Costpoint version 7.0
- Expense — The following must be installed:
  - Costpoint version 6.1 with Service Pack 2 or Costpoint version 7.0
- Self-Service — The following must be installed:
  - Costpoint version 6.1 with Service Pack 2 or Costpoint version 7.0
  - If you are an existing Costpoint ESS user, your Costpoint database **must** be at ESS 3.1, or higher, level.

Step 1: Accessing Costpoint Interface Documents

This step provides instructions for accessing the Deltek Time & Expense with Employee Self-Service 9.0.1 to Costpoint Interface documents described in the following table.

Title	Description
DeltekTimeAndExpense90CostpointCorrections.doc	This document details the enhancements and corrections to the Costpoint software included with this Deltek Time & Expense with Employee Self-Service 9.0.1 release.

To access the Deltek Time & Expense with Employee Self-Service 9.0.1 Costpoint documents, complete the following step:

1. Open **DeltekTimeAndExpense90CostpointCorrections.doc**.

Step 2: Installing Costpoint Programs

Purpose

This step provides instructions for installing the Deltek Time & Expense with Employee Self-Service 9.0.1 to Costpoint Interface files.

Where

For Costpoint 6.1 SP2 users, this step must be performed from a computer that has write access to your Costpoint 6.1 SP2 directory.

For Costpoint 7.0 users, you must perform this step on your Costpoint 7.0 WebLogic **application** server.

To install the Costpoint program files, complete the following steps:

1. Run **DeltekTimeAndExpense90CostpointInterface.exe** to launch the Deltek Time & Expense with Employee Self-Service 9.0.1 to Costpoint Interface installation program.

   > Due to enhanced security in Windows Server 2008, it is advised to use the option to **Run as Administrator** when launching the installation executables even when the logged in user has local administrative rights. This option is accessed by right-clicking the installation executable file name in Windows Explorer and selecting **Run as Administrator** to launch the program.

2. When the Introduction screen displays, click **Next**.

3. When the License Agreement screen displays, review the license agreement, select the **I accept the terms of the License Agreement** option, and then click **Next**.

   > It can take several minutes for the License Agreement screen to display.

4. When the Choose Database Platform screen displays, click the **Microsoft SQL Server** button, and then click **Next**.

5. When the Choose Costpoint Version screen displays, perform the following:

   - **Costpoint version 6.1 SP2** — Select this option if you are running Costpoint version 6.1 SP2.

   - **Costpoint version 7.0** — Select this option if you are running Costpoint version 7.0.

   Click **Next**.

6. When the Choose Install Folder screen displays, indicate where you would like to install the Costpoint files by accepting the default folder (**C:\CP61** or **C:\CP70**), or choose a different folder by clicking **Choose**. After you have chosen the folder, click **Next**.

   > For Costpoint 6.1 SP2 clients, this should be your Costpoint client/server programs directory.
   >
   > For Costpoint 7.0 clients, this can be any directory. You will apply the installed files from this directory in the next step.

7. When the Pre-Installation Summary screen displays, review the installation parameters you have selected. If you want to change any parameters, click **Previous** to go back and

make the necessary changes. If you are satisfied with these parameters, click **Install** to begin the installation.

8. When the Install Complete screen displays, click **Done** to exit the installation.

Step 3: Applying Costpoint 7.0 Database Updates

Purpose

This step provides instructions for applying the Deltek Time & Expense with Employee Self-Service 9.0.1 Costpoint 7.0 database scripts to your Costpoint 7.0 TRANSACTION database.

> You **must** skip this step if you are running Costpoint 6.1 SP2.

Where

You must perform this step on your Costpoint 7.0 WebLogic **application** server.

To apply the scripts, complete the following steps:

1. Click **Start** » **All Programs** » **Costpoint 7.0** » **Start Costpoint 7.0 DBWizard** to open the Costpoint 7.0 Database Wizard. The Costpoint DB Wizard screen displays.

2. Perform the following:
   - **Available options** — Select **Apply Script**.
   - Click **Next**. The Select Schema screen displays.

3. Perform the following:
   - **System** — Select your Costpoint 7.0 database (for example, **DELTEKCP**) from the drop-down list.
   - **Schema** — Select **DATA** from the drop-down list.
   - Verify the default values of the following fields:
     - **DB Platform** — Accept the default of **SQLSERVER**.
     - **Server** — Accept the default of your Database Server IP address or hostname.
     - **Port** — Accept the default port (for example, **1433**).
     - **Instance/Database** — Accept the default of your Costpoint database name.
     - **User** — Accept the default of **DELTEK**.
     - **Password** — Accept the default of your DELTEK user password.
     - **URL** — Accept the default of your Microsoft SQL Server connect string.

4. Click **Next**. The Script Parameters screen displays.

5. Perform the following:
   - **Selection Mode** — Select **Folder**.
   - **Script folder** — Click [...], and perform the following:

- **File Name** — Select the folder where you installed the Costpoint interface files (for example, **C:\CP70**).

- **Files of Type** — Accept the default of **Select SQL Script Folder**.

- Click **Select**.

- **Log File** — Click ⌊ ··· ⌋, and perform the following:

  - **File Name** — Enter a log file name.

  - **Files of Type** — Accept the default of **Select LOG file or folder (*.log)**.

  - Click **Select**.

- **Schema Replace Mode** — Select the **Off** option.

- **Execution Settings** — Select the **Stop on error** option.

6. Click **Next**. The Summary screen displays.

7. Verify the default values of the following fields:

- **DB Platform** — Displays **SQLSERVER**.

- **DB Server** — Displays your Database Server IP address or hostname.

- **DB Instance** — Displays your Costpoint database name.

- **DB Port** — Displays your listening port (**1433**).

- **DB Schema** — Displays **DELTEK**.

- **Script File** — Displays the file and folder location of your script.

- **Log File** — Displays the name and location of your log file.

- **Schema Mode** — Displays **Off**.

- **Exec Settings** — Displays either **Ignore errors** or **Stop on error**.

8. Click **Run**. The following message displays:

   Run Script completed without errors in X second(s). Would you like to run another script against this database?

9. Click **No**. The Summary screen displays.

10. Click **Cancel**. The Costpoint DB Wizard screen displays.

11. Click **Exit**.

Step 4: Applying Costpoint 6.1 SP2 Database Update

Purpose

This step provides instructions for applying the Deltek Time & Expense with Employee Self-Service 9.0.1 Costpoint 6.1 SP2 database scripts to your Costpoint 6.1 SP2 database.

You **must** skip this step if you are running Costpoint 7.0.

Where

This step must be performed on a Windows client workstation that meets the following requirements:

- The Costpoint 6.1 SP2 Database Wizard (Costpoint DBWizard) has previously been installed.

- You must have Administrative access to your Costpoint 6.1 SP2 DELTEKCP database.

To apply the script, complete the following steps:

1. Click **Start » All Programs » Costpoint 6.1 SP2 » Costpoint DBWizard**. The Costpoint DBWizard screen displays.

2. Perform the following:

   - **What would you like to do** — Select **Apply CSP**.

   - Click **Next**.

   The Costpoint DBWizard: CSP Select Schema screen displays.

3. Perform the following:

   - **System** — Select your Costpoint 6.1 database (for example, **DELTEKCP**) from the drop-down list.

   - **Schema** — Select **DATA** from the drop-down list.

   - Verify the default values of the following fields:

     - **DB Platform** — Accept the default of **SQLSERVER**.

     - **Server** — Accept the default of your Database Server IP address or hostname.

     - **Port** — Accept the default port (for example, **1433**).

     - **Instance/Database** — Accept the default of your Costpoint database name.

     - **User** — Accept the default of **DELTEK**.

     - **Password** — Accept the default of your DELTEK user password.

     - **URL** — Accept the default of your Microsoft SQL Server connect string.

   - Click **Next**.

   The Costpoint DBWizard: CSP CSP Parameters screen displays.

4. Perform the following:

   - **cspfiles.lst Folder** — Click [...], and perform the following:

     - **File Name** — Accept the default of your Costpoint database scripts location (for example, **Y:\CP61**).

     - **Files of Type** — Accept the default of CSPFILES.LST script or folder.

     - Click **Select**.

   - **Log file** — Click [...], and perform the following:

     - **File Name** — Enter a log file name.

     - **Files of Type** — Accept the default of Select LOG file or folder (*.log).

- Click **Select**.
- **Execution Settings** — Perform the following:
  - **Stop on error** — Select this option to have the Costpoint DBWizard stop when it finds an error. (Deltek recommends using this option when performing your "live" upgrade.)
  - **Ignore errors** — Select this option to have the Costpoint DBWizard ignore all errors. (Deltek recommends using this option when performing a test upgrade.)

    > Deltek recommends running through a test upgrade first with **Ignore errors** selected. This will help you identify any problem areas that may be encountered during the actual upgrade.
    >
    > If you select this method and have errors, you will need to restore your database, fix any errors found, and then run through the upgrade again.

  - **Purge Audit Table** — The Audit Tables store a history of the errors you encountered while running the Costpoint DBWizard. If the Audit Tables are not purged after restarting a patch installation, any errors from previous installation attempts will be reported. Select this check box to purge the audit table. This check box is not selected by default.
- Click **Next**.

  The Costpoint DBWizard: CSP Summary screen displays.

5. Perform the following:

    > When the Costpoint DBWizard opens for Apply CSP, the **Applied patches** group box will list all of the patches that have been previously applied to your database. The **Patches to be applied** group box will list those patches that this installation will apply.
    >
    > The required patches that this installation will install, if they have not been previously installed, are as follows:
    >
    > **For Costpoint 6.1 SP2:**
    >
    > > aavaltess.mss and ESS_VER.sql
    >
    > The Costpoint DBWizard will halt whenever errors are encountered while applying the patches, scripts, stored procedures, and so on, necessary to update your database. Any file that stops on an error will be completed by the Costpoint DBWizard upon restart, **but the line that gave the error will need to be manually completed**. Please contact Deltek Costpoint Technical Support if these errors occur.
    >
    > Please report all errors to Deltek Costpoint Technical Support.

- Verify the default values of the following fields (they default based on your entries in item 3 above) :
  - **DB Platform** — Displays **SQLSERVER**.
  - **DB Server** — Displays your Database Server IP address or hostname.
  - **DB Instance** — Displays your Costpoint database name.
  - **DB Port** — Displays your listening port (for example, **1433**).
  - **DB Schema** — Displays **DELTEK**.
  - **Script File** — Displays the folder location of your CSPFILES.LST file (for example, **Y:\CP61**).

- **Log File** — Displays the name and location of your log file (for example, **Y:\CP61\logs**CP61SP2.log).

- **CSPFILES.LST Folder** — Shows the folder location of your CSPFILES.LST file (for example, **Y:\CP61**).

- **Exec Settings** — Displays **Ignore errors** or **Stop on error** and **Purge audit table: NO** or **YES**.

- Click **Run** to begin updating your Costpoint 6.1 database. Clicking this button will produce one of the results/messages found in the following table. Match the result or message you receive with the appropriate required action from the following table.

Result/Message	Action
A SQL Error message displays – "The script did not complete because an error was encountered. The application will display a report listing the error found." When you click OK the following message displays – "CSP stopped with errors. The application will display a report listing the errors found. The CSP process can be restarted once the statement containing the error has been executed manually."	Click **OK**. A report listing the error will open. Please have this report ready and contact Deltek Costpoint Technical Support for further assistance. This script will proceed from the line following the error. The line that has the error will need to be manually completed once the error has been resolved. After the issues are resolved, click **Next** on the Costpoint DBWizard: CSP Parameters screen or, if you have exited the Costpoint DBWizard, you will need to choose Apply CSP from the **What would you like to do** list box and continue from Step 2 of Performing Database Update.
A Process Complete message displays: "Process completed without errors. An error file will not be generated since DBWizard completed without errors."	Your database update has successfully completed. On the Process Complete screen, click **OK** and proceed to Step 6 of Performing Database Update.
A Process Complete message displays: "Process completed with errors."	Your database update has completed; however, a report will open listing the errors that were encountered and successfully addressed during the CSP process. It may also show messages that indicate other actions that need to be taken (for example, programs that may need to be manually copied from the CD to your installed directories). Once all of these errors have been addressed, on the Process Complete screen, click **OK** and proceed to Step 6 of Performing Database Update.

6. When the "Process completed without errors" message displays, click **OK**.

7. When the "CSP completed without errors in X second(s). Would you like to run another process using the Database Wizard?" message displays, click **Yes**. The Costpoint DBWizard screen displays.

8. Click **Exit**.

Step 5: Executing Costpoint Group Rates in Labor History Toolkit

Purpose

This step provides instructions for executing a toolkit that prepares your Costpoint system to use the current version of the Post Vouchers function.

Where

You must perform this step on a Windows client workstation that can access your Costpoint database using the Costpoint software.

To update your Costpoint system, complete the following steps:

1. Log into Costpoint.
2. In Costpoint 6.1 SP2, click **Projects » Cost and Revenue Processing » Utilities » Miscellaneous Toolkits » Group Duplicates in Labor History**.
3. In Costpoint 7.0, click **Projects » Cost and Revenue Processing » Administration Utilities » Group Duplicates in Labor History**.
4. When the Group Duplicates in Labor History screen displays, complete this step:
   - **Fiscal Year** — Select your current fiscal year from the drop-down list.
5. Click **Execute** and then, after you execute all your fiscal years, click **Cancel**.
6. Close the Costpoint Menu screen.
7. Exit Costpoint.

Step 6: Applying Costpoint 7.0 ESS License

Purpose

This step includes instructions for applying the Employee Self-Service (ESS) license to your Costpoint 7.0 TRANSACTION database. This step will need to be performed by any clients that are new to Costpoint Employee Self-Service.

You **must** skip this step if you are running Costpoint 6.1 SP2.

You **must** skip this step if you are any of the following:
- Not a Deltek Time & Expense with Employee Self-Service 9.0.1 Self-Service user
- Using Deltek Employee Self-Service 9.0.1 and are currently a Costpoint ESS 3.1 user

Where

You must perform this step on your Costpoint 7.0 WebLogic **application** server.

To apply the script, complete the following steps:

1. Click **Start** » **All Programs** » **Costpoint 7.0** » **Start Costpoint 7.0 DBWizard** to open the Costpoint 7.0 Database Wizard. The Costpoint DB Wizard screen displays.

2. Perform the following:
   - **Available options** — Select **Apply License**.
   - Click **Next**. The Select System screen displays.

3. Perform the following:
   - **System** — Select your Costpoint 7.0 database (for example, **DELTEKCP**) from the drop-down list.

4. Click **Next**. The Select license file screen displays.

5. Perform the following:
   - **License file** — Click [...], and perform the following:
     - **File Name** — Select the **License.zip** file you were provided.
     - **Files of Type** — Accept the default of **Select SQL Script Folder**.
     - Click **Select**.
   - **Log File** — Click [...], and perform the following:
     - **File Name** — Enter a log file name.
     - **Files of Type** — Accept the default of **Select LOG file or folder (*.log)**.
     - Click **Select**.

6. Click **Run**. The following message displays:

   License file applied successfully.

7. Click **OK**. The Select license file screen displays.

8. Click **Cancel**. The Costpoint DB Wizard screen displays.

9. Click **Exit**.

Step 7: Applying Costpoint 6.1 SP2 ESS License

Purpose

This step includes instructions for applying the Employee Self-Service (ESS) license to your Costpoint 6.1 SP2 database. This step will need to be performed by any clients that are new to Costpoint Employee Self-Service.

You must skip this step if you are running Costpoint 7.0.

You **must** skip this step if you are any of the following:
- Not a Deltek Time & Expense with Employee Self-Service 9.0.1 Self-Service user
- Using Deltek Employee Self-Service 9.0.1 and are currently a Costpoint ESS 3.1 user

Where

This step must be performed on a Windows client workstation that meets the following requirements:

- The Costpoint 6.1 SP2 Database Wizard (Costpoint DBWizard) has previously been installed.

- You must have Administrative access to your Costpoint 6.1 SP2 DELTEKCP database.

To license your database for ESS, complete the following steps:

1. Click **Start » All Programs » Costpoint 6.1 SP2 » Costpoint DBWizard**. The Costpoint DBWizard screen displays.

2. Perform the following:

    - **What would you like to do** — Select **Apply Script**.

    - Click **Next**. The Costpoint DBWizard: Run Script screen displays.

3. Perform the following:

    - **System** — Select your Costpoint 6.1 database (for example, **DELTEKCP**) from the drop-down list.

    - **Schema** — Select **DATA** from the drop-down list.

    - Verify the default values of the following fields:

        - **DB Platform** — Accept the default of **SQLSERVER**.

        - **Server** — Accept the default of your Database Server IP address or hostname.

        - **Port** — Accept the default port (for example, **1433**).

        - **Instance/Database** — Accept the default of your Costpoint database name.

        - **User** — Accept the default of **DELTEK**.

        - **Password** — Accept the default of your DELTEK user password.

        - **URL** — Accept the default of your Microsoft SQL Server connect string.

4. Click **Next**. The DBWizard: Run Script Parameters screen displays.

5. Perform the following:

    - **Selection Mode** — Select **Single Script**.

    - **Script file** — Click [...], and perform the following:

        - **File Name** — Select the **license.sql** file (from the **Y:\CP61** directory).

        - **Files of Type** — Accept the default of Select SQL Script (*.sql).

        - Click **Select**.

    - **Log File** — Click [...], and perform the following:

        - **File Name** — Enter a log file name.

        - **Files of Type** — Accept the default of Select LOG file or folder (*.log).

        - Click **Select**.

    - **Schema Replace Mode** — Select the **Off** option.

- **Execution Settings** — Select the **Stop on error** option.

6. Click **Next**. The Costpoint DBWizard: Run Script Summary screen displays.

7. Verify the default values of the following fields:

    - **DB Platform** — Displays **SQLSERVER**.

    - **DB Server** — Displays your Database Server IP address or hostname.

    - **DB Instance** — Displays your Costpoint database name.

    - **DB Port** — Displays your listening port (**1433**).

    - **DB Schema** — Displays **DELTEK**.

    - **Script File** — Displays the file and folder location of your script.

    - **Log File** — Displays the name and location of your log file.

    - **Schema Mode** — Displays **Off**.

    - **Exec Settings** — Displays either **Ignore errors** or **Stop on error**.

8. Click **Run**. The following message displays:

    "Run Script completed without errors in X second(s). Would you like to run another script against this database?"

9. Click **No**.

10. When the Costpoint DBWizard screen displays, click **Exit**.

Step 8: Applying Deltek Time & Expense with Employee Self-Service 9.0.1 License

This step provides instructions for applying the Deltek Time & Expense with Employee Self-Service 9.0.1 license to your Deltek Time & Expense with Employee Self-Service 9.0.1 domains.

> You **must** skip this step if you are not a Deltek Time & Expense with Employee Self-Service 9.0.1 Self-Service user.

Where

This step must be performed from a machine that has Web browser client access via TCP/IP to the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available free for download at http://java.com.

To complete this step, the computer on which you are performing this step must have access to the Deltek Time & Expense with Employee Self-Service 9.0.1 License file, DELTEKTE.LIC, that is contained in the **C:\Oracle\Middleware\DeltekTE90\scripts** directory.

To apply the new license to your Deltek Time & Expense with Employee Self-Service 9.0.1 domains, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

    http://<IPAddress or ComputerName>:<Port>/console

    Where:

    ▪ **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

    ▪ **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

    For example, http://10.2.2.154:7009/console

2. When the WebLogic Server Administration Console screen displays, perform the following:

    ▪ **Username** — Enter **system**.

    ▪ **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

3. Click **Login**.

4. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

    > It can take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add http://**<IPAddress or ComputerName>** (that is, **http://10.2.2.154**) to your Internet browser Trusted Sites and/or install Sun Microsystems' **latest** JVM™. See the previous note for more information.

5. When the Settings for DeltekTE screen displays, click the Application Configuration tab, and in the fields that display below the **Domain Name** heading, click the **<Your_Domain_Name>** link for the Database Schema (that is, **TC_0002**, **TC_0003**, and so on) that requires the new license.

    Where:

    ▪ **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002, TC_0003, or TC_0004, and so on database schema when you originally installed the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

6. When the Database Login screen displays, perform the following:

    ▪ **Database Login ID** — Accept the default of **system** (Oracle users) or **sa** (Microsoft SQL Server users).

    ▪ **Database Password** — Enter the database login user's password.

7. Click **Ok**.

8. When the Domain <Your_Domain_Name> screen displays, click the **Apply License** link, and perform the following:

    ▪ **License File** — Click **Browse**, navigate to your **C:\Oracle\Middleware\DeltekTE90\scripts** directory, select the **DELTEKTE.LIC** file, and click **Open**. If you are not on the WebLogic application server, enter **C:\Oracle\Middleware\DeltekTE90\scripts\DELTEKTE.LIC**.

9. Click **Continue** to read the new license.

10. When the Apply License for <Your_Domain_Name> screen redisplays, review the following:

    ▪ **Company Name** — Displays your company name.

    ▪ **TimeCollection Web** — Displays your number of Seat and/or Transaction licenses for Time.

    ▪ **ExpenseCollection Web** — Displays your number of Seat and/or Transaction licenses for Expense.

    ▪ **TimeCollection IVR** — Displays your number of Seat and/or Transaction licenses for Time Interactive Voice Recognition.

    ▪ **Web Self-Service** — Displays your number of Seat and/or Transaction licenses for Self-Service.

    ▪ **BlackBerry Time** — Displays your number of Seat and/or Transaction licenses for BlackBerry Time.

    ▪ **Expense Authorization** — Displays your number of Seat and/or Transaction licenses for Expense Authorization.

11. Click **Execute** to apply the new license.

> It can take some time to apply the license.
>
> Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please contact Deltek Technical Support.

12. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays near the bottom of the screen.

> You **must** repeat items 5 through 12 of this step for all of your remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on) that need the new license applied.
>
> If you are immediately proceeding to the next step, you do not need to close the Web browser. You can proceed directly to item 4 of the next step.

13. Close the Web browser screen.

Step 9: Creating Costpoint Connection Pools for Self-Service

Purpose

This step provides instructions for creating the Costpoint connection pool for Deltek Employee Self-Service 9.0.1. The connection pool will provide the Deltek Time & Expense with Employee Self-Service 9.0.1 software the connectivity to your Costpoint database.

> You **must** skip this step if you are not a Deltek Time & Expense with Employee Self-Service 9.0.1 Self-Service user.

Where

This step must be performed from a machine that has Web browser client access via TCP/IP to the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available free for download at http://java.com.

To create a Costpoint connection pool for Self-Service, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

    http://<IPAddress or ComputerName>:<Port>/console

    Where:

    - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

    - **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009**.

    For example, http://10.2.2.154:7009/console

2. When the WebLogic Server Administration Console screen displays, perform the following:

    - **Username** — Enter **system**.

    - **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

3. Click **Login**.

4. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the **Domain Structure** section in the middle of the left pane.

> It can take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add http://<IPAddress or ComputerName> (that is, **http://10.2.2.154**) to your Internet browser Trusted Sites and/or install Sun Microsystems' **latest** JVM™. See the note on the previous page for more information.

5. When the Settings for DeltekTE screen displays, click the Application Configuration tab, and in the fields that display below the **Domain Name** heading, click the **<Your_Domain_Name>** link for the Database Schema (that is, **TC_0002**, **TC_0003**, and so on) that requires the Costpoint connection pool.

    Where:

    - **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002, TC_0003, or TC_0004, and so on database schema when you originally installed the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

6. When the Database Login screen displays, perform the following:

- ▪ **Database Login ID** — Accept the default of **sa**.

- ▪ **Database Password** — Enter the Microsoft SQL Server sa user's password.

- ▪ Click **Ok**.

7. When the Domain <Your_Domain_Name> screen displays, click the **Create Costpoint Connection** link.

8. When the Create Connection <Your_Domain_Name> screen displays, perform the following:

- ▪ **Database Platform** — Select **Sql Server** from the drop-down list.

- ▪ **IP Address or Hostname** — Enter the IP address (that is, 10.2.2.154) or hostname (that is, dbsvr01) of your Costpoint database server. The Deltek Time & Expense with Employee Self-Service 9.0.1 software uses this information to communicate with your Costpoint database server.

- ▪ **Port** — Enter the port that your Costpoint database server software uses to listen for requests. The default port for Microsoft SQL Server is **1433**.

- ▪ **SQL Server Database Name** — Enter the name of your Costpoint Microsoft SQL Server database. The default was **DELTEKCP**.

- ▪ **User ID** — Enter **DELTEK**.

- ▪ **Password** — Enter the password for you DELTEK user. The default was **install**.

9. Click **OK** to create the Costpoint connection pool.

> It can take some time to create the Costpoint connection pool.
>
> Upon successful completion, you will receive the following message:
>
> **Process Completed Successfully!**
>
> If you receive an error code instead of the above message, please contact Deltek Technical Support:

10. When the "Process Completed Successfully!" message displays, click the **Application Configuration Home** link that displays near the bottom of the screen. Verify that **Yes** now displays under the **CP Connection** heading for the domain you selected.

> You **must** repeat items 4 through 9 of this step for all of your remaining Company Domains (that is, schemas TC_0003, TC_0004, TC_0005, and so on) that need a Costpoint connection pool.

11. After Costpoint connection pools have been created for all necessary domains, please close the Web browser screen.

> For further assistance on configuring Deltek Employee Self-Service 9.0.1, refer to the DeltekTimeAndExpense83GettingStartedGuideEmployeeSelfService.pdf file referenced in Appendix A: Documentation.

Appendix G: Implementing Secure Sockets Layer (SSL) Encryption with Deltek Time & Expense with Employee Self-Service 9.0.1

This appendix discusses Time & Expense's support for SSL encryption and the different WebLogic licenses that are available for implementing SSL. It also provides references to informational resources that you can use to learn more about implementing SSL with Deltek Time & Expense with Employee Self-Service 9.0.1. Finally, it provides directions for changing the WebLogic license that is included with the standard distribution of Deltek Time & Expense with Employee Self-Service 9.0.1.

Time & Expense's Support for SSL

Deltek Time & Expense with Employee Self-Service 9.0.1 was tested against and supports SSL implemented on its WebLogic server and Microsoft Internet Information Server (IIS) components.

> The IIS component is optional in the Time & Expense environment. If you have chosen to deploy IIS with your Time & Expense environment, you can implement SSL on both your IIS and WebLogic server components.

SSL requirements vary from customer to customer. Consequently, this appendix does not provide specific instructions for implementing SSL on either your WebLogic server or IIS components. Instead, this appendix provides third-party informational resources that you can use to learn about and implement SSL with your Deltek Time & Expense with Employee Self-Service 9.0.1 environment.

WebLogic Licenses Available with Deltek Time & Expense with Employee Self-Service 9.0.1

Deltek Time & Expense with Employee Self-Service 9.0.1 supports both of the license types, exportable- and domestic-strength, that Oracle's WebLogic server includes. A brief description of each license type follows:

- Exportable SSL supports 512-bit certificates and 40- and 50-bit bulk data encryption.
- Domestic SSL also supports 512-bit, 768-bit, and 1024-bit certificates as well as 128-bit bulk data encryption.

The standard Deltek Time & Expense with Employee Self-Service 9.0.1 distribution ships with WebLogic's domestic-strength license already configured.

> Only the license is configured. By default, SSL is neither enabled nor operational in the standard Deltek Time & Expense with Employee Self-Service 9.0.1 distribution. If you want to implement SSL on your WebLogic server, you will need to consult the WebLogic server documentation for instructions (see the Informational Resources for Implementing SSL section that displays later in this appendix).

Deltek recommends using WebLogic's domestic-strength license because it allows stronger encryption for your SSL implementation. However, please note that the United States Government does restrict the use of domestic-strength encryption in some countries. Consequently, you must consult with your organization's legal counsel before implementing SSL on your WebLogic server to determine which WebLogic license strength (domestic or exportable) you must use. The "Changing Your WebLogic Server's License Strength" section of this appendix provides instructions for switching from the domestic-strength license to the exportable-strength license.

Informational Resources for Implementing SSL

You may implement SSL on either or both of your Deltek Time & Expense with Employee Self-Service 9.0.1 system's IIS and WebLogic Server components. For help on implementing SSL, please refer to the following URLs:

WebLogic Server

- http://e-docs.bea.com/wls/docs92/security.html — WebLogic Server documentation on security.

- http://download.oracle.com/docs/cd/E12840_01/wls/docs103/secmanage/ssl.html — WebLogic Server documentation that provides step-by-step instructions for implementing SSL on your WebLogic Server.

IIS

- http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/5e0119a8 -deed-4056-9592-e721a4889a71.mspx — Microsoft TechNet article that provides an overview of using encryption with IIS and specific instructions for configuring SSL.

In addition to consulting these informational resources, you may contact Deltek's Systems Solutions team to arrange assistance for implementing SSL with your Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Changing Your WebLogic Server's License Strength

The following steps describe how to change your WebLogic Server's license strength.

Step 1: Stopping Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server

Purpose

This step provides instructions for stopping the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server.

Where

This step must be performed from a machine that has Web browser client access via TCP/IP to the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server. Microsoft's Java Virtual Machine (MSJVM) or Sun Microsystems' Java™ Virtual Machine (JVM™) must also be installed on this machine.

> The WebLogic Console tool used in this step requires either Microsoft's Java Virtual Machine or Sun Microsystems' Java Virtual Machine to be installed. If neither of these virtual machines is installed, you must install Sun Microsystems' Java Virtual Machine. Sun Microsystems' Java Virtual Machine is available free for download at http://java.com.

To stop your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server from a Web browser, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/console

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server;.

   - **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009** (that is, **http://10.2.2.54:7009/console**).

2. When the WebLogic Server Administration Console screen displays, perform the following:

   - **Username** — Enter **system**.

   - **Password** — Enter the password for the WebLogic Administrative user. The default was **weblogic**.

3. Click **Login**.

4. When the WebLogic Server Administration Console Home screen displays in your browser, click the **DeltekTE** link that displays under the Domain Structure section in the middle of the left pane.

   > It can take several minutes for the hierarchical tree to display in the left pane. If the hierarchical tree does not display or a new blank browser opens, you must add http://**<IPAddress or ComputerName>** (that is, **http://10.2.2.154**) to your Internet browser Trusted Sites and/or install Sun Microsystems' **latest** JVM™. See the note on the previous page for instructions on downloading and installing it.

5. When the Settings for DeltekTE screen displays, click the **Control** tab, and perform the following:

   - **DeltekTEServer (admin)** — Select the check box that displays to the left.

6. Click **Shutdown**, and select **Force Shutdown Now**.

7. When the Domain Life Cycle Assistant screen displays, click either of the **Yes** buttons.

8. Close the Web browser screen.

> It can take several minutes for your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to process the shutdown request.
>
> The shutdown request has completed if **either** of the following conditions on your WebLogic application server **is true**:
>
> - The Windows Command Prompt that was used to launch your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server has terminated.
>
> - The status of the Deltek Time & Expense with Employee Self-Service 9.0.1 Windows service that was used to start your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server has changed from **Started** to blank.

Step 2: Changing WebLogic Server's License Strength

Purpose

This step provides instructions for changing your WebLogic Server's license strength from domestic to exportable.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic **application** server.

To change your WebLogic Server's license strength, complete the following steps:

1. Make a backup of the **C:\Oracle\Middleware\license.bea** file.

2. Make a backup of the **C:\Oracle\Middleware\weblogic92\server\lib\weblogic.jar** file.

3. Contact Deltek Technical Support for the exportable-strength license files.

4. After Deltek Technical Support sends you the files, complete the following:

   - Copy the new **license.bea** file to your **C:\Oracle\Middleware** folder, replacing the existing license.bea file.

   - Copy the new **weblogic.jar** file to your **C:\Oracle\Middleware\weblogic92\server\lib** folder, replacing the existing weblogic.jar file.

Step 3: Restarting Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server as a Service

Purpose

If you have previously configured your Deltek Time & Expense with Employee Self-Service 9.0.1 application to run as a Windows service, you will need to follow the instructions in this step to restart the Deltek Time & Expense with Employee Self-Service 9.0.1 Windows service.

> You can skip this step if you have **not** configured Deltek Time & Expense with Employee Self-Service 9.0.1 to run as a Windows service.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic **application** server.

To restart the Deltek Time & Expense with Employee Self-Service 9.0.1 Windows service, complete the following steps:

1. Click **Start » Programs » Administrative Tools » Services**.

2. When the Services window displays, scroll down the Services list, right-click the **Time & Expense with ESS 9.0.1 service**, and click **Properties** on the shortcut menu.

3. When the Time & Expense with ESS 9.0.1 Properties screen displays, click the General tab.

4. Click **Start** to start the Time & Expense with ESS 9.0.1 service.

> The service will indicate that it started immediately. Please note, however, that it will take several minutes for the Time & Expense with ESS 9.0.1 service to fully initialize. After starting the service, you must wait several minutes before attempting to connect to the software. If you encounter problems with the Time & Expense with ESS 9.0.1 service, check the **C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log** file, and report any errors to Deltek Technical Support.

5. Click **OK** to close the Time & Expense with ESS 9.0.1 Properties screen.

6. Close the Services window.

Step 4: Restarting Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server

Purpose

This step provides instructions for restarting the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server.

> You can skip this step if you have configured Deltek Time & Expense with Employee Self-Service 9.0.1 to run as a Windows service and restarted it in the previous step.

Where

This step must be performed on your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

To restart the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server, perform the following:

1. Click **Start » Programs » Deltek Time & Expense with ESS 9.0.1 » Start Time & Expense with ESS 9.0.1 Server**. . This will display a Windows Command Prompt window and launch a command script that starts the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server. As the script executes, you will see a series of messages scrolling down the screen.

> It will take several minutes for the Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server to start.

2. If your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server starts successfully, the following message will display near the bottom of the command line shell window:

"<The server started in RUNNING mode. >"

> If your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic Server encounters errors during the startup process, the <The server started in RUNNING mode.> message will not display and the Windows Command Prompt window may terminate.
>
> If you do not receive the <The server started in RUNNING mode.> message or the Windows Command Prompt window terminates, you must do the following tasks:
>
> - Make a copy of the C:\Oracle\Middleware\DeltekTE90\servers\DeltekTEServer\logs\DeltekTEServer.log file.
>
> - Contact Deltek Time & Expense Technical Support.

Step 5: Logging into your Deltek Time & Expense with Employee Self-Service 9.0.1 Company Schema

Purpose

This step provides instructions for logging into the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Where

You can perform this step from any Windows browser client that has TCP/IP access to your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic **application** server. This computer must be using a browser client supported by the Deltek Time & Expense with Employee Self-Service 9.0.1 release (see the System Requirements section for a list of supported browser clients for Windows).

To log in to your Deltek Time & Expense with Employee Self-Service 9.0.1 company domain, complete the following steps:

1. Open your Web browser and enter the following, case-sensitive, URL:

   http://<IPAddress or ComputerName>:<Port>/DeltekTC/welcome.msv

   Where:

   - **<IPAddress or ComputerName>** identifies your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server.

   - **<Port>** is the unique port number that your Deltek Time & Expense with Employee Self-Service 9.0.1 WebLogic application server uses to listen for connections. You specified this port value during the Deltek Time & Expense with Employee Self-Service 9.0.1 software installation. The default is **7009** (that is, **http://10.2.2.154:7009/DeltekTC/welcome.msv**).

2. When the Deltek Time & Expense with Employee Self-Service screen displays, perform the following:

   - **Login ID** — Enter a user ID that exists in your Time & Expense company domain.

     > The Login ID is case-sensitive.

   - **Password** — Enter the password for the user.

   - **Domain** — Enter <Your_Domain_Name>.

Where:

- **<Your_Domain_Name>** identifies the company domain you assigned to the TC_0002 database schema when you originally installed the Deltek Time & Expense with Employee Self-Service 9.0.1 software.

- **Language** — Select your language from the drop-down box (for example, **English/United States**).

3. Click **Login**.

4. When the Welcome screen displays, you can begin using the Deltek Time & Expense with Employee Self-Service 9.0.1 system.

Please contact Deltek Time & Expense Technical support if you have any problems logging into the application.

Appendix H: Lightweight Directory Access Protocol (LDAP)

Deltek Time & Expense with Employee Self-Service supports Lightweight Directory Access Protocol (LDAP), a protocol used to access "Directory Servers." The Directory is a special database that holds information in a tree structure.

LDAP authentication is enabled through tight integration with the industry-strength security framework of the WebLogic Server. When you log in, WebLogic coordinates and executes user authentication using its security configuration. If the system is set up to use LDAP, it authenticates with the LDAP server on behalf of the Deltek Time & Expense with Employee Self-Service application. No custom code is involved in this process.

When you log in to Deltek Time & Expense with Employee Self-Service, the password is authenticated against either a LDAP directory or the Deltek Time & Expense with Employee Self-Service database tables, depending on whether you integrated Time\Expense\Self-Service with Microsoft's Active Directory LDAP Server during the installation phase. The other areas in the system that use and/or are affected by LDAP are outlined in the following sections. For complete instructions on how to set up Deltek Time & Expense with Employee Self-Service for LDAP, see the installation instructions.

Setting Up WebLogic to Work with LDAP

To set up WebLogic to work with LDAP, complete the following steps:

1. Log in to the WebLogic console.
2. Click **Lock & Edit**.
3. Click **Security Realms** in the Domain Structure tree to display the list of realms.
4. Click the **TERealm** link to display realm information.
5. Click the Providers tab. The tab lists configured Authentication providers.
6. Click **New.**
7. Enter any name (for example: **AD**), and select **TCADAuthenticator** from the **Type** drop-down list.
8. Click **Ok**.
9. On the Providers tab, click the new provider.
10. Change the **Control Flag** to **SUFFICIENT**.
11. Click the **Provider specific** link at the top of the provider information.
12. Enter the values into the fields.
    - **Domain** — Enter the name of Active Directory domain.
    - **Host** — Enter the host name or IP Address of your Active Directory server.
13. Click **Save**.
14. Click **Activate changes**.
15. Restart WebLogic.

Technical Console

To get to the Technical Console, log in to the WebLogic console application, and click **Application Configuration** in the Domain Structure portlet on the left.

In the Technical Console, where you create or edit Deltek Time & Expense with Employee Self-Service domains, select **LDAP** from the **Authentication Method** drop-down list to indicate that LDAP is used for a specific domain. If your user IDs in LDAP directory match the **Login ID** field values in the Employee Information screen, select **LOGIN_ID** from the **Login ID Source** drop-down list. If your user IDs are longer than 20 characters and are stored in the **LDAP ID field** on the Employee Information screen, select **CONTEXT_ID** from the **Login ID Source** drop-down list.

Employee Information

Specify the valid LDAP IDs in the **LDAP ID** field on the Basic Information tab of the Employee Information screen. In order for Deltek Time & Expense with Employee Self-Service to work with your LDAP authentication provider, your Deltek Time & Expense with Employee Self-Service LDAP ID must exactly match the corresponding user ID in your LDAP directory.

If you do not supply a **LDAP ID** in the Employee Information screen and you try to log into the system, it will check for a matching Login ID instead.

Note that you have to supply the LDAP ID if your TC_0000.SCHEMA_CONFIG.S_AUTHENTICATION_SOURCE_CD = 'CONTEXT_ID' (**Login ID Source** is "CONTEXT_ID" in the Technical Console)

The **Reset Password** button on the Basic Information tab will be disabled when you use LDAP authentication.

Login

If you use LDAP for your password authentication, the system first tries to validate your LDAP ID in the Employee Information screen against the LDAP directory. If it matches, you can log in. If it does not match, the system displays the following message: "Invalid Login Attempt."

If you do not have a **LDAP ID** set up in the system, the system tries to validate your Login ID against the LDAP directory. If it matches, you can log in. After you log in, the system finds your employee record based on Login ID. If it does not match, the system displays the following message: "Invalid Login Attempt."

The behavior described above is valid when TC_0000.SCHEMA_CONFIG.S_AUTHENTICATION_SOURCE_CD = 'LOGIN_ID'.

If your TC_0000.SCHEMA_CONFIG.S_AUTHENTICATION_SOURCE_CD = 'CONTEXT_ID', you have to select **LDAP ID** on the Employee Information screen for each employee, and you have to enter it on the login screen to be able to log in. The system uses the value of LDAP ID to authenticate against the LDAP directory and then finds your employee record based on it.

If you select the **Change Password** option on the Login screen, the system displays the following message after a successful login: "Please note that your password cannot be changed here because your system is using LDAP authentication."

Timesheet Signature

When you enter your password during the timesheet signature process and click **OK**, the system validates your password against the password you entered when logging into the system. If it does not match, the system displays the following error message: "Invalid Password."

Timesheet Approval

If you require your supervisors to enter a password when approving their employee timesheets, the system validates the password against the password they entered when logging into the system. If it does not match, the system displays the following error message: "Invalid Password."

Password Utility

The **Reset Password** option is not available as an **Action** on the Password Utility screen if you use LDAP to authenticate your passwords.

Expense Report Signature

When you enter your password during the expense report signature process and click **OK**, the system validates your password against the password you entered when logging into the system. If it does not match, the system displays the following error message: "Invalid Password."

Expense Report Approval

If you require your supervisors to enter a password when approving their employee expense reports, the system validates the password against the password they entered when logging into the system. If it does not match, the system displays the following error message: "Invalid Password."

Appendix I: Single Sign-On

> Single Sign On (SSO) Functionality is a feature that you can choose to install with your Deltek T&E instance. This functionality relies on third party applications (for example, Microsoft IIS & ISA, or BEA Weblogic) to allow users to pass the necessary information through the infrastructure to facilitate the SSO capability. This is not a feature that Deltek installs with the core application.
>
> Depending on the characteristics and complexities of the environment that supports your Deltek applications, this functionality can be challenging to install and might take hours or days to complete. Deltek Technical Consulting Services can assist you in managing a multi-vendor team that may be required to achieve a successful installation.
>
> If you experience difficulties implementing this functionality, contact Deltek Customer Care. They will put you in contact with a Deltek Consulting Manager, who will outline your options and help you engage a qualified technical consultant to work with your internal IT organization.

This appendix includes the steps needed to implement Single Sign-On with Windows Authentication on Deltek Time & Expense with Self-Service. Also included in this appendix is information on using this solution with Windows Network Load Balancing (NLB), ideas on troubleshooting problems, and some general considerations.

To use Single Sign-On with the Windows 2008 R2 platform, the following requirements must be in place:

- AES-128, AES-256, and RC4 supported Kerberos encryption for WebLogicServer Active Directory user account
- Internet Explorer 8.0 and later for client workstations

Setting up Single Sign-On is a three-step process:

1. Configure the Active Directory Server.
2. Configure the WebLogic Server.
3. Configure IE browsers to work with this configuration.

> In the sample procedure below, the following names are used:
>
> - WebLogic Server Active Directory user account —sso_weblogic
> - Active Directory Domain name — esdtest1.com
> - WebLogic Server host name — serv2

Configure the Active Directory Server

The first step to implementing Single Sign-On with Windows Authentication is to configure the active directory server, which has two steps:

- Create a new user account in Active Directory.
- Use **setspn** to create the Service Principal Name (SPN).

Create a New User Account in Active Directory

To create a new user account in Active Directory for the host computer on which WebLogic Server runs, complete the following steps:

1. Start the Active Directory Users and Computers program on the Active Directory server.

2. Click **New User**.

3. Name the new user account.

4. Under **Account Options**, select the **This account supports Kerberos AES 128 bit encryption** option.

> ⚠️ Enabling AES encryption can corrupt the user's password. Reset the password after this step.

5. Under **Account Options**, clear the **Do not require Kerberos preauthentication** option.

Use setspn to Create the Service Principal Name (SPN)

Use the **setspn** utility to create the Service Principal Name (SPN) for the user account created in the previous steps. You use SPNs to locate a target principal name for running a service. **setspn** allows you to view the current SPNs, reset the account's default SPNs, and add or delete supplemental SPNs. Some services and applications may require manual modification of a service account's SPN information to authenticate correctly.

> For more information about setspn.exe, refer to the following Webpage:
>
> http://technet.microsoft.com/en-us/library/cc731241(v=ws.10).aspx

To use the setspn utility to create the Service Principal Name (SPN) for the user account, complete the following steps:

1. Locate and execute the **setspn** utility in the Windows 2008 Resource Kit.

2. Enter the following commands at the DOS prompt:

   ```
   setspn –a HTTP/serv2.ESDTEST1.COM sso_weblogic
   ```

   Where

   serv2 is the server machine name running WebLogic.

   > The domain name (ESDTEST1.COM) in the WebLogic Server host name must be UPPERCASE.

   The following output displays:

   ```
   Registering ServicePrincipalNames for
   CN=sso_weblogic,CN=Users,DC=esdtest1,DC=com

   HTTP/serv2.ESDTEST1.COM

   Updated object
   ```

3. Use the following command to identifythe SPNs associated with your user account:

   ```
   setspn –L sso_weblogic
   ```

   The following output displays:

   ```
   Registered ServicePrincipalNames for
   CN=sso_weblogic,CN=Users,DC=esdtest1,DC=com

   HTTP/serv2.ESDTEST1.COM
   ```

   > This step is critical. If the same service is linked to a different account in the Active Directory server, the client does not send a Kerberos ticket to the server.

Configure WebLogic Server

The second step to implementing Single Sign-On with Windows Authentication is to configure the WebLogic server, which entails:

- Creating the Keytab file with ktab.exe
- Processing the Keytab file with kinit.exe
- Configuring WebLogic to use Negotiate Identity Asserter

- Creating a JAAS login file for WebLogic to connect with Kerberos
- Modifying the Time & Expense with ESS startup command
- Setting SCHEMA_CONFIG.S_AUTHENTICATION_CD to SSO

Create the Keytab file with ktab.exe

Prior to creating the keytab file, complete the following steps:

1. Create a file named **krb5.ini** in your C:\Windows directory. (Use the WordPad text editor to create the file.)

> ⚠ The Windows environment variable PATH must contain the folder C:\WINDOWS.

2. Add the following parameters to the **krb5.ini** file:

```
[libdefaults]
default_tkt_enctypes = aes128-cts rc4-hmac
default_tgs_enctypes = aes128-cts rc4-hmac
ticket_lifetime = 600

[appdefaults]
autologin = true
forward = true
forwardable = true
encrypt = true
```

To create the keytab file, complete the following steps:

1. At the DOS command prompt, enter the following command to process your keytab file:

```
C:\Oracle\Middleware\jdk1.7.0_02\bin\ktab -k
C:\Oracle\Middleware\DeltekTE90\te_sso_keytab –a
sso_weblogic@ESDTEST1.COM -n 0
```

> ⚠ The domain name (ESDTEST1.COM) in the username <u>must</u> be UPPERCASE.
>
> For the last option **-n 0, 0** stands for digit 0.
>
> Do not use **–n 0** option, if you're running JDK version 1.6 or below.
>
> You create the **te_sso_keytab** file in your **delteke** domain folder (for example, **C:\Oracle\Middleware\DeltekTE90**).

2. You will be prompted for a password. Enter the password for the **sso_weblogic** user created in Active Directory earlier:

```
Password for sso_weblogic@ESDTEST1.COM:Password1
```

3. You should see the following output:

```
Done!
Service key for sso_weblogic@ESDTEST1.COM is saved in
C:\Oracle\Middleware\DeltekTE90\te_sso_keytab
```

Process the keytab File with kinit.exe

After creating the keytab file, you need to run the **kinit** utility. You use this utility to obtain and cache Kerberos ticket-granting tickets.

To process the keytab file with kinit, complete the following steps:

1. Run the **kinit.exe** utility to process your keytab file:

    ```
    C:\Oracle\Middleware\jdk1.7.0_02\bin\kinit -k -t
    C:\Oracle\Middleware\DeltekTE90\te_sso_keytab sso_weblogic@ESDTEST1.COM
    ```

    > The domain name (ESDTEST1.COM) <u>must</u> be UPPERCASE.

    The following output displays:

    ```
    New ticket is stored in cache file
    C:\Users\Administrator.ESDTEST1\krb5cc_administrator
    ```

2. Run the **klist** program to verify that the **kinit** program succeeded. **klist** displays the entries in the local credentials cache and key table. After you modify the credentials cache with **kinit** or modify the **te_sso_keytab** with **ktab**, the only way to verify the changes is to view the contents of the credentials cache and/or **te_sso_keytab** using **klist**. This program does not change the Kerberos database.

    Use this command to run the **klist** program:

    ```
    C:\Oracle\Middleware\jdk1.7.0_02\bin\klist
    ```

   The following output displays:

    ```
    Credentials cache:
    C:\Users\Administrator.ESDTEST1\krb5cc_administrator

    Default principal: sso_weblogic@ESDTEST1.COM, 1 entry found.

    [1]  Service Principal:  krbtgt/ESDTEST1.COM@ESDTEST1.COM
         Valid starting:  Feb 09, 2012 13:28
         Expires:         Feb 09, 2012 23:28
    ```

Configure WebLogic to use Negotiate Identity Asserter

1. Login to the WebLogic console.
2. In the top left corner of the screen, click **Lock & Edit**.
3. In the Domain Structure portlet, click **Securityrealms**.
4. Click **TERealm**.
5. In the Settings for TERealm window, click the Providers tab. The Authentication tab displays.
6. Click **New**, and enter any name (for example, TENegotiateIdentityAsserter).
7. From the list of available authentication providers, select **Negotiate Identity Asserter**.
8. Click **OK**.
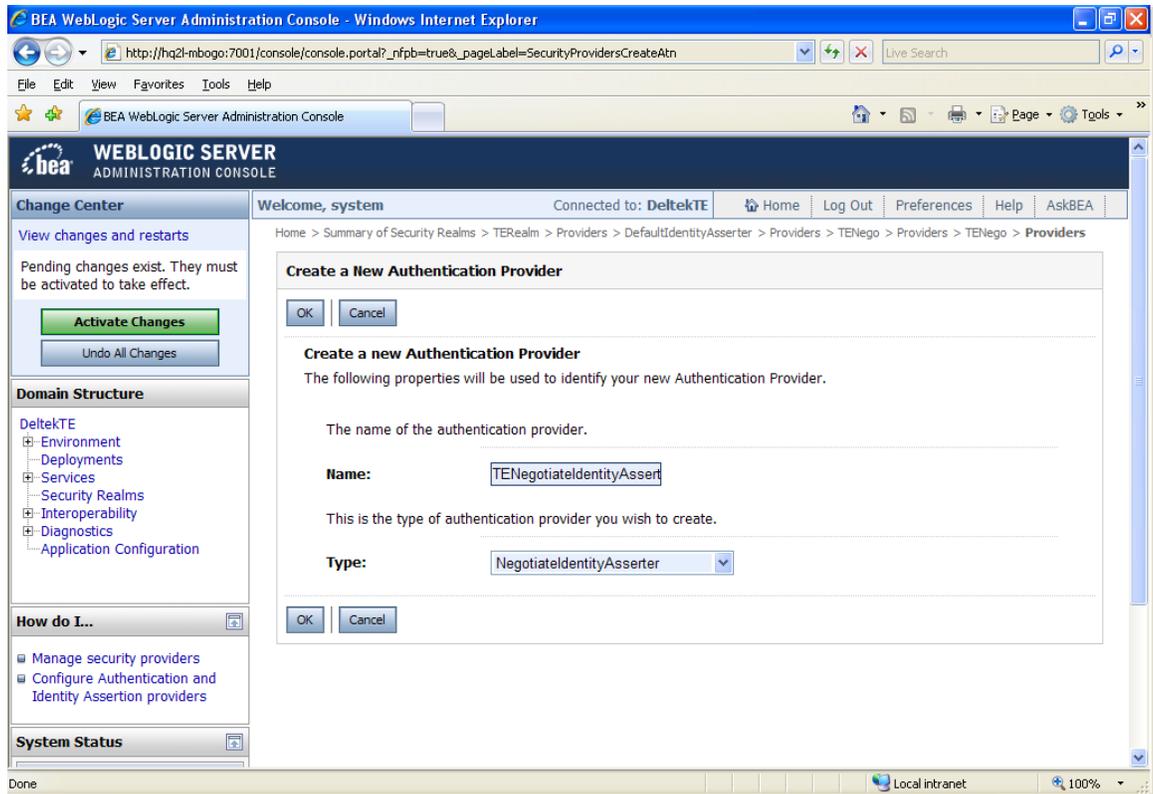
9. Click **Reorder** to ensure that the new Negotiate Identity Asserter provider comes first in the list of authenticators.

10. In the top-left corner, click **Activate changes**.

11. Restart the WebLogic server for this change to take effect.

> ⚠️ Ensure that the TCADAuthenticator provider exists in the list of providers.

Create a JAAS Login File for WebLogic to Connect with Kerberos

The JAAS login file tells the WebLogic security framework to use Kerberos authentication and defines the location of the keytab file that contains the Kerberos identification information for the WebLogic server.

To create a JAAS login file, complete the following steps:

1. Use any text editor to create a JAAS login file with the name **krb5login.conf**.

2. Add the following contents to the file:

```
com.sun.security.jgss.krb5.accept {
 com.sun.security.auth.module.Krb5LoginModule required
 principal="sso_weblogic@ESDTEST1.COM" useKeyTab=true
 keyTab="C:\\Oracle\\Middleware\\DeltekTE90\\te_sso_keytab"
isInitiator=false storeKey=true;
};
```

3. Copy the file into the \Oracle\Middleware\DeltekTE90 or equivalent folder.

Modify the Time & Expense with ESS Startup Command

You must modify the Java command that starts WebLogic, either in the startupDeltekTE.cmd file or the file that is called when WebLogic is set up as a service.

To modify the Time & Expense with ESS Startup Command, complete the following step:

1. Add the following command line parameters into the WebLogic start command:

   ```
   -Djava.security.auth.login.config=krb5login.conf
   -Djavax.security.auth.useSubjectCredsOnly=false
   -Dweblogic.security.enableNegotiate=true
   ```

Here is an example command with those parameters added. The new commands display in boldface:

```
"%JAVA_HOME%\bin\java" %JAVA_VM% %MEM_ARGS% %JAVA_OPTIONS% -
Dweblogic.Name=%SERVER_NAME% -
Djava.security.auth.login.config=krb5login.conf -
Djavax.security.auth.useSubjectCredsOnly=false -
Dweblogic.security.enableNegotiate=true -
DjmsHost=t3://%JMS_HOST_ADDR% -
Dhibernate.cglib.use_reflection_optimizer=false weblogic.Server
```

Set SCHEMA_CONFIG.S_AUTHENTICATION_CD to SSO

The TC_0000.SCHEMA_CONFIG column in the database table must be set to indicate which of the existing domains to use for single sign on. In the current implementation of this authentication solution, only one domain may participate in the single sign on system. For that schema, the value of the S_AUTHENTICATION_CD column must be set to the value of **SSO**. Only one domain may have this value in that column. The default value for this column is **DATABASE**.

If the network user names match the values in the **TC_0000.USER_INFO.LOGIN_ID** field,the S_AUTHENTICATION_SOURCE_CD needs to contain the default value of **LOGIN_ID**. If the network user names are longer than 20 characters, then all the network names need to be stored in the TC_0000.USER_INFO.LDAP_CONTEXT_S column, and the value of the **S_AUTHENTICATION_SOURCE_CD** field needs to be **CONTEXT_ID**.
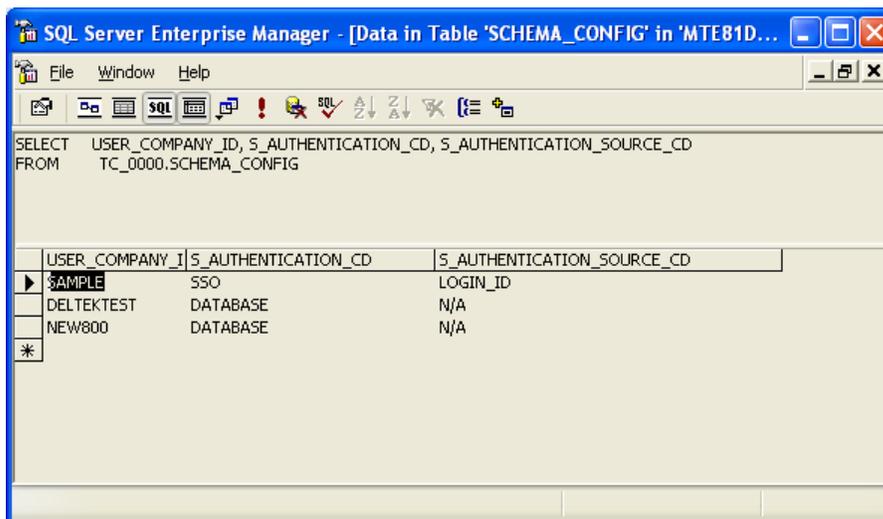
Configure IE Browsers to Work with This Configuration

The information in this section is from the WebLogic documentation at http://docs.oracle.com/cd/E24329_01/web.1211/e24422/sso.htm.

Complete the following procedures to configure your Internet Explorer (IE) browser to use Windows authentication.

To configure local intranet domains, complete the following steps:

1. In Internet Explorer, click **Tools » Internet Options**.

2. Click the Security tab.

3. Select **Local intranet**, and click **Sites**.

4. On the Local intranet dialog box, ensure that the **Include all local (intranet) sites not listed in other zones** and **Include all sites that bypass the proxy server** options are selected.

5. Click **Advanced.**

6. In the Local intranet (Advanced) dialog box, add all relative domain names that will be used for WebLogic Server instances participating in the SSO configuration (for example, myhost.example.com), and click **Close**.

To configure intranet authentication, complete the following steps:

1. In Internet Explorer, click **Tools » Internet Options**.

2. Click the Security tab.

3. Select **Local intranet**, and click **Custom Level**.

4. On the Security Settings dialog box, scroll to the **User Authentication** section.

5. Select **Automatic logon only in Intranet zone**. This option prevents users from having to re-enter logon credentials, which is a key piece to this solution.

6. Click **OK**.

To verify the proxy settingsif you have a proxy server enabled, complete the following steps:

1. In Internet Explorer, click **Tools » Internet Options**.

2. Click the Connections tab.

3. Click **LAN Settings**.

4. On the Local Area Network (LAN) Settings dialog box, verify that the proxy server address and port number are correct.

5. Click **Advanced**.

6. On the Proxy Settings dialog box, ensure that all desired domain names are entered in the **Exceptions** field.

7. Click **OK** to close the Proxy Settings dialog box.

To set integrated authentication for Internet Explorer 6.0, complete the following steps:

> In addition to the previous settings, you require one additional setting if you use Internet Explorer 6.0.

1. In Internet Explorer, click **Tools » Internet Options**.

2. Click the Advanced tab.

3. Scroll to the **Security** section.

4. Ensure that **Enable Integrated Windows Authentication** option is selected, and click **OK**.

5. If you had to select this option, restart the browser.

Using Windows Network Load Balancing with AD/Kerberos SSO

Using Windows Network Load Balancing (NLB) requires changing a few steps in the process described above. This change treats the virtual host or cluster that you create when configuring NLB as though it was a single machine. NLB does create a single service; although, it is implemented through multiple back-end servers.

The first step is to register the cluster name as a host or computer in Active Directory. Then follow the procedure to create a new user account in Active Directory and create one for the cluster.

> The clusters machine name and this new user account must be different, just as when working with single machines.

After creating the new user account in Active Directory for the cluster, follow the procedure to run setSpn.exe to create the SPN.

The next step is to generate a keytab file as described above. Follow the same procedure shown, but use the cluster machine account name and the cluster user account name in place of the server names.

Copy the keytab file to all the back-end servers that participate in the NLB cluster, and run the kinit.exe and klist.exe programs exactly as shown above for a single server. Use the cluster name, not the stand-alone server name, when running kinit.exe, even though you are running it on a server with a different machine name.

All other procedures for WebLogic configuration and browser configuration remain the same.

Error Messages and Possible Causes

You may encounter the following error message while running KINIT.EXE**:**

"Preauthentication failed while getting initial credentials."

Possible causes for this error include:

- System clock error > 5 minutes
- Wrong password
- User does not have an account in the host's realm
- Realm mismatch

Troubleshooting

When diagnosing problems with Time & Expense with ESS Windows SSO, there are three main procedures to help you with troubleshooting. These are:

- Turning on verbose logging during authentication attempts
- Increasing the logging output by Time & Expense with ESS
- Using an additional run-time command line switch

These procedures are detailed below.

Verbose Logging

It is helpful to have verbose logging turned on during SSO authentication attempts.

To turn on verbose logging, complete the following steps:

1. In the WebLogic console, click **Lock & Edit** in the top left corner.
2. In the Domain Structure on the left, click **Environment – Servers**.
3. On the Summary of Servers page, click **DeltekTEServer(admin)**.
4. Click the **Debug** tab.
5. Drill down to **weblogic – security – atn**.
6. Select the **DebugSecurityAtn** option.
7. Click **Enable** at the top or bottom of the page.
8. Click on **Logging** tab
9. Click on **Advanced** link at the bottom
10. In **Message Destination(s) - Log File** section select **Severity Level** = **Debug**
11. Click **Save** at the top or bottom of the page
12. Click **Activate changes** in the top-left corner.

> You do not need to restart the WebLogic server for this change to take effect.

Increase Logging

You can also increase Time & Expense with ESS's logging output with respect to DATABASE and LDAP authentication.

To increase the logging output, complete the following steps:

1. Login to the WebLogic console.
2. In the **Domain Structure** portlet, click **Domains**
3. Click the Logging tab.
4. Click **Add Category**.
5. For **Category**, enter **com.deltek.tc.security.providers.authentication.**
6. Set the **Log Level** to **debug**.

7. Click **Apply**.

> ⚠ This high level of verbose logging can impose a performance penalty on the operation of your production system. After you have solved your authentication problems, Deltek recommends that you restore the settings in these files to settings that allow for adequate server performance.

Add Run-Time Command Line Switch

There is an additional run-time command line switch that you can use when diagnosing SSO problems. Add the following to the command line switches to cause a display of additional log messages about the operation of AD/Kerberos SSO.

To add an additional run-time command line switch, complete the following steps:

1. Access the startup file.

2. Locate the following command:

   ```
   -Djava.security.auth.login.config=krb5login.conf
   ```

3. Add the following command just before the command in step 2:

   ```
   -Dsun.security.krb5.debug=true
   ```

> ❓ For more information of many Kerberos errors and their possible causes, refer to the following Webpage:
>
> http://www.microsoft.com/technet/prodtechnol/windowsserver2003/technologies/security/tkerberr.mspx

Running Time & Expense with ESS with Windows SSO

Different URL for SSO login

Beginning with Deltek Time and Expense with Employee Self-Service v 8.1, the URL for SSO login is http://myhost.example.com/DeltekTC/sso.msv.

The regular login page URL http://myhost.example.com/DeltekTC/welcome.msv can be used for non-SSO login by users who are not members of the Windows domain.

There are two areas where running SSO changes the operation of Time & Expense with ESS. The first is the **log out** operation, and the second is the timesheet or expense sign and approval operation. There are also several conditions that must be true for the solution to work. First, a user who intends to access Time & Expense with ESS through this SSO solution must authenticate to the same Active Directory domain controller that holds the WebLogic application server user account. Second, the same user identifier must also be put into the **LOGIN_ID** fields of the EMPL and USER_INFO tables or in **LDAP_CONTEXT_S** field of USER_INFO table.

Logging Out of Time & Expense with ESS after Logging in Automatically

Time & Expense with ESS's current design is to return to the normal login ID/password entry login screen when the user logs out of the system. This enables logging into Time & Expense with ESS as a different user than the user logged onto the Windows client machine. This may be valuable for administration, support, maintenance, or other non-standard use. However, this may not be what you want. It may also be possible to modify the mustang-transitions.xml file to redirect the user to any other desired web page upon logging out. Please contact Deltek support for help with this.

Timesheet/Expense Signing or Approval

If your system is set up to have timesheet, expense report, or expense authorization signing or approving, Time & Expense with ESS normally requires that the signing or approving user enter a password, even if you use SSO. If you do not want users to have to enter a password in these cases, go to the Time and Expense configuration screens and remove all of the signature and/or approval text specified there. If there is no text specified for an action, Time & Expense with ESS does not require a password; if there is text, it does require a password.

The User Must Authenticate to an Active Directory Domain

A user logging into Time & Expense with ESS using Windows SSO must log into the machine he will be using and be authenticated to the same Active Directory domain on which the server running Time & Expense with ESS has a user account as shown earlier in this document. It is those credentials that will be passed by Internet Explorer to Time & Expense with ESS.

When testing, keep in mind that if you run your Internet Explorer on the same machine as the WebLogic server, SSO will not work.

The User Identifier Used in Active Directory Must Also Be in Time & Expense with ESS

The same user identifier string used as the login id of the user when he or she logs into the Active Directory controller must also be used to populate the **TC_0000.USER_INFO.LOGIN_ID**, **TC_0000.USER_PASSWORD.LOGIN_ID**, and **TC_0001.EMPL.LOGIN_EMPL_ID** fields.

> These three fields each have a length of 20 characters. If that is not enough, all network names must be stored in **TC_0000.USER_INFO.LDAP_CONTEXT_S**, and the **TC_0000.SCHEMA_CONFIG.S_AUTHENTICATION_SOURCE_CD** field value must be changed from **LOGIN_ID** to **CONTEXT_ID**.

This is how the connection is made between the user identifier used to authenticate to Active Directory and the employee ID in Time & Expense with ESS. During authentication, Time & Expense with ESS checks to see if an employee with that login ID exits in the database. This can be accomplished for each user by changing the login ID or LDAP ID in the Time & Expense with ESS employee information screen.

> See the WebLogic documentation page on this topic:
>
> http://download.oracle.com/docs/cd/E12840_01/wls/docs103/secmanage/sso.html
>
> Microsoft has documentation on this technology in a three part article titled
>
> "HTTP-Based Cross-Platform Authentication via the Negotiate Protocol."
>
> - Part I: Network Infrastructure:
>
>   http://msdn2.microsoft.com/en-us/library/ms995329.aspx
>
> - Part II: SPNEGO Tokens and the Negotiate Protocol
>
>   http://msdn2.microsoft.com/en-us/library/ms995330.aspx
>
> - Part III: SPNEGO Token Handler API
>
>   http://msdn2.microsoft.com/en-us/library/ms995331.aspx

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