Deltek

Deltek Time & Expense™ 10.0.0

New Installation Guide for Oracle®

April 29, 2019

Contents

Deployment Options

The Deltek Costpoint 7.1 Architecture allows for very flexible and scalable deployment options to meet the specific needs of your business. These options include, but are not limited to, multi-tenancy, optional components, authentication models, database options, load balancing and fail-over configurations, co-deployments with Budgeting & Planning and/or Time & Expense, access controls, and many other important features to consider.

Careful consideration of your deployment is an extremely important step in your planning process. Deltek has provided many resources to assist you in your deployment planning and implementation process and strongly recommends you leverage these resources in order to plan a smooth implementation of your Deltek deployment.

We strongly recommend starting with the document titled *DeltekCostpoint711DeploymentOptionsTechnicalOverview.pdf*, available in Deltek Software Management (DSM). The documents listed in the Related Documentation section include numerous important documents for you to consider as part of your planning and implementation process.

Time & Expense 10.0 **requires** you to carefully consider and choose a deployment option along with your Costpoint instance. You now have the following options:

- **Share Everything**: Robust model where Costpoint and Time & Expense are deployed as one system (one product, one menu), allowing you to leverage your hardware and operational investment

  > **Note:** Deltek recommends you use this option, which is required for some current and future enhancements (for example, you must use this option if you plan to utilize Subcontractor Management capability).

- **Share Infrastructure**: Only share WebLogic deployment
- **Share Nothing**: Stand-alone deployment

Subcontractor (SubK) Management Users

If you choose to leverage the new Subcontractor Management add-on, you must deploy and configure the Share Everything deployment model, where Costpoint and Time & Expense are **co-deployed** as a single system.

New Installation Checklist

The following is a checklist of the overall steps needed to install Time & Expense 10.0.0. Details for each step are provided on subsequent pages.

Print this checklist and use it as you complete this installation, if desired.

Done?	Step	Notes
✔	*Step summary…*	*Any pertinent notes…*

Pre-Installation

Done?	Step	Notes
	1. Costpoint 7.1.1 must be installed and operational.	
	2. All Costpoint 7.1.1 Hot Fixes must be installed.	

Database Tier Installation

Done?	Step	Notes
	1. Create Time & Expense 10.0.0 Oracle Instance(s) and Tablespaces.	
	2. Install Time & Expense 10.0.0 Database using Database Tier Installer.	

Application Tier Installation

Done?	Step	Notes
	1. Install Time & Expense 10.0.0 Application Tier Software.	
	2. Configure Time & Expense 10.0.0 Access.	
	3. Reinstall Time & Expense 10.0.0 Windows Service.	
	4. Reconfigure Time & Expense 10.0.0 Windows Service.	

Web Tier Installation (Microsoft IIS)

Done?	Step	Notes
	1. Install Time & Expense 10.0.0 Web Tier Software.	

Using Time & Expense 10.0.0

Done?	Step	Notes
	1. Set Web Browser Internet Options.	
	2. Log in to Time & Expense 10.0.0.	

Done?	Step	Notes
	3. Install latest Time & Expense 10.0.0 hot fixes.	

Related Documentation

The following table lists the additional documentation that downloads along with this release. Except where noted, all the user guides and quick reference guides listed in this table are also available for download from the Deltek Customer Care Connect site.

You will need Adobe Reader 8.0 or later to view the documents listed in this section.

Release Notes

Document Name	Description
Deltek Time & Expense 10.0 Database Changes	This document describes the database changes between the release of Time & Expense 9.0.1 and Time & Expense 10.0.0.
Deltek Time & Expense 10.0 Release Notes	**Major New Features**: Click this bookmark to view the major new features included in Time & Expense 10.0.0. **Enhancements**: Click this bookmark to view the enhancements included in Time & Expense 10.0.0. **Known Issues**: Click this bookmark to view the known issues that are part of the current release of Time & Expense 10.0.0.

Entity Relationship Diagrams (ERDs)

Document Name	Description
DeltekTimeAndExpense1000TransactionSchemaERD.zip	This ZIP file contains the ERD for the Deltek Time & Expense 10.0.0 Transaction schema. Use **index.htm** to view the ERD.

Other Documents

Document Name	Description
Deltek Costpoint Interface Getting Started Guide	This document describes instructions for accessing Time & Expense's applications as well as descriptions of menus, toolbars, and other global features. You will also find information on logging on to Time & Expense, accessing the database, printing reports, reviewing online help, and contacting Deltek Customer Care and other client services.

Document Name	Description
Deltek Time & Expense 10.0.0 Menu Mapping 10.0.0 to 9.0.1	This document describes how the menu selections inside Time & Expense 10.0.0 map back to Time & Expense 9.0.1.
Deltek Time & Expense 10.0.0 Menu Mapping 9.0.1 to 10.0.0	This document describes how the menu selections inside Time & Expense 9.0.1 map to Time & Expense 10.0.0.
Deltek Costpoint Interface User Interface QRC	This document is a quick reference card which can be kept handy and used for reference as you navigate Time & Expense 10.0.0. It describes how to navigate through the application.
Deltek Costpoint Interface Shortcut Keys Toolbar Icons And Buttons QRC	This document is a quick reference card which can be kept handy and used for reference as you work in Time & Expense 10.0.0. It lists the shortcut keys available in Time & Expense, as well as the toolbar icons and buttons.
Deltek Costpoint Interface Views QRC	This document is a quick reference card which can be kept handy and used for reference as you work with the Time & Expense 10.0.0. It explains the differences between Table View and Form View.
Deltek Costpoint Interface Query and Lookup QRC	This document is a quick reference card which can be kept handy and used for reference as you work with the Time & Expense 10.0.0. It explains how to use the query and lookup functions in Time & Expense.
Deltek Costpoint Interface Setting Up Printers QRC	This document is a quick reference card which can be kept handy and used for reference as you work with the Time & Expense 10.0.0. It explains how to set up printers.

New Installation Overview

This document provides instructions for installing the Deltek Time & Expense 10.0.0 software. During the installation process, you will perform the following:

- Ensure that your system meets the installation prerequisites.

    > **Note:** Please refer to the Installation Prerequisites and System Requirements sections for additional information. Also please review the full list of Related Documentation prior to installing or upgrading to Time & Expense 10.0.0.

- Install the Time & Expense 10.0.0 Database Tier software to create your Time & Expense 10.0.0 Transaction domain.

- Install the Time & Expense 10.0.0 Application Tier software.

- Configure Time & Expense 10.0.0 access.

- Install the Time & Expense 10.0.0 Web Tier software to your Internet Information Server, if applicable.

    > **Note:** If you need help with this installation, please contact Time & Expense Technical Support at 877.HLP.PROJ (877-457-7765).

Installation Package Contents

The Time & Expense 10.0.0 installation package contains the following:

- Time & Expense 10.0.0 Database Tier installer

- Time & Expense 10.0.0 Application Tier installer

- Time & Expense 10.0.0 Web Tier installer

- Deltek Time & Expense 10.0.0 New Installation Guide for Oracle

Installation Prerequisites

Database Tier Installation Prerequisites

Before you start the Database Tier installation process, your database server must meet the following software prerequisites:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here.
Passwords	To run the installation, a password is required for Oracle SYSTEM and SYS users.

Prerequisite Component	Details
Oracle Instance and Tablespaces	Create an Oracle instance and Oracle tablespaces as documented in the Create Time & Expense 10.0.0 Oracle Instance(s) and Tablespaces section.
Firewall Settings	On your Database Server, the Oracle Listener Port (that is, **1521)** must be open for Inbound and Outbound traffic through your firewall. On your Database Server, make sure that **Network discovery** and **file sharing** options are switched on.
Oracle	The Time & Expense 10.0.0 database user needs the following permissions granted: ▪ Connect ▪ Resource ▪ Create Synonym ▪ Create Procedure ▪ Create View ▪ Create Database Link ▪ Create Trigger ▪ Unlimited Tablespace ▪ Unlimited Quota on Underlying Tablespace

Application Tier Installation Prerequisites

Before you start the Application Tier installation process, the application server that will run your Time & Expense 10.0.0 software must meet the following prerequisites:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here. Costpoint 7.1.1 must be installed and operational. All Costpoint 7.1.1 Hot Fixes must be applied.

Time & Expense 10.0.0 Server Startup Prerequisites

Before you start Time & Expense 10.0.0, the following must be met:

Prerequisite Component	Details
Server	Database firewall requirements should be configured.

Prerequisite Component	Details
	On your Application Server, the WebLogic Listener Port **7009** must be open for Inbound and Outbound traffic through your firewall. On your Application Server, make sure that the **Network Discovery and File Sharing** options are switched on.

Time & Expense 10.0.0 Initial Login Configuration Prerequisites

Before you can log into Time & Expense 10.0.0, your Windows client computer must meet the following requirements:

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here. Adobe Reader 8.0 or later. This is only required for users who want to print Time & Expense 10.0.0 reports in PDF format. Make sure that you select the **Display PDF in browser** option under the Preference settings for Adobe Acrobat Reader to avoid pulling up a blank IE screen when printing in PDF format.

Web Tier Installation/Microsoft Internet Information Server (IIS) Configuration Prerequisites

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

Prerequisite Component	Details
Software	All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support Site here. Microsoft Internet Information Server 7.0

Installation Process for Time & Expense 10.0.0

The Time & Expense 10.0.0 installation process incorporates the following steps:

Component	Change Details
Database Tier Installation	The Database Tier installer creates the following, user defined, user and schema: ▪ Transaction Schema (that is, TC_0001) The Database Tier installer automatically performs all the following actions:

Component	Change Details
	▪ Creating Time & Expense TRANSACTION Database ▪ Upgrading Time & Expense SYSTEM Database (if applicable)
Application Tier Installation	The Application Tier installer automatically performs all of the following actions: ▪ Applying Cleanup_CP_Apps Scripts (if applicable) ▪ Applying Menu_data Scripts ▪ Applying TC.const Scripts ▪ Applying TC.msg Scripts ▪ Applying TEESS_Modules Scripts ▪ Applying TM.msg Scripts ▪ Applying UDT_Templates_Data Scripts ▪ Applying UDT_TERMS Scripts ▪ Applying TE Metadata Scripts
Web Tier Installation	The Web Tier installer automatically perform all of the following actions: ▪ Extracting HelpFiles ▪ Resetting Internet Information Server

Web Servers Supported In Time & Expense 10.0.0

The Time & Expense 10.0.0 system supports the following Web servers only:

- Microsoft Internet Information Server
- Oracle's WebLogic Web server

Naming Conventions

The naming conventions specified in this section are used in all installation instructions detailed in this upgrade installation guide.

Drive Letters

The table below lists the drive letters used in the installation instructions.

Drive	Description
C:	The drive where the Time & Expense 10.0.0 software is installed.

Directory Names

The table below lists the directory names used in the installation instructions.

Directory Name	Description
ORACLE/MIDDLEWARE12.1.3	The name of the directory where the Oracle WebLogic software is installed.
DELTEK	The name of the directory where the Costpoint 7.1.1 and Time & Expense 10.0.0 software is installed.

Schema Names

The table below lists the schema names used in the installation instructions. Clients are free to choose the schema name.

Database Name	Description
TC_0001	The name of your Time & Expense 10.0.0 TRANSACTION schema.

Internet Information

Software installations, installation instructions, technical guides, and release notes are available for download from the Deltek Software Manager (DSM). All future releases of Time & Expense 10.0.0 are also downloaded from DSM.

DSM is the sole download source for hotfix files. Deltek Knowledge Base articles provide an explanation of the fixes and contain links to DSM for retrieval of the actual files.

Deltek Software Manager Requirements

You can run DSM from any desktop. It does not need run from Deltek application servers.

In order to run DSM, you must meet the following requirements:

- Windows XP or later
- Microsoft .NET Framework 3.5 SP1 (3.5.1)

The following Deltek Knowledge Base article contains a download link to the framework. It also has examples of what you may see if you do not have the framework installed:
https://deltek.custhelp.com/app/answers/detail/a_id/52469

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

DSM Documentation and Troubleshooting

- To view the online help for Deltek Software Manager, click here.
- To view a tutorial on how to use Deltek Software Manager, click here.
- To view more information on troubleshooting Deltek Software Manager, click here.

> **Note:** The above troubleshooting link will only work if you are logged into Deltek Customer Care Connect.

Knowledge Base Documentation

To view Knowledge Base articles:

1. Go to http://www.deltek.com and click **Support Login**.

2. Enter your logon credentials in the following fields and click **Log In**:

Field Name	Description
Username	Your Support user name
Password	Your Support user password.

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**.

3. On the Deltek Support Home Screen, click the Knowledge Center tab, and complete the following fields:

Field Name	Description
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 **10.0.0**.
Search Type	Use the default value, Phrases, or select your preferred search type 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.

4. Click **Search**.

5. On the search results screen, perform the following actions:

    a. In the **Summary** column, click the link for the desired correction.

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

System Requirements

The Time & Expense 10.0.0 system uses the following components:

- **Database Tier**: Oracle

- **Application Tier**: With integrated WebLogic Server

- **Browser Client**: Internet Explorer, Chrome, Firefox, Safari

- **Web Tier**: Microsoft Internet Information Server (optional)

- All product compatibility information is maintained in the Deltek Product Support Compatibility Matrix available on the Customer Care Support site here.

> **Note:** For the Time & Expense system to function properly, the system clocks on your WebLogic application server and the database server that hosts your Time & Expense databases must be synchronized with each other. Failure to synchronize your system clocks may result in login and other system problems.

> **Note:** A hardware recommendations document should have previously been distributed to you. For future releases of Time & Expense, hardware recommendations will be supplied via a Customer Care **Knowledge Base** article.

For the most current hardware and software requirements, please refer to the Knowledge Base article containing the Compatibility Matrix:

- https://deltek.custhelp.com/app/answers/detail/a_id/38499
- https://deltek.custhelp.com/ci/fattach/get/1072689/0/filename/DeltekProductSupportCompatibility Matrix.pdf

Time & Expense 10.0.0 Log File Information

The table below provides information on the log files used by the Time & Expense 10.0.0 system. All of these log files are located on the Application Server under the C:\Deltek\Costpoint\71\logs folder.

File Name	Description
DEServer.log	This log file is maintained by the WebLogic server instance. In a clustered environment, each server will write to a separate file and the file name matches the server name. The log records server-specific events such as the startup and shutdown of servers, the deployment of new applications, or the failure of one or more subsystems. The messages include information about the time and date of the event as well as the ID of the user who initiated the event.
CP_DBConn_DEServer.log	This file lists the active connections used by the product at a given time. To enable this logging, set <SYSTEMNAME>.logDBConnectionProfile = true in enterprise properties. In a clustered environment, each server will write to a separate log file and the name of the server will determine the name of the log file. CP_DBConn_<Server>.log
CP_DEServer.log	This log file contains application specific information such as performance, security, and errors encountered while running a Costpoint application. Each server will write to a separate log file and the name of the server will determine the name of the log file. CP_<Server>.log.
CP_Security_DEServer.log	This file captures messages generated by the Costpoint Web security module. Messages such as invalid login attempt due to user id, password, insufficient parameters, and deactivated user

File Name	Description
	account are captured here. In a clustered environment, each server will write to a separate log file and the name of the server will determine the name of the log file. CP_Security_<Server>.log.
delteke.log	This log file contains information that pertains to the entire domain. It consolidates log records from all application logs and a subset of events recorded in all server logs. All the information gathered is written into a single file. Note: Not all log messages are written into domain. Only those messages that match the defined severity are consolidated.
service.log	This log file contains messages generated by the Costpoint Web windows service. It helps in troubleshooting issues related to service startup, which usually occur during the initial configuration stages. In addition to service-related messages, it also contains most of the information that is captured in the DEServer.log. So, once the initial startup issues are sorted out, it is suggested to disable this log by editing the **InstallCPWebasService.cmd** (C:\Deltek\Costpoint\71\bin folder), removing the occurrence of "-**log:%CP_ROOT%\logs\service.log**". If you remove this after installing the service, you will need to uninstall and reinstall the service for the changes to take effect.

Pre-Installation Instructions

This section provides instructions for requirements prior to installing Time & Expense 10.0.0.

During the pre-installation steps, you will perform the following actions:

- Install and configure Costpoint 7.1.1.
- Apply the latest Costpoint 7.1.1 hot fixes.

Install and Configure Costpoint 7.1.1

Time & Expense 10.0.0 runs on the Costpoint 7.1.1 framework. So before you can install Time & Expense 10.0.0, you must install Costpoint 7.1.1.

If you do not already have a functioning Costpoint 7.1.1 environment, follow the appropriate installation document to install Costpoint 7.1.1:

- DeltekCostpoint711NewInstallationForOracle.pdf
- DeltekCostpoint711UpgradeInstallationForOracle.pdf

Once you have a functioning Costpoint 7.1.1 environment, accomplish the next step below, *Apply Latest Costpoint 7.1.1 Hot Fixes*.

Apply Latest Costpoint 7.1.1 Hot Fixes

Time & Expense 10.0.0 requires all Costpoint 7.1.1 hot fixes to be applied prior to installing Time & Expense 10.0.0.

Once you have a functioning Costpoint 7.1.1 environment, follow the appropriate installation document to install the latest Costpoint 7.1.1 framework update and all downloaded hot fixes:

- DeltekCostpoint711FrameworkUpdateInstallation.pdf
- DeltekCostpoint711DeployingHotFixes.pdf

> **Warning:** Costpoint 7.1.1 Framework Update MUST be installed BEFORE installing Costpoint 7.1.1 Hot Fixes. Costpoint 7.1.1 Hot Fixes MUST be installed BEFORE installing Time & Expense 10.0.0.

Once you have the latest Costpoint 7.1.1 framework update installer loaded and have applied all Costpoint 7.1.1 hot fixes, go to the next section, *Database Tier Installation*.

Database Tier Installation

This section provides instructions and recommendations for creating your Time & Expense 10.0.0 Transaction schema.

During this installation process, you will install the Time & Expense 10.0.0 Database Tier software to create and populate a Time & Expense 10.0.0 Transaction database schema where transactional data will be stored.

> **Note:** If you use Oracle Real Application Clusters (RAC) and you have two or more Oracle instances, make sure that your Costpoint 7.1.1 TRANSACTION, ADMIN, and SYSTEM schemas are all part of one RAC database instead of physically separate databases. If you have a critical need to use separate databases, please contact Deltek Support.

Before You Start

Make sure that you meet all Database Tier Installation Prerequisites.

Create Time & Expense 10.0.0 Oracle Instance(s) and Tablespaces

The recommended steps to configure your Oracle instance(s) and set up your Time & Expense 10.0.0 database tablespaces are detailed in this section.

This step must be performed on the Oracle database server that will host your Time & Expense 10.0.0 TRANSACTION database schema (TC_0001).

To create the instance(s) and tablespaces that will host your TC_0001 database schema:

1. Use your Oracle database software to create an Oracle instance for hosting the Time & Expense database.

   The following tables provide a reference for creating your Oracle instance(s).

   These initial settings are only minimal recommendations. Your production environment may need to be analyzed and adjusted to meet your specific requirements. You must customize these parameters over time based on database size, concurrent users, workload, and so on, to achieve optimal performance.

Oracle Instance Parameter	Value
cursor_sharing	EXACT
db_block_size	8192
dml_locks	1500
java_pool_size	32 MB
job_queue_processes	2
log_checkpoint_interval	10000

Oracle Instance Parameter	Value
log_checkpoint_timeout	1800
open_cursors	2000
optimizer_index_caching	90
optimizer_index_cost_adj	25
optimizer_mode	ALL_ROWS
processes	500
session_cached_cursors	1500
timed_statistics	TRUE
sga_target	0
pga_aggregate_target	0
statistics_level	Typical
db_file_multiblock_read_count	16
memory_target	Based on database size (1 GB to 15 GB)
memory_max_target	Based on database size (1 GB to 15 GB)
pga_aggregate_limit (12c only)	0

Tablespace Configuration Type	Tablespace Name	Minimum Size (MB)	Small Production System (MB)
System	SYSTEM	100	100
Default	TE_DATA	200	500
Index	TE_INDEX	100	300
Temporary	TEMPORARY_DATA	100	400

2. For databases over 2GB, Deltek recommends creating multiple datafiles for each of the tablespaces mentioned above for optimal configuration and performance.

Configuring Costpoint on Oracle

Time & Expense 10.0.0 supports both Oracle database architectures - non-CDBs as well as Oracle Multitenant (PDBs).

Time & Expense 10.0.0 fully supports use of pluggable databases (PDBs) that form a part of a container database (CDB). When hosting a Time & Expense database as a PDB, it is important to allocate adequate shared resources and/or limit the number of PDBs in the CDB in order to achieve and maintain optimal application performance. The database setup and configuration with Oracle multitenant will vary depending on the database workload characteristics, database size, concurrent users, and so on.

> **Note:** Costoint 7.1.1 does not support use of domain name suffixed to the Oracle service name. For example, Costpoint 7.1.1 does not support **orc1.domain.com** as your service name.

Install Database Tier Software

The steps to install the Time & Expense 10.0.0 Database Tier software as well as create the Transaction schema are detailed in this section.

You must perform this step on your database server or from a client workstation with Oracle client connectivity tools installed to connect to the database.

You must have Internet access on the machine where the Time & Expense 10.0.0 installer is invoked in order to automatically download the latest DeltekTimeAndExpense1000DatabaseUpgradeFiles.exe and Deltek TimeAndExpense1000RequirementsINI.exe files automatically. The DeltekTimeAndExpense1000DatabaseUpgradeFiles.exe contains the latest database patch rollback scripts as well as the latest list of Time & Expense 9.0.1 database patches that have been worked into the upgrade. The TimeAndExpense1000RequirementsINI.exe contains the latest OS platforms and database versions supported. These files are automatically downloaded when you launch the Database Tier installation, assuming that your database server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your database server does not have Internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the DeltekTimeAndExpense1000DatabaseTier.exe file.

To install the Database Tier software:

1. Run the **DeltekTimeAndExpense1000DatabaseTier.exe** file to launch the Time & Expense 10.0.0 Database Tier installation program. The Welcome to the Time & Expense 10 Installer screen displays.

   > **Note:** Due to enhanced security in Microsoft Windows Server 2012, it is advised that you use the **Run as Administrator** option when launching installation files, even if you are logged in as a user with local administrative rights. To **Run as Administrator**, right-click the installer file in Windows Explorer and select **Run as Administrator**.

2. Click **Next >**.

3. On the License Agreement screen, review the license agreement, select the **I accept the terms of the license agreement** check box, and click **Next >**.

4. On the Choose Time & Expense Database Scripts Directory screen, click **Browse** to navigate to an installation location for the Time & Expense 10.0.0 Database Tier software. The default installation location is **C:\Program Files\Deltek\Time & Expense\10.0.0** (recommended). Click **Next >**.

5. On the Select Deltek Time & Expense Install Type screen, select **New Install** and click **Next >**.

6. On the Select Database Platform screen, select **Oracle** and click **Next >**.

7. On the Select Oracle Home screen, from the drop-down list, select the **Oracle Home** location for your Time & Expense database. The installer will read your registry to display all available Oracle Home locations. Click **Next >**.

8. On the Deltek Time & Expense 10.0.0 Transaction Oracle Database Information screen, complete the following:

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Time & Expense 10.0.0 Transaction database server. The default value is your computer name.
	The values for the IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**.
	For RAC installations, you must specify the IP Address or Hostname of one of the instances. If you have SCAN listener set up, please use the Scan hostname or Scan IP Address. Do not use the Virtual IP Address.
Port	Enter the Oracle listener port of your Time & Expense 10.0.0 database server. The default port for Oracle is **1521**.
SID/SERVICE NAME	Select **SID** or **SERVICE NAME** and enter the system identification name (SID) or Service Name (ORC1) for the Oracle instance where your Time & Expense 10.0.0 Transaction database schema will be created. The default is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported:
	$ - _
	Please note a . (period character) is not supported as part of the Service Name.
	For databases on Oracle 12c, **Service Name** _must_ be selected.
	For databases on other Oracle versions, you can choose either the **SID** or the **Service Name** to connect to the Time & Expense 10.0.0 database. The Oracle SID pertains to the unique name that identifies an Oracle instance. If **SID** is used, then the SID must be registered with the listener on the database server hosting the Time & Expense 10.0.0 database.
	Similarly, if a Service Name is entered, the **Service Name** must be a valid service registered with the listener on the database server hosting the Time & Expense 10.0.0 database.

Field Name	Action
	For RAC installations, you may specify the **Oracle Instance (SID)** of one of the instances, or use the **Service Name** depending on your Oracle RDBMS version.
User Name	Enter the name for your Transaction schema user account. The default is **TC_0001**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your Transaction schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Confirm Password	Reenter the password for your Transaction schema user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

9. Click **Test Connection**. If you have entered the proper database connection information, a message similar to the following displays:

    ▪ "**User TC_0001 will be created. Click Next.**"

    If the message above does not display, correct the connection information and click **Test Connection** again.

10. After the "**User TC_0001 will be created. Click Next.**" message displays, click **Next >**. The Select Time & Expense Tablespace Information screen displays.

11. Complete the following fields:

Field Name	Action
Default	Select your default tablespace for the Time & Expense Transaction schema. Deltek recommends creating Oracle tablespace called **TE_DATA** and selecting it here.
Temporary	Select your temporary tablespace for the Time & Expense Transaction schema. Deltek recommends creating Oracle tablespace called **TEMPORARY_DATA** and selecting it here.
Index Tablespace	Select your index tablespace for the Time & Expense Transaction schema. Deltek recommends creating Oracle tablespace called **TE_INDEX** and selecting it here.

12. Click **Next >**.

13. On the Pre-Installation Summary screen, review the installation parameters you selected:

    ▪ If you want to change any settings, click **< Back** to go back and make the necessary changes.

    ▪ If you are satisfied with these settings, click **Install >** to begin the installation.

    Once initiated, the installation process will commence and create objects needed for Time & Expense 10.0.0. Please do not interrupt the process. A Windows Command Prompt will appear on your screen that displays the scripts that are being executed.

    The installation will perform the scenarios detailed in the Installation Process for Time & Expense 10.0.0 section of this document. The installation process will stop if any errors are encountered. If any errors occur during the installation, please refer to the Troubleshooting Instructions section of this document.

14. On the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box to open the DeltekTimeAndExpense1000DatabaseTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Time & Expense\10.0.0\Logs directory. This check box is selected by default.

15. Click **Finish** to exit the installation.

16. When the DeltekTimeAndExpense1000DatabaseTierInstallLog_<date>_<time>.txt file opens, search for the following keywords:

    ▪ **"Error"**: Report any search results to Deltek Time & Expense Technical Support.

    ▪ "**Database Installation For New Time & Expense 10.0.0 Completed Successfully**" and then the line "**$DBSUCCESS=TRUE**".

    Finding the last item listed above indicates that you successfully installed the Time & Expense 10.0.0 Database Tier software and that you created your schema successfully.

    Make sure that the default Oracle Port, **1521**, is open for Inbound and Outbound traffic through your firewall. Also, make sure that Network Discovery and File Sharing options are switched on.

Application Tier Installation

The Time & Expense 10.0.0 system uses Oracle's WebLogic Server 12.1.3 and Costpoint 7.1.1 for its application server tier. During the Application Tier installation process, you will install the Time & Expense 10.0.0 software.

As previously mentioned in the Pre-Installation Instructions section, the Time & Expense 10.0.0 WebLogic application server must already contain WebLogic Server 12.1.3 and Costpoint 7.1.1.

Before You Start

Make sure that you meet all Application Tier Installation Prerequisites.

Install Application Tier Software

This step provides instructions for installing the Deltek Time & Expense 10.0.0 software.

You must perform this step on the machine that will serve as your Time & Expense 10.0.0 **application** server.

You must have Internet access on the machine where the Time & Expense 10.0.0 installer is invoked in order to download the latest DeltekTimeAndExpense1000RequirementsINI.exe file automatically. The file contains the latest OS platforms and database versions supported. The file is automatically downloaded when you launch the Application Tier installation, assuming that your application server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your application server does not have internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the Deltek TimeAndExpense1000ApplicationTier.exe file.

To install the Application Tier software:

1. Run the **DeltekTimeAndExpense1000ApplicationTier.exe** file to launch the Time & Expense 10.0.0 Application Tier installation program. The Welcome to the Time & Expense 10 Installer screen displays.

   > **Note:** Due to enhanced security in Microsoft Windows Server 2012, it is advised that you use the **Run as Administrator** option when launching installation files, even if you are logged in as a user with local administrative rights. To **Run as Administrator**, right-click the DeltekTimeAndExpense1000ApplicationTier.exe file in Windows Explorer and select **Run as Administrator**.

2. Click **Next >**.

3. On the License Agreement screen, review the license agreement, select the **I accept the terms of the license agreement** check box, and click **Next >**.

4. On the Select Deltek Costpoint 7.1.1 Installation Directory screen, navigate to the location where your Costpoint 7.1.1 software is installed. The default directory is **C:\Deltek** (recommended).

5. Click **Next >**.

6. On the Select Deltek Costpoint System Name screen, select the Costpoint System you will be using to connect to Time & Expense 10.0.0. Click **Next >**.

7. On the Select Database Platform screen, select **Oracle**. Click **Next >**.

8. On the Deltek Costpoint 7.1.1 System Oracle Database Information screen, complete the following fields:

Field Name	Action
IP Address or Hostname	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Costpoint 7.1.1 SYSTEM (CPSYSTEM) database server. The default value is your computer name. The IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. Do not use the Virtual IP Address.
Port	Enter the port that your Costpoint 7.1.1 SYSTEM database server software uses to listen for requests. The default port for Oracle is **1521**.
SID/Service Name	Enter the service name (ORC1) for the Oracle instance where your Costpoint 7.1.1 SYSTEM (CPSYSTEM) database schema resides. The default value is **ORC1**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _** The Service Name must be a valid service registered with the listener on the database server hosting the Costpoint database. The Oracle Net Connect Descriptor on the client machine uses "Service_Name" in the instance portion to specify the database to connect to in the file tnsnames.ora. Oracle creates one default service with the same name as the SID when a database is created. This service registers with the local listener to provide access to the database. Customers can choose to create other service names as needed. For RAC installations, you <u>must</u> specify the Service Name of one of the instances.
User Name	Enter the name your CPSYSTEM user. The default user is **CPSYSTEM**. In addition to standard alphanumeric characters, the following special characters are also supported: **$ - _**
Password	Enter the password for your CPSYSTEM user. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

Field Name	Action
Oracle SYSTEM Schema Password	Enter the password for your Oracle SYSTEM user account. In addition to standard alphanumeric characters, the following special characters are also supported: **' ~ # $ ^ & ( ) - _ + = , .**

9. Click **Test Connection**. If you entered the proper database connection information, then the following message displays: "**Connection Successful. Click Next.**"

    If this message does not display, correct the information entered and click **Test Connection** again.

    After the "Connection Successful. Click Next." message displays, click **Next >**.

10. On the Choose Deltek Time & Expense License File screen, click **Browse** to navigate to the Deltek-supplied Time & Expense 10.0.0 **LICENSE.ZIP** file. Click **Next >**.

11. On the Pre-Installation Summary screen, review the installation parameters you selected:

    ▪   If you want to change any settings, click **< Back** to go back and make the necessary changes.

    ▪   If you are satisfied with these settings, click **Install >** to begin the installation.

    Once initiated, the installation process can take a long time to complete. Please do not interrupt the process. A Windows Command Prompt will also appear on your screen that displays the scripts that are being executed.

    The installation will perform the scenarios detailed in the Installation Process for Time & Expense 10.0.0 section of this document. The installation process will stop if any errors are encountered. If any errors occur during the installation, please refer to the Troubleshooting Instructions section of this document.

12. If there were any errors, the log file **DeltekTimeAndExpense1000ApplicationTierInstallLog_<date>_<time>.txt** (from the C:\Program Files\Deltek\Time & Expense\10.0.0\Logs directory) will open.

13. The following message displays:
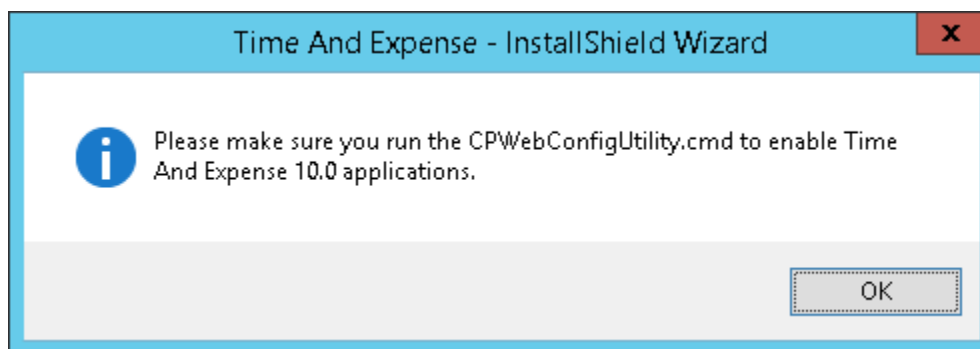
    This is just a reminder that there are other steps in this installation document that still need to be performed. Click **OK**.

14. When the installation has completed, the InstallShield Wizard Complete screen displays, indicating it "… **successfully installed Time & Expense 10.0**…".
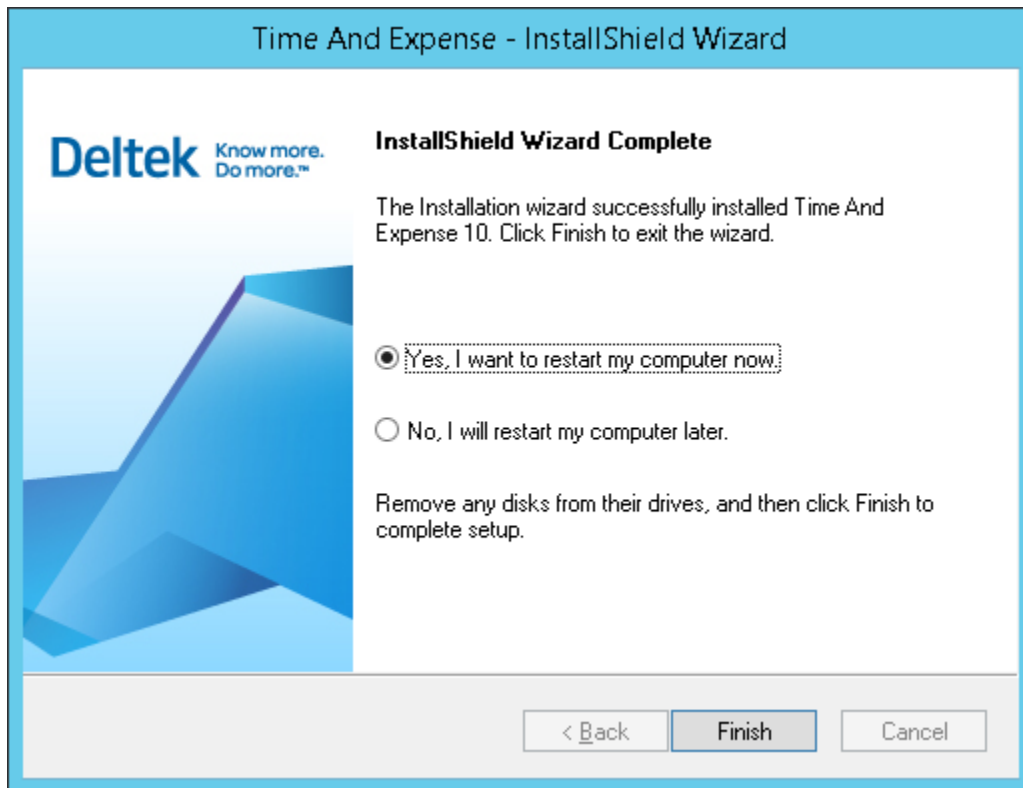
Perform the following:

- **Yes, I want to restart my computer now**: Select this option to reboot your Application Server. This option is selected by default.

- Click **Finish** to exit the installation and reboot your Application Server.

15. Once your Application Server has rebooted, open the **DeltekTimeAndExpense1000ApplicationTierInstallLog_<date>_<time>.txt** file from the C:\Program Files\Deltek\Time & Expense\10.0.0\Logs directory.

16. When the **DeltekTimeAndExpense1000ApplicationTierInstallLog_**<date>_<time>.txt file opens, search for the following keyword:

- **"Error"**: Report any search results to Deltek Costpoint Technical Support. The following error messages can be ignored:

  - OnInstallingFile - Installing: C:\Deltek\Costpoint\71\applications\enterprise\APP-INF\classes\com\deltek\enterprise\application\te\ad\commonad\importengine\ImportError StatusCodes.class

  - OnInstallingFile - Installing: C:\Deltek\Costpoint\71\applications\enterprise\APP-INF\classes\com\deltek\enterprise\application\te\commontc\utils\ErrorCodes.class

Configure Time & Expense 10.0.0 Access

The steps to configure your Costpoint 7.1.1 system to recognize Time & Expense 10.0.0 are detailed in this section.

You must perform this step on your Costpoint 7.1.1 WebLogic application server.

To configure Time & Expense 10.0.0:

1. With your Costpoint 7.1.1 service running, click **Start » All Programs » Costpoint 7.1.1 » Start Costpoint 7.1.1 Config Utility**. For Windows Server 2012, right-click **Start** and select **Search**. Under **Costpoint 7.1.1**, right-click **Start Costpoint 7.1.1 Config Utility**, and click **Run as administrator**.

> **Note:** Due to the enhanced security in Windows Server 2012, it is advised to that you use the **Run as Administrator** option when launching this command even if the logged in user has local administrative rights.

2. On the Select Your Configuration Options screen, make sure the **Product Application Configuration** check box is selected and click **Next**.

3. The following message displays:
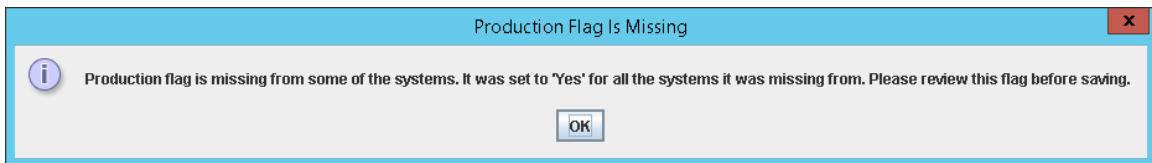
This will be cleared once the changes about to be made are saved. Click **OK**.

4. On the Costpoint Configuration Utility screen, perform the following:

   a. Click the **Product** tab.

   b. On the **Displaying System** field, select the Costpoint System that you are configuring for Time & Expense 10.0.0 (that is, **DELTEKCP**) from the drop-down list.

   c. Click the **System** tab.

   d. In the Products Installed group box, select the **TEESS** check box.

   e. In the Settings group box, make sure the **Production Mode** check box is selected.
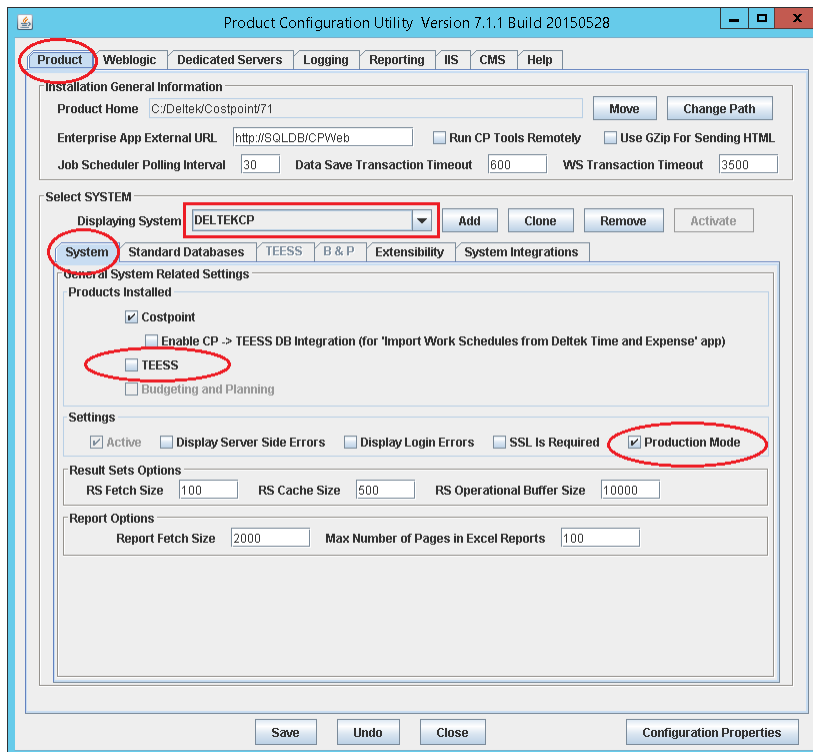
5. On the Costpoint Configuration Utility screen, select the **TEESS** tab and perform the following:

Field Name	Action
Database Vendor	Select **Oracle**.
Host	Enter the IP address (for example, **10.2.2.154**) or hostname (for example, **dbsvr01**) of your Time & Expense 10.0.0 TRANSACTION (TC_0001) database server. The default value is your computer name. The IP Address or Hostname cannot be **127.0.1.0.1** or **localhost**. For RAC installations, you must specify the IP Address or Hostname of one of the instances. Do not use the Virtual IP Address.
Port	Enter the port that your Time & Expense 10.0.0 TRANSACTION database server software uses to listen for requests. The default port for Oracle is **1521**.
Service Name	Enter the SID/service name (ORC1) for the Oracle instance where your Time & Expense 10.0.0 TRANSACTION (TC_0001) database schema resides. The default value is **ORC1**.
User	Enter the name of your Time & Expense 10.0.0 TRANSACTION user. The default user is **TC_0001**.
Password	Enter the password for your **TC_0001** user.
Confirm Password	Reenter the password for your **TC_0001** user.

Field Name	Action
URL	Accept the default.

6. Click **Test**. The following message displays:

> Information
>
> (i) Connected.
>
> [OK]
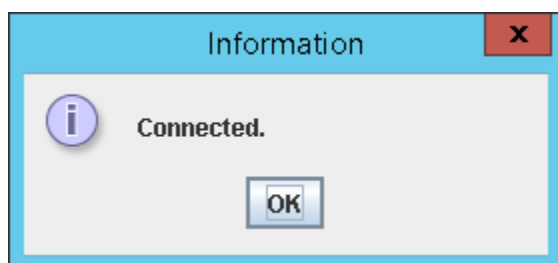
7. Click **OK**. If you were unable to connect, review the information entered and try again.

8. On the Costpoint Config Utility screen, click **Save**. The following message displays:

> Information
>
> (i) Configuration changes were saved.
>
> [OK]
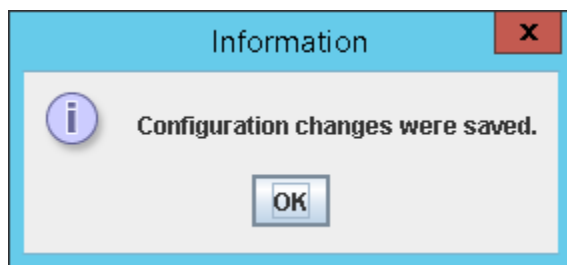
9. Click **OK**, and click **Close**.

Reinstalling Costpoint 7.1.1 Windows Service

This step provides instructions for reinstalling the Costpoint 7.1.1 Windows service.

This step must be performed on your Costpoint 7.1.1 WebLogic **application** server.

To reinstall Costpoint 7.1.1 to run as a Windows service:

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

2. On the Services window, scroll down the **Services** list, right-click the **Costpoint 7.1.1** service, and click **Stop**.

3. Use Windows Explorer to navigate to the directory where the Costpoint 7.1.1 software was installed (**C:\Deltek\Costpoint\71\bin**).

4. Right-click **InstallCPWebasService.cmd**, and select **Run as administrator**.

Reconfiguring and Starting Costpoint 7.1.1 Windows Service

This step provides instructions for reconfiguring and starting the Costpoint 7.1.1 Windows service.

> **Warning:** Reinstalling the Costpoint 7.1.1 Windows service above means you need to reset or reconfigure all settings you initially had configured with your Costpoint 7.1.1 Windows service.

This step must be performed on your Costpoint 7.1.1 WebLogic **application** server.

To reconfigure Costpoint 7.1.1 Windows service:

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

2. On the Services window, scroll down the **Services** list, right-click the **Costpoint 7.1.1** service, and click **Properties** on the shortcut menu.

   > **Note:** If you do not find the Costpoint 7.1.1 service, it must not have installed properly in the previous step. Please go back and try that step again.

3. On the Costpoint 7.1.1 Properties screen, click the Recovery tab, and perform the following:

Option	Description
First failure	Change the drop-down selection from **Take No Action** to **Restart the Service**.
Second failure	Accept the default value, **Take No Action**.
Subsequent failures	Accept the default value, **Take No Action**.
Reset fail count after	Change from **0** to **1** days.
Restart service after	Accept the default of **1** minute.

4. Click **Apply**.

5. On the Costpoint 7.1.1 Properties screen, click the Log On tab and complete the following:

Field Name	Action
Account	Enter the domain Account (for example, domain\useraccountname). If using a domain service login account instead of using the "Local System Account", select **This Account**.
Password	Enter the password for the domain Account.
Confirm Password	Reenter your password for the domain Account.

6. Click **Apply**. Make sure that the login account for the Costpoint Service is in the local Administrators group on the Application Tier server.

   Also, keep in mind that this login account must be given full access permissions for any Alternate File locations setup (network shared directories). Alternate file locations are used for Costpoint users for uploading and downloading files from within Costpoint.

7. On the Costpoint 7.1.1 Properties screen, click the General tab, and click **Start** to start the Costpoint 7.1.1 service.

> **Note:** The service will immediately indicate that it has started. However, please note that it takes several minutes for the Costpoint 7.1.1 service to fully initialize.
>
> After you have started the service, wait several minutes before attempting to connect to the software.
>
> If you encounter problems with the Costpoint 7.1.1 service, check the **C:\Deltek\Costpoint\7.1.1\logs\DEServer.log** file and report any errors to Deltek Costpoint 7.1.1 Technical Support.

8. Click **OK** to close the Costpoint 7.1.1 Properties screen.

9. Close the Services window.

Web Tier Installation

The steps to integrate your Time & Expense 10.0.0 software with the Microsoft Internet Information Server (IIS) is detailed in this section.

The Microsoft Internet Information Server component is **optional**. The WebLogic Server software included an integrated Web server component that you can use with the Time & Expense 10.0.0 software.

Though the use of the IIS component is optional, Deltek strongly recommends that you install it in your production environment. In addition to acting as the proxy, the IIS server is also used to load balance the cluster nodes.

Before You Start

Make sure that you meet all Web Tier Installation (Microsoft IIS) Prerequisites.

Install Web Tier Software

The steps to integrate the Time & Expense 10.0.0 system with Microsoft IIS are detailed in this section.

You must perform this step on a Web server that is using Microsoft Internet Information Server.

You must have Internet access on the machine where the Time & Expense 10.0.0 installer is invoked in order to download the latest DeltekTimeAndExpense1000RequirementsINI.exe file automatically. The file contains the latest OS platforms and database versions supported. The file is automatically downloaded when you launch the Web Tier installation, assuming that your application server has Internet access.

> **Note:** The Deltek product installers contain functionality which enables them to dynamically download configuration files and patch rollback scripts when the product installers are executed from the Deltek Software Manager server. To improve security, these connections have been modified to require communication over HTTPS.

If your application server does not have internet access, you will need to perform the steps in the Latest Upgrade Files Download section of this document before you run the Deltek TimeAndExpense1000WebTier.exe file.

To install Time & Expense 10.0.0 on your Microsoft IIS Web server:

1. Run the **DeltekTimeAndExpense1000WebTier.exe** file to launch the Time & Expense 10.0.0 Web Tier installation program. The Welcome to the Time & Expense 10 Installer screen displays.

   > **Note:** Due to enhanced security in Microsoft Windows Server 2012, it is advised that you use the **Run as Administrator** option when launching installation files, even if you are logged in as a user with local administrative rights. To **Run as Administrator**, right-click the DeltekTimeAndExpense1000WebTier.exe file in Windows Explorer and select **Run as Administrator**.

2. Click **Next >**.

3. On the License Agreement screen, review the license agreement, select the **I accept the terms of the license agreement** check box, and click **Next >**.

4. On the Select Deltek Costpoint 7.1.1 Web Server Directory screen, click **Browse** to navigate to an installation location for the Deltek Costpoint 7.1.1 IIS software.

    The default is **C:\Deltek**.

5. Click **Next >**.

6. On the Pre-Installation Summary screen, review the installation parameters you have selected:

    ▪ If you want to change any settings, click **< Back** to go back and make the necessary changes.

    ▪ If you are satisfied with these settings, click **Install >** to begin the installation.

    Once initiated, the installation process can take a long time to complete. Please do not interrupt the process.

    The installation will perform the scenarios detailed in the Installation Process for Time & Expense 10.0.0 section of this document.

    The installation process creates the **CPWeb** Virtual Directory under the Default Website, using the Default App Pool. The process also creates a share of your Time & Expense 10.0.0 Costpoint directory, C:\Deltek\Costpoint\71\applications. In order for the Application Server (WebLogic) to deploy hot fixes and updates, this directory must be shared with Co-Owner (Full Control) rights.

7. On the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box to open the DeltekTimeAndExpense1000WebTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Time & Expense\10.0.0\Logs directory. This check box is selected by default.

8. Click **Finish** to exit the installation.

9. When the DeltekTimeAndExpense1000WebTierInstallLog_<date>_<time>.txt file opens, search for the following keywords:

    ▪ **"Error"**: Report any search results to Deltek Time & Expense Technical Support.

Time & Expense 10.0.0 Initial Log In Configuration

The steps to configure your browser and verify your Time & Expense 10.0.0 Application Tier and Web Tier installations are detailed in this section. To confirm that these servers are functioning properly, you will log in to Time & Expense 10.0.0 and preview a report.

Before You Start

Make sure that you meet all Time & Expense 10.0.0 Initial Login Configuration Prerequisites.

Time & Expense 10.0.0 Printer Configuration

This step is optional. It provides configuration instructions for your Application Tier WebLogic Server to allow you to print Time & Expense 10.0.0 reports. This is useful for asynchronous printing from the server, especially for tasks such as printing reports through the Job Server in the middle of the night.

> **Note:** Users can print to local printers from the workstations without configuring anything in this step.

You must perform this step on your Time & Expense 10.0.0 application server.

To create Windows printer objects on your application server:

1. Click **Start** » **Printers and Faxes**. For Windows Server 2012, right-click **Start**, select **Control Panel**, and under Hardware, select **View devices and printers**.

2. On the Printers and Faxes screen, double-click **Add Printer**.

3. Use the Add Printer Wizard to create a Windows printer object that will connect and print to a printer on your network.

On your application server, you can create as many Windows printer objects as needed for your organization. After the printer objects are created, your Time & Expense 10.0.0 WebLogic application server will make the printer objects available to your users.

Set Web Browser Internet Options

The steps to configure the Internet Explorer (IE) browser settings to access the Time & Expense 10.0.0 system are detailed in this section.

This step must be performed on all Windows client workstations that will access your Time & Expense 10.0.0 WebLogic application server.

To configure the browser settings for accessing the Time & Expense 10.0.0 system:

1. Open your Web browser. From the menu bar, click **Tools** » **Internet Options**.

2. On the Internet Options screen, click the General tab, and click **Settings** under the **Browsing history** section.

3. On the Temporary Internet Files and History Settings screen, complete the following:

Field Name	Action
Check for newer versions of stored pages	Select **Automatically**.
Disk space to use	Enter at least 100 Megabytes (MB).

4. Click **OK** to close the Settings screen.

5. On the Internet Options screen, click the Security tab, and click **Trusted sites** » **Sites**.

   Depending on your environment, you may need to add your Time & Expense 10.0.0 URL under **Local Internet** instead of **Trusted sites**.

6. On the **Add this website to the zone**, enter **http://<IPAddress or ComputerName>**, where **<IPAddress or ComputerName>** identifies your Time & Expense 10.0.0 WebLogic application server or IIS Web server, depending on which server you will be using to access Time & Expense 10.0.0 (for example, http://10.2.2.154).

7. Clear the **Require server verification (https:) for all sites in this zone** check box.

8. Select the check box, and click **Add**. And then, click **Close**.

9. On the Internet Options screen, click the Advanced tab, scroll down under the Browsing section, and clear the **Reuse windows for launching shortcuts** check box.

10. Click **OK** to close the Internet Options screen.

11. From the menu bar, click **Tools » Pop-up Blocker » Turn Off Pop-up Block**.

    Disable any pop-up blockers or explicitly allow pop-ups for the Time & Expense 10.0.0 URL, such as **http://<IPAddress or ComputerName>**, where **<IPAddress or ComputerName>** identifies your Time & Expense 10.0.0 WebLogic application server or IIS Web server (for example, **http://10.2.2.154**).

12. Close your Web browser.

Log In To Time & Expense 10.0.0

The steps to log in to Time & Expense 10.0.0 are detailed in this section.

You can perform this step from any Windows client workstation that has TCP/IP access to your Time & Expense 10.0.0 WebLogic application server.

To log in to Time & Expense 10.0.0:

1. Open your Web browser, and enter one of the following URLs:

   ▪ http://<AppServerIPAddress or ComputerName:<Port>

   ▪ http://<WebServerIPAddress or ComputerName>/cpweb

   Where <AppServerIPAddress or ComputerName> identifies your Time & Expense 10.0.0 WebLogic application server and <Port> identifies the unique port number that your Time & Expense 10.0.0 WebLogic application server uses to listen for connections. You specified this port value during the Time & Expense 10.0.0 software installation. The default is 7009 (for example, **http://10.2.2.154:7009**).

   Or where <WebServerIPAddress or ComputerName> identifies your Time & Expense 10.0.0 IIS Web server (for example, **http://10.2.2.156/cpweb**).

2. When the Deltek Costpoint 7 Welcome screen displays, complete the following:

Field Name	Action
Username	Enter **CPSUPERUSER**.
Password	Enter **password**. The password is case-sensitive and must be entered in lowercase. Passwords that you create for other user IDs may be uppercase, lowercase, or mixed.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Time & Expense 10.0.0 system during the Application Server Installation. Typically, customers use a system name that is identical to their Time & Expense 10.0.0 Database name, **DELTEKCP**.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: ▪ **Application**: Accept the blank default value, or enter a specific Time & Expense 10.0.0 application (for example, **COSTPOINT MENU**). ▪ **Company**: Enter your company ID (for example, **1**). ▪ **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Time & Expense 10.0.0, review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. This check box is not selected by default.

3. Click **Log In**.

4. Contact Custom Solutions at Deltek if the following message displays: "Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

5. Click **OK** and a screen similar to the sample shown below displays:
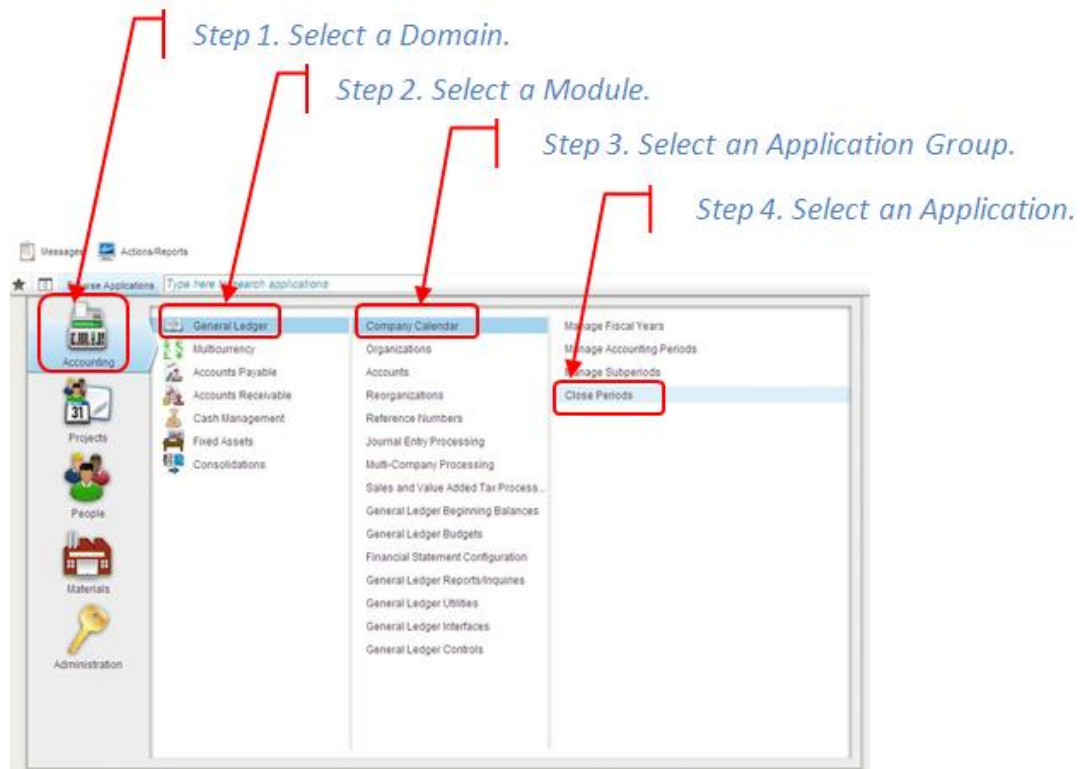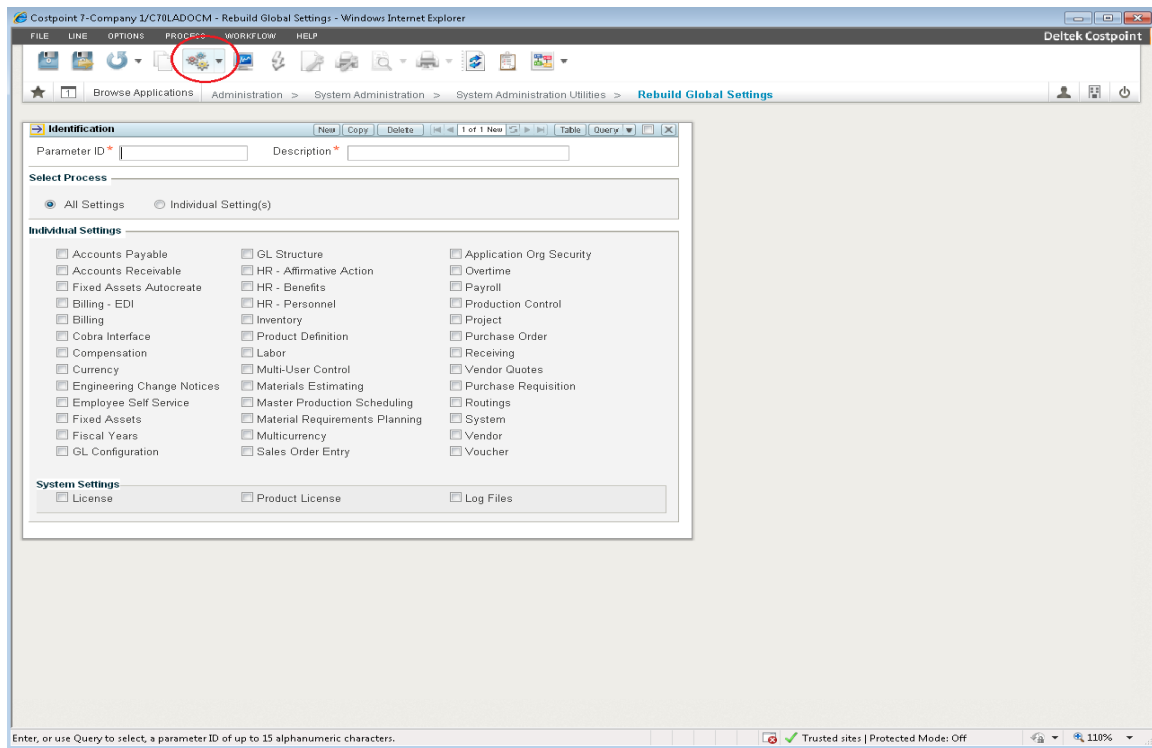
6. From the main menu screen, click **Administration » System Administration » System Administration Utilities » Rebuild Global Settings**.
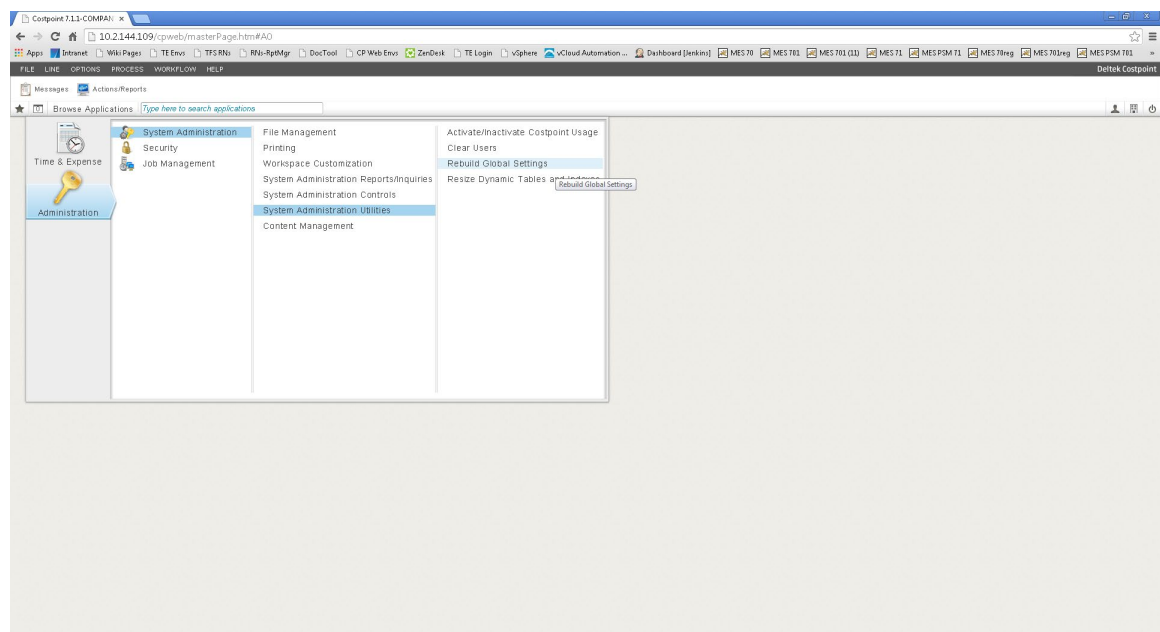
7. On the Rebuild Global Settings screen, click **Default Action**.
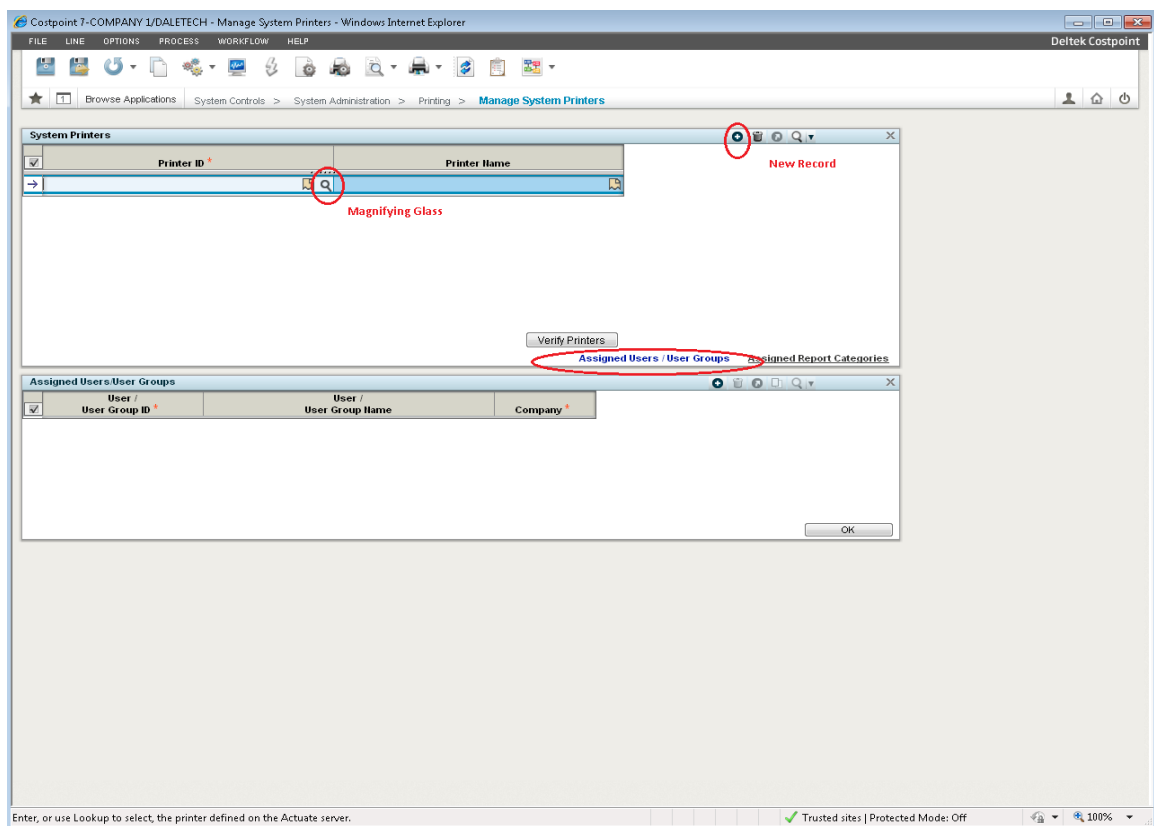
> **Note:** If you click the right side (down arrow) of the **Default Action** button, you must also select **Reload Settings**.

8. On the Processing Complete screen, click **OK**.

9. Select **File » Close Application** to close the Rebuild Global Settings screen. Click **OK** on the unsaved changes message.

10. From the main menu screen, click **Administration » System Administration » Printing » Manage System Printers**.
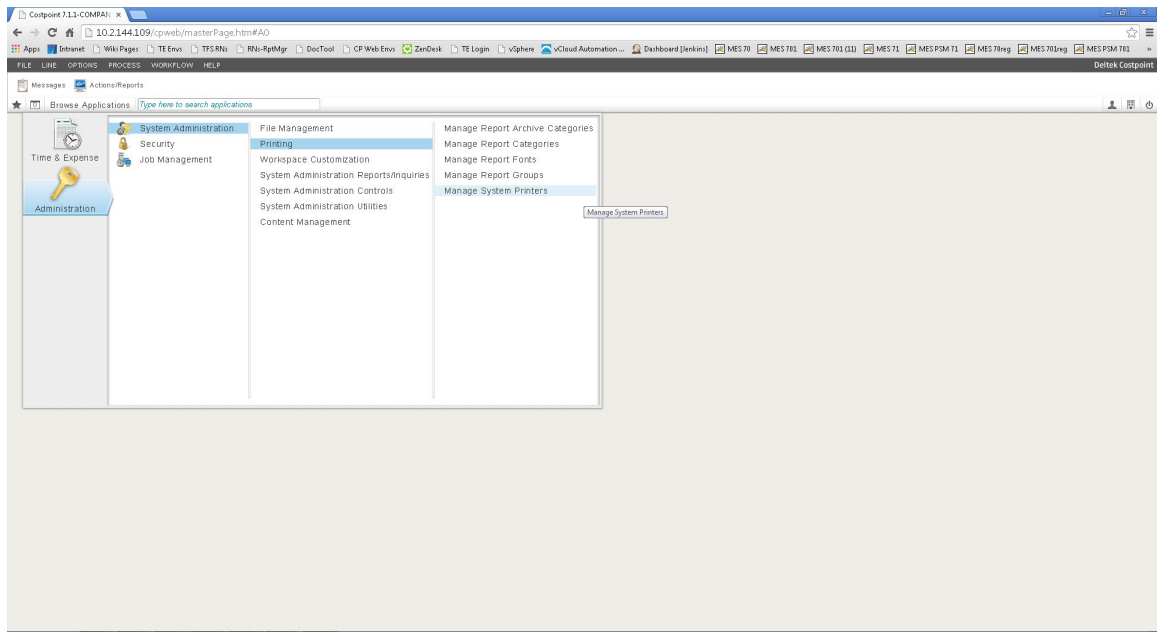
11. On the Manage System Printers screen, click **New Record** (**+**).

12. Complete the following fields:

Field Name	Action
Printer ID	Click 🔍 to display all printer objects that are available on your Application Server. To select the appropriate printer object, click the check box to the left of the printer object name and clicking **SELECT**.
Printer Name	Enter a descriptive name for the printer object.

13. Select the **Assigned Users/User Groups** link located in the lower right corner of the System Printers section.

14. When the focus switches to the Assigned Users/User Groups section at the bottom half of your browser window, click **New Record** (**+**), and complete the following fields:

Field Name	Action
User/User Group ID or User/User Group Name	Click 🔍 for one of these fields. Select a User/User Group that should have access to the printer object you specified above.
Company	Click 🔍 and select a Company for this User/User Group.

15. Click **SELECT**. You must repeat Step 14 for each User/User Group that you want to assign the printer object that you specified in Step 12.

16. Click **Save.** Click **OK** when the following message displays: "Record modifications completed without error."

    You must repeat steps 12–16 for any printer objects on your Application server that you want to make available to your Time & Expense 10.0.0 system users.

17. Click **File**» **Log-out** to exit Time & Expense 10.0.0.

18. Close your Web browser.

Verify Time & Expense 10.0.0 Printer Configuration

The steps to verify your Time & Expense 10.0.0 printers are detailed in this section.

This step can be performed from any Windows client workstation that has TCP/IP access to your Time & Expense 10.0.0 WebLogic application server.

To verify your Time & Expense 10.0.0 printers:

1. Open your Web browser, and enter one of the following URLs:

   ▪ http://<AppServerIPAddress or ComputerName>:<Port>

   ▪ http://<WebServerIPAddress or ComputerName>/cpweb

   Where <AppServerIPAddress or ComputerName> identifies your Time & Expense 10.0.0 WebLogic application server and <Port> identifies the unique port number that your Time & Expense 10.0.0 WebLogic application server uses to listen for connections. You specified this port value during the Time & Expense 10.0.0 software installation. The default is 7009 (for example, **http://10.2.2.154:7009**).

   Or where <WebServerIPAddress or ComputerName> identifies your Time & Expense 10.0.0 IIS Web server (for example, **http://10.2.2.156/cpweb**).

2. On the Deltek Costpoint 7 Welcome screen, complete the following fields:

Field Name	Action
Username	Enter **CPSUPERUSER**.
Password	Enter the CPSUPERUSER user password. The default is **password**.
System	Enter **<Your_System_Name>**, where **<Your_System_Name>** identifies the system name you assigned to your Time & Expense 10.0.0 system during the Application Server Installation process. Typically, customers use a system name that is identical to their Time & Expense 10.0.0 Database name, **DELTEKCP**.
SHOW ADDITIONAL CRITERIA	Click **+** to display these additional fields: **Application**: Accept the blank default value, or enter a specific Time & Expense 10.0.0 application (for example, **COSTPOINT MENU**). **Company**: Enter your company ID (for example, **1**). **Validation Frequency**: Accept the default drop-down value, **Field**. After you have successfully logged in to Time & Expense 10.0.0, review the online help for a detailed explanation of the value you can select for this field.
Remember log in information	Select this check box to have the system remember your login information. This option is not selected by default.

3. Click **Log In**.

4. Click **OK** if the following message displays: "Warning: The custom programs and the database version are not compatible. The custom programs may not work properly. Please contact Custom Solutions at Deltek. Do you want to continue with the login?"

5. From the main menu screen, click **Administration » Security » Security Reports/Inquiries » Print User Group Rights Report**.
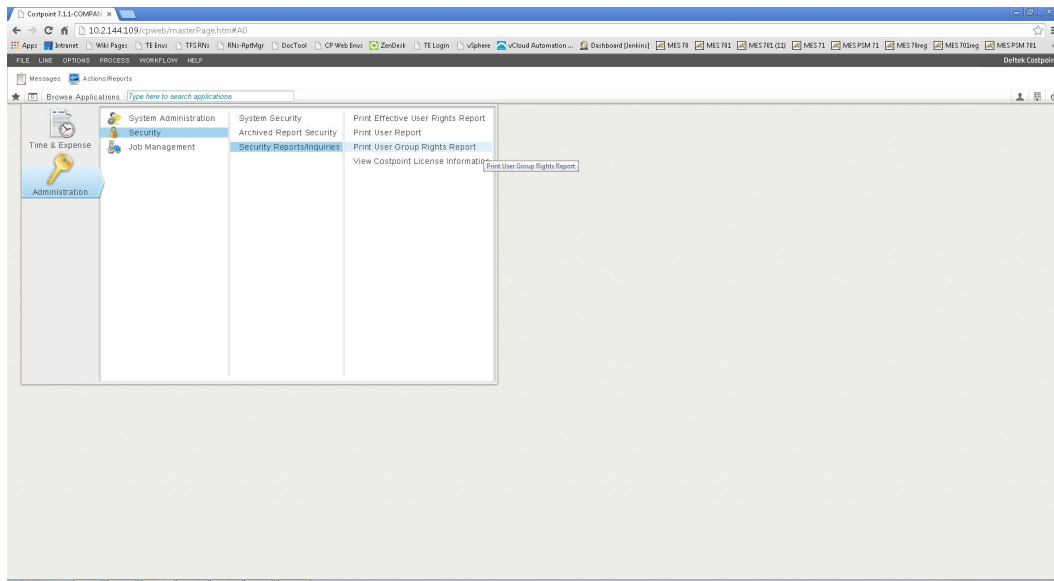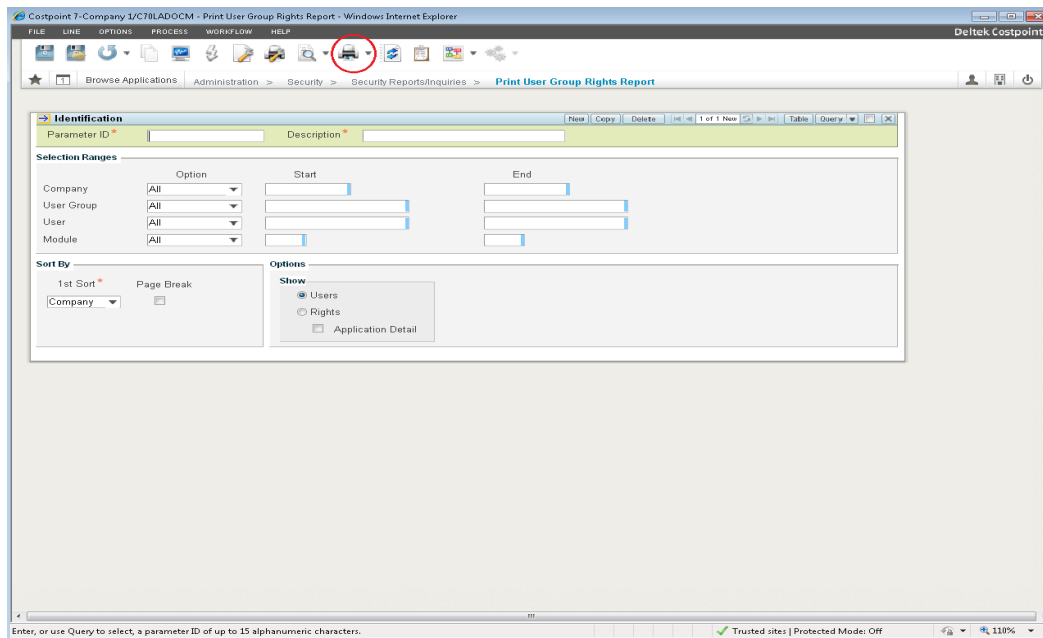
6. On the Print User Group Rights Report screen, click **Print Options**.
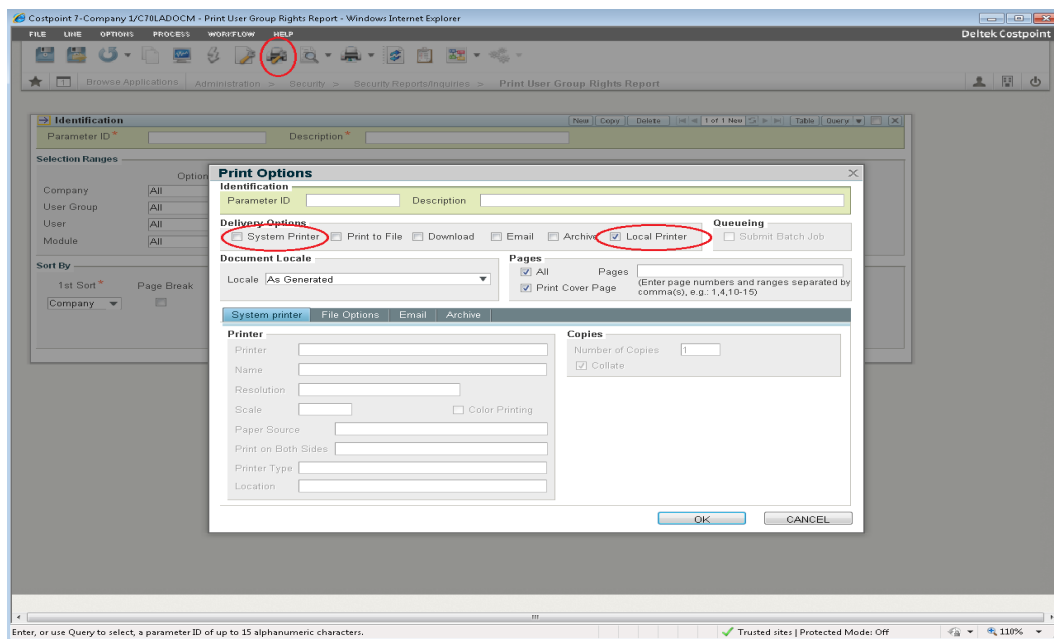
7. On the Print Options screen, select the **System Printer** or the **Local Printer** Delivery Option, depending on how you set up your Application Server printer. Then, click **OK**.

8. On the Print User Group Rights Report screen, click **Print Default Report**.

If the User Group Rights Report prints correctly, then your Time & Expense 10.0.0 Application Server printer setup is working properly. If the report does not print correctly, please contact Deltek Time & Expense 10.0.0 Technical Support.

9. Click **File** » **Close Application** to close the Print User Group Rights Report screen.

10. Click **OK** when the following message displays: "You have unsaved changes. Select Cancel to go back and save changes or select OK to discard changes and close the application".

11. You can now begin to configure and use the Time & Expense 10.0.0 system. Please refer to the Related Documentation section for a list of all documentation included with the Time & Expense 10.0.0 release.

Post-Installation Configuration

Apply Latest Time & Expense 10.0.0 Hot Fixes

Updates to Time & Expense 10.0.0 will be released in a Cumulative Update installer.

Once you have a functioning Time & Expense 10.0.0 environment, follow the **DeltekTimeAndExpense1000DeployingHotFixes.pdf** installation document to install the latest Time & Expense 10.0.0 hot fixes.

Troubleshooting Instructions

Troubleshooting instructions for problems with the Database Tier installation are detailed in this section.

How to Remedy a New Database Tier Installation That Failed

The steps to repair a Time & Expense 10.0.0 Database Tier installation that has failed are detailed in this section.

If you encounter a failure during the Database Tier installation process:

1. Click **OK** if, during the Database Tier Installation, you receive the following error message: "Failed to create Time & Expense TRANSACTION Database"
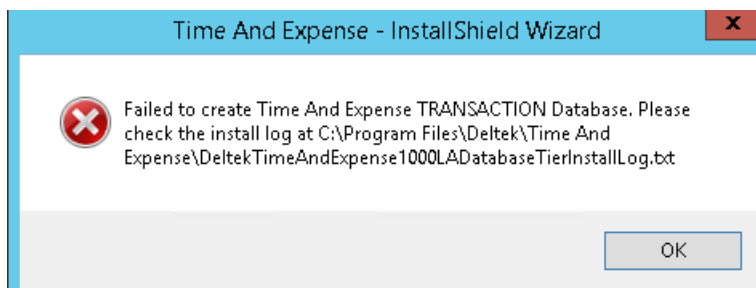
2. After the installation has stopped and a failed installation error message displays on the InstallShield Wizard Complete screen, select the **Yes, I want to view the log file** check box. This opens the DeltekTimeAndExpense1000DatabaseTierInstallLog_<date>_<time>.txt file from the C:\Program Files\Deltek\Time & Expense\10.0.0\logs directory).

3. Click **Finish** to exit the installation.

4. When the DeltekTimeAndExpense1000DatabaseTierInstallLog_<date>_<time>.txt file opens, run a search for the "**error**" search string. Report all errors found to Deltek Time & Expense Technical Support.

   Under error conditions on new installs, the installer does not provide an option to restart. One of several actions might be required.

5. After performing the required actions from Technical Support, perform the following:

   ▪ From Programs and Features (Add/Remove Programs) select **Deltek Time & Expense 10.0.0 Database** and click **Uninstall**.

   ▪ Proceed to the Database Tier Installation section at the beginning of this document and restart this installation at the **Install Database Tier Software** step.

Latest Upgrade Files Download Instructions

The Time & Expense Database Tier installer provides certain command-line options that can be invoked in special circumstances. To display the currently supported switches:

- Open Command Prompt in Administrator Mode
- Navigate to the directory where the installer is located
- Type **DeltekTimeAndExpense1000DatabaseTier.exe /?**

The instructions to download the latest Time & Expense 10.0.0 Database upgrade and DeltekTimeAndExpense1000RequirementsINI files are detailed in this section. Each installer will automatically download the applicable files if your servers have internet access. If your servers do not, you will need to run this step for each installer.

You must perform this step on any machine that has Internet access.

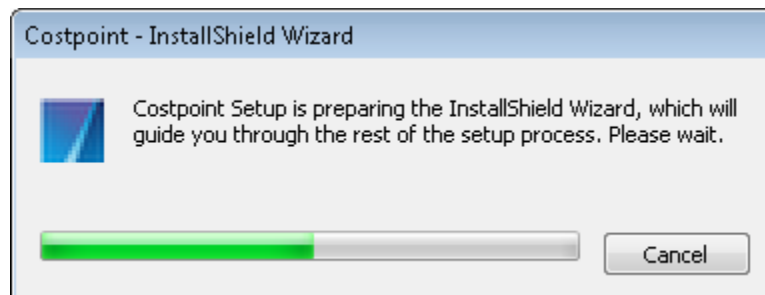**To download the required upgrade files:**

1. Run the applicable command to retrieve the files from DSM:

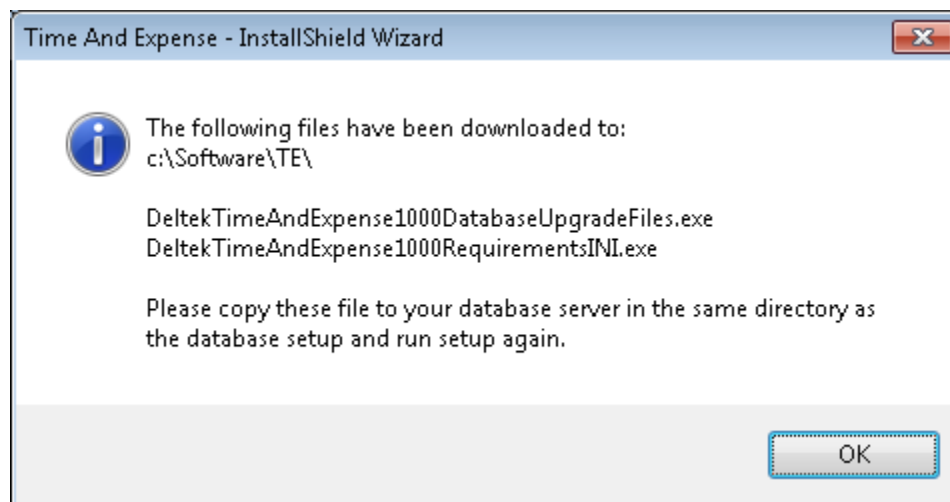   **DeltekTimeAndExpense1000DatabaseTier.exe /filedynamicdownload**

    DeltekTimeAndExpense1000ApplicationTier.exe /filedynamicdownload

    DeltekTimeAndExpense1000WebTier.exe /filedynamicdownload

    You will see the following screen.

2. After the file downloads a message similar to the following displays, click **OK**.

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3. Copy the downloaded **DeltekTimeAndExpense1000DatabaseUpgradeFiles.exe**/
   DeltekTimeAndExpense1000RequirementsINI.exe file(s) to your server, in the same folder as
   your '.exe' installer file.

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