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Costpoint Cobra Integration Technical Guide

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Contents

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The Costpoint 8 Cobra Integration automates the loading of actual costs from Costpoint to Cobra using Cobra Web Service.

Cobra Web Service

The Cobra Web Service allows you to create applications that can programmatically execute Cobra functionalities over the network. The Costpoint integration functionality is built-in, and no web service development is required to load actuals from Costpoint.

The Cobra Web Service consists of two parts:

- **Cobra Web Service Host**: This is a Simple Object Access Protocol (SOAP) based Windows Communication Foundation (WCF) service that exposes the Cobra functionalities over the network.
- **Cobra Web Service Client API**: This is a .NET dynamic link library that consumes the WCF service. Deltek recommends that the application developers use this library in their applications.

Costpoint Cloud Customers

The Cobra actuals data generated by Costpoint is stored within the database and can be downloaded, as necessary.

Downloading Deltek Products using Deltek Software Manager

You can use Deltek Software Manager (DSM) to download complete Deltek products, hot fixes, cumulative updates, and sub-releases. You can access DSM through the Deltek Support Center or use Deltek Software Manager Lite to download Deltek products.

Accessing DSM from within the Deltek Support Center

To access DSM from within the Deltek Support Center:

1. In your Web browser, go to https://deltek.custhelp.com.

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2. Enter your Deltek Support Center **Username** and **Password**, and click **Login.**

3. When the Deltek Support Center page displays, click **Product Downloads**.

4. On the Deltek Software Manager screen, click **Launch Deltek Software Manager**.

5. Click **Settings** at the top right of the dialog box to use the Settings dialog box to specify the folder where you want to download Deltek products, and click **OK**.

> **Note:** When you log on for the first time, DSM asks you to select a default folder where Deltek products are to be downloaded.
>
> You can change this folder anytime in the Settings dialog box.

6. In the left pane, expand the Deltek product that you want to download, if it is not already expanded.

7. Select the product type that you want to download.

   Options include:

- Complete
- Cumulative Updates
- HotFixes
- Sub-Release

8. In the table, select the check box that corresponds to the Deltek product that you want to download.

   The right pane displays a message stating that the product has been added to the download queue.

> **Note:** To view the items in the download queue, click **View Download Queue** at the bottom of the left pane.

9. Click **Download** at the bottom of the left pane to download the product to the folder that you selected.

Accessing DSM Lite

To access Deltek Software Manager Lite:

1. In your Web browser, go to https://dsm.deltek.com/DeltekSoftwareManagerLite.

2. Enter your Deltek Support Center **Username** and **Password**, and click **Logon.**

3. When the Deltek Software Manager Lite page displays, select a product from the drop-down list.

4. Click the product type that you want to download.

> **Note:** The download behavior and download folder may differ depending on the browser and browser settings that you are using.

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:** When you click a link, you will be asked to log into DSM if you aren't already logged in.

Minimum System Requirements

Before performing your installation, make sure the following are installed, configured, and running in your system:

Supported Versions

Minimum Costpoint Version	Minimum Cobra Version
Deltek Costpoint 7.1.1 with System JAR 054	Deltek Cobra 8.2 with Cumulative Update #14

Set Up the Integration to Use Cobra Web Services

This section provides a step-by-step overview of the entire process to successfully set up and run the Costpoint to Cobra integration process.

Restore and Test the Integration Configuration File in Cobra

The integration between Costpoint and Cobra relies on an integration configuration file which is supplied with Cobra. This configuration file must be restored into Cobra before using the integration.

The configuration is used as a template during the loading of actual costs. Certain values, such as the project name and actual cost transaction file, are supplied by Costpoint at runtime. Other settings in the configuration can be used to control how you want the actual costs to be loaded. For more information, consult the Cobra Help topic "Importing Actual Costs into Cobra."

Restore the Costpoint Integration Configuration File

You must restore the CostpointConfig.icd file using the Restore Integration Configuration dialog box in Cobra.

To configure the Costpoint to Cobra Integration tool, complete the following steps:

1. Log on to the Cobra application and click the **Cobra** button » **Manage** » **Restore**.

    The Restore Integration Configuration dialog box displays.

2. Select the CostpointConfig.icd file from the <Cobra Installation Directory>\Samples\Backups\ directory. If the CostpointConfig.icd file does not appear, change the file type to Integration Configuration Definition Backups (*.icd).

    > **Note:** The Costpoint to Cobra process uses this configuration as a template. The main options in the configuration are not used by the process (Project name, fields, and so on). Performing the following steps confirms that the configuration exists, and the options that are not overwritten are set correctly.

3. On the Restore Integration Configuration dialog box, make sure that the CostpointConfig.icd file is selected and then click **Restore**.

Test the Costpoint Integration Configuration

After restoring the integration configuration file, you should test the configuration by loading a valid Actual Cost

file to a valid Project.

To test the configuration, complete the following steps:

1. On Cobra, click **Integration Tab » Actual Costs**.

   The Integration Wizard for loading actual costs displays.
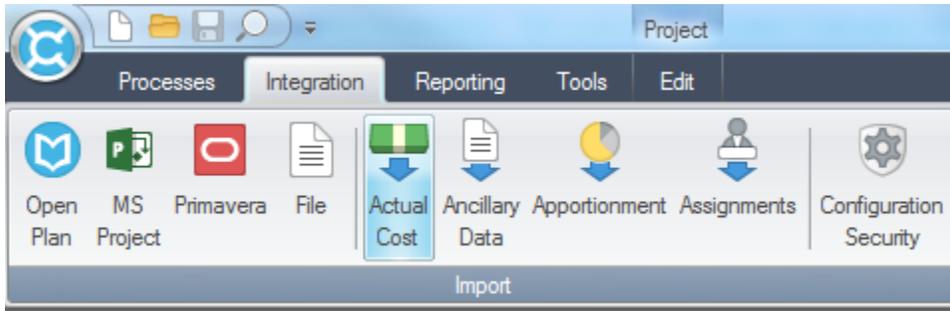
2. On the Integration Configuration page, select the **Open an existing configuration** option, and choose the restored CostpointConfig configuration file, and click **Next**.
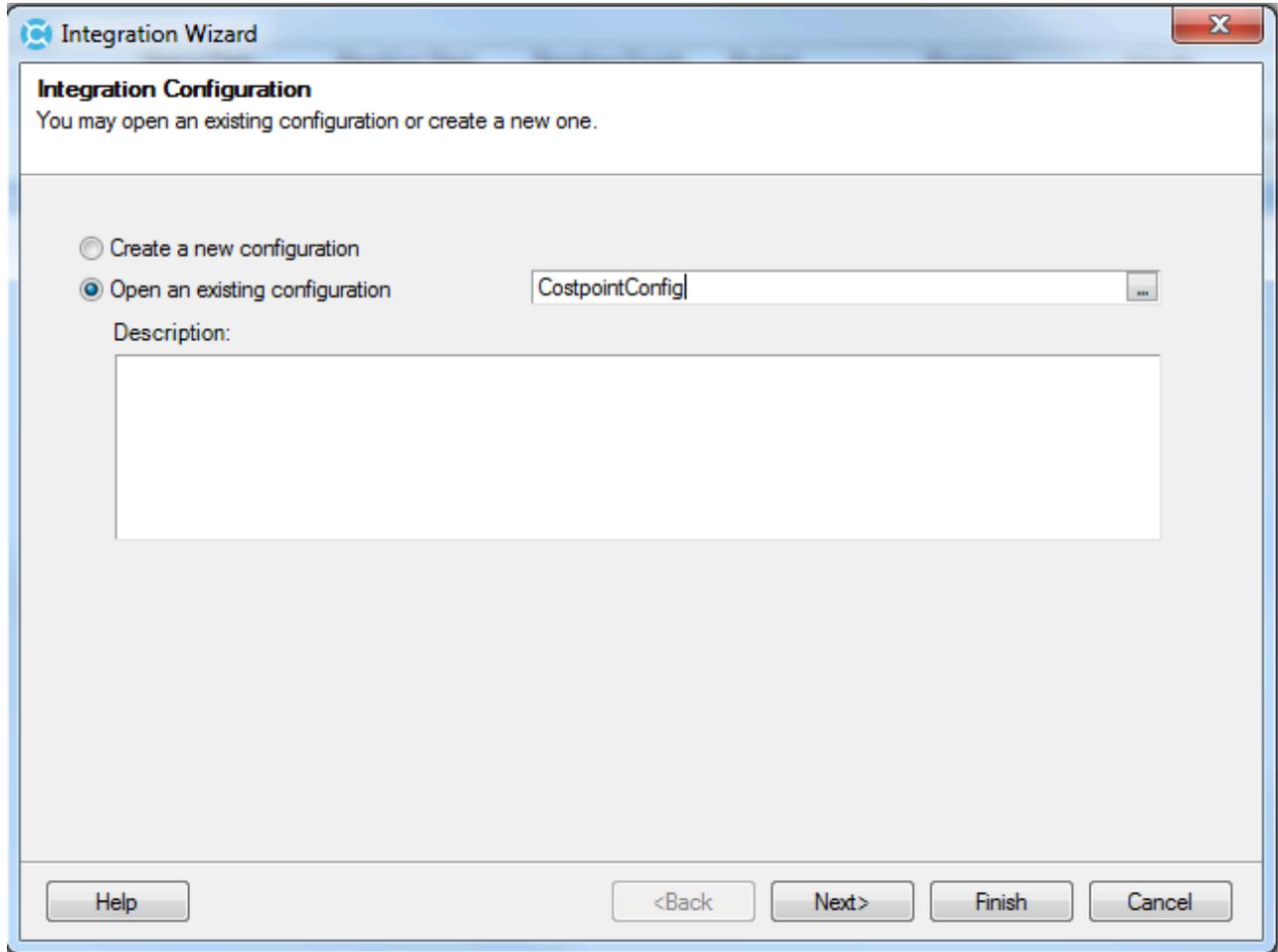
3. On the File Selection page, select a **Project** and an **Actual cost file**, and click **Next**.

Integration Wizard

File Selection
Select your project and define the file or database connection that contains the actual cost records.

Project:
[Demo]

● Actual cost file:
[C:\Program Files (x86)\Deltek\Cobra\Samples\Transaction Files\Actuals Transaction Fi]

○ Connection name:
[   ]

[New] [Edit] [Test]

Actual cost file contains records at the following level:
[Work Package ▼]

[Help]   [<Back] [Next>] [Finish] [Cancel]
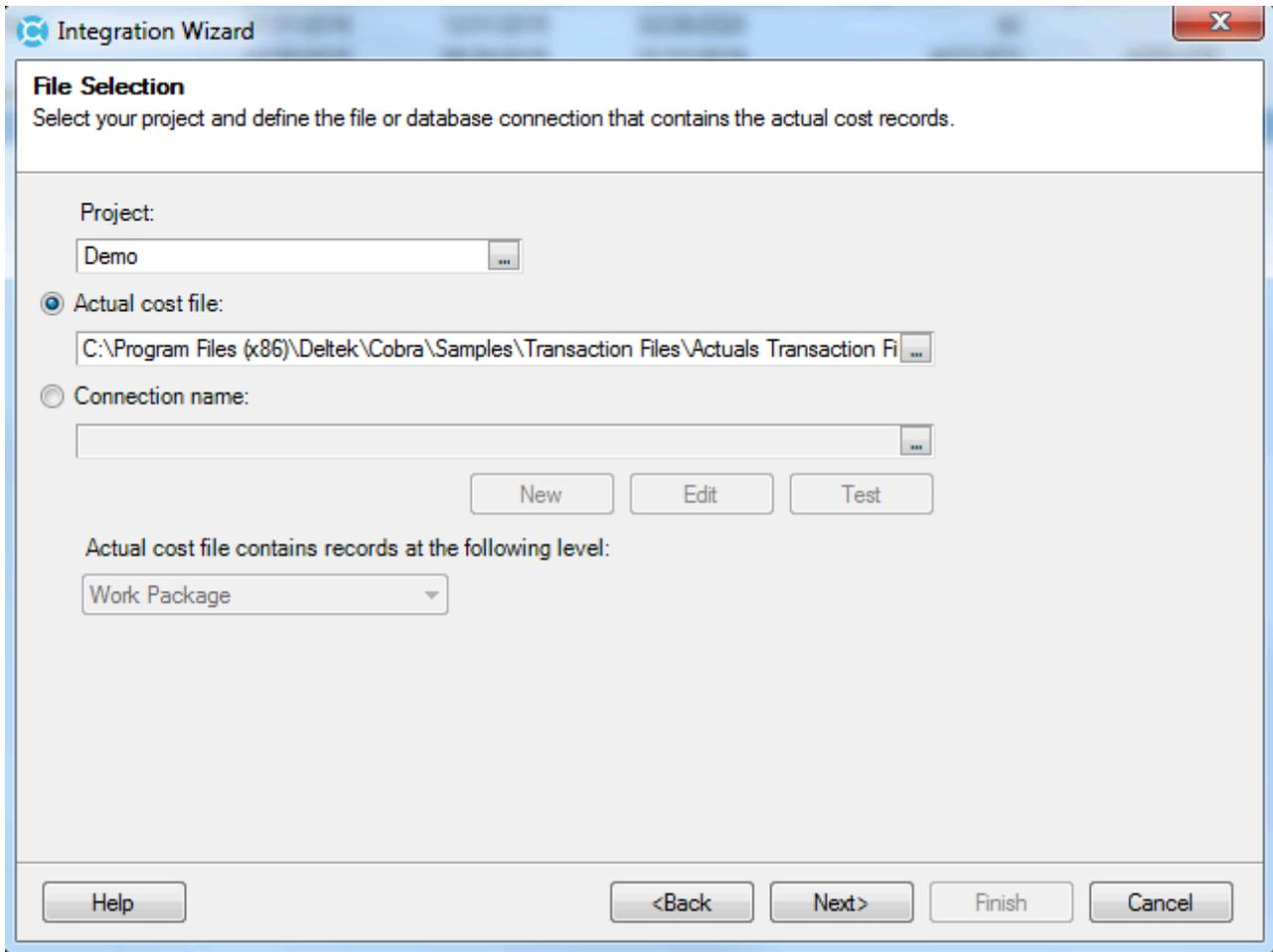
> **Note:** Make sure to select a **valid** project and actual cost file because these options are overwritten during the Costpoint to Cobra integration. You can locate the actual cost file in the \<Cobra Installation Directory>\Samples\Transaction Files\ directory.

4. On the Field Mapper page, select the **File contains header row** option, and click **Next**.

Integration Wizard

Field Mapper

Select a Cobra field at the top of each column that represents the type of data that is contained in the column. Select <Ignore> to prevent a column from being imported.

☐ File contains a header row

|	1	2	3	4	5	6	
1	<Ignore> ▼	<Ignore>	<Ignore>	<Ignore>	<Ignore>	<Ignore>	<Ignor
2	WBS	OBS	WP	Resource	Hours	Direct	Overh
3	1.01.01	1.4.1		01 L		1100	19500
4	1.01.01	1.4.1		02 L		500	9500
5	1.04.02	1.2.3		01 L		150	3000
6	1.04.05	1.5.1		01 M		0	9000
7	1.05.02	1.5.3		01 L		175	3250
8	1.01.01	1.4.1		01 M		0	500

[Help] [<Back] [Next>] [Finish] [Cancel]

**Note:** If you encounter errors, set the invalid columns to **<Ignore>**. The field definitions selected are also overwritten. These definitions are not used when the tool runs.

5. On the Class and Results page, select options based on the actual costs being loaded and then click **Next**.
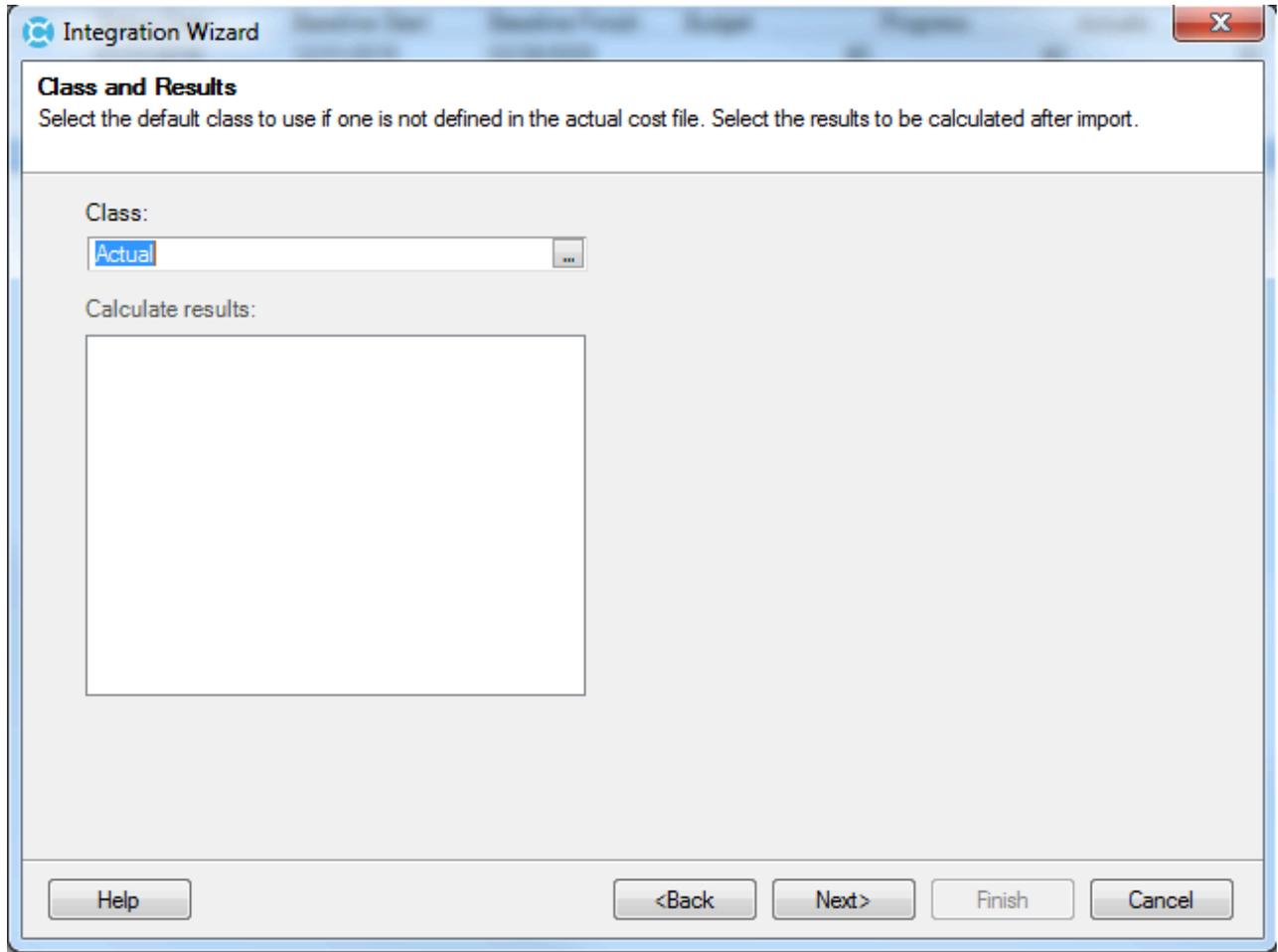
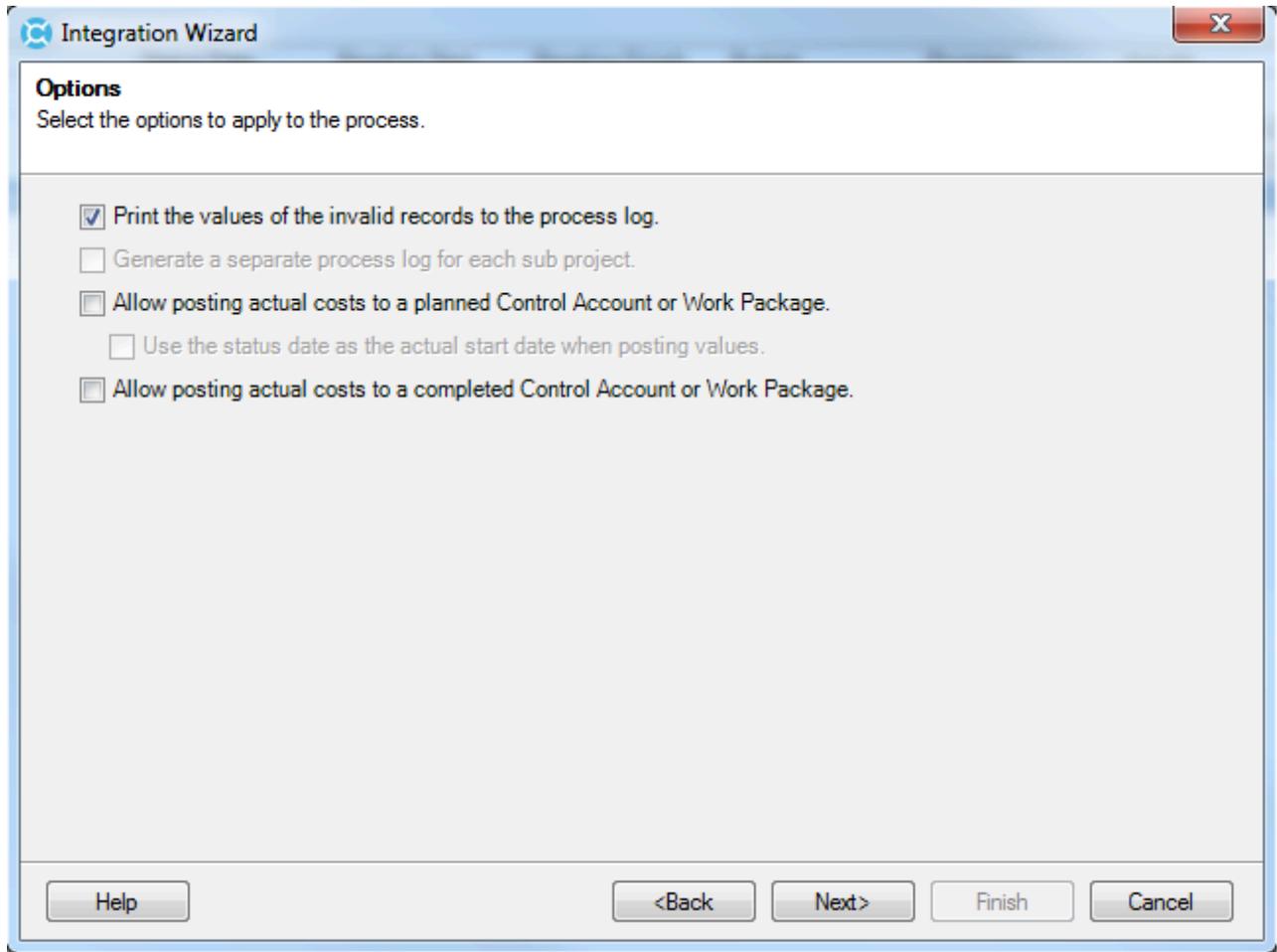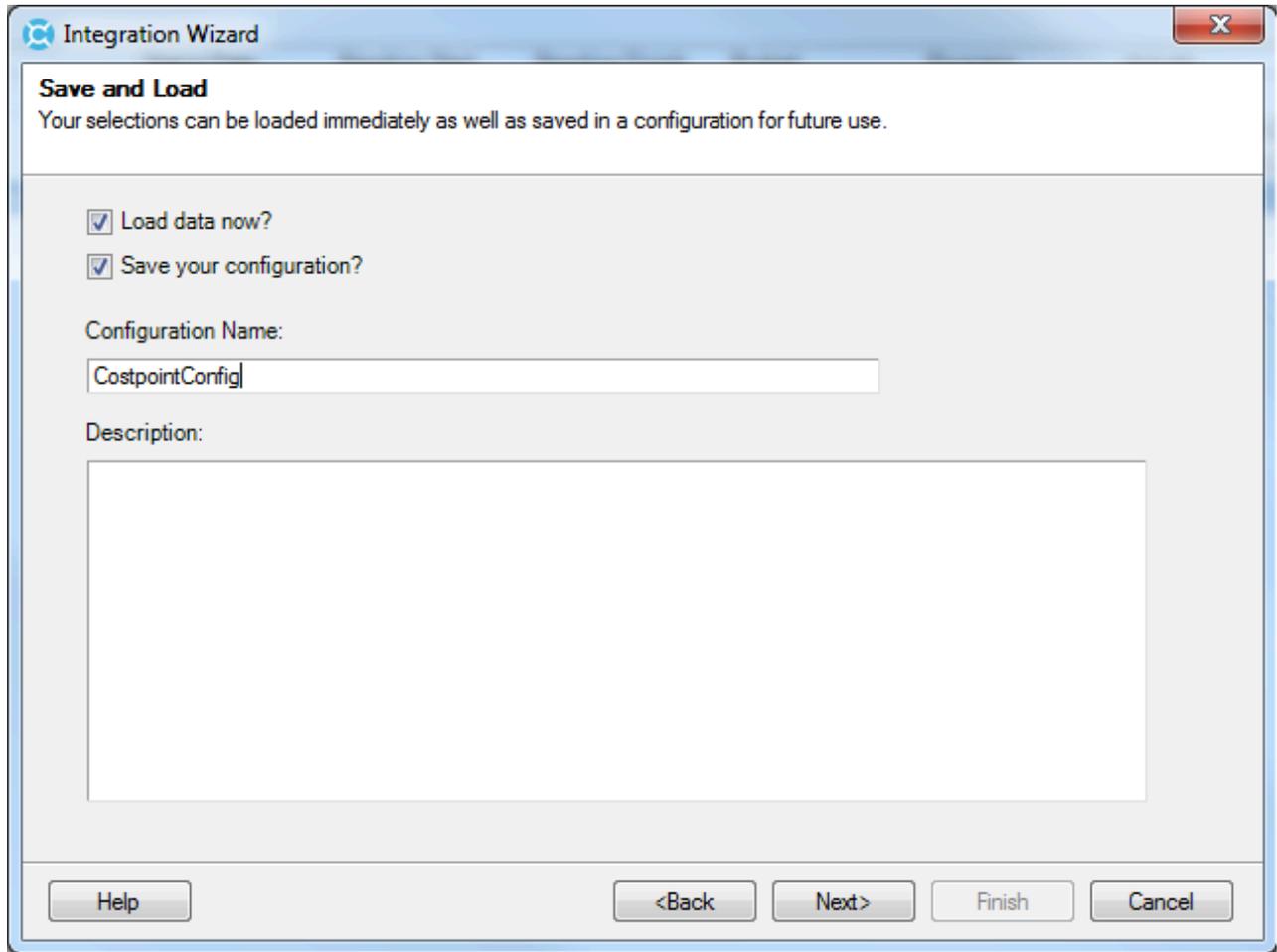6. On the Included Costs page, select options based on the actual costs being loaded and then click **Next**.
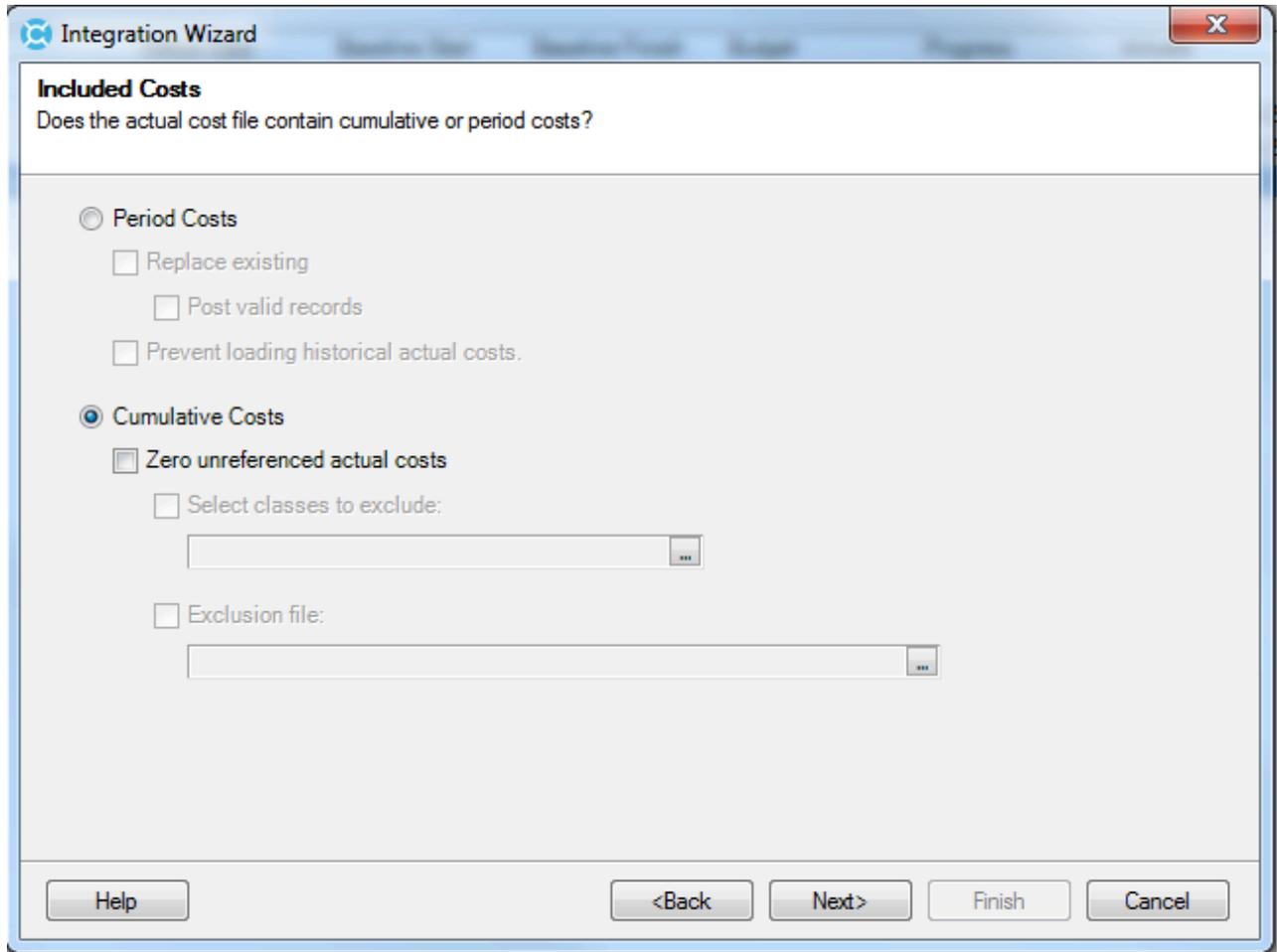
7. On the Options page, select options based on the actual costs being loaded and then click **Next**.

8. On the Save and Load page, select the **Save your configuration?** check box, leave the configuration name as it appears and then click **Next**.

> Note: When prompted to overwrite the existing configuration, click **Yes**.

9. On the Access Control page, enable users or groups to access the integration configuration that you are creating and then click **Next**.

10. Click **Finish**. Cobra will run the integration process and will load actual costs from the specified field into the specified Cobra project.

Deploy the Standard Cobra Web Service (Cobra.WebService.Host.exe)

The Standard Cobra web service (Cobra.WebService.Host.exe) is a windows service-hosted web service that you must install on a machine that has a Cobra installation. If you use an n-tier deployment, Deltek recommends that you deploy the web service on the n-tier application server.

The Costpoint integration with the Standard Cobra Web Service requires the use of HTTPS. You must:

- Request New Certificate for Server Authentication (if not already installed)
- Obtain the Cobra Web Server Authentication Certificate Information
- Bind the Windows Server Certificate to the Cobra Web Service HTTPS Port
- Edit the Standard Web Service Configuration File
- Install the Standard Cobra Web Service

Request New Certificate for Server Authentication

There are various methods for completing this step. Please contact your IT department to find out how this is done within your company.

Obtain the Cobra Web Server Authentication Certificate Information

You must perform this procedure for the following purposes:

- Obtain the Server Authentication Certificate Thumbprint for the binding steps in this section.
- Obtain the Server Authentication Certificate Subject for the configuration of the Standard Cobra Web Service and connection to Costpoint.
- Export the associated root and intermediate certificates for later import into the Costpoint Java Trust Keystore.

To obtain the Subject and Thumbprint details, complete the following steps:

1. Open the Certificates MMC Snap-In and go to **Certificates (Local Computer) » Personal » Certificates**. View the Windows Server Certificate intended for Server Authentication.

   > **Attention:** For more information, go to: https://docs.microsoft.com/en-us/dotnet/framework/wcf/feature-details/how-to-view-certificates-with-the-mmc-snap-in.
   >
   > If your server does not have a certificate, you'll need to obtain one before continuing. For more information go to: https://docs.microsoft.com/en-us/dotnet/framework/wcf/feature-details/how-to-obtain-a-certificate-wcf.

2. On the Details tab, copy the following:

   - **Thumbprint**: Remove all spaces, and save this information for the binding steps.
   - **Subject:** This is usually the fully qualified name of the server. Save this information for the Costpoint configuration.

> **Attention:** For more information, https://docs.microsoft.com/en-us/dotnet/framework/wcf/feature-details/how-to-retrieve-the-thumbprint-of-a-certificate.

3. Click the Certification Path tab, select the root certificate at the top of the path, and click **View Certificate**.

4. On the root certificate window, click the **Details** tab **» Copy to File** and save a file using the **DER encoded binary X.509 (.CER)** format. Save this information for Costpoint configuration.

5. Perform similar steps (step 3-4) for any intermediate certificates that may be in the path between the root and the server.

Bind the Windows Server Certificate to the Cobra Web Service HTTPS Port

> **Attention:** For more information, go to https://docs.microsoft.com/en-us/dotnet/framework/wcf/feature-details/how-to-configure-a-port-with-an-ssl-certificate.

To bind the certificate to the port, complete the following steps:

1. Click **Start » All Programs » Accessories**, right-click **Command Prompt**, and click **Run as administrator**.

   The command prompt opens with administrative rights.

2. Enter the following command:

   ```
   netsh http add sslcert ipport=0.0.0.0:\<port\> certhash=\<server certificate
   thumbprint\> appid={857f24c8-58fc-4102-98d7-d11ecaa9be39}
   ```

   Where:

   - `<port>` is the HTTPS port on which you choose to run the Cobra Web Service. For example, 8122, which is the default Cobra Web Service HTTPS port as shown in the next section.
   - `<server certificate thumbprint>` is the Server Authentication Certificate Thumbprint saved earlier. For example, 69dbb276109a62d90c0d1d436ddc2278ea56d86e.

Edit the Standard Web Service Configuration File

You must change the Standard Cobra web service URL value from **localhost** to the name of your Cobra application server name in the **Cobra.WebService.Host.exe.config** file.

To edit the Standard Cobra Web Service configuration file, complete the following steps:

1. On your Cobra application server, go to the Cobra installation directory. For example, **C:\Program Files\ Deltek\Cobra.**

2. Locate the Cobra.WebService.Host.exe.config file and then open the file in Notepad or another text editor.

3. In the Cobra.WebService.Host.exe.config file, locate the <baseAddresses> tags, change localhost to the name of your Cobra application server, and set the correct TCP port number.

   For example, change the following text:

   ```
   <baseAddresses>
         <add baseAddress="http://localhost:8116/CobraWebService" />
         <add baseAddress="https://localhost:8122/CobraWebService" />
   </baseAddresses\>
   ```

   To:

   ```
   <baseAddresses>
         <add baseAddress="http://<certificate subject>:8116/CobraWebService" />
         <add baseAddress="https://<certificate subject>:8122/CobraWebService"
   />
   <baseAddresses\>
   ```

   Where:

   - <certificate subject> is the Server Authentication Certificate Subject saved earlier. For example, cobrawebserver.company.com.
   - Port 8116 is the default HTTP port for Cobra web service and you can change this setting to avoid conflicts.
   - Port 8122 is the default HTTPS port for Cobra web service and you can change this setting to avoid conflicts.

   > **Warning:** If you use PM Compass-specific services on the same server, you must use a different port for the Cobra web service for Costpoint integration. Running PM Compass-specific services and the Costpoint-specific services on the same port will cause conflicts.

4. Save your changes and close the file.

Install the Standard Cobra Web Service

After editing the configuration file, you must install the Standard Cobra web service (Cobra.WebService.Host.exe) as an administrator.

To install the Standard Cobra web service, complete the following steps:

1. Click **Start » All Programs » Accessories**, right-click **Command Prompt**, and click **Run as administrator**.

   The command prompt opens with administrative rights.

2. Enter the following command:

   ```
   \<Cobra Install Directory>\Cobra.WebService.Host.exe -install
   ```

   Where:

   - <Cobra Install Directory> is the location of Costpoint on your machine. For example, **C:\Program Files\ Deltek Cobra**.

3. Go to **Start » Control Panel » Administrative Tools**, and open **Services**.

4. From the list of services, right-click **Cobra Web Service** and then click **Restart**.

5. Open a Web browser and enter the Standard Cobra web service URL (<baseAddress> value from the Cobra.WebService.Host.exe.config file) in the address bar. The following page should display:

Browser window showing CobraServices Service page at http://ashv0680:8116/CobraWebService

CobraServices Service

You have created a service.

To test this service, you will need to create a client and use it to call the service. You can do this using the svcutil.exe tool from the command line with the following syntax:

```
svcutil.exe http://ashv0680:8116/CobraWebService?wsdl
```

You can also access the service description as a single file:

```
http://ashv0680:8116/CobraWebService?singleWsdl
```

This will generate a configuration file and a code file that contains the client class. Add the two files to your client application and use the generated client class to call the Service. For example:

C#

```csharp
class Test
{
    static void Main()
    {
        CobraServicesClient client = new CobraServicesClient();

        // Use the 'client' variable to call operations on the service.

        // Always close the client.
        client.Close();
    }
}
```

Visual Basic

```vb
Class Test
    Shared Sub Main()
        Dim client As CobraServicesClient = New CobraServicesClient()
        ' Use the 'client' variable to call operations on the service.

        ' Always close the client.
        client.Close()
    End Sub
End Class
```

Warning: If you get a "Page not found" error, and you are running PM Compass-specific services and the Costpoint-specific services on the same server, you may be encountering conflicting ports. To correct this issue, complete the following steps:

1. Ensure that the Cobra web service for Costpoint integration is using a different port. For more information on changing the port number in the Cobra.WebService.Host.exe.config file, see the Edit the Standard Cobra Web Service Configuration File section.

2. Restart the Costpoint Web Service.

Costpoint in Deltek Cloud

Deltek Cloud customers must expose their Cobra Web Service to the Deltek Cloud on port 443 using a digital certificate from one of the public certificate authorities listed in the JDK 8 standard trust keystore (cacerts).

Configure the Costpoint (Deltek Cloud) Connection to Cobra

Submit a "Costpoint Integration Setup" Service Request

Deltek Cloud customers must submit a Service Request for a Costpoint Integration Setup and complete Cobra page in the Costpoint Integration Configuration Template (https://deltek.custhelp.com/app/answers/detail/a_id/ 80893). A separate service request must be submitted for each Costpoint environment.

Field	Instruction	Notes
Cobra Web Service URL	URL of the Cobra Web Service (Must be port 443!)	Example: https://cobrawebserver:443/ CobraWebService/costpoint
Cobra User	Cobra application login that has access rights for the CostpointConfig Integration in Cobra. Please see row 8 below for additional requirements. Note: Please use the Data Transfer Tool (https://dftx.deltekenterprise.com/) to securely submit your password(s). The DFTX Instructional Guide is found under Administrative Guides; Using the Deltek Cloud Transfer Tool on Customer Connect Site.	Example: CPINT
Data Source Key	Deltek will use the default value, COBRA, unless you specify a different name. Leave blank for N-Tier deployment.	Example: CobraProd
Configuration name	This field will be set to the default value of "CostPointConfig" unless otherwise specified.	Example: CostPointConfig
Integration owner	This field will be left blank if the integration owner is the same as the Cobra user. If not please specify.	Example: SYSADMIN

Configure the Costpoint (On Premise) Connection to Cobra

Costpoint must be configured to trust the encryption certificate from the Cobra Web Services.

Use the Product Configuration Utility to create a Cobra Web Service connection.

Import the Root and Intermediate Certificates into the Trust Keystore

For Costpoint to verity the Cobra Web Server Authentication Certificate, the Root and Intermediate certificates (certificate chain), must be accessible in the configured Trust Keystore. The default Trust Keystore for Costpoint is the Standard Java Trust Keystore. If your Costpoint installation is using a different Trust Keystore, replace the references to the cacerts file in the commands below. You will also need to ensure you are using the correct path to your installed JDK.

To install the Standard Cobra web service, complete the following steps:

1. Click **Start » All Programs » Accessories**, right-click **Command Prompt**, and click **Run as administrator**.

   The command prompt opens with administrative rights.

2. Enter the following command:

   ```
   \<Costpoint Install Directory>\82\bin\CPWebSetEnv.cmd
   ```

3. Enter the following command:

   ```
   keytool -import -v -noprompt -trustcacerts -alias <server_domain>_root -file
   <root_cert_file>.cer -keystore C:\oracle\jdk1.8.0_291\jre\lib\security\cacerts
   -storepass changeit
   ```

4. Enter the following command:

   ```
   keytool -import -v -noprompt -trustcacerts -alias <server_domain>_intermediate
   -file <intermediate_cert_file>.cer -keystore C:\oracle\jdk1.8.0_291\jre\lib\
   security\cacerts -storepass changeit
   ```

   Where:

   - <server_domain> is the Active Directory Domain of your Costpoint application server.
   - <root_cert_file> is the name you assigned the root certificate file when exporting.
   - <intermediate_cert_file> is the name you assigned the intermediate certificate file when exporting.

> **Note:** You will need to restart all WebLogic servers for the changes in certificates to take effect.

Configure Costpoint Connection to Cobra Web Service

To use the Cobra Web Service for Costpoint to Cobra Integration, you must enter the correct settings in the Cobra tab on the Product Configuration Utility.

To change settings in the Product Configuration Utility, complete the following steps:

1. Click **Start » All Programs » Costpoint 8.2 » Start Costpoint 8.2 Config Utility** to launch the Product Configuration Utility.

> **Attention:** You can also open the utility by running the CPWebConfigUtility.cmd batch file in the Costpoint installation directory (for example, C:\Deltek\Costpoint\82\bin).

2. On the Product Configuration Utility startup screen (where you are asked to select your configuration options), select the **Costpoint Application Configuration** check box, and click **Next**. The available tabs in the utility displays.

3. Click **Costpoint tab » System Integration**s tab **» Cobra tab** and then use the following settings in the **Cobra Integration Connection Information** group box:

   - **Use Cobra Integration**: Select this check box to enable Costpoint to Cobra integration.
   - **Cobra Web Service URL**: Enter the URL for the Cobra Web Service.
     For example:
     ```
     https://<certificate subject>:8122/CobraWebService/Costpoint
     ```
     Where:
     - <certificate subject> is the Server Authentication Certificate Subject saved earlier. For example, cobrawebserver.company.com.
   - **User**: Enter the Cobra user name. You may use the SYSADMIN user. If you choose another user, make sure that that user has administrative rights in Cobra.
   - **Password** and **Confirm Password**: Enter the Cobra password.
   - **Data Source Key**: Use the default setting.
   - **Configuration Name**: Enter **CostpointConfig**.
   - **Integration Owner**: Enter the owner of the restored Costpoint Integration Configuration file (CostpointConfig.icd) in Cobra.

> **Attention:** For more information, see the Restore the Costpoint Integration Configuration File section.
>
> If you restore the backup configuration that ships with Cobra, the owner will be SYSADMIN. If you connect as the SYSADMIN user (in the User and Password fields), you do not need to specify a value in this field.

4. Click **Test** to verify the information you entered. This performs a simple connection test.

5. Save your changes and exit the Product Configuration Utility.

> **Note:** You will need to restart all WebLogic servers or run the Rebuild Global Settings (SYPSTNG) application for your Cobra integration connection information changes to take effect.

Costpoint to Cobra Integration Process

This section provides an overview of the process of loading actual costs from Costpoint to Cobra.

> **Note:** This section provides a general overview of the Costpoint to Cobra Integration. For more information about the available options in each of the screens mentioned in this section, please refer to the **Online Help** available in Costpoint and Cobra.
>
> Before performing the steps in this section, you need to follow the instructions in the previous sections to ensure that your system is configured properly for integration with between Costpoint and Cobra.

Cobra Configuration

No additional Cobra configuration procedures are required.

Costpoint Configuration

The following procedures must be performed in Costpoint.

Set the Correct Mapping Mode Options

The Manage Cobra Charge Templates screen is used to initialize and define mapping of default and/or project-

specific Costpoint fields or charge elements to Cobra charge element code values. On this screen, you need to select the **Sample Cobra Project** option in the **Mapping Mode** group box if there is a link to the Cobra database. If there is no link available, select the **Manual Mode** option.

> **Note:** Only the key fields for the project will be enabled in the **Cobra Key Fields** column when you select the **Sample Cobra Project** option. No validation of field names will occur if you select the **Manual Mode** option.

These mapping settings must be consistent with the settings on the Manage Project User Flow, Manage Organization Elements, and Manage Cobra Resource Templates screens.

Select the Correct Options for the Transaction File

The Costpoint to Cobra Integration creates a .csv transaction file using the settings on the Manage Cobra Extraction Parameters screen. You will need to set the correct import options on this screen for the transaction file.

To set the correct option for the transaction file, complete the following steps:

1. Go to the Manage Cobra Extraction Parameters screen in Costpoint (**Administration » System Administration » System Administration Interfaces**).

2. Clear the **Advance Calendar** check box in the **Cobra Import/File Settings** group box.

3. Select the **Generate File Only** check box.

4. Select the remaining extraction parameters as required by the Cobra project that is interfacing with Costpoint.

When you run the Cobra extraction, the format of the .csv file should resemble the following:

Cobra Fields

Project Name	Key Field 1	Key Field 2	Key Field 3	Resource	Cost Class	Hours	Direct	COMGA	COMOH	GANDA	FEE
ProjName	4K18B.000.100			103A1	AC	18	319	0.53	3.23	126	400
ProjName	4K18B.000.100			106A2	AC	59.5	1509	2.5	15.2	593	1894

Project Name	Key Field 1	Key Field 2	Key Field 3	Resource	Cost Class	Hours	Direct	COMGA	COMOH	GANDA	FEE
ProjName	4K18B.000.100			107A1	AC	109.5	1838	2.54	17.4	676	2293

Project Names are only required if the .CSV file will be imported into a master project in Cobra. The previous Cobra Import/File settings mentioned is used when setting up the interface with a Master Project.

At least one Key Field must exist in the .csv file, with use of the additional Key Fields optional based on Cobra project requirements. Use of the Cost Class field is also optional based on Cobra project requirements.

Integration Process Overview

Step 1: Create the Default Charge, Resource, and Cost Templates

The purpose of these templates is to map the Costpoint structures to the Cobra structures. The structure of each Cobra project is highly configurable by a user. You can use a key data field such as work package or WBS in one Cobra project in a different way (or not at all) in another Cobra project. In order to load actual costs from Costpoint to Cobra, the information must be defined or linked to the Cobra data. These templates make it easy to replicate linking across projects.

▪ **Charge Templates**: These templates are initialized and maintained in the Manage Cobra Charge Templates screen and identify how the Costpoint project/organization information is linked to the Cobra control account or work package. You can link the Project ID, Project ID less Level 1, Project Abbreviation, Project/Organization ID combination, Project User-defined fields, or Project less Level 1/Organization ID combination in Costpoint to a work package or work package code (if you are collecting costs at the work package level in Cobra) or to the WBS, WBS and OBS combination, or a code on the control account in Cobra. Create as many charge templates as you need to establish the linkages for all Costpoint projects and Cobra projects.

▪ **Resource Templates**: These templates are initialized and maintained in the Manage Cobra Resource Templates screen and are used to establish the relationship between Costpoint labor and non-labor information and Cobra resources. Using this template, you create a labor rule for mapping Costpoint labor charge information to Cobra resources using PLCs, GLCs, Employee ID, Project Labor Category User-Defined fields, or an Advanced SQL definition. Skill-based bid codes used to determine average labor rates for estimating in Cobra are examples of Cobra resources that can be linked to Costpoint GLCs or PLCs.
You should consider using GLCs to link resources if you are a first time user. Under most circumstances you must avoid using employee ID to link resources as you must adjust the budget or explain variances each time there is a staff change. For non-labor accounts, Cobra does not generally require the same level of detail for non-labor accounts as is required in Costpoint. You can link most Costpoint non-labor accounts to one Cobra resource. However, you must address the needs of each Cobra project and Costpoint project individually.

> **Note:** You can use wildcard characters to link Costpoint non-labor accounts to Cobra resources.

▪ **Cost Templates**: These templates are initialized and maintained on the Manage Cobra Cost Templates screen

and are used to map Costpoint hours, direct costs, indirect cost pools, and Cost of Money (COM) to Cobra results. The Hours and Direct cost elements in Costpoint cannot be edited but can be mapped to the same Cobra result, if available, or another Cobra result that serves the same function. Most companies have multiple fringe, overhead, and general and administrative pools in Costpoint. Generally this level of detail is not necessary in Cobra and many fringe and overhead pools can be mapped to one Cobra result.

Step 2: Set the Software Location, Output File Location, and Default Templates

On the Configure Cobra Interface Settings screen, you need to specify the location of your Cobra software and your output file folders. The location of your Cobra software and output folders must already be set up in the Manage Alternate File Location screen.

> **Note:** The following are guidelines for setting up your folders:
>
> - If you are integrating using Cobra Web Service, the specified output folders must also be accessible from the Cobra server by the login account associated with the "Cobra Web Service" service.
> - For Costpoint Cloud customers, the **Alternate File Location** is required, but rather than saving the Costpoint generated csv file to this location, the data is saved within Costpoint in a location defined by the **Alternate File Location**. This data can be downloaded from the File Download screen. This is only required to save/view the .CSV file. When using the fully automated Cobra Web Service process to load actuals into Cobra, the csv file is stored within a temporary space while the process is running. Upon completion of the process, the csv file is removed from the temporary space.

You can also select default charge, resource, and cost templates on the Configure Cobra Interface Settings screen after you create them in their respective screens (see Step 1: Create the Default Charge, Resource, and Cost Templates).

Step 3: Create the Cobra to Costpoint Project Map

This optional step links the Costpoint projects to the Cobra projects. You can perform this step on the Manage Cobra Project Mapping screen. It is only required if the Cobra project is different from the Costpoint top-level project number and/or you want to send the project data at a level above the level where the data is recorded in Costpoint. See the online help on Manage Cobra Project Mapping screen for more information.

Step 4: Create Extractions

You can create extractions on the Manage Cobra Extraction Parameters screen in Costpoint. The parameter IDs that you enter when you create the extractions are used in the Compute Cobra Burden Cost screen. Use the extraction parameter tool to associate the templates and other options to Costpoint projects and Cobra run-time options. You can create as many parameters as you need for all Costpoint projects and Cobra projects.

In addition to the templates, there are several other features that you can use to load data into Cobra:

- **Values**: Use this feature to establish the values to be used in the extraction: Hours Only, Hours and Labor Dollars, Hours and Direct Dollars, and Hours and Total Dollars.

- **Rates**: Use this feature to choose whether to use target or actual rates for the burden costs to be loaded into Cobra.

- **Timeframe**: Use this feature to choose the timeframe for which you want to collect actual costs in Costpoint. The options are sub-period, period, and inception-to-date. Use the sub-period feature to extract actual costs for the sub-period to analyze the progress of the project.

- **Advance Calendar**: Use this feature to specify whether or not to automatically advance the Cobra calendar.

- **Calculate Results:** Use this feature to calculate any Cobra results that are not included in the actuals (for example, head count).

- **Post Valid Transactions**: Use this feature to specify whether or not to load data for valid records only. Records containing errors are automatically written to the error log and can be reprocessed at a later time.

  - **Use Asynchronous Call**: Select this check box if you want the invocation of the Cobra Web service to be asynchronous. In this case, the Compute Cobra Burden Cost process will not wait for the Cobra Web service to finish the transaction. When the request is sent, the Compute Cobra Burden Cost process continues to run and not wait for responses from Cobra Web services.
    If this check box is **not** selected, the invocation of the Cobra Web service will be synchronous. This means the Compute Cobra Burden Cost process waits for the Cobra Web Services to be done with transactions. The Cobra Burden Cost process receives responses from the Web service before continuing to run.

- **Replace Cost Classes**: Use this feature to generate forecasts based on booked actual costs. You can replace a single class or all classes to run special extractions.

- **Generate File Only**: Use this feature to save the extractions in CSV format.

> **Note:** For Costpoint Cloud users, if you select the Generate File Only option, you must download the file from Costpoint. Files can be downloaded by navigating to Admin » System Administration » File Management » File Download.
>
> See Appendix A: Display Cobra Applications in Costpoint for further information instructions.

Step 5: Initialize the Maintain Prior Year Cobra Costs

You must initialize the Manage Prior Year Cobra Costs screen before you run the extraction process to extract inception-to-date actual costs from Costpoint. This allows you to archive prior year costs.

> **Note:** This step is only necessary at year-end or when prior year data is changed when running the extraction process with the Inception-to-Date option selected. This step is not required with the Period or Subperiod option.

Step 6: Run the Compute Cobra Burden Costs Process

Costpoint calculates burden at the project/account/organization level but Cobra requires burden at the resource level (employee/PLC/GLC). The Compute Cobra Burden Cost screen process uses the Manage Project labor History (LAB_HS table for labor and PROJ_SUM for non-labor) to calculate burden at the resource level for projects that have been identified as Cobra projects.

> **Note:** You can establish a project as a Cobra project on the Manage Project User Flow screen by selecting the **Cobra Project** check box. Please refer to the Manage Project User Flow online help for more information.

The Compute Cobra Burden Cost process performs following functions:

- Computes burden at the resource level using the data on the Manage Project Labor History screen
- Updates the Cobra Direct and Indirect tables in Costpoint with the sub-period, period, fiscal year, year-to-date labor, non-labor, and indirect costs and updates prior year information if the copy prior flag is checked.
- Updates the fiscal year, period, and sub-period in the Cobra Interface Settings screen.

Step 7: Run the Cobra Extraction

You can run the Cobra extraction on the Compute Cobra Burden Costs screen by selecting the **Compute Cobra Burden and Run Cobra Extraction** option in the **Extraction** group box. You will need to enter a **Cobra Extraction Parameter ID** that you create on Manage Cobra Extraction Parameter screen. The Cobra extraction process runs after computing burden costs.

Integration Troubleshooting

If you encounter issues with Costpoint to Cobra Integration, you can use the procedures in this section to access log files that were created after the integration. Use the information in these log to troubleshoot issues with integration.

This section also provides steps for creating a batch file for troubleshooting if you run the integration using CostpointCobra.exe.

View Costpoint Log Information

You can check integration processing errors for both synchronous and asynchronous calls in the Cobra Integration log file stored in the Costpoint log folder.

To check on Cobra Integration errors, complete the following steps:

1. On your Costpoint Application server, go to the log folder in the Costpoint installation directory (for example, C:\Deltek\costpoint\82\logs).

2. Locate the Cobra Integration log file (CP_INT_COBRA_DEServer.log) and open the file with a text editor (for example, Notepad).

> **Note:** When you run the integration using synchronous calls, the Compute Cobra Burden Costs screen will display errors returned by Cobra.

View Cobra Log Information

Warnings and errors encountered during integration, either through the CostpointCobra.exe or Cobra Web Service, are stored in the CostpointCobra log file in the Cobra log directory. You can view the information in these logs on the Process Logs dialog box in Cobra.

To view the Process Logs in Cobra, complete the following steps:

1. Launch Cobra and click **Tools** tab » **Process logs**.

2. From the **Process** drop-down list, select **Integration Actual Costs** to filter Costpoint to Cobra integration-related logs.
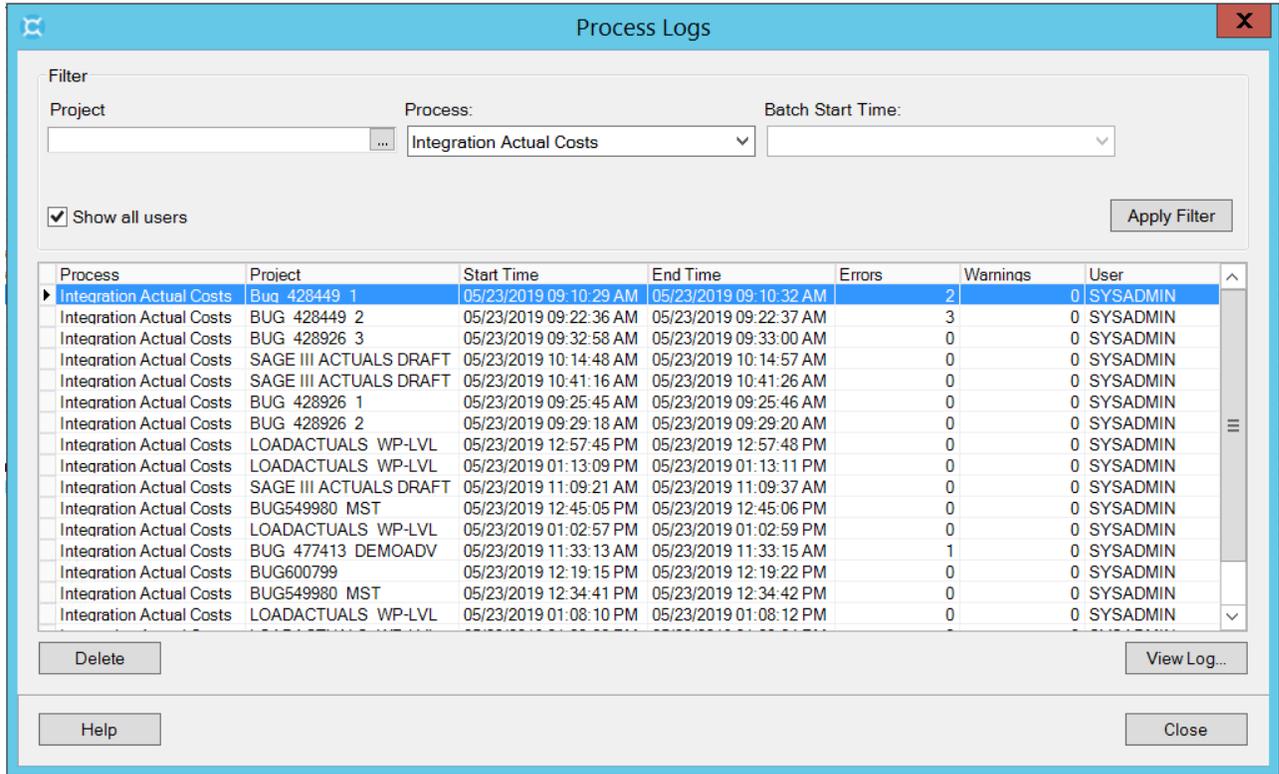
3. Click a log entry from the list and click **View Log**.

Cobra Log File Location

In case a corresponding log entry is not listed in the Cobra Process Log dialog box, you can try to access the log files in the application server where CostpointCobra.exe is installed. This applies whether you run the integration using Cobra Web Services or CostpointCobra.exe. The CostpointCobra.log file is stored in the Cobra log directory (For example, C:\My Documents\Deltek\Cobra\Logs).

Appendix A: Display Cobra Applications in Costpoint

With Costpoint 8.2, a change was made so all Cobra applications will be hidden from the Costpoint menus unless the integration has been set up. This change was made to reduce the visibility of unnecessary applications in Costpoint if you are not licensed or do not have the configuration enabled.

If you are going to download the Cobra information from Costpoint, then you **must** enable/configure this connection in the Product Configuration Utility.

> **Warning:** To display Cobra applications in Costpoint, you do not have to enter valid values in the Product Configuration Utility. However, if you entered invalid values, please do NOT click on the **Test** button to validate.

For Cloud customers, in order to setup the Product Configuration Utility, you will need to complete the following steps:

1. Login to the Deltek Support Center and go to **Menu** > **Support** > **Cloud Solutions**.

2. Select your Cloud Product from the drop-down list and click **Go**.

3. Under **Service Requests**, select the **Setup Integration with Costpoint** option and click the **Costpoint Integration Configuration Template** link to download a ZIP file of spreadsheets for various integrations.

   There are two different Cobra integration options:

   ▪ **Cobra Web Services Integration:** This uses the Cobra.xlsx spreadsheet.
   ▪ **Cobra Import\Export Integration:** This uses the CobraImportandExportAccess.xlsx spreadsheet.

4. If only the import\export via the Cobra screens is needed to run the report, complete the CobraImportandExportAccess.xlsx spreadsheet.

   a. On the top portion of each integration spreadsheet, follow the instructions for filling out the form and the next steps in the process.

   b. In the first row, list the system names where there should be Cobra access. You must list your systems by name, but it can include multiple systems in one request.

   c. In the second row, enter the **CustomerName** which means the company name.

   d. Save the spreadsheet.

5. Submit the form.

   a. For Costpoint GovCon Cloud (GCC) Standard customers, you can now click **Choose File**, upload the spreadsheet, select **Cobra** from the Service Request drop-down list, and then click **Submit**.

   b. For Costpoint GCC Moderate customers, you will need to encrypt the file and then upload the file via the Deltek SFTP site. You will also need to select **Cobra** from the Service Request drop-down and then click **Submit**.

   Deltek Cloud Operations will update the back-end settings that are required and notify you by closing the ticket. When you login to Costpoint, the Cobra screens will be visible.