

The Siemens logo is displayed in a white rectangular box in the top left corner. The word "SIEMENS" is written in a bold, teal, sans-serif font. The background of the entire page is a low-angle photograph of a modern glass skyscraper reaching towards a blue sky with scattered white clouds.

SIEMENS

Teamcenter Rapid Start 13.2

Managing Administration Data

PLM00504 - 13.2

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1. What is administration data?

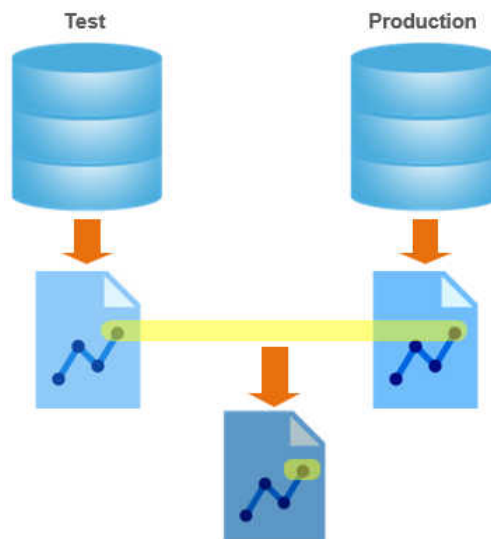
Administration data is data within the Teamcenter site database that defines:

- The behavior of the site.
- Who has access to information in the database.

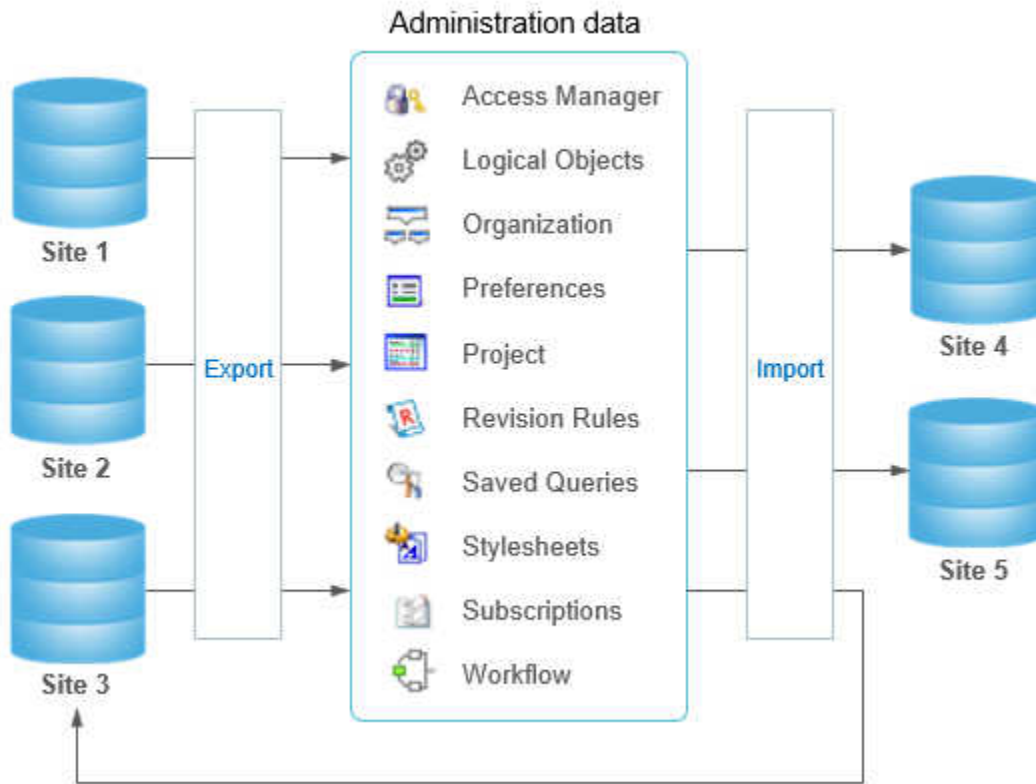
Administration data in the following categories is maintained using a client such as the rich client or Active Workspace. This data is not contained in Business Modeler IDE projects, nor in solution templates:

Access Manager	Preferences	Saved queries	Subscriptions
Organization	Project	Stylesheets	Workflow
	Revision Rules		

You can use **administration data reporting** capabilities to generate interactive reports of these categories of administration data, which you can use to analyze and troubleshoot a site, and to compare differences in data between environments.



You can use **administration data export** and **administration data import** to copy and paste administration data across Teamcenter environments.



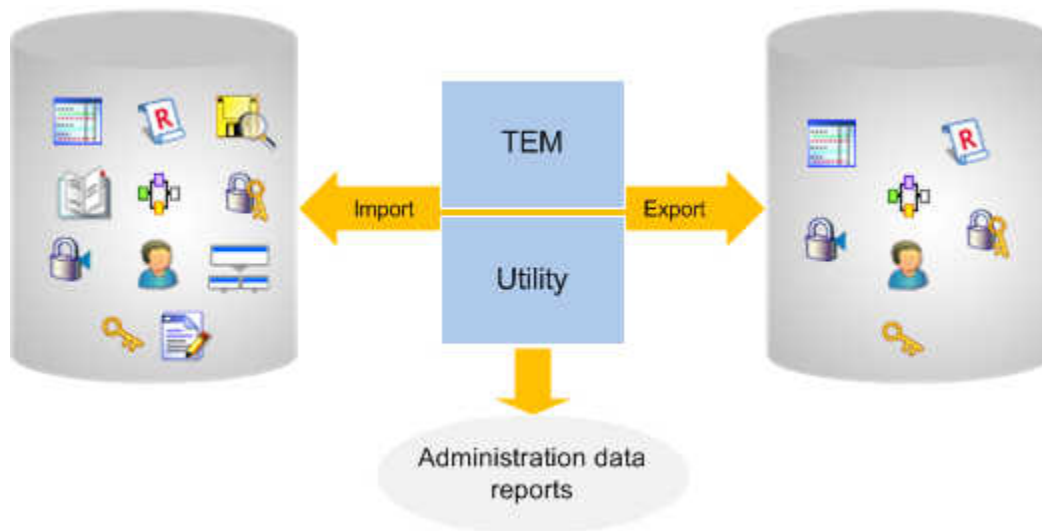
To safeguard functionality and data integrity in a production environment, separate environments are often created for purposes of development, training, patch testing, and troubleshooting. The ability to report and analyze administration data, and the ability to export and import administration data across environments, helps in maintaining these environments.

Administration data reporting capabilities have analogous data model element reporting capabilities accessible from within the Business Modeler IDE.

2. Tools for managing administration data

You can invoke tools for managing administration data from the command line and, to a lesser extent, in the Teamcenter Environment Manager (TEM).

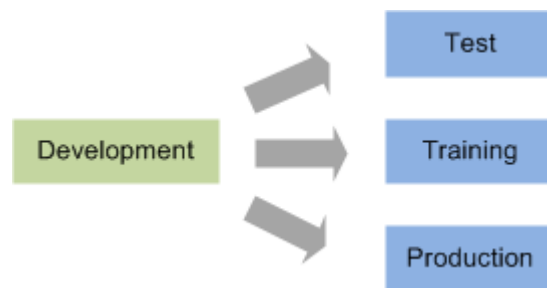
Tool function	Command Line tool	TEM tool
Export administration data from the current site into an export package file.	<code>admin_data_export</code>	Manage Administration Data panel export options.
Import administration data from an administration data export package into the current Teamcenter site.	<code>admin_data_import</code>	Manage Administration Data panel import options.
Generate an interactive report of administration data contained in a site or in an administration data export package file.	<code>generate_admin_data_report</code>	None.
Generate an interactive report of differences between the administration data in an administration data export package file and either the current site or another package file.	<code>generate_admin_data_compare_report</code>	None.



3. Example tasks and processes for managing site behavior

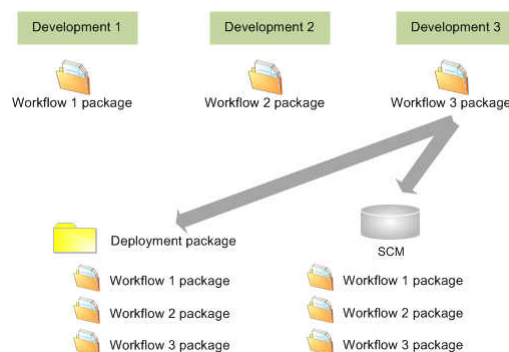
The following task examples illustrate how you can use **interactive administration data reports** along with administration data export/import utilities to manage your Teamcenter sites.

Task	General process
Analyze how a site is configured and troubleshoot configuration issues.	Generate an interactive report of administration data at the site and review the report in any web browser.
Ensure that one site is configured the same as another.	Export all administration data from one site and import it to another. This capability is useful when you must ensure certain administration data at one site exists at another site, such as a test site and a training site or during site consolidation.



Spread workload for a project, such as adding or modifying multiple workflows, among teams.

Set up several isolated sites for work group teams to work on particular parts of a development project. A team can make changes in its site and then export the changed (partial) administration data. You can then consolidate the changes by importing the administration data from the multiple partial export packages into one site, such as a sandbox site for final testing.



Determine the cause of differences in site behavior

Generate a report that compares the administration data from a source site with the administration data in a target site. Then analyze

Task	General process
and troubleshoot configuration issues.	<p>the report of differences in administration data to determine the cause of differences in site behavior.</p> <p>You can also use the report to provide information to an administrator at a different site.</p>
<p>Determine when a particular change was introduced to a site.</p>	<div data-bbox="768 436 1242 709" data-label="Diagram"> <pre> graph LR Development[Development] --> Test[Test] Development --> Production[Production] Test <--> Production </pre> </div> <p>Review a site's administration data import history report to track impacts of importing administration data over time. This report is automatically updated upon each successful administration data import to the site.</p>

4. Reconcile differences in administration data between Teamcenter sites

You may need to determine why two sites behave differently, or may want to ensure that the administration data is the same at both sites to allow consolidation of data. Use the following process to reconcile administration data between two sites.

1. **Export** the administration data from both sites.
2. Generate an **administration data comparison report**.

The report shows the areas that differ between the sites for each type of administration data.

3. View the comparison report and analyze the differences.
4. After you determine the administration data that requires modification at a target site, **import** the data from the source administration data package. Set the appropriate **merge options** during the import to ensure you get the only the desired data modification.

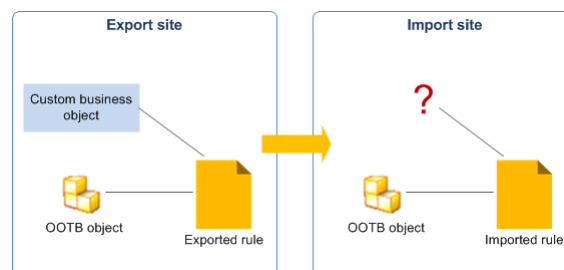
Caution:

When you export and import administration data between sites, it is important that the schemas for the administration data and any related objects involved in the transfer are the same at both sites.

Example:

Given a situation where:

- A custom business object type exists in the schema at an exporting (source) site, but not at the importing (target) site.
- A revision rule included in the administration data export refers to an instance of the custom business object.



Then:

- The administration data import succeeds, but errors occur during activities involving the revision rule due to the nonexistent custom business object.

5. Exporting administration data

Why would I export administration data?

Export administration data from a site into an administration data export package, which you can use when you want to:

- Configure a target site the same as the source site.
- Export administration data from a test site, so you can import it to a production site.
- Collect information on a site, so you can compare it to another site.
- Export partial administration data from multiple developers into a source code management (SCM) system for compilation into a comprehensive set of administration data.

You can use either the **admin_data_export** command line utility or the Teamcenter Environment Manager (TEM) to export administration data into an administration data package. Procedures in the TEM vary for **partial export** and **full export**.

Note:

It is important to be aware of the **considerations for partial export of administration data**.

Export administration data using the admin_data_export utility

You can use either the **admin_data_export** command line utility or the Teamcenter Environment Manager (TEM) to export administration data into an administration data package. Procedures in the TEM vary for **partial export** and **full export**.

Note:

It is important to be aware of the **considerations for partial export of administration data**.

Export administration data using the admin_data_export utility

At a Teamcenter command prompt, run the **admin_data_export** utility.

Tip:

When the export completes, you may want to use the **generate_admin_data_report** utility to generate a report of the site administration data contained in the package.

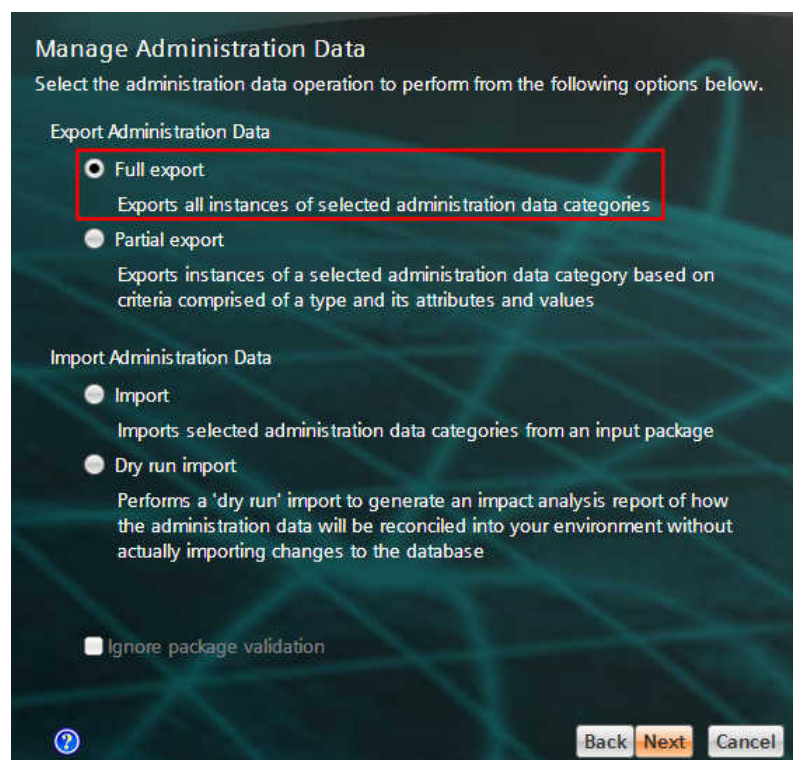
Export full administration data using TEM

You can use either the **admin_data_export command line utility** or the Teamcenter Environment Manager (TEM) to export administration data into an administration data package. Procedures in the TEM vary for **partial export** and **full export**.

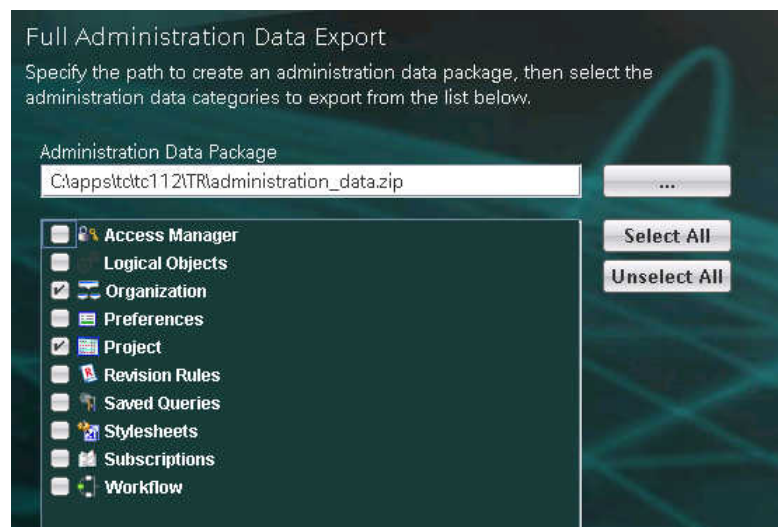
Export full administration data using TEM

You can select the categories of data to export by using the **Full export** option in Teamcenter Environment Manager (TEM).

1. Start TEM.
 - a. In the **Maintenance** panel, select **Configuration Manager** and click **Next**.
 - b. In the **Configuration Maintenance** panel, select **Perform maintenance on an existing configuration** and click **Next**.
2. Select the configuration for the site where you want to export the administration data file and click **Next**.
3. In the **Feature Maintenance** panel, under **Teamcenter Foundation**, select the **Manage Administration Data** option and click **Next**.
4. In the **Manage Administration Data** panel, select the **Full export** option and click **Next**.



5. In the **Full Administration Data Export** panel, specify the administration data package and the categories to export and click **Next**.



- a. Click the ... button to the right of the **Administration Data Package** box to browse to the location where you want to place the administration data package.
- b. Select the administration data categories to export and click **Next**.

6. In the **Teamcenter Administrative User** panel, enter the logon information for the Teamcenter administrative user account and click **Next**.
7. In the **Confirmation** panel, review the choices and click **Start**.

On successful export, TEM packages the exported administration data to the specified packaging directory. The export package contains the administration data in TC XML files that are used later for **importing into another Teamcenter environment**.

Tip:

When the export completes, you may want to use the **generate_admin_data_report** utility to generate a report of the site administration data contained in the package.

Export partial administration data using TEM

You can use either the **admin_data_export command line utility** or the Teamcenter Environment Manager (TEM) to export administration data into an administration data package. Procedures in the TEM vary for partial export and **full export**.

Note:

It is important to be aware of **Considerations for partial export of administration data**.

You can export specific administration data components using the **Partial export** option in TEM. You select the specific instances of administration data by category, class, and specific attribute/value criteria.

However, each administrative data type supports only specific elements in partial export, but not all. For example, Access Manager supports only **Named ACL** and **Privilege** elements to be exported partially, but not rule trees.

Export partial administration data using TEM

1. Start TEM.
 - a. In the **Maintenance** panel, select **Configuration Manager** and click **Next**.
 - b. In the **Configuration Maintenance** panel, select **Perform maintenance on an existing configuration** and click **Next**.
2. Select the configuration for the site where you want to export the administration data file and click **Next**.
3. In the **Feature Maintenance** panel, select the **Manage Administration Data** option under **Teamcenter Foundation** and click **Next**.

4. In the **Manage Administration Data** panel, select the **Partial export** option and click **Next**.

Manage Administration Data

Select the administration data operation to perform from the following options below.

Export Administration Data

- ☐ Full export
Exports all instances of selected administration data categories
- ☒ Partial export
Exports instances of a selected administration data category based on criteria comprised of a type and its attributes and values

Import Administration Data

- ☐ Import
Imports selected administration data categories from an input package
- ☐ Dry run import
Performs a 'dry run' import to generate an impact analysis report of how the administration data will be reconciled into your environment without actually importing changes to the database

☐ Ignore package validation

[?](#) [Back](#) [Next](#) [Cancel](#)

5. Use the **Partial Administration Data Export** panel to specify the administration data to export.

Partial Administration Data Export

Specify the path to create an administration data package, then provide partial export criteria based on a category, a type belonging to that category and the attributes and values of the type.

Administration Data Package
C:\Templadministration_data.zip [...](#)

Category Name Access Manager

Export Named ACL

Operator	Attribute	Value
	ACL_NAME	System

[Add](#) [Remove](#)

- Click the ... button to the right of the **Administration Data Package** box to browse to the location where you want to place the administration data package.
- Click the arrow in the **Category Name** box to select the administration data category to export.
- Click the arrow in the **Export** box to select the administration data class to export.

d. Refine the administration data that is exported by using rows in the table.

A. Type the **Attribute** and **Value** pair.

Depending on what you select from the **Export** list, the system may supply an entry for the **Attribute**.

B. Click the **Add** button to the right of the table to add rows for additional attribute/value pairs and select the Boolean **Operator** to define how the attributes are added.

To delete an attribute/value pair, select a row from the table and click the **Remove** button.

C. Click **Next**.

6. In the **Teamcenter Administrative User** panel, enter the logon information for the Teamcenter administrative user account.

7. In the **Confirmation** panel, review the choices and select **Start**.

On successful export, TEM packages the exported administration data to the specified packaging directory. The export package contains the administration data in TC XML files used later for **importing into another Teamcenter environment**.

Tip:

When the export completes, you may want to use the **generate_admin_data_report** utility to generate a report of the site administration data contained in the package.

Examples of partial export attributes and values using TEM

Following are some example attributes and values for partial administration data export using Teamcenter Environment Manager. Depending on your selection from the **Export** list, the system may supply an entry for **Attribute**. These are examples only. The attributes and values listed here may not match what you have in your system.

Category name	Export	Attribute (example)	Value (example)
Access Manager	Named ACL	ACL_Name	System
	Privilege	Privilege_Name	READ
Organization	Discipline	discipline_name	*
	Group	name	Engineering
	License Server	fnd0name	*

Category name	Export	Attribute (example)	Value (example)
Preferences	Person	user_name	*
	Role	role_name	Designer
	Site	name	*
	Volume	user_name	*
	Discipline	volume_name	volume
	Preferences by Category	Category Name (supplied)	Change Management
	Preferences by Group	Group Name (supplied)	Engineering
	Preferences by Preference Name	Preference Name (supplied)	HiddenPerspectives
	Preferences by Role	Role Name (supplied)	Designer
	Preferences by User	User Name (supplied)	user0001
Project	Project	project_id	*
Revision Rules	Revision Rule	object_name	*
Saved Queries	Saved Query	query_name	*
Stylesheets	Stylesheets by Preference Name	Name (supplied)	*SUMMARYRENDERING
	Stylesheets by Stylesheet Name	Name (supplied)	Item*
Subscriptions	Subscription	subscriber	*
Workflow	Named ACL	ACL_Name	Vault
	Privilege	Privilege_Name	PROMOTE
	Workflow Templates by Name	Name (supplied)	Quick Release

Considerations for partial export of administration data

General considerations

- To export only part of an administration data category, you must specify input criteria that identify the data you want to export. Prepare your criteria before beginning the export.
- By default, partial exports do not include referenced user information. To understand some implications of not including referenced user information, read and understand the description for the

-session_options argument option **opt_traverse_ref** in **admin_data_export** before performing the administration data transfer.

- With any partial export, the Access Manager privileges are always exported in order to maintain the data integrity.
- Partial export of an Organization tree is supported bottom-up and not top-down. For example, if you have the following tree and you are exporting the **group1** group partially, the complete tree may not be exported. But if you export the **user1** user partially, the complete tree is exported.

```
group1
  - role1
  - user1
```

Input criteria for a partial export: class name{attribute=value}

To export partial administration data, you must specify input criteria that identify the data you want to export. The specification includes:

- Administration data *class name*.

Note:

If you are specifying a partial export using TEM, the class name is understood by the system when you select an option from the **Export** list.

- The *real name* (not the display name) for an attribute of the named class.

Note:

If you are specifying a partial export using TEM, depending on your selection from the **Export** list, the system may supply the attribute name, in which case the display name is shown.

- The *value* of the named attribute.

What are the classes associated with administration data?

Not all categories of administration data are associated with classes, but many are. The following table lists associated classes for commonly partially-exported categories of administration data.

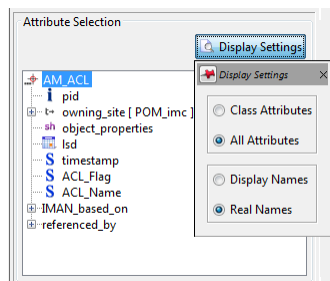
Administration data type	Associated class
Access Manager	AM_ACL
Organization	
	Discipline Discipline

Administration data type	Associated class
Group	Group
License Server	Fnd0LicenseServer0
Person	Person
Role	Role
Site	POM_site_config
User	User
Volume	ImanVolume
Project	TC_Project
Revision Rules	RevisionRule
Saved Queries	SavedQueryCriteria
Subscriptions	ImanSubscription

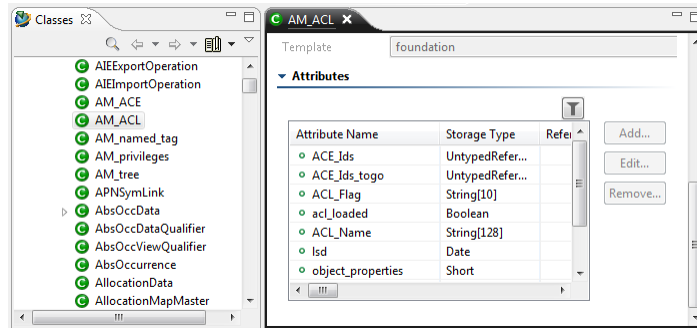
How can I find the real names of attributes?

Following are some tools you can use to look up the real names of attributes:

- **Query Builder**
Allows you to build queries on classes and their attributes.
For example, following is a query on the Access Manager class (**ACM_ACL**) showing its attributes:



- **Business Modeler IDE**
Displays the Teamcenter classes and their attributes in the **Classes** view of the **Advanced** perspective. You can also see the corresponding business objects and their properties in the **Business Objects** view.
Following is a display of the Access Manager class (**ACM_ACL**) in the **Classes** view:



- **taxonomy** utility

Lists the classes in the Teamcenter system and their attributes. To output the list to a file, run the following from a Teamcenter command prompt:

```
taxonomy -f=classes_and_attributes.txt
```

Following is an excerpt of the output for the Access Manager class (**ACM_ACL**):

```
[ 1]<-->[AM_ACL] app [AM]

Class is NOT exportable.

POM class definition for: AM_ACL
  application name: AM
  Number of super classes: 1
    Super class : POM_object
  Number of Attributes: 5

  Attribute 1 Name : ACE_Ids
              Type : POM_untyped_reference
...
  Attribute 2 Name : ACE_Ids_togo
              Type : POM_untyped_reference
...
  Attribute 3 Name : ACL_Flag
              Type : POM_string
...
  Attribute 4 Name : ACL_Name
              Type : POM_string
...
  Attribute 5 Name : acl_loaded
              Type : POM_logical
...
  Number of indexes : 0
  Class size in bytes: 171
```

How can I find attribute values?

Generate an **administration data document report**. Review the report to see all the administration data attributes and their values.

Note:

The report shows attribute display names, but not attribute real names.

6. Importing administration data

Why would I import administration data?

Import administration data previously exported from a source site into a target site when you want to:

- Configure the target site the same as the source site.
- Move administration data configured on a test environment into a production environment.

When importing administration data, you can use merge options to control whether the source or target takes precedence.

Before actually importing data, you can perform a dry run import, and then review the dry run report to analyze the potential impact and resolve any conflicts.

You can perform the dry run import, and perform the actual import, using either the **admin_data_import** utility or **using Teamcenter Environment Manager (TEM)**.

Perform a dry run import of administration data using TEM

Using an administration data package file that is the output of **exporting administration data** from a source site, you can perform a dry run import to a target site to see the impact before actually importing data. You can perform the dry run import **using the admin_data_import utility** or **using TEM**.

Perform the dry run data import using Teamcenter Environment Manager

1. Start TEM.
 - a. In the **Maintenance** panel, select **Configuration Manager** and click **Next**.
 - b. In the **Configuration Maintenance** panel, select **Perform maintenance on an existing configuration** and click **Next**.
2. Select the configuration for the site where you want to import the administration data file and click **Next**.
3. In the **Feature Maintenance** panel, select the **Manage Administration Data** option under **Teamcenter Foundation** and click **Next**.
4. In the **Manage Administration Data** panel, select the **Dry run import** option and click **Next**.
5. In the **Dry Run Import Administration Data** panel, click the ... button in the **Administration Data Package** box and select the administration data package. Click **Next**.

6. In the **Import Merge Options** panel, select the **merge option** for each category and click **Next**.
7. In the **Teamcenter Administrative User** panel, enter the logon information for the Teamcenter administrative user account and click **Next**.
8. In the **Confirmation** panel, review the choices and click **Start**.
9. In the **Install** panel, monitor the **Overall Progress** or select **Show Details** to see the install status.

View the Administration Data Import (dry run) report

To view a dry run report, after the run completes, browse to the following location:

```
TC_ROOT\logs\admin_data_import_history\Import_date-and-time\index.html
```

The following image shows the summary page of an example partial administration data import dry run report. In an actual report, you can click links to navigate through the report.

Import History

No	Imported Date	Impacts
1	Aug 29 2017 05:50 PM EDT from IMC--1501564889	7

Categories

Import Date: Aug 29 2017 05:50 PM EDT

[Summary](#)
[Report Details](#)
[Glossary](#)

Category	Impacts
Organization	7

Administration Data Import
IMC--1501564889 import into IMC--1501564889

Dry Run Summary
Import Date: Aug 29 2017 05:50 PM EDT

Impacts Outstanding

Organization

Merge Option: Override With Source
7 total Impacts

Element	Impacts	Element	Impacts
Organization	4	Persons	1
Groups	0	Sites	0
Roles	0	Volumes	0
Disciplines	0	License Servers	0
Users	2		

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Perform a dry run import of administration data using the admin_data_import utility

Using an administration data package file that is the output of **exporting administration data** from a source site, you can perform a dry run import to a target site to see the impact before actually importing data. You can perform the dry run import **using the admin_data_import utility** or **using TEM**.

Perform the dry run data import using the admin_data_import utility

At a Teamcenter command prompt, run the **admin_data_import** command line utility with the **-dryrun** argument.

Note:

Use the **-mergeOption** argument to specify the **merge options** to set for each data type.

View the Administration Data Import (dry run) report

To view the dry run report, after the run completes, browse to the following location:

`TC_ROOT\logs\admin_data_import_history\Import_date-and-time\index.html`

The following image shows the summary page of an example partial administration data import dry run report. In an actual report, you can click links to navigate through the report.

Administration Data Import
IMC--1501564889 import into IMC--1501564889
Dry Run Summary
Import Date : Aug 29 2017 05:50 PM EDT

Impacts Outstanding

Category	Impacts
Organization	7

Organization
Merge Option: Override With Source
7 total Impacts

Element	Impacts	Element	Impacts
Organization	4	Persons	1
Groups	0	Sites	0
Roles	0	Volumes	0
Disciplines	0	License Servers	0
Users	2		

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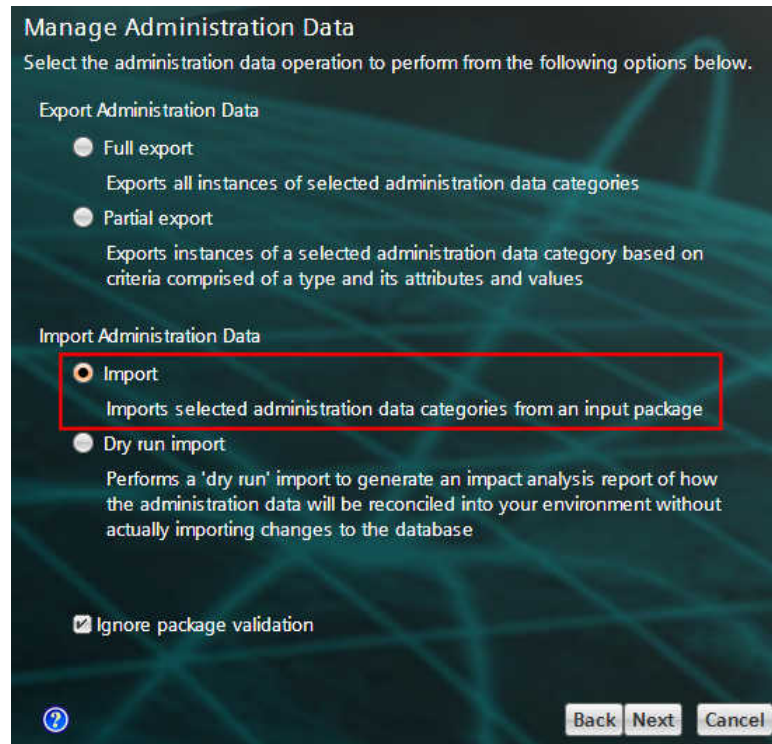
Import administration data using TEM

Using an administration data package file that is the output of exporting administration data from a source site, you can import administration data to a target site. You can perform the import using the **admin_data_import** utility or using TEM.

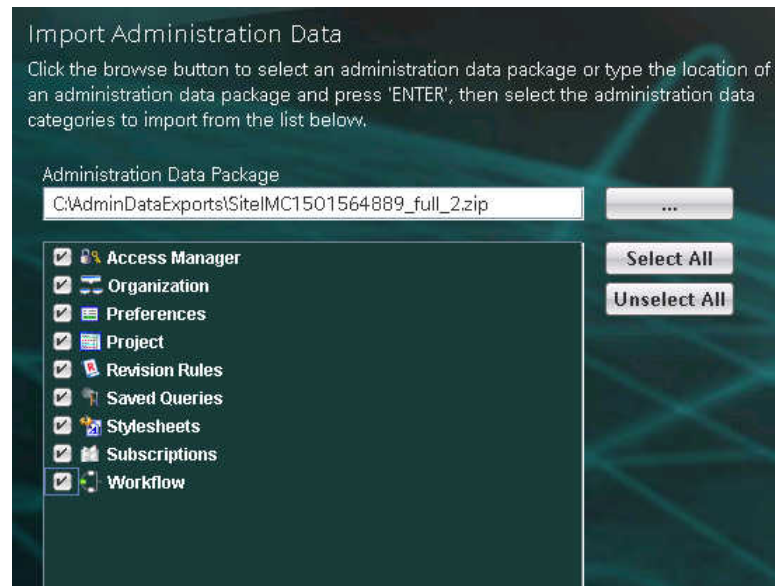
The type of administration data that you can import is determined by what the import package contains. If multiple categories of data are in the file, you can select the categories that you want to import.

1. Start Teamcenter Environment Manager (TEM).
 - a. In the **Maintenance** panel, select **Configuration Manager** and click **Next**.
 - b. In the **Configuration Maintenance** panel, select **Perform maintenance on an existing configuration** and click **Next**.

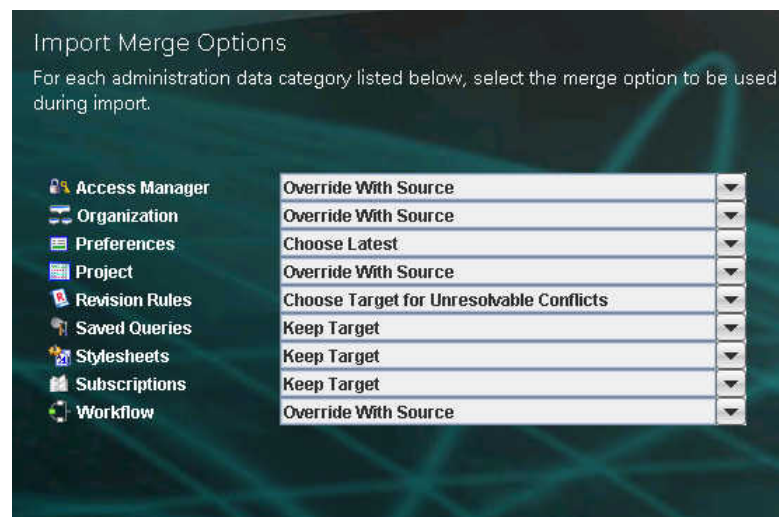
2. Select the configuration for the site where you want to import the administration data file and click **Next**.
3. In the **Feature Maintenance** panel, select the **Manage Administration Data** option under **Teamcenter Foundation** and click **Next**.
4. In the **Manage Administration Data** panel, select the **Import** option and click **Next**.



5. In the **Import Administration Data** panel, click the ... button to the right of the **Administration Data Package** box to select the administration data package to import. Click **Next**.



- In the **Import Merge Options** panel, select the **merge option** for each category and click **Next**.



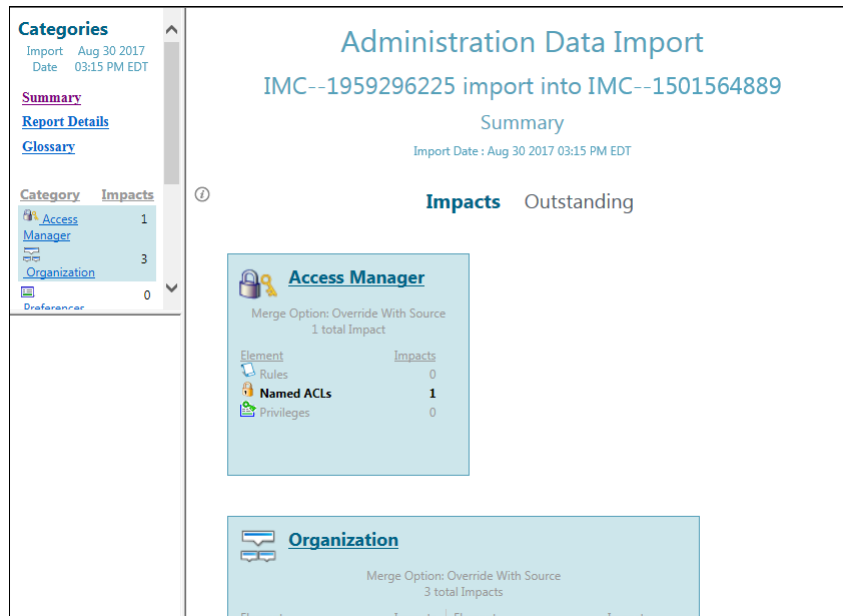
- In the **Teamcenter Administrative User** panel, enter the logon information for the Teamcenter administrative user account and click **Next**.
- In the **Confirmation** panel, review the choices and select **Start**.
- In the **Install** panel, monitor the **Overall Progress** or select **Show Details** to watch the install status.
- After the import, access the results from the following location:

`TC_ROOT\logs\admin_data_import_history\Import_date-and-time\index.html`

Note:

If your imported administrative package contains volume objects, you must **postprocess the imported volume objects** for them to work properly.

Following is an example import report.



Import administration data using the admin_data_import utility

Using an administration data package file that is the output of exporting administration data from a source site, you can import administration data to a target site. You can perform the import using the admin_data_import utility or using TEM.

The type of administration data that you can import is determined by what the import package contains. You can specify the administration data categories that you want to import.

Note:

If the administration data contains volume objects, you must **postprocess the imported volume objects** for them to work properly.

1. To see the potential impact before actually importing data, perform a dry run import using either **using the admin_data_import utility** or **using TEM**. Review the dry run import report and resolve any conflicts.
2. At a Teamcenter command prompt, run the **admin_data_import** command line utility.

Use the **-mergeOption** argument to specify the **merge options** for each data type.

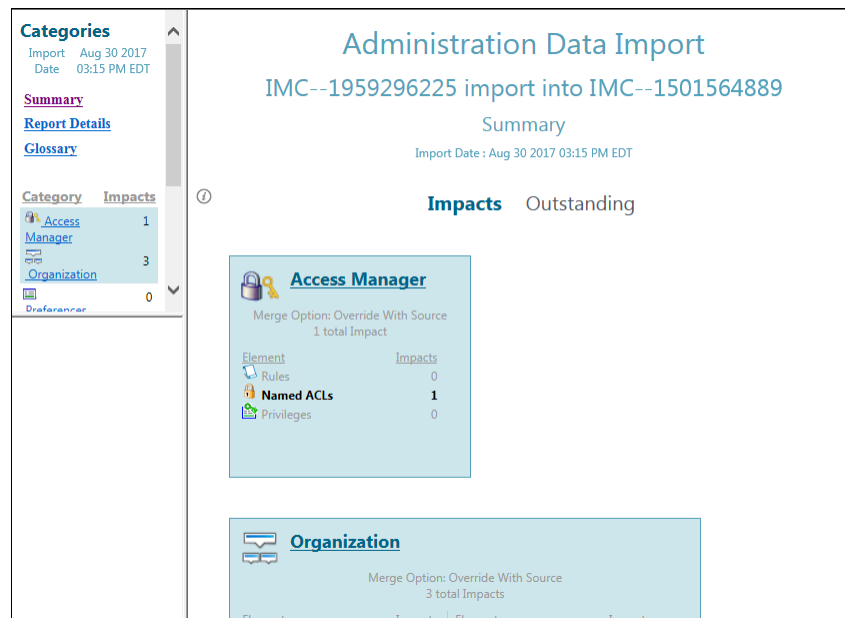
- After the import, access the results from the following location:

`TC_ROOT\logs\admin_data_import_history\Import_date-and-time\index.html`

Note:

If your imported administrative package contains volume objects, you must **postprocess the imported volume objects** for them to work properly.

Following is an example import report.



Postprocess imported volume objects

If your imported administrative package contains volume objects, the volume's host and FMS configuration must be updated with the importing site data.

- Extract the **VolumeAttributeUpdateInput.xml** file from the export package.
- Open the file and update the host name and host path with the importing site's host name and path.
- Run the **tc_attribute_bulk_update** utility with the updated **VolumeAttributeUpdateInput.xml** file as the **-inputfile** argument value, for example:

```
tc_attribute_bulk_update -u=admin -p=password -g=dba
-inputfile=VolumeAttributeUpdateInput.xml -import
```

- Run the **update_fms_configuration** utility to update the FSC configuration, for example:

```
update_fms_configuration -u=admin -p=password -g=dba
-volumes=volume-names-in-comma-separated-list -fsc_id=fsc-id
```

Administration data import merge options

When you import administration data, for each category of administration data you must specify how to handle data conflicts between the target (importing) site administration data and the source (exporting) site data in the input package.

Following are the available merge options:

Override With Source

Overrides target objects with source objects. If an object exists in both environments, the attributes on the object are taken from the source environment and updated on the object in the target environment during the import. If an object in the source environment does not exist in the target environment, it is imported to the target environment.

To avoid unexpected behavior that could result from mixing the rule tree contents, this is the only option available for Access Manager administration data.

Keep Target

Keeps the target site's administration data for all conflicts. If an object exists in both environments, the object in the target environment is kept as-is. If an object in the source environment does not exist in the target environment, it is imported to the target environment.

Choose Latest

Chooses objects that were last saved (based on the **Last Saved Date** property value). If an object exists in both environments and the one in the source environment was saved last, the attributes on the object in the source environment are used to update the attributes of the object in the target environment during the import. If the object in the target environment was saved last, the attributes on the object in the source environment are not imported. If an object in the source environment does not exist in the target environment, it is imported to the target environment.

Choose Source for Unresolvable Conflicts

Chooses objects from the source environment if they were edited in the source environment and not in the target environment since the last import. If an object exists in both environments, the attributes on the object in the source environment are used to update the attributes on the object in the target environment during the import. If an object was edited only in the target environment and not the source environment since the last import, the object is left as-is at the time of import. If an object in the source environment does not exist in the target environment, it is imported to the target environment.

This option is not available for workflow administration data.

Choose Target for Unresolvable Conflicts

Chooses objects from the target environment if they were edited in the target environment and not in the source environment since the last import. If an object was edited only in the target

environment and not the source environment since the last import, the object is left as-is at the time of import. If an object in the source environment does not exist in the target environment, it is imported to the target environment.

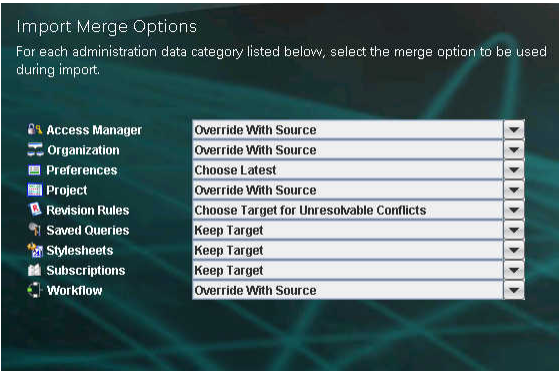
This option is not available for workflow administration data.

How you set import merge options depends on which method you use to perform the import, either with the `admin_data_import` utility or with the Teamcenter Environment Manager (TEM):

- **admin_data_import** utility
Use the **-MergeOptions** argument to specify the merge option to use with each administration data category.
- **Import Merge Options** panel in TEM
When you perform a **dry run import** or a regular **import** of administration data, the **Import Merge Options** panel is displayed. Select the merge option you want to use with each data category.

Tip:

The default values on this panel are the actions that Siemens Digital Industries Software recommends you use in most cases to avoid unintentional changes.



Style sheet import behavior

By default, each style sheet has two preferences set. For example, the summary style sheet has the following:

```
type-name .SUMMARYRENDERING=dataset-name
dataset-name .SUMMARY_REGISTEREDTO=type-name
```

If no preferences or only one preference is defined on a style sheet, then the style sheet is not in use. During import, when the target database is missing one or both preferences for a style sheet, the import is processed as if both preferences are defined in the target database.

The following tables show details of the import actions taken for the two preferences depending on whether the preferences exist. The last column shows the target action when you select the import option **Choose Source** or **Choose Source For Unresolved Conflicts**.

Preference import actions for Item dataset cases

Source preferences	Target preferences	Action	Target preferences after import	Target action with source option ¹
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	First time import, dataset does not exist.	Added at source site.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Add at target site using import package data.
Dataset does not exist	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Added at target site.	No change.	None.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	First time created at source. First time created at target not by importing.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Update using source package.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Change XML file content at source.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Update.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Change XML file content at source. Change XML file content at target.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Update using source package.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Change XML file content at source. Delete at target.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Add using source package.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO		Delete at source.		None.
	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Delete at target.		None.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Delete at source. Delete at target.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	None.

¹ When you select either the **Choose Source** option or **Choose Source for Unresolved Conflicts** option.

Source preferences	Target preferences	Action	Target preferences after import	Target action with source option ²
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Delete at source. Change at target.	Depends on SyncDelete option.	SyncDelete ON: Delete OFF: Keep target.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Delete at source.	Depends on SyncDelete option.	SyncDelete ON: Delete OFF: Keep target.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Added at source from source 2. Imported at target from source 1.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Add using source 2.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Change at target.		-override_with_source option, update using source package. -choose_source_for_unresolved_conflicts option, keep target.
Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Delete at target.	Item. SUMMARYRENDERING ItemSummary. SUMMARY_REGISTEREDTO	Add using source package.

Preference import actions for Item Revision and Document Revision datasets cases

Source preferences	Target preferences	Action	Target preferences after import	Target action with a source option ³
ItemRevision. SUMMARYRENDERING	ItemRevision. SUMMARYRENDERING	Add at source.	ItemRevision. SUMMARYRENDERING	Add at target site using import package data.
ItemRevisionSummary. SUMMARY_REGISTEREDTO	ItemRevisionSummary. SUMMARY_REGISTEREDTO	Add at target.	ItemRevisionSummary. SUMMARY_REGISTEREDTO	DocumentRevision has it own stylesheet.
DocumentRevision. SUMMARYRENDERING	(DocumentRevision inherits ItemRevision's summary style sheet.)		DocumentRevision. SUMMARYRENDERING	
DocumentRevisionSummary. SUMMARY_REGISTEREDTO			DocumentRevisionSummary. SUMMARY_REGISTEREDTO	

² When you select either the **Choose Source** option or **Choose Source for Unresolved Conflicts** option.
³ **Choose Source** option or **Choose Source for Unresolved Conflicts** option.

Modifying an administration data package

Normally, you do not need to alter the content of the administration data TC XML file. However, after you export an administration data file, you can carefully modify the TC XML content of the file to provide changes for specific sites or groups of sites.

Note:

Because mistakes in the TC XML file can cause corruption and possibly data loss during import, import of a modified file requires an authorization key. After passing the *Manage Administration Data* self-paced course available from Learning Advantage, you can file a support case on Support Center to obtain a key. The course provides the information necessary to avoid potential problems when editing the TC XML content of an administration data file.

Following are rules for editing an administration data TC XML file:

- Ensure the uniqueness of **elemId** attributes across the TC XML file.
- Ensure the value of Boolean type attributes are **Y** (true) or **N** (false).
- Ensure the value of reference type attributes are formatted as:

```
#<elemId-of-the-GSIdentity-of-the-referenced-object>
```

- Ensure the value of date type attributes are in GMT format:

```
year-month-dayThour:minute:SecondZ
```

For example, for 09 September 2014 at 4:21:04 AM (GMT), **2014-09-23T04:21:04Z**.

- Ensure the timestamp value is present.
- Ensure L10N attributes are list of values formatted as:

```
locale:M/S:M/A/P/R/I:sequence:[aA-zZ]^32:translation
```

A locale in the format of **en_US: M/S** is a master or secondary language.

M/A/P/R/I is the translation status.

The sequence number is 4 digits for multiple value attributes.

There are 32 characters reserved.

The rest is the translation, for example:

```
de_DE:S:A:0000::Proxy-Link,
en_US:S:A:0000::Proxy Link,
es_ES:S:A:0000::Enlace proxy,
fr_FR:S:A:0000::Lien proxy,
```

it_IT:S:A:0000::Collegamento proxy,
pt_BR:S:A:0000::Link de proxy

- When editing the attributes that are part of the candidate key, the **GSIdentity** label of the object, and the label of the objects that reference the object, must be updated accordingly.
- Ensure all required attributes for the administration object have values.
- For out-of-the-box administration objects, a user's **home**, **mailbox_folder**, and **newstuff_folder** attributes must not be added. Also, a dataset **rev_chain_anchor** attribute must not be added. This is true even though these are required attributes.
- After editing the file, validate the complete file content against **LLTCXML.xsd** file (low-level TC XML schema) located in the *TC_DATA* directory to ensure the XML is valid.

Import a modified administration data package

Because mistakes in the TC XML file can cause corruption and possibly data loss during import, import of a modified file requires an authorization key. You can obtain the key from Support Center after passing the *Manage Administration Data* self-paced course available from Learning Advantage. The course provides the information necessary to avoid potential problems when editing the TC XML content of an administration data file.

1. In your Teamcenter environment, set the **BULK_LOADER_AUTH_KEY** environment variable to the value of the authorization key.

This enables the bulk load capabilities that are used to import the modified package. If you do not set this variable to a valid value, TEM returns an error message when you attempt to import the modified package.

2. When importing the modified package in Teamcenter Environment Manager (TEM), navigate to the **Manage Administration Data** page and select the **Ignore package validation** ☒ check box.

This enables bulk load functionality that bypasses certain validation checks.

7. Reporting administration data

What administration data reports are available?

Documentation, Comparison, Import (dry run), and Import (history) administration data reports show detailed Teamcenter administration data for the data categories that are specified when the report is generated. If an object is referenced by other objects, reports include a where-used table that indicates the categories and objects that have references to the object. You can use any web browser to view and interactively navigate through the reports.

Administration data report types

Documentation

Reports administration data for the current Teamcenter environment or for an administration data export package.

For use in effectively administering your environment, generate a documentation report of your environment administration data.

Example *Teamcenter [version] Administration Data Documentation* reports of a default installation of Teamcenter foundation are available on Siemens PLM Support Center under the *Programming and Customization* category. These example reports provide a reference without having to first install Teamcenter. However, they do not contain an accurate representation of your individual environment.

Comparison

Reports differences between administration data in two Teamcenter environments.

Import (dry run)

Reports changes in administration data that will occur due to importing an administration data package to the current Teamcenter environment. Use a dry run import report to assess the effects of importing administration data without changing the existing data.

Import (history)

Reports the administration data that was impacted by an import to the current Teamcenter environment at a particular point in time. A separate report is generated for each import. The report file contains the site name and a timestamp. You can use these reports to determine exactly what and when changes occurred that may be affecting behavior in the environment.

Administration Data Documentation report

You can use interactive Administration Data Documentation reports to:

- Troubleshoot issues with configuration.
- Periodically review a production environment to ensure it complies with business objectives.

- Capture a snapshot of the configuration at a point in time for archiving or audit reviews.
- Train administrators.

Generate an Administration Data Report

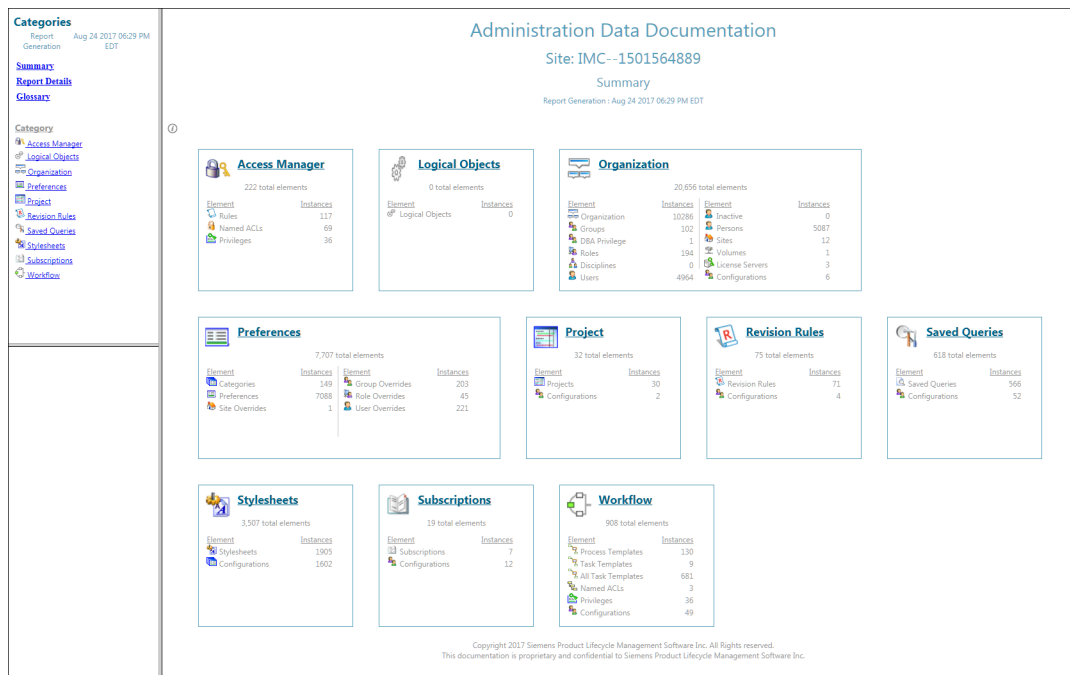
Use the `generate_admin_data_report` utility to generate a report of site administration data.

- You can run the report for the current site or for an exported administration data package.
- You can report all Administration Data categories or only selected categories.

View an Administration Data Report

To view a generated report, browse to the output location and open the *index.html* file.

The following image shows the summary page of an example report. In an actual report, you can click links to navigate through the report to find summaries and details of administration data.



Administration Data Comparison report

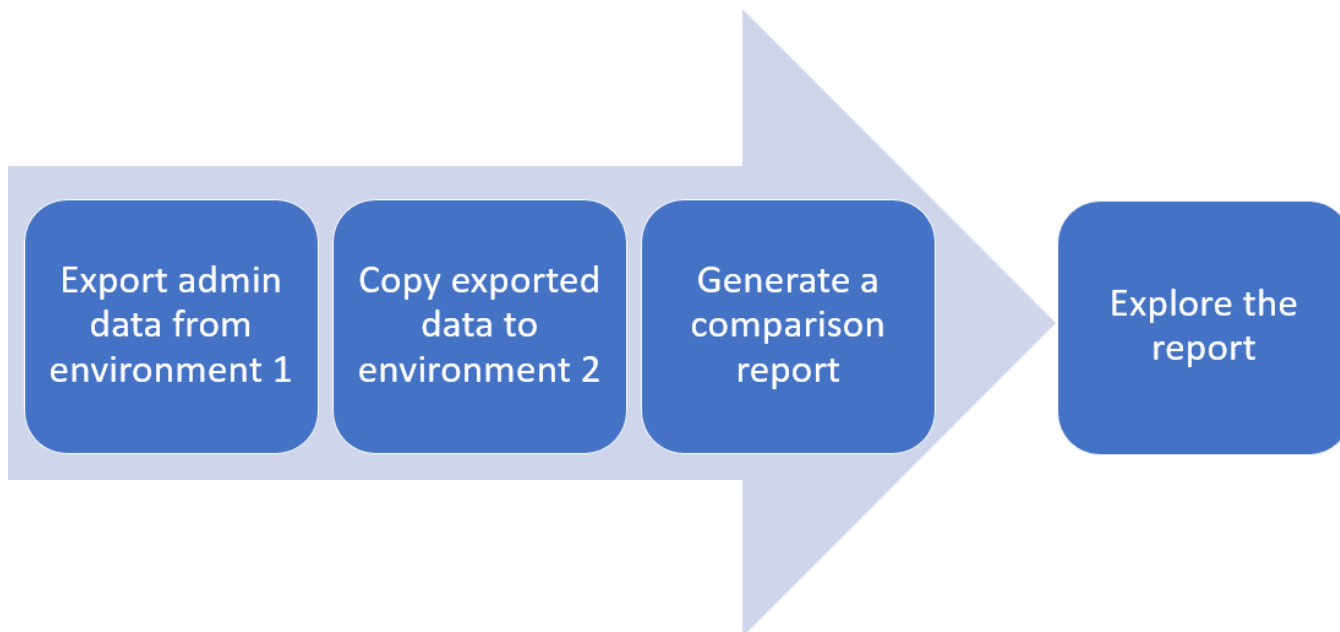
You can use Administration Data Comparison reports to:

- Troubleshoot differences in business logic behavior by reviewing configuration differences between two environments.
- Determine whether a new environment is configured the same as a reference environment.
- Prepare for site consolidation by comparing environments to see what is common and what is different.

- Identify differences between a customer environment and an out-of-the-box Teamcenter environment.
- Compare a baseline export of an environment to a later export of the same environment.

Generate an Administration Data Comparison report

To make the comparison, the utility requires an administration data export package from one environment as a source, and either the local environment or another administration data export package as a target. The report highlights differences between the source data and the target data.



If an object is referenced by other objects, the report includes a where-used table that indicates the categories and objects that have references to a selected object in both source and target environments.

The report summary page shows all the administration data types included in the comparison and the number of differences for each element present within the category. The report includes a glossary of administration data categories and the elements available in each of the categories.

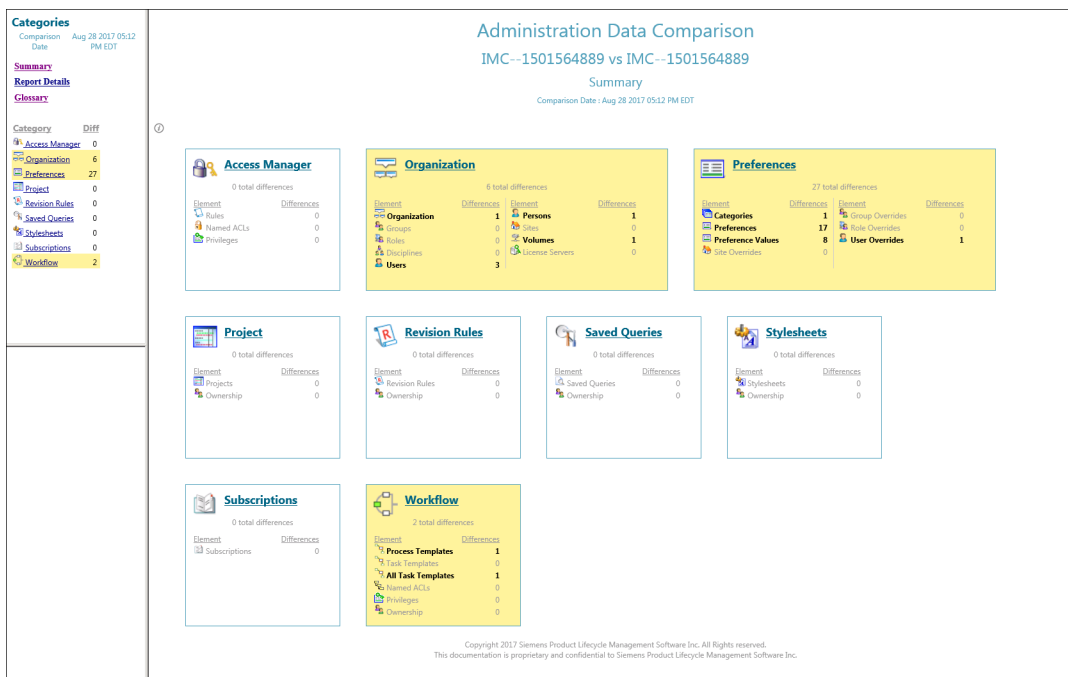
Use the **generate_admin_data_compare_report** utility to generate a report comparing a source environment administration data export package file to either:

- The current environment
- Another administration data export package file.

View an Administration Data Comparison report

To view a generated report, browse to the output location and open the *index.html* file.

The following image shows the summary page of an example comparison report. Differences are highlighted in yellow. In a real report, you can click links to navigate through the report to find summaries and details of administration data.



Example:

As you navigate to details of the report, you can easily identify even very small differences.

Permission difference in Access Manager.

ACE = World		
Accessor Type	World	World
Accessor		
READ	✓ Grant	✓ Grant
WRITE	✓ Grant	✓ Grant
DELETE	✗ Revoke	✓ Grant
CHANGE	✗ Revoke	✗ Revoke

Label difference in a Style Sheet.

14	<rendering>	14	<rendering>
15	<views>properties</views>	15	<views>properties</views>
16		16	
17	<page title="Item Information" titleKey="ItemInformation">	17	<page title="Item Information" titleKey="ItemInformation">
18	<view name="properties">	18	<view name="properties">
19	<label text="This is Item Create" />	19	<label text="This is Item Creation" />
20	<property name="item_id" />	20	<property name="item_id" />
21	<property name="revision:item_revision_id" />	21	<property name="revision:item_revision_id" />
22	<property name="object_name" />	22	<property name="object_name" />
23	<property name="object_desc" />	23	<property name="object_desc" />

Administration Data Import (dry run) report

You can perform a dry run import to a target site in order to generate a report of the potential impact before performing the actual import.

Generate an Administration Data Import (dry run) report

Perform a dry run import using either

- The **admin_data_import utility with the -dryrun argument**
- Or the **Dry run import option in Teamcenter Environment Manager (TEM).**

View an Administration Data Import (dry run) report

To view a dry run report, after the run completes, browse to the following location:

```
TC_ROOT\logs\admin_data_import_history\Import_date-and-time\index.html
```

The following image shows the summary page of an example partial administration data import dry run report. In a real report, you can click links to navigate through the report to find summaries and details of administration data.

Import History

No	Imported Date	Impacts
1	Aug 29 2017 05:50 PM EDT from IMC--1501564889	7

Categories

Import Date: Aug 29 2017 05:50 PM EDT

[Summary](#)
[Report Details](#)
[Glossary](#)

Category	Impacts
Organization	7

Administration Data Import

IMC--1501564889 import into IMC--1501564889

Dry Run Summary

Import Date : Aug 29 2017 05:50 PM EDT

Impacts Outstanding

Organization

Merge Option: Override With Source
7 total Impacts

Element	Impacts	Element	Impacts
Organization	4	Persons	1
Groups	0	Sites	0
Roles	0	Volumes	0
Disciplines	0	License Servers	0
Users	2		

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Administration Data Import (history) report

You can use the interactive Administration Data Import (history) report for a site to:

- Track impacts of importing administration data.
- Determine when a particular change was introduced to a site.

Generate an Administration Data Import (history) report

An Administration Data Import (history) report is automatically generated after each successful import of administration data. Imports can be performed using the **admin_data_import** command line utility or Teamcenter Environment Manager (TEM).

View an Administration Data Import (history) report

To view an Administration Data Import (history) report, browse to:

```
TC_ROOT\logs\admin_data_import_history\index.html
```

The following image shows the summary page for an import report selected from the three available historic reports. For this import, the only imported administration data category was **Organization**. Impacts are highlighted in blue. In a real report, you can click links to navigate through the report to find summaries and details of administration data.

Import History

No Imported	Imports
Date	Date
1	Aug 29 2017 05:50 PM EDT
2	Aug 30 2017 03:15 PM EDT
3	Aug 30 2017 06:15 PM EDT

Categories

Import Date: Aug 30 2017 03:15 PM EDT

[Summary](#)
[Report Details](#)
[Glossary](#)

Category

Impa

Organization

Administration Data Import

IMC--1501564889 import into IMC--1501564889

Summary

Import Date : Aug 30 2017 03:15 PM EDT

Impacts

Outstanding

Organization

Merge Option: Override With Source
7 total Impacts

Element	Impacts	Element	Impacts
Organization	4	Persons	1
Groups	0	Sites	0
Roles	0	Volumes	0
Disciplines	0	License Servers	0
Users	2		

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