



HaloCAD

HaloCAD for Teamcenter

Operations Manual

Version 2.7

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Typographic Conventions

This guide uses the following typographic conventions to distinguish types of in-text information and icons to alert you to important information.

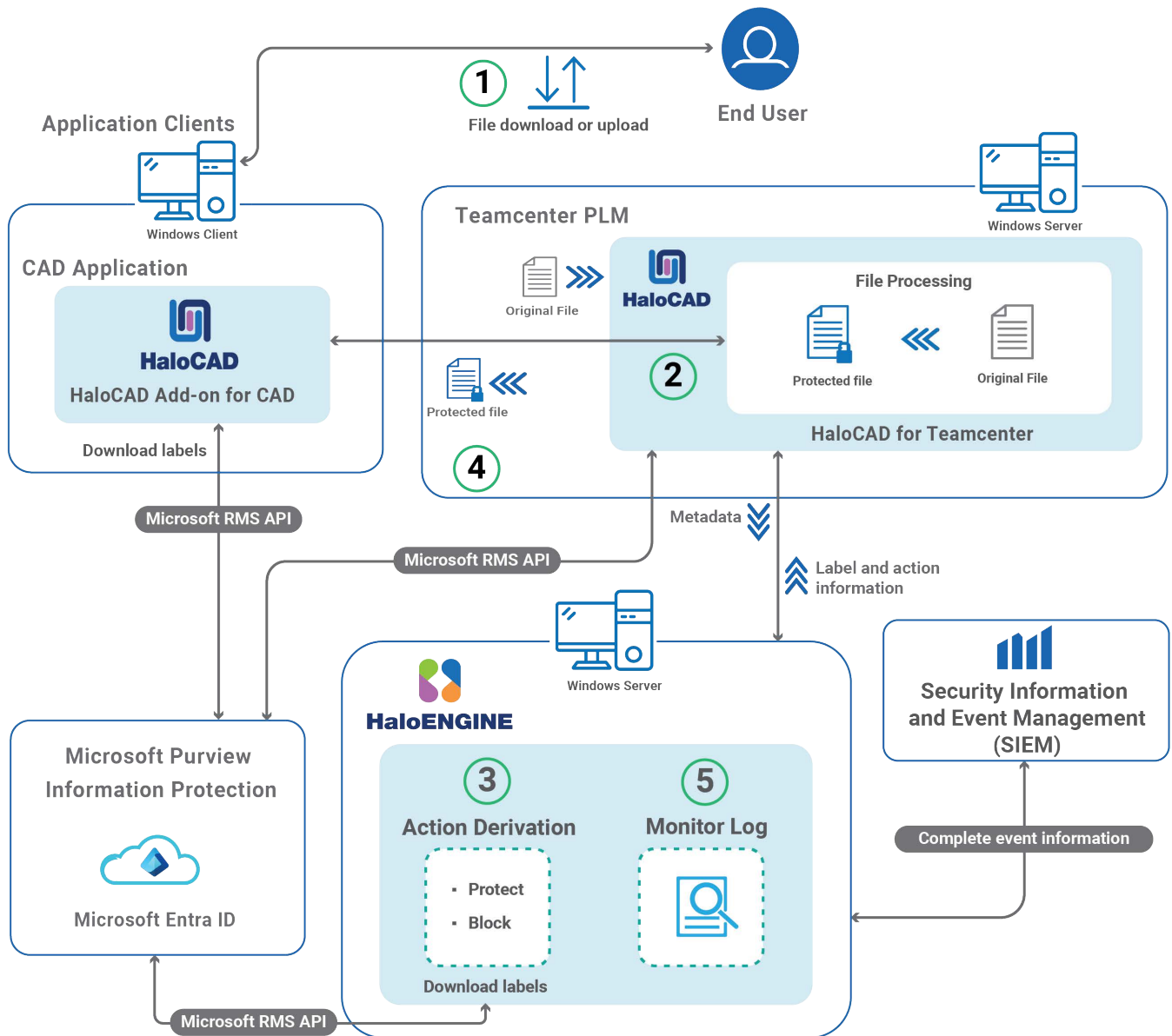
| Convention | Description |
|----------------------|---|
| Boldface type | <ul style="list-style-type: none">• Items you must select, such as menu options, command buttons, or items in a list.• Titles of sections, sub-sections, etc. |
| <i>Italic type</i> | <ul style="list-style-type: none">• To emphasize a word• Error messages• Table and Figure captions |
| Consolas Font | <ul style="list-style-type: none">• Package names• Filenames and directory names• XML element names and attribute names• Parameters• File type• Code examples <p>Example:</p> <pre>hesadm.exe start -user <domain\user> -pwd <password></pre> |
| Hyperlink | Provides quick and easy access to cross-referenced topics. Hyperlinks are highlighted in blue and underlined. |
| Admonitions | <div data-bbox="416 1171 1394 1279" style="border: 1px solid yellow; padding: 5px;"><p>Note Provides additional information relevant to the topic.</p></div> <div data-bbox="416 1335 1394 1518" style="border: 1px solid red; padding: 5px;"><p>Warning Contains information about circumstances, parameters, and so on that MUST be fulfilled. Failure to comply will have consequences for the current operation.</p></div> <div data-bbox="416 1574 1394 1682" style="border: 1px solid green; padding: 5px;"><p>Tip Contains useful information about the operation of the application.</p></div> <div data-bbox="416 1738 1394 1883" style="border: 1px solid blue; padding: 5px;"><p>Info Contains information, guidelines, or suggestions for performing tasks more effectively.</p></div> |

1. About this Manual

This manual provides comprehensive guidelines and step-by-step instructions for working with HaloCAD solutions (Monitor and Protect). For installation and configuration instructions, please refer to the "Installation Manual" shipped with the product package.

2. How does it work?

At a high level, the HaloCAD for Teamcenter workflow comprises the following steps:



HaloCAD for Teamcenter

Step 1: File Check-out/Check-in

1. A user creates a new CAD/Office document or opens an existing workspace object from an AWC browser session or a Rich Application Client session.
2. The user performs a check-out (download) or check-in (upload) action.

Step 2: Metadata and Label Segregation

1. HaloCAD for Teamcenter fetches the user-selected file and collects its metadata.

2. The metadata is sent to the HaloENGINE, where the appropriate action and label information are derived and provided back to HaloCAD for Teamcenter.

Step 3: Encryption / Decryption

1. HaloCAD for Teamcenter executes actions based on the derived action and label information:
 - If no valid action is available, the file is downloaded without modification.
 - During check-in, if a valid action with a label is found, HaloCAD for Teamcenter removes the label and stores the decrypted file in Teamcenter PLM.
 - During check-out, if a valid action with a label is found, HaloCAD for Teamcenter applies the label.
2. If a block action rule is configured in the HaloENGINE, HaloCAD for Teamcenter prevents the file download.

Step 4: Processed File Delivery

The file, now encrypted with the derived label, is returned to the user.

Step 5: Monitoring and Audit Log

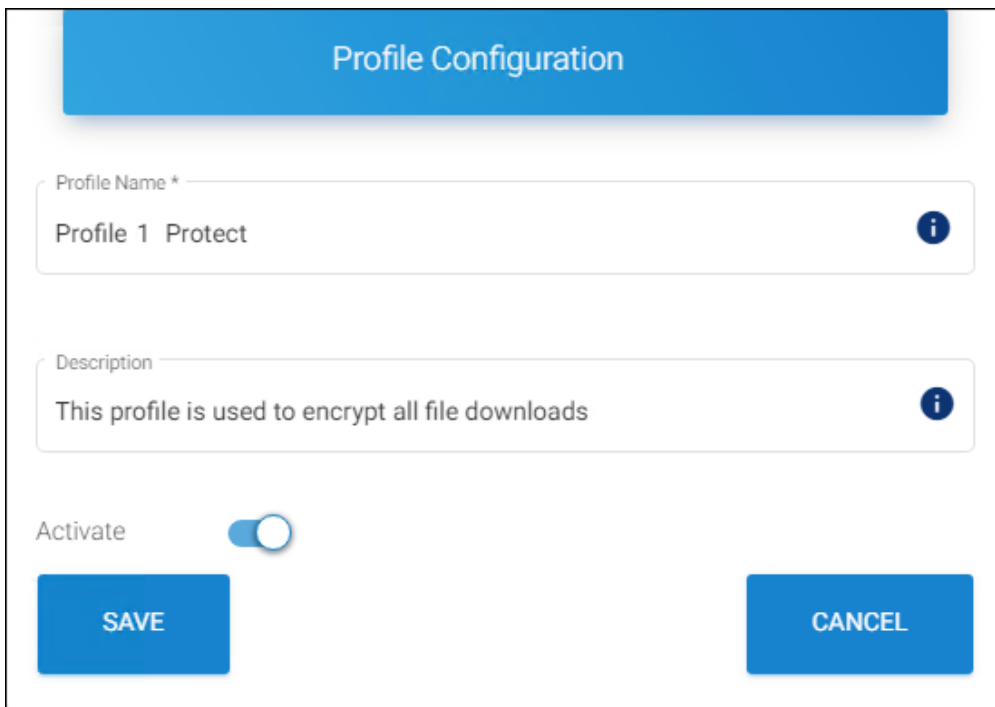
HaloCAD for Teamcenter captures the event details and forwards them to the HaloENGINE monitor log for auditing.

3. How to Protect a CAD File?

This section describes how to protect NX, Creo, and office files via PLM. Note: We recommend referring to the "Operations Manual of HaloCAD Add-on for NX and Creo" to know more about standalone HaloCAD protection scenarios.

3.1. Fulfill the Requirements

1. HaloCAD for Teamcenter needs to be installed and set up.
2. HaloENGINE must be installed and configured.
3. The Classification Engine must be configured. For illustration purposes, a simple classification profile is explained here.
 - a. Step 1: Enter a name for the profile.



The screenshot shows a 'Profile Configuration' dialog box. It has a blue header with the text 'Profile Configuration'. Below the header, there are two text input fields. The first is labeled 'Profile Name *' and contains the text 'Profile 1 Protect'. The second is labeled 'Description' and contains the text 'This profile is used to encrypt all file downloads'. Both input fields have a small blue circle with a white 'i' icon on the right side. Below the input fields, there is a label 'Activate' followed by a toggle switch that is currently turned on. At the bottom of the dialog, there are two blue buttons: 'SAVE' on the left and 'CANCEL' on the right.

Sample profile

- b. Step 2: Configure classification properties and their values.

Classification Schema Configuration

Property Name *
Sensitivity i

Property Value i +

Enable tree structure

| | |
|--------------|--|
| Secret | |
| Confidential | |
| Internal | |

Default Property Value *
Secret ▼

Deactivate Property

SAVE **CLOSE**

Classification properties

- c. Step 3: Create classification rules based on metadata types. Note: If you want to use your metadata, specify it on the Custom Metadata page of the HaloENGINE admin portal. Please refer to the Custom Metadata section of the HaloENGINE Installation and Configuration manual.

Download Classification Rules

Note: Any change in the Download Classification Rules requires "RELOAD CONFIGURATION".

Property List:
Choose a property

Overview:
Priority of rules is from top to bottom

Sensitivity
Countries
Departments

Sensitivity.Confidential
TEAMCENTER.user_name == John

Rules

- d. Step 4: Create an action rule to label and block.

ACTION RULE OVERVIEW

Applied Actions : LABEL System Type : TEAMCENTER Label Name : HCAD Confidential

Constructed Rule :

| PROPERTY | CONDITION | VALUE |
|-------------|-----------|--------------|
| Sensitivity | Equal | Confidential |

CLOSE

Action rule for labeling

Secude

ACTION RULE OVERVIEW

Applied Actions : BLOCK System Type : TEAMCENTER

Constructed Rule :

| PROPERTY | CONDITION | VALUE |
|-------------|-----------|--------|
| Sensitivity | Equal | Secret |

CLOSE

Action rule for blocking

- e. Step 5: Assign Systems to the profile.

TEAMCENTER-SYSTEM ID +

Note: Any change in this page requires "RELOAD CONFIGURATION".

TEAMCENTER01 [Icons: Document, Edit, Delete]

System Details

System Unique ID : TEAMCENTER01
Description : Teamcenter PLM server

CLOSE

Assign Systems

- 4. HaloCAD add-on must be installed.

3.2. Protecting a NX File

Follow the instructions below to download CAD files via PLM:

1. Download a NX/MS Office file via the following options:
 - a. Open an AWC browser session > select a file (assembly/part) via **Open in NX** option.
 - b. A file named `openinnx.nxtcxm1` will be downloaded.
 - c. Open the file to see the actual permissions that are applied to the file.
2. Open an AWC browser session > select an office file:
 - a. Click **Open in Office**, file with an extension `.awoa1` will get downloaded.
 - b. Click **Download File**, word file will get downloaded.
 - c. Open the downloaded file and click **View Permission** to see the actual permissions that are applied to the file.
3. Open a **Rich Application Client** session, download a NX/Office file via **Named References**, and click **Download**.

Results:

- a. The downloaded file is labeled as defined in HaloENGINE.
- b. The encryption settings from the label are enforced and remain with the file wherever it is stored.

What to do next:

- a. If you are an authorized user, you can modify the label and save the file.
- b. If you wish to view the audit log, you can view the export event in the HaloENGINE monitor log.

Blocking a file download

Download a file using an AWC browser session or through other methods.

Results:

1. The action rule for block configured in HaloENGINE prevents file download. As a result, no file download occurs.
2. Refer to the monitor log for further information.

3.3. Protecting a Creo File

Prerequisites:

1. Need to install a plugin (Teamcenter Integration for Creo.bat) to integrate with Teamcenter PLM.
2. As a best practice, remove the files that are about to be uploaded/downloaded that are already present in the default directory and cache directory, if available in:
 - a. C:\Users<username>\Siemens\creocache\Default Workspace
 - b. C:\Users<username>\FCCCache<username>

Follow the instructions below to download CAD files via PLM:

1. Double-click the **Teamcenter Integration for Creo** icon on the desktop.
2. Go to **Teamcenter** tab, click **Open** > login to **Teamcenter** > and select a Creo file on **Teamcenter Open (infodba (infodba) - dba/DBA [IMC]** screen and click **Open**.
3. Again, select the file in **Teamcenter Open Infodba Dependencies (infodba (infodba) - dba/DBA [IMC]** screen, and click **Open**.

Results:

- a. The protected file is downloaded as defined in the HaloENGINE. The encryption settings from the label are enforced and remain with the file wherever it is stored.
- b. The export event is logged in the HaloENGINE audit log.

4. Common Scenarios

This section presents some common scenarios for illustrative purposes and is meant to provide general guidelines.

4.1. How to Open a Protected CAD File?

Prerequisite: Before opening the protected file, make sure the HaloCAD Add-on for NX is installed.

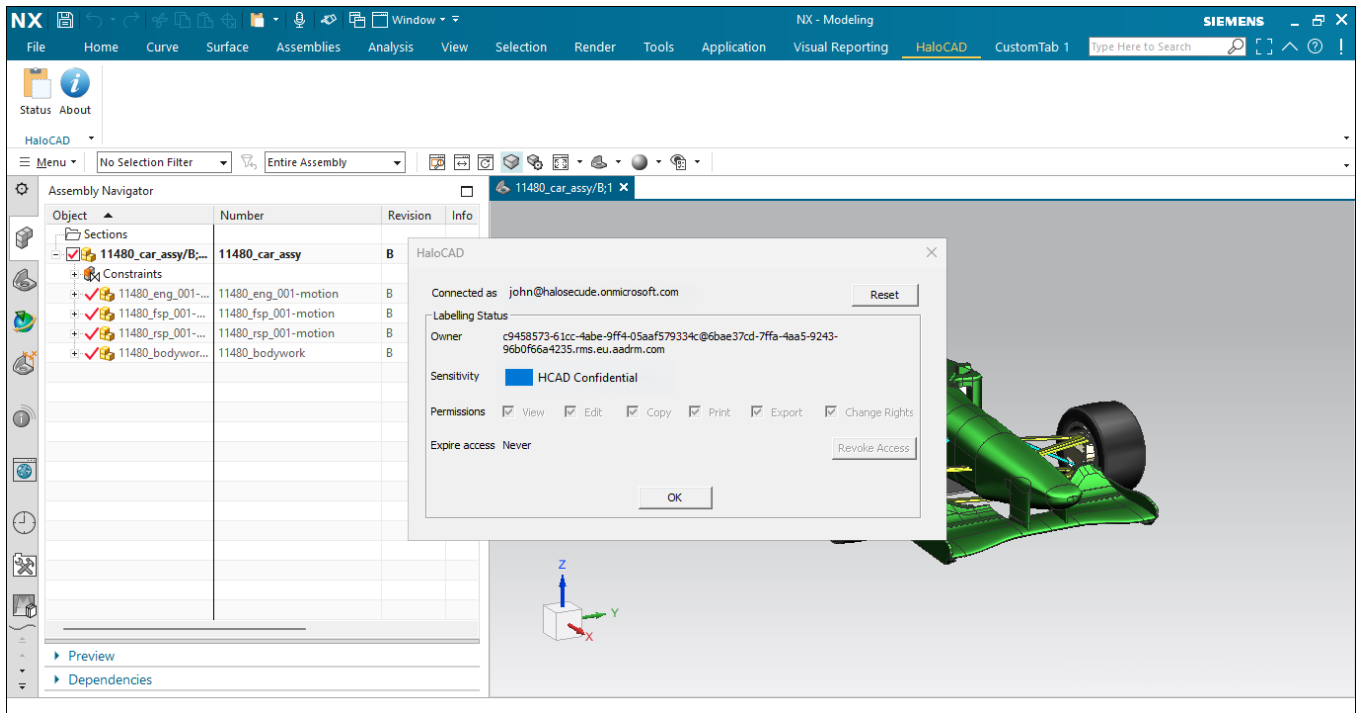
1. Click on the protected file.
2. The first time when you try to open a labeled file, HaloCAD will prompt you about the Microsoft Sign-In Assistant.
3. Click **OK** when prompted, "*Microsoft Sign-In Assistant will be invoked and the user credentials will be cached.*"
4. Follow the on-screen prompts to complete the authentication process.

Results:

- a. On successful confirmation, the file will open.
- b. Users could experience different access results for the same document based on the policy settings. For more details, refer to the "Operations Manual of HaloCAD Add-on for NX".

4.2. Example 1 (NX): Application ID as the Owner of the File

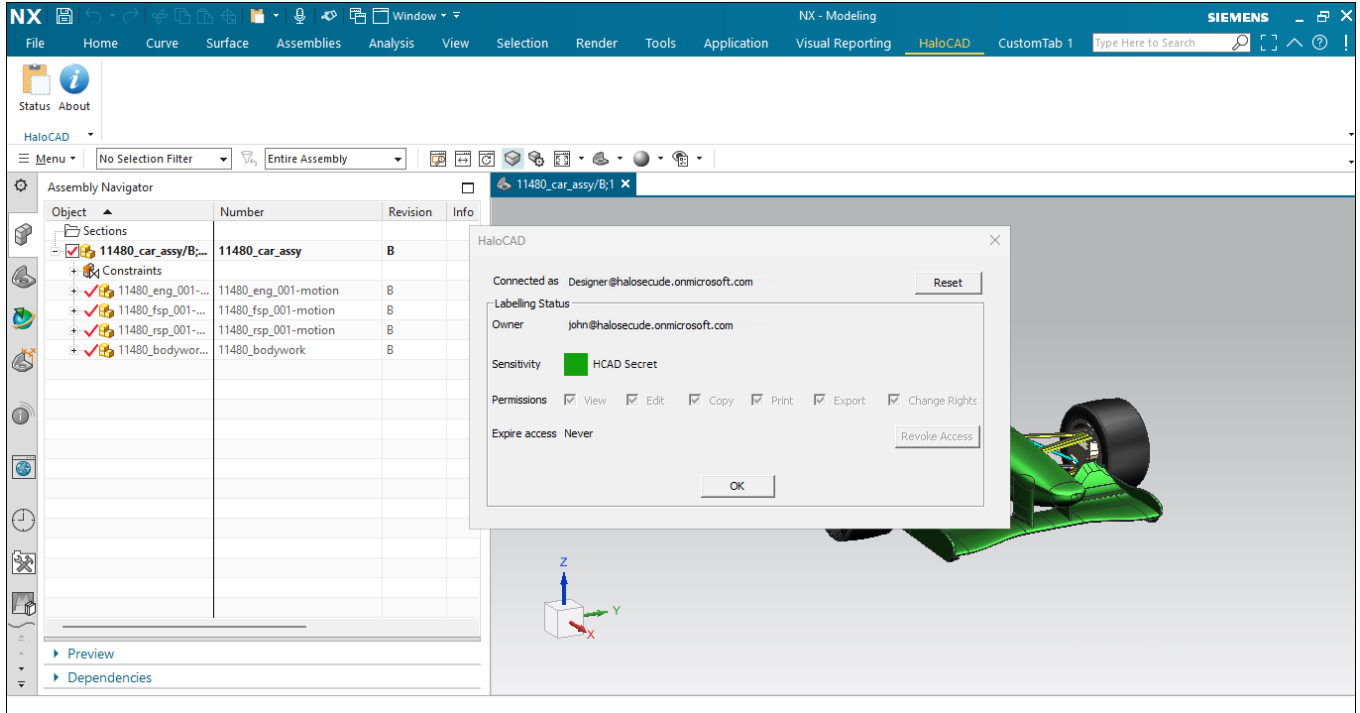
The following figure shows an example of an Application ID that is used to initialize HaloENGINE. This Application ID will be the owner of the document by default, however, a static email or login user can also be an owner of the downloaded file if specified in HaloENGINE. Please refer to sections Example 2 and Example 3.



Application ID as the Owner of the File

4.3. Example 2 (NX): Static Email as the Owner of the File

The following figure shows an example of an email address configured in the HaloENGINE. This email address will be the owner of the exported document.



Static Email as the Owner of the File

4.4. Example 3 (NX): Teamcenter Logged-in User as the Owner of the File

The following figure shows an example of a PLM logged-in user who has become the owner of the document. To achieve this, the Owner configuration must be set to "user" on the HaloENGINE Admin portal. The exported document will have the email address of the currently logged-in user as its owner.

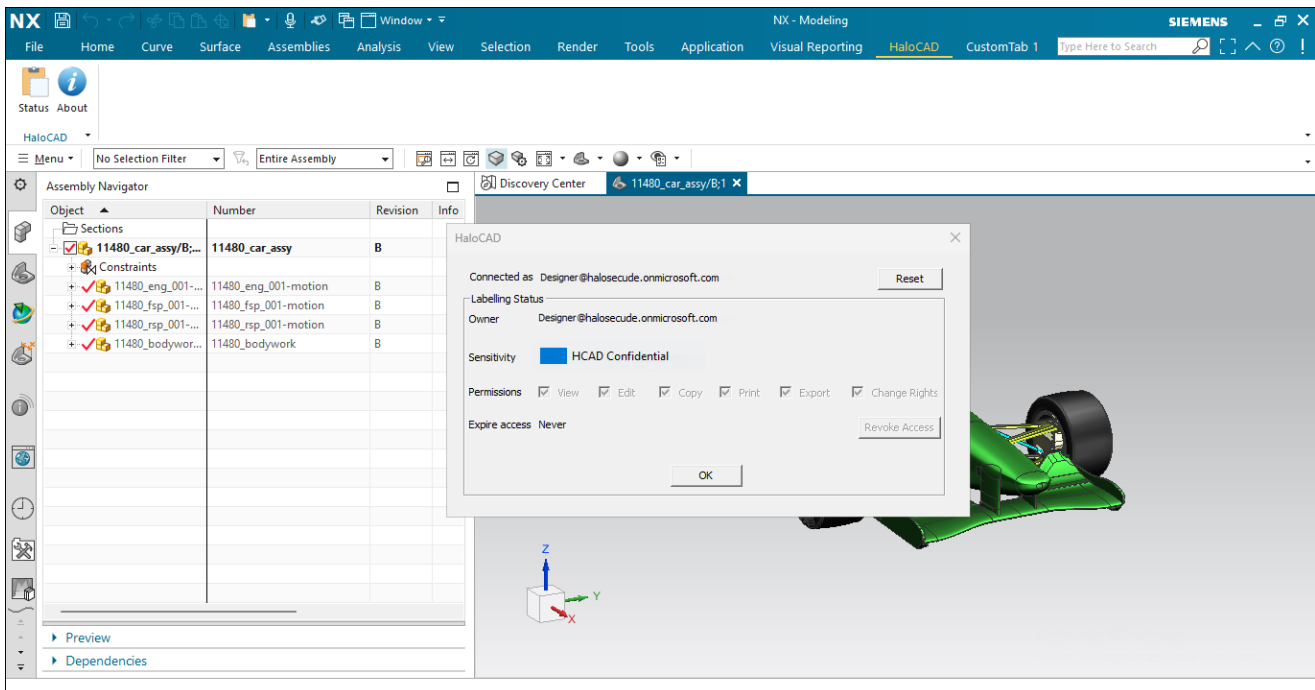
1. Step 1: Teamcenter PLM

- Login to your Teamcenter as a **dba** user.
- Open the **Organization** application, click on **Persons**, and from the list select a user to modify and update the details, like email ID. For example, Designer@halosecude.onmicrosoft.com.
- Once the mail ID is updated, click on **Modify** button to save it.

2. Step 2: HaloENGINE Admin Portal

- Login to the admin portal.
- Navigate to **Download Rules > Action Rules > Owner Configuration**, select the **User** option, and save the configuration.

3. Step 3: Download a file from Teamcenter.



Teamcenter logged-in user's email the Owner of the File

Result: The logged-in user is the document's owner.

4.5. Example 4: File Upload and Download

4.5.1. File Upload and Download of an Office File

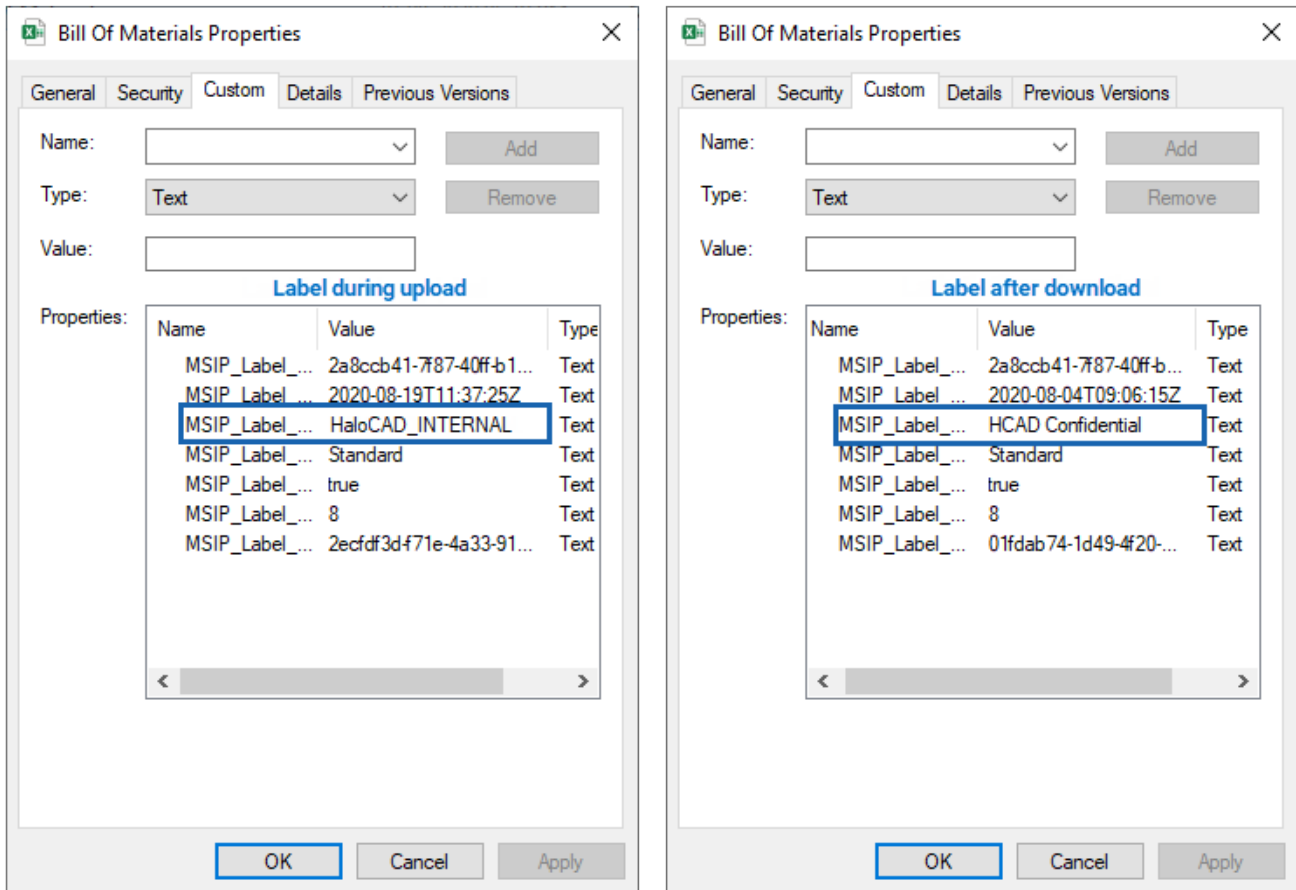
1. The following is an example of an upload and download sequence in Teamcenter PLM integrated with HaloCAD. Note: Non-office files are also supported (e.g., .txt and .PDF). For illustration purposes, an Excel file is used here.
2. Login to the Rich Client session.
3. Go to the **Home** directory.
4. Create a new item (via **Home** directory > **File** > **New** > select **item** in **Business Object Type** > enter a name > click **Next** and **Finish**).
5. Select a revision, go to **File** > **New** > **Dataset**.
6. On the **New Dataset** dialog, select **MS ExcelX** > **Import** > select a non-office file. [Please note, in this example, the file (Bill Of Materials.xlsx) that is going to be uploaded is already protected with the **HaloCAD_INTERNAL** label].
7. Click **Apply**.

Results:

- a. The file is uploaded to Teamcenter.
 - b. During the upload/check-in sequence, the original label **HaloCAD_INTERNAL** is removed, and the decrypted file is stored (checked-in) in Teamcenter PLM.
 - c. The upload/checked-in event is logged in the HaloENGINE.
8. **Check-out sequence:** Right-click the previously uploaded item, choose **Named References**, and then click **Download**.

Results:

- a. The file is downloaded to the default location.
 - b. During the download/check-out sequence, the file is exported from Teamcenter with a new label **HCAD Confidential** which is defined in the Classification Engine.
 - c. The download/check-out event is logged in the HaloENGINE.
9. The following figure shows the difference between the uploaded file into Teamcenter and the downloaded file from Teamcenter.



File upload and download Sequence #1

4.5.2. File Upload and Download of a Creo File

Check-in sequence:

1. Open the Creo application, create a new document, or open an existing document.
2. Select a sensitivity label and click **Save**. (For example, select the least restrictive template, such as **Public** or **General**).
3. Move this file to the **Default Workspace** directory.
4. Now, double-click the Teamcenter Integration for Creo icon on the desktop.
5. Go to Teamcenter tab, click **Save** > login to Teamcenter > and select a Creo file on **Teamcenter Save** (infodba (infodba) - dba/DBA [IMC] screen and click **Save**.
6. Again, select the file in **Teamcenter Save Infodba Dependencies** (infodba (infodba) - dba/DBA [IMC] screen and click **Save**.

Results:

- a. During the upload/check-in sequence, the original label is removed, and the decrypted file is imported to Teamcenter PLM.
- b. The upload/checked-in event is logged in the HaloENGINE.

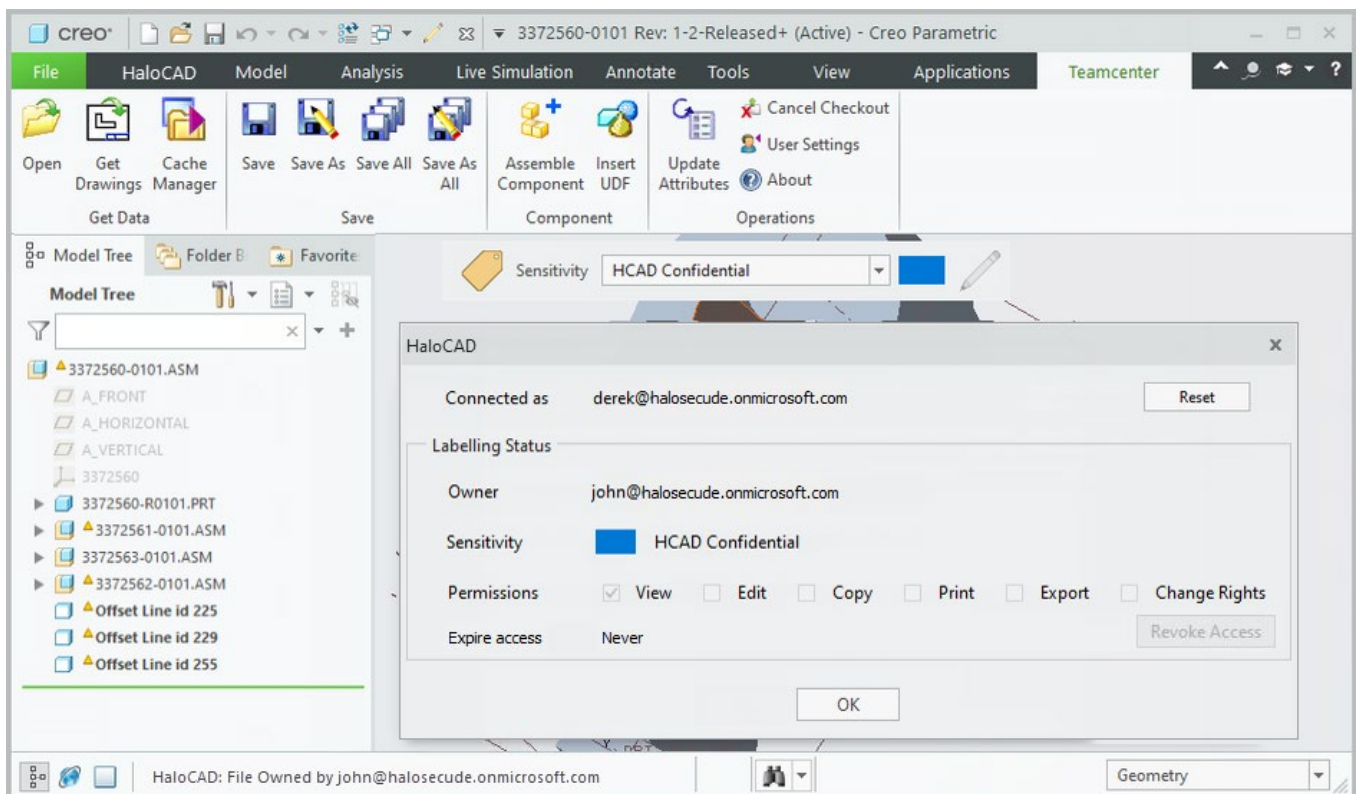
Check-out sequence:

Remove the files related to the previously uploaded file that is present in the Default Workspace directory, if available.

1. Login to Teamcenter, if you have not already done so.
2. Go to the Teamcenter tab, click **Open** > login to Teamcenter > and select the same file that is uploaded in the previous section on **Teamcenter Open** [infodba (infodba) - dba/DBA [IMC] screen and click **Open**.
3. Again, select the file in Teamcenter **Open Infodba Dependencies** (infodba (infodba) - dba/DBA [IMC] screen, and click **Open**.

Results:

- a. During the download/check-out sequence, the file is exported from Teamcenter with a new label that is defined in the Classification Engine.
- b. The download/check-out event is logged in the HaloENGINE.



File upload and download Sequence #2

5. Customer Support

Please be ready with the information listed below before contacting our team to help you with the issue you are experiencing. The data that you provide will help us serve you better.

1. Full contact details.
2. HaloCAD component and HaloENGINE build version.
3. Date, time, and description of the error (if possible, provide screenshots).
4. What (if any) third-party products (software or other) were used in conjunction with our product?
5. Any other information necessary to reproduce the error.

Secude offers help and support through

1. Technical support email: support@secude.com

If you choose to contact us by email, please provide your company details and a detailed description of the issue, as well as the log file (if any). Our representative will respond to your email inquiry.

2. Phone support: Call +41 41 510 70 70 to talk to our representative to diagnose and resolve the technical problem.

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2. Documentation topic
3. Details of the suggestion or error

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