



HaloCAD for Teamcenter 2.5  
Operations Manual

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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.

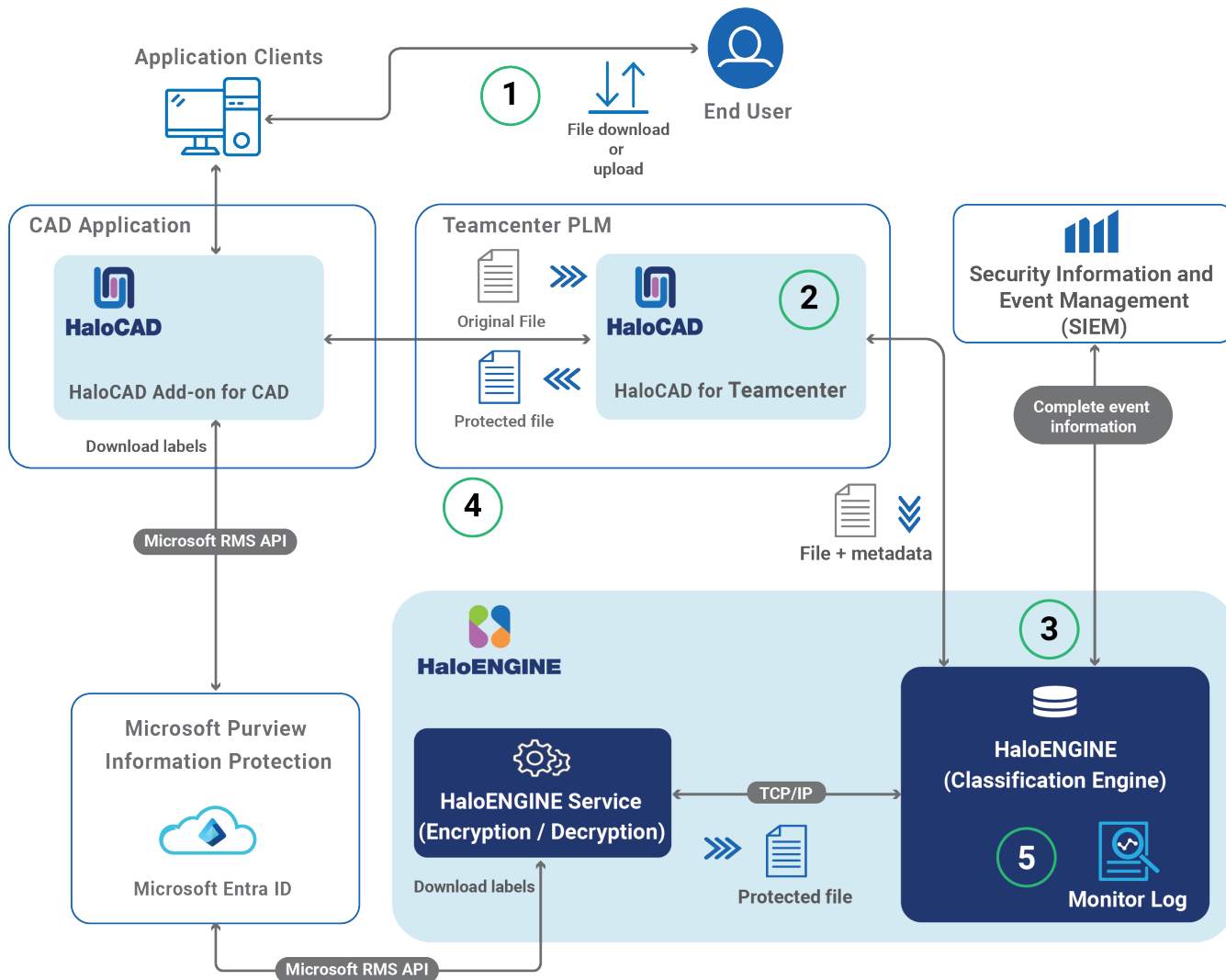
Convention	Description
<b>Boldface type</b>	<ul style="list-style-type: none"><li>• Items you must select, such as menu options, command buttons, or items in a list.</li><li>• Titles of sections, sub-sections, etc.</li></ul>
<i>Italic type</i>	<ul style="list-style-type: none"><li>• To emphasize a word</li><li>• Error messages</li><li>• Table and Figure captions</li></ul>
Consolas Font	<ul style="list-style-type: none"><li>• Package names</li><li>• Filenames and directory names</li><li>• XML element names and attribute names</li><li>• Parameters</li><li>• File type</li><li>• Code examples</li></ul> <p>Example:</p> <pre>hcsadm.exe start -user &lt;domain\user&gt; -pwd &lt;password&gt;</pre>
Hyperlink	Provides quick and easy access to cross-referenced topics. Hyperlinks are highlighted in blue and underlined.
Admonitions	<p><b>Note</b></p> <p>Contains detailed information about a topic and are of direct importance to the subject at hand.</p>
	<p><b>Warning</b></p> <p>Contains information about circumstances, parameters, and so on that <b>MUST</b> be fulfilled. Failure to comply will have consequences for the current operation.</p>
	<p><b>Tip</b></p> <p>Contains useful information about the operation of the application.</p>
	<p><b>Info</b></p> <p>Contains information, guidelines, or suggestions for performing tasks more effectively.</p>

# 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, HaloCAD workflow involves the following steps:



### HaloCAD for Teamcenter

#### 1. Step 1: File check-out/check-in

- a. 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.
- b. Applies, check-out (download), or check-in (upload).

#### 2. Step 2: File transfer through the PLM HaloCAD component

HaloCAD for Teamcenter collects the metadata and retrieves the action derivation from the HaloENGINE. File processing is based on the following parameters:

- a. If HaloENGINE Service=Local, send the file directly to the (local) HaloENGINE Service for file handling either in "File path" or "Stream".

- b. If HaloENGINE Service=Remote, the metadata and label information from the HaloENGINE is sent to the remote HaloENGINE Service for file processing.

### 3. Step 3: Encryption/decryption

According to the metadata collected, the action is executed in the file.

- a. The file will not be processed if any inappropriate action is present or no action is available. It will be downloaded without any changes.
- b. If a suitable action with a label is found, the file is sent to the HaloENGINE in local mode or to the HaloENGINE Service in remote mode to further file processing. Note: In the check-in case, the label is removed, and then the decrypted file is stored in Teamcenter PLM.
- c. HaloCAD prevents file downloads if a block action rule in HaloENGINE is properly configured.

### 4. Step 4: Processed file sent to the user

The file is encrypted with the derived label and returned to the user through HaloCAD for Teamcenter.

### 5. Step 5: Monitor log

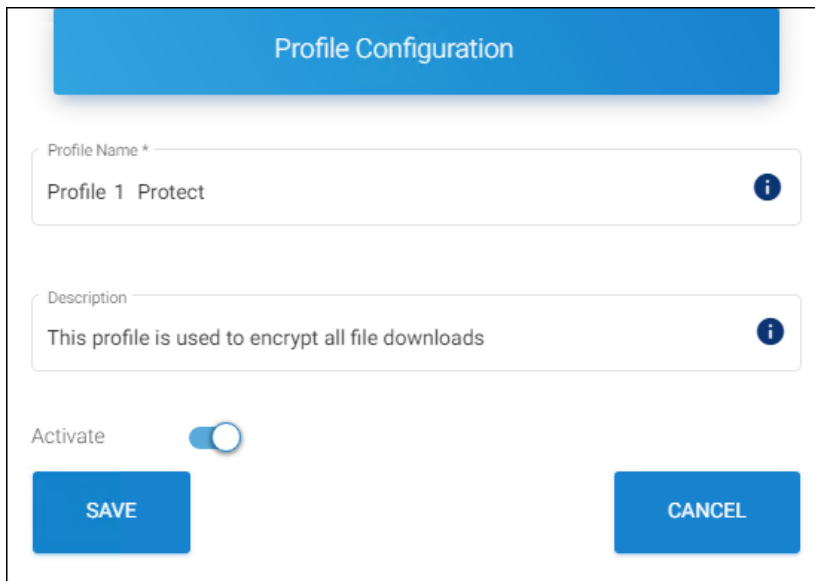
The event is captured by the HaloCAD component and forwarded to the monitor log of the HaloENGINE.

## 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 Service must be installed and configured.
3. HaloENGINE must be installed and configured.
4. 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.



Profile Configuration

Profile Name \*  
Profile 1 Protect

Description  
This profile is used to encrypt all file downloads

Activate

SAVE CANCEL

*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

**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]

**System Details**

System Unique ID : TEAMCENTER01  
Description : Teamcenter PLM server

**CLOSE**

Assign Systems

- 5. 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 `.awoai` 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 the 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>\FCCCach<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.

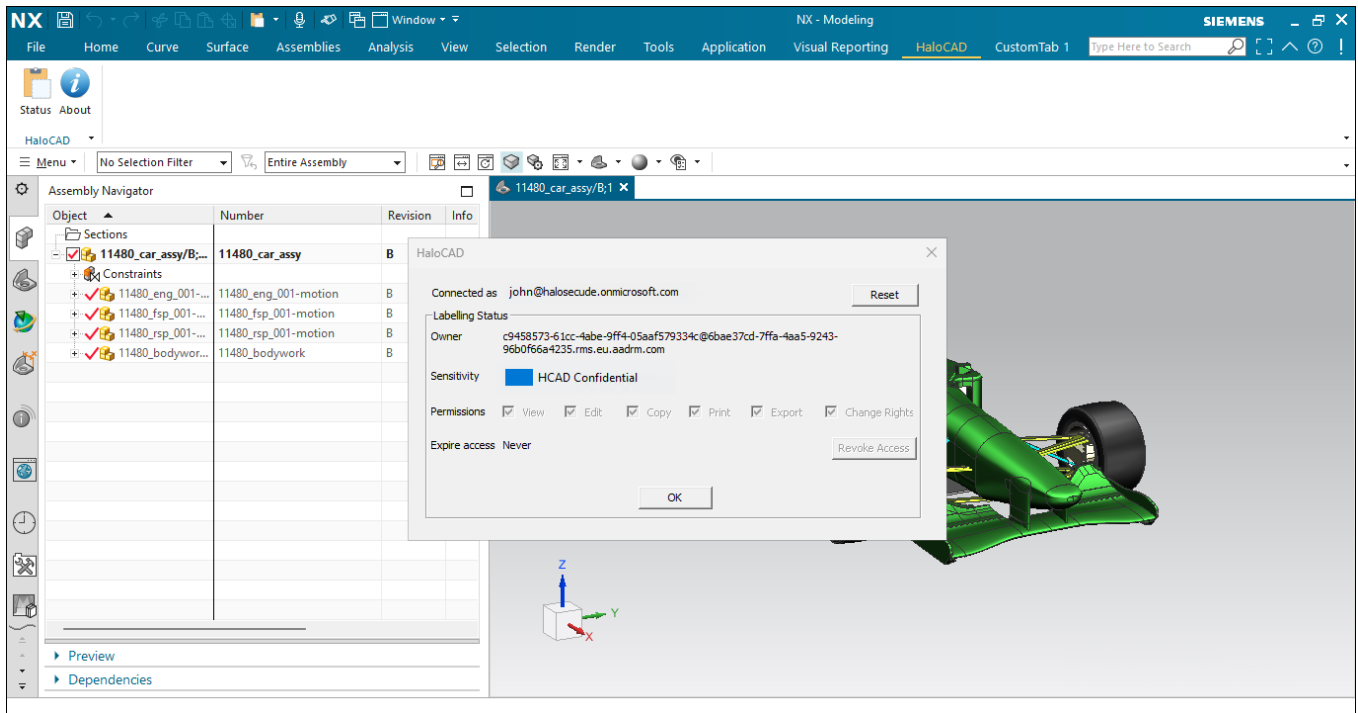
1. Click on the protected file.
2. The first time when you try to open a labeled file, HaloCAD will prompt you about the Microsoft Sign-In Assistant.
3. Click **OK** when prompted, "*Microsoft Sign-In Assistant will be invoked and the user credentials will be cached.*"
4. Follow the on-screen prompts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

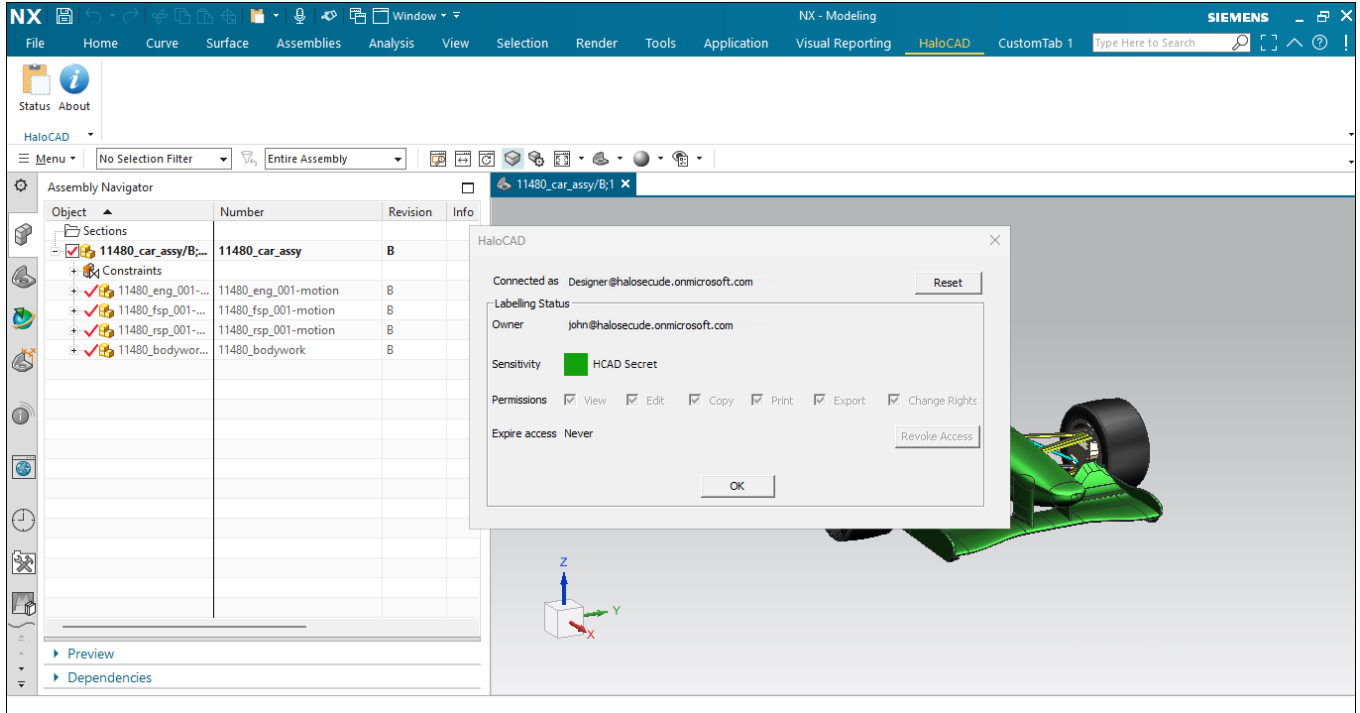
The following figure shows an example of an Application ID that is used to initialize HaloENGINE Service. This Application ID will be the owner of the document by default, however, a static email or login user can also be an owner of the downloaded file if specified in HaloENGINE. Please refer to sections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

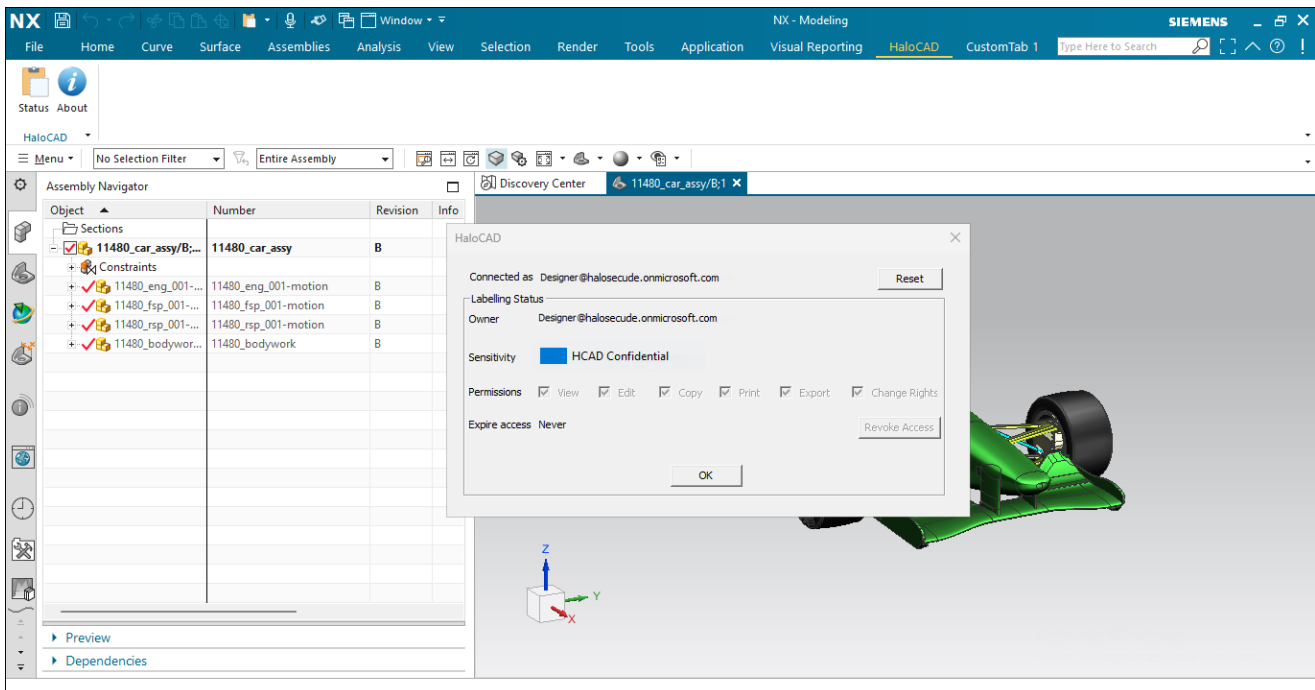
### 1. Step 1: Teamcenter PLM

- 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

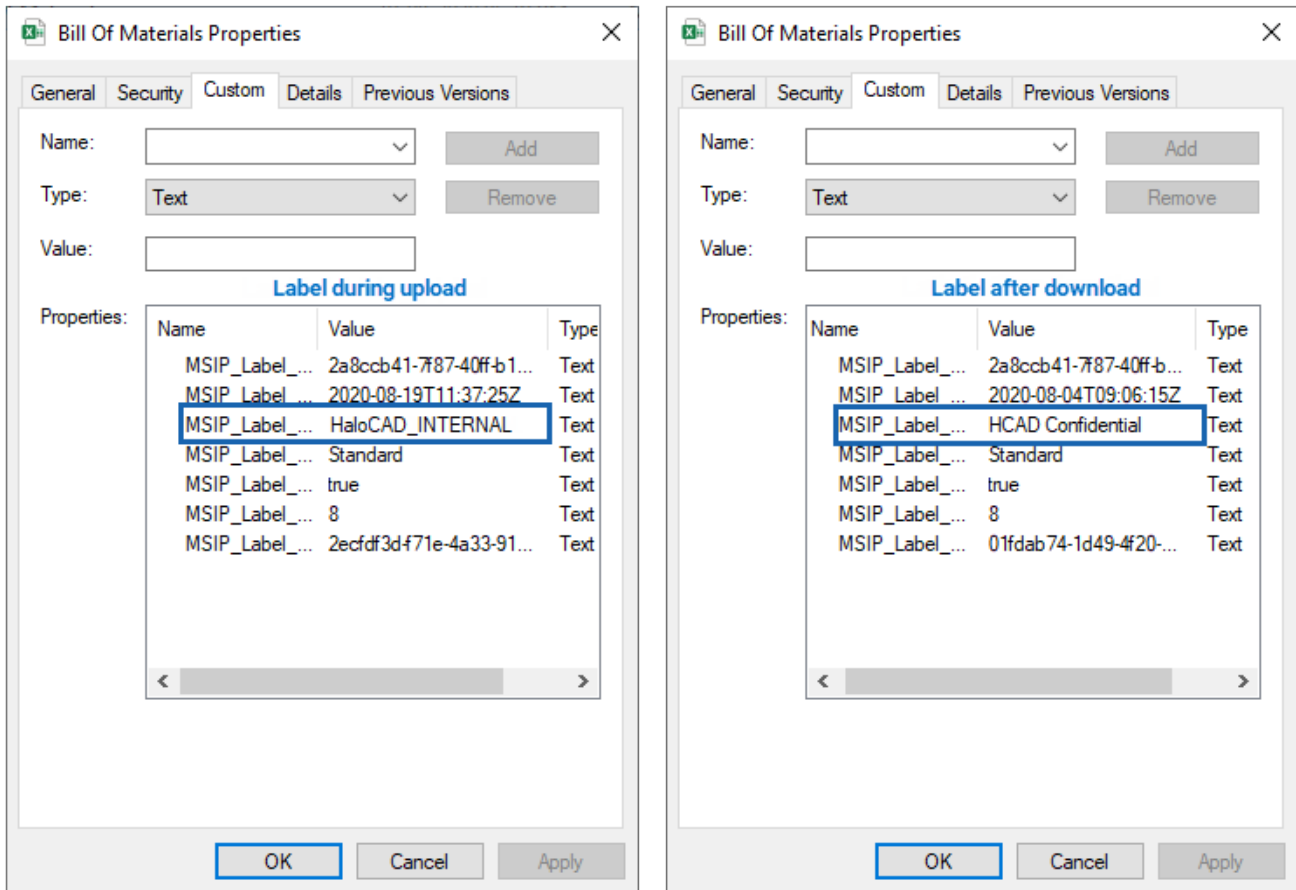
1. The following is an example of an upload and download sequence in Teamcenter PLM integrated with HaloCAD. Note: Non-office files are also supported (e.g., .txt and .PDF). For illustration purposes, an Excel file is used here.
2. Login to the Rich Client session.
3. Go to the **Home** directory.
4. 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) which 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.

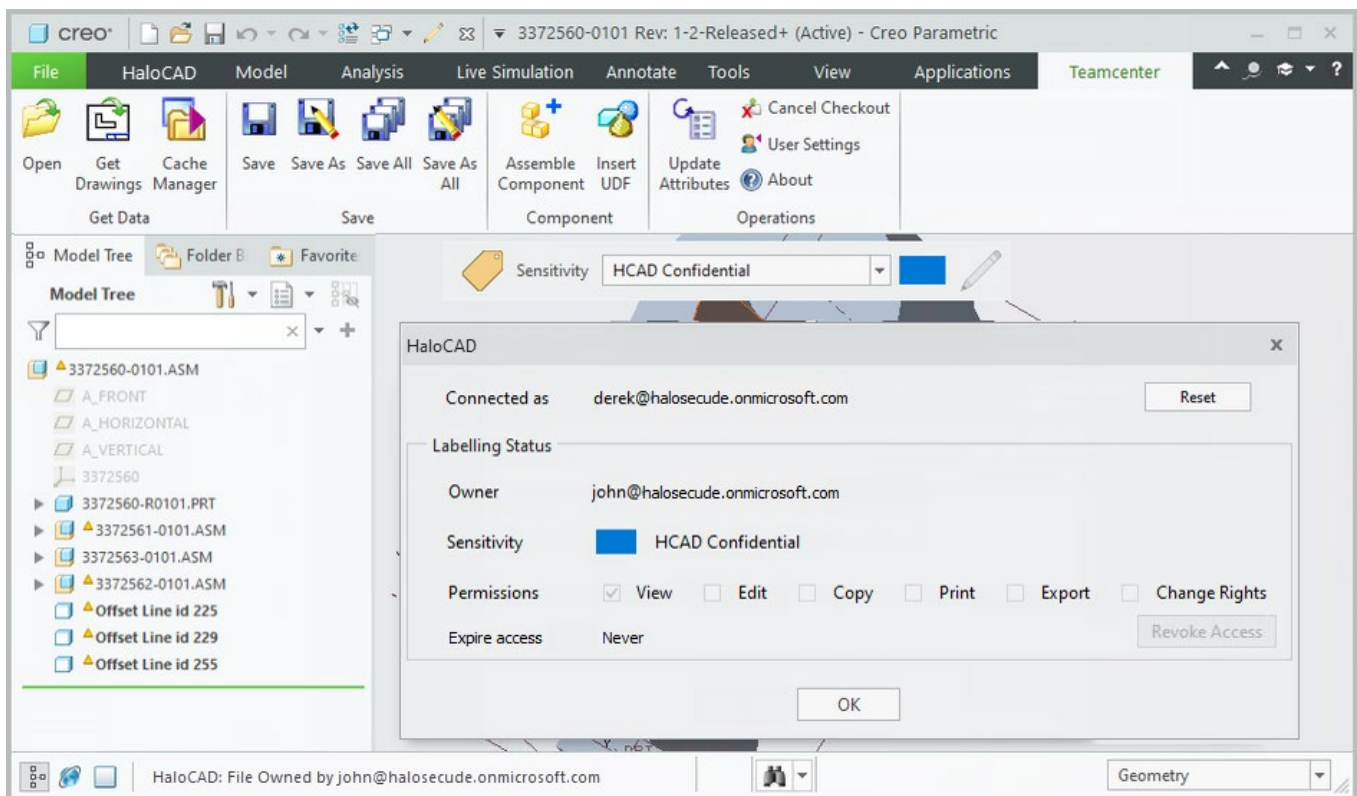
**Check-out sequence:**

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 below-listed information before contacting our team to help you with the issue you are experiencing. The data that you provide will help us to 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](mailto:support@secude.com)

If you choose the email option to contact us, please provide your company details with a detailed description of the issue and attach 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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