Secude

HaloCAD

HaloCAD for Teamcenter

Operations Manual

Version 3.0

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Table of Contents

1. ABOUT THIS MANUAL 1

2. HOW DOES IT WORK? 2

3. HOW TO PROTECT AND BLOCK A FILE 4

3.1. Protect a Designcenter File 6

3.1.1. Download a Designcenter File 6

3.1.2. Download an Office File 6

3.1.3. Using Rich Application Client (RAC) 6

3.1.4. Block a File Download 7

4. COMMON SCENARIOS 8

4.1. Open a Protected CAD File 8

4.2. Example 1 (Designcenter): Application ID as the Owner of the File 9

4.3. Example 2 (Designcenter): Static Email as the Owner of the File 10

4.4. Example 3 (Designcenter): Teamcenter Logged-in User as the Owner of the File 11

4.5. Example 4: File Upload and Download 13

5. TECHNICAL SUPPORT 15

Typographic Conventions

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

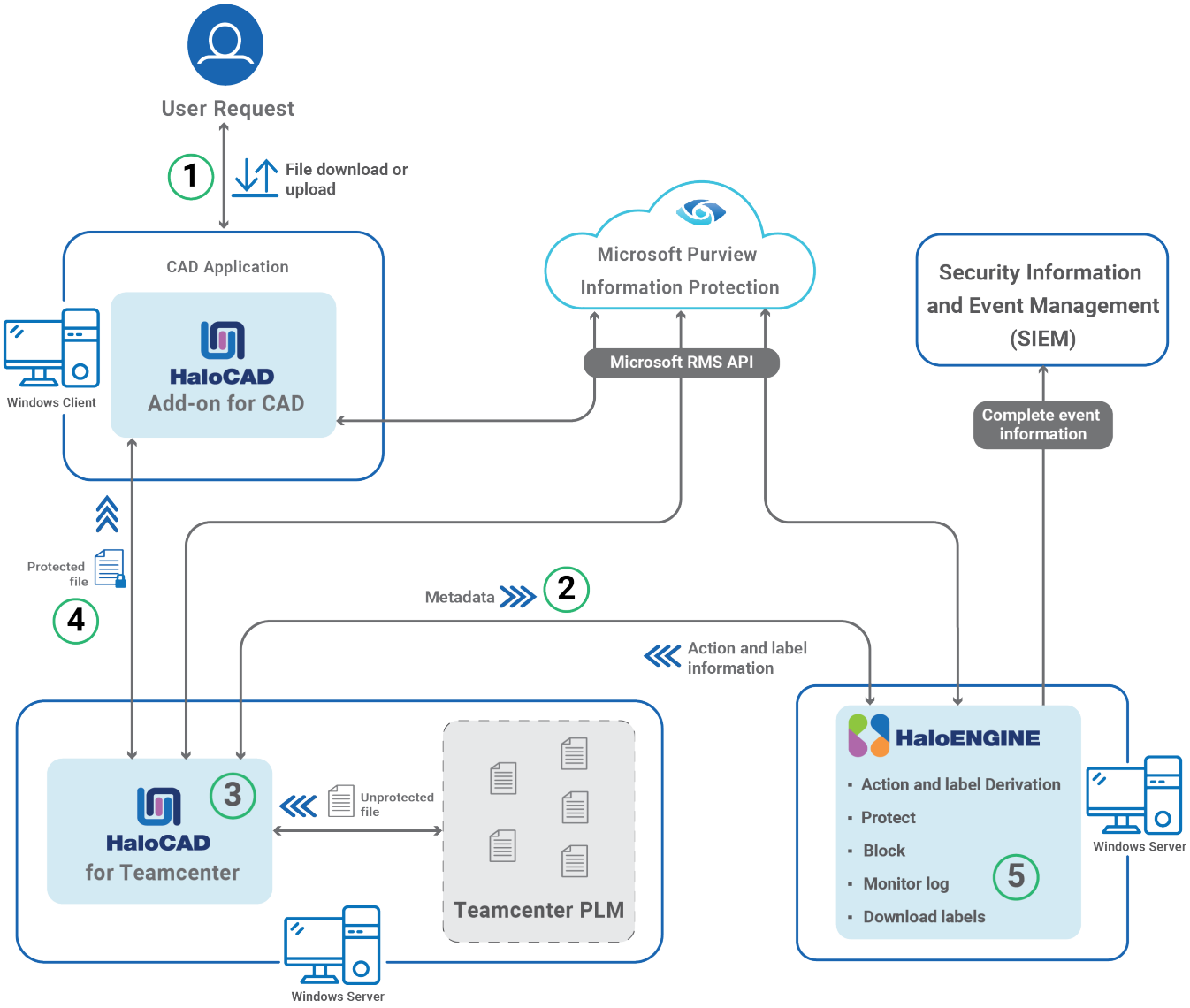
Convention	Description
Boldface type	• Items you must select, such as menu options, command buttons, or items in a list. • Titles of sections, sub-sections, etc.
Italic type	• To emphasize a word • Error messages • Table and Figure captions
`Consolas Font`	• Package names • Filenames and directory names • XML element names and attribute names • Parameters • File type • Code examples Example: `hesadm.exe start -user <domain\user> -pwd <password>`
Hyperlink	Provides quick and easy access to cross-referenced topics. Hyperlinks are highlighted in blue and underlined.
Admonitions	Note Provides additional information relevant to the topic. Warning Contains information about circumstances, parameters, and so on that MUST be fulfilled. Failure to comply will have consequences for the current operation. Tip Contains useful information about the operation of the application. Info Contains information, guidelines, or suggestions for performing tasks more effectively.

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, refer to the Installation Manual included 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: User File Selection (Check-out / Check-in)

1. The user creates a new CAD or Microsoft Office document or opens an existing workspace object from the client.
2. The user performs a check-out (download) or check-in (upload).

Step 2: Request Monitoring and Interception

1. HaloCAD for Teamcenter intercepts every file the user attempts to download, retrieves it from the PLM Vault, and collects its associated metadata.

2. The metadata is sent to HaloENGINE GenNXT, which evaluates the configuration, determines the required action and label, and returns this information to HaloCAD for Teamcenter.

Step 3: Encryption / Decryption

HaloCAD for Teamcenter carries out actions based on the provided action and label:

1. If no valid action exists, the file is downloaded without modification.
2. During check-in, if a valid action with a label is identified, the label is removed, and the decrypted file is stored in PLM Vault.
3. During check-out, if a valid action with a label is identified, the label is applied. Protection is performed based on the configured mode:
   a. **File Mode (Path-Based Processing):** The file path is sent to the HaloCAD Tomcat Service for direct protection.
   b. **Stream Mode (Direct Stream Processing):** The file content is sent as a byte stream to the HaloCAD Tomcat Service for protection.
4. If a block rule is configured in HaloENGINE GenNXT, HaloCAD for Teamcenter prevents the file from being downloaded.

Step 4: Processed File Delivery

The encrypted file with the assigned label is delivered to the user through the client application.

Step 5: Monitoring and Audit Log

HaloCAD for Teamcenter records event details and forwards them to the HaloENGINE GenNXT Monitor log file.

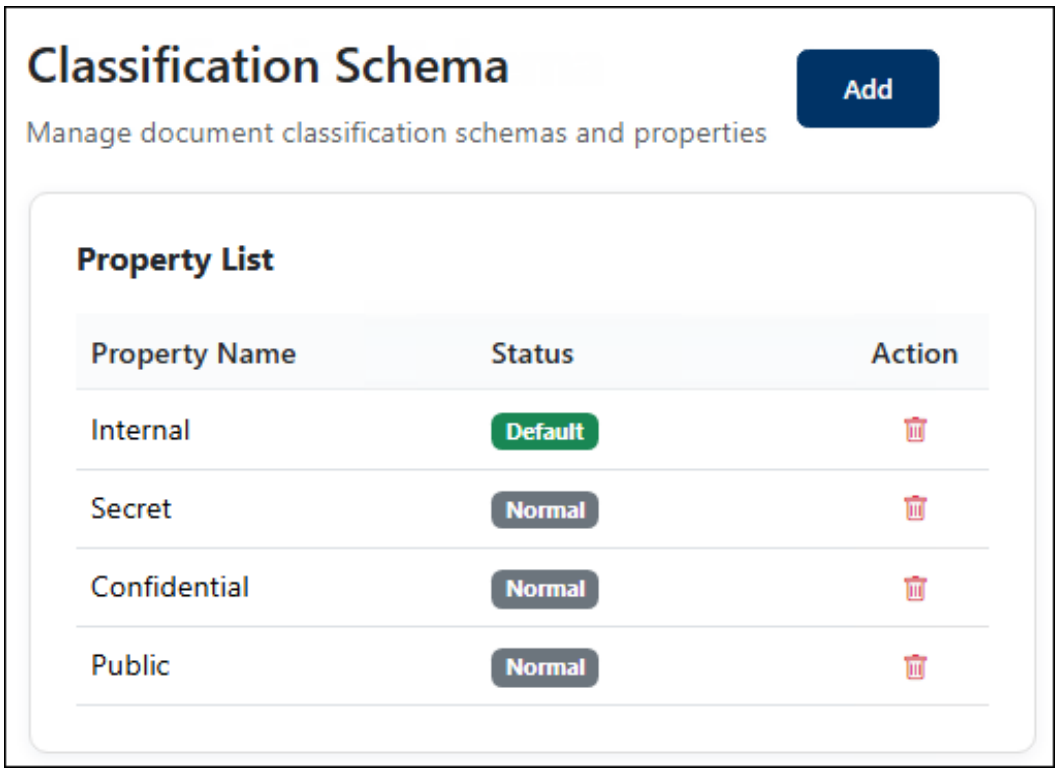
3. How to Protect and Block a File

Fulfill the Requirements

1. HaloCAD for Teamcenter is installed and configured.
2. HaloCAD Add-on for Designcenter is installed.
3. HaloENGINE GenNXT is installed and configured.

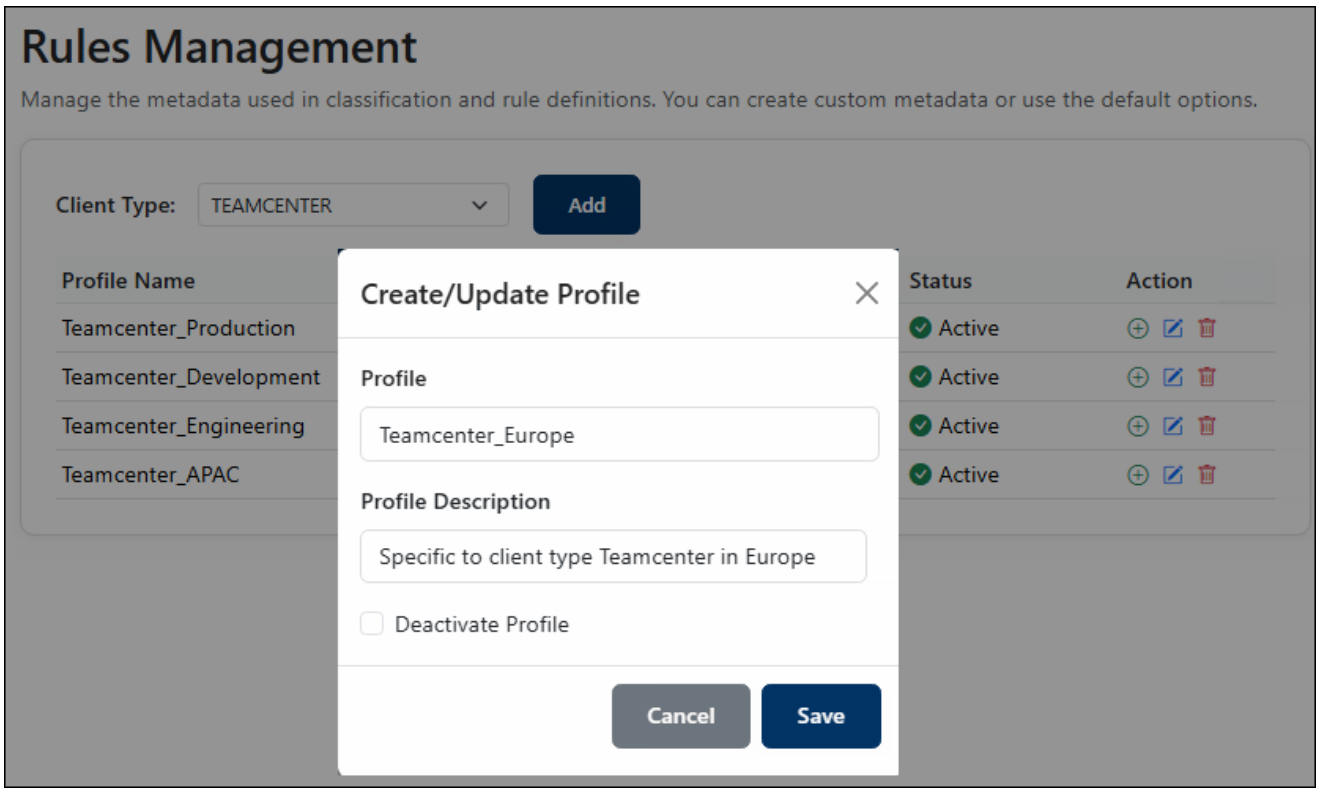
For illustration purposes, this section describes a simple classification profile configuration.

1. Step 1: Create classification schemas based on your business requirements.



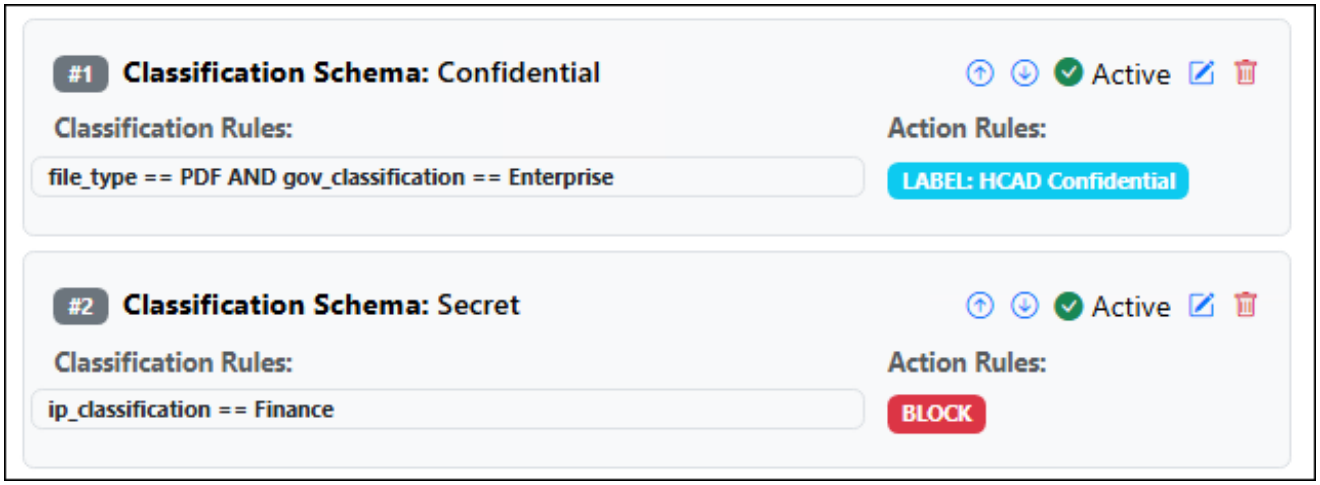
Sample classification schema

2. Step 2: Create a classification profile for the Teamcenter client type.



Sample classification profile

3. Step 3: Add classification rules to the profile.



Sample classification rules

3.1. Protect a Designcenter File

Follow these steps to download a protected CAD file from the **PLM**.

3.1.1. Download a Designcenter File

Using Active Workspace (AWC):

1. Open an AWC browser session.
2. Select an assembly or part file.
3. Click **Open in NX**.

Result:

- A file named `openinnx.nxtcxml` is downloaded.
- The downloaded file is labeled according to the configuration in HaloENGINE GenNXT.

3.1.2. Download an Office File

1. Open an AWC browser session.
2. Select an Office file.
3. Click **Open in Office**.

Result:

- A file with the .awoai extension is downloaded.
- Click **Download File** to download the Word file.
- Open the file and click **View Permissions** to view the applied permissions as configured in HaloENGINE GenNXT.

3.1.3. Using Rich Application Client (RAC)

1. Open a RAC session.
2. Select a Designcenter or Office file.
3. Download the file using **Named References**.
4. Click **Download**.

Result:

- The downloaded file is labeled according to the configuration in HaloENGINE GenNXT.
- The label-based encryption settings are enforced and remain with the file regardless of its storage location.

What to do next

- If you are an authorized user, modify the label and save the file.
- To view audit details, check the export event in the HaloENGINE GenNXT Monitor log.

3.1.4. Block a File Download

Download a file using an AWC browser session or any other supported method.

Result

- The block action rule configured in HaloENGINE GenNXT prevents the file from being downloaded.
- No file is downloaded.
- For additional details, refer to the HaloENGINE GenNXT Monitor log.

4. Common Scenarios

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

4.1. Open a Protected CAD File

Prerequisite**:** Ensure that the HaloCAD Add-on is installed before opening a protected file.

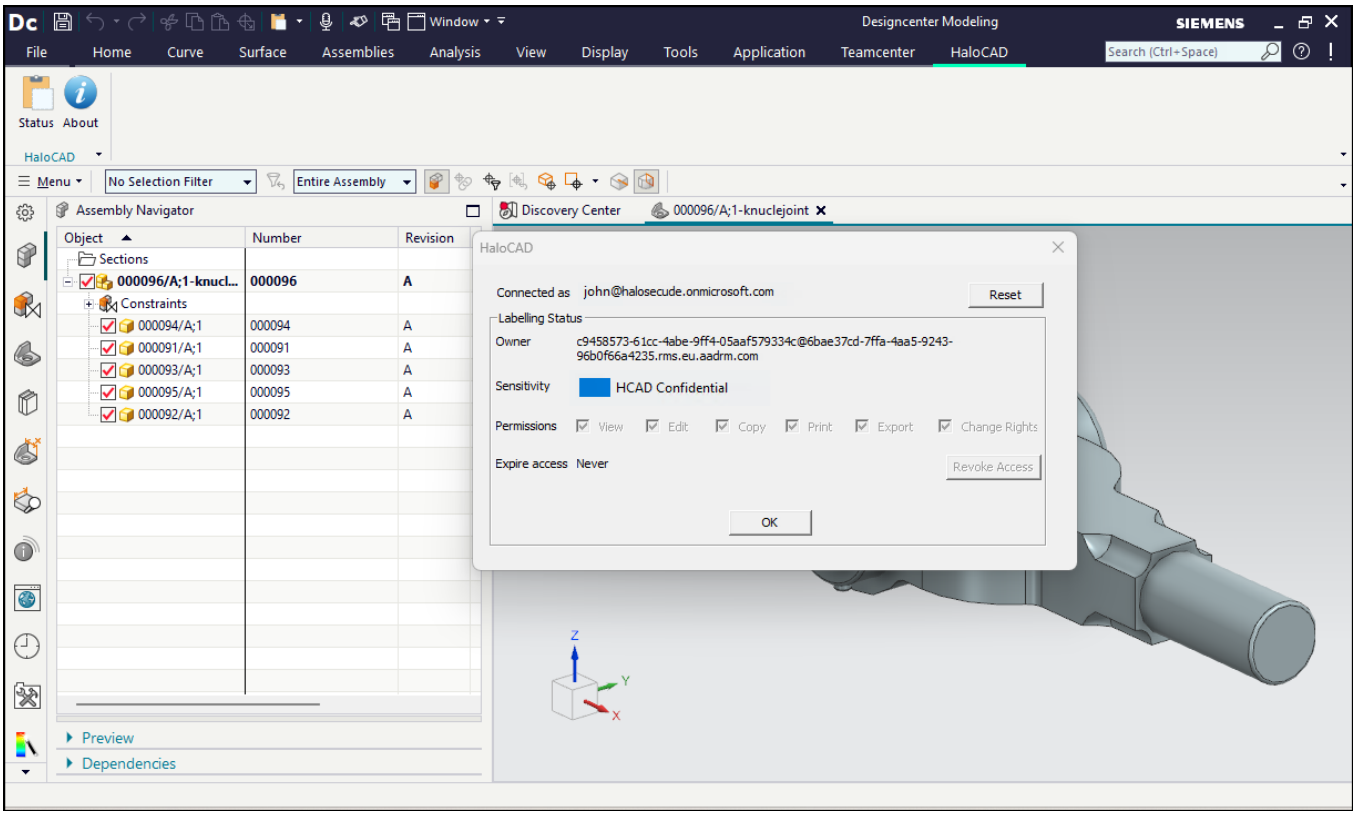
1. Double-click the protected file to open it.
2. When you open a labeled file for the first time, the system prompts you to connect to the Microsoft Entra tenant using the **Microsoft Sign-In Assistant**.
3. Click **OK** when prompted that the Microsoft Sign-In Assistant has been invoked and the user credentials have been cached.
4. Follow the on-screen instructions to complete the authentication process.

Results

- After successful authentication, the file opens.
- Access to the document may vary depending on the configured policy settings.
- For more information about access behavior, refer to the Operations Manual of the respective add-ons.

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

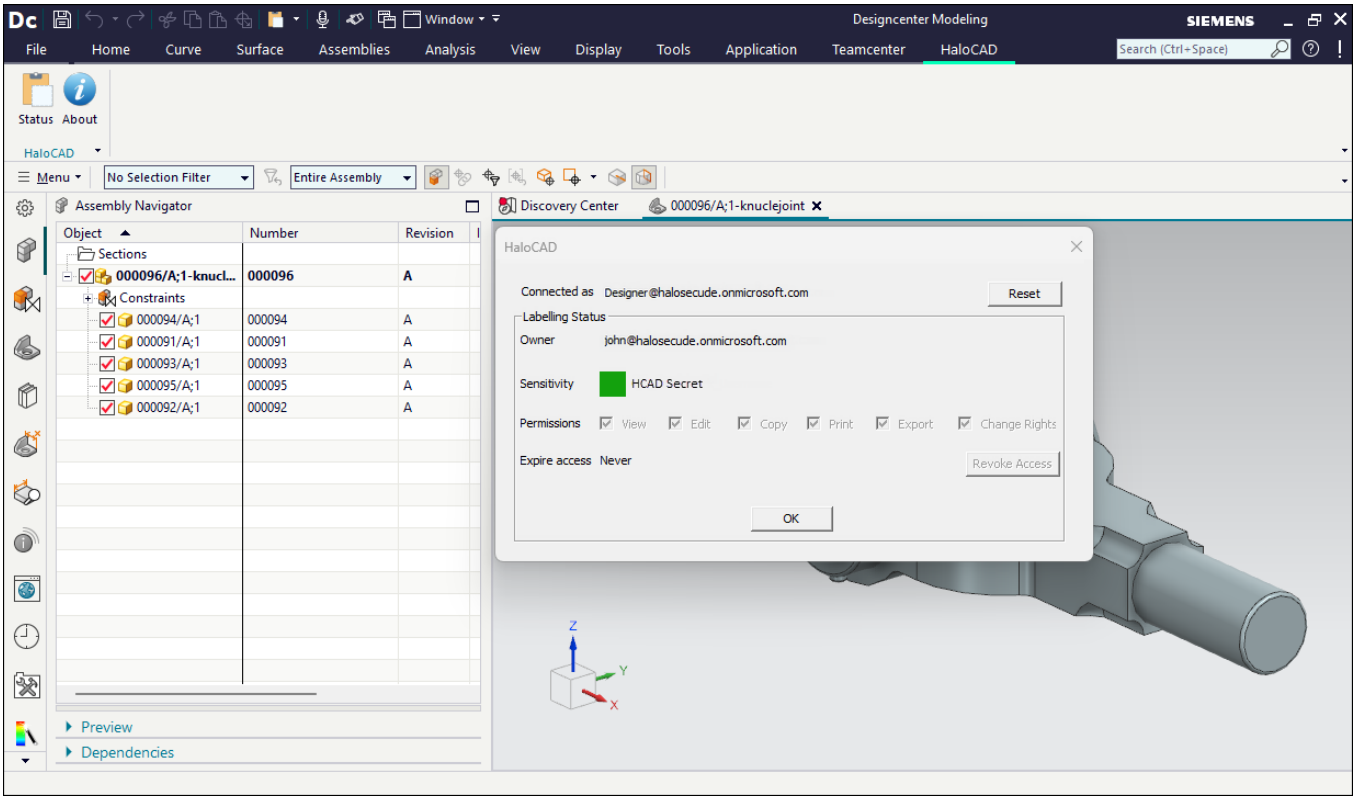
The following figure shows an example of an Application ID that is used to initialize HaloENGINE GenNXT. This Application ID is the default owner of the document. However, a static email or login user can also be an owner of the downloaded file if specified in HaloENGINE GenNXT. Please refer to sections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



Application ID as the Owner of the File

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

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



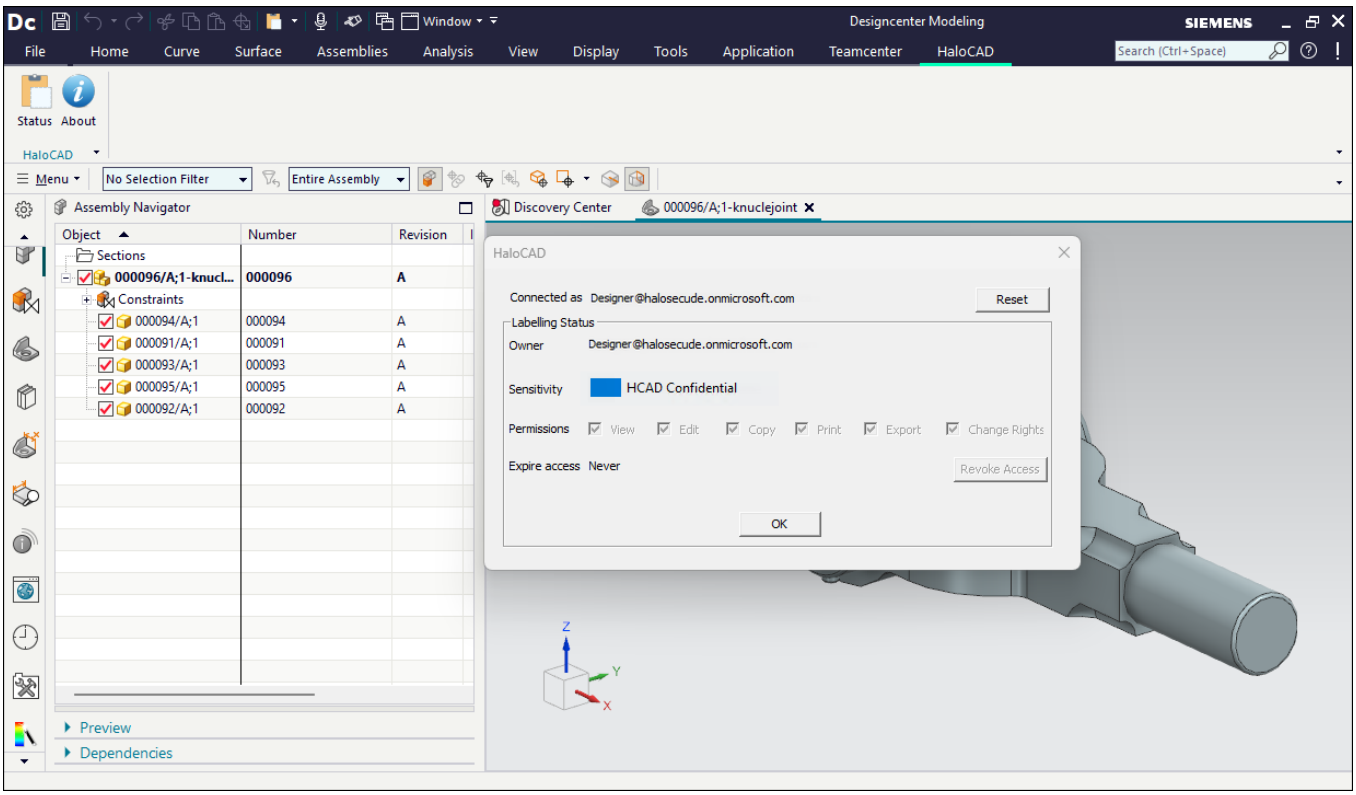
Static Email as the Owner of the File

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

The following figure shows an example of a PLM logged-in user who becomes the owner of the document. To achieve this, set the Owner configuration to "**user**" in the HaloENGINE GenNXT Admin portal. The exported document uses the email address of the currently logged-in user as the owner.

1. **Step 1: Configure User in Teamcenter PLM**
   a. Log in to Teamcenter as a DBA user.
   b. Open the **Organization** application.
   c. Click **Persons**.
   d. From the list, select the user to modify.
   e. Update the required details, such as the email ID (for example, `Designer@halosecude.onmicrosoft.com`).
   f. Click **Modify** to save the changes.
2. **Step 2: Configure Owner in HaloENGINE GenNXT Admin Portal**
   a. Log in to the HaloENGINE GenNXT Admin Portal.
   b. Navigate to **Download Rules** > **Action Rules** > **Owner Configuration**.
   c. Select the **User** option.
   d. Save the configuration.
3. **Step 3: Download a File from Teamcenter**
   Download a file from Teamcenter using the required method.

Result: The configured user is applied as the owner based on the defined action rule.



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

4.5. Example 4: File Upload and Download

The following example describes the upload and download sequence in Teamcenter PLM integrated with HaloCAD. Although non-Office files (for example, `.txt` and `.pdf`) are also supported, this procedure uses an Excel file for illustration.

Upload an Office File

1. Log in to the Rich Client (RAC) session.
2. Go to the **Home** directory.
3. Create a new item:
   - Navigate to **Home** > **File** > **New**.
   - Select an item under **Business Object Type**.
   - Enter a name.
   - Click **Next**, and then click **Finish**.
4. Select the item revision.
5. Navigate to **File** > **New** > **Dataset**.
6. In the **New Dataset** dialog box:
   - Select **MS ExcelX**.
   - Click **Import**.
   - Select the file to upload. Note: In this example, the file (`Bill Of Materials.xlsx`) is already protected with the **HaloCAD_INTERNAL** label.
7. Click **Apply**.

Results

- The file is uploaded to Teamcenter.
- During the upload (check-in) process, the existing **HaloCAD_INTERNAL** label is removed.
- The decrypted file is stored (checked in) in Teamcenter PLM.
- The upload (check-in) event is logged in the HaloENGINE GenNXT Monitor log file.

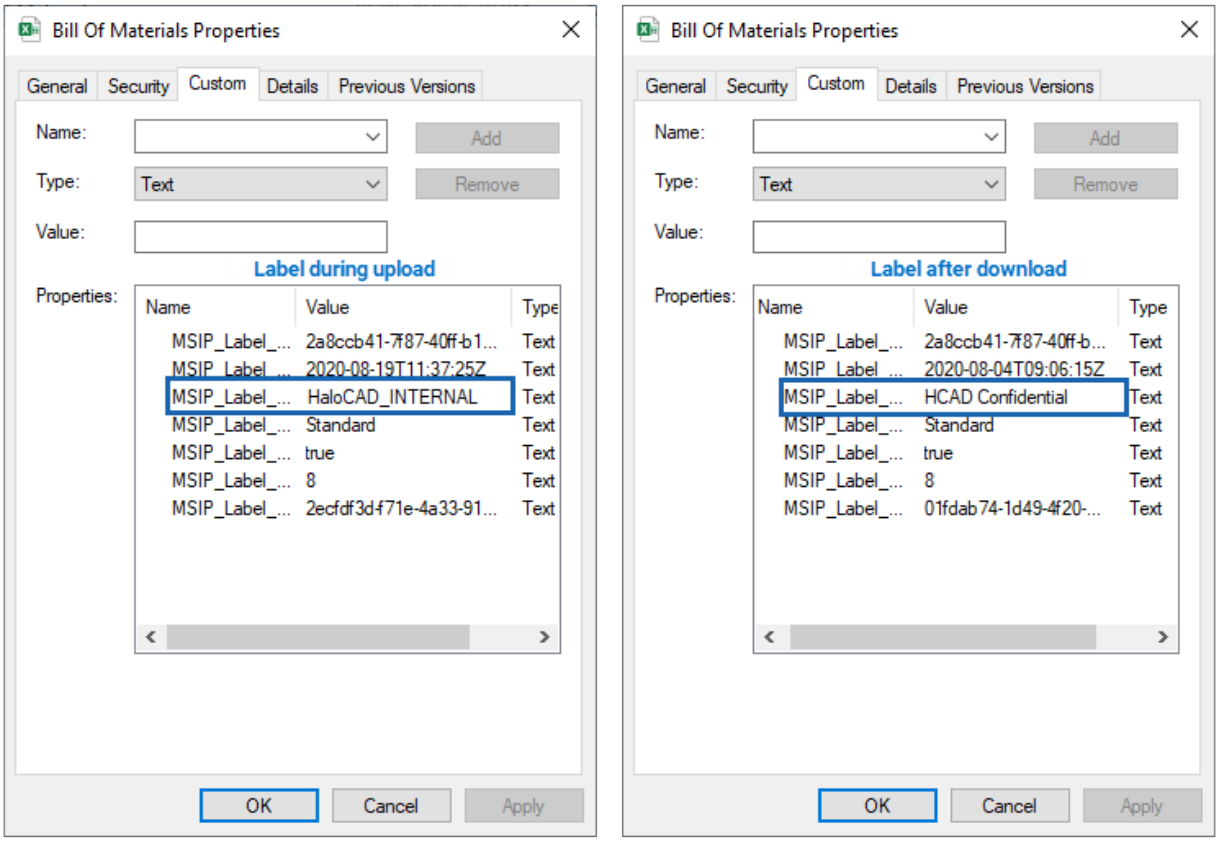
Download the File (Check-out Sequence)

1. Right-click the previously uploaded item.
2. Select **Named References**.
3. Click **Download**.

Results

- The file is downloaded to the default location.

- During the download (check-out) process, the file is exported with a new label **HCAD Confidential**, as defined in HaloENGINE GenNXT.
- The download (check-out) event is logged in the HaloENGINE GenNXT Monitor log file.



File upload and download Sequence

5. Technical Support

Before Contacting Technical Support

Before contacting Technical Support, ensure that you have the following information available.
Providing this information helps the support team investigate and resolve your issue more efficiently.

- Full contact details
- Product build version
- Date, time, and description of the error (include screenshots, if possible)
- Details of any third-party software used with the product
- Any additional information required to reproduce the issue

Contact Technical Support

Secude provides technical support through email support@secude.com. When contacting Technical Support by email, include your company details, a detailed description of the issue, and the relevant log files (if available). A support representative will respond to your inquiry.

Additional Resources

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Our solutions extend Microsoft Purview Information Protection (MPIP) to secure sensitive files—including CAD and PLM assets—from the moment of creation. By embedding persistent protection and access controls directly into design and engineering data, we help enterprises prevent Intellectual Property (IP) theft, data leakage, reputational damage, and compliance risks. With operations in Europe, North America, and Asia, Secude supports global manufacturers, defense contractors, and AEC firms in implementing robust IT security strategies across the product lifecycle and digital supply chain.