



HaloCAD

HaloCAD for Windchill

Operations Manual

Version 2.8

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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.

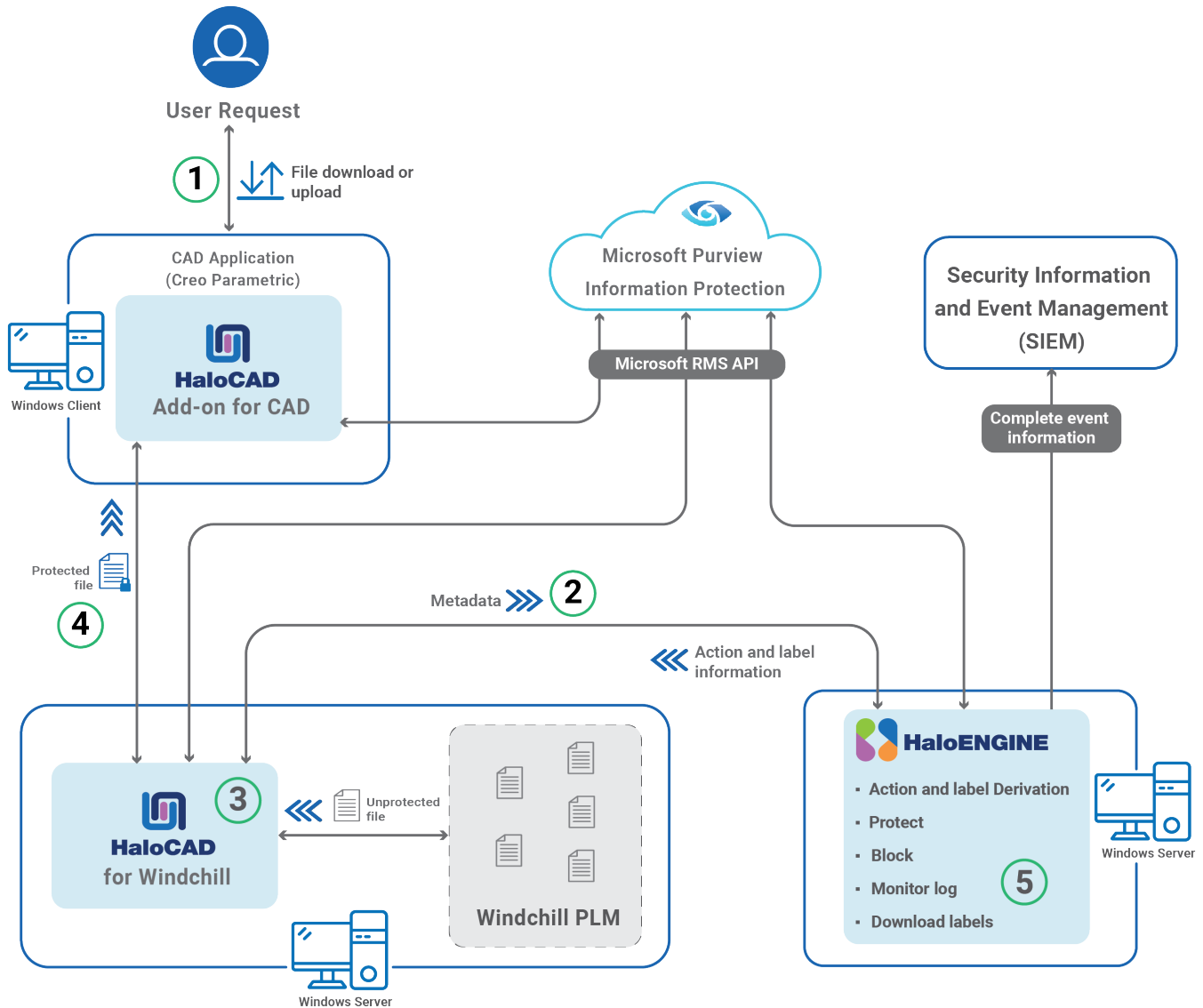
Convention	Description
Boldface type	<ul style="list-style-type: none">• Items you must select, such as menu options, command buttons, or items in a list.• Titles of sections, sub-sections, etc.
<i>Italic type</i>	<ul style="list-style-type: none">• To emphasize a word• Error messages• Table and Figure 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 Windchill workflow comprises the following steps:



HaloCAD for Windchill

Step 1: User File Selection (Check-out / Check-in)

1. The user creates a new CAD or 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 Windchill 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, which evaluates the configuration, determines the required action and label, and returns the results to HaloCAD for Windchill.

Step 3: Encryption / Decryption

HaloCAD for Windchill 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 Autodesk Vault PLM.
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, HaloCAD for Windchill prevents the download.

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

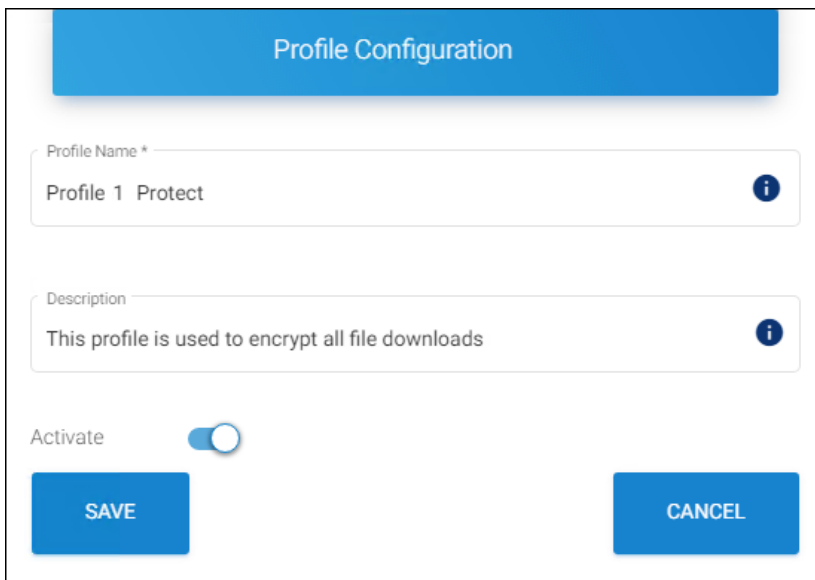
HaloCAD for Windchill records event details and forwards them to the HaloENGINE monitor log.

3. How to Protect a CAD File?

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

3.1. Fulfill the Requirements

1. HaloCAD for Windchill must be installed and configured.
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 features a blue header bar with the text 'Profile Configuration'. Below the header, there are two text input fields. The first field is labeled 'Profile Name *' and contains the text 'Profile 1 Protect'. The second field is labeled 'Description' and contains the text 'This profile is used to encrypt all file downloads'. Below these fields, there is an 'Activate' label next to 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
WINDCHILL.user_name == John

Rules

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

ACTION RULE OVERVIEW

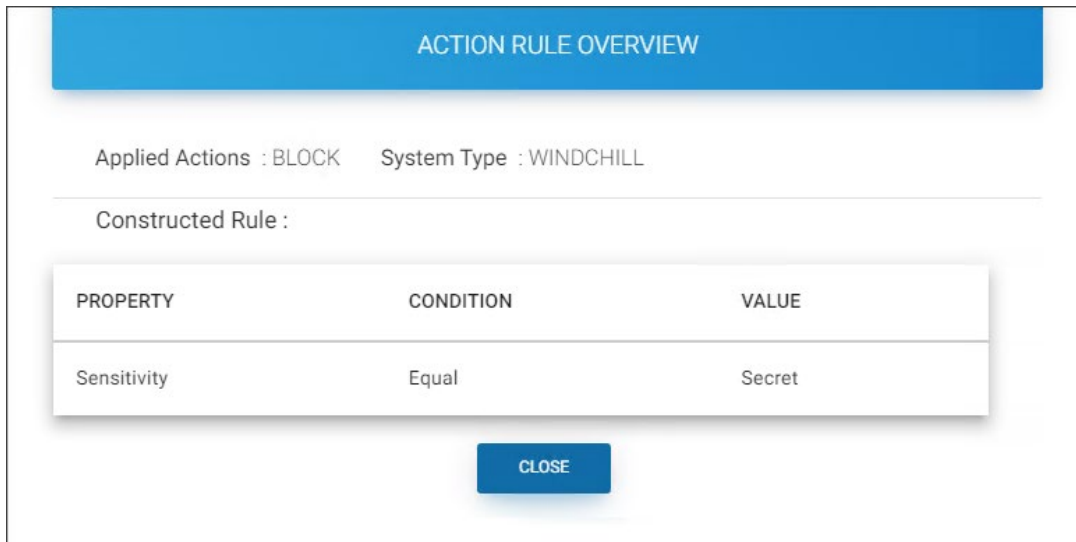
Applied Actions : LABEL System Type : WINDCHILL Label Name : HCAD Confidential

Constructed Rule :

PROPERTY	CONDITION	VALUE
Sensitivity	Equal	Confidential

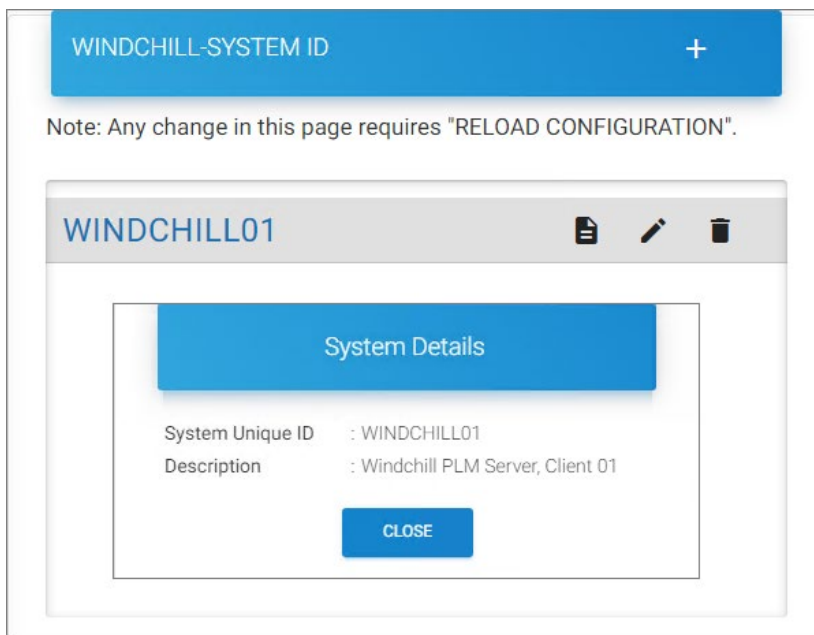
CLOSE

Action rule for labeling



Action rule for blocking

e. Step 5: Assign Systems to the profile.



Assign Systems

4. HaloCAD add-on must be installed.

3.2. Download a Protected File

Follow these steps to download protected CAD files via PLM.

Download the File

1. Go to the **Windchill Workspace**, download a file using **Export from Workspace** or **Open in Creo**.

- Alternatively, go to **Windchill Commonspace** and download a file using the **Check Out and Download** option.

Results

- The downloaded file is labeled according to the configuration in HaloENGINE.
- 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 Monitor log.

3.3. Block a File Download

Follow these steps to verify file download blocking.

- Go to the **Windchill Workspace**, attempt to download a file using **Export from Workspace** or **Open in Creo**.
- Alternatively, go to **Windchill Commonspace**, attempt to download a file using the **Check Out and Download** option.

Results

- The block action rule configured in HaloENGINE prevents the file from being downloaded.
- No file is downloaded.
- Refer to the HaloENGINE Monitor log file for additional details.

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 for Creo is installed before opening a protected file.

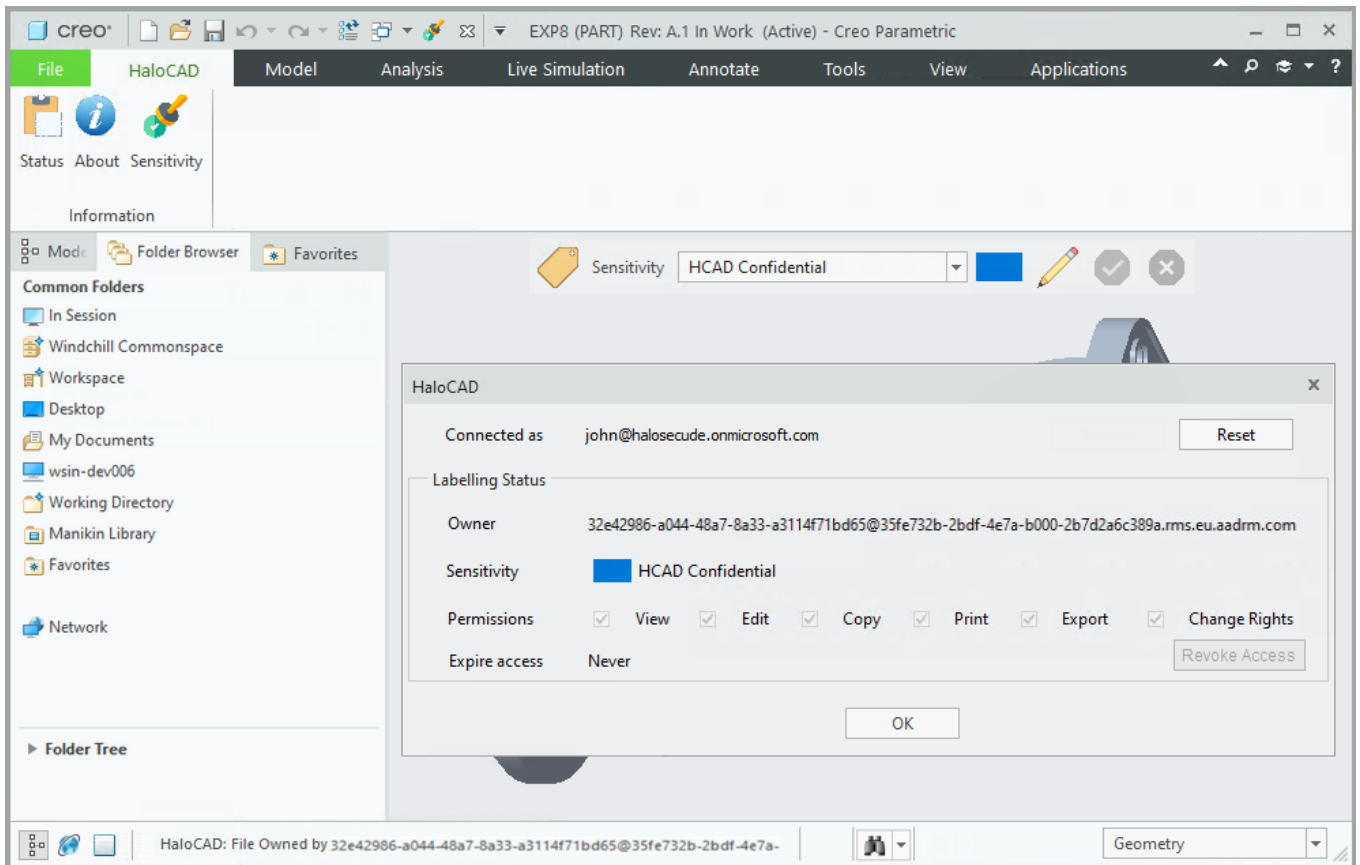
1. Double-click the protected file to open it.
2. When you open a labeled file for the first time, the system prompts you to connect to the Microsoft Entra tenant using the **Microsoft Sign-In Assistant**.
3. Click **OK** when prompted that the Microsoft Sign-In Assistant will be invoked and user credentials will be 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 HaloCAD Add-on for Creo.

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

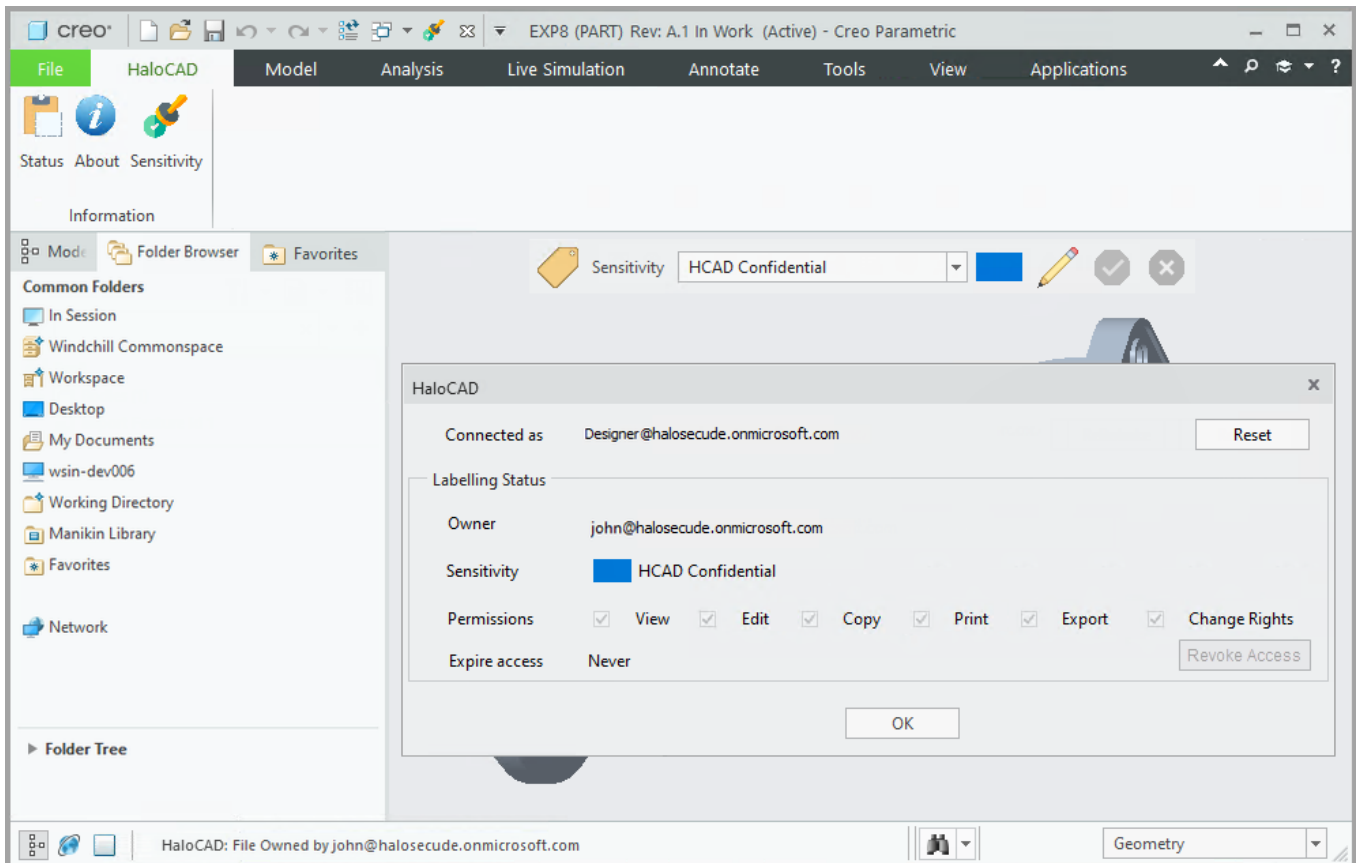
The following figure shows an example of an Application ID that is used to initialize the HaloENGINE. This Application ID will be the owner of the document by default, however, a static email or a user who logs in to Windchill can also be an owner of the downloaded file if specified in HaloENGINE. Please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



Application ID as the Owner of the File

4.3. Example 2: 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.

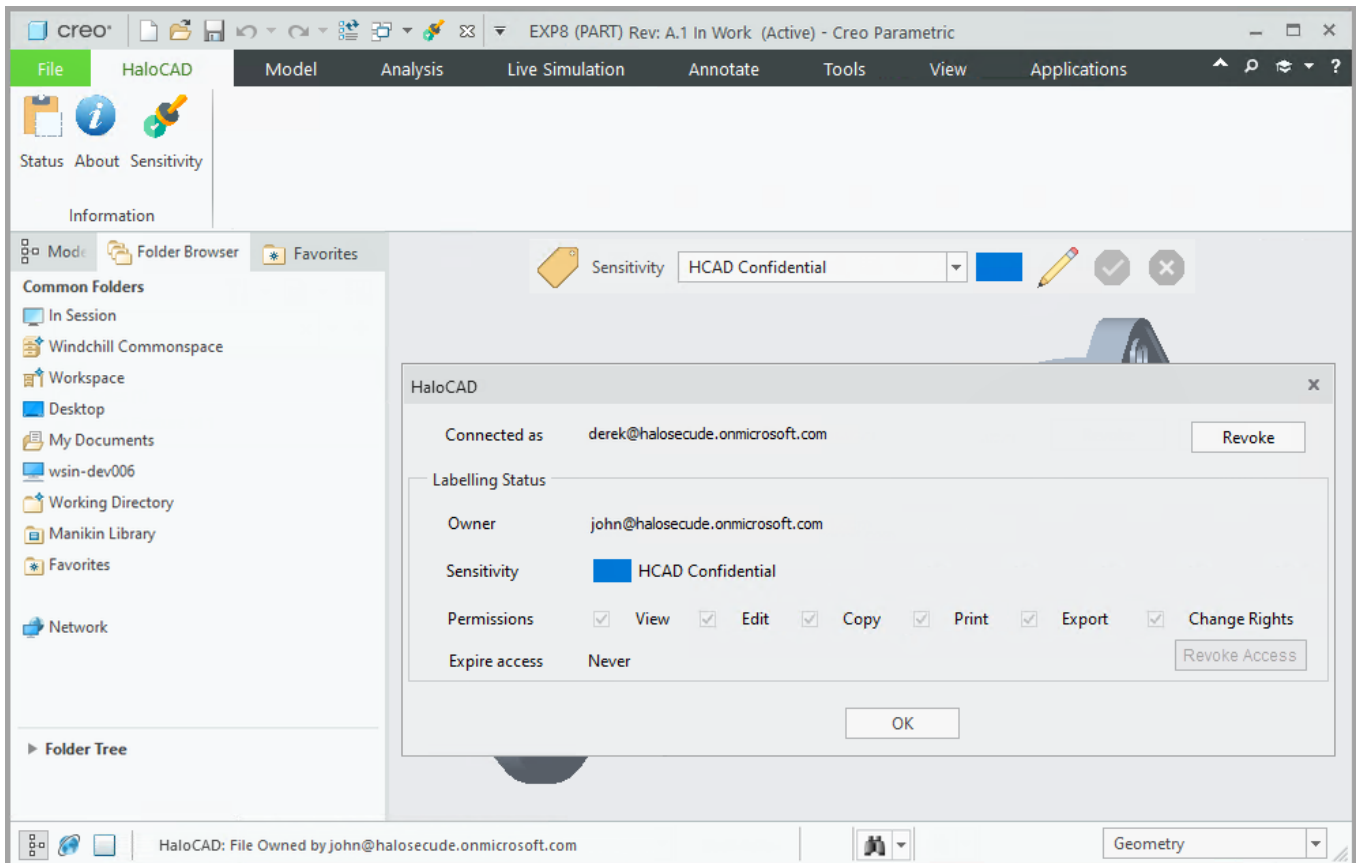


Static Email as the Owner of the File

4.4. Example 3: 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. In order 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.

In case, the user who logged in to Windchill PLM Server does not have an email ID, then the Application ID (which is used to initialize HaloENGINE) will be the owner of the document.



User as the Owner of the File

4.5. Example 4: File Upload and Download

The following example describes the upload and download sequence in Windchill 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 a File (Check-in Sequence)

1. Open the **Creo Parametric** application.
2. Log in to the PLM server using your credentials.
3. Navigate to **Windchill Commonspace**.
4. Click **New Document**.
5. The **New Document** screen appears.
6. Select the product type as **Document**.
7. Click **Browse** and select the file to upload. Note: In this example, the file (Bill Of Materials.xlsx) is already protected with the **HaloCAD_INTERNAL** label.
8. Click **Finish**.

Results

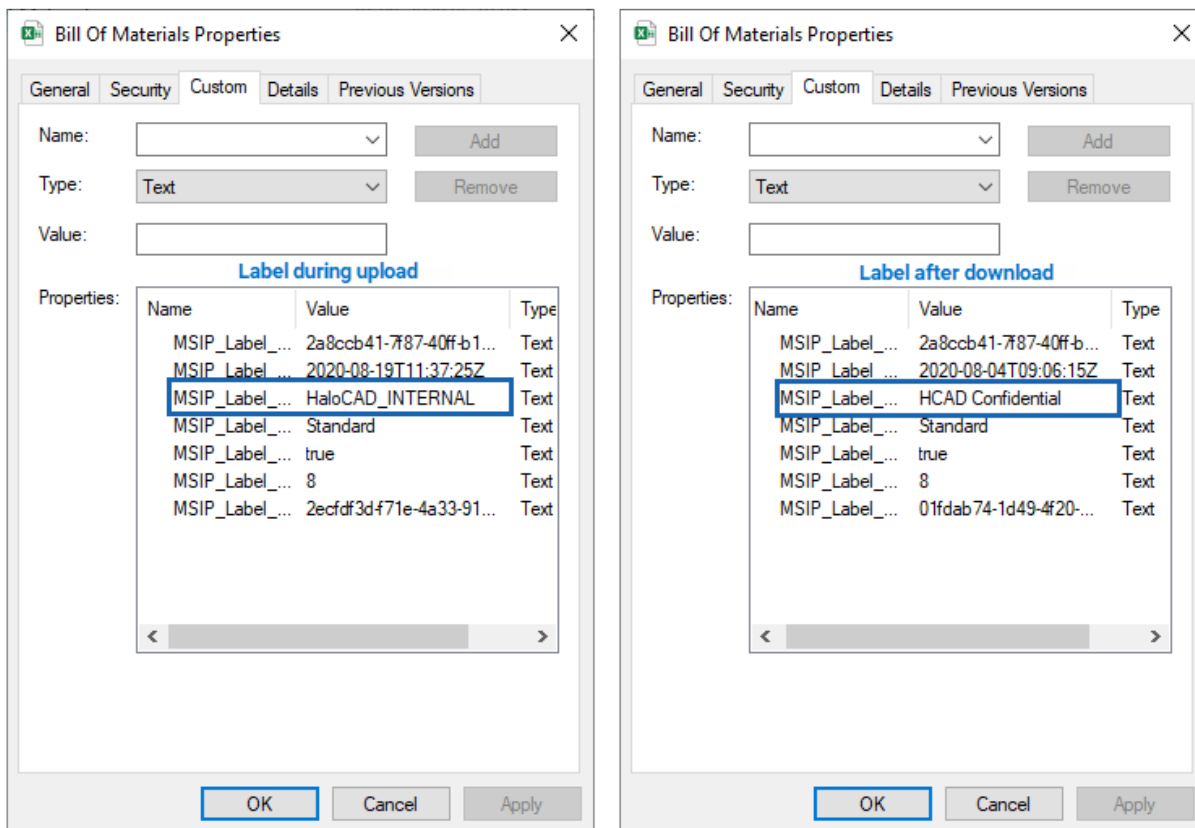
- The file is uploaded to Windchill.
- During the upload (check-in) process, the existing **HaloCAD_INTERNAL** label is removed.
- The decrypted file is stored (checked in) in Windchill PLM.
- The upload (check-in) event is logged in the HaloENGINE Monitor log file.

Download the File (Check-out Sequence)

1. From the list, select the previously uploaded file.
2. Click one of the available download options:
 - **Download PDF**
 - **Download Text File**
 - **Download Unknown**

Results

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



File upload and download Sequence

5. 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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- Documentation topic
- Description of the suggestion or error

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