



**HaloCAD**

HaloCAD for Autodesk Vault

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.

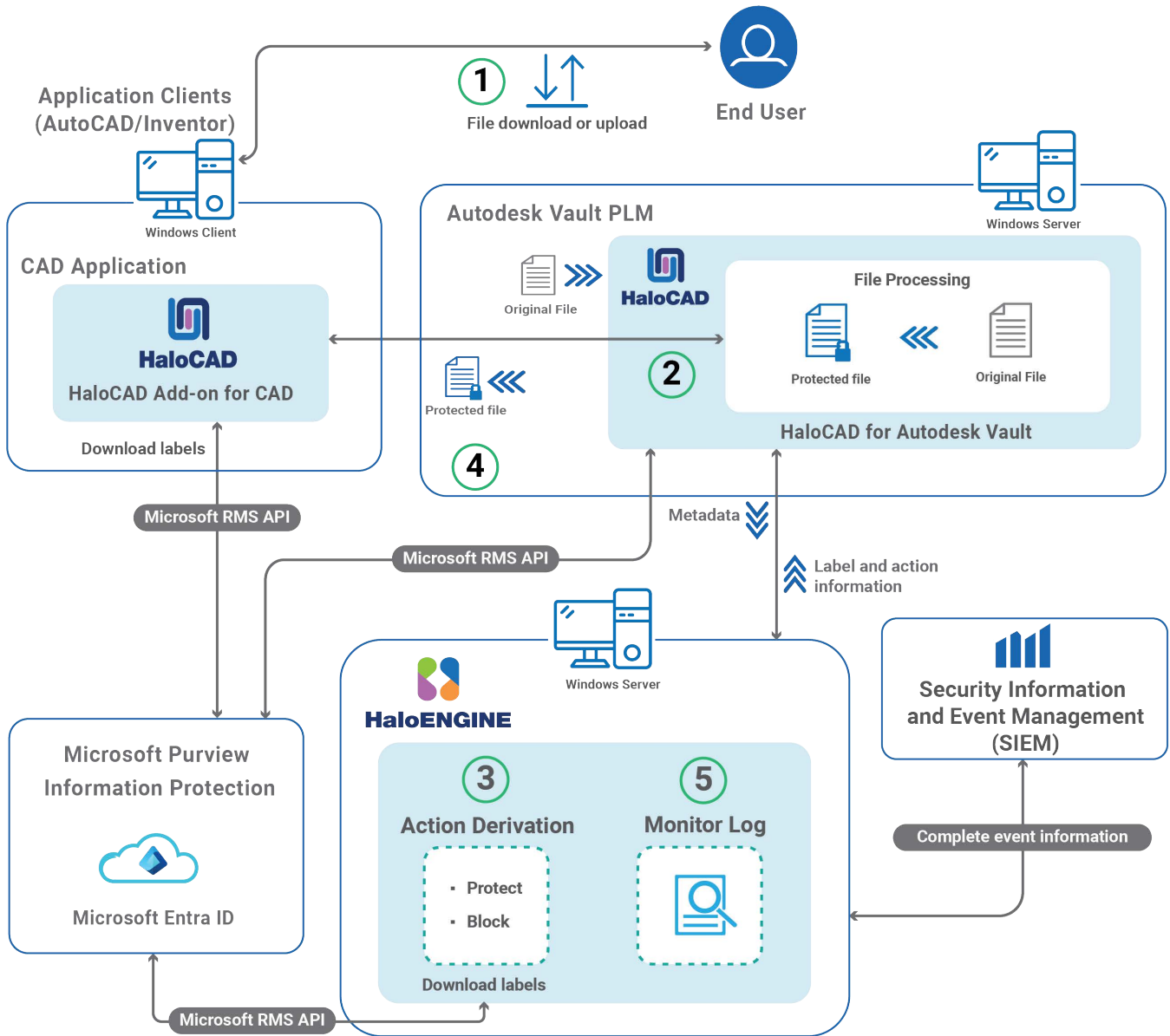
Convention	Description
<b>Boldface type</b>	<ul style="list-style-type: none"><li>• Items you must select, such as menu options, command buttons, or items in a list.</li><li>• Titles of sections, sub-sections, etc.</li></ul>
<i>Italic type</i>	<ul style="list-style-type: none"><li>• To emphasize a word</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>hesadm.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	<div data-bbox="416 1171 1394 1279" style="border: 1px solid yellow; padding: 5px;"><p><b>Note</b> Provides additional information relevant to the topic.</p></div> <div data-bbox="416 1335 1394 1518" style="border: 1px solid red; padding: 5px;"><p><b>Warning</b> 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></div> <div data-bbox="416 1574 1394 1682" style="border: 1px solid green; padding: 5px;"><p><b>Tip</b> 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><b>Info</b> 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 Autodesk Vault workflow comprises the following steps:



### HaloCAD for Autodesk Vault

#### Step 1: File Check-out / Check-in

1. A 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) action.

#### Step 2: Metadata and Label Segregation

1. HaloCAD for Autodesk Vault 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 Autodesk Vault.

### **Step 3: Encryption / Decryption**

1. HaloCAD for Autodesk Vault 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 Autodesk Vault removes the label and stores the decrypted file in Autodesk Vault PLM.
  - During check-out, if a valid action with a label is found, HaloCAD for Autodesk Vault applies the label.
2. If a block action rule is configured in the HaloENGINE, HaloCAD for Autodesk Vault 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**

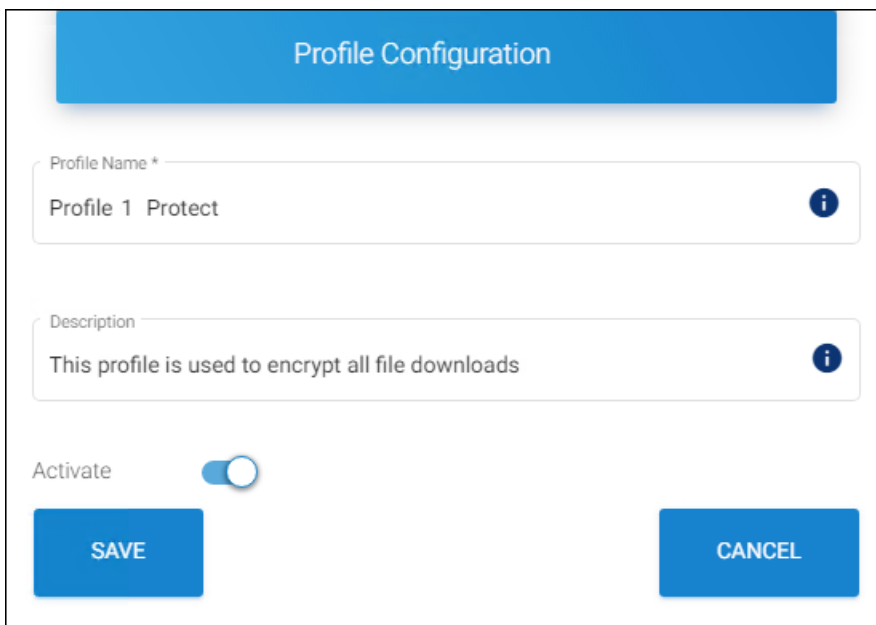
HaloCAD for Autodesk Vault captures the event details and forwards them to the HaloENGINE monitor log for auditing.

### 3. How to Protect a CAD File?

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

#### Fulfill the Requirements

1. HaloCAD for Autodesk Vault 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 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'. Both fields have a small blue information icon to their right. Below the description field, there is a toggle switch labeled 'Activate' which 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**  
VAULT.folder\_name == Designs

Rules

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

**ACTION RULE OVERVIEW**

Applied Actions : LABEL   System Type : VAULT   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 : AUTODESK\_VAULT

Constructed Rule :

PROPERTY	CONDITION	VALUE
Sensitivity	Equal	Secret

CLOSE

Action rule for blocking

e. Step 5: Assign Systems to the profile.

VAULTSYSTEM ID +

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

VAULTCLNT01 [edit] [delete]

System Details

System Unique ID : VAULTCLNT01  
Description : Vault PLM server

CLOSE

Systems

4. HaloCAD add-on must be installed.

### 3.1. Download a Protected File

In various ways, a file can be exported from the Autodesk Vault server. For illustration purposes, a file is downloaded/check-out via Autodesk Vault server / Autodesk Vault Thin Client / AutoCAD / Inventor applications:

#### 1. Option # 1

- a. Login to **Autodesk Vault Professional Client** (Standalone Autodesk Vault Client).
- b. From the **Project Explorer** screen, navigate to a folder of your choice and select a file.
- c. Now, right-click on it and then select **Get** to download the file.

#### 2. Option # 2

- a. Open the **Autodesk Vault Thin Client**, select the Workspace, and **Sign In** with your credentials.
- b. The files and folders are listed from the workspace you have logged into.
- c. Navigate to the folder, select the file, and download it by either clicking the three dots or using the download button.

#### 3. Option # 3

- a. Open the AutoCAD/Inventor application.
- b. Go to the **Vault** tab > click **Log In** and enter your credentials.
- c. Click **Open** and select a file to download.

4. The downloaded file will be labeled as defined in the HaloENGINE.

5. The encryption settings from the label are enforced and remain with the file wherever it is stored.

6. If you are an authorized user with owner permission, you can modify and remove the label.

7. The audit log will be captured for all uploads or downloads, irrespective of file protection.

## 3.2. Blocking a File Download

1. Login to **Autodesk Vault Professional Client** (Standalone Autodesk Vault Client).
2. From the **Project Explorer** screen, navigate to a folder of your choice and download a file.
3. As an alternative, you can choose to download a file via another method.

**Results:**

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

## 4. Common Scenarios

This section presents some common scenarios for illustrative purposes and provides general guidelines.

### 4.1. How to Open a Protected File?

Prerequisite: Before opening the protected file, make sure the HaloCAD Add-on for AutoCAD and/or HaloCAD Add-on for Inventor 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 are cached.*
4. Follow the on-screen prompts to complete the authentication process.

**Results:**

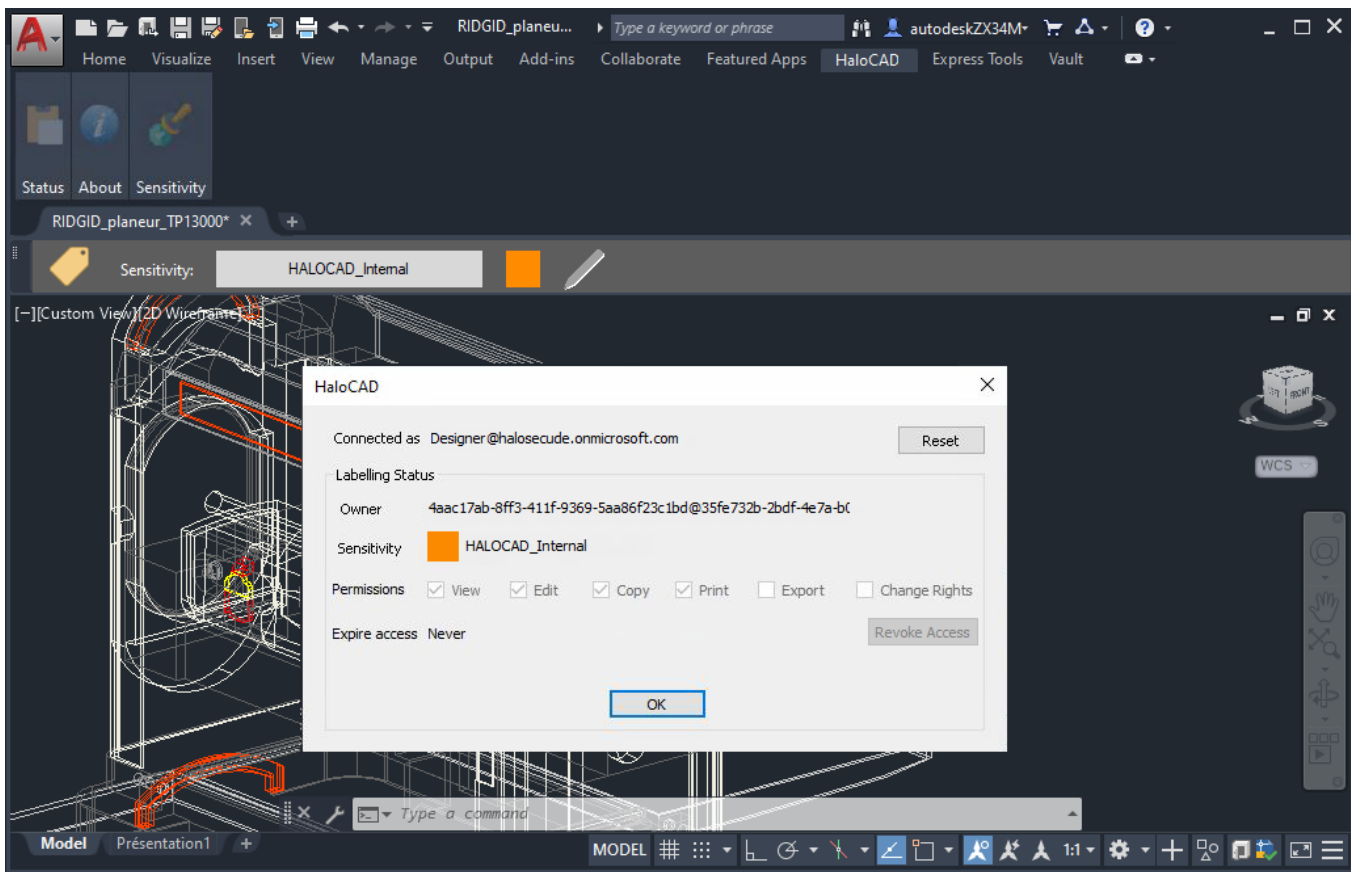
- a. On successful confirmation, the file will open.
- b. Users could experience different access results for the same document based on the policy settings. For more details, refer to the "Operations Manual of HaloCAD Add-on for AutoCAD/Inventor".

### 4.2. Integrating with the AutoCAD Application

Below are some examples of the functionality of HaloCAD in the AutoCAD application.

#### 4.2.1. Example 1: Application ID as the Owner of the File

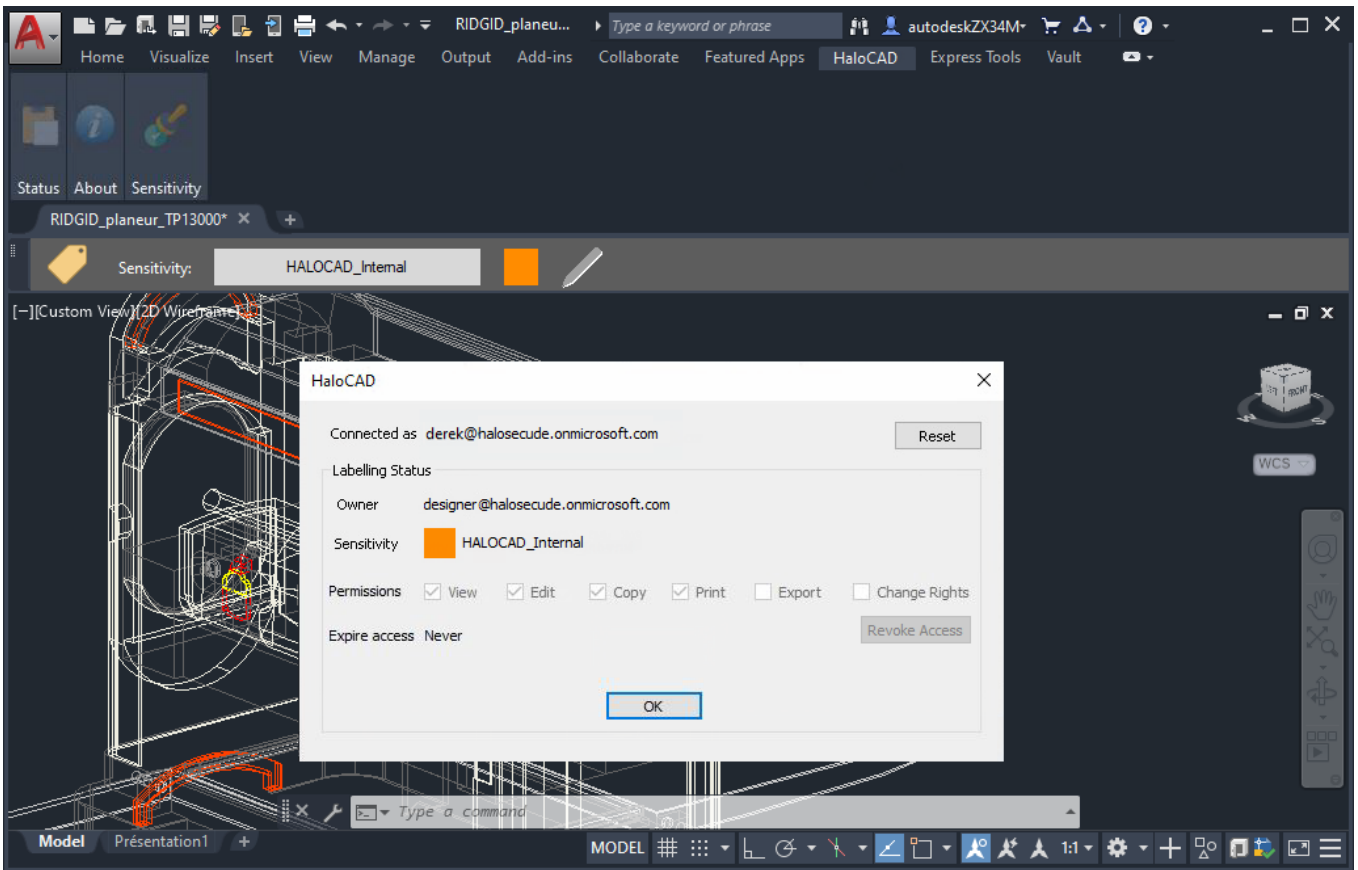
The following figure shows an example of an Application ID that is used to initialize the HaloENGINE. This Application ID will be the owner of the document by default, however, a static email can also be an owner of the downloaded file if specified in the HaloENGINE. Please refer to example 2.



*Application ID as the owner of the file*

#### 4.2.2. Example 2: Static Email as the Owner of the File

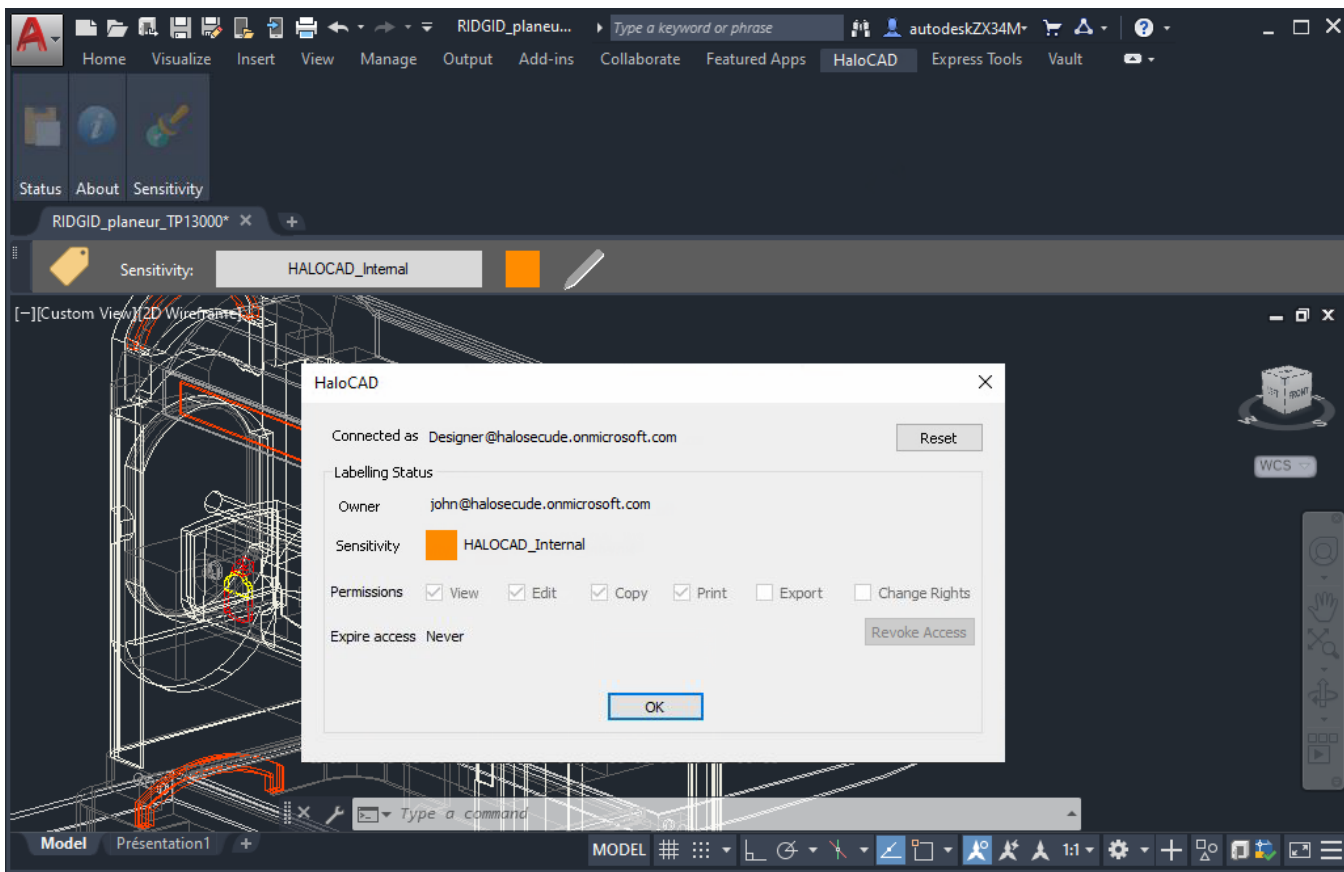
The following figure shows an example of an email address configured in the HaloENGINE. This email address will be the owner of the exported document.



Static Email as the Owner of the File

### 4.2.3. 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. 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.



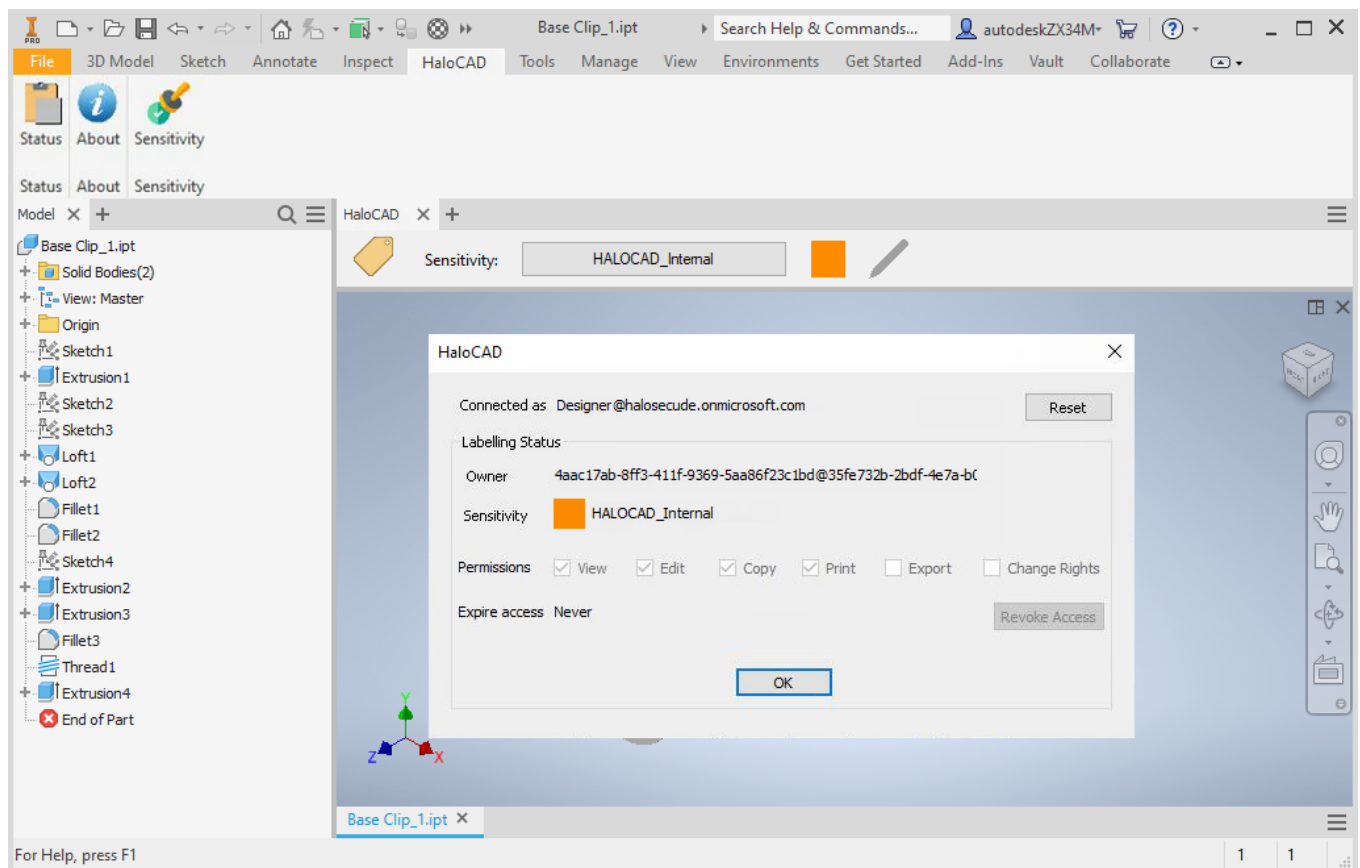
User as the Owner of the File

### 4.3. Integrating with the Inventor Application

Below are some examples of the functionality of HaloCAD in the Inventor application.

#### 4.3.1. Example 1: Application ID as the Owner of the File

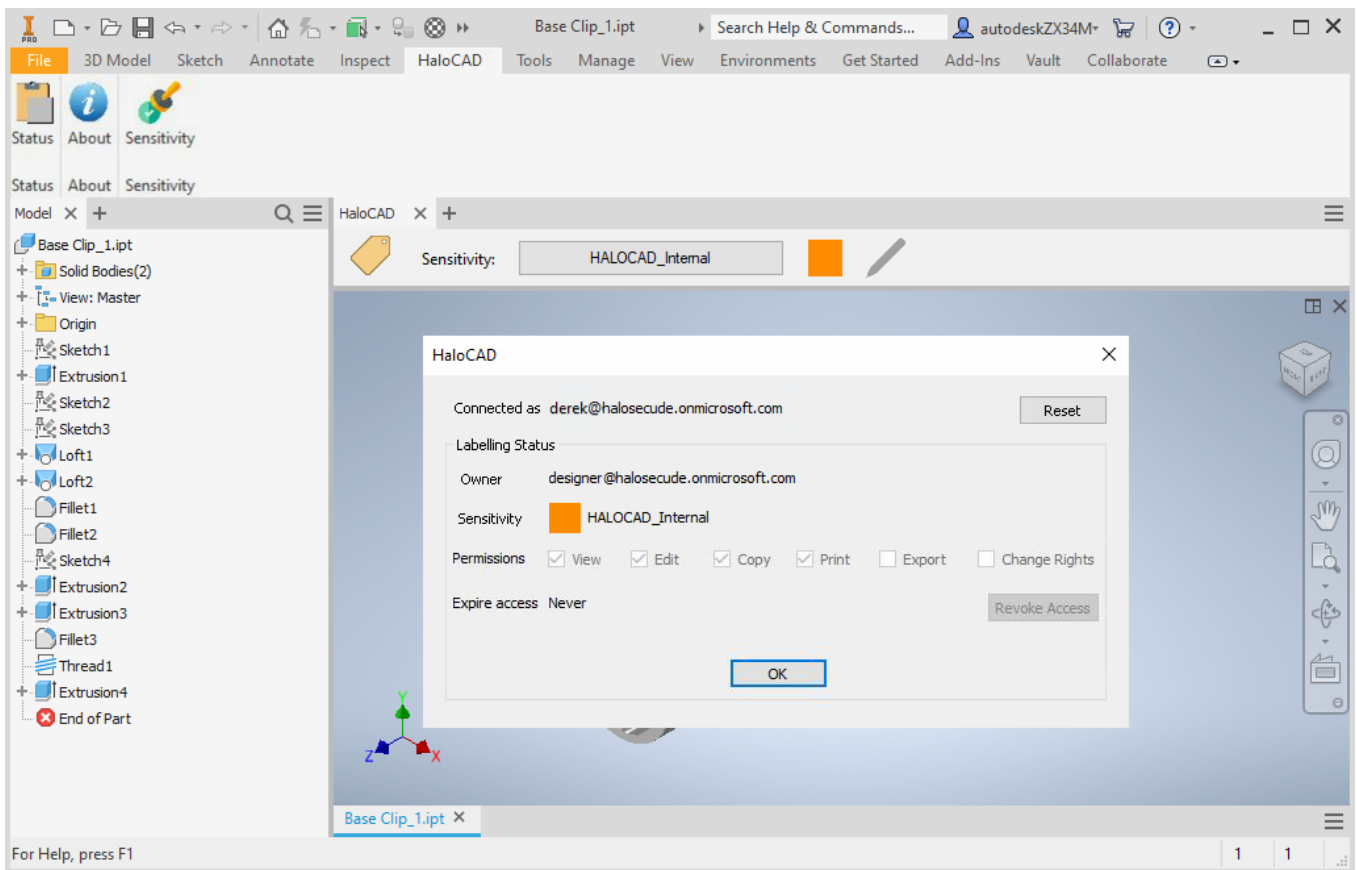
The following figure shows an example of an Application ID that is used to initialize the HaloENGINE. This Application ID will be the owner of the document by default, however, a static email can also be an owner of the downloaded file if specified in the HaloENGINE. Please refer to example 2.



*Application ID as the owner of the file*

#### 4.3.2. 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.

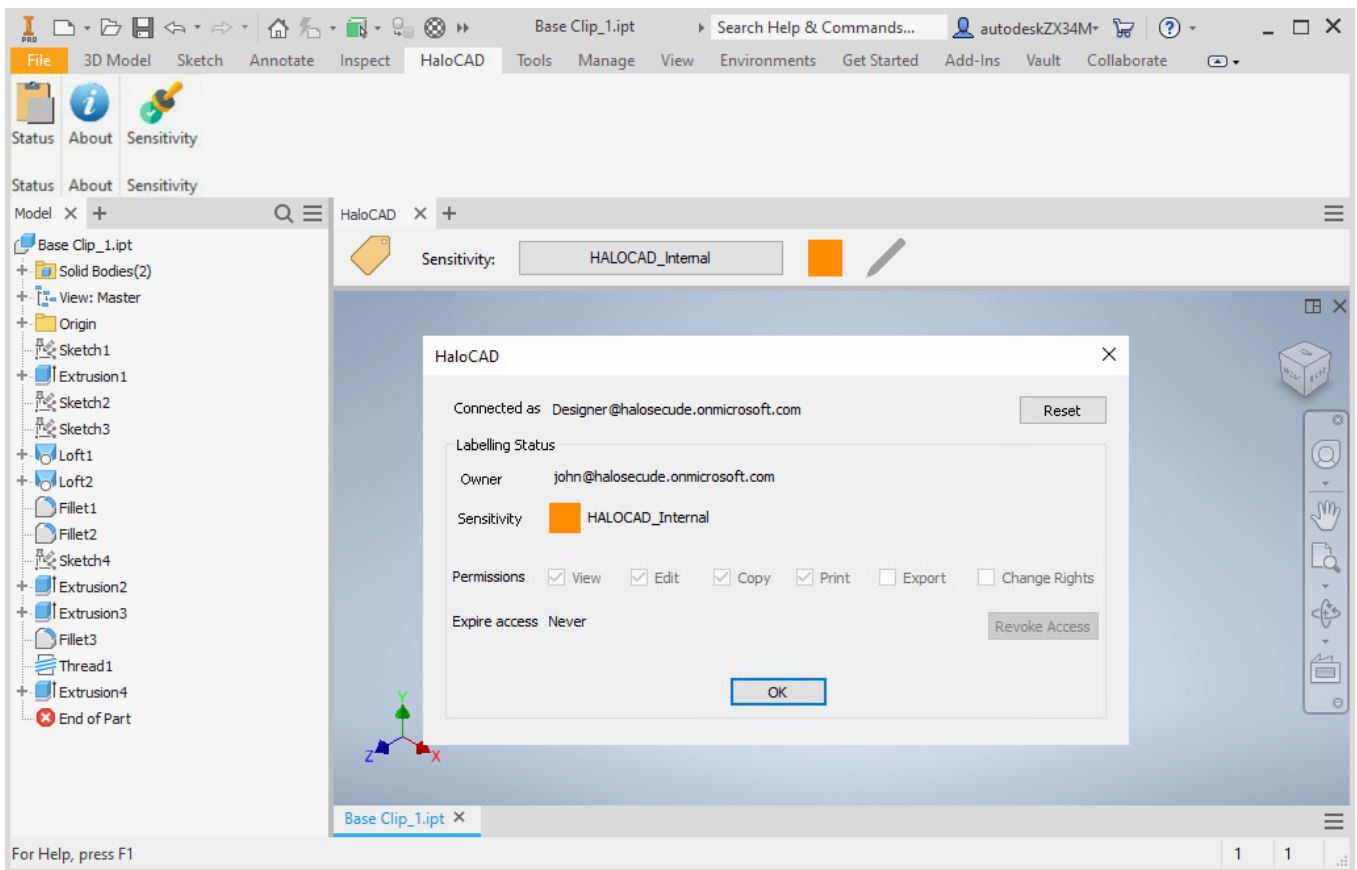


*Static Email as the Owner of the File*

### 4.3.3. Example 3: User as the Owner of the File

The following figure shows an example of a user whose name is configured in the HaloENGINE. This user is considered the owner of the document. In case, the user who logged in to Autodesk Vault 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.

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*User as the Owner of the File*

## 4.4. Integrating with MS Office (File Upload and Download) Applications

The following is an example of an upload and download sequence in Autodesk Vault 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.

### Check-in sequence

1. Create a new MS Office (Word / Excel) file and select a label from the **Sensitivity** ribbon. Click **Save** to save the file.
2. Or open an existing protected file. [In this example, the file (Bill Of Materials.xlsx) that will be uploaded is already protected with the **HaloCAD INTERNAL** label.]
3. Go to the **Autodesk Vault** tab > click **Log In** and enter your credentials.
4. Click **Check-in** and select the folder of your choice to save in Autodesk Vault Server.
5. The **Check-in** window will appear:
  - a. Select the **Close files and delete working copy** check box.
  - b. Click **OK** on the **Check-in** window.
  - c. To the question "Do you wish to delete the file xxxxx.xlsx from its original location 'C:\xxxx\xxxx\xxxx'?" click **Yes** or **No**.

### Results:

- a. During the upload/check-in sequence, the original label is removed, and the decrypted file is stored (checked-in) in Autodesk Vault PLM.
- b. The upload/checked-in event is logged in the HaloENGINE.

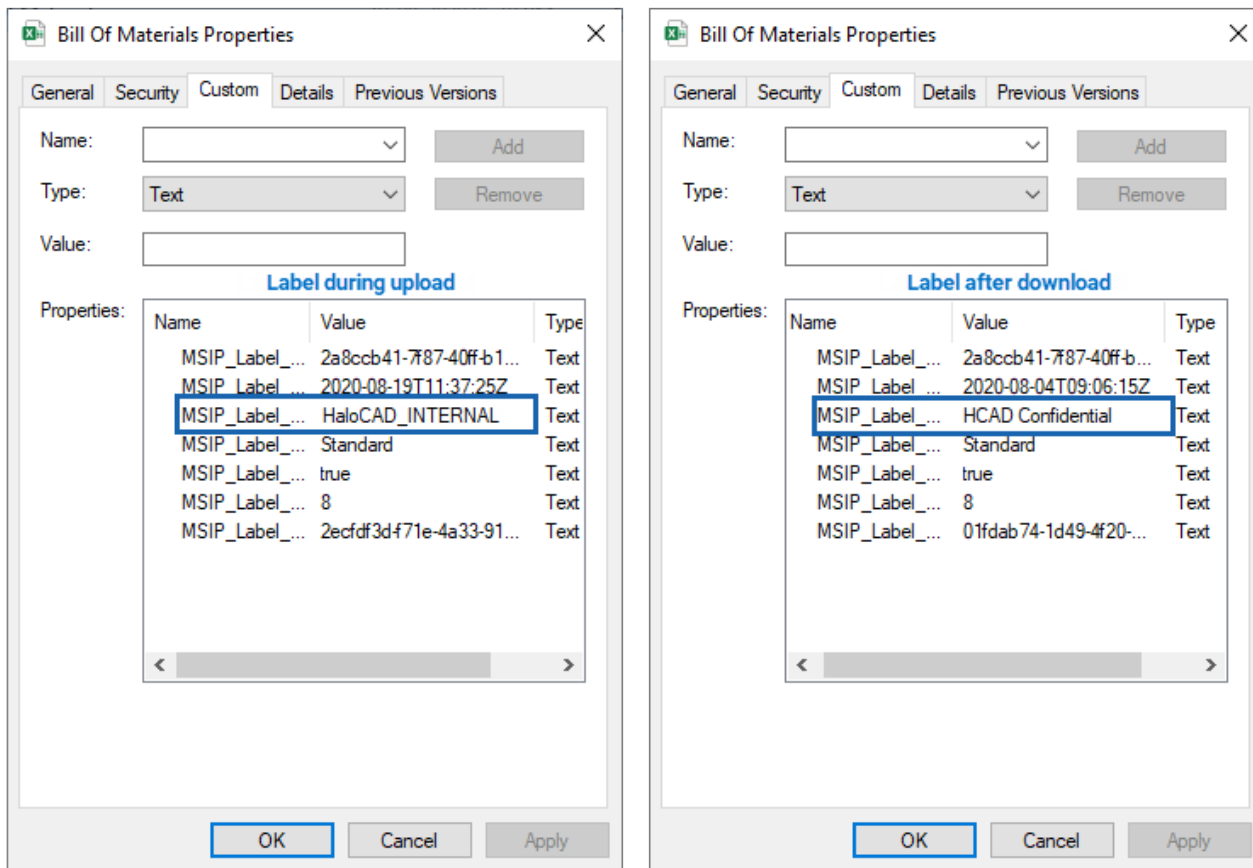
### Check-out sequence

1. Go to the **Autodesk Vault** tab > click **Open**, select the previously uploaded file from the Autodesk Vault server, and click **Open**.
2. To the question, "File S/xxxxx/logs/xxx.xlsx is not checked out. Do you want to check it out now?"
  - a. Click **Yes** to check out directly.
  - b. Or click **No** and then click **Check-out** in the **Autodesk Vault** tab.

### Results:

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

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File upload and download Sequence

## 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](mailto: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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