Secude

HaloCAD

HaloCAD Add-on for Inventor

Operations Manual

Version 2.5

Copyright

© 2025-2026 Secude Solutions AG. All Rights Reserved.

This Secude-branded software and its corresponding documentation are the exclusive property of Secude Solutions AG of Luzern, Switzerland and are protected under the various copyright laws around the world and by various other intellectual property laws. The use of this software and/or its documentation and any copying thereof by end users is subject to the terms of a license agreement with Secude Solutions AG. The wrongful use or copying of this software and/or documentation subjects infringers to both criminal and civil liabilities.

ANY USE, COPYING, REPRODUCTION, ALTERATION, TRANSMISSION, OR TRANSLATION OF THESE MATERIALS, IN WHOLE OR IN PART, IN ANY FORM OR BY ANY MEANS, IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN PERMISSION OF SECUDE SOLUTIONS AG. IF THIS MATERIAL IS PROVIDED WITH SOFTWARE LICENSED BY SECUDE, THE INFORMATION HEREIN IS PROVIDED SUBJECT TO THE TERMS OF THE WARRANTY PROVIDED WITH THE PRODUCT LICENSE. IF THIS MATERIAL IS NOT PROVIDED WITH LICENSED SOFTWARE, THE INFORMATION HEREIN IS PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND. IN EITHER CASE, THERE ARE NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR QUALITY. IN NO EVENT SHALL SECUDE SOLUTIONS AG OR ANY OF ITS AFFILIATES BE LIABLE FOR ANY DIRECT OR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE MATERIALS AND/OR INFORMATION CONTAINED HEREIN. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

Secude Solutions AG takes reasonable measures to ensure the quality of the data and other information produced herein. However, these materials may contain technical inaccuracies or typographical errors, and are not guaranteed to be error-free. Information may be changed or updated without notice. Secude Solutions AG has no obligation to update these materials based on changes to its products or services or those of third parties. Secude Solutions AG may also make improvements or changes to the products or services described in this information at any time without notice. Secude Solutions AG frequently releases new versions and updates to its software, and therefore images shown in this document may be slightly different from what you see on screen.

As with any security product, Secude Solutions AG highly recommends the back up of data as well as passwords on a regular basis. Secude Solutions AG is not responsible for the loss of passwords or data that cannot be retrieved based upon a user’s failure to adhere to stringent backup and safe-keeping conventions.

Contact

Secude Solutions AG

Murbacherstrasse 19

6003 Luzern, Switzerland

Mail: info@secude.com

Support

Web: https://support.secude.com

Mail: support@secude.com

Table of Contents

1. ABOUT THIS MANUAL 1

2. GENERAL FAQS 2

3. HOW DOES HALOCAD WORK? 3

3.1. License Enforcement 3

3.2. Applying Protection using HaloCAD Add-on 3

4. GET STARTED WITH HALOCAD 6

4.1. Permission Levels and Usage Rights 6

4.1.1. Basic Permissions 6

4.1.2. Custom Permissions 7

4.2. HaloCAD Screen Introduction 8

4.3. How to Protect a CAD File? 11

4.3.1. Manage Sensitivity Labels 13

4.3.2. Log Out the Active User 13

4.4. How to Export a Protected CAD File to a PDF File? 15

5. COMMON SCENARIOS 17

5.1. Concept: Sensitivity Labels 17

5.2. How to Open a Protected CAD File? 18

5.2.1. Example 1: Label with Read-only Access 18

5.2.2. Example 2: Label with Full Control Access 21

5.2.3. Example 3: Unauthorized User Access 21

5.2.4. Example 4: Label Deleted from Microsoft Entra admin center 22

5.2.5. Example 5: Labeling Dependent (Protected and Unprotected) Files 22

5.2.6. Example 6: Labeling Dependent (Unprotected) Files 23

5.2.7. Example 7: Removing Protection from Assembly and Part Files 23

5.2.8. Example 8: Other Use Case Scenarios 24

5.2.9. Example 9: Label with Content Marking 26

5.2.10. Example 10: Custom Permissions Label 27

5.2.11. Example 11: Set an Expiration Date for File Access 29

5.2.12. Example 12: Remove protection from a file 30

5.2.13. Example 13: Revoke a File 30

6. TROUBLESHOOTING 33

6.1. Cannot Sign in to Microsoft Sign-In Assistant 33
6.2. Labels are not Getting Downloaded in the HaloCAD Session 35
6.3. Label Not Found in the Policy 36
6.4. Double Key Encryption Label could not be Applied 37
6.5. Could not Connect to MPIP – Case 1 38
6.6. Could not Connect to MPIP – Case 2 39
6.7. HaloCAD Activation Fails 40
6.8. Incorrect License Key Error Message 41
6.9. Why Am I Getting License Expiration Notifications? 42
6.10. Other License-Related Error Messages 43
7. TECHNICAL SUPPORT 44

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 explains how to use HaloCAD to classify and protect CAD files. It provides step-by-step instructions for applying sensitivity labels, protecting files, and managing protected content. For installation and configuration instructions, refer to the Installation Manual.

2. General FAQs

This section answers frequently asked questions about HaloCAD. If you need additional assistance, contact your sales representative or the Secude Support team.

1. **What does HaloCAD provide to an organization?**
   HaloCAD solution protects engineering CAD files and enforces security across their entire lifecycle.
2. **How many variants does HaloCAD have?**
   HaloCAD is available in three variants:
   a. HaloCAD Add-on for CAD applications – a standalone add-on
   b. HaloCAD for PLM and PDM
3. **What is the difference between HaloCAD Add-on for CAD and HaloCAD for PLM/PDM?**
   HaloCAD Add-on for CAD is a standalone solution for organizations that do not use a PLM/PDM system. Users manually apply Microsoft Purview Information Protection (MPIP) sensitivity labels to protect CAD files.
   HaloCAD for PLM/PDM integrates with supported PLM/PDM systems and automatically applies MPIP sensitivity labels during file download based on the rules configured in HaloENGINE GenNXT. This eliminates the need for user intervention while providing centralized protection and monitoring.
4. **What languages are supported by the HaloCAD Add-on?**
   Currently, the HaloCAD Add-on only supports English.
5. **Does the HaloCAD Add-on support all native CAD file types?**
   Yes, the HaloCAD Add-on supports all native CAD file types.
6. **What happens if an unauthorized person tries to open a HaloCAD-protected CAD file?**
   The process begins with user authentication, which verifies the user's identity. If authentication fails, an error message is displayed, and access is denied.
7. **Who decides what labels should be used for various CAD drawings and how they are managed in the background?**
   An administrator manages labels (user rights) in the Microsoft Entra admin center, while engineers can create profiles, classification schemas, and action rules based on the sensitivity of their data.
8. **What if I don't want a certain file to be protected?**
   If you do not want the file to be protected, you can apply the **No Protection** label, which does not include any policy settings.
9. **Can I create my own labels?**
   Yes, HaloCAD allows users to create custom permission labels.

3. How does HaloCAD work?

This section provides a high-level overview of how HaloCAD protects sensitive CAD files and how the system components interact.

3.1. License Enforcement

After installation, HaloCAD automatically sends a license validation request to the Secude License Manager when a user first starts a HaloCAD session by opening the CAD application.

Case 1:

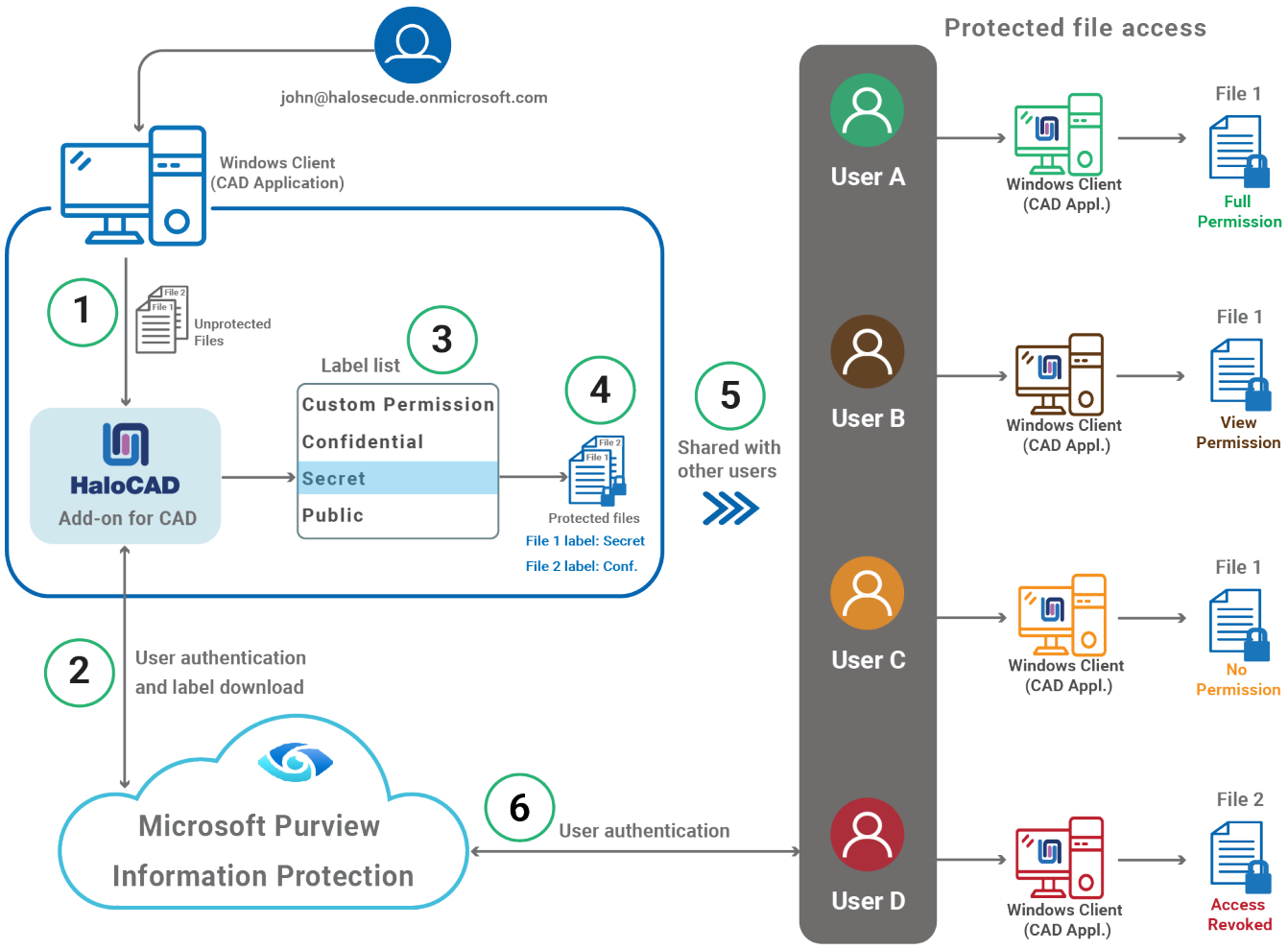
If the license is activated during installation, users can use all HaloCAD features without interruption.

Case 2:

If the license is not activated, HaloCAD displays an error message, and the user cannot access HaloCAD features. For more information, refer to the **License Activation** section in the Technical Reference Manual.

3.2. Applying Protection using HaloCAD Add-on

The following steps describe how HaloCAD protects CAD files.



HaloCAD protection

1. The user launches the CAD application and signs in to a HaloCAD session.
2. HaloCAD connects to the Microsoft Entra tenant. Throughout this manual, `halosecude.onmicrosoft.com` is used as the example tenant.
   a. Microsoft Entra ID prompts the user to sign in and verifies the user's identity.
   b. After successful authentication, HaloCAD downloads the Microsoft Purview Information Protection (MPIP) sensitivity labels available to the logged-in user.
3. **Apply protection:** John applies two different sensitivity labels to two separate CAD files.
4. HaloCAD enforces protection based on the applied sensitivity label. The label is stored in the document metadata, and HaloCAD applies the associated protection settings to secure the file.
5. **Share files:** Assume that `john@halosecude.onmicrosoft.com` shares the protected files with multiple users. Users A, B, and C receive **File 1**, while User D receives **File 2**.
6. **Access protected files:** Users A, B, C, and D attempt to open the protected files. Microsoft Entra ID authenticates each user. If authentication succeeds, HaloCAD grants access according to the permissions defined in the applied sensitivity label. Permissions such as **View**, **Edit**, **Print**, **Copy**,

Export, and **Change Rights** are granted based on the applied sensitivity label. Different permission levels can be assigned to individual users or groups. Note: The user who initializes the HaloCAD session becomes the author of the file and automatically receives full access rights. For more information about sensitivity labels, refer to the Microsoft documentation.

a. File 1 – `UserA@halosecude.onmicrosoft.com` is granted full access.

b. File 1 – `UserB@halosecude.onmicrosoft.com` is granted read-only access.

c. File 1 – `UserC@halosecude.onmicrosoft.com` is denied access and cannot open the file.

d. File 2 – Access for `UserD@halosecude.onmicrosoft.com` has been revoked because of risky or suspicious activity.

Logged-in user (HaloCAD session)

In this manual, the terms **logged-in user** and **active user** are used interchangeably to refer to the user account that launches the CAD application and signs in to Microsoft Entra ID by using Microsoft Sign-In. This account can differ from the user currently signed in to the operating system. Throughout this manual, this authenticated connection is referred to as the **HaloCAD session**.

4. Get Started with HaloCAD

This section describes how to protect a file, open a protected file, and export a protected file as a PDF.

4.1. Permission Levels and Usage Rights

4.1.1. Basic Permissions

The following table describes the basic permissions and the actions allowed for each permission level.

S.No	Permission Level	Usage Rights (Allowed Recipient Actions)
1	View	Open and read the data (read-only access). It includes zooming and viewing from different angles (for CAD file types).
2	Edit	Edit the file and save it
3	Copy	Extract data (including screen captures) from the file into the same or another file.
4	Print	Print the content
5	Export	Save the content under a different file name (Save As). Also includes **Export to PDF**.
6	Change Rights	Change the label applied to a file, remove protection, or save the file in an unprotected format.
7	Owner (Full Control rights)	Grants full access to the file and allows all available actions. This permission also includes the following rights: • Remove protection • Relabel a file

Basic Permissions

Author (creator) of a file

The author of a file has all the rights and actions mentioned in the above table. Also includes the following permissions:

1. Open file after the expiry date
2. Revoke access

4.1.2. Custom Permissions

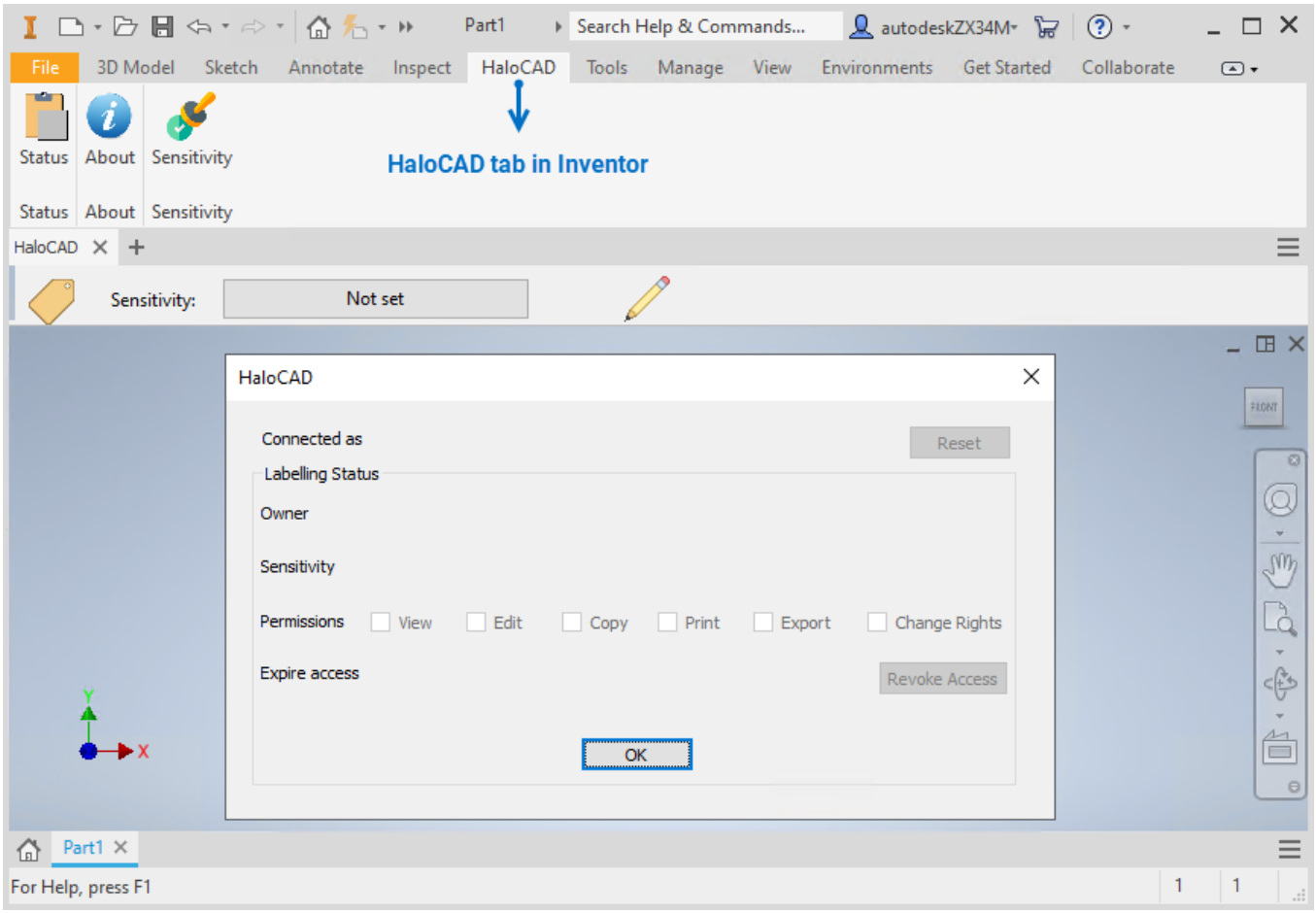
The following table describes the available custom permission levels.

S.No	Permission Level	Usage Rights (Allowed Recipient Actions)
1	Viewer	Open and read the data (read-only access). It includes zooming and viewing from different angles.
2	Reviewer	Viewer's allowed permissions plus: 1. Edit 2. Save the file
3	Co-Author	Reviewer's allowed permissions plus: 1. Print 2. Extract data (including screen captures) from the file into the same or another file.
4	Co-Owner	Co-Author's allowed permissions plus: 1. Export 2. Change Rights
5	Only for me	Grants all rights to the file and allows all available actions to be performed only by the file author.

Custom Permissions

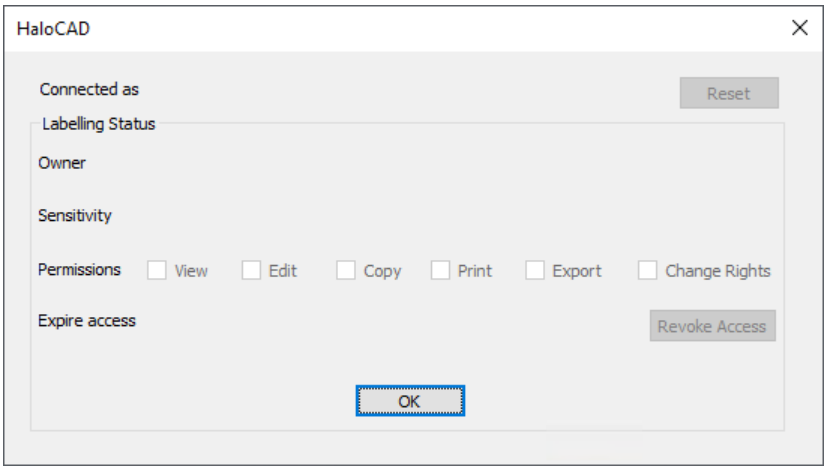
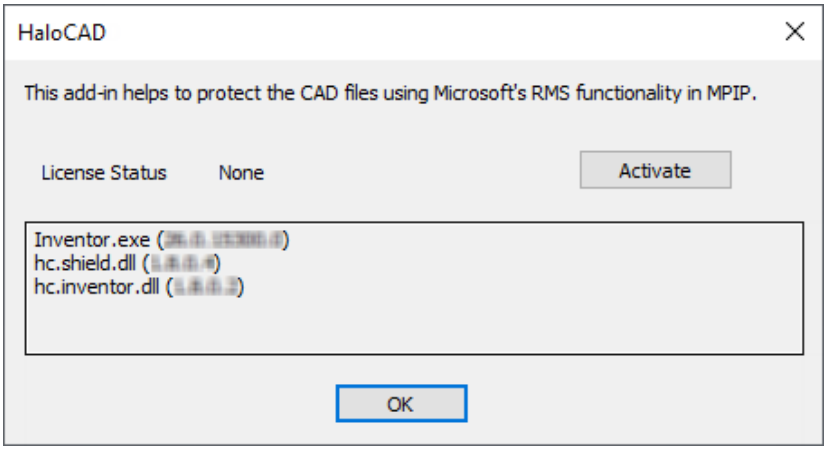
4.2. HaloCAD Screen Introduction

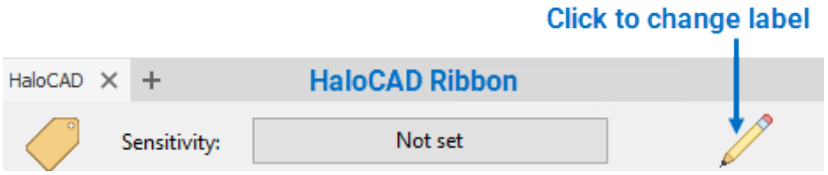
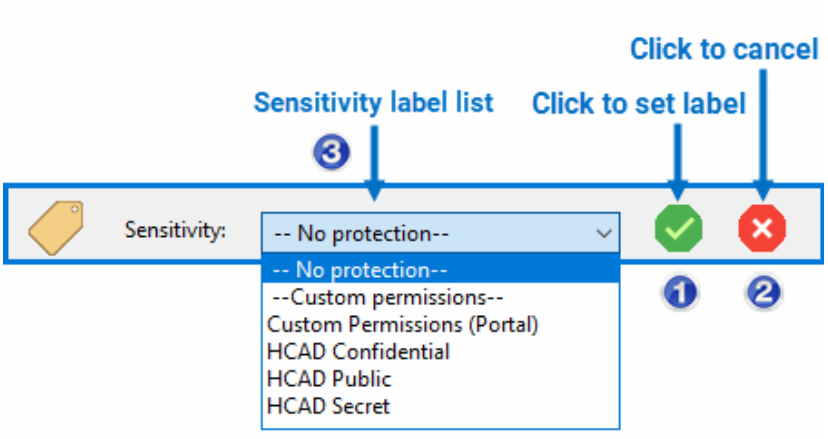
After installing the HaloCAD Add-on, the HaloCAD tab appears in the CAD application, as shown in the figure below:



HaloCAD in Inventor

The following table provides a brief description of each HaloCAD menu element.

S.No	Icon	Description
1		The **Status** icon displays the status of the file.  1. **Connected as**: Name of the logged-in user 2. **Owner**: Author of the document 3. **Sensitivity**: Name of the label applied 4. **Permissions**: Rights on the file 5. **Expire access**: Displays the details of how long a user can access the labeled file 6. **Revoke Access** button**:** Revokes access granted for a protected document 7. **Reset** button: Logs off a user from the current active session. The button will be disabled unless the user logs in again
2		The **About** icon displays the application version and license information. For details on license activation, refer to the “License Activation” section of the Technical Reference Manual. 

S.No	Icon	Description
3		The **Sensitivity** icon enables and disables the **HaloCAD** ribbon.  **Pencil icon - Click to change label**: 1. Downloads the available labels. 2. Allows changing an applied label.
		 1. **Green check mark - Click to set label** icon - applies the selected label or removes the existing label. 2. **Red cross mark - Click to cancel** icon - cancels the selected label. 3. **Sensitivity** label list - displays the label.

Overview of screen elements

4.3. How to Protect a CAD File?

Prerequisites

- Configure the protection settings for each sensitivity label in the Microsoft Entra admin center.
- To apply a default sensitivity label to documents, configure the following setting in the Microsoft Entra admin center: **Information Protection** > **Policies** > **Label publishing policies** > select a label policy > **Settings** > **Documents** > **Default settings for documents** > **Apply a default label to documents**.

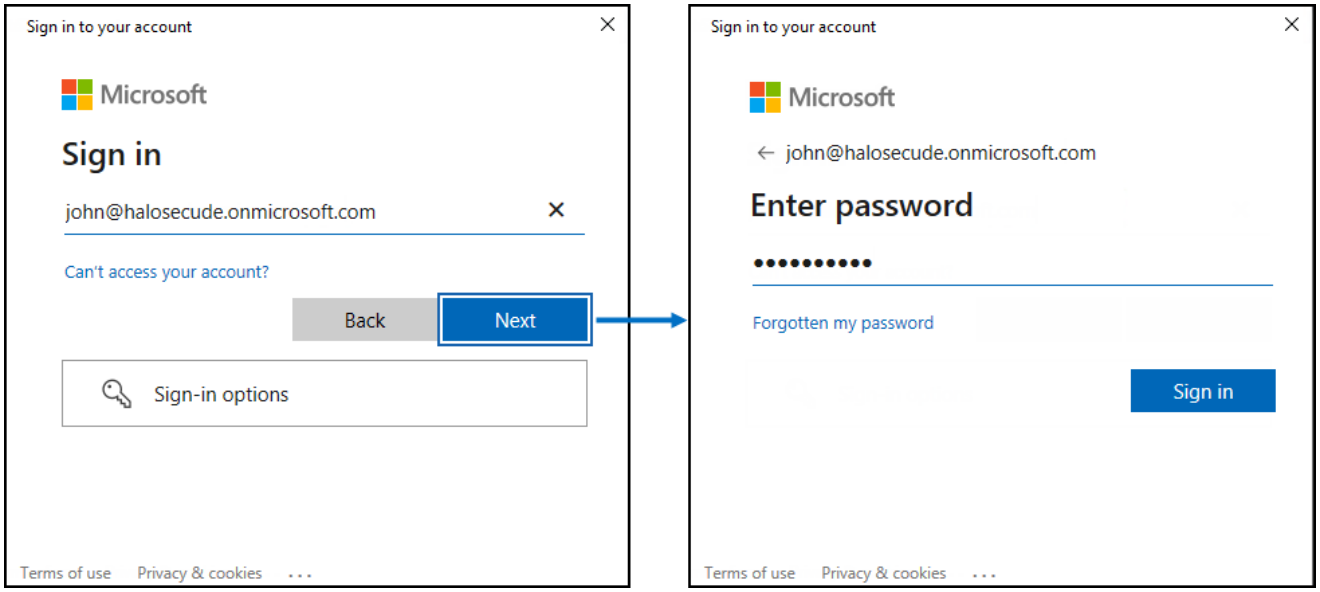
To protect a CAD file, perform the following steps:

1. Open Inventor.
2. Open an existing file or create a new file.
3. For new or unprotected files, the **Sensitivity** status displays **Not set** if no default label is configured in the policy. If a default label is configured, it is displayed. In this example, no default label is set.
4. The first time you sign in, HaloCAD prompts you to sign in using Microsoft Sign-In Assistant.



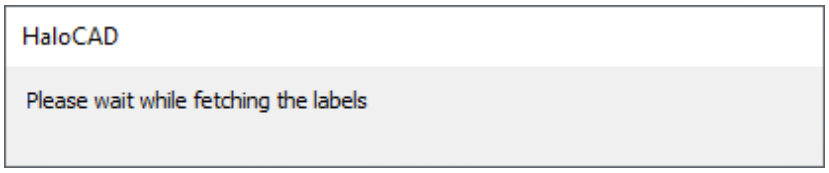
Microsoft Sign-In Assistant invoking message

5. Click **OK** and enter your credentials.



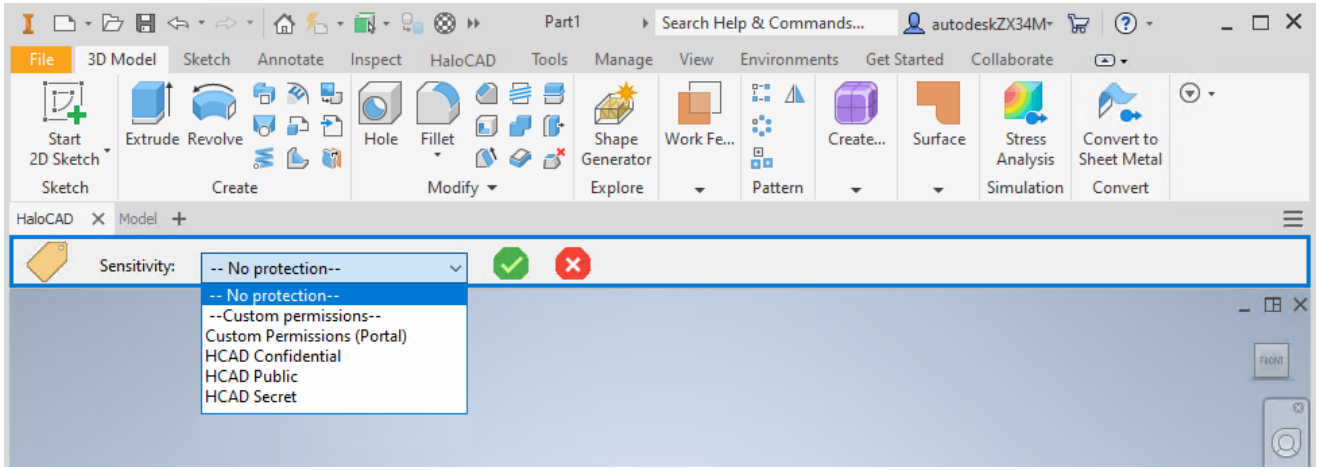
Authentication sign-in dialog

6. After authentication, HaloCAD connects to Microsoft Entra ID and caches the user credentials.
7. Go to the **HaloCAD** tab and click **Sensitivity**.
8. To apply the label to the active document, click the pencil icon (**Click to change label**).
9. A notification appears indicating that labels are being downloaded.



Fetching the labels

10. From the **Sensitivity** list, select a label, and then click the green check mark (**Click to set label**) to confirm the selection.

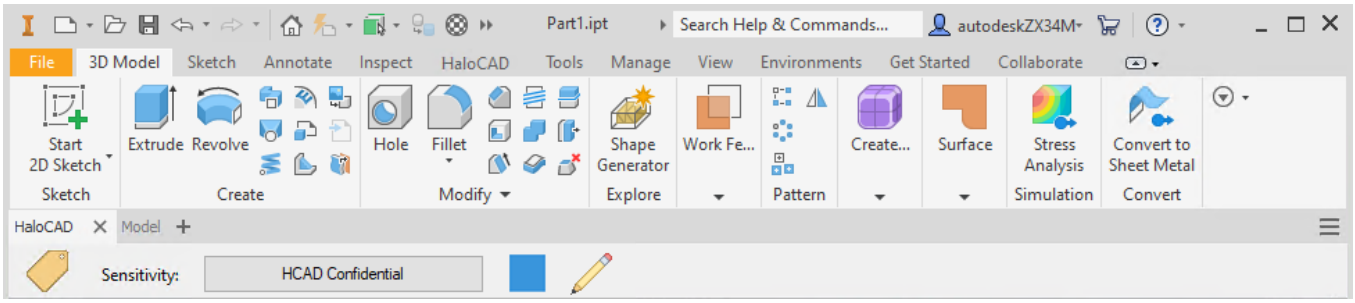


Downloaded labels for the signed-in user

11. For a new file, click **Save** and specify a file name.
12. For an existing file, no additional save action is required. When the label is applied by clicking the **Click to set label** (check mark) icon, the file is saved automatically.

Result

- The selected sensitivity label is applied to the active document.
- The applied sensitivity label appears on the HaloCAD ribbon using the color configured in the Microsoft Entra admin center.
- To clear the credential cache, click **Reset** in the **Status** UI.



File with applied label

4.3.1. Manage Sensitivity Labels

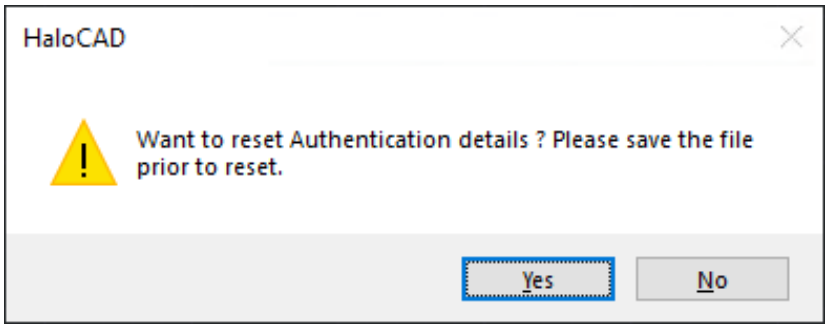
Use the Sensitivity list to manage the sensitivity label applied to a file.

- **Cancel a label selection:** If you select the wrong sensitivity label but have not yet applied it, click the **Click to Cancel** (red cross) icon. HaloCAD cancels the selection.
- **Remove protection:** To remove the existing sensitivity label and leave the file unprotected, select the **No Protection** label from the list.
- **Change a sensitivity label:** To apply a different sensitivity label or modify the protection settings (Custom Permissions), click the **Click to change label** (pencil) icon, select a new label, and then click the **Click to set label** (green check mark) icon. HaloCAD replaces the existing sensitivity label with the selected label and saves the file.
- **Revoke access:** If the file author no longer wants users to access a shared file, select **Revoke Access** in the **Status** UI.

4.3.2. Log Out the Active User

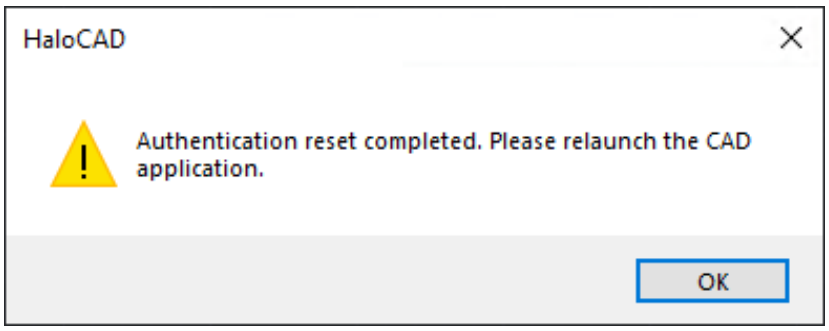
This section explains how to log out the active user from a HaloCAD session. Logging out ends the current HaloCAD session and allows another user to log in.

1. Go to the **HaloCAD** tab > click **Status** > click **Reset**.
2. When the following message appears, click **Yes**.



Clear cached credentials #1

3. When the next message appears, click **OK**.



Clear cached credentials #2

4. Restart the application.

Result

- The current HaloCAD session ends, and the cached credentials are cleared.
- After restarting the application, another user can sign in to a new HaloCAD session.
- If you do not relaunch the CAD application, HaloCAD displays the following message: *"For HaloCAD to work properly you should relaunch the application now"*.
- Click **OK**, and then restart the application.

Next step

1. **Log in after reset:** After restarting the application, when you open a protected file or click the pencil icon (**Click to change label**), HaloCAD prompts you to use the Microsoft Sign-In Assistant. Click **OK**, and then sign in with your credentials.



Microsoft Sign-In Assistant invoking message

2. For more information about HaloCAD features, refer to the **Common Scenarios** section.

4.4. How to Export a Protected CAD File to a PDF File?

To convert / export / save a protected file as PDF:

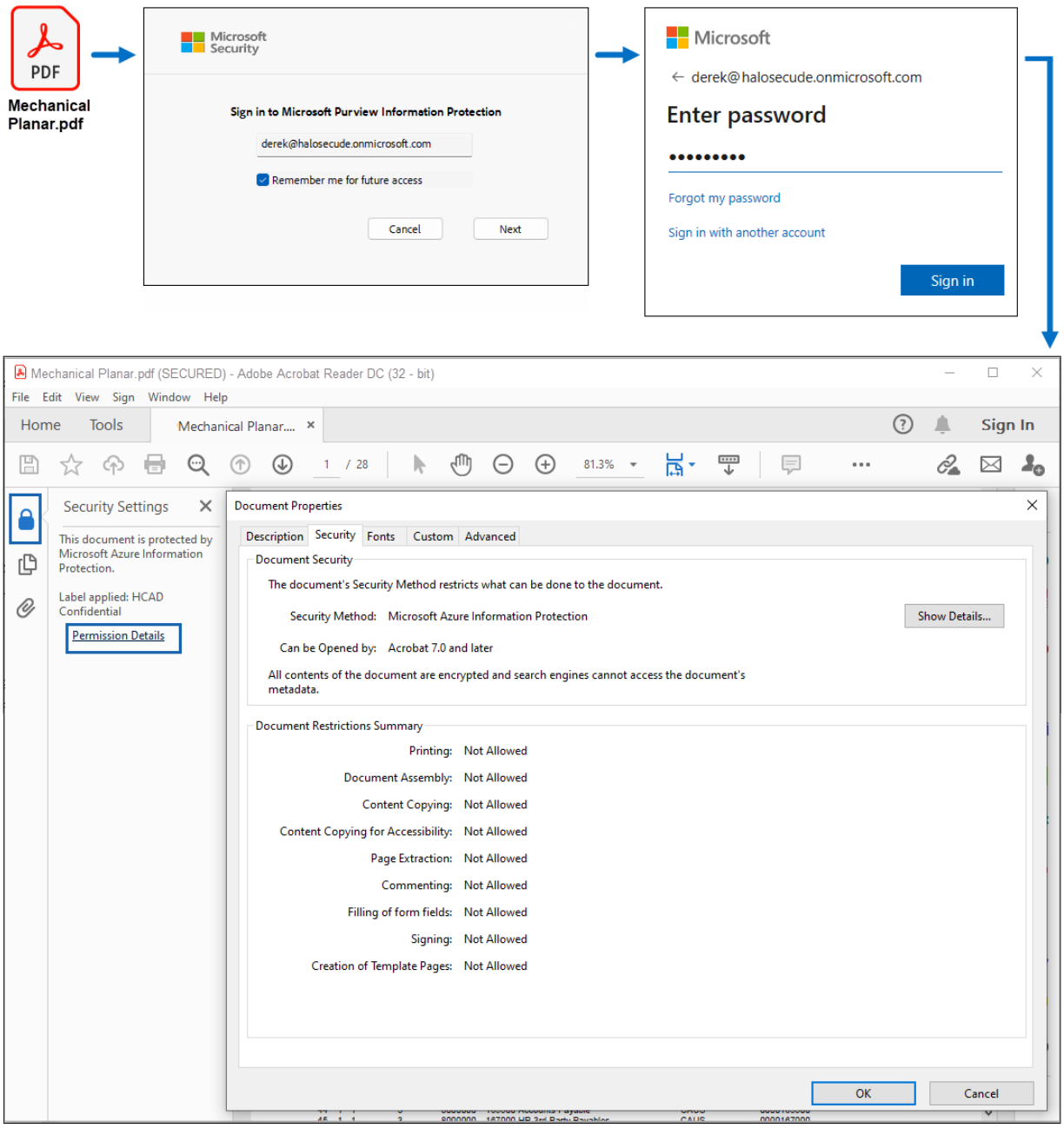
1. Go to the **File** tab > click **Export** > **PDF** > choose a location and enter a file name.
2. Click **Save** on the **Save As** dialog.

Result: The PDF file is exported with the same protection as the source CAD file.

The protected file may need to be viewed after being exported. To open a protected file, follow the instructions below:

Prerequisite: Ensure that the latest version of Acrobat Reader DC or Acrobat DC is installed.

1. Double-click the protected file or open the **Adobe** application, go to the **File** menu > **Open** > browse, and select the file.
2. Microsoft Sign-in prompts you to provide your credentials.
3. Enter the credentials and click **Sign in**.



Protected PDF File

4. To the question "*Do you want to stay signed in?*", answer **Yes**.

Result:

- Upon successful authentication, the protected file is opened.
- If authentication fails, access to the file is blocked.

Next step

To see the actual permissions that are applied to the file, do one of the following:

- Click on the lock icon > **Permission Details** > **Document Properties** screen > click **Show Details**.
- Click **File** > **Properties** > click **Security** tab > **Document Properties** screen > click **Show Details**.

5. Common Scenarios

This section describes common HaloCAD scenarios and the expected behavior for each scenario.

5.1. Concept: Sensitivity Labels

Microsoft Purview Information Protection (MPIP) sensitivity labels can be customized to meet an organization's security requirements. Administrators define and manage these labels in the Microsoft Entra admin center, and HaloCAD downloads the available labels for user selection.

When a sensitivity label is applied, HaloCAD enforces the permissions defined in the label. Permissions that are not explicitly granted are denied.

1. **View:** Allows users to view the protected file only. HaloCAD disables the following features:
   a. **Click to change label** (pencil) icon
   b. CAD application tabs, panels, and commands
   c. **Edit**, **Copy**, **Print**, **Export**, **Change Rights**, and **Revoke Access**

   For more information, refer to Example 1.
2. **Co-Owner:** Grants full access to the protected file, including viewing, editing, printing, copying, exporting, and changing rights.
   For more information, refer to Example 2.

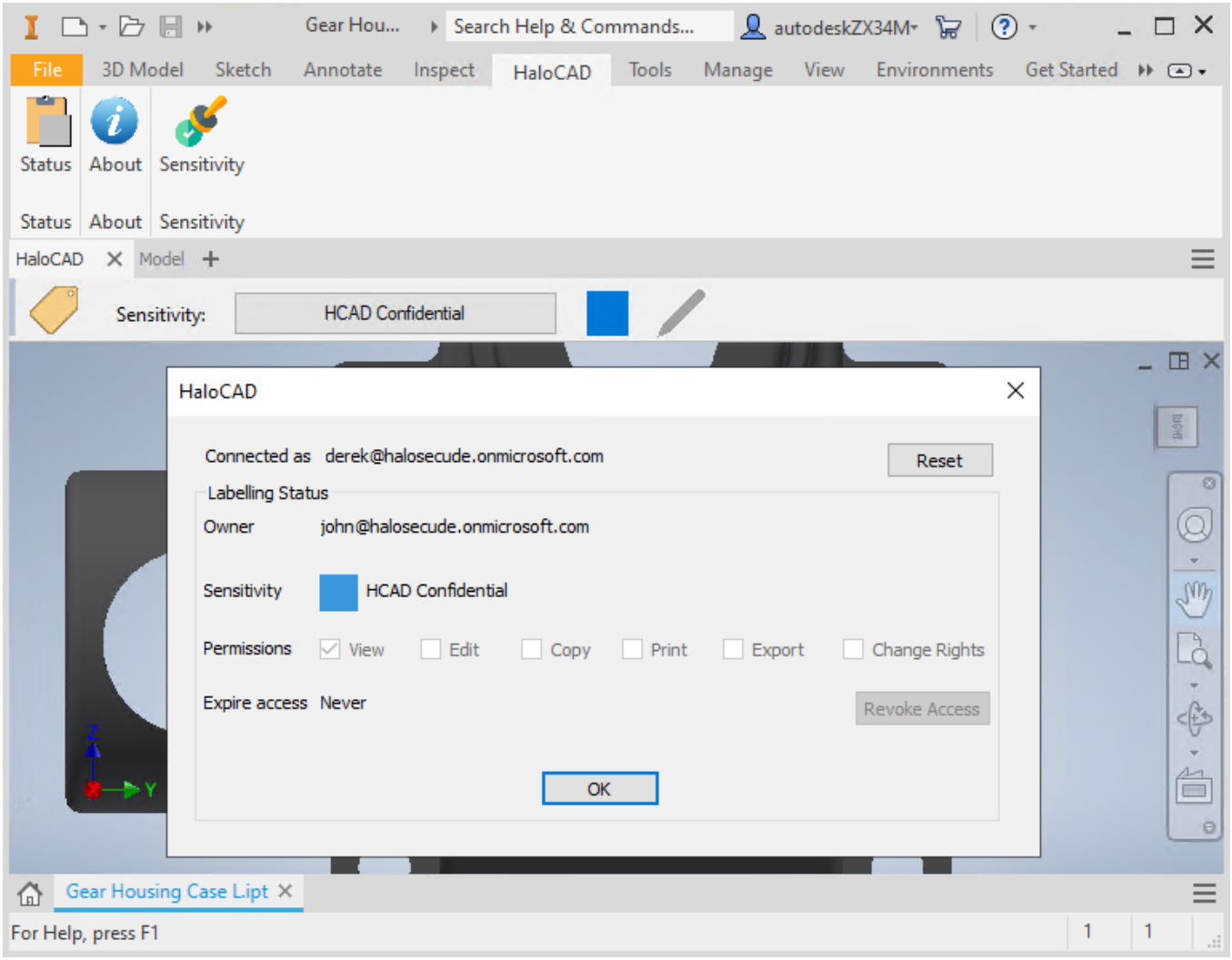
5.2. How to Open a Protected CAD File?

To open a protected CAD file, follow these steps:

1. Open the protected CAD file.
2. The first time you open a protected file, HaloCAD prompts you to sign in by using Microsoft Sign-In.
3. Click **OK**, and then enter your credentials.
4. Follow the on-screen instructions to complete the authentication process.
5. After successful authentication, the protected file opens.
6. The permissions available for the file depend on the sensitivity label applied. Refer to the following examples.

5.2.1. Example 1: Label with Read-only Access

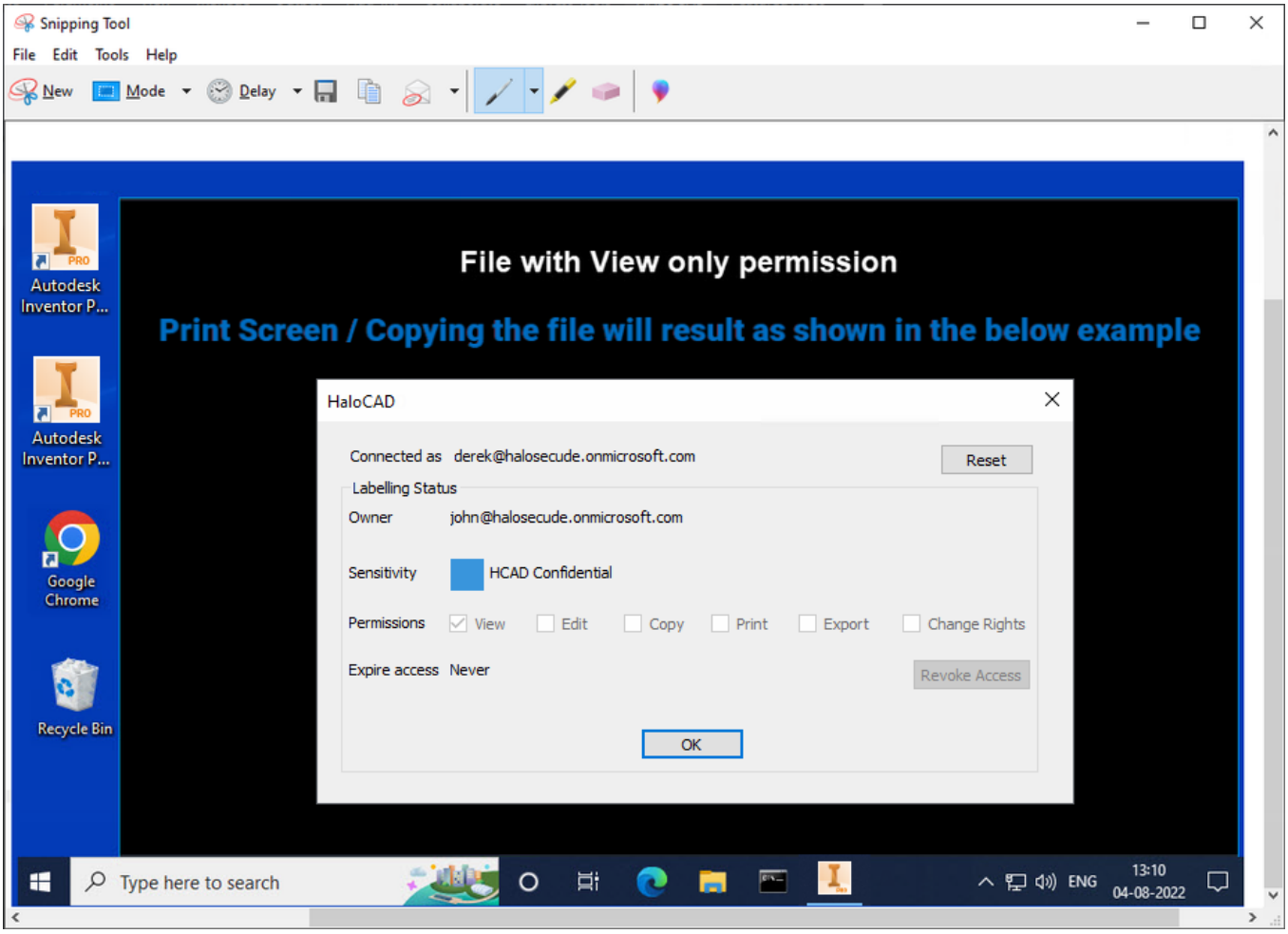
The **HCAD Confidential** sensitivity label is applied to the following file. This label grants the logged-in (active) user **view-only** access and restricts all other actions. To view the applied sensitivity label and the assigned permissions, click the **HaloCAD** tab, and then click **Status**.



User with restricted access

Behavior When Attempting to Copy, Save, or Capture Screen Data

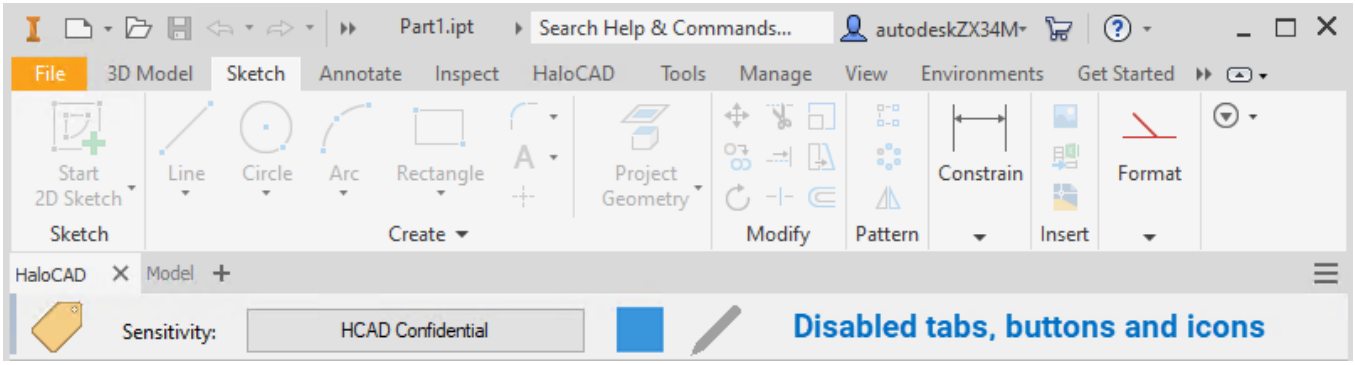
One of the most common ways confidential information is compromised is by copying it (Ctrl + C) or capturing it using tools such as Print Screen or the Snipping Tool and then transmitting it elsewhere. To prevent this, when a label without the **Copy** usage right is applied, the entire content is blanked out during copy or screen-capture attempts. Similarly, when the user clicks the **File** menu, options such as **Save**, **Print**, and other related actions are disabled because the user does not have the required authorization to perform these operations.



HaloCAD prevents copying data

Behavior When Attempting to Change the Label

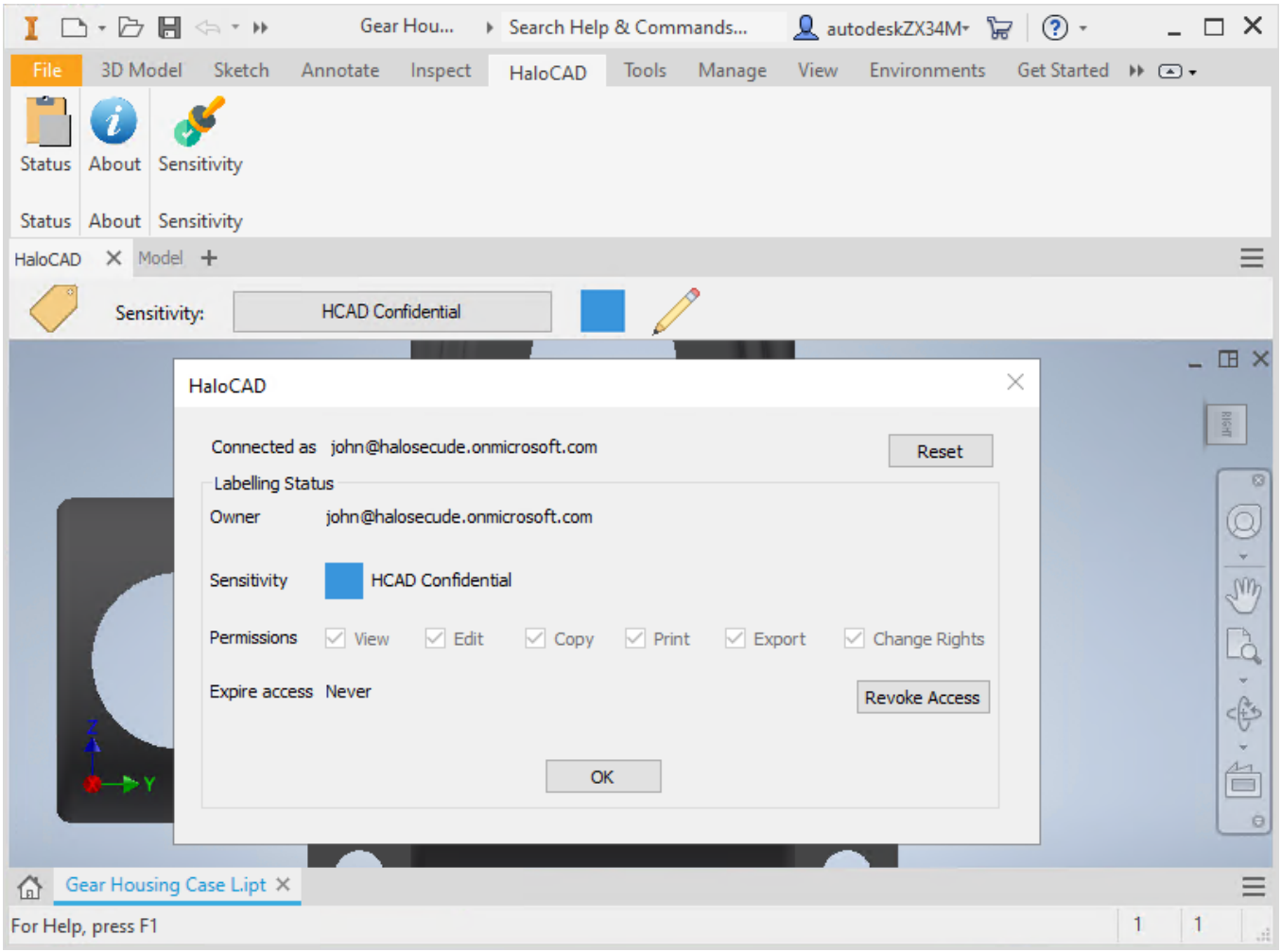
With "Read-only / View" rights, you are only allowed to view the content; all other options, including the tab, panel, button, and pencil icon - **Click to change label** on the HaloCAD Sensitivity ribbon, are disabled. As a result, the imposed protection cannot be relabeled or removed.



Disabled tab, buttons, and icons

5.2.2. Example 2: Label with Full Control Access

The following file is protected with the **HCAD Confidential** sensitivity label, which grants the logged-in (active) user **Full Control** permissions. As a result, all available commands are enabled. To view the applied sensitivity label and the assigned permissions, click the **HaloCAD** tab, and then click **Status**.



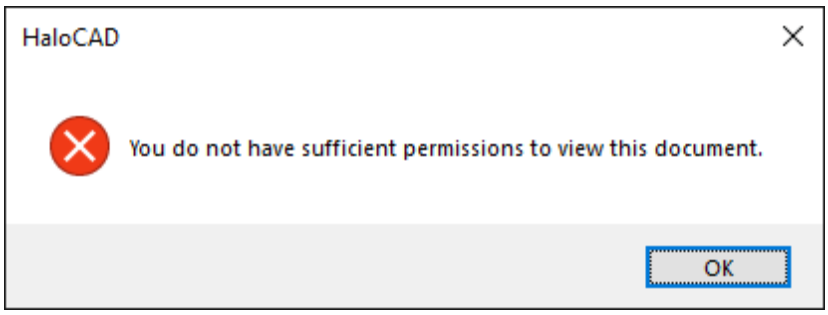
User with full access

What Happens if You Try to Relabel with Co-Owner Permission?

Users with **Co-Owner** permission have full control over the protected file. To change or remove the applied sensitivity label, click the **Click to change label** (pencil) icon on the **HaloCAD** ribbon.

5.2.3. Example 3: Unauthorized User Access

An unauthorized user who attempts to open a protected CAD file receives the following warning message. Note: An unauthorized user is any user who is not included in the allowed users or groups defined in the applied Microsoft Purview Information Protection sensitivity label.



Unauthorized user opening a protected file

5.2.4. Example 4: Label Deleted from Microsoft Entra admin center

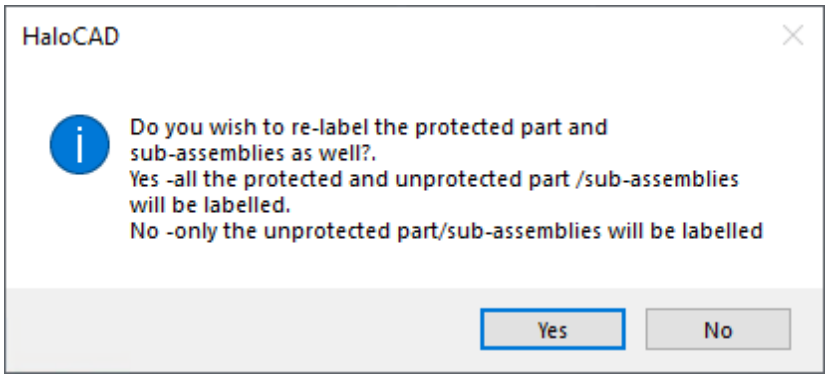
A sensitivity label is applied to a protected file and later deleted from the Microsoft Entra admin center. Although the label is no longer available in the admin center, the protection applied to the file remains unchanged. Users attempting to open the protected file receive the following warning message.



Warning message for unavailability of a label

5.2.5. Example 5: Labeling Dependent (Protected and Unprotected) Files

Assume that a parent assembly file contains both protected and unprotected dependent part or sub-assembly files. When you apply a sensitivity label to the parent assembly file, HaloCAD prompts you to confirm whether the label should also be applied to the dependent files.



Labeling the unprotected and protected child files

If Yes:

- All associated unprotected child files receive the parent assembly file's sensitivity label.
- Existing protected child files are relabeled with the parent assembly file's sensitivity label.
- If a child file does not have **Owner** or **Co-Owner** permissions, the parent assembly file's sensitivity label cannot be applied to that file.

If No:

- Only unprotected child files receive the parent assembly file's sensitivity label.
- Existing protected child files remain unchanged.

5.2.6. Example 6: Labeling Dependent (Unprotected) Files

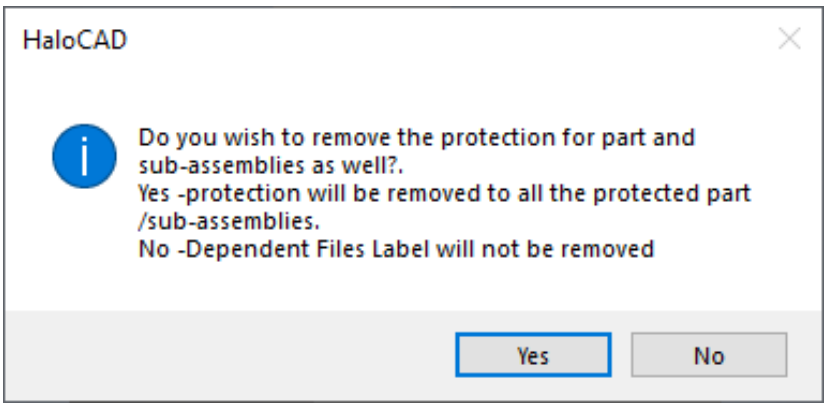
Assume that a parent assembly file contains unprotected dependent parts or sub-assembly files. The parent assembly file can be either protected or unprotected. When you apply or change the sensitivity label on the parent assembly file, HaloCAD displays the following message. Click **OK** to apply the same sensitivity label to both the parent assembly file and the dependent files.



Labeling unprotected child files

5.2.7. Example 7: Removing Protection from Assembly and Part Files

Assume that a protected parent assembly file contains protected part or sub-assembly files. To remove protection from the parent assembly file, remove the existing sensitivity label and apply the **No Protection** label. HaloCAD displays the following message:



Removing protection from protected part files

Confirm whether the following action should be performed.

If Yes:

- The sensitivity labels are removed from all associated protected child files, leaving the files unprotected.
- If a child file does not have **Owner** or **Co-Owner** permissions, the protection cannot be removed from that file.

If No:

- The sensitivity label is removed only from the parent assembly file, leaving it unprotected.
- The existing protected child files retain their sensitivity labels.

5.2.8. Example 8: Other Use Case Scenarios

5.2.8.1. Importing a file with a restricted/least permission label

A restricted (least-permission) label grants limited access, such as View permission only. A full permission label grants all available permissions, including Edit, Export, and Change Rights.

Case 1 - When you import a dependent part or sub-assembly file protected with a restricted permission label into a parent assembly file protected with a full permission label, HaloCAD displays the following confirmation message: *"Please confirm applying least permission label from import file? Yes - Current file will be updated with import file label "XXXXXXX". No - Import operation will be cancelled."*

- **Yes** – HaloCAD applies the imported dependent part or sub-assembly file's label to the parent assembly file. For example, the **HCAD Public** label with **View** permission is applied.
- **No** – HaloCAD cancels the import operation, and the parent assembly file remains unchanged.

Case 2 - When you import a dependent part or sub-assembly file protected with either a full permission or restricted permission label into an unprotected parent assembly file, HaloCAD displays the same confirmation message described in Case 1.

- **Yes** – HaloCAD applies the imported file's label to the parent assembly file.
- **No** – HaloCAD cancels the import operation, and the parent assembly file remains unchanged.

Case 3 - When you import a dependent part or sub-assembly file protected with a full permission label into a parent assembly file protected with a restricted permission label, HaloCAD allows the import without changing the sensitivity label applied to the parent assembly file.

Furthermore, when an assembly file is opened, HaloCAD evaluates the permissions of all linked parts and sub-assembly files. If any linked part or sub-assembly file has the lowest permission level, HaloCAD applies the same permission level to the parent assembly file. For example, if a part file is protected with View permission only, the parent assembly file is also opened with View permission.

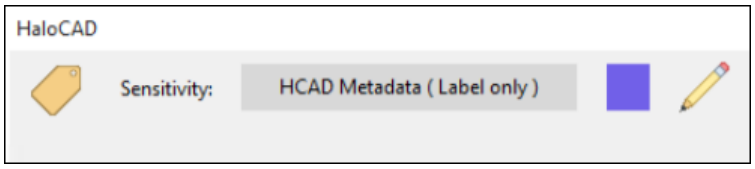
5.2.8.2. Labeling a File Without Protection

A label-only MPIP label adds metadata to a file without applying protection. Unlike a standard MPIP label, it does not include encryption or protection settings. As a result, it can be applied to files that do not require protection but still require a sensitivity label for classification purposes.

Prerequisite: When creating a label-only label in the Microsoft Entra admin center, ensure that the **Control access** check box on the **Choose protection settings for the types of items you selected** page is cleared.

Other key points

1. When a label-only MPIP label is applied to a file, the suffix (**Label Only**) is appended to the label name. For example, if the label name defined in the admin center is **HCAD Metadata**, it appears as **HCAD Metadata (Label Only)** after being applied to the file.



MPIP label-only

2. **Full rights**: A file with this label allows a user to have full rights on it.
3. **Notifications**: Similar to a standard MPIP label, the user receives notifications when a label-only policy is applied to a top-level parent file.
4. **With the HaloCAD Add-on:** The label details are displayed in the Status UI, similar to a standard MPIP label.
5. **Without the HaloCAD Add-on:** A file with a label-only MPIP label behaves like an unprotected CAD file.
6. **Properties**: To see label details, follow the instructions below:

a. Go to **Model Browser** > right-click on the file name and select **iProperties**.

b. Click on the **Custom** tab in the **iProperties** window to view the author name, label ID, and label name.

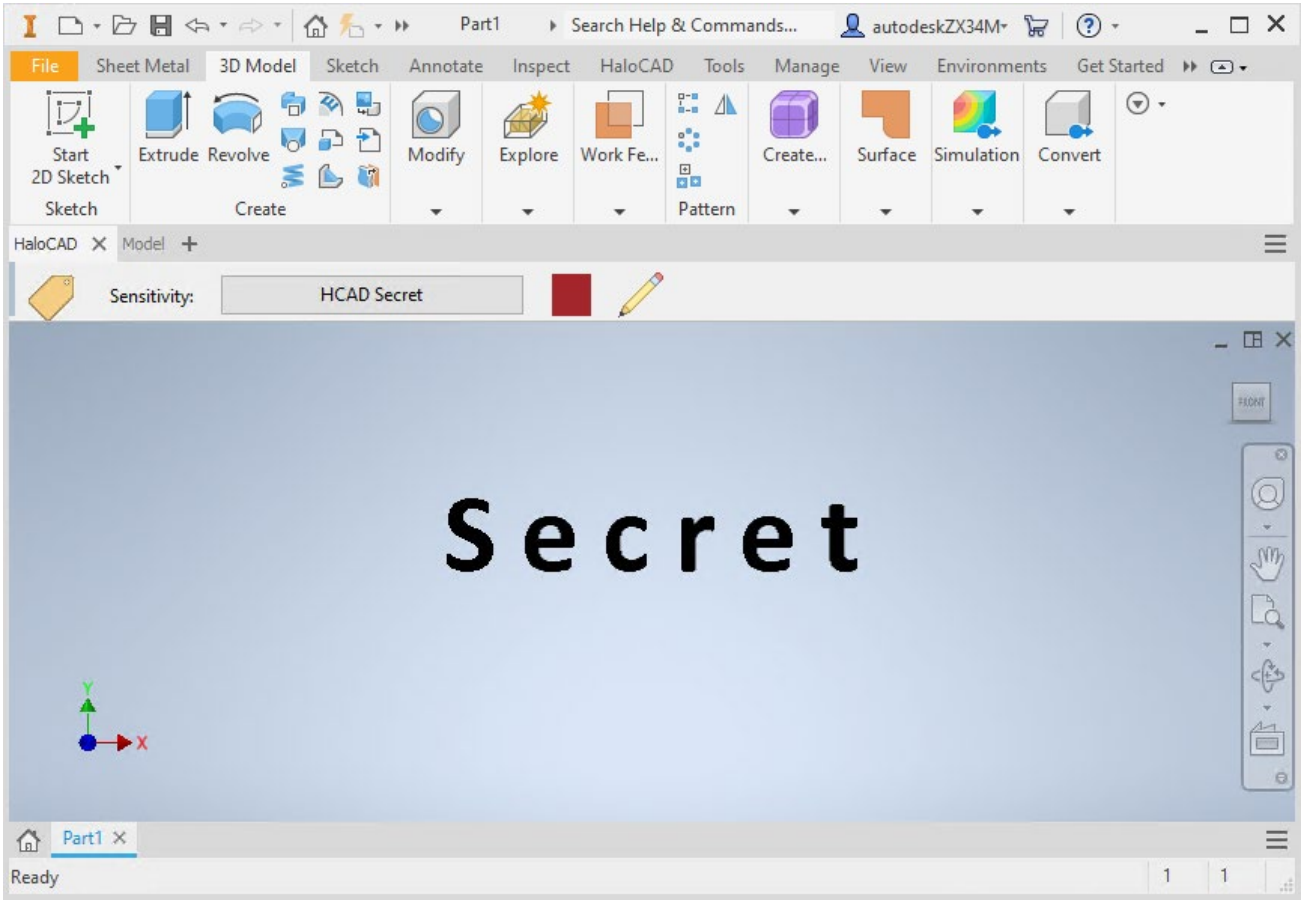
c. Furthermore, if watermarking is configured in this label, the **iProperties** window displays additional information such as the font color, font name, font size, layout, and text.

5.2.8.3. Exclude Library Files When Labeling Assembly Files

When protecting an assembly file that includes library files from the Library or Content Center Files folders, HaloCAD displays a prompt allowing you to exclude those library files from protection. Select **No** to skip protection for the library files, or select **Yes** to apply protection to all unprotected dependent files attached to the assembly.

5.2.9. Example 9: Label with Content Marking

Content marking, such as a watermark, identifies the sensitivity of a file and reminds users to handle the content appropriately. In this example, the file is protected with the **HCAD Secret** sensitivity label, which applies the **Secret** watermark to the document.



Content with watermark

5.2.10. Example 10: Custom Permissions Label

Difference Between Sensitivity Labels and Custom Permissions

Sensitivity Labels

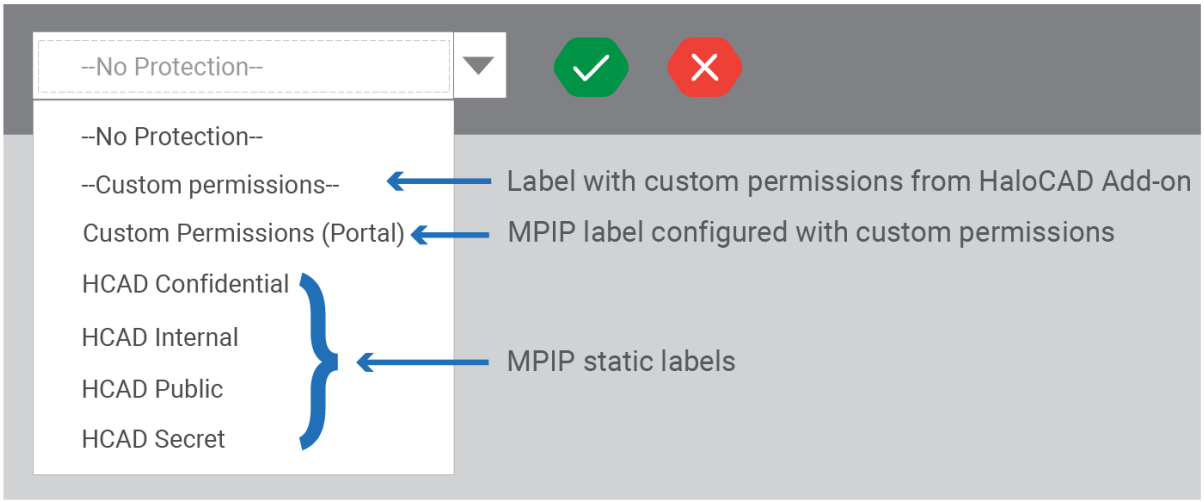
Sensitivity labels are defined and managed by administrators in the Microsoft Entra admin center. Each sensitivity label includes a predefined set of permissions and is referred to as an **administrator-defined permission**.

Custom Permissions

Custom permissions allow users to define permission settings when applying protection to a file. These permissions are referred to as **user-defined permissions**.

5.2.10.1. Protection using Custom Permissions from Microsoft Entra admin center

Prerequisite: Ensure that the custom permissions label is configured with the **Let users assign permissions when they apply the label** option in the Microsoft Entra admin center.

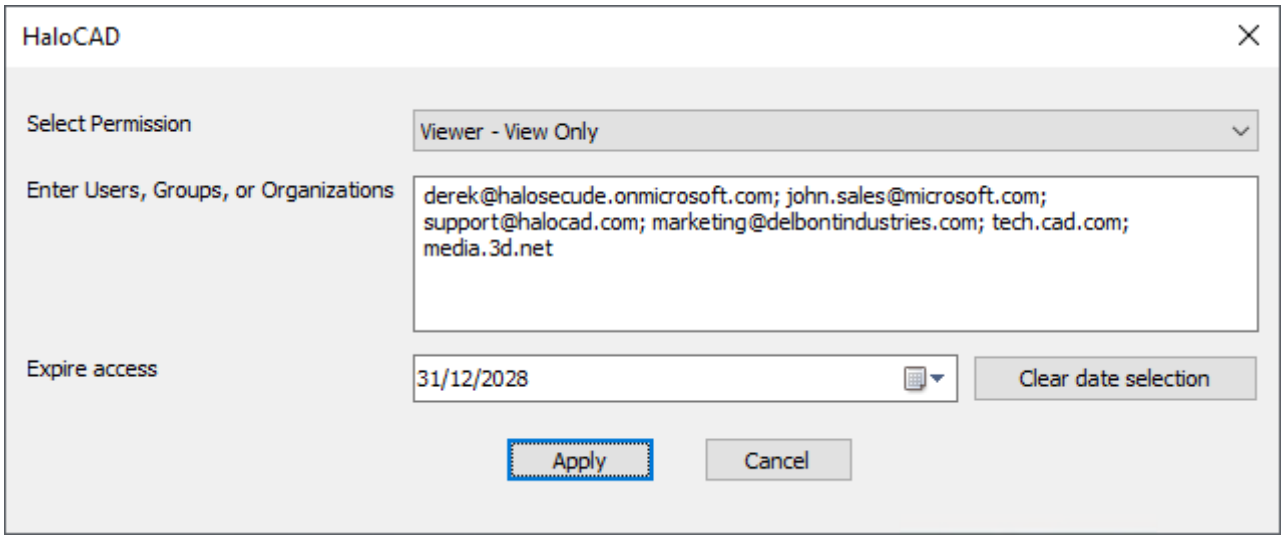


Custom permissions and other labels

Follow the procedure to apply the custom permissions label:

1. Open the Inventor application, select a template, and create objects.
2. Click the **Click to change label** icon.
3. HaloCAD downloads and displays the available sensitivity labels, including custom permission labels and user-defined labels.
4. For example, the custom permission label configured in the Microsoft Entra admin center is named **Custom Permissions (Portal)**.
5. Select the **Custom Permissions (Portal)** label from the list and click the green check mark (**Click to set label icon**).

6. The HaloCAD screen appears, as shown below.



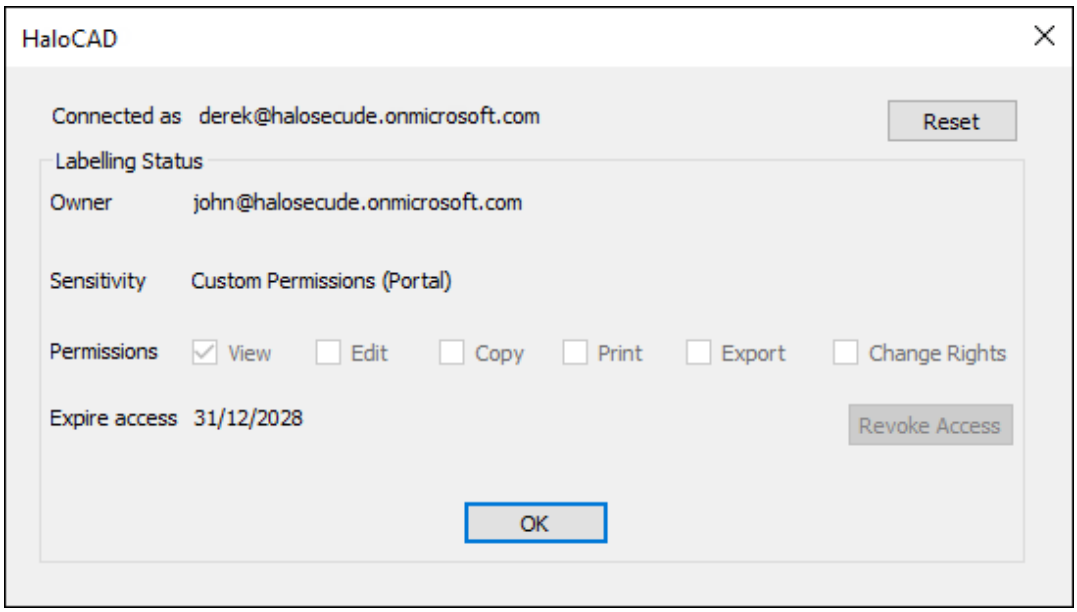
HaloCAD Custom permissions

7. From the **Select Permission** list, choose the required permission level:
   a. **Viewer** – View only
   b. **Reviewer** – View and Edit
   c. **Co-Author** – View, Edit, Copy, and Print
   d. **Co-Owner** – Full permissions
   e. **Only for me** – Grants access only to the file author
8. In **Enter Users, Groups, or Organizations**, specify the users, groups, or organization domains that can access the file. Separate multiple entries with commas, spaces, or semicolons.
9. In **Expire Access**, specify how long users can access the protected file.
   a. Select **Never** to allow unlimited access.
   b. Specify an expiration date to restrict access after the selected date.
10. To remove the selected expiration date, click **Clear date selection**.
11. Click **Apply** to confirm the protection settings.

Result: The custom permissions label is applied to the file.

What happens when a user opens a custom permissions–labeled file?

Based on the user's permissions, the file can be accessed accordingly. Note: The author of the document always has full rights to the file and can access it at any time, regardless of any custom permissions or expiry date configured in the label. The following example shows a label with custom permissions.



User with custom permission

5.2.10.2. Protection using Custom Permissions via HaloCAD Add-on

In comparison to the previous section, the HaloCAD Add-on also supports a **Custom Permissions** label. However, this label is defined at the application level within HaloCAD and is not obtained from the Microsoft Entra admin center. The process for applying this label is the same as described in the previous section.

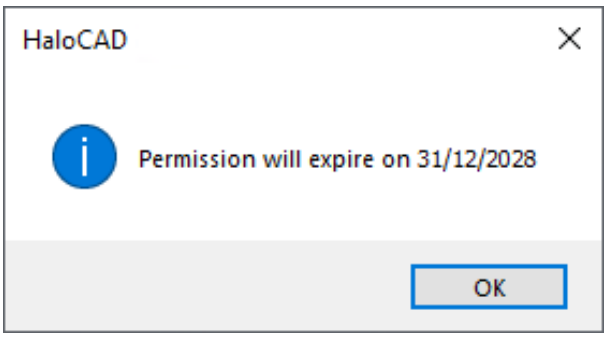
5.2.11. Example 11: Set an Expiration Date for File Access

Prerequisites

1. Ensure that an expiration date is configured in the Microsoft Entra admin center when using a static MPIP label.
2. When using a **Custom Permissions** label (from either the Microsoft Entra admin center or the HaloCAD Add-on), specify the expiration date while configuring the label.

5.2.11.1. Why Set an Expiration Date?

When sharing protected files with external vendors or contractors, recipients may retain access after they no longer require access, creating a potential security risk. To prevent unauthorized access, set an expiration date on the protected file. For example, if a file is shared with an expiration date of 31/12/2028, recipients cannot open the file after that date. Each time the file is opened, HaloCAD displays the file validity information.



Validity of the file

5.2.11.2. What Happens When a File Expires?

When a user opens a file that has expired in their current time zone, the file cannot be opened. HaloCAD prompts the message "*You don't have permissions to open some of the selected files.*" This behavior is similar to unauthorized file access, as described in this section "Example 3: Unauthorized User Access".

5.2.11.3. How to Open an Expired File

Only the file author can open an expired protected file. Recipients who require continued access must contact the file author to obtain a new copy of the file with an updated expiration date.

5.2.12. Example 12: Remove protection from a file

To remove the sensitivity label from a protected file, you must be the file owner or have the required permission to remove protection.

5.2.13. Example 13: Revoke a File

Prerequisite: Ensure that the user has the required license to revoke a protected file. For licensing requirements, refer to the **Release Notes**.

5.2.13.1. What Is the Revoke Feature?

The Revoke feature prevents further access to a protected file by all users except the file author. Revoking a file removes access permissions but does not delete the file.

5.2.13.2. When to Revoke a File?

A file author can revoke access if a protected file:

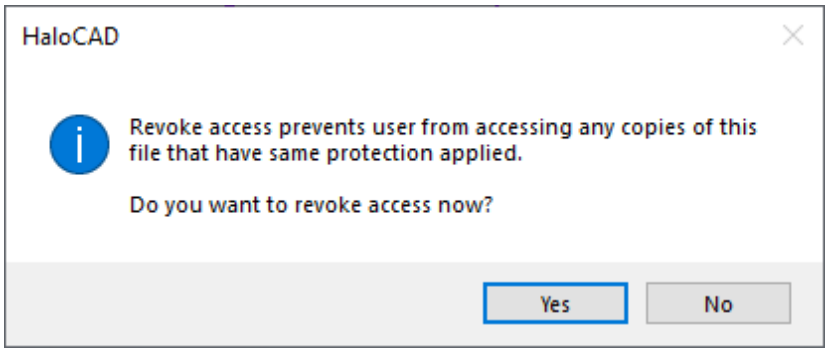
- Is shared with the wrong recipient.

- Is accessed from a suspicious location.
- Is suspected to be compromised.
- Is no longer required by the recipient.

The **Revoke Access** option is available in the **Status** UI.

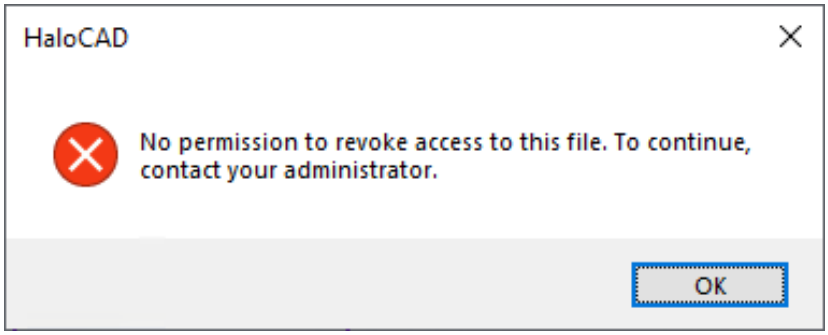
5.2.13.3. How to Revoke a File?

1. Click the **HaloCAD** tab, click **Status**, and then click **Revoke Access**.



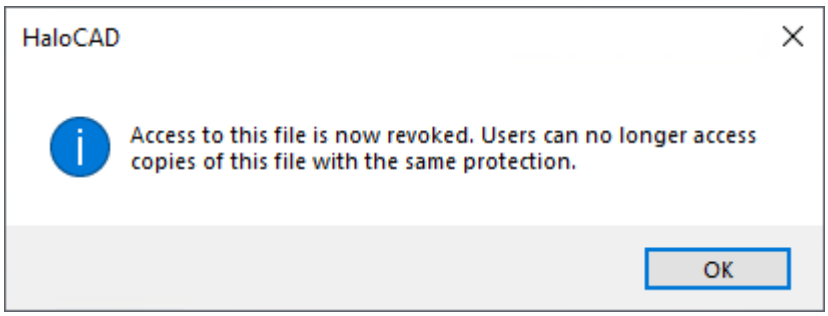
Revoke access message #1

2. Click **Yes** to confirm revoking access and continue with step 3. If you do not have the required license, it is not possible to revoke a file. In this instance, HaloCAD displays the following alert:



Access denied when revoking a file

3. The following message appears:



Revoke access message #2

4. Click **OK** and save the file.

Result:

- Access to the file is revoked.
- Users who previously had access to the document can no longer open it.

5.2.13.4. What Happens if a User Attempts to Open the Revoked File?

Once access is revoked, users can no longer open the protected file. HaloCAD displays the following message: "*You do not have sufficient permissions to view this document.*" This behavior is like unauthorized file access, as described in the section "Example 3: Unauthorized User Access".

> **MIP SDK**
> A revoked file can still be accessed by a user if the file was opened earlier in the same HaloCAD session. This behavior is controlled by the Microsoft Information Protection (MIP) SDK. If the applied sensitivity label is configured with the **Allow offline access** and **Users have offline access to the content for this many days** options, users can continue to access the revoked file until the configured offline access period expires.

5.2.13.5. Revoking Access to File Copies

Assume that **User A** shares a protected file with **User B**. If **User B** creates one or more copies of the file without changing the applied sensitivity label, revoking access to the original file also revokes access to all copies because they retain the same sensitivity label.

5.2.13.6. How to Open the Revoked File?

Only the file author can open a revoked file. Recipients who require access must contact the file author to obtain a new copy of the file.

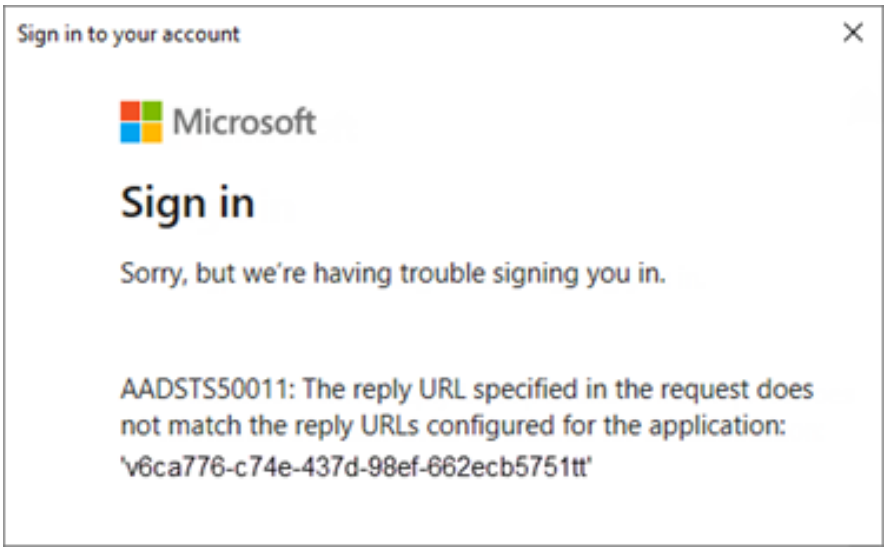
6. Troubleshooting

This section describes common HaloCAD issues, their possible causes, and the recommended corrective actions.

6.1. Cannot Sign in to Microsoft Sign-In Assistant

Symptoms

The user cannot sign in to a HaloCAD session. The following error message is displayed.



Microsoft Sign-in error message

Background

This issue occurs when a user attempts to sign in to a HaloCAD session by using Microsoft Sign-In Assistant.

Probable Cause

The **Redirect URI** specified in the request does not match the **Redirect URI** configured for the registered Microsoft Entra ID application.

Corrective Action

Case 1: Incorrect Redirect URI

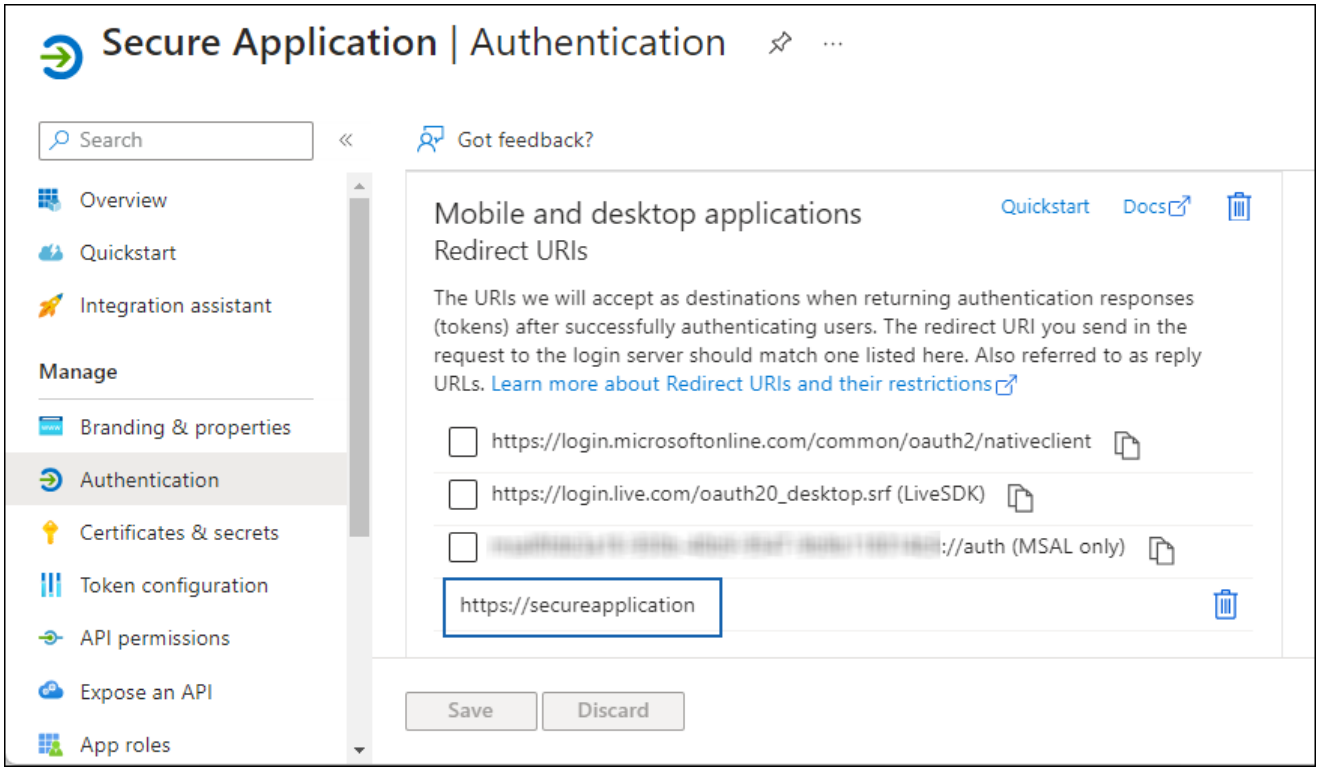
If an incorrect Redirect URI was entered during the HaloCAD installation:

1. Reinstall the HaloCAD Add-on by using the correct Redirect URI.
2. Launch the CAD application, click the **Click to change label** (pencil) icon, and then sign in using Microsoft Sign-In Assistant.

Case 2: **Invalid Redirect URI**

If the **Redirect URI** uses an unsupported URI (for example, `http://contoso.com`):

1. Log in to the Microsoft Entra admin center.
2. On the home page, click the **Show Portal Menu** icon, then select **Microsoft Entra ID**.
3. Under the **Manage** section on your tenant's **Overview** page, choose **App registrations**.
4. Click **All Applications**, and enter your application name in the search bar.
5. From the list, select your application.
6. Click the **Redirect URIs** link or select **Authentication** from the **Manage** section on the application overview page.
7. Verify that the reply URL begins with `https://`. If it does not, update it to https and save the changes.



Incorrect Redirect URIs

8. Now, sign in using the Microsoft Sign-In Assistant.

Case 3: Tenant ID Specified for a Multi-Tenant Application

If a Tenant ID is specified during the installation of a multi-tenant application:

1. Reinstall the HaloCAD Add-on without specifying the **Tenant ID**.
2. Launch the CAD application, click the **Click to change label** (pencil) icon, and then sign in using Microsoft Sign-In Assistant.

6.2. Labels are not Getting Downloaded in the HaloCAD Session

Symptoms

The user could not download labels.

Background

The user logs in successfully to the HaloCAD session, but the sensitivity labels are not downloaded.

Probable Cause

The sensitivity labels or label policies are not configured correctly in the Microsoft Entra admin center.

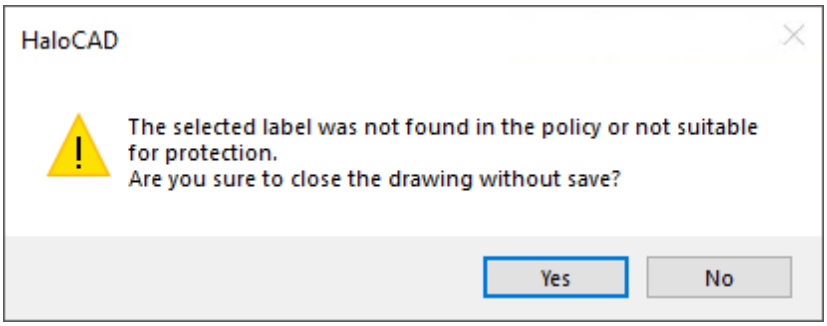
Corrective Action

1. Log in to the Microsoft Entra admin center as a Global Administrator.
2. Verify that the sensitivity labels are configured to apply protection.
3. Ensure that the required label policies are published to the user.
4. For more information, refer to the Microsoft documentation.

6.3. Label Not Found in the Policy

Symptoms

HaloCAD displays the following message:



Label not found error message

Background

This issue occurs when you apply a sensitivity label to a file and save it.

Probable Cause

The sensitivity label is not configured correctly or is not included in the published label policy.

Corrective Action

Request your Microsoft Entra admin center administrator to review the sensitivity label configuration and publish the appropriate label policies.

6.4. Double Key Encryption Label could not be Applied

Symptoms

HaloCAD displays the following message:



DKE label error message

Background

This issue occurs when you apply a **Double Key Encryption (DKE)** label to a file and save it.

Probable Cause

The Double Key Encryption service is stopped or unavailable.

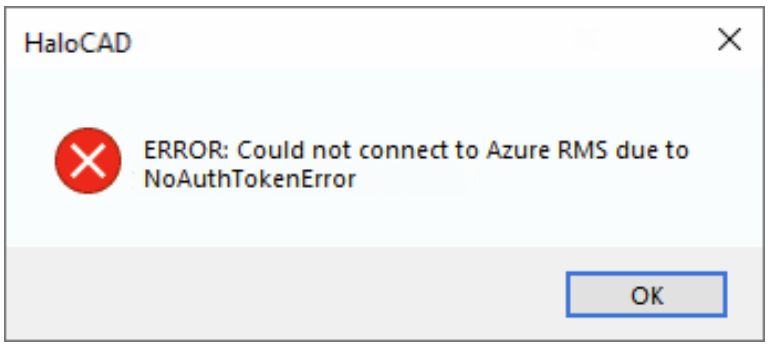
Corrective Action

Ensure that the Double Key Encryption service is running and accessible on the client computer.

6.5. Could not Connect to MPIP – Case 1

Symptoms

HaloCAD displays the following message:



MPIP connection warning message #1

Background

This issue occurs when a user attempts to log in to a HaloCAD session by using Microsoft Sign-In Assistant.

Probable Cause

This issue can occur for one or more of the following reasons:

- **Case 1:** The **Application (client) ID**, **Directory (tenant) ID**, or **Redirect URI** is incorrect.
- **Case 2:** The Microsoft Sign-In Assistant dialog was closed before the sign-in process was completed.

Corrective Action

Case 1

Ensure you specify the correct **Application (client) ID**, **Directory (tenant) ID**, and **Redirect URI** during HaloCAD initialization.

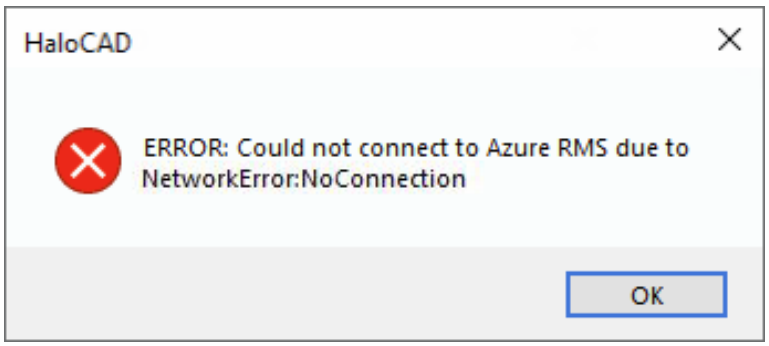
Case 2

Relaunch the CAD application, and then complete the sign-in process by entering your credentials in the Microsoft Sign-In Assistant dialog.

6.6. Could not Connect to MPIP – Case 2

Symptoms

HaloCAD displays the following message:



MPIP connection warning message #2

Background

This issue occurs when a user attempts to log in to a HaloCAD session by using Microsoft Sign-In Assistant.

Probable Cause

Your network or proxy settings are preventing HaloCAD from connecting to Microsoft Entra ID.

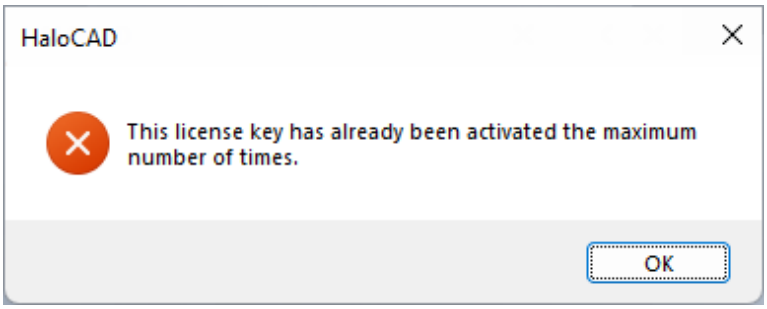
Corrective Action

1. Review your firewall or network configuration to ensure that connections to Microsoft Azure are allowed.
2. Verify that your proxy configuration does not block the required Microsoft Purview Information Protection URLs.

6.7. HaloCAD Activation Fails

Symptoms

HaloCAD displays the following message:



HaloCAD Activation warning message

Background

This issue occurs when you attempt to activate HaloCAD on a system.

Probable Cause

Each successful HaloCAD license activation changes the license status to Active and increases the Total activations count in Secude License Server Manager by one. After the licensed activation limit is reached, additional activation attempts fail. For example, if ten HaloCAD licenses are purchased, HaloCAD can be activated on up to ten systems. An attempt to activate an eleventh system fails because the maximum number of activations has been reached.

Corrective Action

Perform one of the following actions:

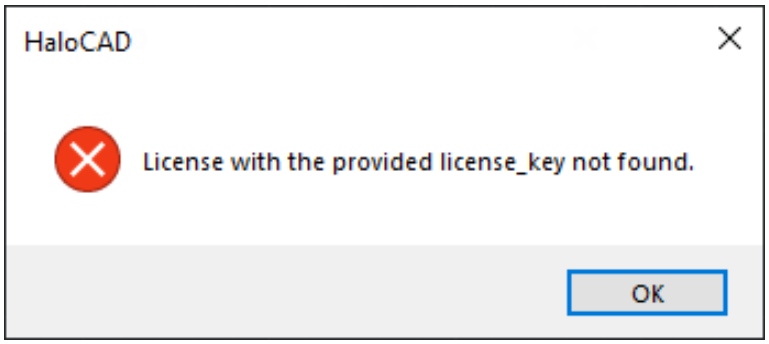
- **Action 1:** Uninstall HaloCAD from one or more previously activated systems, and then activate the license on the required system.
- **Action 2:** Purchase an additional HaloCAD license.

After completing either action, activate the license again.

6.8. Incorrect License Key Error Message

Symptoms

HaloCAD displays the following message:



Incorrect license activation message

Background

This issue occurs when you attempt to activate HaloCAD using a license key.

Probable Cause

This issue can occur for one or more of the following reasons:

- The license key belongs to a different HaloCAD Add-on.
- The license key is incorrect.
- The license key is invalid.

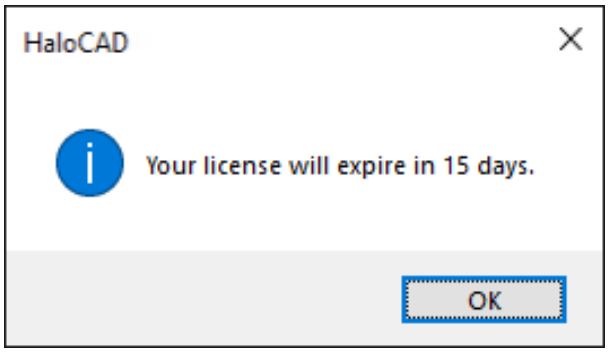
Corrective Action

Ensure that you enter the correct license key associated with the HaloCAD Add-on before activating the license.

6.9. Why Am I Getting License Expiration Notifications?

Symptoms

HaloCAD displays the following notification:



HaloCAD notification

Background

This notification is displayed once each day when a user logs in to a HaloCAD session.

Probable Cause

HaloCAD displays license expiration notifications when the current license is within **30 days** of its expiration date. The notification reminds users to renew or replace the license before it expires.

For example, if the license expires on **September 30, 2028**, daily notifications begin on **September 1, 2028** and continue until the license is renewed or expires.

Corrective Action

1. Purchase a new HaloCAD license or renew the existing license.
2. Activate the new or renewed license.

6.10. Other License-Related Error Messages

HaloCAD License Error Messages	Root Cause	Correction Action
The license validity period has expired	When your license had just expired.	Please contact Secude's representative to receive a new license.
The license is not enabled.	When you try to activate a license key that is already disabled on the License portal.	Please contact Secude's representative to enable the license.
This device is blacklisted.	When your device is blocked in the license portal for a specific reason.	Please contact Secude's representative to enable the device.
This license cannot be activated before the start date: yyyy-mm-dd.	When attempting to activate a license before its start date.	Please make sure the license is activated on the start date.
Date header is not valid or set in past.	When the date or time on the machine is incorrect.	Please make sure that the machine installed with the HaloCAD Add-on is synchronized with the current date and time.

License-related error messages

7. 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

Visit the Secude website https://secude.com to learn about upcoming events, press releases, and to download white papers.

Documentation Feedback

Secude values your feedback and continuously strives to improve product documentation. To provide feedback, send an email to: documentation@secude.com
Include the following details in your feedback:

- Product name and version
- Documentation topic
- Description of the suggestion or error

The technical documentation team reviews all feedback and incorporates relevant updates in future documentation releases.

Secude

www.secude.com

About Secude

Secude, a trusted Microsoft and Siemens Digital Industries Software partner, is a global leader in Zero Trust data protection and data governance.

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.