



HaloCAD

HaloCAD for SOLIDWORKS PDM

Operations Manual

Version 1.6

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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. General FAQs

This section provides answers to the most frequently asked questions (FAQ). If you have further inquiries, please contact our sales representative or support team.

1. What does HaloCAD provide for an organization?

HaloCAD solution protects engineering CAD files and enforces security throughout their full life cycle.

2. What languages are supported by the HaloCAD add-on?

Currently, the HaloCAD add-on only supports the English language.

3. Does the HaloCAD Add-on support all native CAD file types?

Yes, the HaloCAD Add-on supports all CAD native file types.

4. What happens if an unauthorized person tries to open a HaloCAD-protected CAD file?

Initially, user authentication occurs. It is a process of verifying the identity of the user. If the user fails during the authentication, he/she will be prompted with an error message, and access will be denied.

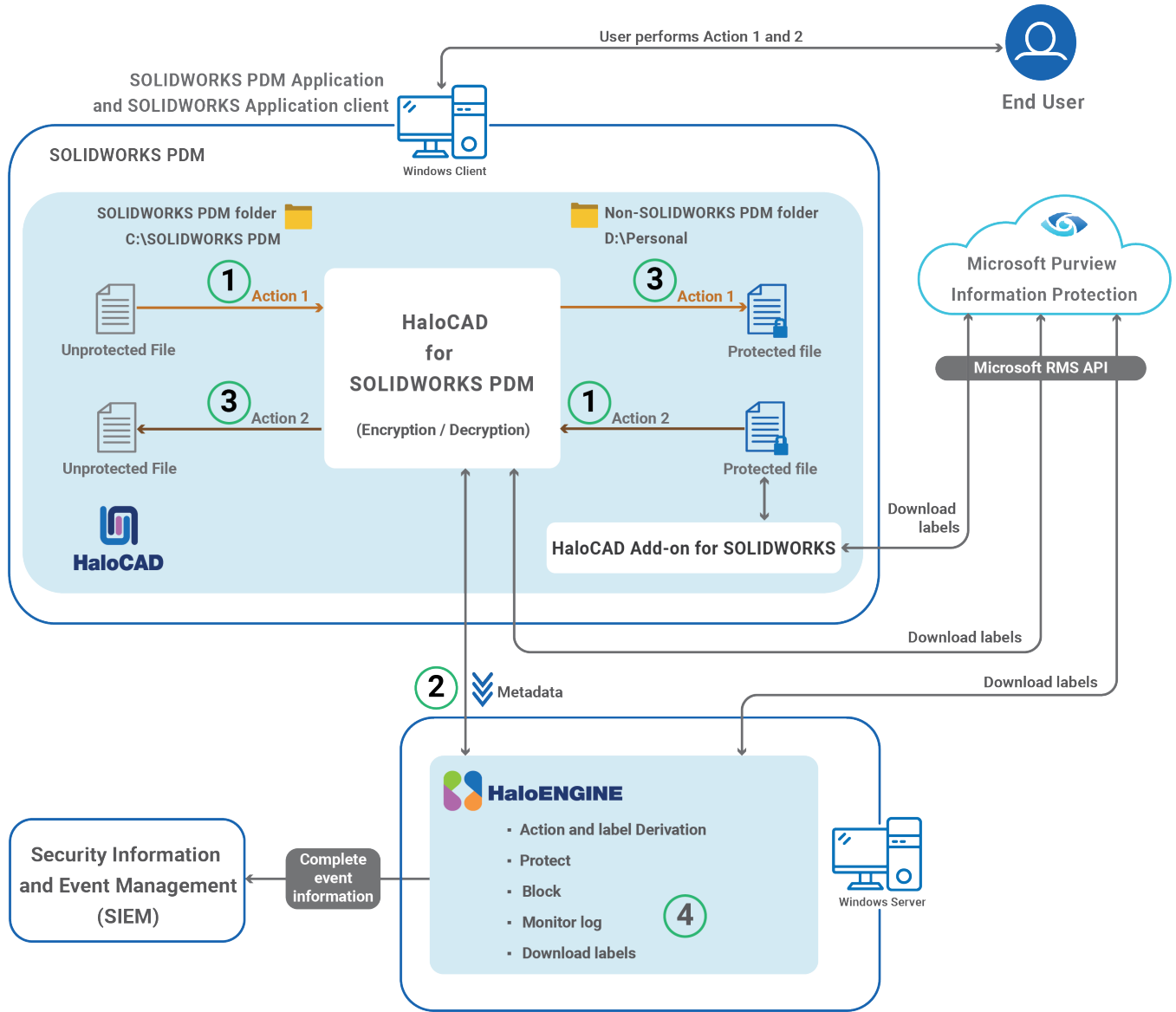
5. Who decides what labels should be used for various CAD drawings and how they are managed in the background?

An administrator in an organization creates and manages labels (user rights) in the Microsoft Purview portal.

Engineering managers can define a profile, a classification schema, and an action rule based on the sensitivity of the data to regulate how labels are allocated to different users in the HaloENGINE Classification Engine.

3. How does it work?

At a high level, the HaloCAD for SOLIDWORKS PDM workflow comprises the following steps:



HaloCAD for SOLIDWORKS PDM

Step 1: HaloCAD starts automatically

1. **Action #1:** The user copies a file from a SOLIDWORKS PDM folder and pastes it into a non-SOLIDWORKS PDM folder, or the user creates a new file or saves an existing file to a non-SOLIDWORKS PDM folder using the SOLIDWORKS application.
2. **Action #2:** The user copies a previously protected SOLIDWORKS application file to a SOLIDWORKS PDM folder.

Step 2: Send metadata to the HaloENGINE

1. HaloCAD for SOLIDWORKS PDM intercepts the copy or cut operation in the background, retrieves metadata from the PDM folder, and passes it to the HaloENGINE.
2. Based on the collected metadata, the HaloENGINE determines the action derivation and transmits it to HaloCAD for SOLIDWORKS PDM.

Steps 3: Execute Action Rule and Deliver Processed File

1. **Action #1 (Encrypt):** HaloCAD for SOLIDWORKS PDM encrypts the file based on the derived action rule and sensitivity label. The encrypted file is then sent to the user-specified destination folder. When opened using the HaloCAD Add-on for SOLIDWORKS, the protected file displays the enforced permission label.
2. **Action #2 (Decrypt):** If the file is already encrypted, HaloCAD for SOLIDWORKS PDM decrypts it by default and sends the decrypted file to the SOLIDWORKS PDM folder.
3. If an invalid action is configured or no action rule is provided, the file is not processed.
Files created, saved, or exported to the SOLIDWORKS PDM folder using the SOLIDWORKS application are not protected. However, label information is retrieved from HaloENGINE and preserved. As a result, the associated sensitivity label is displayed when the file is opened in the SOLIDWORKS application.
Additionally, HaloCAD for SOLIDWORKS PDM can prevent files from being moved or copied from the SOLIDWORKS PDM folder to a non-SOLIDWORKS PDM folder when an appropriate blocking action rule is configured in HaloENGINE.

Step 4: Monitor log

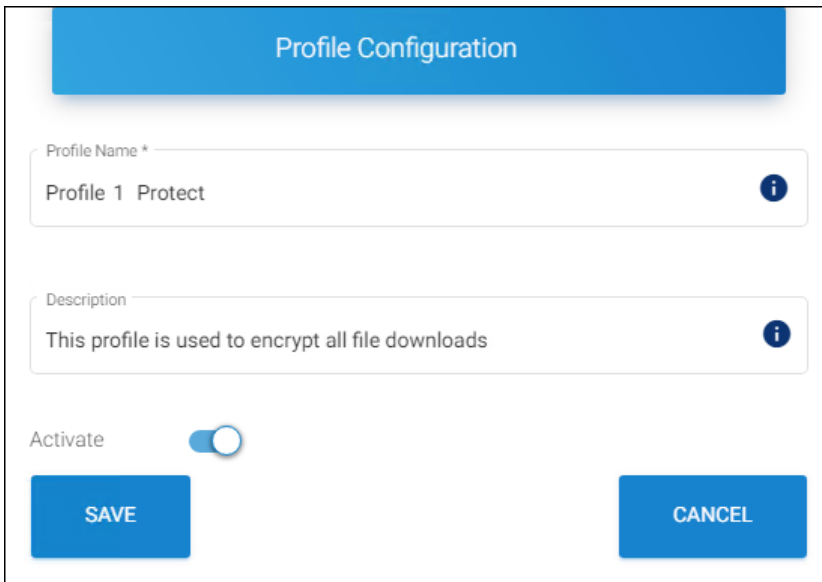
The event is captured by the HaloCAD component and forwarded to the monitor log of the HaloENGINE.

4. How to Protect and Block a CAD File?

This section describes how to protect SOLIDWORKS PDM. Note: To learn more about standalone HaloCAD protection scenarios, we recommend referring to the "Operations Manual of HaloCAD Add-on for SOLIDWORKS."

Fulfill the Requirements

1. HaloCAD for SOLIDWORKS PDM needs to be installed and set up.
2. HaloENGINE Service must be installed and configured.
3. HaloENGINE must be installed and configured.
4. The Classification Engine must be configured. For illustration purposes, a simple classification profile is explained here.
 - a. Step 1: Enter a name for the profile.



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.

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 +

SOLIDWORKS_PDM.user_name == John

✎

🗑

⬆

⬇

Rules

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

ACTION RULE OVERVIEW

Applied Actions : LABEL System Type : SOLIDWORKS_PDM 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 : SOLIDWORKS_PDM

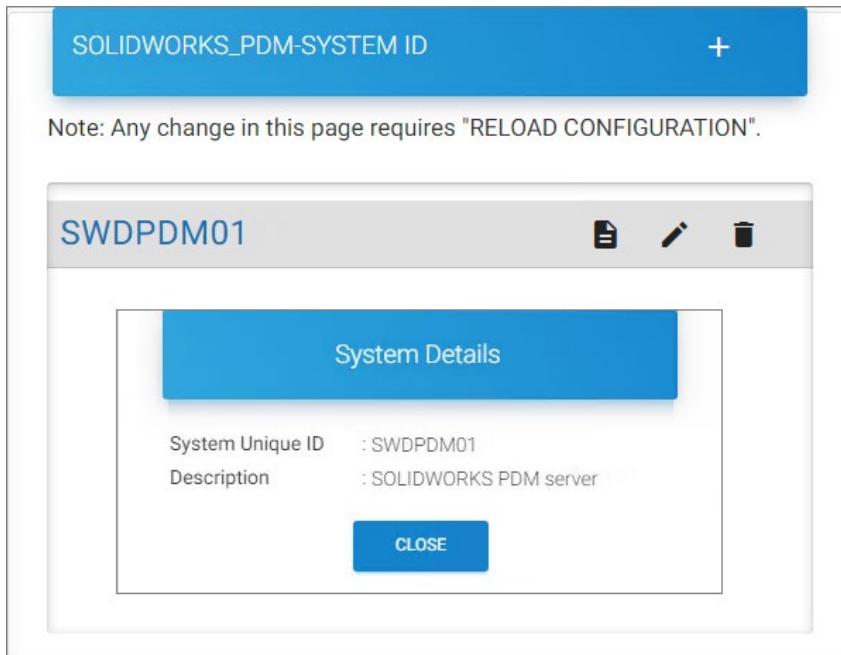
Constructed Rule :

PROPERTY	CONDITION	VALUE
Sensitivity	Equal	Secret

CLOSE

Action rule for blocking

e. Step 5: Assign Systems to the profile.



Assign Systems

5. HaloCAD add-on must be installed.

Downloading a Protected File

Follow the instructions below to protect CAD files via PDM:

1. Move or copy a CAD file from the SOLIDWORKS PDM folder to a non-SOLIDWORKS PDM folder.
2. Microsoft Sign-in prompts you to enter your login information.
3. Enter the credentials and click **Sign in**.

Result: The copied file is labeled as defined in the HaloENGINE. The encryption settings from the label are enforced and remain with the file wherever it is stored.

Blocking a File

1. Move or copy a CAD file from the SOLIDWORKS PDM folder to a non-SOLIDWORKS PDM folder.
2. Microsoft Sign-in prompts you to enter your login information.
3. Enter the credentials and click **Sign in**.

Result: The copying action is terminated with the HaloCAD message "*Copying the file is blocked by the rules.*" The rules set up in HaloENGINE control the prevention of copying events.

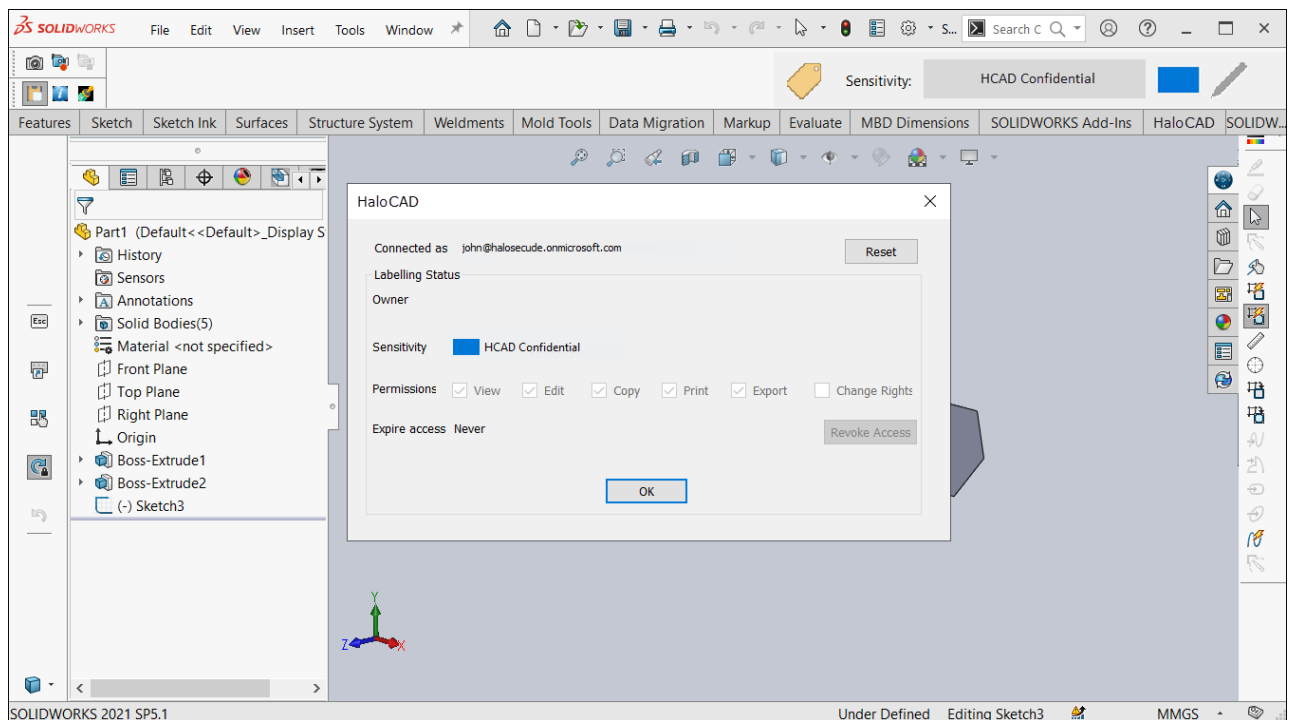
5. How to Open a Protected CAD File?

Prerequisite: Before opening the protected file, make sure the HaloCAD Add-on for SOLIDWORKS is installed.

1. Click the protected file to open it.
2. When a labeled file is opened for the first time, a connection to the Microsoft Entra tenant is requested via 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:

- a. After successful authentication, the file opens.
- b. Users may experience different access outcomes for the same document, depending on the configured policy settings. For more details, refer to the "Operations Manual of HaloCAD Add-on for SOLIDWORKS".



Sample file

6. 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.

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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.



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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.