



HaloCAD

HaloCAD for SOLIDWORKS PDM

Operations Manual

Version 1.5

Copyright

© 2024-2025 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
Landenbergstrasse 34
6005 Luzern
Switzerland
Tel: +41 41 510 70 70
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 IT WORK?.....	3
4. HOW TO PROTECT AND BLOCK A CAD FILE?.....	5
5. HOW TO OPEN A PROTECTED CAD FILE?	9
6. CUSTOMER SUPPORT	10
7. DOCUMENTATION FEEDBACK.....	11

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?

At first, user authentication takes place. 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.

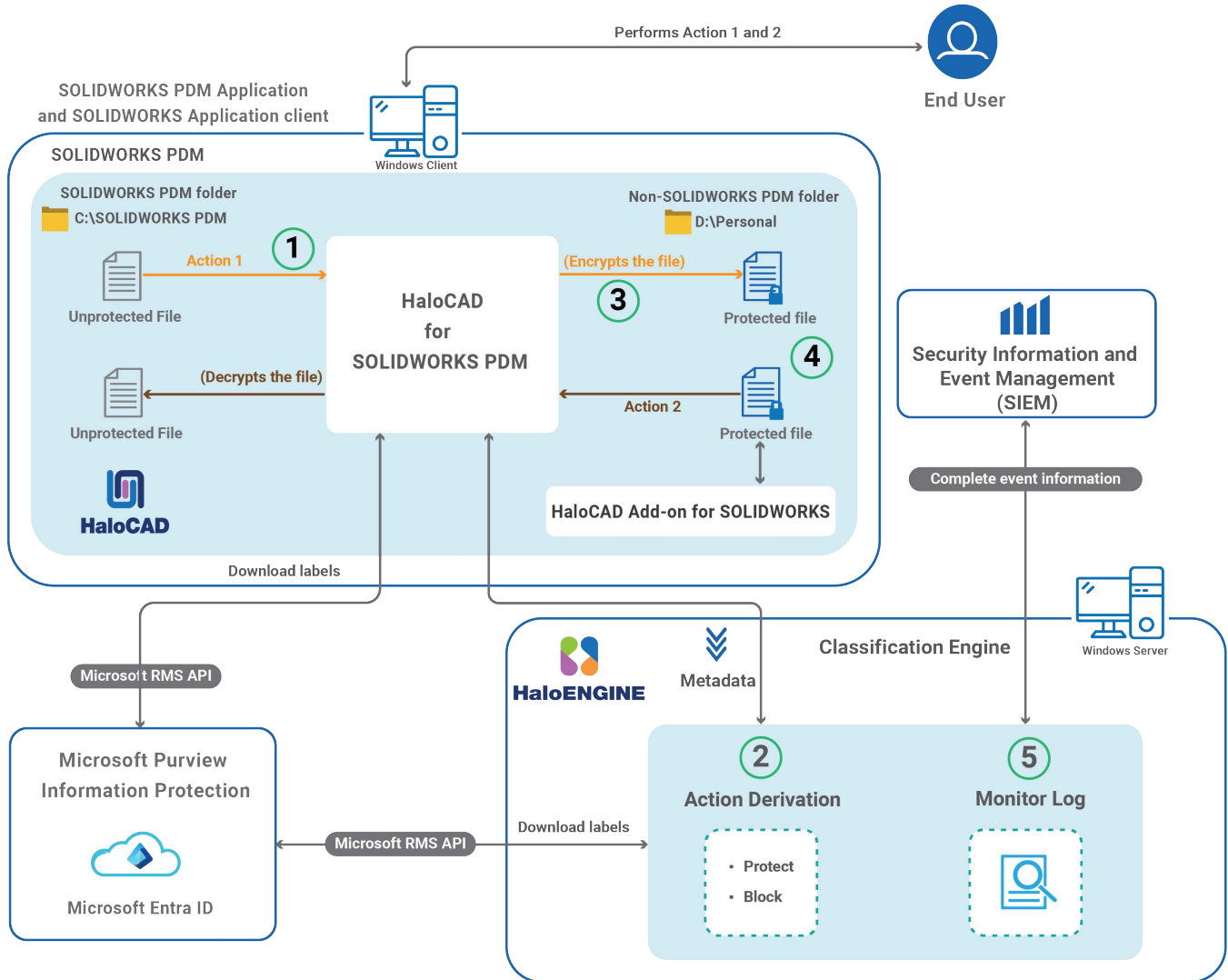
5. Who decides what labels should be used for various CAD drawings and how it is managed in the background?

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.

Step 3: Execute Action Rule

1. In case of action #1: HaloCAD for SOLIDWORKS PDM encrypts the file based on the action rule.
2. In case of action #2: HaloCAD for SOLIDWORKS PDM decrypts the file by default because it is already encrypted.
3. If an inappropriate action is present or if no action is supplied, the file will not be processed.

Step 4: Processed file sent to the destination folder

1. Result of action #1: The encrypted file with the derived label is sent to the user-specified folder. Using the HaloCAD Add-on for SOLIDWORKS, the protected file is opened and the permission label is displayed with enforcement.

2. Result of action #2: The decrypted file is sent to the PDM folder.

A file created, saved, or exported to the SOLIDWORKS PDM folder using the SOLIDWORKS application is not protected; however, the label information of each file is retrieved from the HaloENGINE and preserved. As a result, the sensitivity label displays the associated label when you open a file in SOLIDWORKS.

HaloCAD prevents moving or copying a file from the SOLIDWORKS PDM folder to a non-SOLIDWORKS PDM folder if a proper blocking action rule is configured in HaloENGINE.

Step 5: Monitor log

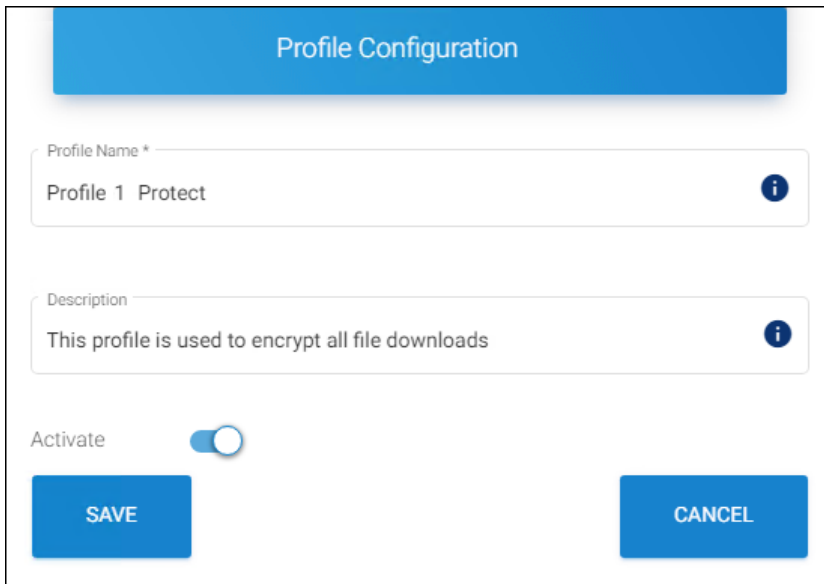
The event is captured by the HaloCAD component and forwarded to the monitor log of the HaloENGINE.

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.



The screenshot shows a 'Profile Configuration' dialog box. It has a blue header with the text 'Profile Configuration'. Below the header are three input fields. The first is 'Profile Name *' with the text 'Profile 1 Protect' and an information icon. The second is 'Description' with the text 'This profile is used to encrypt all file downloads' and an information icon. Below these is an 'Activate' toggle switch that is turned on. At the bottom are two blue buttons: 'SAVE' and 'CANCEL'.

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

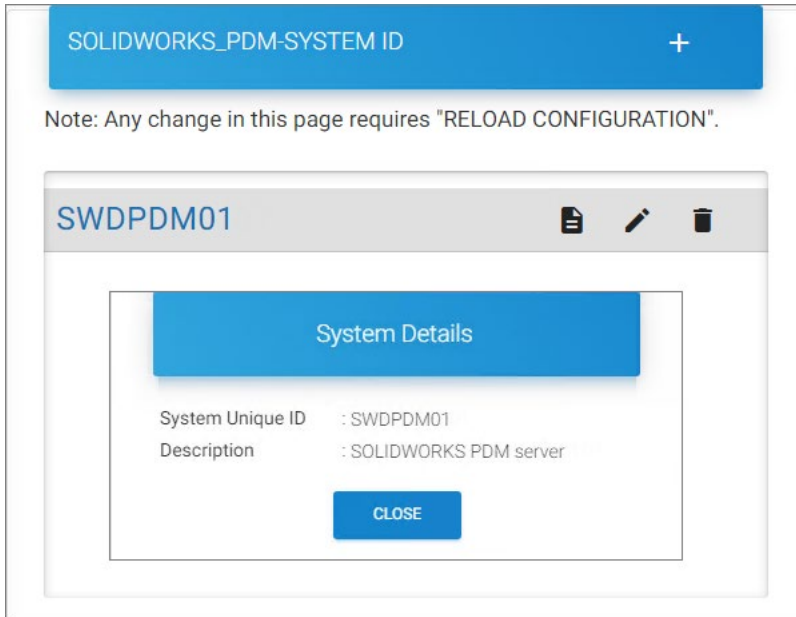
Constructed Rule :

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.

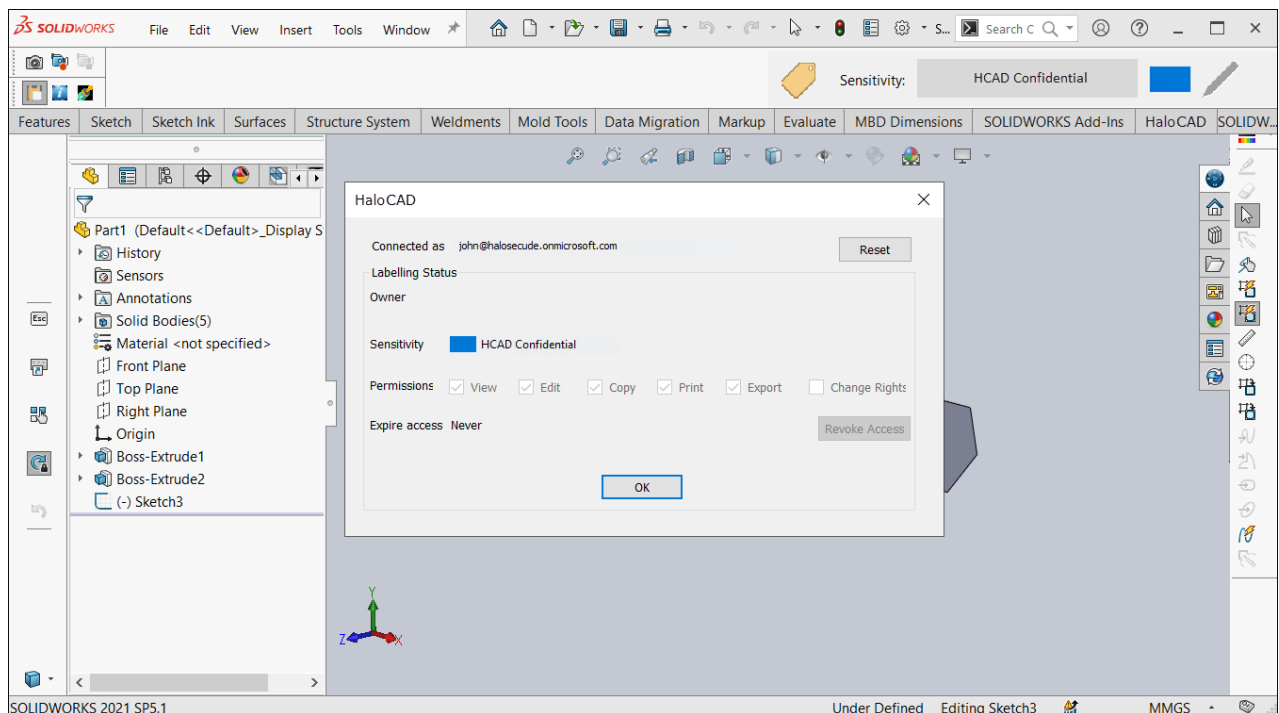
5. How to Open a Protected CAD File?

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

1. Click on the protected file.
2. The first time 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 will be 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 SOLIDWORKS".



Sample file

6. 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

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.

Other resources

Please visit <https://secude.com> to know about upcoming events, press releases, and to download whitepapers.

7. Documentation Feedback

Secude understands the importance of technical content when attempting to gain product knowledge and strives to continuously improve product documentation to ensure that users receive the information they want. To provide feedback on the documentation, please send an email to documentation@secude.com. Please include the following details in your feedback:

1. Product name and version
2. Documentation topic
3. Details of the suggestion or error

The technical documentation team will consider your feedback and address it in future documentation updates.



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.