



**HaloCAD**

HaloCAD Add-on for Creo

Operations Manual

Version 2.3

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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. Introduction

The release notes provide brief and high-level descriptions of the new features of HaloCAD. Before installing HaloCAD, it is recommended to read the release notes to understand any current limitations or bugs that may apply to this version of the software.

## 2. Product Description

HaloCAD acts as the guardian of your CAD files by automatically protecting them with Microsoft Purview Information Protection (MPIP) labels whenever they leave your secure IT perimeter. As a plug-in for CAD applications, HaloCAD offers access to MPIP-protected files, including label handling and privilege enforcement. CAD users will not notice any differences in the handling of CAD files because protection takes place in the background. By seamlessly attaching MPIP labels to the CAD files while they are being created, it provides end-to-end security for those files.

### 3. System Requirements

The following system requirements table specifies the minimum and recommended technical specifications, such as software and network resources, necessary to run the product.

Components	Details
Supported Operating Systems	Windows 11 or above with updates installed.
Supported file types	<ol style="list-style-type: none"> <li>File types supported for Save and Open: .cem, .sec, .prt, .asm, .drw, .frm, .lay, .stp, .igs, .dwg, .dxf, and .x_t.</li> <li>File types supported for Export: .stp, .igs, .dwg, .dxf, .x_t, .vda, .wrl, .sat, .stl, .obj, .emn, .asc, .cgm, .ed, .edz, .pvs, .pvz, .ntr, .iv, .slp, .unv, .gbf, .facet, .pdf, .u3d, .amf, .jpg, .eps, .tif, .png, .pic, .emp, .she, .tsh, .cgr, and .CATPart.</li> </ol>

#### Requirements

#### Supported CAD applications for HaloCAD Add-ons

You are currently viewing the release notes for the current build. For previous versions, please refer to their respective release notes.

CAD applications	HaloCAD Add-on version
PTC Creo Parametric 9.0, 10.0, 11.0, Creo+	2.2, 2.3
PTC Creo Parametric 8.0, 9.0, 10.0, Creo+	2.1

#### CAD applications and HaloCAD Add-on version

## 4. Prerequisites

Before installing the add-on, ensure the following preparatory steps or conditions are met:

1. An application must be registered with Microsoft Entra ID.
2. An active Office 365 subscription is required.
3. Access to the recommended URLs must be available.

For additional information, please refer to the Technical Reference Manual.

## 5. Code Quality and Security

Secude focuses on software quality and security. This is accomplished by adhering to and exceeding best practices in development, testing, and quality control. Secude has chosen SonarQube as the first building block for building and implementing a robust continuous code quality assurance (QA).

SonarQube is a platform for static code analysis for continuous inspection of code quality. It performs automatic reviews of code to detect bugs, code smells, unit test coverage, and security issues in 29 programming languages.

SonarQube is utilized throughout the development process at Secude, and only the highest marks are accepted for a product to be released. It helps to regulate code quality from the beginning of development, find and repair issues promptly, and improve overall software stability.

Each build report can be found under its relevant version heading in this release notes.

### Reliability Rating

- A = 0 Bugs
- B = at least 1 Minor Bug
- C = at least 1 Major Bug
- D = at least 1 Critical Bug
- E = at least 1 Blocker Bug

### Security Rating

- A = 0 Vulnerabilities
- B = at least 1 Minor Vulnerability
- C = at least 1 Major Vulnerability
- D = at least 1 Critical Vulnerability
- E = at least 1 Blocker Vulnerability

### Security Review Rating

The Security Review Rating is a letter grade based on the percentage of Reviewed (Fixed or Safe) Security Hotspots.

- A =  $\geq 80\%$
- B =  $\geq 70\%$  and  $<80\%$
- C =  $\geq 50\%$  and  $<70\%$
- D =  $\geq 30\%$  and  $<50\%$
- E =  $< 30\%$

### Maintainability Rating

A=0-0.05, B=0.06-0.1, C=0.11-0.20, D=0.21-0.5, E=0.51-1

The Maintainability Rating scale can be alternatively stated by saying that if the outstanding remediation cost is:

- $\leq 5\%$  of the time that has already gone into the application, the rating is A
- between 6 to 10% the rating is a B
- between 11 to 20% the rating is a C
- between 21 to 50% the rating is a D
- anything over 50% is an E

## 6. Build 2.3

This chapter provides an overview of the updates and quality insights included in this release. It covers the fixed issues, improvements, limitations, new features, and known issues, along with a summary of SonarQube's key parameters to highlight code quality metrics and analysis results.

### 6.1. New Features

This section highlights the new features in the current release.

Support for enabling the FIPS module has been added to both the installer UI and silent installation. When enabled, MPIP uses only FIPS-compliant encryption algorithms, and when disabled, it uses standard encryption algorithms. If this option was not enabled during installation, it can later be enabled through a registry entry. HCADCRE-1080

### 6.2. Improvements

This section lists the improvements in the current release.

When files are downloaded from Creo into the Windchill workspace, the .wfcont file is updated in the local cache. However, it previously lacked any reference to the actual filename as displayed in the Creo user interface. With this release, a new extended tag, `file_name`, has been introduced within the .wfcont file. This enhancement allows direct identification of the original filename, enabling accurate mapping between the cached content and its corresponding UI label. HCADCRE-1090

### 6.3. Fixed Issues

This section provides a list of the fixed issues in the current release.

1. Fixed an error that prevented file upload in Windchill when set up with `dm_upload_objects=Automatic` and `dm_verify_subtype=yes`. HCADCRE-447
2. Resolved an issue that prevented exported STP/IGS files from opening within the same session. HCADCRE-493
3. Fixed an error that prevented the Creo application from opening the FRM/LAY/SEC file when it was uploaded to Windchill Server with protection. HCADCRE-1070
4. Resolved an issue where the HaloCAD Least Permission pop-up was displayed when creating a file after checking in a NOTEBOOK, FORMAT, or LAYOUT file with Windchill integration. HCADCRE-1073
5. Fixed an error that caused an exported protected Neutral (.neu) file to open as an unprotected file when opened with the CDRS (.neu) type. HCADCRE-1075

6. Resolved an issue where a dependent file was incorrectly relabeled when selecting No in the CAD relabel prompt while relabeling the top-level Assembly file in Creo integrated with Windchill. HCADCRE-1082
7. Fixed an issue where the previous label detail was displayed in the HaloCAD Status box while removing the applied label from a file. HCADCRE-1083
8. Fixed an error that caused the error message "*cannot be retrieved*" to appear when a protected file was uploaded to Windchill. HCADCRE-1084
9. Fixed an issue where the status bar continuously displayed delay and restore instance messages while rotating a protected or unprotected assembly file. HCADCRE-1089
10. Fixed an issue where protected part files with **Instance components (Family Table)** opened correctly with the configured label, but the label status appeared empty in the CAD tab. HCADCRE-1093

## 6.4. Known Issues

This section describes the known issues with the current release.

1. A Creo file can be opened by invoking the Creo Parametric application first, and then go to **File > Open** menu > select the file. Note that PTC itself does not suggest the double-click, and as per the design, they recommend only using the **File > Open** option instead of double-clicking a file to open.
2. If you double-click on an encrypted Creo file, you will end up with an error message because the encrypted Creo file is forced to open before HaloCAD DLL loads itself. Thus, the loaded file becomes unrecognized by the Creo Parametric application. HCADCRE-12
3. HaloCAD displays a pop-up "*A file with the same name already in memory. Please rename the file or remove the existing file from memory*" when a labeled file is relabeled and attempted to save. HCADCRE-169
4. When switching between the configured and unconfigured workspaces, a file will be labeled and exported from an unconfigured workspace. HCADCRE-186
5. The dependent part file (in Windchill workspace) will not get labeled as the same as its parent assembly file if the Halo Core Server is configured as `file_type=.prt`. HCADCRE-191
6. When metadata `File_Type=.prt` is configured in the HaloENGINE, and if the unconfigured file type is selected for export (via Export from the workspace), both file types will be protected. HCADCRE-188
7. In a protected file, the Sensitivity ribbon, along with the configured label, will be displayed while checking out an Assembly file. HCADCRE-189

8. Windchill: Uploading a new ASM file with a single dependent part file fails with the following configuration parameters .pro file. However, the same file will get uploaded properly for the second time. HCADCRE-383
  - a. "dm\_verify\_subtype" = "yes"
  - b. "dm\_enable\_simple\_import\_export" = "no"
  - c. "dm\_upload\_objects" ="automatic"
9. Intermittently, the HaloCAD pop-up will display the message **File may not be saved properly. Kindly save again** when you save the Assembly file multiple times, and when you click **OK** on the pop-up. After closing and reopening the Creo application, when you open the same file, you'll receive a Cannot be retrieved error message. HCADCRE-386
10. The Creo application goes to the **Not Responding** state if you try to close it while the Microsoft Sign-in pop-up remains open. HCADCRE-412
11. Windchill: Although the dm\_enable\_simple\_import\_export variable is configured as **no** in config.pro file and classification and action rules are configured with file\_type = prt, the downloaded assembly file will remain protected at the downloaded location. HCADCRE-422
12. Windchill: When the dm\_upload\_objects variable is configured as **Explicit** in the config.pro file, the saved protected file will not be uploaded during check-in after closing and reopening the application. HCADCRE-438
13. Windchill: When the dm\_upload\_objects variable is configured as **Explicit**, and dm verify subtype is configured as **Yes** in the config.pro file, the file upload fails while trying to check-In using the **File -> Check-In** option in the same session. However, after closing and reopening the file, it will be checked-in successfully. HCADCRE-443
14. Windchill: When the dm\_upload\_objects variable is configured as **Automatic** and dm verify subtype is configured as **Yes** in the config.pro file, the file upload fails for the first time. However, if uploading the file subsequently in the same session, the file will be checked-in successfully. HCADCRE-444
15. Windchill: When a protected file is downloaded while another protected file is open in the same session, the protected file will download as an unprotected file, and the pencil icon Click to change label will remain greyed out on the Sensitivity ribbon. HCADCRE-463
16. Windchill: When a sketch file is opened in the Windchill workspace and a part or assembly file is opened via the **Open in Creo** option during the same session, clicking the pencil icon changes the label from **Not Set** to the default label that is set in the Halo Core Server. HCADCRE-509
17. The file will intermittently become corrupted when saved with protection in the Network storage location. HCADCRE-522

18. When a protected file is modified and saved several times, a HaloCAD error pop-up will appear, as *"File may not be saved properly. kindly save again"*. Also, if you try to label a new file in the same session, the file will not be protected. HCADCRE-557
19. Intermittently, Assembly files protected and saved on unmapped network locations using the Create Component option will not be loaded. HCADCRE-700
20. Windchill: When the life cycle state is configured, the drawing file will open without being protected in the Creo application. However, the dependent ASM and PRT will open with a configured label. HCADCRE-762
21. When you create a new drawing file, the Default model selection is updated with the name of the previously protected part file that was accessed in the same session, and the new drawing file is created with the protected part file's label. This is due to the application's actual behavior. HCADCRE-855
22. When importing a protected file using the **Shrinkwrap** option, the file is imported without protection. HCADCRE-858
23. The label of the imported protected assembly file will not appear in the assembly file when the **External Simplified representation** option is selected. HCADCRE-859
24. It is possible to install multiple versions of the HaloCAD Add-on for Creo on one system. HCADCRE-846
25. Windchill: When a large assembly file is protected with multiple labels and **Multi-Label Optimization** is enabled, if accessed from the Windchill workspace using the **Open** in Creo option, the same label is applied to both the assembly file and its dependent files. HCADCRE-1064

## 6.5. Quality Gate Report

Please see the table below for a list of SonarQube's key parameters for this version. Refer to the "[Code Quality and Security](#)" section for more information on rating definitions.

Metric	Value
Coverage	84.3%
Maintainability Rating	A
Reliability Rating	A
Security Hotspots Reviewed	A
Security Rating	A

*Quality Gate report*



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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.