



HaloCAD

HaloCAD Add-on for Creo

Release Notes

Version 2.4

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Contact

Secude Solutions AG
Murbacherstrasse 19
6003 Luzern, Switzerland
Mail: info@secude.com

Support

Web: <https://support.secude.com>
Mail: support@secude.com

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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"> File types supported for Save and Open: .cem, .sec, .prt, .asm, .drw, .frm, .lay, .stp, .igs, .dwg, .dxf, and .x_t. 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.

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 10.0, 11.0, 12.0, Creo+	2.4
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 that the following prerequisites are met:

1. An application is registered with Microsoft Entra ID.
2. An active Office 365 subscription is available.
3. Access to the recommended URLs is enabled.
4. TLS 1.2 or later is enabled on all client workstations to ensure secure communication.

For more information, 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

1. A = 0 Bugs
2. B = at least 1 Minor Bug
3. C = at least 1 Major Bug
4. D = at least 1 Critical Bug
5. E = at least 1 Blocker Bug

Security Rating

1. A = 0 Vulnerabilities
2. B = at least 1 Minor Vulnerability
3. C = at least 1 Major Vulnerability
4. D = at least 1 Critical Vulnerability
5. 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.

1. A = $\geq 80\%$
2. B = $\geq 70\%$ and $<80\%$
3. C = $\geq 50\%$ and $<70\%$
4. D = $\geq 30\%$ and $<50\%$
5. 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:

1. $\leq 5\%$ of the time that has already gone into the application, the rating is A
2. Between 6 to 10%, the rating is a B
3. Between 11 to 20%, the rating is a C
4. Between 21 to 50%, the rating is a D
5. Anything over 50% is an E

6. Build 2.4

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

There are no new features to highlight in this release.

6.2. Improvements

This section lists the improvements in the current release.

1. Added default values for silent command-line parameters. HCADCRE-1105
2. Added support to display online documentation directly from the installer UI for both the standard and Reader add-on installers. When the **Online Help** button is clicked, the online documentation now opens in the user's default browser. HCADCRE-1106,
3. Improved token-sharing encryption and FIPS compatibility by ensuring proper OpenSSL FIPS context initialization and preventing failures in child processes during configuration decryption. HCADCRE-1108, HCADCRE-1107
4. Enhanced assembly performance by caching MPIP protection information for files with the same **ContentId**. HCADCRE-1111
5. Improved handling of `.wfcnt` files with extended tags enabled. Updated header parsing logic resolves AES_BLOCK_CBC errors caused by differing header sizes (same ContentId), ensuring assemblies load correctly in Creo. HCADCRE-1118
6. Enhanced File Save Handling. HCADCRE-1117, HCADCRE-1116, HCADCRE-890
 - a. **Creating New Files:** No change in current behavior. Files continue to be saved to disk only when the user manually selects **File** → **Save**.
 - b. **Relabeling or removing protection from existing Files:**
 - i. Files are saved to disk when the user clicks the **Click to set label** icon in the **Sensitivity** UI.
 - ii. A HaloCAD relabeling pop-up is displayed. Based on the user's selection, dependent files (Assembly, Drawing, and Manufacturing types) are also saved to disk.
 - iii. The **Sensitivity** UI and **Status** UI are updated within the session without requiring a manual **File** → **Save** action.
 - c. **Importing Non-native files into a Creo session**

- d. Saving the converted native file to disk is currently not supported.
 - e. The **Sensitivity** UI and **Status** Dialog display the imported (non-native) label information within the session.
 - f. Application and menu options are dynamically enabled or disabled based on the logged-in user's file rights.
7. Support added for displaying watermarks using variables (`${Item.Label}`, `${Item.Name}`, `${Item.Location}`, `${User.Name}`, `${User.PrincipalName}`, `${Event.DateTime}`) available in the Microsoft Purview portal. HCADACD-696
8. In previous releases, asterisks were used in MIP SDK logs to mask Personally Identifiable Information (PII), such as email names and IP addresses. This feature is now extended to HaloCAD logs to also mask information such as label name, label ID, engine ID, policy ID, and watermark text. HCADCRE-1122
9. Support for Creo Parametric version 12.0. HCADCRE-1120
10. Fixed an issue where watermark text was not displayed correctly in the top-level ASM file after opening and closing a dependent part file. HCADACD-1129

6.3. Fixed Issues

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

- 1. Fixed an issue where the dependent Part file opened without restricted rights (showing a **Not Set** value) when protecting an Assembly file that included the part, when the configuration was set for `file_type = .prt`. HCADCRE-191
- 2. Fixed an issue where all options under the **Applications** menu remained enabled for a protected file with View Only rights. HCADCRE-201
- 3. Fixed an issue where files were not downloaded and protected when exporting using the **Export** from Workspace option, even when a normal config file was configured. HCADCRE-322
- 4. Fixed an issue where STEP and IGES files were not downloaded and opened as protected when using the **Open** in Creo option. HCADCRE-323
- 5. Fixed an issue where an ASM file with a single dependent part was not uploaded correctly on the first attempt, even when the specified configurations were applied. HCADCRE-383
- 6. Fixed an issue where updated label details on an already protected file were not reflected when saving the file using **Save As**. HCADCRE-419
- 7. Fixed an issue where a file opened as unprotected in the Creo application, but the **Click to change label** (pencil) icon remained disabled in the HaloCAD Sensitivity ribbon. HCADCRE-463

8. Fixed an issue where STEP files were not being protected when exported in the same session after applying protection in a Windchill-integrated Creo environment. HCADCRE-566
9. Fixed an issue where files opened with the **Use Templates** option in the **Import Model** window were loaded as unprotected in the Creo application and could be saved unprotected. HCADCRE-632
10. Fixed an issue where the HaloCAD error pop-up appeared when using the **Update Index** option. HCADCRE-634
11. Fixed an issue where a protected DRW file failed to open with a “cannot be retrieved” error on the first attempt, but opened successfully on subsequent attempts using the **Open in Creo** option from the workspace. HCADCRE-707
12. Fixed an issue where the label of an already opened Format file was incorrectly displayed in the Sensitivity ribbon of a newly created Layout/Notebook file. HCADCRE-809
13. Fixed an issue where the label from an already opened file was incorrectly applied to a newly created file after copying and pasting a protected file design. HCADCRE-828
14. Fixed an issue where a PTC Creo error message, *"Unable to load copied object"* was displayed, preventing protected Part/Assembly files from being imported into an unprotected Assembly using the **Copy from Existing** option. HCADCRE-832
15. Fixed an issue where the HaloCAD error and restriction pop-ups appeared, and the application became unresponsive when clicking the **Mold Cavity** option in the **Assembly → Mold Layout** file. HCADCRE-836
16. The drawing file is saved as a 0KB file while exporting. HCADCRE-887
17. Fixed an issue where the HaloCAD Sensitivity ribbon was not displayed for the **Bulk subtype** in newly created Part files. HCADCRE-983
18. Fixed an issue where the top-level DRW/ASM file opened with the configured label, but its dependent files were opened without protection, even though the dependent files stored in the Windchill cache location were protected. HCADCRE-1102
19. Fixed an issue where label details were not updated in the HaloCAD Status window after clicking the **Click to set label** button in the Sensitivity ribbon. HCADCRE-1036
20. Fixed an issue where the Sensitivity ribbon was disabled when importing unprotected STEP/IGES files. HCADCRE-1109
21. Fixed an issue where a HaloCAD error pop-up was displayed when opening an unprotected file while the `enable_fips` registry option was set to True, even though the file opened successfully. HCADCRE-1113
22. Fixed an issue where the **Sensitivity** ribbon became disabled when one protected file was minimized while multiple protected files were open in the same session. HCADCRE-1114

23. Fixed an issue where a Part file was saved as unprotected when re-labeling via Apply in the **Sensitivity** dialog with `save_file_iterations` set to no. HCADCRE-1121
24. Fixed an issue where Drawing and Assembly files opened with the configured label, but some dependent part files opened without a label. However, in the cache location, all dependent part files were correctly encrypted with the configured label when Multi Label Optimization was enabled. HCADCRE-1124
25. Fixed an issue where screenshot capture was restricted for files opened with Owner (full) rights if a restricted file had been opened earlier in the session. HCADCRE-1132

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. 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
6. In a protected file, the Sensitivity ribbon, along with the configured label, will be displayed while checking out an Assembly file. HCADCRE-189
7. 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
8. 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

9. 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
10. 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
11. 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
12. 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
13. The file will intermittently become corrupted when saved with protection in the Network storage location. HCADCRE-522
14. 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
15. Intermittently, Assembly files protected and saved on unmapped network locations using the Create Component option will not be loaded. HCADCRE-700
16. 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
17. 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
18. When importing a protected file using the **Shrinkwrap** option, the file is imported without protection. HCADCRE-858
19. 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
20. 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. Unsupported Versions

Support for Creo 9 has been removed in this release.

7. 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	84.2%
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.