

Startup TOOLS

12.0.0.0

Description of all functions

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1 Important information

Update

An update of Startup TOOLS does not change any data in the data packages (`<operatingenvironment>\<application>\data\<datapackage>`) or the resource folder (`<operatingenvironment>\parametric\configuration\gt_resource_folder` within an operating environment. Data packages and resource directory are customized to company-specific needs, e. g. the drawing frames, and must therefore be updated manually.

Please also consult the chapters *Important informationen* in GENIUS TOOLS Starter and for Creo add-on applications in GENIUS TOOLS for Creo.

2 New features

You can find more information about new functions in the chapters GENIUS TOOLS Starter and for the Creo add-on applications in GENIUS TOOLS for Creo.

3 License dependent functions

The product functionality depends on the type of license you are using. Find the list of functions that are limited to subscription licenses in the chapters *Important Information* in GENIUS TOOLS Starter and GENIUS TOOLS for Creo respectively.

4 Hardware and software requirements

Hardware and software requirements

GENIUS TOOLS Starter (GTS) works on all computers that fulfill the requirements for Creo 7.0 to Creo 12.0.

The following Windows server operating systems are supported for GENIUS TOOLS Starter Service: Windows Server 2025 / Windows Server 2022.

The following requirements are the same for installation computers, installation computers and satellites.

	GENIUS TOOLS Starter					
Version	7.0	8.0	9.0	10.0	11.0	12.0
Operating system	64-bit only Windows 10 / 8.1 / 7		64-bit only Windows 11 / 10			
.NET Framework	4.8 Delivered with Windows 10 -1903 (+8.1; +7) (May have to be installed separately on WIN7/8.1)		4.8 Delivered with Windows 10 -1903		Installation computer: 4.8	
.NET	-				8.0 (is included in the GTS software setup)	
Minimum screen resolution	X=1280 Y=1024					
Flexnet	INNEO Licence Manager 1.0 M050 (Flexnet) and later					
Caddepot directory (Central storage location with UNC access)	circa 1 to 5 GB for each operating environment					

	GENIUS TOOLS Starter
Cadpool directory (Storage location on the application computer)	Sufficient storage space to set up at least one operating environment
Data synchronization using GENIUS TOOLS Starter Service	Windows computer, where the Caddepot directory is located and where a service can be installed.
Operating satellites using GENIUS TOOLS Starter Service	Communication port for REST API on installation computer and satellites. Standard: 8092 Satellites need the same storage space as the installation computer.

Supported desktop applications

1. Administrators can create projects with object data and predefined configuration settings for the following CAD applications:

- AutoCAD, AutoCAD Architecture, AutoCAD LT und AutoCAD Mechanical 2021 - 2025
- Creo Elements / Direct Modeling
- Creo Parametric 2.0 - 12.0
- Inventor 2021 - 2025
- SolidWorks 2020 - 2025

2. The following applications will be automatically detected if they are installed on the user computer (autostart). The latest version will be opened.

- Creo Elements / Direct Drafting
- Creo Illustrate
- Creo Schematics
- Creo View
- Geomagic Design X
- KeyShot

- Mathcad

Required access rights

Caddepot

Read access: All users need read access to the Caddepot for synchronization to work.

Write access: For some functions users need write access to individual directories of an operating environment in the Caddepot.

- GENIUS TOOLS Starter App feedback on the last synchronization
... \serveronly_SyncResults\
- Central user configuration files
... \userdata
- Common databases for GENIUS TOOLS for Creo name generation (has to be configured manually)
... \serveronly\gt_numgen
Warning: This functionality cannot be used offline.

Cadpool

Read / write access: The user needs full write access to the local Cadpool for synchronization to work.

Client computers

Write access: Write access needs to be granted to the following Creo installation directories

- if more than the standard key (e.g. *parametric.psf*) or the synchronization of the start key is to be used: to the directory that contains Creo startkeys,
- if the Creo configuration files *config.sup*, *config.pro*, *creo_parametric_admin_customization.ui* need to be adapted: to the directory .. \CommonFiles\text

Please note: If Creo is installed into the Windows default program directory, you should not make any changes with GENIUS TOOLS Starter App. Install Creo into another directory, for example C:\ptc.

5 GENIUS TOOLS Starter

GENIUS TOOLS Starter is the configuration component of the Startup TOOLS for version 6.0 and later.

GENIUS TOOLS Starter is a separate software that can start local applications such as Creo Parametric using a central configuration, as well as synchronize data to the local computer.

All projects and data are managed within a operating environment. You can now use any number of operating environments in parallel, for example to have a test and production environment.

GENIUS TOOLS Starter package

- GENIUS TOOLS Starter App is the interface for the user, who can start the projects configured by the administrator. The local GENIUS TOOLS Starter App will update automatically from the central Caddepot directory.
- GENIUS TOOLS Project Configurator is the tool for the administrator for configuring projects that the user can then start using the GENIUS TOOLS Starter App.
- GENIUS TOOLS Environment Administrator is the tool for the administrator to manage operating environments.
- With GENIUS TOOLS Config Editor administrators can directly compare and edit configuration files and configuration blocks.

5.1 Important information

Environment Administrator: Older versions cannot be created (11.0.0.0 and newer)

With GENIUS TOOLS Environment Administrator 11.0.0.0 and newer, operating environments of versions 10.0.2.0 and older cannot be created. This is due to the migration to .NET 8.

Note that due to the conversion of the database in Release 9.0.0.0, versions older than Release 9.0.0.0 cannot be created with GENIUS TOOLS Environment Administrator either. See Important information: New folder structure not downward compatible.

Different functionality depending on license type

Starting with version 6.0.1, perpetual licenses and subscription licenses come with different product functionality.

The following functions are available with a subscription license for GENIUS TOOLS Starter.

Subscription function	Description	Release
Dynamic access to Windows user management with LDAP/Active Directory (lightweight directory access protocol)	Creates access to Windows user management and enables live queries so that user assignment is always up-to-date. Users thus do not have to be created and maintained manually. ⇒ Less maintenance work	6.0.1.0
Configuring units	Adds a group element ("unit") that can easily reflect complex configurations such as for company sites and units. ⇒ Easier configuration for companies with many sites and/ or units ⇒ Allows for a reduction of projects	6.0.1.0
Access to directory "users"	Adds a group element ("users") that can easily reflect complex configurations for many users. ⇒ Less maintenance work	6.0.1.0
Selecting Creo startkey when starting a project	Provides a project with a choice from several Creo startkeys (start command that opens Creo with a defined license package). Users can start a project with a default startkey or select another one when opening a project in GENIUS TOOLS Starter App. ⇒ Allows the reduction of projects	7.0.0.0

Subscription function	Description	Release
Apps projects	<p>Creates projects that run on any other program. Assigning a project directory and batch files is possible.</p> <p>⇒ GENIUS TOOLS Starter App can be made the central access point for users.</p>	7.0.0.0
Operating satellites in GENIUS TOOLS Starter Service	<p>Enables the connection of synchronization servers to a main server and their automatic synchronization.</p> <p>⇒ Faster connection of user computers to a synchronized satellite</p> <p>⇒ Reducing queries from network to main server</p>	7.0.1.0
Edit and compare configuration blocks	<p>Release-dependent config.pro editor and graphic comparison tool</p> <p>⇒ Quick overview, comparison and editing of project-related configuration blocks (config_*.pro files)</p>	7.0.1.0
Company-specific project collections	<p>Start projects can be put together in defined project groups by the administrator.</p> <p>⇒ In many projects, these can be structured according to your own requirements.</p>	7.0.2.0
Selectable project options	<p>Projects can be started with multiple, individually defined configuration blocks, e. g. for license extensions or additional programs.</p>	8.0.0.0
Reproducing organization structure with units and subunits	<p>Subordinate units (subunits) can be created to provide additional configuration levels for project settings.</p> <p>⇒ Better mapping for locations, subunits etc. and the resulting complex project configurations</p> <p>⇒ Allows for further reduction of projects</p>	8.0.1.0

Subscription function	Description	Release
Combined project options	<p>Users can select a project option in GENIUS TOOLS Starter App, which activates multiple configuration options which are located in different directories and configuration levels, e. g. for license extensions and add-on applications.</p> <p>⇒ Number of projects can be minimized</p>	8.0.1.0
Edit config.pro files in GENIUS TOOLS Config Editor	<p>Creo configuration options can be edited faster with auto-completion and color coding.</p> <p>⇒ Easier comparison and editing of configuration options, also in batch mode.</p>	8.0.2.0
Auto projects	<p>Settings for auto projects (e. g. Keyshot) can be specified for the configuration levels standard, unit, project and user.</p> <p>⇒ Company-specific configurations possible</p>	9.0.0.0
Create and migrate Creo Elements/Direct Modeling projects	<p>For Creo Elements/Direct Modeling projects, settings can be specified for the configuration levels standard, unit, project and user, and project settings and data packages can be added or migrated.</p> <p>⇒ Integration of an additional CAD application</p>	9.0.0.0
Create SolidWorks projects	<p>Projects for SolidWorks can be configured in the layers standard, unit, project and user. Project settings can be specified and data packages added.</p> <p>⇒ Integration of an additional CAD application</p>	9.0.1.0
Create Inventor projects	<p>Projects for Inventor can be configured in the layers standard, unit, project and user. Project settings can be specified and data packages added.</p> <p>⇒ Integration of an additional CAD application</p>	9.0.2.0


Subscription function	Description	Release
Create AutoCAD projects	<p>For the applications AutoCAD, AutoCAD Architecture and AutoCAD Mechanical, projects can be created for a specific release and be assigned project and data directories.</p> <p>⇒ Integration of an additional CAD application</p>	9.0.2.0
Support of AutoCAD LT	<p>Projects can be created for AutoCAD LT.</p>	10.0.1.0
Select alternative authentication	<p>Users can authenticate against a system other than Windows. Windchill user data can be imported with GENIUS TOOLS Project Configurator. For other systems, e. g. SAP, a self-created file can be used.</p> <p>⇒ Compatibility of Starter projects with other authorization systems, e. g. Windchill</p>	10.0.1.0
Unit-specific visibility of projects	<p>Access to a project can be restricted to a specific unit (in addition to being restricted to a role).</p> <p>⇒ Use of units for project access</p>	11.0.0.0
Install Creo projects	<p>Synchronize Creo Parametric setups to user computers, from which they can be started manually or automatically.</p>	11.0.0.0
SSO-Authentifizierung	<p>Windchill user data can be authenticated with an existing Windchill server with SSO (single sign-on) setup.</p> <p>⇒ Login process in GENIUS TOOLS Starter omitted</p>	11.0.1.0
Synchronization with GitSynchronisation with Git	<p>Operating environments can be synchronized with the version control system Git.</p> <p>⇒ Synchronization server can be accessed with URL address</p>	11.0.1.0






Warning: If you are using mixed licenses (perpetual and subscription) and configure functionality that is limited to subscription licenses, the projects in GENIUS TOOLS Starter App will no longer start if there is no subscription license available.


5.2 New features in version 12

Starter: New software component GENIUS TOOLS Git Utility (12.0.0.0)

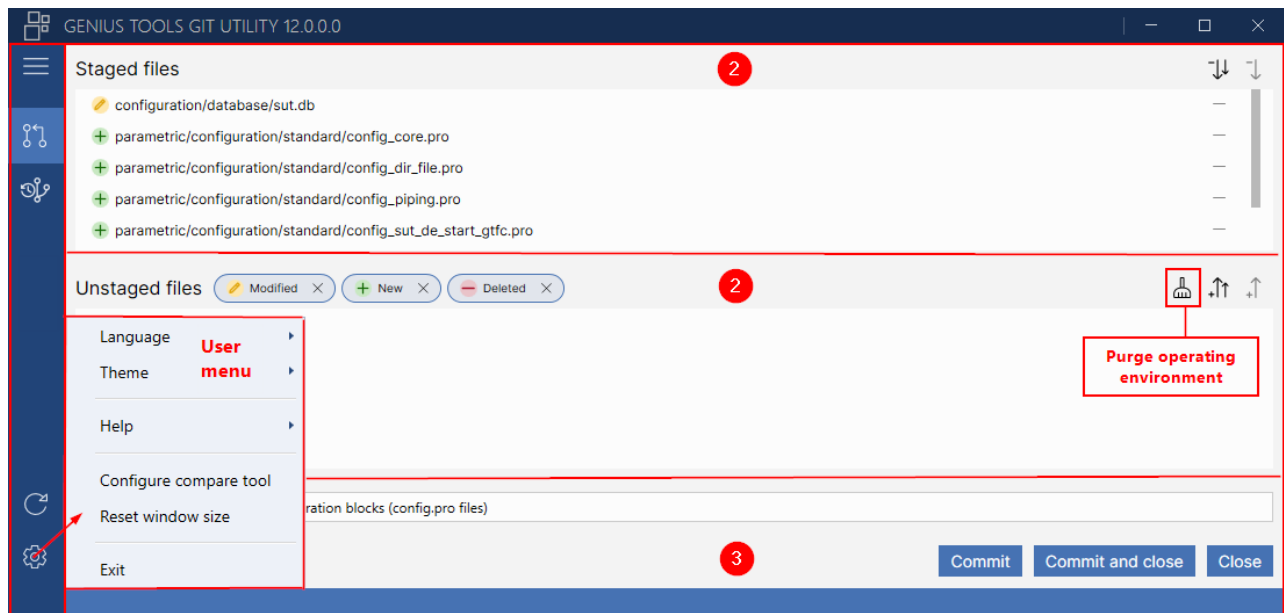
GENIUS TOOLS Git Utility is an application for GENIUS TOOLS Starter which allows you to check in changes made in an operating environment to the version control system Git and which displays the history of these changes. GENIUS TOOLS Git Utility is opened in GENIUS TOOLS Project Configurator with the function *Git checkin* in the sidebar.


Please note: If there is a disc icon  in the sidebar, you are not working in a git-versioned environment.

The main page *Commit* lists all changed files in the operating environment. A distinction is made between staged (1) and unstaged (2) files. Unstaged files can be filtered by modified files , new files  and deleted files  and can be set to staged files by clicking the icon  (all files) or the icon  (selected files).

Old versions of files can be deleted using function *Purge operating environment* .

Enter a commit message and click the Commit button.



The History page  lists all commits of a working environment with the commit message and details of the check-in date and author. The current status of a file can be compared with a previous status of this file.

Further information can be found in the help document, which opens when pressing F1 or

under Help in the side bar.

Starter: New environment variables (12.0.0.0)

The following new variable is supported by GENIUS TOOLS Starter:

GTS_USER_EMAIL

Contains the email address of the user entry in GENIUS TOOLS Starter

6 GENIUS TOOLS for Creo

The following section contains information on news for the Creo add-on modules GENIUS TOOLS for Creo which are included in the products GENIUS TOOLS Parameter and GENIUS TOOLS Library.

6.1 Important information

Updating GENIUS TOOLS Parameter & Library

An update of GENIUS TOOLS Parameter & Library does not update the resource folder (*gt_resource_folder*). This must be updated manually. Consult the chapter *Update process* in the help document *GENIUS TOOLS Starter Installation.pdf*

GENIUS TOOLS for Creo: End of support for Creo versions up to 9.x (Version 12.0.0.0)

PTC Creo versions up to and including 9.x are no longer supported.

GENIUS TOOLS for Creo: Modules discontinued for Creo version 13.0.0.0 (12.0.0.0)

The following GENIUS TOOLS for Creo extension modules will be discontinued for Creo version 13.0.0.0, as the functions can now be executed with Creo Parametric.

GENIUS TOOLS for Creo	Creo Parametric
Regeneration Profiler	Tools > Investigate > Performance Report
Multibody to Assembly	In a multibody part: File > Save as > Save as assembly

License-dependent functions

The following functions are available with a subscription license for *GENIUS TOOLS® Library*, *GENIUS TOOLS® Parameter* and *Startup TOOLS*.

Extension module (GENIUS TOOLS for Creo)	Description	Release
Load Save Converter	Converts Creo objects from previous Creo-, Wildfire- or Pro/ENGINEER versions to the currently used version.	7.0.0.0
Inspect Revision	Stores all versions of inspection symbols on a drawing. Easily creates an overview of a revision history.	7.0.0.0
Open Base Model	Opens geometric base models that are reference sources for features with one click in the context menu of a feature.	7.0.0.0
Extend Relations	Adds functions to model relations that define parameters for models and – with Creo 7 – for bodies.	7.0.0.0 - 8.0.0.0
Select Surfaces By Color	Surfaces of the same color can be selected with one click and be colored, measured or otherwise modified thereafter.	7.0.1.0
CS Assembler	Automates the assembly of components into an assembly using defined coordinate systems (CS).	7.0.1.0
Extended Dimension Functions	Model dimensions can be increased or decreased very quickly with the mouse in a defined increment in the graphics window.	7.0.2.0
Copy Component Parameter To Substitution Component Parameter	If a value has been assigned to a component parameter for a part in the master representation, this value can be copied to the component parameter for a simplified part.	7.0.2.0
Toggle Symbol Variants	If a grouped symbol has variants in the first level, you can switch between those variants more quickly.	7.0.2.0

Extension module (GENIUS TOOLS for Creo)	Description	Release
Multibody to Assembly	Converts multiple bodies into assemblies (Creo Advanced Assembly Extension (AAX) is required.)	8.0.0.0
Work Dir Manager	Automatically collects all directories used during the work process and enables the current working directory to be changed quickly.	8.0.0.0
Full Backup	Quickly backs up the current model with all dependent data.	8.0.0.0
Command Control	Creo Parametric ribbon commands / commands can be hidden or deactivated.	8.0.1.0
Feature Regeneration Profiler	Regenerates models and displays regeneration times for each feature.	10.0.1.0

6.2 What's new in release 12

The following functions have been added to the GENIUS TOOLS add-on applications for Creo that are contained in the products GENIUS TOOLS Library and GENIUS TOOLS Parameter and GENIUS TOOLS MBD for ISO-GPS.

Please note: If you would like to search for functions of a module across releases, enter the name of the module in the search window in the **Update Advisor** (<https://updateadvisor.inneo.com>). The Update Advisor also lists all changes to configuration options and files in the supplied data packages.

6.2.1 Inspect

Inspect / Inspect 3D: Display of all tolerance values in compound frame (Version 12.0.0.0)

For geometric dimensioning and tolerancing all tolerance values and datum references in a compound frame are displayed and automatically read out.

6.2.2 Utilities

Utilities – New module „Create points and coordinate systems“ (12.0.0.0)

The function *Create points and coordinate systems* can be used to create a coordinate system or a point at the same location (point, corner point or coordinate system) within a part or an assembly with reference to a newly selected reference coordinate system. The offset coordinate system can be created manually or automatically or an offset point can be created.

The function is located in the *GENIUS TOOLS* ribbon in the *UTILITIES* segment.

6.3 Configuration options

The following configuration options have been added, changed or deleted since version 12.0.0.0.

6.3.1 New configuration options (12.0.0.0)

Utilities: New configuration options

Combined View Gallery

gtu_combined_view_gallery_creation_rule

Defines a rule, in the form of a regular expression, to find combined views whose screenshot is displayed when the program is started.

GTOL Text

gtu_gtol_text_table_folder

Defines the path where the GTol Text tolerance table files are located.

gtu_gtol_text_lang

Defines the display language of GENIUS TOOLS GTol Text.

Find references

gtu_start_find_references

Defines whether GT Find References can be started by users (1) or by owner (0). Default: 1

Create point and coordinate systems

gtu_start_datum_creation

Defines whether the GT function to create offset coordinate systems and offset points can be started by users (1) or by owner (0). Default: 1

gtu_datum_creation_std_placement_cs

Defines the name for the reference coordinate system. If the coordinate system cannot be found a selection is requested.

gtu_datum_creation_start_feature_numbers

Defines the start for created features.

gtu_datum_creation_cs_prestring

Defines the name of the created feature. Default: MCS_

MCS_%gtu_datum_creation_start_feature_numbers%,
MCS_%gtu_datum_creation_start_feature_numbers% + 1,

gtu_datum_creation_pnt_prestring

Defines the name of the created feature. Default: PNT_

PNT_%gtu_datum_creation_start_feature_numbers%,
PNT_%gtu_datum_creation_start_feature_numbers% + 1,

7 Contact details

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