

GENIUS TOOLS Starter

10.0.1.0

User Manual

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1 Overview

GENIUS TOOLS Starter® is used to start locally installed applications using a centrally managed configuration. All required data is synchronized from a central storage location (Caddepot) to the local computer (Cadpool). The software offers global administration capabilities for heterogeneous IT landscapes and user-specific adaptation options.

1.1 GENIUS TOOLS Starter philosophy

GENIUS TOOLS Starter lets you manage centrally configured operating environments. Typically, a company uses one productive operating environment. This operating environment can be synchronized to all user computers. An operating environment can contain any number of Starter projects, which are configured with just a few mouse clicks and distributed to either all or only to specific users.

GENIUS TOOLS Starter can provide for multiple operating environments, so that test environments or environments with customer-specific configurations can be configured with little effort. Also, GENIUS TOOLS Starter can integrate publicly available configurations.

Using synchronization between the administration computer and a number of client computers, you can manage large and complex installations, distribute central configuration settings to each workstation and also distribute the required data. Changes to the configuration are thus automatically made available to all users. Configurations can differ between users by organizing them in units, users or computer groups.

The following procedure applies to all programs:

1. the environment can be cleaned first and
2. GENIUS TOOLS Starter settings are made.

Supported applications

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

- AutoCAD, AutoCAD Architecture, AutoCAD LT and AutoCAD Mechanical
- Creo Elements / Direct Modeling
- Creo Parametric
- Inventor
- SolidWorks

For projects of the above applications different settings can be made in different configuration layers, e. g. for departments (units). Projects can be set up for different versions.

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

- Creo Elements / Direct Drafting
- Creo Schematics
- Creo View
- Geomagic Design X
- KeyVR
- Keyshot
- Mathcad

1.2 Component modules

GENIUS TOOLS Starter provides user-friendly graphical interfaces for easily managing CAD installations as well as any other program. It consists of four components:

- GENIUS TOOLS Environment Administrator for managing operating environments
- GENIUS TOOLS Project Configurator for configuring projects within an operating environment
- GENIUS TOOLS Starter App for starting the configured projects
- GENIUS TOOLS Config Editor for editing configuration blocks

GENIUS TOOLS Environment Administrator

GENIUS TOOLS Environment Administrator provides functionality for managing operating environments. Use GENIUS TOOLS Environment Administrator to

- create new operating environments
- change properties of an operating environment
- update GENIUS TOOLS Starter and GENIUS TOOLS for Creo in an operating environment
- configure license servers and synchronization settings

GENIUS TOOLS Environment Administrator is a stand-alone administrative tool. The executable file *gtsa.exe* is located in the Installdepot directory.

GENIUS TOOLS Project Configurator

GENIUS TOOLS Project Configurator provides functionality for configuring different projects with only a few mouse clicks. End users can thus start projects with an application using specific configuration settings. Use GENIUS TOOLS Project Configurator to

- define adaptable configuration settings for homogeneous or heterogeneous CAD landscapes
- define group and unit-specific settings
- manage different projects.

GENIUS TOOLS Project Configurator is started from the user menu of GENIUS TOOLS Starter App, but the administrator may deny users access.

GENIUS TOOLS Starter App

The configured projects are listed in GENIUS TOOLS Starter App for the users, who can select a project with a specific configuration. The user interface also displays additional information, e. g., available licenses, working directory and error messages.

GENIUS TOOLS Starter App is a stand-alone tool. The executable file *gts.exe* is located in the Caddepot directory under *Software*.

GENIUS TOOLS Config Editor

Administrators can edit configuration settings with GENIUS TOOLS Config Editor as well as compare them in different versions for Creo Parametric.

GENIUS TOOLS Config Editor is a stand-alone tool. The executable file *GTConfigEditor.exe* is located in the *tools* directory, which is a directory in both the installation computer as well the user computer.

GENIUS TOOLS Config Editor also starts by clicking a config file in GENIUS TOOLS Starter App, though administrators may deny users access.

1.3 Advantages

The use GENIUS TOOLS Starter offers the following advantages:

- project-oriented workflow
- creating projects that unite the program to be launched, required licenses, specific configuration and related data
- support for different working environments
- easy handling through graphical user interface

- central configuration of application computers
- synchronization based on a configurable interval
- organization of resources into user groups, computer groups and units
- role-based permission concept
- management of configuration blocks (component files of a configuration)
- blocking access to projects
- support for multiple languages

For CAD applications, the following advantages are added:

- fastest possible startup of CAD application, as all data is stored locally
- licensing with FlexLM, fail-safe mode and license borrowing supported
- creation of project options which users can select
- easy configuration of a CAD landscape
- license management
- easy offline work using license borrowing
- Windchill integration
- database-driven management of Creo Parametric configuration settings

1.4 License-dependent features

Starting with GENIUS TOOLS Starter 6.0.1, the product functionality depends on the type of license you are using. From the year 2020 onwards, GENIUS TOOLS Starter is only sold with subscription licenses.

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 |


| Subscription function | Description | Release |
|--|---|---------|
| Configuring units | <p>Adds a group element ("unit") that can easily reflect complex configurations such as for company sites and units.</p> <p>⇒ Easier configuration for companies with many sites and/ or units</p> <p>⇒ Allows for a reduction of projects</p> | 6.0.1.0 |
| Access to directory "users" | <p>Adds a group element ("users") that can easily reflect complex configurations for many users.</p> <p>⇒ Less maintenance work</p> | 6.0.1.0 |
| Selecting Creo startkey when starting a project | <p>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.</p> <p>⇒ Allows the reduction of projects</p> | 7.0.0.0 |
| 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 |

| Subscription function | Description | Release |
|--|--|---------|
| 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 |
| 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 |

| Subscription function | Description | Release |
|---|--|----------|
| 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 |
| 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 |

| Subscription function | Description | Release |
|-----------------------------------|--|----------|
| 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 |

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.

User can see whether projects include subscription functions  by consulting Data base mode in the [footer](#) of GENIUS TOOLS Starter App.

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.

For information on managing PTC license packages, please refer to [Assigning Creo licenses to projects](#).

Falsely activating a subscription function

When activating a subscription function, a backup copy of the configuration database *sut.db* is created. Use this backup copy, if you want to undo an activation of any of the above functions so you can work again with permanent licenses.

Procedure:

1. On the installation computer, go to the backup directory: ..
`\caddepot\<operatingenvironmentname>\configuration\database\BackupBeforeUpgrade`
2. Copy the backup file *sut.db* from the *BackupBeforeUpgrade* folder.
3. Paste this file into the *database* directory.

2 Basics

GENIUS TOOLS Starter allows users to launch projects from different applications, with settings made centrally by the administrator.

2.1 Important terms

The **administration computer** is a computer on which the administrative user has full write access to the Caddepot directory in order to manage all data on the file system level. It is the work station where GENIUS TOOLS Environment Administrator and GENIUS TOOLS Project Configurator is used.

The user computer is the computer on which the end user of an application opens configured projects with GENIUS TOOLS Starter App. The required applications must be installed.

Caddepot is a subdirectory of the installation directory. It is the source for the synchronization of the local operating environments on the application computers, that is, the source for the local *Cadpool* directory. The *Caddepot* directory must be shared to be accessible for distributed work.

An **operating environment** is a directory that contains all the data required for working with the desktop application. This includes configuration data, libraries, templates and additional applications. The operating environment also contains a database with all configured projects. An operating environment can contain an arbitrary number of projects.

If you work across a network, the directory for the operating environment is the Caddepot on the administration computer and the Cadpool on the application computers.

The operating environments contain the software components GENIUS TOOLS Starter, GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator of a defined version.

A **Starter project** is a project that has been created with GENIUS TOOLS Project Configurator and a software program, the required license, specific configuration and related data.

It can be selected by users in GENIUS TOOLS Starter App and opens with locally available data and a central configuration set by the administrator.


For the configuration of a project GENIUS TOOLS Starter reads out different component files, the so-called **configuration blocks**. These files can be stored together with batch files in different configuration levels.

2.2 Workflow and synchronization

Standard workflow: Working locally with synchronization

With GENIUS TOOLS Starter, Creo users typically have all the data they need locally on their workstation. This ensures the fastest possible data access and makes it possible to work offline.

Local data (the operating environments) are located in the Cadpool directory and are synchronized from the central Caddepot directory, meaning that the data is copied from Caddepot to Cadpool at a configurable interval.

Data synchronization means that local configuration changes will be overwritten. Changes to the operating environment, for example entries in a configuration file, have to be copied manually to the Caddepot. Synchronization has to be paused during the time in which changes are made. To pause synchronization, open GENIUS TOOLS Project Configurator and select *Pause synchronization* from the user menu .

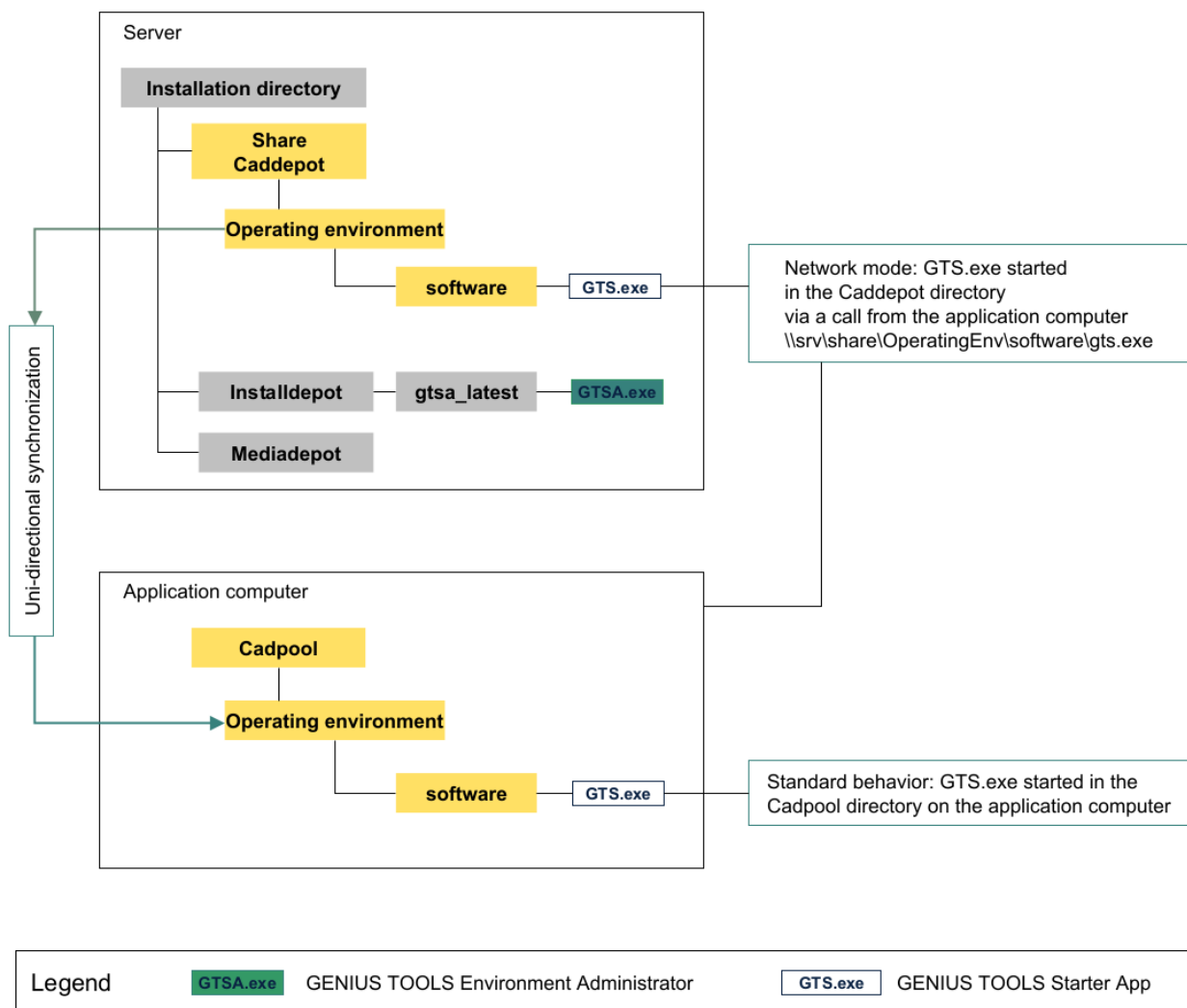
Please note: For data synchronization to work, the users need to have access to the Caddepot directory. It is recommended to only grant read access if you do not want users to change settings by themselves.

The setup for working locally with synchronization is created by GENIUS TOOLS Starter by default. If you start the *GTS.exe*, it will open from the local Cadpool directory, or create the Cadpool directory if it does not exist (initial synchronization).

Network mode: Working without synchronization

You can work locally with the data in the Caddepot and without synchronization within a computer network. To do so, the standard behavior of GENIUS TOOLS Starter has to be changed and set to network mode, meaning that the file *GTS.exe* will be started in the Caddepot directory.

To set access rights for network mode, open GENIUS TOOLS Project Configurator and set *Access rights > Function access > Select group > Function access > Prevent switch to local installation: Yes*.



Way of synchronization from Caddepot to Cadpool in GENIUS TOOLS Starter.

2.3 Operating environments

You can manage any number of operating environments with GENIUS TOOLS Starter. This means that you can have both a test and a production environment installed and manage environments for different clients.

Each operating environment contains a set of projects, the required data and the GENIUS TOOLS Starter software. Each operating environment is fully independent of the others.

The directory for the operating environment contains configuration data, libraries and templates, additional applications as well as the database for project-specific configuration settings.

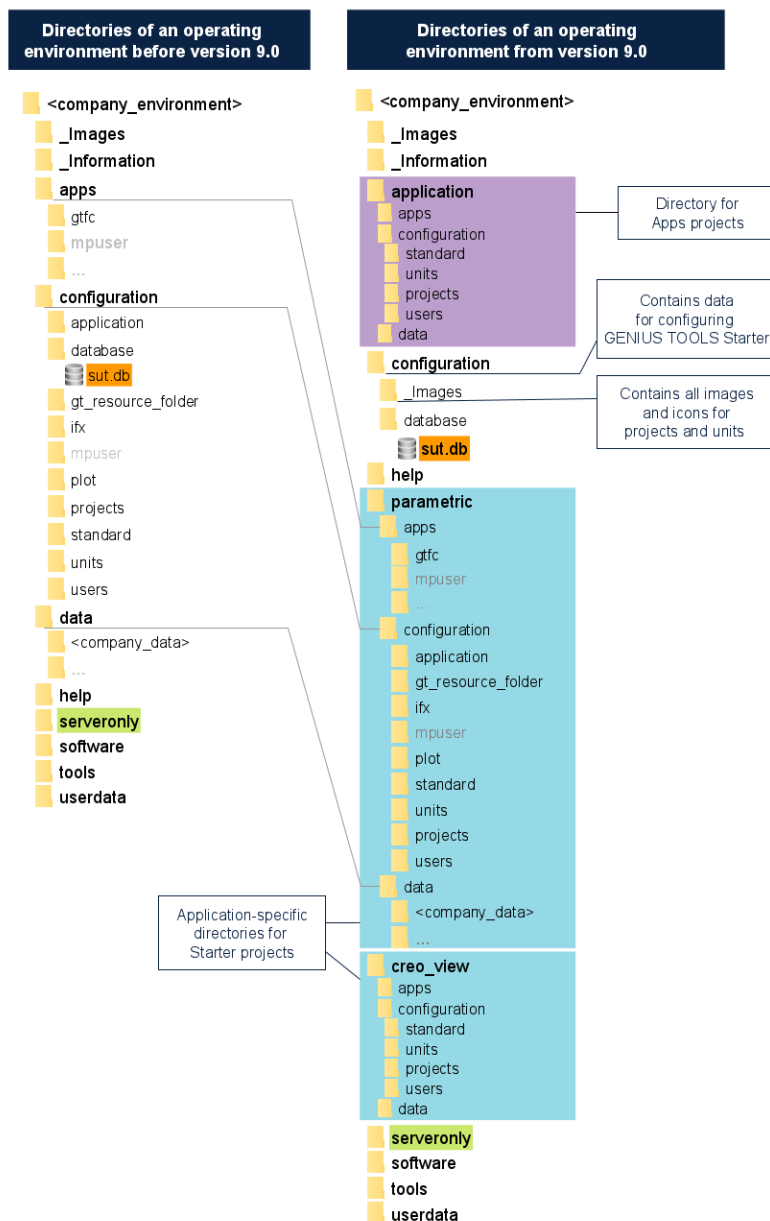
Changes to an operating environment and software updates are managed using GENIUS TOOLS Environment Administrator. Hence, data in an operating environment – such as

GENIUS TOOLS Starter software, additional applications like GENIUS TOOLS for Creo, configuration files, or standard parts – cannot be changed by setup programs. This gives the IT administrator better control over which data is actually being changed or updated in an operating environment.

2.4 Directory structure

With GENIUS TOOLS Starter you can create projects for Creo Parametric as well as Creo Elements/Direct Modeling, Inventor and SolidWorks. In order to be able to include data for other CAD systems, the entire directory structure has been changed in version 9.0.0.

Warning: Due to these new features in GENIUS TOOLS Starter, the directory structure and the software are no longer backward compatible, which means that after updating an operating environment to version 9.0.0.0 or newer, it is no longer possible to revert to an older version. Read the chapter *Important information* in the News document before updating.



System directories of the first level

_Images contains an image or images for the operating environment as well as the start icon. The image and the icon have to use the operating environment name as their file name. The icon has to be in the icon format (ICO). See also [Configuring the desktop](#) link.

_Information contains messages to the users as text files. See also [Sending messages to the users](#).

application directory for applications of App projects, e.g. MModel Processor.

auth_provider contains the executable file (authentication provider) *Auth_Windchill.exe* for authenticating against Windchill.

configuration contains images and icons for units and projects, and the *sut.db* database which stores the configuration settings of an operating environment.

help contains the manuals and installation instructions for GENIUS TOOLS for Creo, GENIUS TOOLS Starter and Startup TOOLS.

serveronly is only present in the [Caddepot](#) directory. It contains additional tools such as GENIUS TOOLS Comma-to-dot or GENIUS TOOLS Purge. The subdirectory *_ErrorLog* contains log files for errors.

software contains the GENIUS TOOLS Starter software.

tools contains the software component [GENIUS TOOLS Config Editor](#) and Requirement Check, a tool which returns a log file with a list of all available applications.

userdata contains user-defined settings, e.g., mapkeys or user images. In contrast to the directory in *configuration/Users*, this directory can be managed by the user themselves. See also [User-driven configuration](#).

The following application-specific directories are created for applications that configure starter projects:

ced_drafting Creo Elements/Direct Drafting

creo_view Creo View

elements_direct Creo Elements/Direct Modeling

geomagic_design_x Geomagic Design X

key_vr KeyVR

keyshot beinhaltet alle Daten und Konfigurationen für Keyshot.

mathcad Mathcad

parametric contains data packages, standard projects and add-on applications for Creo Parametric.

schematics Creo Schematics

solid_works SolidWorks

Directories of the second level for the various applications

Each of the above listed application-specific directories has three sub-directories for data, configuration settings and add-on applications.

apps contains all additional applications.

- For Creo Parametric: the GENIUS TOOLS for Creo products Library and/or Parameter (gtfc) and the freeware tool GENIUS TOOLS UI File Loader (ui).
- It is represented by the variable GTS_APPS_DIR.

configuration contains configuration settings for system-wide standards, units, projects, users as well as further directories.

- For Creo Parametric: *gt_resource_folder*.
- It is represented by the variable GTS_CONFIGURATION_DIR.

data contains all data packages (subdirectories) available in a project, e.g., libraries, materials, ModelCheck configuration files etc.

- A subdirectory of *data* is represented by the variable GTS_DATA.

3 Starter projects

A **Starter project** is a project that has been created with GENIUS TOOLS Project Configurator and a software program, the required license, specific configuration and related data.

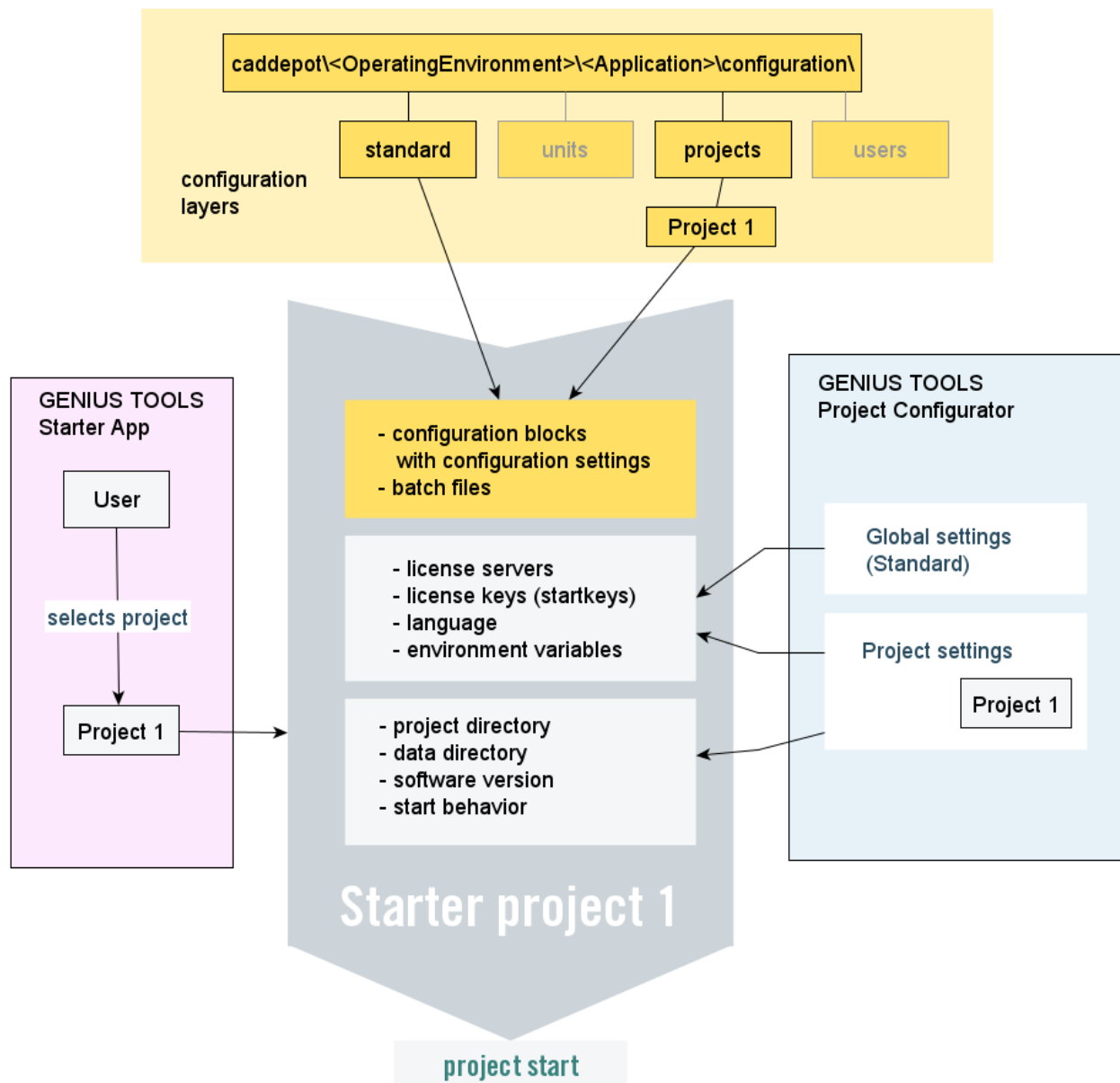
It can be selected by users in GENIUS TOOLS Starter App and opens with locally available data and a central configuration set by the administrator.

An administrator can thus make GENIUS TOOLS Starter App the central starting point at work for users.

The setup of a Starter project requires object data, which are located in the data directory, as well as configuration blocks, which can be located in the configuration directories *standard*, *units*, *projects* and *users*. The separation of the object data from the configuration data and additional applications ensures that objects of an operating environment can be used for several projects.

A Starter project can be created with the following components:

- **start variables** (supported by GENIUS TOOLS Starter)
- **environment variables** (GTS)
- **configuration blocks** (GTS)
- previously started programs (defined by **batch files**)
- Windows registry (GTS)
- **settings** (GENIUS TOOLS Project Configurator)
for groups, units and individual projects:
 - servers
 - licenses
 - language and license key (as project options)and additionally for users:
 - access rights
 - visibility and presentation of projects



Structure of a Starter project set up with standard settings and project settings

Starter projects can be created for all applications. Each project can be assigned a project directory and a data directory. The first, general steps are described in the [General procedure](#) chapter.

The license to start a CAD application / Starter Core license is returned after 120 minutes of runtime, unless the CAD application is closed before. After this runtime, the CAD starter license is free again and can be used by the next user.

For CAD applications, you can additionally define startup behavior, license server and environment variables. Accordingly, the settings for these applications are more in-depth and are described in the respective chapters:

– Creo Parametric

- Creo Elements/Direct Modeling
- SolidWorks
- Inventor

3.1 Data packages

The directory data is the system directory of an application, under which the files related to an operating environment can be found. All object data are stored in the subdirectories, the data packages:

`<GTS-working-environment>\<application>\data\<data-package>`

For example, for Creo Parametric: `<GTS_ROOT_DIR>\parametric\data\sut_creo9`.

Please note: Data packages are subdirectories in the system directory *data* of an application.

A reference to a data directory from a [configuration block](#) is made with the variable `$GTS_DATA`.

Hint: If possible, always work with variables.

For Creo Parametric, object data is provided with the Startup TOOLS product package, see [Creo data packages](#).

3.2 Configuration blocks

Most software programs do not allow to make specific settings for different user groups, projects and locations. To provide this possibility, GENIUS TOOLS Starter creates a specific configuration from different configuration component files, the configuration blocks.

A configuration block

- is a text file that contains one or more configuration options, i. e. settings for the application,
- must be given an application-specific name (see table below),
- is one of many configuration files that are read by GENIUS TOOLS Starter to create the configuration of a Starter project,
- can contain conditions, that define whether to include them into the configuration ([Conditional configuration blocks](#)).

Please note: For the correct display of German umlauts in GENIUS TOOLS Starter App, configuration blocks must be written in UTF8.

You can conveniently create and modify configuration blocks using the add-on program **GENIUS TOOLS Config Editor**, which provides color highlighting, auto-completion and error messages.

The following configuration blocks can be used for the respective applications.

| Configuration block | Content | Example |
|---|--|--|
| Creo Parametric | | |
| 1 config_*.pro (alors: Config-Datei) | All settings (configuration options) for running the application | <i>config_sut_de_c6p_dir_file.pro</i> <i>config_c5p_mapkeys.pro</i> |
| 2 config_*.sup | Settings that cannot be modified by the user | <i>config_design_de.sup</i> |
| SolidWorks | | |
| 3 config_*.sldreg | All settings, Embedding of additional applications (add-ins) | <i>config_addin_compose.sldreg</i> |
| Inventor | | |
| 4 config_*.xml | General settings | <i>config_dir_file.xml</i> |
| 5 ui_*.xml | Settings for the user interface | <i>ui_customization.xml</i> |
| 6 *.addin | Embedding of additional applications (add-ins) | <i>AdditiveMFG.inventor.addin</i> |

3.3 Batch files

Batch files are used to execute configuration commands at different times.

If you want to execute additional instructions before an application is started or when changing to another project, you can place group, unit or project-specific batch files in the

corresponding directories of the [configuration layer](#). You can also use batch files to set additional environment variables or copy additional data.

The batch files names have to start with one of the following prefixes.

Types of batch files

| Prefix | Start time | Comment |
|------------|---|---|
| prestart_ | Started before the configuration is created. | When a project is started, GENIUS TOOLS Starter calls the <i>prestart_</i> batch files before the <i>config.pro</i> files for the project are assembled. |
| poststart_ | Started after the application has been started. | This type of batch file can be used for accessing the running Creo session with the help of additional programs. |
| start_ | Started before the application is started. | When a project is started, GENIUS TOOLS Starter assembles the <i>config.pro</i> files for the project, then calls the <i>start_</i> batch files. |
| stop_ | Started after the application is closed. | Please note that <i>Enable stop batches</i> has to be set to <i>Yes</i> in the Project Configurator under <i>Configuration > (Select group) > Creo Settings > Startup Settings</i> . |

For Creo Elements/Direct Modeling, only start batch files can be executed.

Batch files are subject to the same [call hierarchy](#) as configuration files. Unlike configuration files, however, batch files cannot be located in the [PDM directory](#).

User or computer specific batch files

GENIUS TOOLS Starter can call batch files depending on which user, user group, computer, or computer group is used to start a project. These batch files and their call sequence do not differ from the general batch files.

Use the following prefixes and be careful not to use special characters. Special characters in group names will be removed.

| Batch file | Prefix (without the characters <>) | Beispiel |
|--------------------------|------------------------------------|--|
| User-dependent | U_<WindowsUSername>_ | U_MUELLER_stop_copy_workspace.bat |
| Computer dependent | C_<WindowsComputername>_ | C_CAD13_start_map_drive.bat |
| Computer group dependent | CG_<NameComputergroup>_ | CG_CREO_ON_C_env_set_buw.bat |
| User group dependent | UG_<NameUsergroup>_ | UG_GruppeA_start_copy_special_config.bat |

Warning: What if Creo Parametric does not start? The most common cause is that a batch file causes the Creo call to stop. If there are start issues, first check which batch file could cause the Creo call to stop.

3.4 PDM directories

The PDM directory will be included into the [call hierarchy for files](#) when you are working with a PDM system, e. g. Windchill. It contains additional settings that are defined on starting the PDM system, as well as commented-out settings for Starter projects. Settings that are commented-out are stored in the file *exclude.txt*.

As soon as the PDM system is activated, the PDM directories within all configuration directories relevant to a project will also be included into the configuration call hierarchy. All configuration blocks located in the PDM directories will be used.

Please note: The *PDM* directories were named *SEARCHMODE* until version 9.0.1.

3.5 Configuration concept

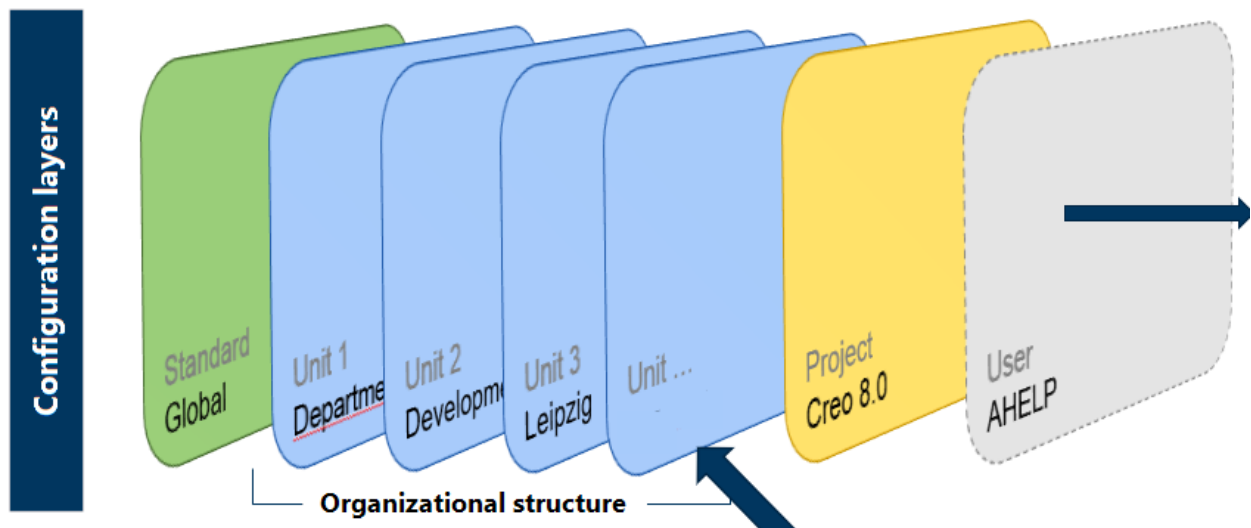
All data for the configuration of a starter project are located in an operating environment in the system directory *configuration* of the respective application. When a project is started, all configuration and batch files from the subdirectories *standard*, *units*, *projects* and *users* are taken into account, i. e. from the [configuration layers](#).

3.5.1 Configuration layers

The task of GENIUS TOOLS Starter is to perform configuration settings on different configuration levels. These levels are:

- Standard (global settings)
- Units (departments / locations)
- Projects
- Users

All configuration blocks and batch files for an application are stored in these configuration levels and processed according to the call sequence for files, see next chapter. If you work with subunits, the configuration of a starter project is additionally determined by the organizational structure.



Directories of the configuration layers

The following directories are available for the configuration layers. They are located in the system directory *configuration*.

1. Standard directory:
`<GTS-OperatingEnvironment>\<Application>\configuration\standard`
2. Unit directory / directories: subdirectory /subdirectories of *units*
`<GTS-OperatingEnvironment>\<Application>\configuration\units\%
GTS_UNIT_DIR_NAME%`
(The variable contains the name of the last selected unit).
3. Project directory: subdirectory of *projects*
`<GTS-OperatingEnvironment>\<Application>\configuration\projects\%
GTS_UNIT_DIR_NAME%`

4. Users directory: subdirectory of *users*

<GTS-OperatingEnvironment>\<Application>\configuration\users\%USERNAME%

Please note: In order to work with data for other CAD systems in the future, the entire directory structure has been changed in version 9.0.0 of GENIUS TOOLS Starter. Consult the comparison of the old and new [directory structure](#). The adjustment of the paths is done automatically during an update.

1. Standard directory

Configuration options in the directory *standard* always apply as long as they are not overwritten by specifications in subordinate folders.

2. Unit directory / directories

The directory *units* contains the individual unit directories, e. g.

<GTS_ROOT_DIR>\parametric\configuration\units\manufacturing.

All unit directories are located on the same level, including those of subordinate units (subunits). Subunits are created by the arrangement in the organization tree.

3. Project directory

The directory *projects* contains the individual project directories, i. e. subdirectories with project-specific information, e. g. <GTS-

OperatingEnvironment>\parametric\configuration\projects\project_creo8p_de.

You can select a project-specific directory in the settings for a project. Without this specification, the directory will be inherited from the standard or unit settings.

Please note: Unit and project directories are not generated by creating a unit or project in GENIUS TOOLS Project Configurator, but must be created manually.

4. User directory

The directory *users* contains subdirectories for all users, e.g.

<GTS_ROOT_DIR>\parametric\configuration\users\cfoster.

When synchronizing from Caddepot to Cadpool only the directory for the specific user is copied.

3.5.2 Call sequence for files

[Configuration blocks](#) (config files) and [batch files](#) can be located in these configuration directories: standard directory for global system settings, unit directories, project directories and user directories for user-defined settings. The files are processed in the following sequence by GENIUS TOOLS Starter. A configuration block will only be read if it falls into the selection made by the user for a unit and/or a project.

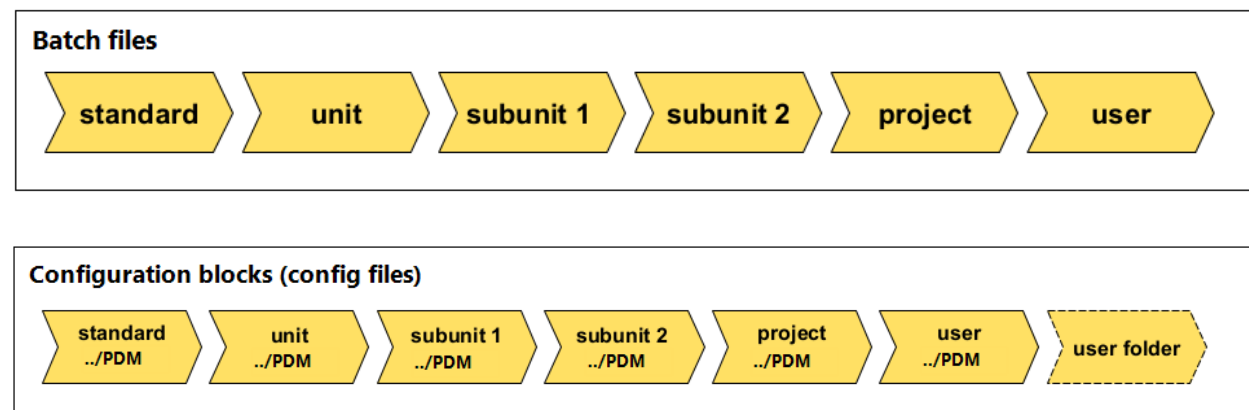
1. standard (global directory)

- 1.1. standard > PDM, if a PDM system (e. g. Windchill) is activated
2. units (individual subdirectories)
 - 2.1. units > PDM, if a PDM system is activated
3. projects (individual subdirectories)
 - 3.1. projects > PDM, if a PDM system is activated
4. users (individual subdirectories, named by Windows user name)
 - 4.1. users > PDM, if a PDM system is activated
5. userdata (configurable)

Please note: The directories *units* and *users* can only be used with a subscription license.
The directory *PDM* was named *SEARCHMODE* until version 9.0.1.0.

The following applies to configuration blocks:

- The last entry of a configuration option is the valid value.
- If you work with subordinate units (subunits), the configuration blocks of a unit can be overwritten by another unit. The sequence depends on the organization tree, see % [TARGETTITLE%](#).
- The PDM directory must be activated extra, see [PDM directories](#).

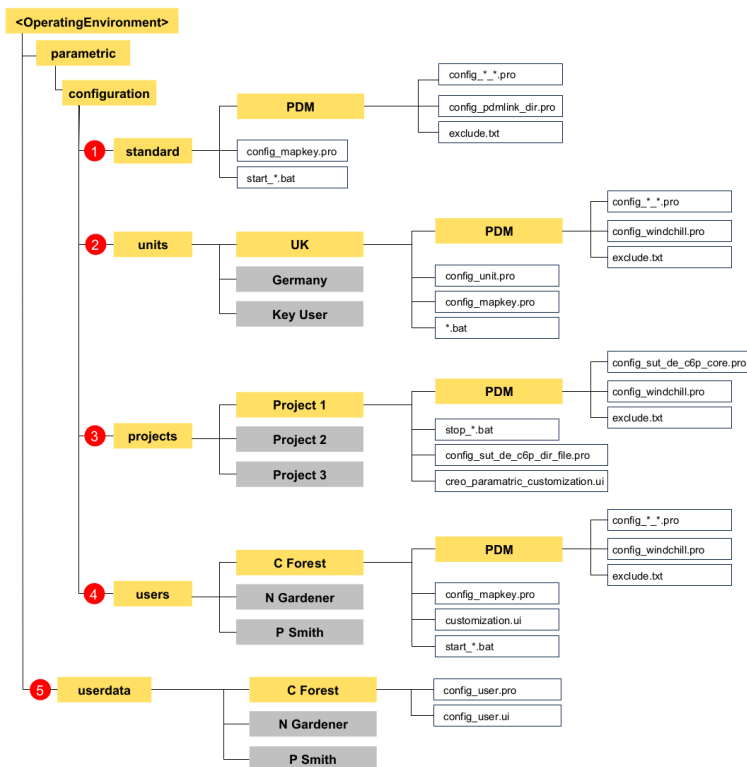


Call sequence of configuration blocks and batch files for a Starter project

The processing order of the files significantly influences the configuration result for a starter project. In addition, the settings in GENIUS TOOLS Project Configurator determine the configuration of the project, see [next chapter](#).

Example of a project configuration: Creo Parametric

The following graphic illustrates the call hierarchy for configuration blocks and batch files, if user C.Forest chooses the unit UK and starts Project 1. The value of the last configuration block is the valid value.



The following configuration blocks are used if Windchill is not used. If values are listed multiple times in several blocks, the value in the last-mentioned file is taken over, in the example from the file <GTS-

Arbeitsumgebung>\configuration\users\CForest\config_mapkey.pro.

<GTS-Arbeitsumgebung>\configuration\standard\config_mapkey.pro

<GTS-Arbeitsumgebung>\configuration\standard\start_.bat

<GTS-Arbeitsumgebung>\configuration\units\UK\config_unit.pro

<GTS-Arbeitsumgebung>\configuration\units\UK\config_mapkey.pro

<GTS-Arbeitsumgebung>\configuration\units\UK*.bat

<GTS-Arbeitsumgebung>\configuration\projects\Project1\stop_.bat

<GTS-Arbeitsumgebung>\configuration\projects\Project1\config_sut_de_c6p_dir.pro

<GTS-

Arbeitsumgebung>\configuration\projects\Project1\creo_paramatric_customization.ui

<GTS-Arbeitsumgebung>\configuration\users\CForest\config_mapkey.pro

<GTS-Arbeitsumgebung>\configuration\users\CForest\config_customization.ui

<GTS-Arbeitsumgebung>\configuration\users\CForest\start_*.bat

<GTS-Arbeitsumgebung>\userdata\CMeier\config_user.pro

<GTS-Arbeitsumgebung>\userdata\CMeier\config_user.ui

For the selected project 1, the project settings made in GENIUS TOOLS Project Configurator also apply, e. g. to the license servers, startkeys or environment variables.

3.5.3 Call sequence for settings

Settings in GENIUS TOOLS Project Configurator – e. g. for license servers, synchronization behavior or additional environment variables – are made for the known configuration levels standard, units and projects. In contrast to the call sequence for files, the organizational structure in GENIUS TOOLS Project Configurator also recognizes user and computer groups.

As always, the last setting overwrites the settings of the above configuration levels.

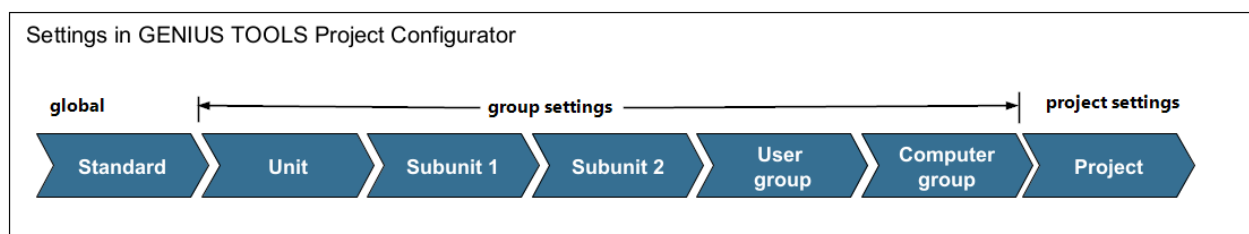
The following sequence for settings in GENIUS TOOLS Project Configurator applies:

1. Global settings: *Standard* group
2. Unit
3. Subunit(s): If you work with subunits, their hierarchy depends on the organizational structure, see [Call hierarchy for subunits](#).
4. User groups
5. Computer groups

The settings for units and groups are called group settings and are made in the menu page *Configuration*.

6. Project

The settings for projects are made in the menu page *Projects*.



Call sequence for the settings made in GENIUS TOOLS Project Configurator

Please note: The configuration logic has been changed with the introduction of Units as of version 6.0.1.

3.6 General procedure

There are two types of starter projects, general and CAD specific. The created starter projects are displayed to the users in GENIUS TOOLS Starter App.

To configure a general starter project, you can follow the procedure below. The additional options that apply to CAD-specific projects are described in the respective chapters.

BASIC PROCEDURES

1. Set up operating environment

Questions: How should the operating environment be set up?

Procedure: Create operating environment with [GENIUS TOOLS Environment Administrator](#) and define license and synchronization server(s).

2. Define organizational structure

Questions: How complex is the structure of your company? Will you be working with subordinate business units, e. g. Construction as a subunit of Italy?

Procedure: Map the [organizational structure](#) in GENIUS TOOLS Project Configurator.

CROSS-PROJECT PROCEDURES

3. Create configuration blocks

Questions: Which configuration options should be predefined for users on a starter project? Which configuration settings, mapkeys and project options should apply company-wide and which should apply to a unit or specific project?

Procedure: Write application-specific configuration blocks (config files) and place them in the appropriate directories of the configuration layers.

Hint: We recommend defining settings and configuration options in the highest possible configuration level, i.e. as few as necessary for individual projects. For example, individual projects may contain the version-specific settings.

4. Set environment variables

Questions: Do the various configuration layers require different environment variables?

Procedure: Environment variables can be assigned and defined in GENIUS TOOLS Project Configurator for each configuration layer.

5. Include additional programs

Questions: Which other programs should be started with the application?

Procedure: Make specifications in [batch files](#).

6. Define global settings and group settings

Questions: Which license server(s), which synchronization settings should apply? How should projects be displayed in GENIUS TOOLS Starter App?

Procedure: Define [global settings](#) as well as [settings for groups and units](#) in GENIUS TOOLS Project Configurator.

7. Display project information for users

Questions: Which information about the project should be available to users?

Procedure: Information displayed in GENIUS TOOLS Starter App can be restricted, see chapter [Granting function access rights](#).

PROJECT SPECIFIC PROCESSES

8. Create a project

Questions: Which project and data directory should be assigned to the project?

Procedure: Define [project settings](#) in GENIUS TOOLS Project Configurator.

9. Define language or make it available for selection

Questions: Should users be able to choose the language of the application?

Procedure: Set language in GENIUS TOOLS Project Configurator or create as [project option](#).

10. Display project

Questions: Should the project be accessible for all or certain users?

Procedure: Restrict access for defined user groups, see chapter [Restricting project access](#).

CAD-SPECIFIC PROCESSES

Projects of the CAD applications can furthermore be provided with:

- additional project options, e. g. for license extensions, add-ins, see chapter [Making use of project options](#),
- additional information in the tabs of GENIUS TOOLS Starter App, e. g. on the configuration blocks used, see [Customizing information panes](#),
- the possibility to borrow licenses, see chapter [Displaying license information](#).

Creo Parametric projects can be used to assign license packages to individual workstations or users, see chapter [Assigning Creo licenses to a project](#).

3.7 Conditional configuration blocks

Configuration blocks are read in different ways. There are basic and conditional configuration blocks. Conditional configuration blocks are used to create combined project options and to work with units without unit folders.

1. Basic configuration blocks: without tag ID

The configuration block (config_*.pro file) is given a meaningful name and stored in one of the directories Standard, Unit, Project, User. If the directory is valid for the selected project, the Config.pro module is read out.

- Control: Call hierarchy of the directories determines which configuration block is used for the project, see [Call hierarchy for configuration files](#).
- Notation: *config_*.pro*, e.g.: *config_1_lic_sim_live.pro*

2. Conditional configuration blocks: with tag ID

A tag ID is a textual identifier that is recognized by GENIUS TOOLS Starter. By adding a tag ID to a configuration block, its validity can be linked to conditions.

- Notation: *config_*.TAGID.pro*, e. g. *config_mbd.europe.berlin.mbd.pro*

GENIUS TOOLS Starter distinguishes between unit tag IDs and free tag IDs.

Unit tag ID

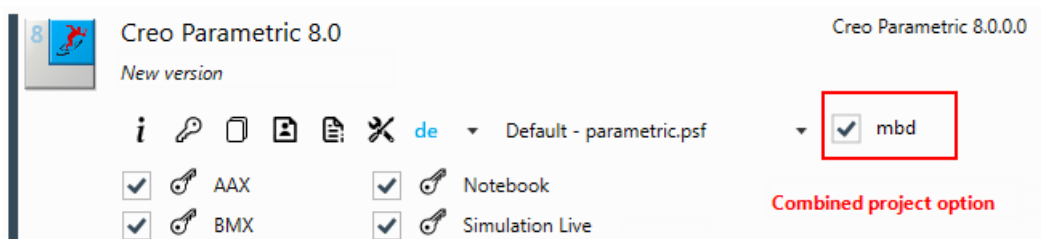
A unit tag ID is an additional textual marking in a configuration block that defines a unit and limits the validity of the block to it. This means a conditional configuration blocks with a unit tag ID is activated by the selection of a unit in GENIUS TOOLS Starter App.

Unit tag IDs can be used

- as name of the [unit folder](#)
- as name of an [image file](#): to assign images to a unit
- in configuration blocks: to restrict configuration options to a unit, see [Using unit tag IDs](#).

Free tag ID

A free tag ID is an additional textual marking in a configuration block that defines a [combined project option](#) and limits the validity of the block to it, e. g. *config_lic.mbd.pro*. That means users have to activate the project option – here: mbd – in GENIUS TOOLS Starter App in order for the configuration block to be read at project start. The first configuration block with the free tag ID creates a checkbox.



Free tag IDs can be chosen freely, but cannot be assigned to a unit.

4 GENIUS TOOLS Environment Administrator

GENIUS TOOLS Environment Administrator is an administrative tool for managing operating environments. Use GENIUS TOOLS Environment Administrator to handle the following tasks.

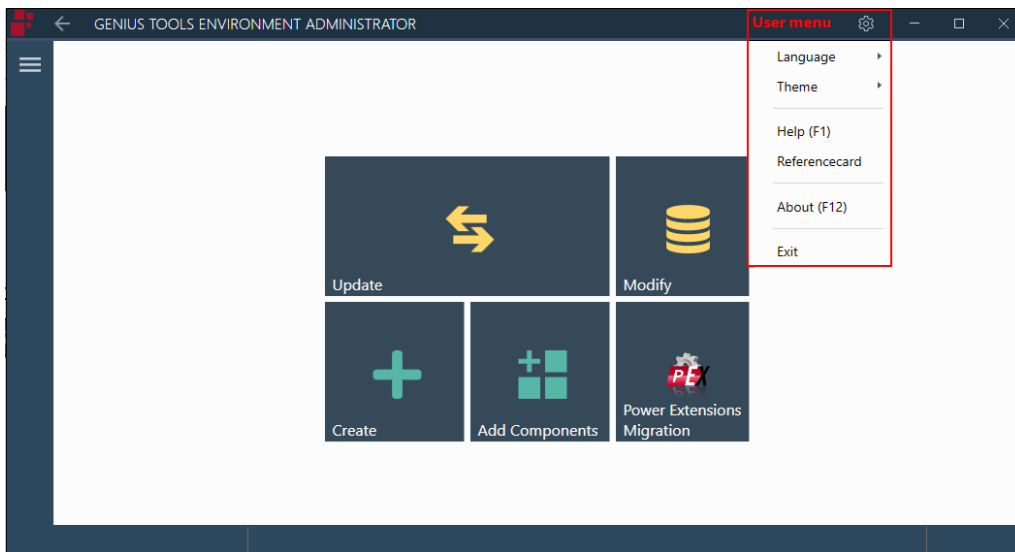
1. Create operating environments
2. Add components to an existing operating environment
 - project directories (directories with *config.pro* and other project-specific files)
 - data directories
 - additional applications
3. Update operating environments (Software update for GENIUS TOOLS Starter App and GENIUS TOOLS for Creo)
4. Modify settings for an operating environment for
 - license servers
 - synchronization servers (Caddepot, Cadpool)
5. Migrate Power Extension environments (Creo Elements/Direct Modeling) into a GENIUS TOOLS Starter operating environment

The next chapters describe each function in detail.

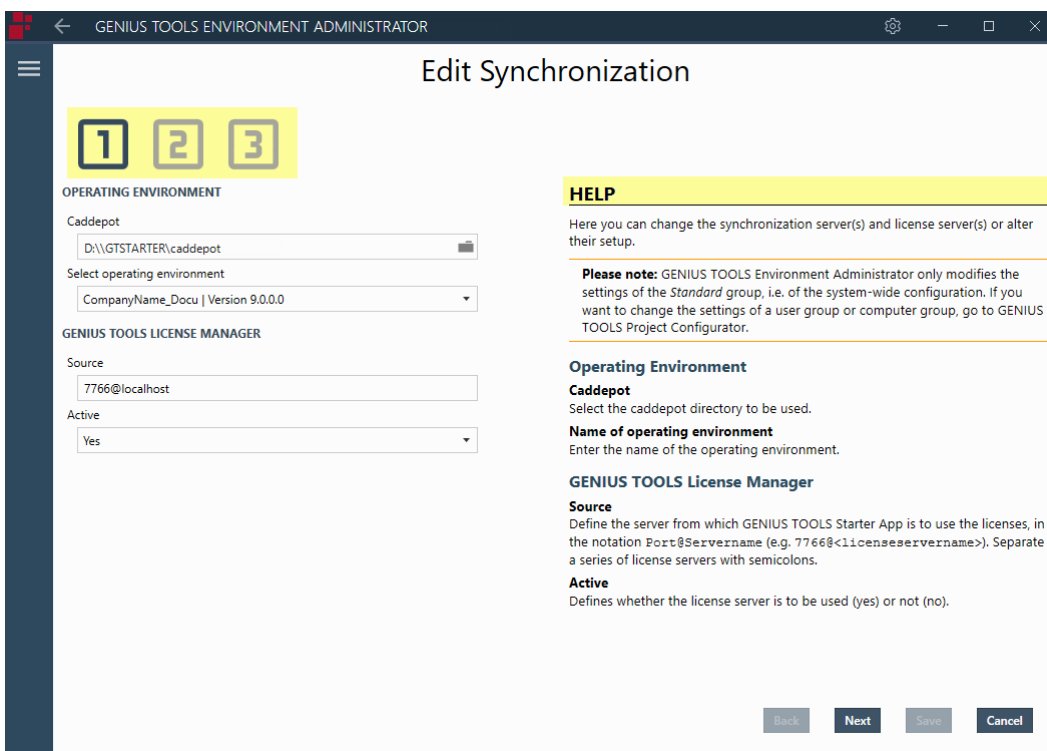
4.1 User interface

GENIUS TOOLS Environment Administrator must be started with write access to the caddepot directory.

If you open the software from an administration computer which does not have an AppData directory, you must start GENIUS TOOLS Environment Administrator with the command `-gts:appdata=%TEMP%`.



When you select a function on the GENIUS TOOLS Environment Administrator start page, a wizard with one or more dialog pages is displayed. The inline help on the right side supports each task of the workflow.



Dialog for completing three tasks and integrated help

First, you always need to select the Caddepot. Then, the option list shows the operating environments that are available for selection.

All changes in Caddepot are stored in a database that cannot be edited by multiple users at the same time. The following hint message means that another user is working either in GENIUS TOOLS Project Configurator or in GENIUS TOOLS Environment Administrator.

Operating environment in use

User ahelp on computer AHELP has locked database of operating environment INNEO at 03.06.2022 10:00:00.

OK

Notification that the selected operating environment is currently modified by another user

User menu

To access general settings for GENIUS TOOLS Environment Administrator, click on the gear symbol  in the header.

Language: user interface language

You can switch the user interface language between English, German and French at any time. The language setting is saved and will be used the next time you start the software.

The software first starts with a German user interface if the operating system locale is set to German. For all other locale settings, the software first starts with an English user interface.

Theme: user interface color settings

The software comes with the color themes *Blue*, *Light* and *Dark*. You can switch themes at any time. The theme setting is saved and will be used the next time you start the software.

Help (F1)

Opens the installation manual for GENIUS TOOLS Starter. The help corresponds to the document *GENIUS TOOLS Starter Installation.pdf* in the directory *help* of an operating environment.

Reference card

Opens a reference card for a quick overview of all functions.

Info (F12)

Shows the current GENIUS TOOLS Starter version.

Exit

Closes the software. Clicking on the *Close* button (X) in the header will minimize the program window.

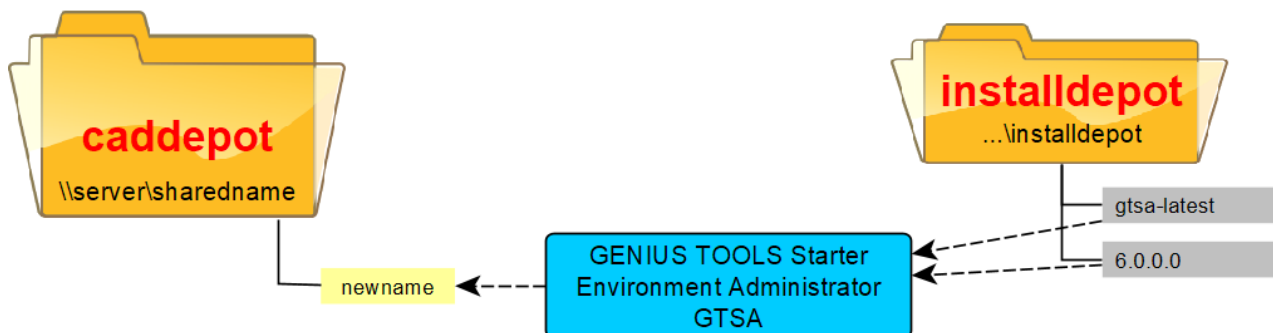
4.2 Creating an operating environment

GENIUS TOOLS Environment Administrator lets you create different operating environments with just a few mouse clicks.

The function *Create* creates an empty, new operating environment. This consists of the directory structure, the GENIUS TOOLS Starter software and an empty sut.db database. All settings defined in GENIUS TOOLS Project Configurator are stored in this database file, which is located in the `<GTWorkingEnvironment>\configuration\database` directory.

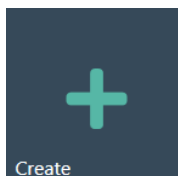
If you have purchased the Startup TOOLS product package, the add-on application GENIUS TOOLS for Creo is automatically installed in the `<GTWorkingEnvironment>\parametric\apps` directory when you create a new operating environment. This provides you with an operating environment with standardized templates (start object templates, project-specific libraries, drawing frames, ModelCheck configurations), interface and function configurations for Creo (config.pro, config.sup config.ui) and many additional functions for Creo (toolkit applications).

You can add data packages and standard projects at any time thereafter via the *Add Components* function.



Creating a new operating environment

Click the *Create* symbol on the start page to start create a new operating environment.



Step 1: Define operating environment

GENIUS TOOLS Environment Administrator will find the Caddepot and Installdpot directories automatically if the software is started from a default installation setup.

Verify the paths for the Caddepot (1) and Installdepot (3) directories.

Enter a name for the operating environment (2). The name is used to create a directory of the same name in the Caddepot and setting up the directory structure there.

Select a software version (4) from the Installdepot.

Click *Next*.

Create operating environment

1 2

OPERATING ENVIRONMENT

Caddepot
\\servername\GTSTARTER\caddepot 1

Name of operating environment
INNEO 2

SOFTWARE

Installdepot
D:\gts\installdepot 3

Select software version
9.0.0.0 4

Please note: You can change the name of an operating environment any time by renaming its directory.

Step 2: Configuring license and synchronization server

The users need to connect to GENIUS TOOLS License Manager in order to use a full version of GENIUS TOOLS Starter App.

Please note: If you do not configure the synchronization settings, Environment Administrator will create a local operating environment without synchronization.

Under Source (1), enter the name of the server that GENIUS TOOLS Starter App should access to get licenses.

Under *Synchronization server settings*, define the synchronization to keep data current on the local application computers and give the users fast access to any changes.

The synchronization process is adapted to Creo in that it will not update toolkit applications as long as Creo is running. For this, the toolkit applications, such as GENIUS TOOLS for Creo, have to be located in the *apps* directory of Creo Parametric.

Enter a descriptive server name (2).

Enter the synchronization server path (3) down to the Caddepot directory. GENIUS TOOLS Starter App will add the name of the current operating environment automatically. This makes it possible to copy operating environments, for example to create test environments quickly without having to change the settings. Also, operating environments can be renamed without having to change the settings.

Create operating environment

1 2

GENIUS TOOLS LICENSE SERVER

Source
7766@localhost

SYNCHRONIZATION SERVER SETTINGS

Name
AHELP

Server Path
\\AHELP\caddepot

Target directory
C:\gts\cadpool

Synchronization interval
240

Under Target directory (4) enter the location where the Cadpool directory should be located on the application computers. If the Cadpool directory is not present yet, GENIUS TOOLS Starter will try to create it. It will also create a subdirectory named for the operating environment. You can use absolute paths or environment variables that are available on the application computers.

Enter the synchronization interval (5) in minutes. The synchronization interval defines how often GENIUS TOOLS Starter App should synchronize the data from the central Caddepot. A synchronization is also run automatically when GENIUS TOOLS Starter App is started.

The best setting for the synchronization interval depends on how often the data is changed and on how many GENIUS TOOLS Starter Apps are running at the same time. If there are many changes to the data, the interval should be shorter. If many users are accessing the Caddepot, the interval could be longer to avoid too much network load due to frequent synchronizations.

Click on *Create*.

4.3 Adding components to an operating environment

With this function you can add the following components from the installdpot to an existing operating environment.

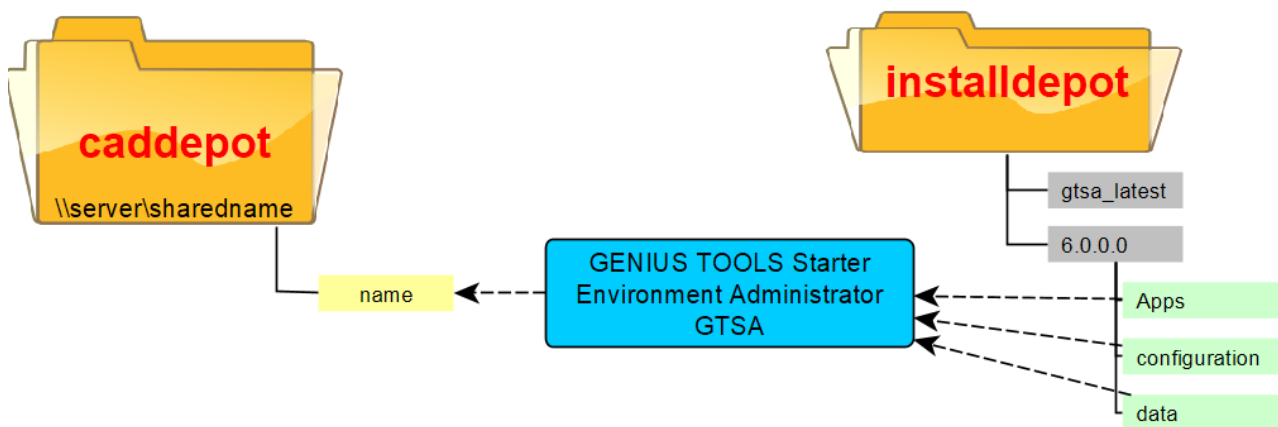
For Creo Parametric:

- project data directory
- project configuration directory
- Toolkit applications (GENIUS TOOLS for Creo, UI)

For Creo Elements/Direct Modeling:

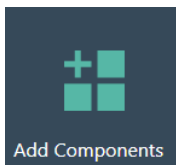
- TSPRO-Umgebung
- SOLIDPOWERPARTS

Please note: In order to add components, you first have to install them into the Installdpot directory from the data setups.



Adding components to an operating environment

Click the *Add Components* symbol on the start page to start the installation assistant.



Step 1: Select operating environment

First select the operating environment (2) you want to configure from the Caddepot (1).

Then select the software version (4) to use from the Installdepot (3). Select a software version that has the required components installed.

The 'Add Components' dialog box shows the configuration steps for the operating environment and software. It includes two numbered steps: 1 (Operating Environment) and 2 (Software). The 'Operating Environment' section has a 'Caddepot' field with the path '\\server\GTSTARTER\cadddepot' (marked with a red 1) and a 'Select operating environment' dropdown menu showing 'INNEO | Version 9.0.0.0' (marked with a red 2). The 'Software' section has an 'Installdepot' field with the path 'C:\INNEO\installdepot' (marked with a red 3) and a 'Select software version' dropdown menu showing '9.0.0.0' (marked with a red 4).

Step 2: Add CAD applications

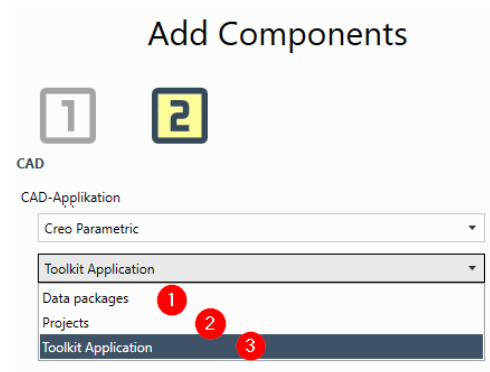
Select the CAD application to which you wish to add components.

For Creo Elements/Direct:

- TSPRO-Umgebung
- SOLIDPOWERPARTS

For Creo Parametric:

1. data packages
2. projects (directories for standard projects)
3. toolkit applications (gtfc, ui)



Components for Creo Parametric

Data packages and toolkit applications are added separately.

Projects can be created together with the data package to be added as well as in their own.

1. Add data packages and create standard projects

All data directories for Creo Parametric from the previously selected software version in the installdepot are displayed here, e.g. D:

`\GTSTARTER\installdepot\9.0.0\parametric\data.`

Select a data package. Data packages in gray are directories that have already been copied to the caddepot once.

Enter a target name under which it should be copied in the directory data in the caddepot. (*Caddepot\<operatingenvironment>\parametric\data.*)

The target name can be overwritten.

| Data packages | | |
|-------------------------------------|-----------|-------------|
| Copy | Name | Target name |
| <input type="checkbox"/> | sut_creo7 | |
| <input checked="" type="checkbox"/> | sut_creo8 | INNEO_c8 |
| <input checked="" type="checkbox"/> | sut_creo9 | INNEO_c9_2 |

Data packages that have already been copied are grayed out, but can be copied again under a new name.

When selecting a data package, you can in the second step create standard projects whose settings should be adjusted afterwards in the GENIUS TOOLS Project Configurator. Here, the supplied standard projects – one standard project per Creo version with and without Windchill – are copied from the project directory (*Caddepot\<Arbeitsumgebung>\parametric\configuration\projects*) under a new name

(target project name).

If a project is grayed out, it means that it has already been copied once. It can be copied again under new name.

| Project directories | | | | |
|-------------------------------------|-------------------|---------------------|-------------------------------|-----------------------------|
| Create | Project name | Target project name | Display name | Target display name |
| <input checked="" type="checkbox"/> | std_sut_creo8p | INNEO_c8 | Creo Parametric 8.0 | INNEO - Creo Parametric 8.0 |
| <input type="checkbox"/> | std_sut_wt_creo8p | | Creo Parametric 8.0 Windchill | |
| <input checked="" type="checkbox"/> | std_sut_creo9p | INNEO_c9_2 | Creo Parametric 9.0 | INNEO - Creo Parametric 9.0 |
| <input type="checkbox"/> | std_sut_wt_creo9p | | | |

Projects that have previously been copied (gray) can be copied again under a new name.

The target project name is the name of the folder in the project directory and at the same time the name of the project in GENIUS TOOLS Project Configurator. The display name is the name that appears in GENIUS TOOLS Starter App. It can be changed in GENIUS TOOLS Project Configurator.

Projects

- INNEO - Creo Parametric 8.0
Productive version
- Creo Parametric 9.0
Test version
- INNEO - Creo Parametric 9.0
Productive version

Creo Start Windchill Environment

GENERAL

Project name = **Project folder**

Display name

Information

Project folder

INNEO_c8

INNEO - Creo Parametric 8.0

Productive version

INNEO_c8

2. Create standard projects

If the data packages have already been installed, standard projects can be created here as in the previous point.

| Project directories | | | | | |
|-------------------------------------|-------------------|---------------------|-------------------------------|-----------------------------|----------------|
| Create | Project name | Target project name | Display name | Target display name | Data directory |
| <input type="checkbox"/> | std_sut_creo9p | | Creo Parametric 9.0 | | sut_creo9 |
| <input checked="" type="checkbox"/> | std_sut_wt_creo9p | INNEO_c9_wt | Creo Parametric 9.0 Windchill | Inneo - Creo with Windchill | sut_creo9 |

3. Toolkit applications

Select the toolkit application you wish to add.

- GENIUS TOOLS for Creo: Additional functions for Creo Parametric included in the products GENIUS TOOLS Library and GENIUS TOOLS Parameter.
- ui: Application that allows reloading multiple Customization.ui files.

If it is not possible to tick an application, it means that it already exists in the application-specific apps directory. The application cannot be created again.

Please note: The toolkit application GENIUS TOOLS for Creo will be automatically installed to the *parametric\apps* directory when creating a new operating environment, if you have purchased the Startup TOOLS product package.

| Toolkit Application | |
|-------------------------------------|------------------------------|
| Copy | Display name |
| <input type="checkbox"/> | gtfc - GENIUS TOOLS for Creo |
| <input checked="" type="checkbox"/> | ui |

After clicking *Add* all specified components are added to the operating environment.

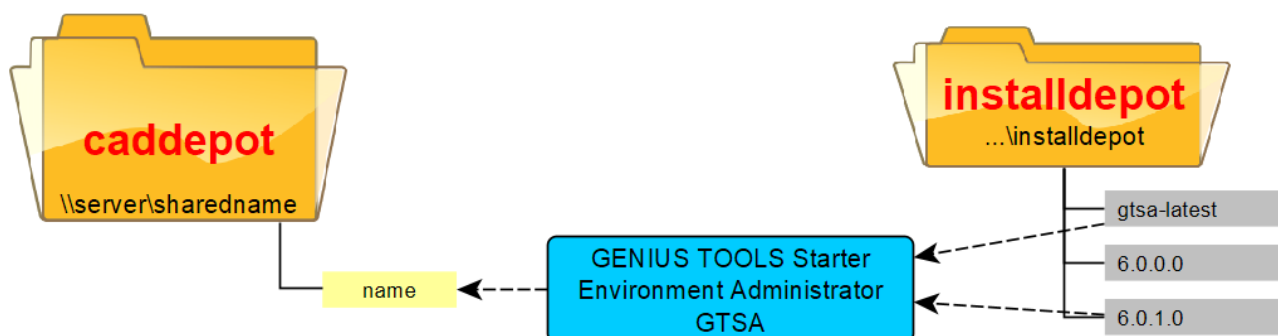
4.4 Updating software

All software setups in GENIUS TOOLS Starter unpack their data to the Installdepot directory. You can use the *Update* function of GENIUS TOOLS Environment Administrator to update the software for GENIUS TOOLS for Creo and GENIUS TOOLS Starter App in the operating environments. This two-step process allows you to make targeted adjustments to individual operating environments. You can upgrade or downgrade to any version that is available in the Installdepot.

If you have configured synchronization, the configuration for the software update will be made in the background without the users having to stop Creo or GENIUS TOOLS Starter App. The new software version will then be used on the application computer after the next synchronization.

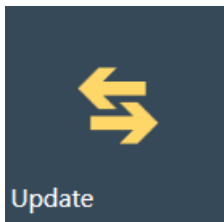
If you update GENIUS TOOLS for Creo, the synchronization on the application computers will only be run after Creo has been closed.

Warning: If you are using network mode, make sure that all users have closed GENIUS TOOLS Starter App and Creo, as the software cannot be updated otherwise.



Updating an operating environment

In GENIUS TOOLS Environment Administrator click the *Update* button to start the installation assistant.



Software update

First, select from the Caddepot (1) the operating environment (2) you want to configure (1).

Then select from the Installdepot (3) the new software version (4) you want to install.

Software Update

OPERATING ENVIRONMENT

Caddepot \\servername\GTSTARTER\caddepot 1

Select operating environment INNEO 2

SOFTWARE

Installdepot C:\INNEO\installdepot 3

Select software version 9.0.0.0 4

UPDATE SETTINGS

GENIUS TOOLS Starter Active

GENIUS TOOLS for Creo Active 5

Tools folder Active

Update freeware tools Deactive

Under Update settings (5) you can select the components to update:

- the software GENIUS TOOLS Starter (module of Startup TOOLS),
- the software components GENIUS TOOLS for Creo (contained in the modules GENIUS TOOLS Parameter and GENIUS TOOLS Library),

Warning: An update of GENIUS TOOLS for Creo does not update the resource folder (*gt_resource_folder*). This has to be updated manually, see chapter *Update process* in the *Installation manual*.

- the tools directory, which contains GENIUS TOOLS Config Editor and Requirement Check, as well as
- several freeware products which are located in the Caddepot in the serveronly directory under tools. (GENIUS TOOLS Comma To Dot, GENIUS TOOLS Flexnet Watcher, GENIUS

TOOLS Material Browser, GENIUS TOOLS Purge, FreeCommander, XML-Import and others).

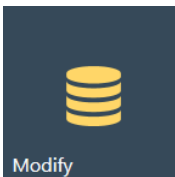
The update process writes a new software directory for GENIUS TOOLS Starter and updates the database. For GENIUS TOOLS for Creo, the *gtfc* directory under *apps* is re-written. The *main.cfg* file remains untouched. The directories *tools* and *serveronly\tools* are copied from the Installdepot to the Caddepot.

4.5 Modifying settings

Some settings for operating environments can only be changed using the *Modify* wizard in GENIUS TOOLS Environment Administrator. The most important one of these setting is the Caddepot path. You can also edit synchronization and licensing settings.

Please note: GENIUS TOOLS Environment Administrator only changes the standard settings, that is, the settings for the group *Standard*. If you have made individual settings for a user group or computer group, you have to change these settings using GENIUS TOOLS Project Configurator (*Configuration > (select group) > Synchronization*)

In GENIUS TOOLS Environment Administrator click the *Modify* button to start the installation assistant.



Step 1: Change license server settings

First, select from the Caddepot (1) the operating environment (2) you want to modify.

Then enter the license server settings (3). You can also deactivate the license server (4).

An inactive license server will not be used by GENIUS TOOLS Starter App. This means that you can only use home-use or educational Creo licenses.

Edit Synchronization

1
2
3

OPERATING ENVIRONMENT

Caddepot
 1

Select operating environment
 2

GENIUS TOOLS LICENSE SERVER

Source
 3

Active
 4

Step 2: Change synchronization settings

The server path is always given down to the Caddepot directory (1).

When *Checksum verification* (2) is active, a checksum for each copied file is calculated and compared to the checksum of the file on the server. If the checksum differs, the server is queried for the file again. If checksum verification is not active, the files will just be copied.

Edit Synchronization

1
2
3

SYNCHRONIZATION SERVER SETTINGS

Name
 1

Comment
 2

Server path
 3

Checksum verification
 4

Warning: Activating checksum verification often allows significantly shorter synchronization times.

If you have moved your synchronization server, proceed as follows:

1. Create a new Caddepot and adapt the synchronization server settings in the *new* operating environment there.
2. Test the new operating environment to make sure that the configuration settings are correct and the synchronization works.
3. In the *old* operating environment, switch the synchronization server to the new Caddepot

When GENIUS TOOLS Starter App is restarted, it switches to the new Caddepot and synchronizes the data from there.

Warning: Please be extremely careful when changing the Caddepot directory in an operating environment that is already in use on multiple application computers. Wrong settings can lead to the application computers not synchronizing. However, it is still possible to change the Caddepot directory when you move a server. Create a new Caddepot, then set the synchronization path in the old operating environment to the new Caddepot. The application computers will switch over accordingly.

Step 3: Edit settings for the application computers

You can activate or deactivate synchronization between the central Caddepot and the application computer Cadpool directories (1).

Warning: If you deactivate synchronization, you permanently separate the application computers from the Caddepot. Any changes you make to the central synchronization settings or the operating environment will not be transferred to the application computers!

Under Target directory (2), specify the location of the Cadpool directories on the application computers, where the local copy of the operating environment is stored. If the Cadpool directory cannot be found, GENIUS TOOLS Starter will try to create it. A subdirectory named after the operating environment will also be created. You can use absolute paths such as `C:\Cadpool`, or environment variables that are available on the application computers, e.g., `%GTS_SYNC_DESTINATION%`.

The screenshot shows the 'Edit Synchronization' window with the following settings:

- 1** Activate synchronization: Yes
- 2** Target directory: C:\INNEO\cadpool
- 3** Synchronization interval (minutes): 240
- 4** Start client with windows: Yes

Under Synchronization interval (3), specify an interval in minutes. The synchronization interval determines how often GENIUS TOOLS Starter App will synchronize the data. A synchronization is also run automatically when GENIUS TOOLS Starter App is started.

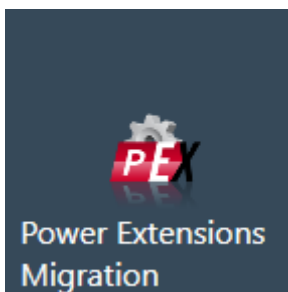
The best setting for the synchronization interval depends on how often the data is changed and on how many GENIUS TOOLS Starter Apps are running at the same time. If there are many changes to the data, the interval should be shorter. If many users are accessing the Caddepot, the interval could be longer to avoid too much network load due to frequent synchronizations.

If Start client with Windows (4) is activated, GENIUS TOOLS Starter App will be started automatically when the operating system is started on the application computers.

4.6 Migrating Power Extensions environments

With GENIUS TOOLS Environment Administrator 9.0.0.0 you can transfer environments for Creo Elements/Direct Modeling which are started with the Power Extensions add-on application into an existing GENIUS TOOLS Starter operating environment. This allows you to configure projects in the same way as Creo projects, i. e. define settings for different configuration levels (standard, units, projects and users).

During migration, a directory named *elements_direct* is created in an existing operating environment, as well as the subdirectories *apps*, *configuration* and *data*. The existing configuration files and data packages are transferred to this folder structure.



Step 1: Select operating environment

First select from the Caddepot (1) the working environment (2) to which you want to migrate an existing Power Extensions environment.

Then you can select the software version (4) from the installdepot (3) that contains the software setup or the components needed.

Power Extensions Migration

1 2 3

OPERATING ENVIRONMENT

Caddepot
\\servername\GTSTARTER\caddepot 1

Name of operating environment
INNEO 2

SOFTWARE

Installdepot
C:\INNEO\installdepot 3

Select software version
9.0.0.0 4

Step 2: Select power extension environment

You can migrate environments for Creo Elements/Direct Modeling projects which were configured with the add-on applications Power Extensions, which uses Solidpower software.

Select the existing Power Extensions directories that contain company-specific (1) and site-specific customizations (2).

If you have data packages in a Solidpower environment (3), specify the directories that contain the software (4) and the data for standard parts (5).

Power Extensions Migration

1

2

3

POWER EXTENSIONS

Corp directory

Site directory

TSPRO ENVIRONMENT

Set TSPRO environment

☒ Yes

TSPRO directory

SOLIDPOWERPARTS directory

Step 3: Create project

Here you can create a project that users can open with GENIUS TOOLS Starter App.

Select whether a project should be created (1) and the version of Creo Elements/Direct Modeling (2) with which the project should start.

Specify the name for the project (3).

Power Extensions Migration

1

2

3

CREO ELEMENTS / DIRECT MODELING

Create project

☒ Yes

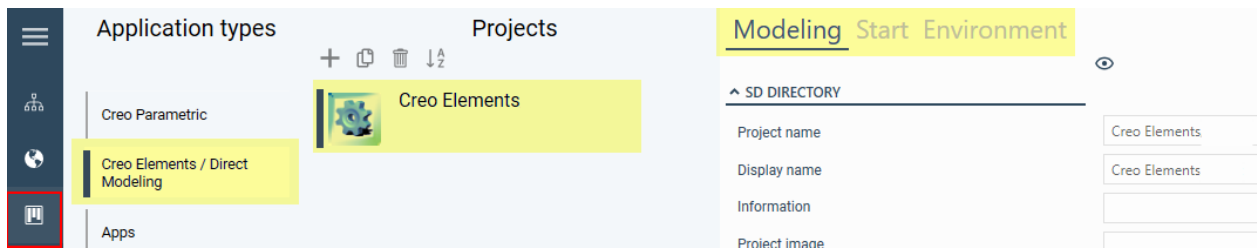
Version

Project name

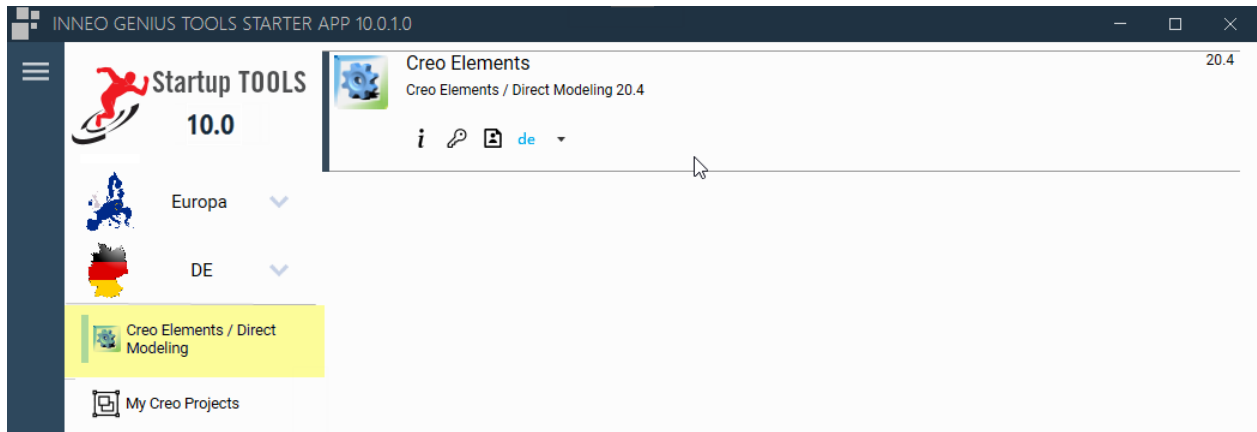
Result:

In the selected operating environment, the directory *elements_direct* is created with the subdirectories *apps*, *configuration*, *data* (i. e. the directory structure of GENIUS TOOLS Starter). The project is created under *elements_direct/configuration/projects* and hence visible

– in GENIUS TOOLS Project Configurator under *Projects > Application types > Projects* and



– in GENIUS TOOLS Starter App.



5 GENIUS TOOLS Project Configurator

GENIUS TOOLS Project Configurator is the central application for configuring operating environments. Use GENIUS TOOLS Project Configurator for managing all project and operating environment settings.

A **Starter project** is a project that has been created with GENIUS TOOLS Project Configurator and a software program, the required license, specific configuration and related data.

It can be selected by users in GENIUS TOOLS Starter App and opens with locally available data and a central configuration set by the administrator.

Project Configurator manages project information by modifying the central *sut.db* database. The project configuration for each operating environment can be synchronized to the Creo application computers.

Please note: Make sure that Project Configurator has write access to the central database in the Caddepot so that it can store configuration settings.

Project Configurator is not synchronized immediately. When you make changes in Project Configurator, you have to save them to the database before they become available to GENIUS TOOLS Starter App. After you have saved your changes, the configuration can be updated in GENIUS TOOLS Starter App by manually refreshing the available projects or by running the synchronization process.


5.1 First steps

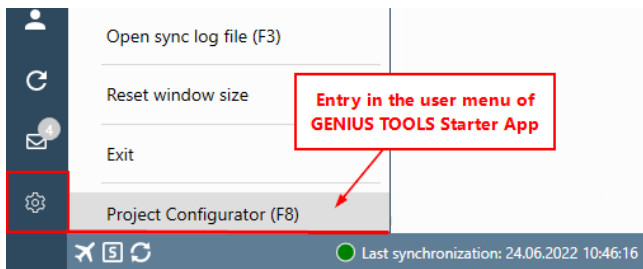
5.1.1 Starting GENIUS TOOLS Project Configurator

GENIUS TOOLS Project Configurator can be started from the installation computer as well as from any synchronized application computer. On the installation computer, Project Configurator is located in the Caddepot directory, on the application computers it is located in the Cadpool directory. In both cases, Project Configurator accesses the same central database in the Caddepot. See also the chapter with [Important terms](#).

Starting Project Configurator on the installation computer

There are two ways to start Project Configurator:

1. Open GENIUS TOOLS Starter App via
<caddepot>\<OperatingEnvironment>\software\GTS.exe. In the user menu , select *Project Configurator* or press *F8*.




User menu in GENIUS TOOLS Starter App

2. Start Project Configurator directly using a start parameter

```
<caddepot>\<OperatingEnvironment>\software\GTS.exe -gts:admin
```

Starting Project Configurator on an application computer

There are two ways to start Project Configurator:

1. Open GENIUS TOOLS Starter app via `<caddepot>\<environment>\software\GTS.exe`. In the user menu  select *Project Configurator* or press *F8*.
2. Start Project Configurator directly using a start parameter

```
<cadpool>\<OperatingEnvironment>\software\GTS.exe -gts:admin
```

The item *Project Configurator* in the user menu can be hidden for the users (see [Assigning function access rights](#)) so they cannot access Project Configurator from the user interface.

The start parameter `-gts:admin` cannot override any access restriction for the Project Configurator.

Read-only mode

To avoid that several users can make changes to the database of GENIUS TOOLS Project Configurator the application can now only be used by one person. All others receive a note about the user who has accessed GENIUS TOOLS Project Configurator and can open the application in read-only mode.


When opening GENIUS TOOLS Project Configurator, a lock file is written to the database directory (*Caddepot\<operatingenvironment name>\configuration\database*), which is deleted again when closing the application.






Please note: Make sure to close GENIUS TOOLS Project Configurator with the exit function to delete the lock file.

If you cannot open GENIUS TOOLS Project Configurator in write mode when no other user is working with it, delete the LOCK file.

5.2 User interface and navigation

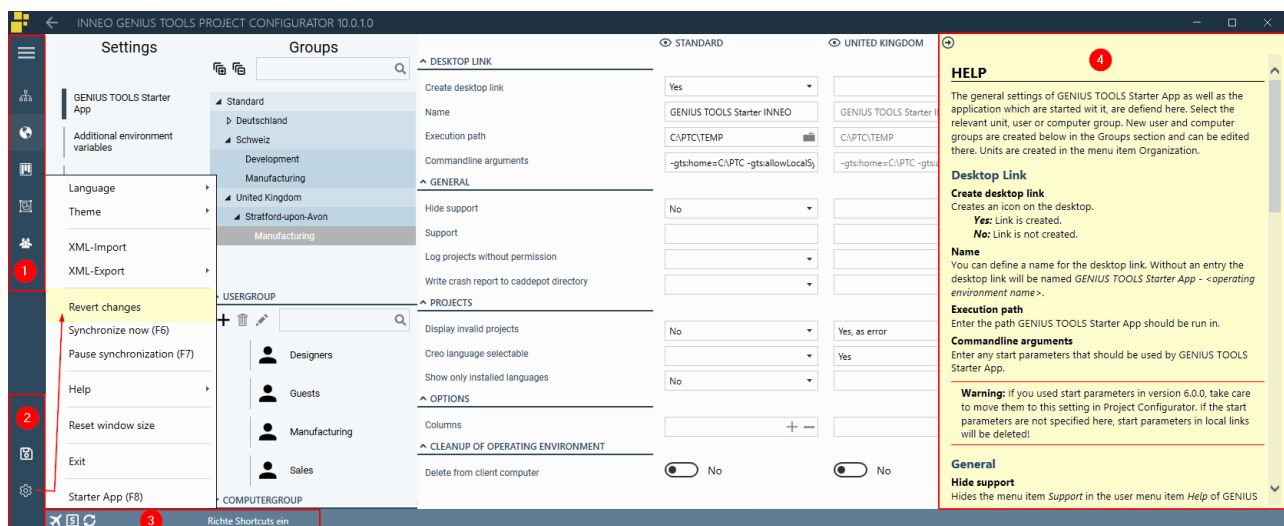
GENIUS TOOLS Project Configurator opens on the *Configuration* page of the main menu. Here, you can manage global settings or settings specific to units and groups.

The main menu (1) is located on the left side of the Project Configurator window and can be extended to show descriptions by clicking the menu symbol . It gives access to the pages:

-  Organizations
-  Configuration
-  Projects
-  Project collections
-  Resources

When entering the settings, you will find a help section (4) on the right side of the window, which guides you through the individual input steps. This can be opened and collapsed with the arrow symbol.

The user interface can be displayed in a light and a dark color variant.




User interface of GENIUS TOOLS Project Configurator in light color theme

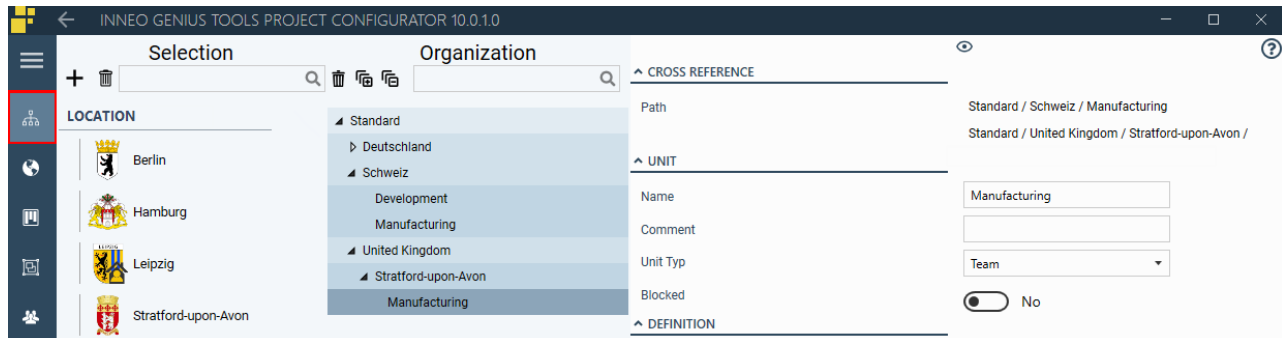
Please note: Note that GENIUS TOOLS Project Configurator, in contrast to previous Startup TOOLS versions, does not save changes immediately. To save any changes, click *Save* button in the sidebar (2). Until you save, any changes can be undone by selecting *Revert changes* in the user menu.

The Project Configurator window also has a footer (3). The following sections contain information on the main menu pages and the other control elements.

5.2.1 Main menu

5.2.1.1 Organization


The dialog Organization  allows you map your organization with unit of different levels and sublevels and make project settings at those levels. Read the [Mapping an organization](#) chapter for detailed information on working with units.

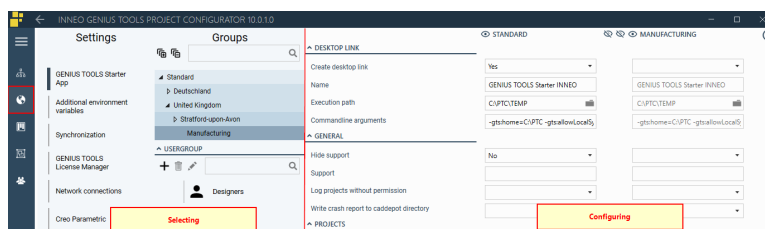


Organization dialog window

Please note: Working with units is only possible with a subscription license.

5.2.1.2 Configuration

Use the *Configuration* page  to manage global settings as well as settings specific to units, computer groups and user groups. The *Settings* list contains several buttons which open the settings pane and the corresponding help page.




Dialog window Configuration

Select a group or unit to show the settings applicable to this type of group. The *Standard* group is used for managing global settings and cannot be deleted. In a newly created database, only the Standard group will be available.

While new [user and computer groups](#) are created on this page, [units](#) are created in the [Organization](#) page where they define the structure of an organization.

For more information on the individual settings, please refer to [Configuring global environments](#) and [Configuring heterogeneous environments](#).

5.2.1.3 Projects

In the *Projects* page  you can create and configure projects for the supported CAD-applications as well as projects of other applications ("[Apps projects](#)"), which have simplified settings options.

For a selected project, the corresponding tabs are displayed for inputting settings, e. g. for Creo Parametric the tabs *Creo*, *Start*, *Windchill* and *Environment*. For information on how to create projects and define their settings, please refer to [Creating projects](#).




Projects page for Creo Parametric

Projects can either be made accessible to all users of the operating environment or to a defined group of users, see [Restrict project access](#).

Projects without an available license can either be hidden from the user's view in GENIUS TOOLS Starter App or can be marked with a warning color, see chapter [GENIUS TOOLS Starter App](#).

5.2.1.4 Project collections

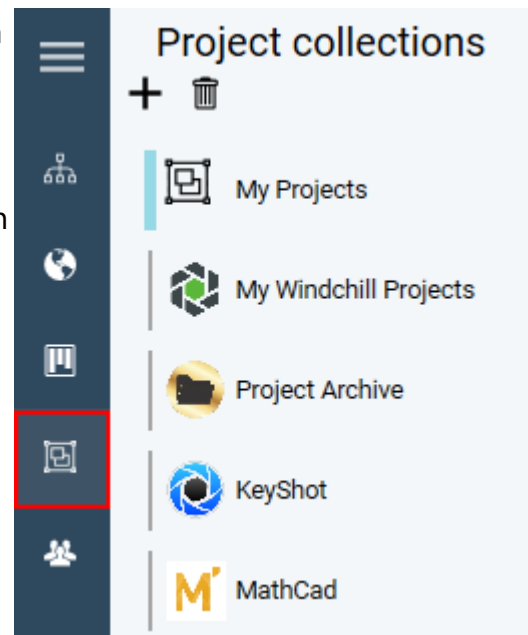
In the main menu item *Project Collections*  you can organize individual projects into project collections, which are displayed to users in GENIUS TOOLS Starter App.

There are company-specific project collections, which can contain any projects, as well as application-specific project collections, which contain all projects of an application. Consult the chapter [Project collections](#).

In addition, the display of [auto projects](#) can be modified here.


Auto projects are Starter projects of an application for which only one project can be created. This project will be automatically created by GENIUS TOOLS Starter App with the latest available software version on the user computer and will be displayed with an icon of the application.

Auto projects are generated from the following applications: Creo Elements/Direct Drafting, Creo Illustrate, Creo Schematics, Creo View, GeomagicDesignX, Keyshot and MathCad.




Please note: Auto projects are only available with a [subscription license](#).

5.2.1.5 Resources

In the *Resources* page  different types of resource are created in order to work efficiently with GENIUS TOOLS Project Configurator. Resources are roles, entries for users and computers, startkeys and license servers for Creo applications as well as synchronization servers (satellites).

Please read the chapter [Creating Resources](#).

5.2.2 User menu

To access the user menu, click on the gear symbol  in the side bar.

Language: user interface language

You can switch the user interface language between English, German and French at any time. The language setting is saved and will be used the next time you start the software.

The software first starts with a German user interface if the operating system locale is set to German. For all other locale settings, the software first starts with an English user interface.

Theme: user interface color settings

The software comes with the color themes *Blue*, *Light* and *Dark*. You can switch themes at any time. The theme setting is saved and will be used the next time you start the software.

XML Import

You can import users and computers from an XML file. If the users or computers are assigned to a group that has not yet be configured, the group will also be created during the XML import. When you click XML Import in the user menu, a dialog for selecting the XML file is displayed.

XML Export

You can export users and computers into an XML file, for example in order to make batch changes quickly, then re-import the file.

Revert changes

Project Configurator does not save changes immediately, so you can revert any unsaved changes. If you do so, Project Configurator reloads the database and re-initializes all input fields.

To revert changes, select *Revert changes*. A warning dialog is displayed. Confirm the warning (*Reload database. Changes will be deleted.*) with *Yes*.

To save changes, click **Save**  in the sidebar.

Synchronize now (F8)

GENIUS TOOLS Starter immediately synchronizes from the central Caddepot, regardless of the specified synchronization interval, and loads any updated files into the Cadpool.

Pause synchronization (F7)

GENIUS TOOLS Starter stops synchronization until it is re-started by the user. The setting *Pause synchronization* is saved for the next start and marked by a yellow bar below the header. When the user resumes synchronization, they are asked whether they want to resume and overwrite local changes.

Pause synchronization if you want to prevent local changes from being overwritten until they have been added to the Caddepot by your administrator.

Please note: Your administrator defines whether you can pause the synchronization. If you are not allowed to pause the synchronization, the item *Pause synchronization* is not displayed in the menu.

Help

- **Help (F1):** Software manual for GENIUS TOOLS Starter, which corresponds to this document.
- **Support:** Contact details for the technical support of INNEO or a company-specific link which can be set up in GENIUS TOOLS Project Configurator. Inneo's support can be reached by email, telephone and with Teamviewer.
- **Info (F12):** Current GENIUS TOOLS Starter version.
- **Reference card:** Quick overview of the functions in GENIUS TOOLS Project Configurator.
- **Parameter variable:** List of start parameters and environment variables.

Reset window size

Restores the default size of the dialog window of GENIUS TOOLS Starter. The window can be adjusted to all sizes.

Switch user – *only visible with an alternative authentication system*

Switches to another user of the applied authentication system, e. g. Windchill.


Exit

Closes the software. Clicking on the *Close* button (X) in the header will minimize the program window.


Starter App

Switch to the GENIUS TOOLS Starter App.

5.2.3 Save database

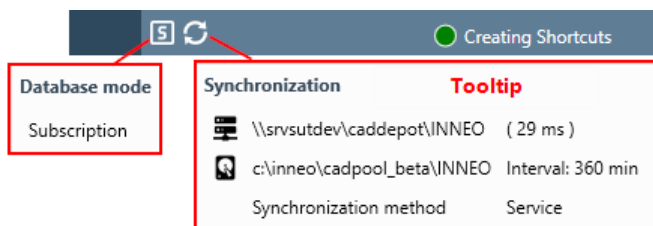
The sidebar contains the function *Save Database* . Any settings you make in GENIUS TOOLS Project Configurator will only become active after you save them. Any changes are saved to the database *sut.db* on the installation computer (path:

`\caddepot\<OperatingEnvironment>\configuration\database`)

As long as you have not saved your changes to the database, you can revert them by selecting *Revert changes* in the user menu .


5.2.4 Footer


The footer in Project Configurator contains the following information.



Data base mode

The state of the database is displayed in the footer:

 Database requires a subscription license. Projects cannot be started when working with a permanent license.

 Database has been created with a permanent license. It can be accessed by both permanent and subscription license.

Synchronization mode and synchronization status

To the right of the icon for the license mode, information on the synchronization mode is displayed. For more information, please refer to [Procedures and synchronization](#).

 Synchronization is active

Hover the mouse on the synchronization symbol to see the paths to the Caddepot and to the local operating environment as a tooltip.

 Synchronization inactive

The synchronization of toolkit applications is paused as long as Creo is running

 Local operating environment

There is no synchronization; you work on a local directory

Running applications

If a supported desktop application is running, the application icon will be displayed in the footer.


 Creo Parametric

 Creo Elements/Direct Modeling

Messages

- Red = Error message. Please troubleshoot.
- Yellow = Warning message. Please decide whether you want to keep on working regardless.
- Green = Last synchronization run was completed without errors.
- Green / Creating shortcuts: This message shows that the desktop link for GENIUS TOOLS Starter App has been updated.

5.3 Resources

The Resources page  is used to manage the following resources.

1. **Roles** are groups of users and/or computers that are granted access rights to functions and specific projects. A role can consist of
 - static entries of **users** and **computers**,
 - variable user entries (dynamic entries) from the **Windows user administration** or an **alternative authentication system**. (Dynamic entries are assigned directly at a role.)
2. **Creo startkeys** and **Creo license servers** are created for Creo Parametric projects.
3. **Synchronization servers** are mirror servers that are used for data synchronization with GENIUS TOOLS Starter Service.

A unit is not considered a resource and is created in the Organization menu item. See chapter **Working with units**.

5.3.1 Creating users

In the main menu **Resources** page , static user entries are created and managed.

Static entries do not change automatically as dynamic user entries do. Changes to static entries must be made manually for each entry in GENIUS TOOLS Project Configurator.

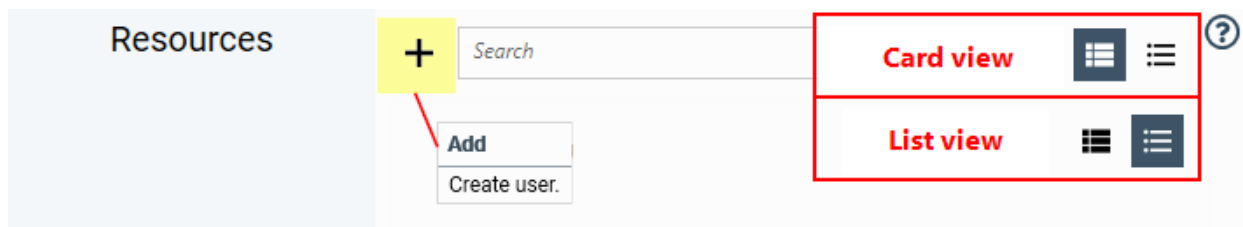
Hint: We recommend that you decide whether you will work with static or dynamic user entries before creating users, as mixing both types of entries greatly reduces the clarity in GENIUS TOOLS Starter.

You can enter static user entries manually or import existing entries.

You can switch between the card view (default) (1) and the list view (2), using the list symbols to the right of the search input box.

Project Configurator saves the active view. User images and assignment to a user group can only be edited in the list view.

You can switch between the card view (default) and the list view with the icons to the right of the search window.



Ressource "Benutzer" ist in zwei Ansichten darstellbar

Resource "User" can be displayed in two views

GENIUS TOOLS Project Configurator saves the last used view. User photos and user group membership can only be edited in the list view.


Adding static users manually

A user is identified by the Windows user name when you work with Windows Users as authentication method.

To create a static user entry, click the Add icon (+) in the upper left corner. A new window will open. Alternatively, you can write entries into a new row in the list view, see Editing users in the section below.

Edit/create user

Adding images is only possible in list view.

 Blocked ☐ No

User name




GTS alias

GTS alias long

GTS alias short

Comment

Email

 Save  Delete  Cancel


Dialog for adding users

Creating users and computers with regular expressions

User as well as computer names can be specified either directly (so that only the corresponding user is legitimized) or with regular expressions (a group of users is legitimized by a definition). When using regular expressions in the fields *Windows user* and *computer name* the entries are extended by ^ and \$, i. e. to ^INPUT\$. Longer user names can thus be legitimized by shorter and partial spellings, e. g. *efoster* legitimizes both *efoster* and *ethanfoster*.

Find a list of regular expressions in the [appendix](#).

Import existing users

You can import existing entries of Windows users with an [Excel list](#). If you have switched authentication to a system other than Windows (e. g. Windchill), the Import function , which allows you to import users via the authentication provider, appears to the right of the Plus icon. See [Importing users with authentication provider](#).

► Searching for users

Searching for users

To find existing users, enter a search term in the search input field with at least three characters.

► Blocking users

Blocking users

Blocked (1)

You can block a user, which means that user group settings or role assignment will not be used.

Yes/set: User group settings or role assignment for this user will not be considered.

No/not set: User group settings and role assignment will be used.

► Editing users

Editing users

To edit a user, double-click on a visiting card or use the list view if you wish to make several changes. You need to use the list view for defining a user image and for displaying and editing user group assignment.

| CREATE/EDIT USER | | | | | | |
|--|-----------|----------------|-----------------|-----------|---------|-------------------|
| Windows user | GTS alias | GTS alias long | GTS alias short | Group | Comment | Email |
| ahelp | A. Help | Anna Help | ahe | Managing | | ahelp@inneo.com |
| <input checked="" type="checkbox"/> gmueller | G. Müller | Gerd Müller | gmu | Guests | | |
| <input type="checkbox"/> efoster | E. Foster | Eric Foster | efo | Designers | | efoster@inneo.com |
| <input type="checkbox"/> new user | | | | | | |

List view

Camera column (2)

List view: Double-click to upload a user image.

Windows user (3)

Enter the Windows user name. If you are in the list view, you can get the Windows user name for the currently logged-in user by clicking on the person icon in the *Windows user* column. Instead of entering a user name you can also use regular expressions. See [Section below](#).

GTS Alias (4)

Enter a GENIUS TOOLS Starter alias for the user, for use in additional applications. For example, the GTS alias is used in GENIUS TOOLS Parameter. If you do not specify an alias, the Windows user name will be set. If you are in the list view, you can get the Windows user name for the currently logged-in user by clicking on the person icon in the *Windows user* column. The GTS alias is available as an environment variable (%GTS_USER%) in Creo.

GTS Alias Long (5)

Long user alias. The long alias is available in Creo via the environment variable %GTS_USERLONG%.

GTS Alias Short (6)

Short user alias. The short alias is available in Creo via the environment variable %GTS_USERSHORT%.

Group column (7)

List view: You can assign a user to a user group here or in the Configuration page under *Edit > Members*. (See also [Assigning users to user groups](#).)

Please note: You cannot grant user rights to a user group. We therefore recommend assigning users directly to a role.

Comment (8)

Enter an optional comment.

Email (9)

Enter the user e-mail address.

Delete (10)

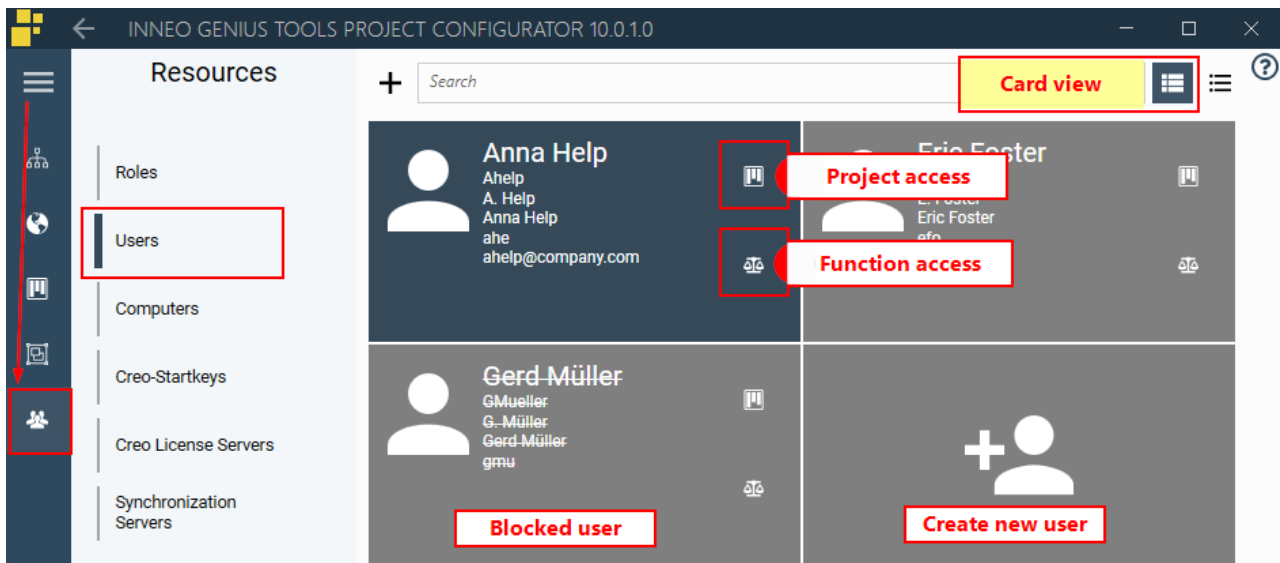
Clicking the recycle bin icon deletes the user entry.

► Card view: Check user access rights

Card view: Check user access rights

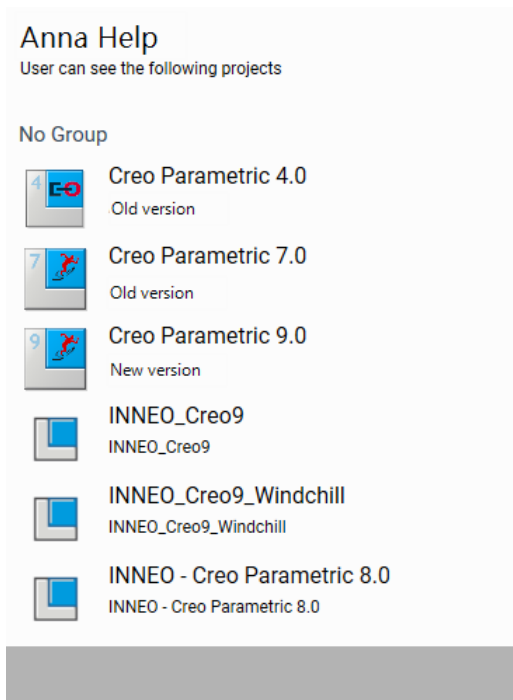
The project symbol on the right lists the projects visible to a user. The access rights symbol lists the function access rights assigned to the user.

Please note: Access rights are given to a user by assigning him to a role, not by assigning him to a user group.

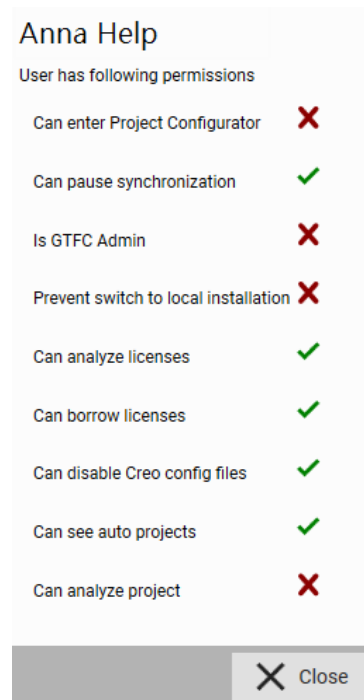


User entries in the card view

Clicking on the symbols Project access and Function access opens the following windows.




List of projects displayed to user
Anna Help



Access rights for user
Anna Help

The function access of a user comes from the assignment of rights in one or more roles. More information can be found in the chapter [TARGETTITLE%>](#).

5.3.2 Creating computers

Computers are created and managed as permanent entries in the *Resources* page  under *Computers*. Each computer is identified by its Windows computer name.



► Adding computers

To add new computers, click on the Add symbol (1) or write in the last input field of the list.

► Searching computers

To find existing computers, enter a search term in the search input field (2).

► Editing computers

Blocked (3)

You can block a computer, which means that computer group settings or role assignment will not be used.

Yes/set: Computer group settings or role assignment for this computer will not be considered.

No/not set: Computer group settings and role assignment will be used.

Computer name (4)

Enter the Windows computer name. You can get the Windows user name for the current computer by clicking on the computer icon in the *Computer name* column. Instead of entering a user name you can also use regular expressions. See section in [Creating users](#).

Group (5)

You can assign a computer group to the computer here or select the computer group in the Configuration page (Under *Edit > Members*). (See also [Assigning computers to computer groups](#).)

Hint: You can change the configuration for a computer by assigning it to a computer group.

Comment (6)

Enter an optional comment on the computer.

Delete (7)

Click the recycle bin icon to the right of the *Comment* column to delete a computer.

5.3.3 Importing users and computers from Excel

GENIUS TOOLS Starter comes with an XML interface to import a large number of users into the GENIUS TOOLS Starter database in one step.

Follow the procedure described below to import users or computers. This will create static entries.

Static entries do not change automatically as dynamic user entries do. Changes to static entries must be made manually for each entry in GENIUS TOOLS Project Configurator.

Format of the Excel table for importing users or computer

The directory `caddepot\serveronly\tools\XML-Import` contains two Excel tables – *computer.xls* and *user.xls* – that serve as templates for creating XML files for import into the GENIUS TOOLS Starter database.

| | A | B | C | D |
|---|----------|----------|-------------|----------------------|
| 1 | USERNAME | ALIAS | DESCRIPTION | ROLES |
| 2 | meier | Meier | Bielefeld | Entwicklung;Key User |
| 3 | mueller | Mueller | Ellwangen | Administrator |
| 4 | schulze | Schultze | Leipzig | Entwicklung;Key User |

Excel table for importing users and assigning them to one or more roles

| | A | B | C |
|---|--------------|-------------|---------------|
| 1 | COMPUTERNAME | DESCRIPTION | COMPUTERGROUP |
| 2 | CAD12 | TB1 | Creo on C: |
| 3 | CAD13 | TB1 | Creo on C: |
| 4 | CAD14 | TB2 | Creo on C: |
| 5 | CAD15 | TB2 | Creo on F: |

Excel table for importing computers and assigning them to a group

Please note: A user group or computer group that does not yet exist will be created on import.

Requirements:

- The first line in the Excel table is the header line. The header line must not be removed and has to be formatted in all capital letters.
- Enter the name of the computer or user in the first column.
- You can use the following columns:

For users:

USERNAME (mandatory)

DESCRIPTION

USERGROUP

ROLES

ALIAS

ALIASLONG

ALIASSHORT

EMAIL

For computer:

COMPUTERNAME (mandatory)

DESCRIPTION

COMPUTERGROUP

ROLES

- For roles, you can enter multiple entries, separated by semicolons.

Creating an XML file from the Excel table


After filling in the Excel table, export it from Excel as CSV (comma-separated value) file.

Beispiel: Content of a CSV file with a computer list:

```
COMPUTERNAME;DESCRIPTION;COMPUTERGROUP  
CAD12;TB1;CREO on C:  
CAD13;TB1;CREO on C:  
CAD14;TB1;CREO on C:  
CAD15;TB2;CREO on E:
```

Please note: The separator character used by Excel depends on your locale. GENIUS TOOLS Starter supports comma or semicolon as the separator character. You cannot use either commas or semicolons in the contents of the columns! Please also refer to [Changing the separator for XML conversion](#).

The directory `caddepot\serveronly\tools\XML-Import` contains two batch scripts for converting the CSV files into the XML import format. Use *computer.bat* for converting computer lists and *user.bat* for converting user lists. The CSV file has to be called *computer.csv* or *user.csv* and be located in the same directory as the batch script. When you run the batch script, the XML import file will be written out as *computer.xml* or *user.xml* in the same directory.

The XML files created by the batch scripts can now be imported into GENIUS TOOLS Project Configurator. Open Project Configurator, go to the **user menu**  and select *XML import*. Select an XML import file. You will be asked whether you want to delete existing users or computers. Make your decision. Confirm the import with *Yes*.


The imported users and computers are now available on the *Resources* page under *Users* or *Computers*. If the import has created one or more user or computer groups, the groups are available on the *Configuration* page in the groups list.

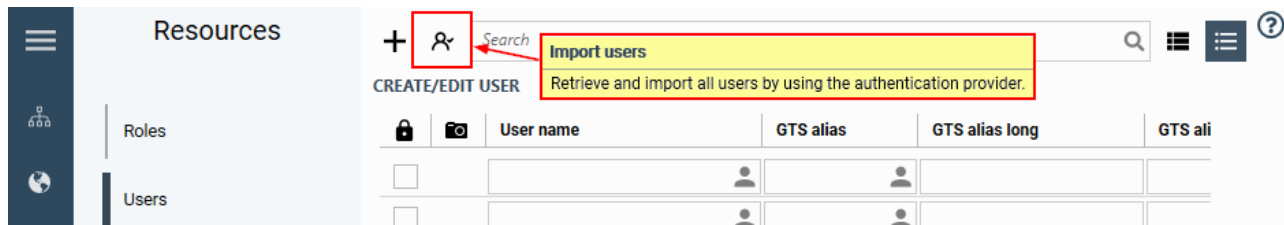
Changing the separator for XML conversion

The separator character used by Excel for CSV export depends on your locale. You can define the separator character in the batch scripts for CSV-to-XML conversion (*computer.bat* or *user.bat*) as follows. Comma and semicolon are supported as separator characters (*sep*) by default.

```
csv2xml -v -s:computer.csv -t:computer.xml -sep:;,  
-m:1 -xsl:../extend/model-stylesheet.xsl  
-alias:eRoot=ROOT,eRecord=RECORD >>result.log
```

5.3.4 Importing users with authentication provider

For importing users who need to authenticate themselves, e. g. Windchill users, the Import function  is available. The button appears when switching to another authentication system than Windows in the [group settings](#).



For Windchill, all users are imported from the defined Windchill server and the following information is taken:

- "Name" > Username / GTS Alias
- "FullName" > GTS Alias Long
- "AlternateUserName1" > GTS Alias Short
- "Email" > Email

If you want to use other authentication systems you have to create a customized provider, see chapter [Creating your own authentication provider](#).

5.3.5 Roles

GENIUS TOOLS Starter is based on a role-based authorization concept. This allows you to grant different access rights to projects and functions to defined user groups.

Roles are managed in the main menu item *Resources*, see [Creating roles](#).

Firstly, users are assigned to a role – these can be [static](#) or [dynamic](#) entries. Computer entries are always static entries.

Secondly, access rights are defined for this role. These rights include access to Starter projects as well as to functions in GENIUS TOOLS Starter App, see chapter [Access rights](#).

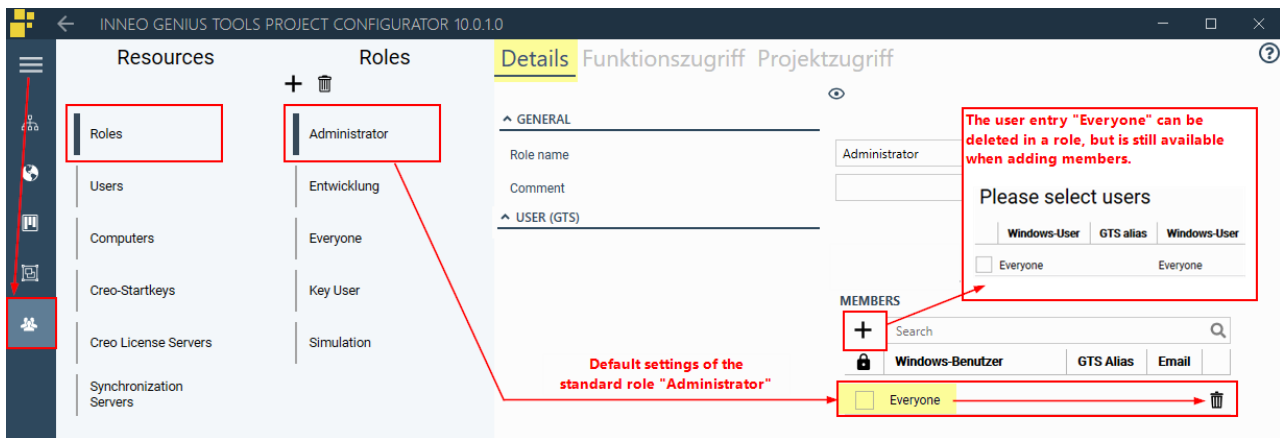
A role configured in this way can then be assigned to a unit. Specific settings for the CAD applications can be made for a unit.

5.3.5.1 Default roles

There are two pre-configured roles *Everyone* and *Administrator*. Both contain in the default settings all Windows user names known to the system.

Hence, every user is a member of the role *Administrator*. When you first use GENIUS TOOLS Project Configurator, you should adjust the role by removing the user entry *Everyone* and by assigning some individual users to it.

Hint: The user entry *Everyone* in the Members is accessible to all roles and can be used if you do not want to manage each user manually.




Standard role "Administrator" with user entry "Everyone"

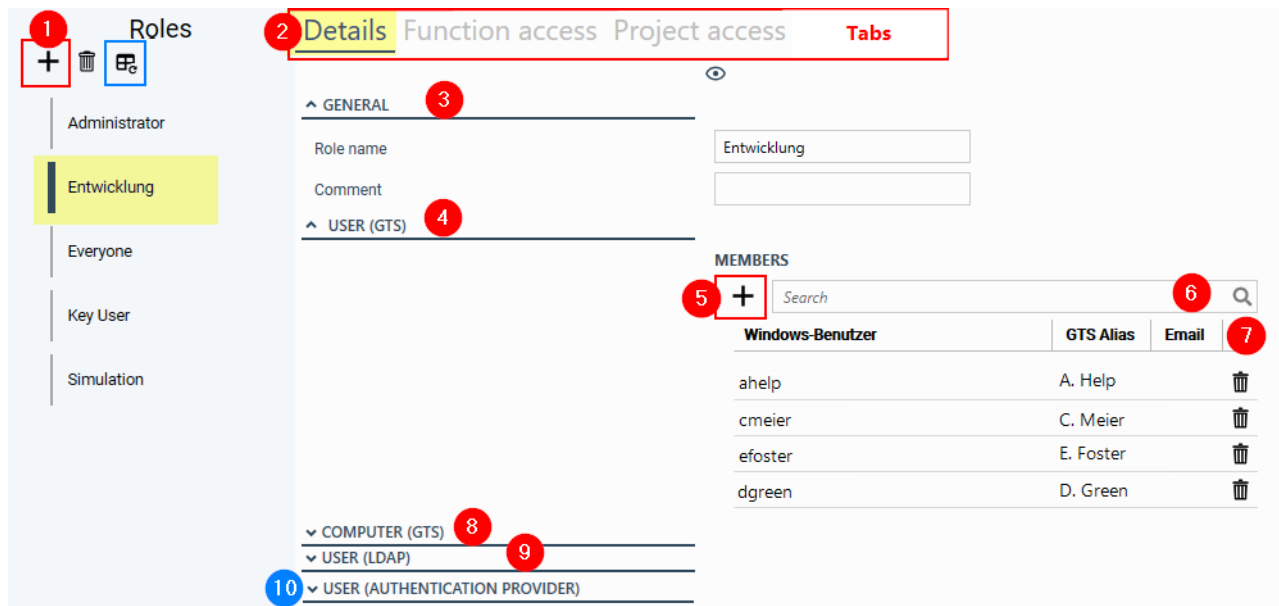
5.3.5.2 Creating roles

To create a new role, click the plus icon (1). In the Details tab (2), under General (3), enter the name of the role and an optional comment.

In the sections below, you can assign users (4) and computers (8) to a role *statically*. Windows users can be assigned dynamically using an [LDAP query](#) (9).

If you have changed the authentication to a system other than Windows (e. g. Windchill), the area *User Groups (Authentication Provider)* (10) appears instead of the LDAP area. Assign users via groups to a role there. The update function  to the right of the add icon updates these user groups.

To assign rights, fill in the Function Access and Project Access tabs, which are described in the chapter [Access rights](#).



Creating a new role


5.3.5.3 Adding static entries to a role

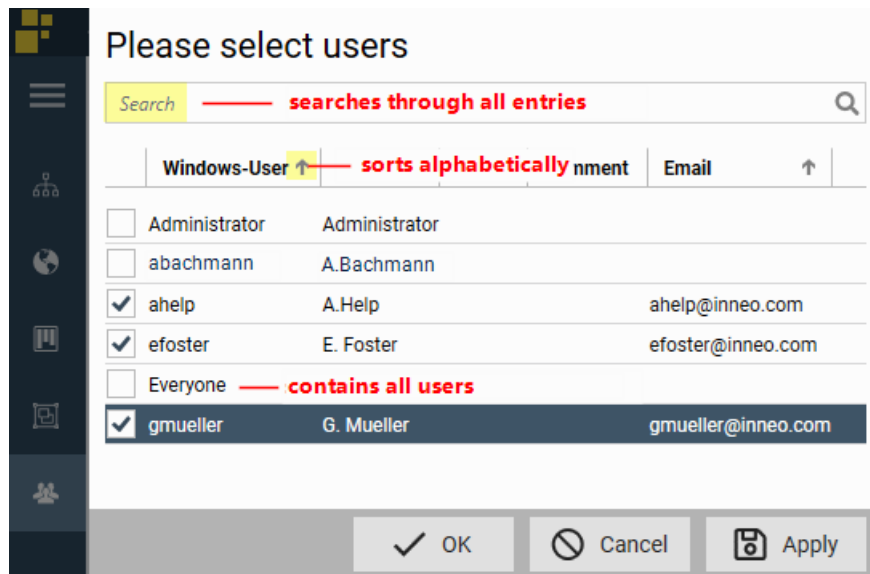
You can assign users and computers to a role statically.

Static entries do not change automatically as dynamic user entries do. Changes to static entries must be made manually for each entry in GENIUS TOOLS Project Configurator.

To assign a user or computer to a role, you have to first create an entry as a *Resource* under *users* / *computer*. A user or computer can be assigned to several roles.

Procedure: Add users to a role

1. Select the role you wish to add users to in the Resources page .
2. In the Users section (4), click on the plus button (5).
3. In the new dialog box that opens, select the users you wish to add to the role.
You can search entries and sort them alphabetically.
You can select the entry *Everyone* that contains all users.



4. Finish the dialog box by clicking on either:

- *Ok*: Add selected users and close dialog box,
- *Cancel*: Close dialog box without adding selected users,
- *Apply*: Add selected users without closing dialog box.


The member list – see screenshot *Creating a new role* above – shows all users (or computers) of the role.

A crossed name means that a **user is blocked**, i. e. for this user neither any role nor any group configuration is applied. To change the blocked status, go to *Resources > Users > Edit user*.

You can **search for users** (6) and **delete user** with the recycle bin icon (7) to the right of the user name.

5.3.5.4 Adding dynamic entries to a role

Dynamic user entries adopt changes from the system in which they have been created.

If GENIUS TOOLS Starter is used by Windows users, this is done automatically for dynamic entries by means of an LDAP request. If users are to authenticate with a different authentication system, the entries of this system must be regularly updated manually in GENIUS TOOLS Project Configurator using the Update function .

Accessing Windows user management

If you are using a subscription license, you can access the Windows user management. This means that you can assign permissions to users and user groups that have been defined by your company's central IT management. GENIUS TOOLS Starter App uses live queries to make sure that user assignment is up-to-date. Thus, you do not have to create users locally.

Windows user management is accessed using LDAP queries. LDAP (lightweight directory access protocol) is a standard network protocol for accessing a distributed directory service.

Please note: An LDAP query is only available with a subscriptions license. When using a permanent license, the *LDAP* tab is not visible.

Defining an LDAP query

To define an LDAP query, go to the *Resources* page, select the role that you want to assign a query to, and go to the *LDAP* tab.

In GENIUS TOOLS Starter App live queries to Active Directory are executed at the start of project validation. The LDAP groups are cached for fallback functionality.

The LDAP fields *Description*, *DisplayName*, *Initials* and *Enabled* are queried and the entries are transferred to the following fields. The administrator can overwrite the content of a field, but not the mapping.

The screenshot shows the 'LDAP' tab in the 'Details' section. The 'LDAP' section has a table with columns 'LDAP Query' and 'Comment'. Below it is the 'MODIFY USER' section with a search bar and a table of users. Red boxes and numbers highlight the following:

- 1: LDAP Query input field
- 2: Comment input field
- 3: Delete icon (recycle bin)
- 4: Add icon
- 5: Search bar in 'MODIFY USER' section
- 6: User already exists as entry in the User tab (red box)
- 7: Blocked user from LDAP field "Enabled" (red box)
- 8: Entries from LDAP field "DisplayName"
- 9: Initials
- 10: LDAP field "Description"
- 11: Email
- 12: LDAP field "Description"
- 13: Email

Defining an LDAP query

► Users (LDAP) – Subscription

In the LDAP section, you can assign users from an LDAP query to a role dynamically. (LDAP: Lightweight Directory Access Protocol)

Blocked (1)

Use this to block the LDAP query.

LDAP query (2)

Enter the name of the LDAP group you want to use.

Comment (3)

Enter an optional comment for the LDAP query.

Delete (recycle bin icon,4)

Removes the LDAP query from the role.

► Modify users

In the section *Modify Users* you can edit details from LDAP queries or alternative authentication systems. Specifications for static user and computer entries are edited under Resources.

Any changes only apply to GENIUS TOOLS Starter.

Search (5)

Camera column (6)

Double-click the upload icon in the camera column to add a user image.

Windows user (7)

Displays the Windows user name.

GTS Alias (8)

Enter a GENIUS TOOLS Starter alias for use in additional applications. The alias is available in Creo via the environment variable `%GTS_USER%`. If you do not specify an alias, the Windows user name will be set

GTS Alias Long (9)

Long user alias. The long alias is available in Creo via the environment variable `%GTS_USERLONG%`.

GTS Alias Short (10)

Short user alias. The short alias is available in Creo via the environment variable `%GTS_USERSHORT%`.

LDAP query (11)

Displays the LDAP group or the user group of the alternative authentication.


Comment (12)

Displays the staff position.

Email (13)

Displays the email address.

Accessing alternative authentication systems

If you have selected an alternative authentication method in the [global settings](#), you can assign user entries that come from this system to a role. Details of users and their affiliations to user groups are updated with the update function  which appears to the right of the Add icon. These entries are therefore dynamic, i. e. changes made in the authentication system are adopted by GENIUS TOOLS Starter and do not have to be entered manually per entry.

Please note: Integrating an alternative authentication system with GENIUS TOOLS Starter requires a subscription license.

For Windchill, all user groups and their assigned users are automatically imported from the specified Windchill server. The following information is adopted:

User group information

"Name" > Group name

"Description" > Description of group

User information

"Name" > User name

"FullName" > GTS Alias Long

"AlternateUserName1" > GTS Alias Short

"Email" > Email

If you would like to use other authentication systems, you must create an authentication provider by yourself, see chapter [Creating your own authentication provider](#).

In the section *Users (Authentication Provider)*, the following details can be specified and modified.

► Users (Authentication provider) – *Subscription*

In the section *User groups (authentication provider)* you can dynamically assign these groups to a role.

Blocked (1)

Blocks the user group.

User group (2)

Enter the user group you want to assign to the role.

Comment (3)

Enter an optional comment or accept the existing one.

Delete (recycle bin icon,4)

Deletes the user group from the role.

► Modify users


Details about individual users can be edited like entries from [LDAP queries](#).

5.3.6 Creo startkeys

A startkey is a configured start command that opens Creo with one or several defined licenses or license extensions. Startkeys are created in PTC's installation assistant when setting up or reconfiguring Creo, see [Creo startkeys \(PSF keys\)](#).

An administrator can provide user with a choice of several Creo startkeys per project so that the quantity of projects can be minimized.

Warning: Using Creo startkeys as a resource is a new feature in GENIUS TOOLS Starter from version 6.0.1, which means that you need a subscription license to use it. Once you have configured startkeys in this section, you cannot go back to using perpetual licenses. See also [License-dependent features](#).

In the main menu item *Resources*  enter a display name and a comment for a Creo startkey which users view in GENIUS TOOLS Starter App.



Managing Creo startkeys in main menu Resources

If several start keys have been created, users can select a key when starting a project in GENIUS TOOLS Starter App. The order of the start keys in the user selection field is that of the order in the dialog window and can be changed by using drag-and-drop.

Display name (1)

Enter a name for the license key for display in GENIUS TOOLS Starter App.

Comment (2)

Enter a comment for the license key for display in GENIUS TOOLS Starter App.

Creo startkey (3)

Enter the name of the license key. This is the name of the PSF file in the bin directory of PTC (e. g. *parametric.psf*).

Blocked (4)


Yes: The Startkey can neither be used nor selected by users.

No: The Startkey can be either directly used or selected by users in GENIUS TOOLS Starter App.

Startkeys can now be

- directly assigned to a project (see chapter [Assigning Creo licenses to projects](#)),
- assigned to groups or units which have access rights to particular projects and/or
- entered as a global standard (see [Configuring global environments > Creo settings](#)).

5.3.7 Creo license servers

In the main menu *Resources*  you can group one or several Creo license servers into one resource and then assign this resource *Creo License Server* to a project, unit or group.

► Creo license servers

Display name (1)

Enter the name for display of the Creo license server(s).

Comment (2)

Enter an optional comment for the Creo license server.

Creo license server (3)

Enter one or more license servers in the notation `Port@Servername` (e.g. `7788@<licenseservername>`). Separate a series of license servers with semicolons.

Blocked (4)

Yes: The Creo license server cannot be accessed.

Warning: If you block the Creo license server here, the information from the Creo startkey (PSF file) will be used. Check whether these information are correct.


No: The Creo license server can be used.

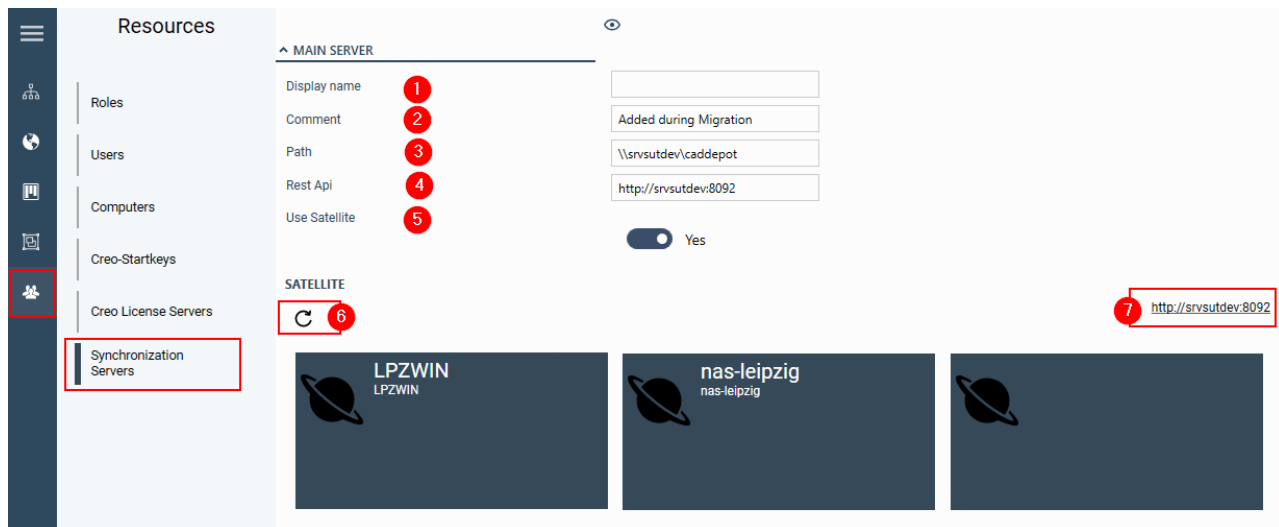
The Creo license server(s) can now be assigned:

- directly to a project in *Projects > Tab: Creo > Section: Creo license server* (See chapter [Settings for Creo projects](#))
- to groups or units, which in turn can be granted access to specific projects (See chapter [Settings for Creo projects](#))
- to the global settings or a group or a unit in *Configuration > Creo settings > Tab: Application > Section: Creo license server* (See chapter [Application](#))

5.3.8 Synchronization servers (satellites)

A **satellite** (also: synchronization or mirror server) is a computer or a sector of a computer onto which the state of one or more operating environments of a central main server is mirrored by data synchronization.

In the *Resources* page  you can add satellites that have been installed by using GENIUS TOOL Starter Service. (For information on how to set up satellites consult the document *GENIUS TOOLS Starter Installation.pdf* > chapter GENIUS TOOLS Starter Service.) The action *Create (6)* links GENIUS TOOLS Starter to GENIUS TOOL Starter Service and displays all satellites.



Linking satellites to GENIUS TOOLS Starter

► Main Server

Display name (1), comment (2) and path (3) to the caddepot of the main server (i. e. the source of synchronization) come from the settings entered in GENIUS TOOLS Environment Administrator. You can change the entries there with the *Modify* module.

Web URL (4)

Enter the URL in the notation `http://<mainservername>:<portnummer>`. The entries are defined in the configuration file of GENIUS TOOLS Starter Service. Path: `\<mainserver>\gtstarter\installdepot\gts-service-latest\conf\gt_service_<mainservername>.cfg`

Use satellites (5)

Yes: The satellites listed below are used.


No: The satellites listed below are deactivated.

► Satellites - Subscription -

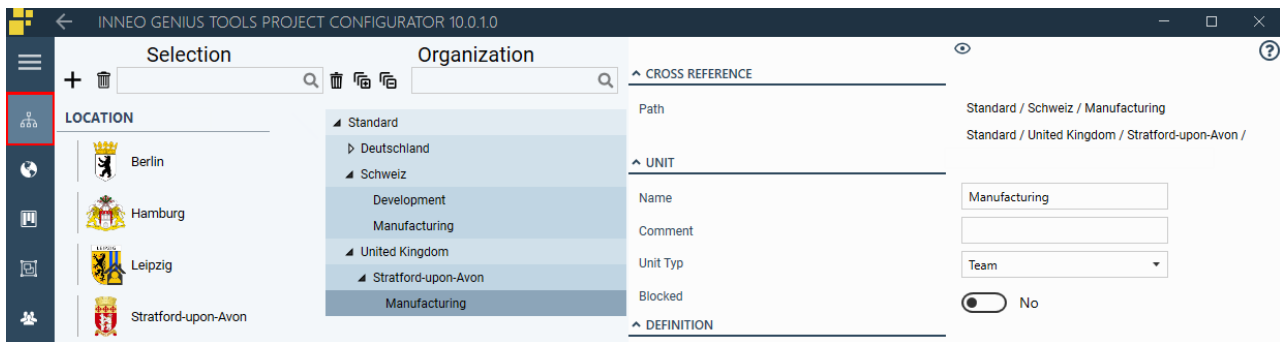
Satellites are synchronization servers that have been defined by the separate program GENIUS TOOLS Starter Service.

Click *Create* (6) to be able to use these satellite in GENIUS TOOLS Starter. An up-to-date list will be opened in a separate browser window if you click on the link (7).

5.4 Organizational structure

The dialog Organization  allows you to map your organization with units of different levels and sublevels. In the main page *Konfiguration* you can then define settings for the units created here.

User and computer groups are created in the *Configuration* page.



Organization dialog window

5.4.1 Working with units

The purpose of a unit is to group users into one configuration level and apply unit-specific settings. Units are typically used to reflect an organization's structure such as company departments or sites.

A unit is part of the role-based authorization system, i. e. users are first assigned to a role and the role is assigned to one or more units. Thus, a user can belong to more than one unit. In this case, display and settings of projects depend on the unit selection, see next chapter [Displaying units in GENIUS TOOLS Starter App](#).

In contrast to computer groups or user groups, the affiliation of users to a unit can be dynamical. In this way, units always reflect the current staff list and company organizational structure as configured for Windows user management. If a user quits a company department, their Windows user account is configured accordingly, and the user is automatically removed from the corresponding unit. User assignment does not have to be updated manually. See chapter [Accessing Windows user management](#).


Please note: To allow a transition phase between managing users and computers individually and managing them via LDAP queries, users and computers can still be manually assigned to a unit. However, this is not the recommended procedure for using units.

The advantages of units over computer and user groups are:

1. Units can contain sub-units and thus reflect the organizational structure of a company.
2. A user can be assigned to several units.
3. The affiliation to a unit does not have to be maintained manually.

Units are created in the Organization page, while computer and user groups are created in the Configuration page under [Groups](#).

5.4.1.1 Creating units

Units are created in the *Organization*  page. In contrast to user groups and computer groups, a unit always has to have a role assigned.

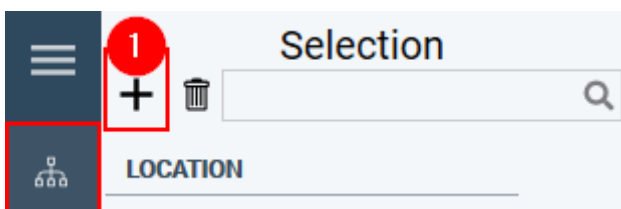
Please note: Creating a unit GENIUS TOOLS Project Configurator does not create a [unit directory](#).

When creating a unit there will be a warning if this is the first functionality that you are using with a subscription license after a license upgrade.

Warning: The use of units requires a [subscription license](#). Once you have configured a unit, you cannot go back to using perpetual licenses.

Create

Click the Plus button (1) in the Selection column.



In the following dialog fill in the input fields. Except for the name of the unit, you can enter all settings later in the selected unit in the Unit and Definition area.

Name

Enter a name for the unit. This is the name displayed to users in GENIUS TOOLS Starter App.

Please note: The name of a unit does not have to correspond to the name of the unit folder. Naming a unit folder differently from a unit can be useful for a better [folder structure of files](#).

Tag ID

Define the tag ID for the unit, see chapter [Using unit tag IDs](#).

Autofulfillment: The tag ID is identical to the unit name. (Small letters.)

Individually created tag ID: The unit tag ID is freely chosen. Tag IDs must not contain symbols not allowed in file names, such as ~ " # % & * : < > ? / \ { | }.

Empty: The unit does not have a tag ID. This is not recommended, since no Creo configuration options can be set up for units without a tag ID.

Please note: When creating a unit in the Create dialog a unit tag ID is assigned, which can also be used without a unit directory, see example in chapter [Using unit tag IDs](#).

Unit type

The unit type is used for better clarity in GENIUS TOOLS Project Configurator, see [arranging units](#). Select a type or write in the field to create a new type.

Role


Select the role that is assigned to the unit. If the role is not listed here, you have to first create it in the [Resources](#) page.

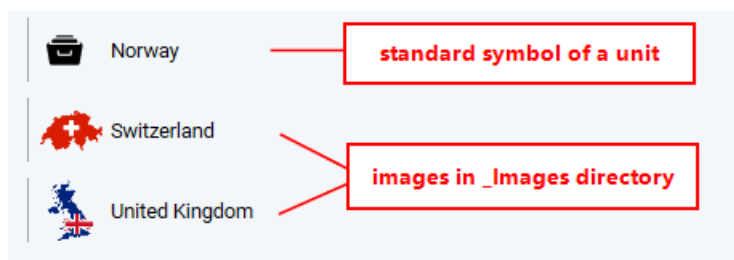
A unit is part of the role-based system of granting access rights. This means, to first assign a group of users to a role, and then assign the role to the unit. A user can be assigned to different units by being a member of different roles.

You can edit the role for a unit at a later point in time in the *Definition* section. The corresponding LDAP queries are listed for information purposes only.

Comment

Entering a comment is optional.

Result: The newly created unit appears as a new item in the Selection column with the default unit icon . You can replace this icon with your own images, such as flags, see [Displaying units in GENIUS TOOLS Starter App](#).



You can now place the unit in several configuration levels in the organization tree, if you wish to map your [organizational structures](#) with units and subunits.

5.4.1.2 Assigning unit folders

A unit can be used with or without a unit directory.

Working with unit directories offers extensive possibilities for configuration, as a unit directory can contain the following files:

- configuration blocks
- PSF files (Creo startkeys)
- batch files

Creating a unit directory

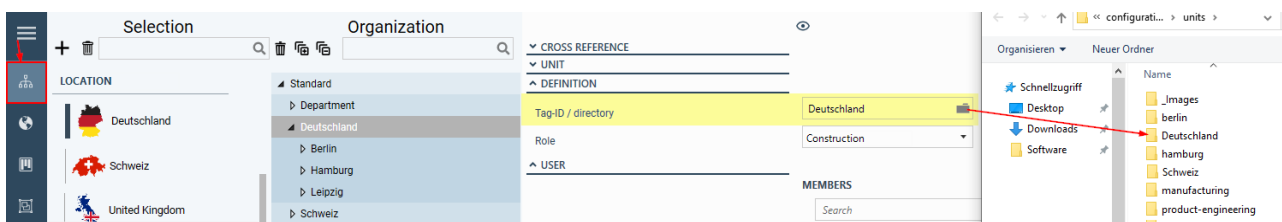
A unit directory is created manually as a subdirectory in the system directory *units* of an application.

`Caddepot\<operatingenvironment>\<application>\configuration\units\<unitdirectoryname>`

The name of the unit directory does not have to correspond with the name of the unit that is created in GENIUS TOOLS Project Configurator. Different names for a unit and a unit directory can be advantageous when working with subunits, i. e. for a better overview of the [call hierarchy of settings](#).

Selecting a unit directory

You can enter the name of the required unit directory in the [Create Unit dialog](#) or select it in the field *Tag ID / unit directory* in the Definition segment in the Organization menu item.



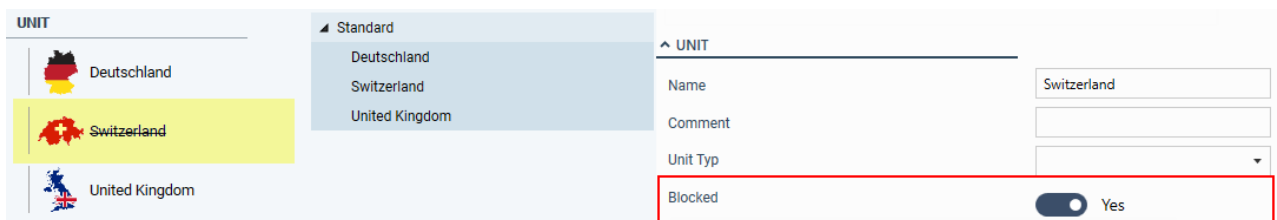
Selecting a unit directory in the Organisation menu item

When a directory is selected, its name becomes the unit tag ID.

5.4.1.3 Deactivating units

Blocking a unit in the Project Configurator is useful if you wish to disregard the configuration for this unit without deleting the unit, e. g. during tests.

To do this, go to the Name/Members area and activate the radio button Blocked. The name of the unit will be crossed through.



You can also block individual users or computers without locking the entire unit, see the section [Blocking individual users or computers](#).

5.4.1.4 Using unit tag IDs

A unit tag ID is an additional textual marking in a configuration block that defines a unit and limits the validity of the block to it. Unlike configuration blocks that are located in a specific Unit folder, configuration blocks with a unit tag ID can be stored in all folders. They are activated by the selection of the unit in GENIUS TOOLS Starter App.

This allows settings to be made for a unit even without assigning a unit folder to the unit.

Creating units without a unit folder

When creating a unit in GENIUS TOOLS Project Configurator, a unit tag ID is suggested. You can change the name of the unit tag ID thereafter in the *Definition* area. Do not select a unit folder.

The screenshot shows the 'UNIT' and 'DEFINITION' sections of the GENIUS TOOLS Project Configurator. The 'UNIT' section has fields for Name (Berlin), Comment, Unit type (Standort), and Blocked (No). The 'DEFINITION' section has a field for Tag-ID / directory (berlin) and a Role (Everyone). The 'Tag-ID / directory' field is highlighted with a red rectangle.

Unit tag ID / folder name

Defines the tag ID for the unit. If you select a unit folder, its name will also be the name of the unit tag ID. Unit folders are created manually in *configuration\units*.

The tag ID preset in the input field can be:

Retained/ overwritten: Defines the unit tag ID. Tag IDs must not contain characters that are invalid for file names, such as ~ " # % & * : < > ? / \ { | }. German umlauts and the letter ß are not accepted.

The unit directory preset in the input field can be:

Retained / replaced: Assigns an existing unit folder to the unit; the name of the folder becomes the unit tag ID (case-insensitive).

Please note: The name of the unit which users can choose in GENIUS TOOLS Starter App can be freely set by the administrator and does not necessarily have to correspond to the name of the unit folder.

Use case

In a company two sub-departments (Amsterdam, Berlin) of the Europe division are to work together on five projects. In two projects (C, D) of the five different license extensions should be used: Amsterdam should work with AAX, Berlin with BMX.

Initial situation: A unit folder with the name *Europe* is located in the *units* system folder and contains the Creo configuration options (configuration blocks) for the unit Europe.

Procedure:

In GENIUS TOOLS Project Configurator

1. In the main page *Organization* main page go to the *Select* section and click the Plus button, see [Creating units](#).

2. Create a unit with the name "Amsterdam" and the tag ID "amsterdam".
3. Create a unit with the name "Berlin" and the tag ID "berlin".
4. Do not assign any unit folders to these units.
5. Add the two units in the [organization tree](#) under the unit Europe.

At file level

6. Create a configuration block named *config_lic.amsterdam.pro*.
7. Enter the license extensions for AAX.
8. Create a configuration block named *config_aax.berlin.pro*.
9. Enter the license extensions for BMX.
10. Place the two files in the project folder for project C.
11. Place the two files in the project folder for project D.

Result: The license extensions AAX and BMX can be restricted to units for projects C and D without having to create new projects.

Advantage: Without tag ID four projects would be necessary: Project C with AAX/ with BMX and Project D with AAX / with BMX.

Project options with several unit tag IDs

A configuration block with a unit tag ID can be used as a project option in one or more projects. A [project option](#) can be limited to one unit by adding a single unit tag ID, but it can also contain multiple tag IDs.

Validity

When using multiple unit tag IDs, all conditions set by the tag IDs must be met.

Example: Validity of a configuration block

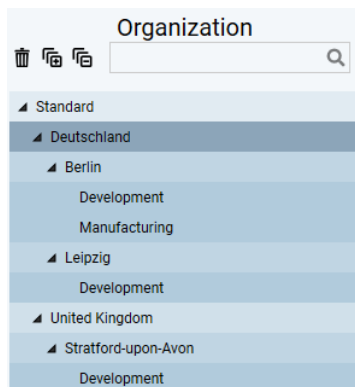
A company has the units Construction and Hamburg, but no unit MBD. This means the configuration block *config_lic.hamburg.construction.mbd.pro* is valid if the unit Construction *and* the unit Hamburg *and* the [combined project option](#) MBD is selected.

Usage

Using multiple unit tag IDs is useful when you have subunits in different configuration levels.

Example: Configuration block in multiple levels.

For project A, the team Construction in Manchester, but not in Hamburg, is to be given NC as an option on the project.



Solution: 1. The units Manchester and Construction are created in GENIUS TOOLS Project Configurator.

2. A configuration block with the name *config_lic_nc.manchester.construction.nc.pro* is created in the project folder of project A.

3. The project option NC is defined according to requirements (e. g. license extensions), see [Single project options](#).

Result: The construction team in Manchester can activate the project option NC on project A.

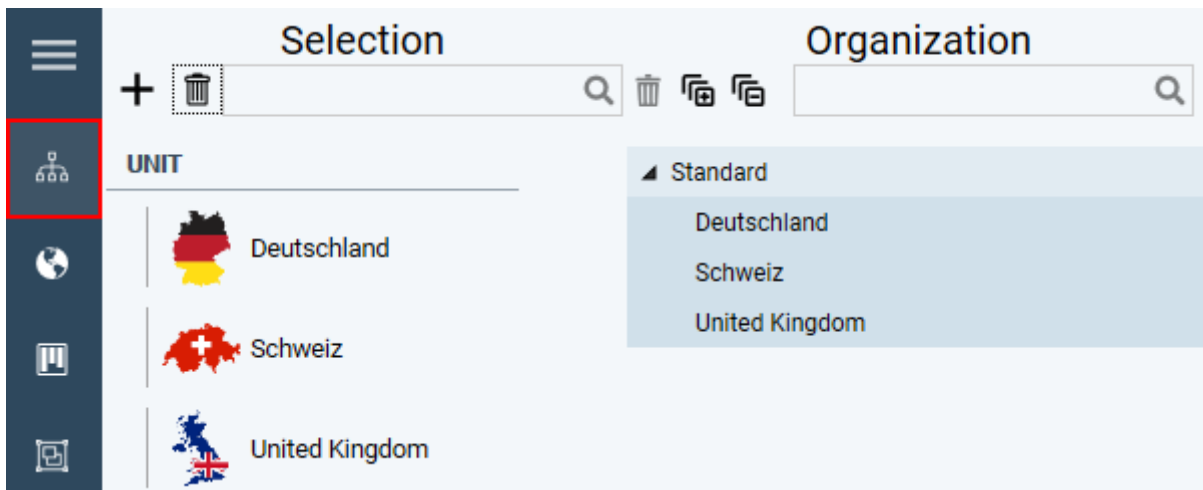
Advantage: The project option NC is not available to all members of the Construction unit, as would be the case if the Configuration block were located in the Construction unit directory.

5.4.2 Mapping an organization

Units offer a wide range of options for mapping the structure of a company, since the settings for a unit can be made at several configuration levels. The configuration levels for units are created in the standard group in the menu item Organizational Structure.

Basic structure

If all units are organized in one level, no adjustments are needed in the organization tree.



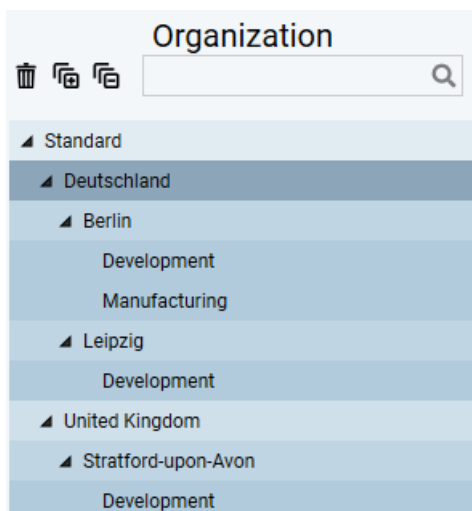
Arranging units

Units are ordered alphabetically. Within a configuration level, you can place a unit in the first position by inserting a space at the beginning of the unit name, e. g. " Switzerland". This will also be applied to the display in the GENIUS TOOLS Starter App selection field.

Subunits for complex organization structures

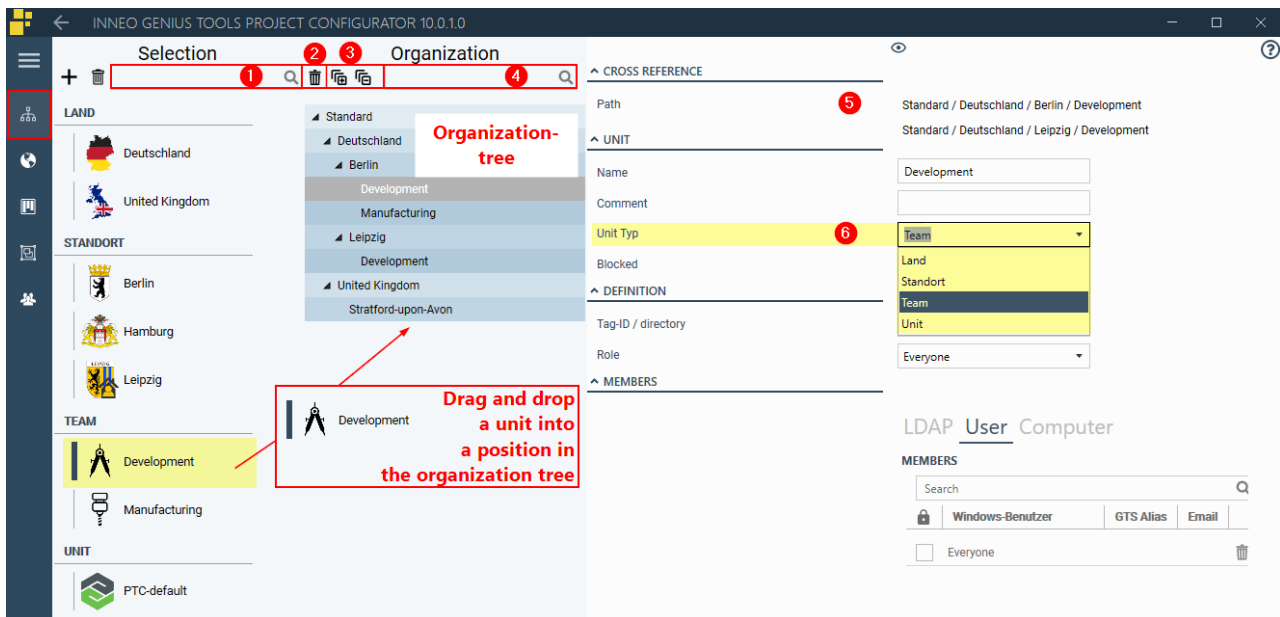
Units can represent multiple configuration levels, e. g. they can be arranged by region, country, location, city etc. A subordinated unit is called **subunit**.

For example: You want to make settings for the Construction team, which is split between three locations. The organizational structure could look like this.



All units are displayed on the right of the dialog *Organization*. You can select a unit there and drag it to the desired position in the organization tree. The following applies:

- Dropping a unit under a unit automatically creates a subunit.
- A unit can be used several times in different levels.
- A unit cannot be subordinated to a unit with an identical name.



Unit "Development" of type "Team"

Remove (1)

Does not delete the unit, only removes its entry in the organization tree. Click first on the unit in the organization tree and then on the paper bin icon.

Display all subunits (2)

Shows the organization tree with all subunits.

Hide all subunits (3)

Closes the organization tree.

Search

Enter at least three letters to search through units and subunits in the organization tree (4) or the selection list (5). The respective paths will open.

Unit paths (5)

All parent folders in which a unit is located are listed in the unit under *Cross Reference*.

Categorize units by types

For having a better overview of all units in GENIUS TOOLS Project Configurator it is useful to arrange units into subdivision in the left Selection column.

Unit type (6)

Unit types are free generic terms, e.g. country or city, which are used for clarity in a complex organizational structure.

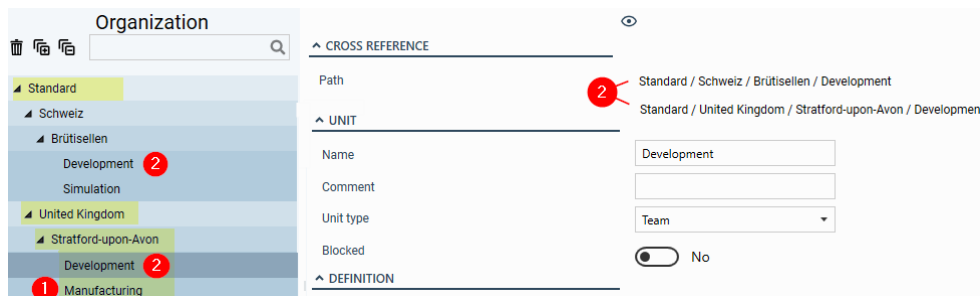
You can select an existing unit type or create a new one by writing into the field.

The entered name will immediately appear in the left group column and will line up alphabetically in the existing unit type entries. Without an entry, the unit is created under the type *Unit*.

Please note: The arrangement of the units in types has no influence on the organizational structure, i.e. the configuration hierarchy of the project settings.

5.4.3 Call hierarchy for subunits

The call sequence of subunits corresponds to the arrangement in the organization tree, in this example: Standard - United Kingdom - Stratford-upon-Avon - Manufacturing (1).



In this example, these settings define the Starter project

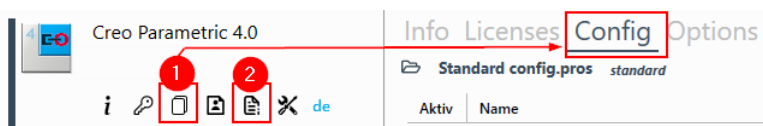
- the settings for the Manufacturing unit,
- the inherited settings from Standard, Germany and Berlin as well as
- settings of the user, computer groups and project details, see [Call sequence for settings](#).

If a subunit exists more than once, e. g. Development (2), inherited settings from the parent units Switzerland / Brütisellen or United Kingdom / Stratford-upon-Avon may apply, depending on the selection by the user.

View call sequence

The more subunits you have, the more difficult it becomes to track at which configuration levels settings are made and possibly overwritten. You can see this in two locations:

1. In the Config tab of GENIUS TOOLS Starter App: The configuration blocks are listed by directory.



2. For Creo Parametric projects in the project report under the heading "config.pro": The config.pro blocks are listed with path information.

Directory structure for files

In the units system directory all directories are located on one level, i. e. it is not visible whether a directory contains settings for a unit or a subunit. For an easier overview at file level, it may therefore be useful to adjust the [unit directory](#) names to reflect the call

hierarchy. You can do this by giving the unit directory a different name to the unit you create in GENIUS TOOLS Project Configurator.

Please note: The name of the unit directory becomes the **unit tag ID** when assigning the directory to a unit.

Examples for an easy overview of call hierarchy:

| |
|--|
| caddepot > INNEO > configuration > units |
| Name |
| _Images |
| 1_Deutschland |
| 1_Schweiz |
| 1_UnitedKingdom |
| 2_Berlin |
| 2_Frankfurt |
| 2_Hamburg |
| 2_Manchester |
| 3_Konstruktion |
| 3_Simulation |

*Unit directories by
country and city*

| |
|--|
| caddepot > INNEO > configuration > units |
| Name |
| _Images |
| ch |
| ch_bruttisellen |
| de |
| de_berlin |
| de_frankfurt |
| de_hamburg |
| de_muenchen |
| team_konstruktion |
| team_simulation |
| uk |
| uk_manchester |

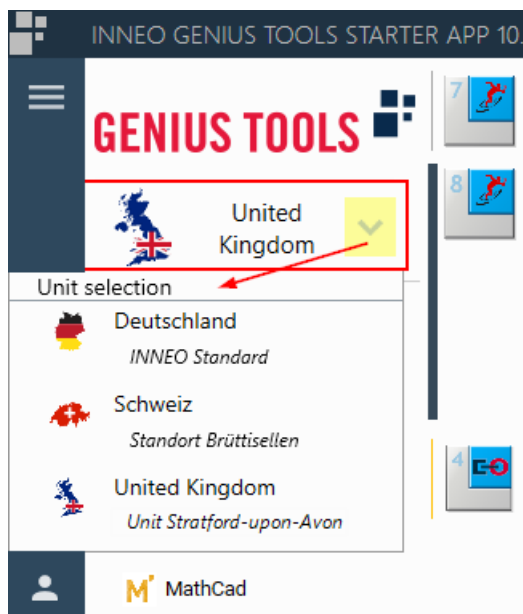
*Unit directories by
country*

5.4.4 Displaying units in GENIUS TOOLS Starter App

Once users belongs to multiple units, they have to select a unit in the user interface of GENIUS TOOLS Starter App.

Standard selection

If there are only units in one organization level, the selection field lists all units in alphabetical order.

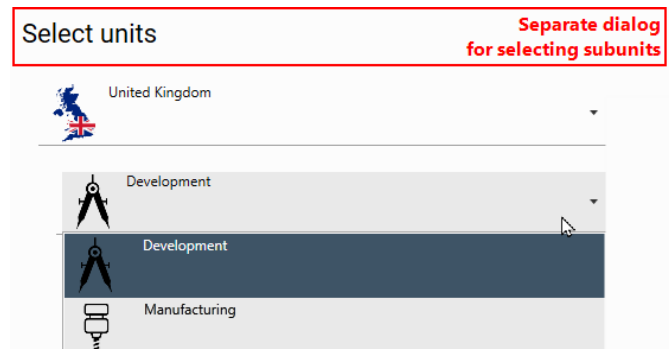
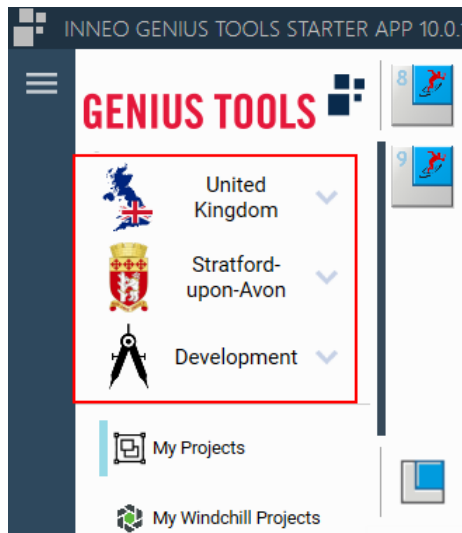


Hint: If you wish to place a unit at the top of the list, put a space character in front of the unit name, e. g. " United Kingdom".

Changes to unit names are adapted after restarting Starter App.

Selection of subunits

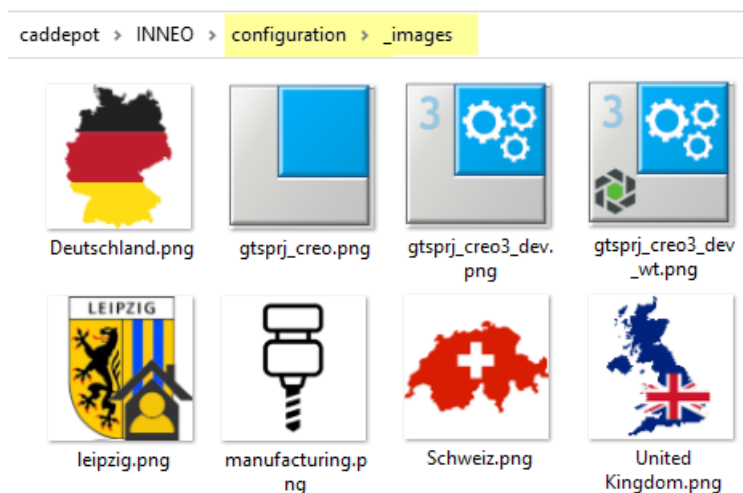
If there are subordinated units (subunits) to choose from, a separate dialog box opens.



The unit Stratford-upon-Avon does not appear because it is the only subunit in United Kingdom

Displaying units with icons

You can add a picture to the display of a unit by storing a PNG file in the _Images subdirectory of the configuration directory in the Caddepot. The name of the file has to be identical to that of the unit directory, e. g. *United Kingdom.png*, or – if you are working without a unit folder – to that of the unit tag ID.



Images directory under configuration

5.4.5 User and computer groups

Users and computer groups contain a number of static user or computer entries. By assigning a user or computer to a group, you can configure for this user/computer using the settings of its group.

Please note: The assignment of users and computers to a group is permanent and can only be done once, i. e. an element can only ever be assigned to exactly one group. For more flexible work, we recommend the use of [units](#) and [dynamic user entries](#).

User groups

In a concept similar to computer groups, users can be organized into user groups. User groups are typically used to define function access in GENIUS TOOLS Starter for a certain number of users, or to define the UI language independently of the hardware used. A user group should contain all settings for this group that deviate from the general default configuration.

Users are permanently assigned to a user group. If a user has to be added to or removed from a user group, you have to change the assignment manually in the group's settings under *Members*. (See also [Assigning users to user groups](#).)

Each user can be assigned to only one user group.

Computer groups

Computer groups organize similar hardware setups into groups to allow creating general configuration settings for this hardware in GENIUS TOOLS Starter. A computer group should contain all settings for this group that deviate from the general default configuration.

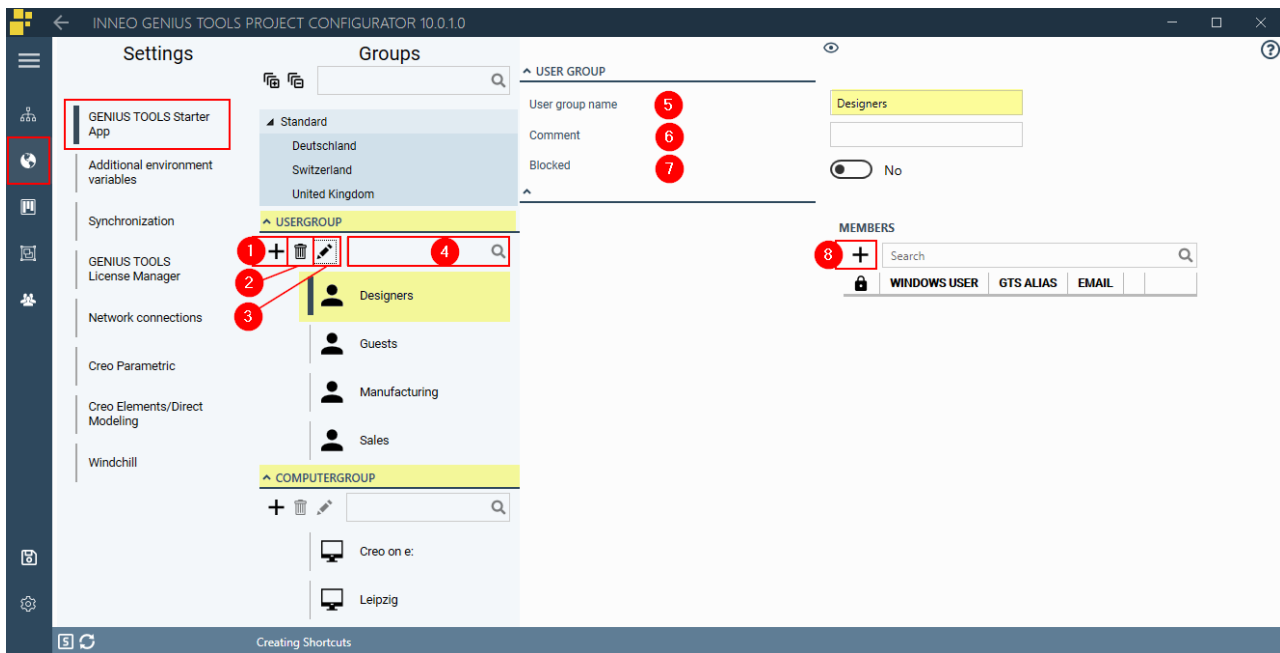
Computers are permanently assigned to a computer group. If a computer has to be added to or removed from a computer group, you have to change the assignment manually in the group's settings under *Members*. (See also [Assigning computers to computer groups](#).)

Each computer can be assigned to only one computer group.

The following sections explain how to work with groups and units and how to add items (users or computers) to them.

5.4.5.1 Creating groups

To create new user group or computer groups, go to the *Configuration* page and the *Groups* column. Alternatively, groups can already be defined when [Importing users and computers from Excel](#).





Step 1: In the type of group (user or computer) you want to create and click on the Plus button (1).

Step 2: In the new dialog, enter a name for the group.

Step 3: The input of a comment is optional.

Step 4: Click *Create*.

The new group is displayed as button in the section for user groups  or computer groups . You can now assign computers or users to the group, see chapter [Defining group members](#).

5.4.5.2 Deactivate user and computer groups

You may want to deactivate a user or computer group if you want to keep the group configuration, but temporarily do not want to apply its settings, e. g. when testing.


To do so, activate the button *Blocked* (7) which is available in the Edit dialog as well as in the User group section.

Yes: The configuration will be disregarded for this user group.

No: The configuration will be applied.

5.4.5.3 Defining group members

When you assign a user or a computer to a group, the configuration settings for the group will apply to the individual user or computer.

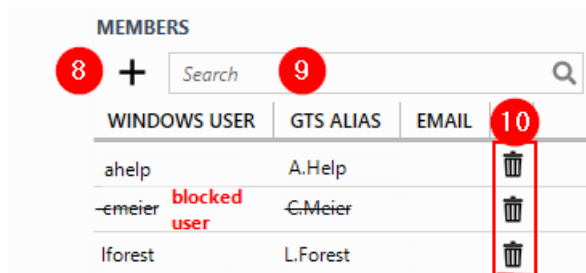
Select the group to which you want to add users or computers and open the edit dialog with the button  (3). You can search for groups (4).

Assigning users to a user group

To assign a user to a user group, a user entry must exist in the Ressourcen page under Users. (See [Creating users](#).)

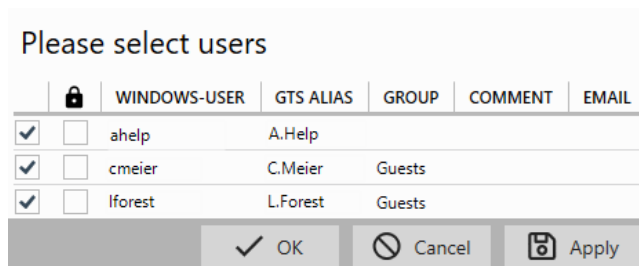
Please note: Each user can only be assigned to one user group.

In the Members section, select the Plus button (8).



Members dialog of a group

In the dialog that follows, select the users you want to add to the group.



Finish the dialog box by clicking on either:


- *Ok*: Add selected users and close dialog box,
- *Cancel*: Close dialog box without adding selected users,
- *Apply*: Add selected users without closing dialog box.

Assigning computers to a computer group

To assign a computer a computer group, an entry must exist in the Resources page under Computer. (See [Creating computers](#).)

Each computer is identified by its Windows computer name.

Please note: Each computer can only be assigned to one computer group.

Open the Edit dialog in the computer group with the  button and proceed as with user groups, see section above.

Removing users and computers from a group

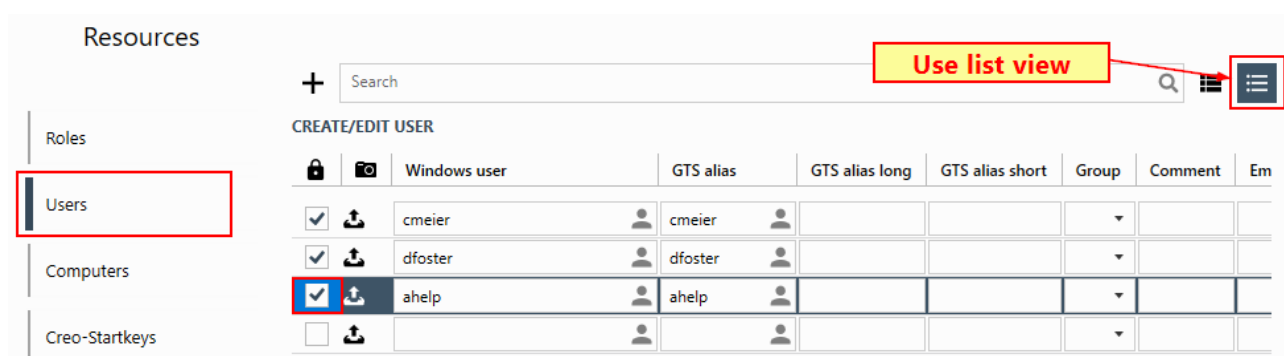
To remove a user/computer from a group click the recycle bin icon (10) in the Members section.

You can also search (9) for individual members.

Blocking users or computers

The Members section displays, whether a group member is blocked by crossing the name out, which means that GENIUS TOOLS Project Configurator will not apply any settings. This is useful, for example, if a computer or user should remain assigned to a group, but the settings of the group shall not apply temporarily to the computer/user, e. g. during tests.

Locking or unlocking individual users or computers is done in the Resources area under **Users** or **Computers** and is only possible in the List view.



The screenshot shows the 'Resources' page with a sidebar on the left containing 'Roles', 'Users', 'Computers', and 'Creo-Startkeys'. The 'Users' section is selected. The main area displays a table titled 'CREATE/EDIT USER' with columns: Windows user, GTS alias, GTS alias long, GTS alias short, Group, Comment, and Em. The table lists three users: cmeier, dfoster, and ahelp. Each user has a checkbox in the first column. The 'ahelp' row is highlighted, and its checkbox is checked. A red box labeled 'Use list view' points to a button in the top right corner of the table area.

| | Windows user | GTS alias | GTS alias long | GTS alias short | Group | Comment | Em |
|-------------------------------------|--------------|-----------|----------------|-----------------|-------|---------|----|
| <input checked="" type="checkbox"/> | cmeier | cmeier | | | | | |
| <input checked="" type="checkbox"/> | dfoster | dfoster | | | | | |
| <input checked="" type="checkbox"/> | ahelp | ahelp | | | | | |
| <input type="checkbox"/> | | | | | | | |

Blocking users in the Resources page

5.5 Global settings: Standard

The next sections explain the potential of configuration options for Starter projects. The first step is to create the general, global configuration that is required for each system, the so-called standard configuration. In the next step, deviations from the basic configuration are made in units or groups, see chapter [Configuring heterogeneous environments](#).

The *Standard* group is pre-installed for the global configuration of the system.

Please note: The group *Standard* contains the system-wide configuration settings and is preinstalled. No members can be assigned to it.

Settings are made in input fields and inherited, see [Inheritance of the settings](#).

If you do not specify anything in the drop-down menus, the default settings of GENIUS TOOLS Starter apply. These are "No".

You can make the following settings:

- GENIUS TOOLS Starter App
- Additional Environmental Settings
- Synchronization
- GENIUS TOOLS License Manager

- Network Connections
- Creo Parametric
- Creo Elements/Direct Modeling
- SolidWorks
- Inventor
- Windchill Settings

Since these settings can be configured separately for all groups and units, the input fields are explained in the chapter [group settings](#).


5.5.1 Authentication

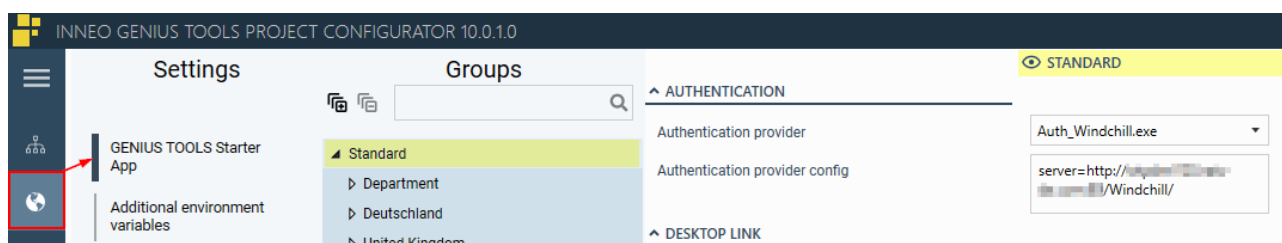
By default, GENIUS TOOLS Starter uses the Windows user name, i. e. there is no separate login process.

However, administrators can specify that users log in with other user credentials, e. g. as a Windchill user or as a user of an ERP system such as SAP. This makes it possible to connect Starter projects to existing authorization groups of other systems. In this case, a login dialog appears when opening GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator.

Please note: Integrating an alternative authentication system with GENIUS TOOLS Starter requires a subscription license.

Authentication is always global, i. e. can only be set in the group *Standard*. All other settings may differ in the subordinate units.

In the menu item *Configuration* , go to the settings for GENIUS TOOLS Starter App to change the authentication system. For Windchill, the required [Authentication provider](#) (EXE file) is supplied: select *Auth_Windchill.exe* from the drop-down menu. How to proceed, as well as how to create an authentication provider for other systems, is explained in the following chapters.



Setting to authenticate using Windchill (only globally possible)

Changing the authentication method restarts GENIUS TOOLS Starter App.

Switching from Windows user credentials to other authentication methods

The user who changes the authentication provider is automatically saved as administrator, i. e. becomes a member of the Administrator role. For this purpose, the new credentials are requested before it is possible to save the database.

The query of the login credentials fails in the following cases:

1. The user name and / or the password are wrong.
 - An error message appears.
2. You are offline / user name and password are correct and were used during the last login.
 - A message appears that you are offline.
3. There is no EXE file in the *auth_provider* directory or it does not have a valid signature.
 - GENIUS TOOLS Project Configurator and GENIUS TOOLS Starter App are closed.

Note that it is possible to save a new authentication method even without successfully entering the credentials, namely by confirming the error message. If you want to make use of this possibility, e. g. because you access GENIUS TOOLS Project Configurator externally, make sure that you enter correct credentials and check the role assignments and function accesses.

Warning: If incorrect credentials are saved for the new authentication method, you may not be able to re-enter GENIUS TOOLS Project Configurator.

To avoid being permanently locked out of GENIUS TOOLS Project Configurator, you can manually add your alternative authentication system user name or assign "Everyone" to the Administration role.

Restoring authentication with Windows

If you have locked yourself out of GENIUS TOOLS Project Configurator when switching to an alternative authentication system, you can use the last used database *sut_*.db* in Caddepot under *<OperatingEnvironment>\configuration\database\BackupDefaultAuth* to restore the operating environment.

5.5.1.1 Authentication provider

An authentication provider is an executable file that requests or receives user data from an authentication system.

Any executable file in the *auth_provider* system folder is recognized as an authentication provider. GENIUS TOOLS Starter addresses the authentication provider during the following operations::

1. To authenticate [login credentials](#) when starting GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator.
2. When querying [static user entries](#).
3. When querying dynamic user entries from [user groups](#).

For Windchill, such a service is supplied: the file *Auth_Windchill.exe*.

Authentication provider config

GENIUS TOOLS Starter automatically writes a configuration file named *<AuthenticationproviderName>.cfg* in the directory *auth_provider*. The content is the text of the field *Authentication provider config* in the *Authentication* section.

If you use the supplied provider *Auth_Windchill.exe*, the Windchill server must be entered in this field in the notation `server=<Windchill-Server-URL>`.

If you are creating your own authentication provider, you can enter additional information required by the authentication system here. See [next chapter](#).

5.5.1.2 Creating your own authentication provider

If users are to authenticate against a system other than Windows or Windchill, a separate provider must be created. This can be selected in GENIUS TOOLS Project Configurator under *GENIUS TOOLS Starter App > Authentication*.

An authentication provider is

- an executable file,
- which is signed and
- stored in the system folder *auth_provider*.

To create your own authentication provider, you need the following information for output and input.

Input

GENIUS TOOLS Starter passes the following information to the authentication provider:

- username (from the login credentials)
- password (from the login credentials)
- path to the config file *<AuthenticationproviderName>.cfg* (see [Authentication provider config](#))
- transfer parameter `-users` (passed only when querying users)

- transfer parameter -groups (passed only when querying user groups)

Output

GENIUS TOOLS Starter expects the following output from the authentication provider:

For login

The output of the login result (point 1) must be done. All other output is optional.

1. Login result

- 1 – successful
- 0 – not successful (e. g. password and / or username wrong)
- 2 – special case: not successful, system is unavailable

2. Current user as JSON object with the following structure:

```
{"AlternateUserName1":"<GTS Alias Short>","Email":"<Email>","FullName":"<GTS Alias Long>","Id":"<Id>","Name":"<username>"}
```

3. Result of the group query for the current user

- 1 – successful
- 0 – not successful (e. g. password and / or username wrong)
- 2 – special case: not successful, system is unavailable

4. List of groups for the current user as a JSON object with the following structure:

```
[{"Description":"Description of the group","Id":"Group Id","Name":"Group name"}, {"Description":"Description of the group","Id":"Group Id","Name":"Group name"}, ...]
```

User query

A user query in the GENIUS TOOLS Project Configurator imports users and creates **static entries**.

Hint: We recommend working with either static or dynamic user entries. Mixing both types of entries will affect the clarity of GENIUS TOOLS Starter.

1. Result of the user query

- 1 – successful
- 0 – not successful (e. g. password and / or username wrong)
- 2 – special case: not successful, system is unavailable

2. List of all users as JSON object with the following structure:

```
[{"AlternateUserName1":"<GTS Alias Short>","Email":"<Email>","FullName":"<GTS Alias Long>","Id":"<Id>","Name":"<Username>"}, {"AlternateUserName1":"<GTS Alias Short>","Email":"<Email>","FullName":"<GTS Alias
```

```
Long>","Id":"<Id>","Name":"<Username>"},
...]
```

User group query

A user group query imports user groups with their associated users and creates **dynamic user entries**.

1. Result of the user group query

- 1 – successful
- 0 – not successful (e. g. password and / or username wrong)
- 2 – special case: not successful, system is unavailable

2. The user group output must consist of the following two lines per user group:

- Line 1: User group as JSON object with the following structure::

```
{"Description":"Description of the group","Id":"Group Id","Name":"Group name"}
```

- Line 2: A list of all users in the user group as JSON object with the following structure:

```
[{"AlternateUserName1":"<GTS Alias Short>","Email":"<Email>","FullName":"<GTS Alias Long>","Id":"<Id>","Name":"<User name>"},
{"AlternateUserName1":"<GTS AliasShort>","Email":"<Email>","FullName":"<GTS Alias Long>","Id":"<Id>","Name":"<User name>"},
...]
```

In this way, all user groups must be output with their corresponding users.

5.5.1.3 Authentication for Windchill users

To change the standard authentication with Windows to Windchill, you can follow this sequence of necessary steps.

1. Change global settings in the menu item *Configuration* > *GENIUS TOOLS Starter App* > *Authentication*.

- In the drop-down menu, select: *Auth_Windchill.exe*
- In the field *Authentication provider config*, enter the Windchill server using the notation: `server=<Windchill-Server-URL>`

2. Import users

- Decide whether you are working with static or dynamic user entries.

Static entries do not change automatically as dynamic user entries do. Changes to static entries must be made manually for each entry in GENIUS TOOLS Project Configurator.

Dynamic user entries adopt changes from the system in which they have been created.

- Import static entries under *Resources* > *Users* using the import function .
- Import dynamic entries under *Resources* > *Roles* using the update function. .

3. Assigning users to a role

- Create a role.
- You assign static entries individually under *Resources > Roles > tab: Details > section: Users (GTS)*.
- You assign dynamic entries through user group membership under *Resources > Roles > tab: Details > section: Users (Authentication provider)*.


4. Editing users




- All user entries can be individually edited and commented. A photo can be added.
- Static entries can be deleted or locked under *Resources > Users (GTS) > Editing users*
- Dynamic users cannot be deleted or locked because they are associated with a user group. A user group can be deleted or locked under *Roles > tab: Details > section: Users (Authentication provider) > User groups*.

5.6 Configuring heterogeneous environments:

IT landscapes very seldom have a homogeneous structure. There are different hardware setups and different user requirements, so that different configurations for starter projects arise automatically and heterogeneous environments have to be created. GENIUS TOOLS Starter has been designed to meet these requirements and makes it possible, to organize similar configurations into groups or units. In this way, you may define the following group-specific configurations:

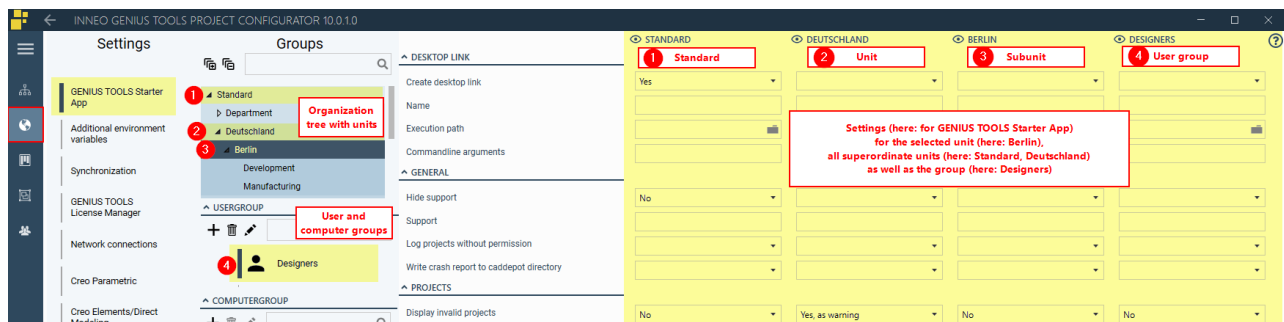
- settings for GENIUS TOOLS Starter App
- settings for data synchronization
- use of license servers
- PTC data management software (e.g. PDM Windchill for Creo),

Differences from the standard configuration, that is, from the system-wide settings in the *Standard* group, can be defined for the following configuration layers in the *Configuration*  page:

-  units
-  user groups
-  computer groups

Unlike the *Standard* group, groups and units have members that can be entered individually or dynamically. Use Units to assign users dynamically through an LDAP connection. This is done through a role-based assignment, see chapter [Accessing Windows user management](#).

A mouse click opens the [settings](#) for the selected unit, user or computer group as well as for all higher-level units. These can be hidden with the eye symbol.



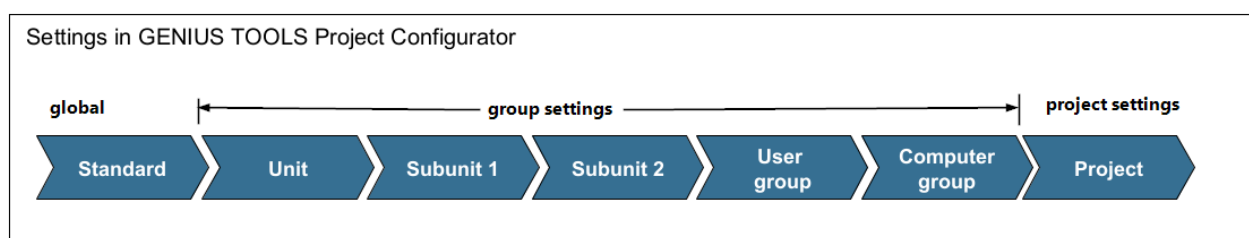
You may not make any specification, i. e. the selection field remains empty and values are inherited. (See [next chapter](#).) Fields that contain inherited information can be overwritten by writing into the input field which then appear in black font.

Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

5.6.1 Inheritance of the settings

It is possible to overwrite the global settings (Standard) in the lower configuration levels. If the input field of a unit, group or project remains empty, the setting of the higher configuration level is adopted.

The specifications in units, groups and projects are inherited as follows. (See also [Call sequence for settings](#).)



Hierarchy of settings made in GENIUS TOOLS Project Configurator

Default settings

If settings in a drop-down menus remain empty, the default setting of GENIUS TOOLS Starter will be inherited. This is "No".



Please note: Default settings are inherited to the lower configuration level until overwritten.

5.6.2 Deviations from the standard configuration

This section explains how to define the language of Creo Parametric as a user-defined setting as an example for configuring deviations from the standard setting.

5.6.2.1 Defining Creo language for specific users

Before Creo starts, the Creo UI language can be set to one of the following: English, German, Italian, French, Spanish, Japanese, Chinese (Simplified), Chinese (Traditional), Korean, Russian, Brazilian Portuguese. The languages are provided for Creo by PTC.

Please note: GENIUS TOOLS Starter does not influence the way different locale settings interact. For information on supported settings, please refer to the PTC website or the product documentation.

The UI language for Creo can be defined on four different levels in GENIUS TOOLS Project Configurator. The language can be set on four configuration levels. If you make settings on several levels, the last specification is valid, i.e. specifications in a project overwrite the specifications of groups, units, see [Call sequence for settings](#).

1. System-wide

Main menu *Configuration* > *Creo Parametric* > *Group: Standard* > *Tab: Start* > *Startup settings*

2. Unit

Main menu *Configuration* > *Creo Parametric* > *Group: Select unit* > *Tab: Start* > *Startup settings*

3. Group

Main menu *Configuration* > *Creo Parametric* > *Group: Select user or computer group* > *Tab: Start* > *Startup*

4. Project

Main menu *Projects* > *Select project* > *Creo tab* > *Startup settings*

The following example procedure refers to group settings.

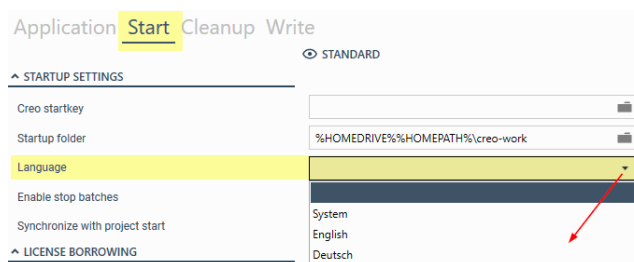
Example: Setting the UI language for a guest via a user group

Starting situation:

- A company is located in Germany.
- A British designer is tasked with working on a project with the company in Germany for several weeks.


Procedure:

1. The system-wide setting for the Creo language is German. This is defined in the default group Standard under *Configuration* > *Creo Parametric* in the tab *Start* > *Startup settings* in the *Language* drop-down menu.



2. Go to the *Resources* page, select *Users* and configure a new user with the Windows user name for the British colleague.
3. Go to the *Configuration* page and create a new user group by clicking on the Plus button, calling it, for example, *Guests*.
4. Select the new user group and open the Edit dialog with the pen icon. In the members area click on the plus icon and add the user you have configured to the new group.
5. Go in the Settings column to *Creo Parametric* and, under *Startup settings* > *Language*, select *English* for the new user group,

5.7 Group settings

Having configured the standard settings, i. e. the global settings of the system, you can now realize deviations from this basic configuration by making settings in the menu item *Configuration*  for:

- different units and subunits of the organization tree
- for computer and user groups

It is also possible to define settings directly on the project, see [Project settings](#).

Be careful to take into account the order in which the settings are inherited in GENIUS TOOLS Project Configurator, see [Inheritance of the settings](#).

5.7.1 GENIUS TOOLS Starter App

In the GENIUS TOOLS Starter App area you can set up the desktop link, the support and basic presentations of projects.


For the presentation of individual projects as well as the tabs that contain additional information and functions, please refer to [Presenting projects to users](#).

5.7.1.1 Authentication

This setting can only be defined globally, i. e. for the Standard group, see chapter [Global settings: Authentication](#).

5.7.1.2 Configuring the desktop link

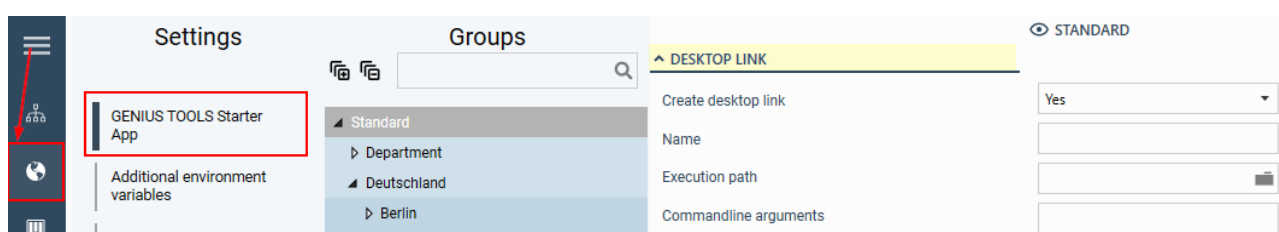
By default, a desktop link for GENIUS TOOLS Starter App is created automatically on the application computers. You can define the properties of this desktop link in Project Configurator, including centrally-defined start parameters.

To configure the desktop link, go to the *Configuration* page , select a group, then select the settings item *GENIUS TOOLS Starter App*. Set *Create desktop link* to *Yes*. This setting determines that the desktop link is created or updated according to the configuration with each program start or synchronization process.

GENIUS TOOLS Starter App starts with the selection of the unit that was last selected by a user.

Alternatively, you can specify that a desktop link opens GENIUS TOOLS Starter App with a specific, pre-selected unit by defining the start parameter *-gts:units* with the ID string of a unit. This means the user is given a default setting of a unit. If the user is not assigned to this unit, the unit selection dialog will be displayed.

The ID string is displayed under *Unit argument* and can be used for copying. If a user is not assigned to this unit, the unit selection dialog is displayed.



You can define the following settings for the desktop link.

Name

You can define a name for the desktop link. Without an entry the desktop link will be named *GENIUS TOOLS Starter App - <operating environment name>*.

Execution path

Enter the path GENIUS TOOLS Starter App should be run in.

Commandline arguments

Enter any start parameters that should be used by GENIUS TOOLS Starter App.

Warning: If you used start parameters in version 6.0.0, take care to move them to this setting in Project Configurator. If the start parameters are not specified here, start parameters in local links will be deleted!

Unit arguments

Shows the start parameter `-gts:units` and the ID chain of the unit.

Warning: If the start icon is located in the `users\public\desktop` directory, it cannot be changed with user access rights. This means that the central icon definition cannot be applied!

Custom icon graphic

If you want to use a custom icon graphic, you have to place the image file in the `_Images` directory of the operating environment using the file name `<operating_environment_name>.ico`.



Example result

5.7.1.3 Support link and logging

In the *GENIUS TOOLS Starter App* settings under *General* you can define whether users should have access to the online support function of INNEO (TeamViewer) or to a company-specific link or document. You can also hide the Support menu item altogether.

► General

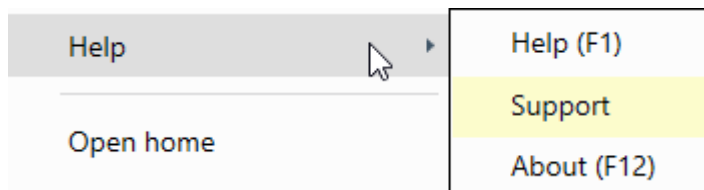
Hide support

Hides the menu item *Support* in the user menu item *Help* of GENIUS TOOLS Starter App.

No selection (Default): Users are referred to the Hotline website of INNEO.

No: The user sees the Support item in the menu.

Yes: The Support item is not visible.



Support

Enter the URL of a website or the path to a document. Set the above field *Hide support* to *No*.

Log projects without permission

Projects to which a user has no access rights are by default not displayed in the log file.

Yes: Information about the projects is displayed in the log file.

No (Default): Projects are not included in the log file.

Write crash report to Caddepot directory

Unexpected errors are written to a log file by GENIUS TOOLS Starter App (*gts_error.log*). The file can also be copied to the server and is saved there as *serveronly_ErrorLog\<Computer_name>.log*.

Yes: The client will copy its log file if an unexpected error occurs.

No (Default): The log file is only available on the client computer.

5.7.1.4 General display of projects

In the Projects area, settings are made for all projects that are available for the selected group or unit. These settings concern the [display of invalid projects](#) and the possibility to provide the [language as a project option](#). They are described in the chapter [Presenting projects to users](#).

5.7.1.5 Operating environment clean-up

In the *Cleanup of operating environment* section of the *GENIUS TOOLS Starter App* settings you can define whether an outdated operating environment should be deleted from the application computers, that is, from the Cadpool directories. The operating environment in the Caddepot is not affected. The user is asked to confirm before the deletion process is started.

5.7.2 Additional environment variables

You can define environment variables that are assigned to the client workstation under *Additional Environment Settings*. This allows you to define additional, company-specific variables that are available after starting an application without having to use batch files. For a list of the environment variables created or modified, please refer to the installation document (*GENIUS TOOLS Starter Installation.pdf*). The table in the installation document also lists the corresponding deprecated environment variables, which are still being generated for compatibility purposes.

Name

Enter the name of the environment variable here.

Value

Enter the value of the environment variable here.

Delete

Click the recycle bin icon to the right of the value input field to delete the line.

5.7.3 Synchronization

Synchronization allows for having all important files available locally on the local workstation. This ensures the fastest possible access to these files.
No toolkit applications will be synchronized while Creo is running.

Please note: Options that cannot be selected in this dialog box can be changed in GENIUS TOOLS Environment Administrator.

Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

► General

Activate synchronization

Shows whether synchronization from the Caddepot to the Cadpool directory is active. If synchronization is deactivated, all computers will only operate locally. Synchronization is activated/deactivated with the *Modify* function of GENIUS TOOLS Environment Administrator (Step 3 > Client settings).

Target directory

Defines the Cadpool directory on the client workstation.

Please note: Changing this entry leads to an initial installation of GENIUS TOOLS Starter App on the client.

Synchronization interval (minutes)

Specifies the interval at which synchronization is performed in minutes.

Please note: For modifications of the synchronization interval to take effect, GENIUS TOOLS Starter App has to be restarted.

Start client with windows

Determines whether GENIUS TOOLS Starter App should be started automatically with Windows.

Save result to Caddepot directory

Determines whether the result of the synchronization should be transferred to the server. This includes the end time of the last synchronization, the number of copied files, warnings and errors. The user needs write access in the *Serveronly* folder.

Yes: The result of the synchronization is saved as *<hostname>.log* in *caddepot\serveronly_SyncResults*.

No: The result is not transferred to the server.

 **Server****Checksum validation**

Shows whether the checksum of a synchronized file is matched with that of the file on the server. The settings for validating checksums are entered in GENIUS TOOLS Environment Administrator with the *Modify* function (Step 2 > Synchronization server settings).

Yes: A checksum is determined for each transferred file and matched with the checksum from the server. If these differ, the file will be requested again.

No: Files are only copied.

Warning: Activating *checksum verification* can significantly slow data transfer.

Server name

Displays the name of the synchronization server.

Comment

Displays the description for the server.

Synchronization type

File system: Each file is copied when synchronized.

Service: GENIUS TOOLS Starter Service checks all files for changes and updates only these changes during synchronization.

Server path

The UNC path to the synchronization server.

5.7.4 GENIUS TOOLS License Manager

In order to use the full version of GENIUS TOOLS Starter, you will need a connection to GENIUS TOOLS License Manager. You can define the server from which GENIUS TOOLS Starter App should obtain licenses. The specifications for license servers are possible for the system-wide settings as well as for groups and units.

Please note: If no license server is registered or if it is deactivated, only Creo projects that have an academic or home-use license can be started.

► GENIUS TOOLS License Manager

Active

Activate/deactivate the license server(s).

License server(s)

Enter one or more license servers in the notation `Port@Servername` (e.g. `7766@<licenseservername>`). Separate a series of license servers with semicolons.

Comment

An optional comment on the license server(s).

Hint: The used license server can be found in `GT_LIC_SERVER` in Creo. You can use this variable, for example, in GENIUS TOOLS for Creo.

5.7.5 Network connections

► Network drive

Here you can connect a shared network folder that will not be synchronized.

Connect

Specify whether to map the network drive.

Yes: The network drive is mapped when GENIUS TOOLS Starter App is started. If a drive with the specified drive letter already exists, this drive will be disconnected and then re-connected according to the configuration, but only if it is not already the drive to be mapped. This connection will remain active after you stop Creo.

No: Network drive is not mapped. Use this option if the drive mapping is already established by other means, such as a Windows login script.

UNC path

Specifies the path to any folder on the server.

Usually given as a UNC path: `\\COMPUTER\CreoData`.

Drive letter

Assigns a drive letter that the drive is mapped to.

Remap drive

Comparable to the Windows function map network drive.

Yes: After restarting the computer the drive will connect automatically.

No: The drive will not be remapped after a restart.

► User drive

Here you can map an additional user-defined drive.

5.7.6 CAD applications

The group settings for the various CAD applications are explained in the corresponding chapters:


- Creo Parametric
- Creo Elements/Direct Modeling
- SolidWorks
- Inventor

5.7.7 Windchill settings

For filling out this tab, read the chapter [Automatic Windchill server registration](#).

5.8 Creating projects

GENIUS TOOLS Starter enables users to launch any program with the user component GENIUS TOOLS Starter App.

In the main page *Projects* , projects can be created for the CAD applications *Creo Parametric*, *Creo Elements/Direct*, *SolidWorks*, *Inventor* and *AutoCAD*.

Projects for all other applications can be created as [Apps projects](#) with simplified setting options. Most importantly, they cannot be set up for a specific release.

GENIUS TOOLS Starter App can also generate projects from certain applications automatically, if they are installed on the user computer, e. g. KeyShot. For such [Auto projects](#) no settings can be defined.

Please note: A project created here only becomes a [Starter project](#) after having been selected in GENIUS TOOLS Starter App (by the user and his unit). That is, only the selection by users computes the different configuration levels. The corresponding configuration settings and batch files are then included to make up the project start, according to the [Configuration concept](#).

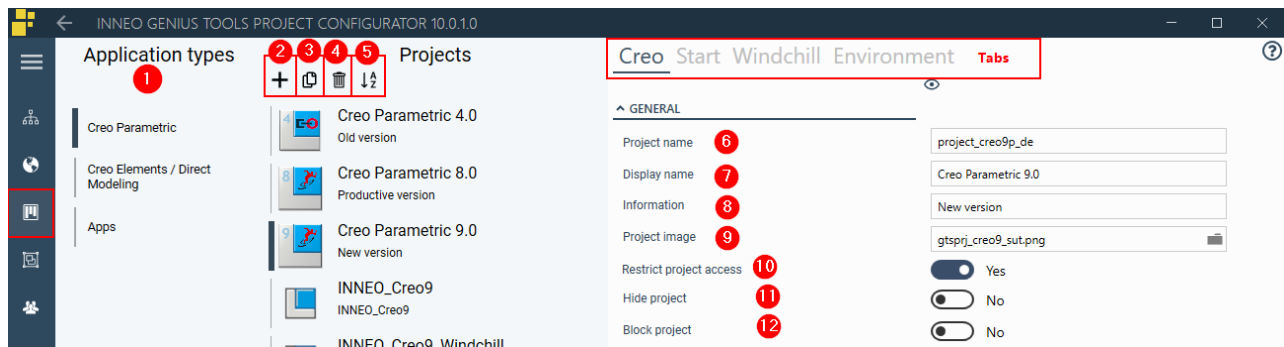
Administrators can restrict the access to a project to defined user groups, see chapter [Restricting project access](#).

5.8.1 Creating a new project

Choose the application (1) for which you want to create a new project.

The Plus symbol (2) creates a new button with the name *New Project* as well as a number if a project of the same name already exists. The new project becomes visible to the users as soon as you save your changes to the database.

Click on a project in the projects list to edit the project details in the right pane. Note that there are further tabs with project details for the CAD applications.



Details for the project "Creo Parametric 9.0"

Some input fields are pre-filled with the default settings, for others a drop-down menu opens for directory search.

There are also optional fields (indicated in brackets in the following chapters). If the optional input fields are not filled in, the system-wide settings (*Standard*) or the settings of the unit(s), computer or user groups are inherited by the project.

5.8.2 General project settings

Settings for project display (display name, project image and info text) are entered in the segment *General*.

General details

Project name (6)

A unique name without space characters that identifies a project, e.g. `project_vers8_en`. The default setting *New Project* can be overwritten. The project name can be changed at any time.

Display name (7)

A unique name that is displayed for the users in GENIUS TOOLS Starter App. In GENIUS TOOLS Starter App, the projects will be listed alphabetically according to their *display name*.

Information (8, optional)

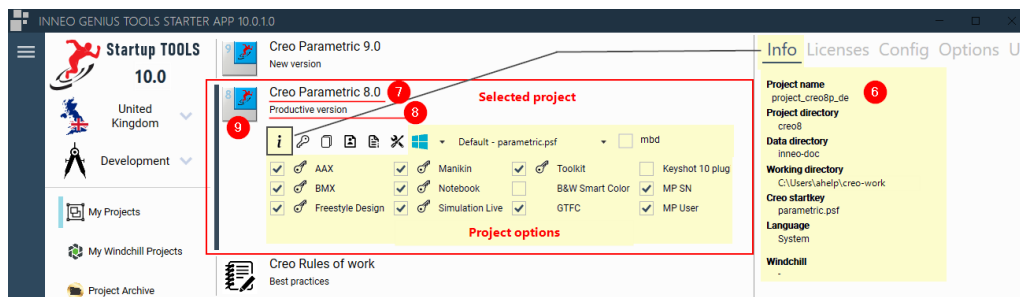
A short text describing the project can be entered which will be shown below the display name.

Project image (9, optional)

A picture can be uploaded that is displayed for the project in GENIUS TOOLS Starter App.

Use PNG or JPEG files.

Projects are displayed to users in GENIUS TOOLS Starter App as follow.



Display of projects in GENIUS TOOLS Starter App

Administrators can restrict the access to the tabs and project details for different user groups, which is explained in the chapter [Presenting projects to users](#).

Sort projects

The order of projects displayed in GENIUS TOOLS Starter App can be defined here by dragging and dropping projects in the *Projects* list or by sorting the projects alphabetically with the *Change sorting* button (5) in the *Projects* column.

Restrict project access

Projects can be restricted to users who belong to a defined role with specific access rights. Members of this role can only view in GENIUS TOOLS Starter App the projects they have access to. See chapter [Restricting project access](#).

Restrict project access (10)

Projects can be restricted to users who are members of a role that has access to this project. (*Resources > Roles > Project access*)

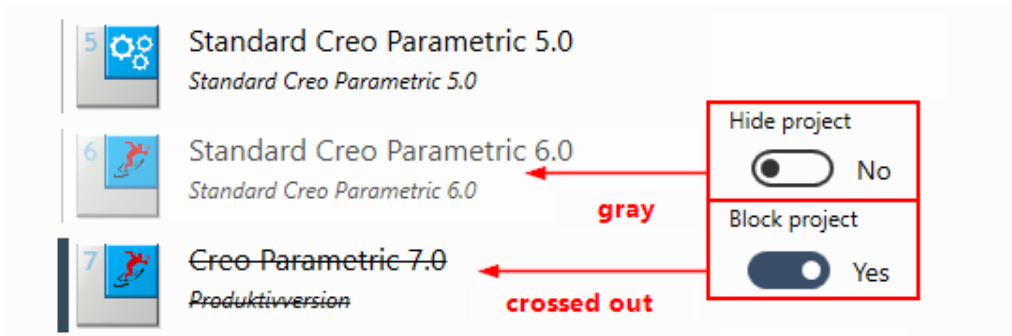
No (Default): The project is available to all users.

Yes: The project access is used as defined in a role.

Please note: If you set this option to Yes without assigning the project to a role, the project will not be visible for any user.

5.8.3 Hiding and blocking projects

Projects that shall not be displayed to the user in GENIUS TOOLS Starter App can be hidden in *Projects > Application Type > Projects > First tab > Section: General*.



Blocked projects are displayed in gray in GENIUS TOOLS Project Configurator. Hidden projects are crossed out.

When you set *Hide project* to *Yes*, the project is not listed in GENIUS TOOLS Starter App, but can still be started using a start parameter. This can be a useful option for Windchill projects, for example.

Hide project

No (default): The project is listed in the user interface.

Yes: The project is not displayed on the user interface in GENIUS TOOLS Starter App, but can be selected using the `-gts:p=<project name>` start parameter.

A blocked project, by contrast, cannot be started using a start parameter.

Block project

No (default): The project can be accessed.

Yes: The project is not displayed and cannot be accessed on the application computer. The other specifications differ depending on the CAD application, see [CAD-specific project settings](#).

5.8.4 Copying a project

You can copy existing projects with the Copy button. If you want to take over the access rights which are defined in the different roles, set the Restrict project access switch to *Yes* before copying and answer in the following dialog the question about taking over the accesses with *Yes*. (See also chapter [Restricting project access](#).)



Enter a new name and the remaining settings as in the previous chapter.

5.9 CAD-specific project settings

For all projects of CAD applications the following can be specified:

- a specific release
- a project directory: This can contain project specific configuration and batch files.
- a data directory: This contains all object data.
For example, for Creo Parametric: `<GTS_ROOT_DIR>\parametric\data\sut_creo9`. (For Creo Parametric, object data is provided with the Startup TOOLS product package).
- the startup behavior
- project-specific environment variables

Hint: We recommend to define settings at the highest possible configuration level, i. e. to make as few settings as possible for individual projects. For example, individual projects may only contain the version-specific settings.

All other specifications differ according to the CAD application and are described in the respective chapters under Project settings:

- Creo Parametric
- Creo Elements/Direct Modeling
- SolidWorks
- Inventor
- AutoCAD

Installation directory

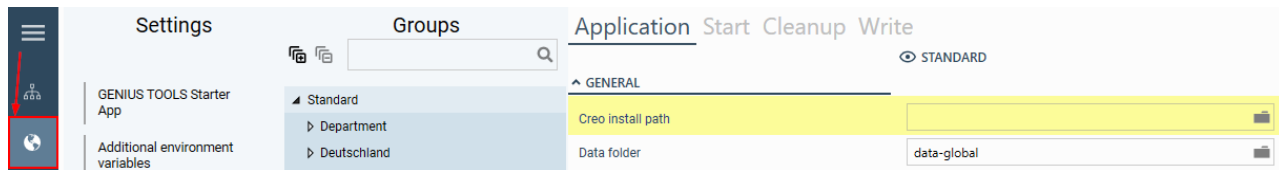
For projects of the CAD applications a specific software version can be defined. The corresponding installation directory is specified in the application in the *Configuration* menu item or searched for automatically.

There are three different ways in GENIUS TOOLS Project Configurator of configuring the installation directory and its start command:

1. Set a fixed install path on the Configuration page
2. Set a fixed install path in the project
3. Via the local Windows registry on the application computer

Depending on your requirements, each way of defining the installation directory can make sense. With several entries, the result is determined by the [call order of the settings](#).

Configuration ► CAD application



Configuration > CAD application > Select group or Standard > Tab: Application > Segment: Application > Install path

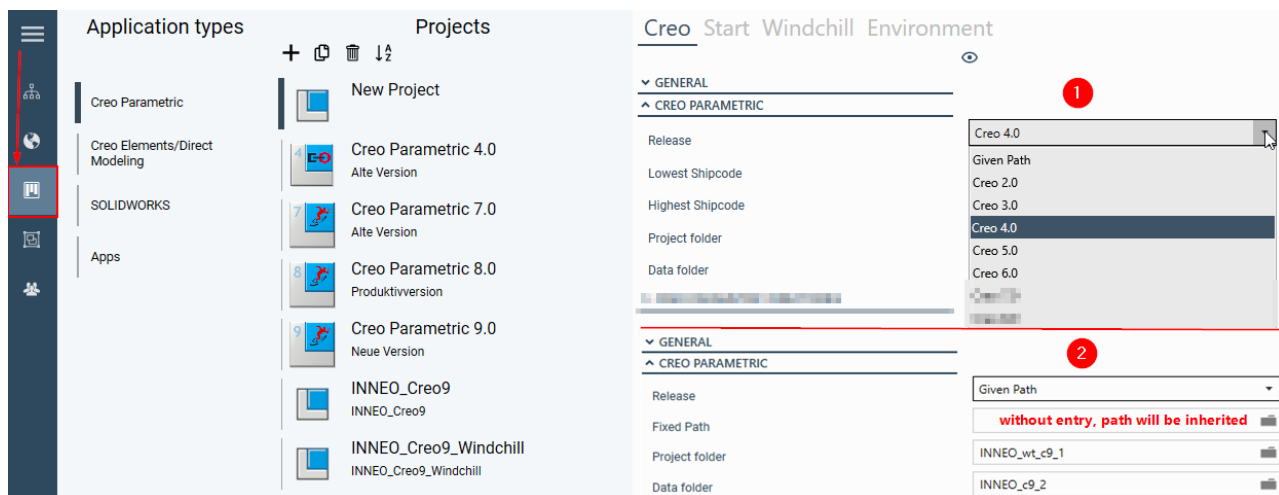
Install path

- Specify a directory on the user computer where the CAD application is installed: This allows the path to be inherited to projects, if "Given Path" is selected on the project under Release and the entry is left empty. (see screenshot below, 1).
- Do not specify an installation path: This determines the installation directory automatically from the local Windows registry and uses the software version from the project details (2).

Please note: It is generally recommended to determine the installation path from the local Windows registry.

Projects ► CAD application

For an individual projects you can now specify a software version (1) or enter a fixed path (2).



Projects > CAD Application > Select project > Tab: CAD application > Segment: CAD application > Release: Select version or "Given path"

These rules apply:

- GENIUS TOOLS Starter finds the installation directory of an application on the user computer.
- Fixed path specifications are only necessary if the program is not automatically found.

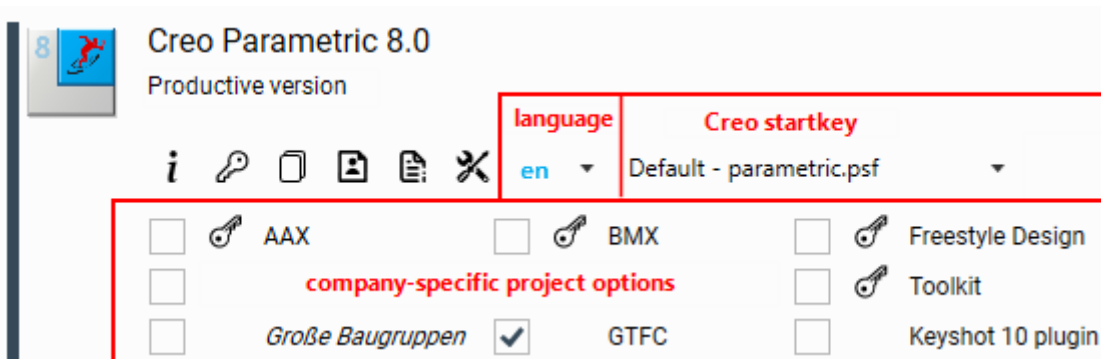
- If you want to work with different versions or weekly versions, e. g. as a construction service provider, this should be defined in the project.
- If the local installations are vary considerably or are not known in detail, the installation can be determined with the help of the local Windows registry.
- If no installation directory is specified, it is read from the registry.

5.10 Making use of project options

Administrators can provide users with choices for a project ("Project Options"). These appear as a drop-down menu or as a checkbox on all projects that are available to a group or unit.


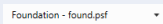
Project options can be used to significantly reduce the number of projects. The following project options can be provided.

- application language (drop-down menu)
- Creo startkey (drop-down menu)
- company-specific project options (checkboxes)



Options of a Creo Parametric project

The following table describes three options and the procedure for their creation.

| Function | Description | Configuration / creation |
|--|---|--|
| Language  | selects the language in which to start the application | configured in GENIUS TOOLS Project Configurator for all application, see next chapter |
| Creo startkey  | selects the license package (PSF key) with which to start a Creo Parametric project | configured in GENIUS TOOLS Project Configurator, see Assigning Creo licenses to projects |

| Function | Description | Configuration / creation |
|---------------------------------|---|---|
| Company-specific project option | activates license extensions, additional programs or further configuration settings | created with configuration blocks for each application, see Making use of project options |

5.10.1 Language

You can grant user the right to can select the language of the projects they have access to. If the right is not granted, neither selection field nor information about the set language appears. If you want to provide users with information about this, you can include this in the name of the project or in the subtitle, e.g. *Creo Parametric 9.0. DE*.

Language selection field

The right to select a language is granted in *Configuration > GENIUS TOOLS Starter App > Select group > Projects* and applies to all projects.

Project language in GENIUS TOOLS Starter App selectable

Projects of CAD applications support the use of [project options](#). In this area, you can set up

- the right to select the project language (drop-down menu in GENIUS TOOLS Starter App)
- the arrangement of the checkboxes for license extensions, additional programs and other configuration settings. To create this type of project options, consult the chapter [Making use of project options](#).

Specify whether users are allowed to change the preset language, in which the programm is to start. The language of a project can be preset in the *Projects* main page under *CAD application > Projects > Tab: Start > Startup settings > Language*.

Please note: This option requires that the selectable language has to be available in the programm installation used. This is not checked by GENIUS TOOLS Starter.

Yes: Users have the right to change the language of a project. If this options is activated, a drop down menu will be displayed in GENIUS TOOLS Starter App.

No (default): Users cannot change the language. There is no information about the language that the programm will start in.

5.10.2 Company-specific project options

Administrators can create company-specific project options. These become visible as checkboxes in the project area of GENIUS TOOLS Starter App.

For projects of the CAD applications, the following company-specific project options can, for example, be created.

Creo Parametric: additional applications GENIUS TOOLS for Creo, Model Processor User, Keyshot, mapkeys license extension such as Simulation Live, AAX, Manikin

Creo Elements/Direct Modeling: none

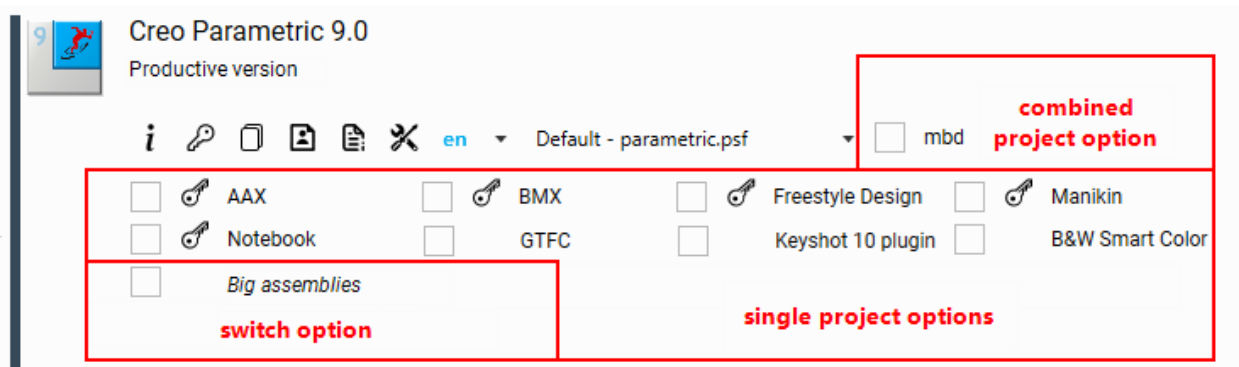
SolidWorks: SolidWorks Composer (Add-in), drawing frames

Inventor: Additive Manufacturing (Add-in), drawing frames, read-only mode

A detailed description of the possibilities to use project options for the respective application is described in the chapter *Project Display in GENIUS TOOLS Starter App* of each CAD application.


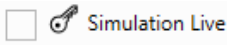
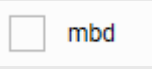
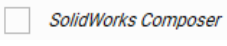
Types of company-specific project options

A distinction is made between individual and combined project options as well as switch options (in italics).



Project options of a Starter project

Administrators can create project options by placing a basic or a conditional configuration block in the required configuration layer. The table provides a general overview, while the following chapters explain the procedure step-by-step.

| Function | Description | Configuration / creation |
|--|--|--|
| Single project option  | is a configuration block which contains one or more configuration settings | settings valid according to the call hierarchy for files, created with basic configuration blocks, see Create single project options |
| Single project option with key symbol  | is a configuration block that activates license extensions for Creo Parametric or additional programs | |
| Combined project option  | combines configuration settings from different directories and configuration layers, after selection further single project options may become available | settings valid according to the call hierarchy for files, if conditions are met created with conditional configuration block, see Creating combined project options |
| Switch option (italic)  | for all projects: switches between different values of one or more configuration options for SolidWorks projects: activates additional programs | settings valid according to the call hierarchy for files, created with basic configuration blocks, see Creating switch options |

You can specify the number of columns for individual project options and switch options, see [Arranging project options](#).

5.10.2.1 Single project options

A single project option can contain multiple configuration options, license extensions and/or add-on programs.

Creating single project options

For each single project option that appears as a selectable checkbox in GENIUS TOOL Starter App, a basic configuration block must be created, which must contain certain GTS config variables. (See table below.)

Procedure:

1. Decide to whom the project options should be available to, using the subdirectories *standard*, *units*, *projects* or *users* of the configuration directory, see [Directories of the configuration layers](#).
2. Consider that all settings are processed according to the [Call hierarchy for configuration files](#).
3. Go to the desired directory, e. g.
`<operatingenvironmentname>\<application>\configuration\projects\project_creo7p.`
4. Create a [single configuration block](#) in this directory for each project option. The name of the text file must comply with the application-specific specifications. (See step 5.)
5. Enter the following necessary GTS config variable as comment:
`! gts_is_selectable = true` for Creo Parametric configuration blocks,
`; gts_is_selectable = true` for SolidWorks configuration blocks and
`<!-- gts_is_selectable=true -->` for Inventor configuration blocks.
6. Specify further GTS config variables in the file as required. The table below lists all variables.
 Take care to use the proper comment characters – they differ for each data type.

| Application | Configuration block required (text file) | Comment character | Example |
|-----------------|--|-------------------|---|
| Creo Parametric | config_*.pro, config_*.sup | ! | <code>! gts_display_name = Keyshot plugin</code> |
| SolidWorks | config_*.sldreg | ; | <code>; gts_display_name = 3DConnexion</code> |
| Inventor | config_*.xml, ui_*.xml, *.addin | <!-- --> | <code><!-- gts_display_name = Additive Manufacturing --></code> |

Result: A checkbox will be created below the project name in GENIUS TOOLS Starter App.

Example: Creating the project option "Simulation Live" for a Creo Parametric project

1. Choose the directory which controls the settings for the project (standard, units, projects, users), e. g. :

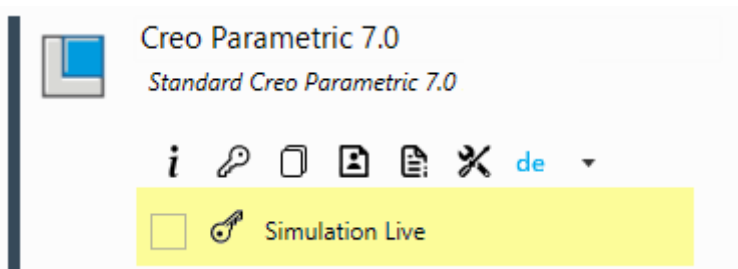
`<operatingenvironment>\parametric\configuration\projects\project_creo7p.`

2. Create a textfile with the name `config_1_lic_sim_live.pro`.

3. Enter the following specifications in the configuration file:

```
! gts_is_selectable = true
! gts_selection_default = true
! gts_creo_lic = 379
! gts_display_name = Simulation Live (Echtzeitsimulation)
! gts_selection_name = Simulation Live
! gts_selectable_pos = 3
```

Result: Display in of a checkbox for the "Simulation Live" project option in the project Creo Parametric 7.0



gtpc_settingsApp_example.png

Example: Creating the project option "FeedbackAddIn" for an Inventor project

1. Choose the directory which controls the settings for the project (standard, units, projects, users), e. g.:

`<operatingenvironment>\inventor\configuration\projects\inventor_23.`

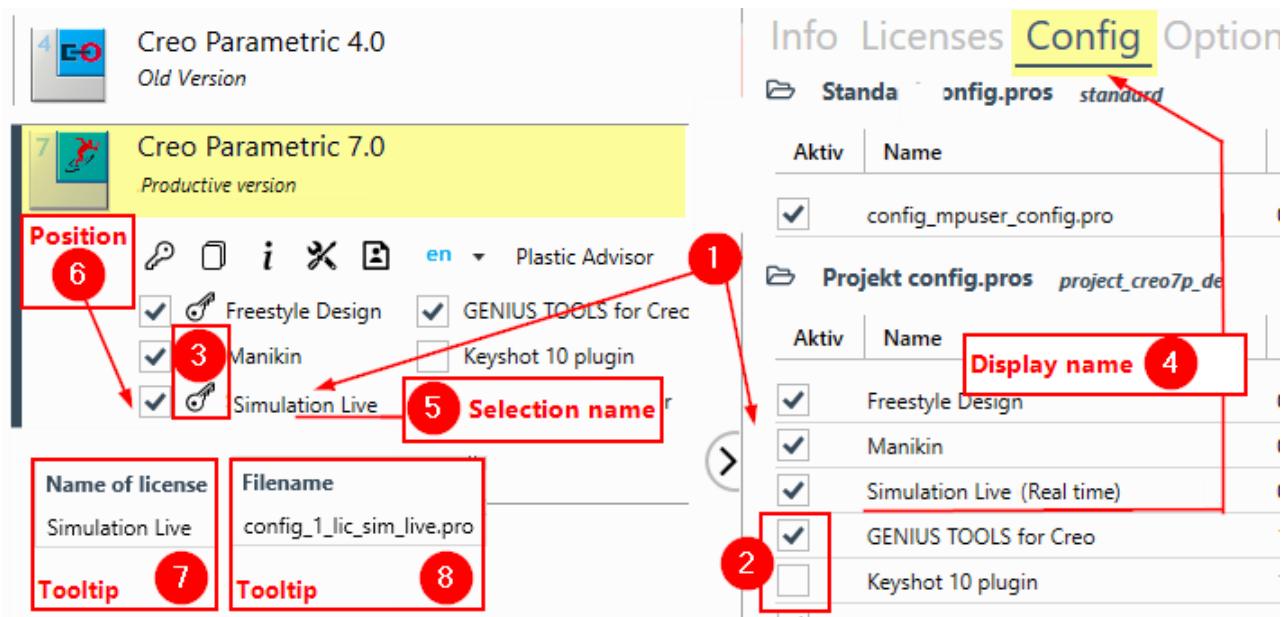
2. Create a text file with the name `Feedback.Inventor.addin`.

3. Write:

```
<!-- gts_is_selectable=true -->
<!-- gts_selection_default=true -->
<!-- gts_display_name= FeedbackAddIn -->
<Addin>
<ClassId>{B99DB61B-F61E-4A56-AE2C-3FB608A2547D}</ClassId>
<ClientId>{B99DB61B-F61E-4A56-AE2C-3FB608A2547D}</ClientId>
<LoadOnStartup>0</LoadOnStartup>
</Addin>
```

Representing single project options

The display of individual project options is controlled by GTS config variables.



Variables for displaying a project option (see table for numbering)

The following table lists the GTS Config variables for the example in the screenshot. A full list of variables can be found in the [appendix](#).

- 1 ! gts_is_selectable = true
- 2 ! gts_selection_default = true
- 4 ! gts_display_name = Simulation Live (Real-time simulation)
- 5 ! gts_selection_name = Simulation Live
- 6 ! gts_selectable_pos = 1
- 7 ! gts_creo_lic_display_name = Simulation Live
- 8 ! gts_description = This option is for simulating fluids for Creo from version 7.0.

Options for Creo Parametric projects

For Creo Parametric projects you can create single project options that select license extensions such as AAX or Simulation Live.

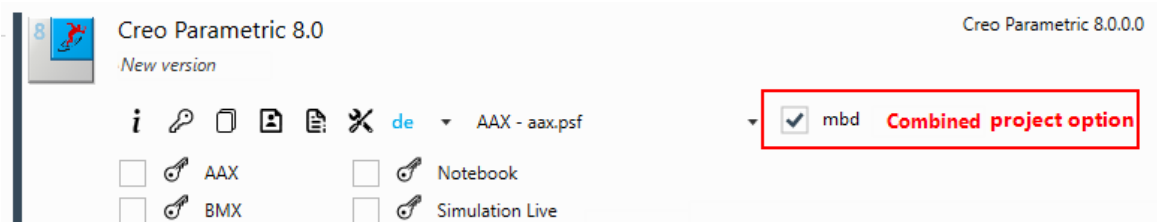
| GTS config variable | Specification/ Example | Description |
|---------------------------------|-------------------------------|---|
| gts_creo_lic = | 379 | <p>Creo Parametric: License number(s) of the extension(s) to be added. Multiple numbers must be separated with empty space.</p> <ul style="list-style-type: none"> – if this entry is set, an icon key appears next to the checkbox in the project – license numbers can be read from the license.dat file in the licensing folder under PTC/FLEXnet Admin License Server |
| gts_creo_lic_displ ay_name = | Simulation Lives | <p>Creo Parametric: Tooltip text for license symbol (key)</p> <ul style="list-style-type: none"> – if not specified, the line under License name is empty |
| gts_requires_base_lic = | PROE_Foundation | <p>Defines condition: if the base license is not available, the project option will be deactivated, i. e. no checkbox is displayed.</p> <ul style="list-style-type: none"> – Multiple licenses must be separated with empty space. The project option will be deactivated, unless all of the listed licenses are available. |
| gts_auto_activate_base_lic = | PROE_Foundation | <p>Defines condition: If the base license is available, the project option will be preselected, i. e. the box is checked.</p> <ul style="list-style-type: none"> – Multiple licenses must be separated with empty space. The project option will be deactivated, unless all of the listed licenses are available. – Take care not to simultaneously set the variable ! gts_selection_default to true. |

If the file is to control an auxiliary application, specify the corresponding configuration option, such as a protkdat entry. (Example: protkdat \$GTS_ROOT_DIR\configuration\application\protk_keyshot.dat). These entries do not create icons next to the checkbox.

5.10.2.2 Combined project options

Combined project options can contain configuration options, license extensions and/or add-on programs. They offer possibilities that single project options cannot and are particularly useful for companies with complex organization structure-

- With one click, several configuration options can be activated that are located in different directories and levels. (Use case 1)
- Combined project options can be stored in directories other than the project directories. (Use case 2)
- After the selection of a combined project option additional single project options can be made available. (Use case 3 and 4)



Users must activate the checkbox of the project option in GENIUS TOOLS Starter App. The underlying configuration block is then read at project start.

1. Basics: Creating a combined project option

A combined project option appears as a selectable checkbox in GENIUS TOOL Starter App after having created at least one [conditional configuration block](#) with a free tag ID.

A **free tag ID** is an additional textual marking on a configuration block that defines a combined project option and limits the validity of the block to it. The tag ID must not be assigned to a unit, otherwise it can be freely chosen.

Example: *config_lic.mbd.pro* – "mbd" is the free tag ID, if there is no unit called "mbd".

The functionality of a combined project option only comes into its own when you create multiple configuration blocks with identical tag IDs. These are read across folders and levels, i. e. the content of all configuration blocks with identical tag IDs is combined (added). The following rules apply:

- The configuration options specified in the combined project option are read at project start if all conditions set by tag IDs are met.
- If configuration options conflict, the option is applied according to the [Call hierarchy for configuration files](#).
- The first configuration block with the free tag ID creates the needed checkbox of the same name (here: mbd).

Use case 1: Different contents added across folders

Procedure: For *one* combined project option, assign *one* free tag ID to multiple files. The first free tag ID creates the checkbox to select.

1. Decide on which projects the project options should be available. Settings can apply to all ("Standard") or to individual units, groups, projects, or users.
2. Go to a folder you selected in (1).
3. Create a text file with a meaningful free tag ID, e. g. mbd. The name must start with *config* and end with *.freetagid.pro*, e. g. *config_lic.mbd.pro*.
4. Specify the required Creo configuration setting(s) in the file.
5. Repeat this for all configuration blocks in all required folders and settings, for example:
 - *config_abc.mbd.pro* in the unit folder
 - *config_lic.mbd.pro* in the project folder
 - *config_mapkeys.mbd.pro* in the user folder

Result: The combined project option "mbd" has been created, which contains Creo configuration options from configuration blocks from three different configuration levels.

2. Further use cases for one combined project option

2.1. Creating a combined project option with restriction to one unit

Combined project options can be restricted to one unit by adding a unit tag ID to a configuration blocks with a free tag ID.

A **unit tag ID** is a textual marker that restricts the validity of a configuration block to a unit. The difference to a config.pro module that is located in a specific unit directory, project options with a unit tag ID can be located in all directories and can be activated by selecting the unit – independent of the storage location.

A unit tag ID is assigned when creating a unit in GENIUS TOOLS Project Configurator, see [Using unit tag IDs](#).

Please note: A configuration block with a unit tag ID but without a free tag ID does not generate a project option.

Use case 2: A project should have two different project options depending on the selection of the unit available for selection.

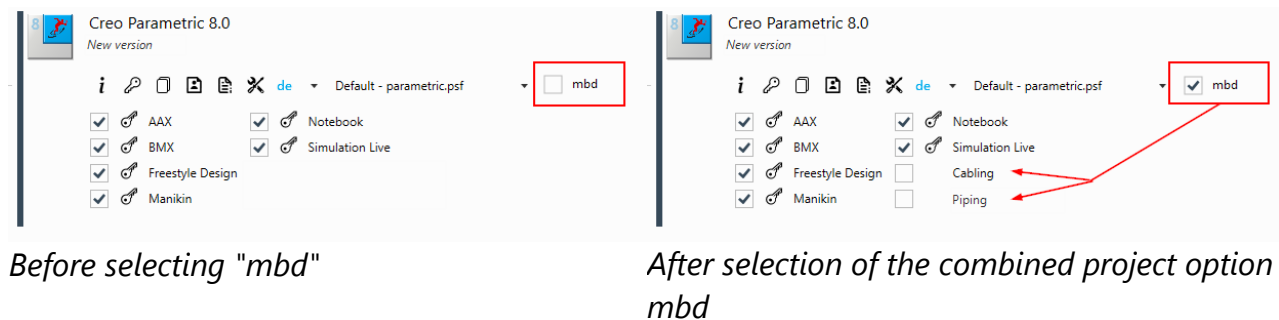
Consult the example in [Using unit tag IDs](#).

2.2. Creating a combined project option with restriction to several unit

A combined project option can be activated by multiple units, see Project options in a multi-unit environment.

2.3. Creating a combined project option and further project options

You can create a combined project option that generates further single project options after selection.



Use case 3: When the project option METAL is selected, three additional single project options (X, Y, Z) are displayed

Procedure: For a combined project option, assign *one* free tag ID to *multiple* files and write GTS Config.pro variables single project options in each of these files.

1. Decide the configuration levels for which the project option should be available, i.e. system wide ("Standard"), individual units, projects or users.
2. Go to a directory you selected in (1).
3. Create a configuration block with a free tag ID, e. g. *Metall*. The name of the text file must start with *config* and end with *.freetagid.pro*, e. g. *config_lic.metal.pro*.
4. Write into this file the GTS config.pro variables


```
! gts_is_selectable = true
! gts_display_name = Cabling – "Cabling" is the display name for the first single project option that will appear after selecting the project option Metal.
```
5. Specify further required GTS config.pro variables and/or further Creo configuration setting(s), see [table](#).

3. Creating multiple combined project options

Each free tag ID creates a combined project option, hence, if two free tag IDs are used in a file name, there are two combined project options to choose from, e. g. *config.mbd.plastad.pro*. If there is no checkbox for selection yet, it will be created.

The order of the free tag IDs does not affect the validity of the Configuration block.

This case is typically used in connection with further project options (use case 4) or with further configuration options (use case 5).

3.1 Creating two combined project options that allow further project options only after joint selection

Use case 4: When selecting the project options MBD and PLASTAD together, an additional project option NC shall be displayed.

Initial situation: The configuration blocks *config_lic.mbd.pro* and *config_lic.plast.pro* already exist.

Procedure: Write GTS config.pro variables to a configuration block to create a single project option, and add the free tag IDs that already exist to the file name.

1. Decide on which projects the two project option selections should be available (Standard, unit, project or User).
2. Place a config.pro block (text file) in a directory you selected in (1).
3. Name the file *config_lic.mbd.plast.pro*.
4. Write in the file the GTS-Config.pro variables


```
! gts_is_selectable = true
! gts_display_name = NC
```

 – “NC” is the display name for the checkbox that will appear after selection.
5. Specify further required GTS config.pro variables and/or further Creo configuration setting(s), see [table](#).

3.2 Creating several combined project options that set a configuration option after common selection without allowing further project options

It may be useful to apply a configuration setting when two combined project options are selected without allowing users to choose the setting.

Use case 5: When selecting the project options MBD and PLASTAD together, Creo is to be started with the license extension NC.

Initial situation: The configuration blocks *config_lic.mbd.pro* and *config_lic.plast.pro* already exist.

Procedure: Add the two existing free tag IDs to the configuration block that contains information for the license extension.

1. Proceed as in use case 4, steps 1-3.
2. In the file *config_lic.mbd.plast.pro* specify the corresponding license extension in the GTS config.pro variables, e. g. for NC-SHEETMETAL:


```
! gts_creo_lic = 116
```

5.10.2.3 Switch project options

Switch options are project options that toggle between two values of one or more configuration settings, such as YES/NO or NORMAL/HIGH.

There are two use cases for switch options:

1. In SolidWorks projects: to start additional programs (AddIns)



Integration of 3DExperience Marketplace as a project option for a Starter project

2. For all projects: to switch between two values of several configuration setting without having to provide two single project options. This is useful for setting multiple configuration options, e.g. for display settings in Creo Parametric.

Creating switch options

Switch options are not created by inserting a GTS config variable into a configuration block, but by using the expression `gts_choose`. The code is:

```
gts_choose{ Key || true value || false value }
```

The value for `Key` is displayed as the name of the project option next to the checkbox in GENIUS TOOLS Starter App. The value `true value` is read if the project option is checked, otherwise `false value` applies.

The entire expression can be assigned to one or more configuration options.

1. Example for SolidWorks: Option to start the add-on program "3DEXPERIENCE Marketplace" with a project

Procedure: The `gts_choose` expression must contain two values for registry entry.

1. Decide which users the project option should be made available to. Settings can apply to all ("default") or to individual units, projects or users. Pay attention to the [configuration concept](#).
2. In the appropriate configuration directory, create a text file that starts with `config` and ends with the application-specific extension `.sldreg`, e.g. `config_addin_experience.sldreg`. (See also [Configuration blocks für Solidworks](#).)

3. Write:

```
Windows Registry Editor version 5.00
[HKEY_CURRENT_USER\SOFTWARE\SolidWorks\AddInsStartup\{1A49690A-CC1F-4C81-9B96-303C52F14AC3}]
@=dword:gts_choose{SolidWorks Composer||00000001||00000000}
```

Result: The checkbox *SolidWorks Composer* appears under the projects. When checked, this AddIn is started with SolidWorks.

Please note: For integrating AddIns in SolidWorks projects write `true value = 00000001` (starts the AddIn) and `false value = 00000000` (does not start the AddIn).

2. Example for Creo Parametric: Option to minimize display settings for big assemblies

Procedure: The `gts_choose` expression is set instead of the value of the configuration option and must contain two values.

1. Decide which users should have the project option available. Settings can apply to all (default) or to individual units, projects or users. Pay attention to the [configuration concept](#).
2. In the appropriate configuration level directory, create a text file that starts with *config* and ends with the extension *.pro*, e.g. *config_switch_bigass.pro*. (See also [Configuration blocks für Solidworks](#).)
3. In the file, enter the `gts_choose` expression instead of the value of a configuration option, for example:
`display_points gts_choose{big assemblies || NO || YES }`

```

1  autoplace_single_comp          yes
2  check_interface_criteria        gts_choose{Big Assemblies || no || yes }
3  check_interference_of_matches  gts_choose{Big Assemblies || no || yes }
4  create_temp_interfaces         no
5  comp_interface_placement       gts_choose{Big Assemblies || interface_to_geom || interface_to_interface }
6  comp_assemble_with_interface   default_multi
7  comp_assemble_start            default
8
9  ##### TURN OFF ALL DISPLAY OPTIONS #####
10 gts_choose{Big Assemblies || display SHADE || display shadewithreflect }
11 display_axes gts_choose{Big Assemblies || NO || yes }
12 display_coordinate_sys gts_choose{Big Assemblies || NO || YES }
13 display_planes gts_choose{Big Assemblies || NO || YES }
14 display_points gts_choose{Big Assemblies || NO || YES }
15 display_annotations gts_choose{Big Assemblies || NO || YES }
16 display_silhouette_edges gts_choose{Big Assemblies || NO || YES }
17 edge_display_quality gts_choose{Big Assemblies || NORMAL || very_high }
18 shade_quality gts_choose{Big Assemblies || 3 || 50 }
19 skip_small_surfaces gts_choose{Big Assemblies || YES || NO }
20 fast_highlight gts_choose{Big Assemblies || YES || NO }
21 prehighlight gts_choose{Big Assemblies || NO || YES }
22 save_triangles_flag gts_choose{Big Assemblies || NO || YES }
23 spin_center_display gts_choose{Big Assemblies || NO || YES }
24 spin_with_notes gts_choose{Big Assemblies || NO || YES }
25 spin_with_part_entities gts_choose{Big Assemblies || NO || YES }
26 spin_with_silhouettes gts_choose{Big Assemblies || NO || YES }
27 tangent_edge_display gts_choose{Big Assemblies || dimmed || phantom }
28 texture gts_choose{Big Assemblies || NO || YES }
29 transparency gts_choose{Big Assemblies || NO || YES }

```

Switching values for the Big assemblies option

Result: The key *Big Assemblies* creates the checkbox of the same name below the project. If the option is checked (true value), the `gts_choose` expression is replaced by the corresponding value (e. g. NO).

Hint: The switch expression can be written in two ways:

```
display_points gts_choose{Große Baugruppen || NO || YES }
```

or

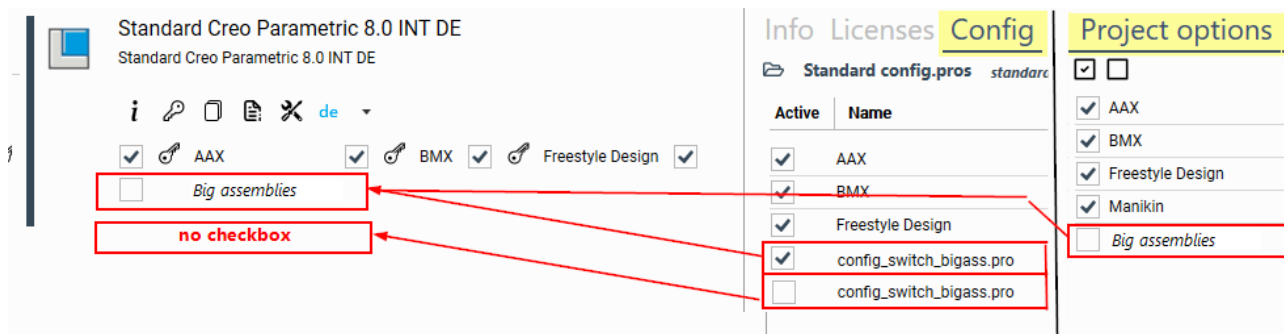
```
gts_choose{Große Baugruppen || display_points NO || display_points YES}
```

Deleting switch options in GENIUS TOOLS Starter App

In contrast to single project options, a value will be read from a switch option even if the option is not checked (disabled state = `false` value).

For users who have the right to deactivate configuration blocks in the Config tab of GENIUS TOOLS Starter App, this means:

1. Deactivating the configuration block will ignore the content of the configuration block, i. e. as with all configuration blocks, it will not be included into the configuration.
2. In contrast to single project options, the checkbox of the switch options then disappears, because neither the checked (`true` value) nor the unchecked setting (`false` value) is to be used for configuration.



Only checked configuration blocks (in the Config tab) generate checkboxes for switch options

5.10.2.4 Overview of project options by application

The following table lists examples of popular project options for each CAD application and the configuration blocks needed to create them.

| | Additional programs | Optional configuration settings | Special feature |
|---|--|---|--|
| Creo Parametric | GENIUS TOOLS for Creo, Model Processor User, Keyshot – single project option – use config_*.pro file | mapkeys – single project option – use config_*.pro file switch between two values – switch option – use config_*.pro file | license extensions such as Simulation Live, AAX, Manikin – single project option – use config_*.pro file with license number(s) |
| Creo Elements/ Direct Modeling | — | — | — |
| SolidWorks | SolidWorks Composer – switch option – use config_*.sldreg file | drawing frames – single project option – use config_*.sldreg file | — |
| Inventor | Additive Manufacturing – single project option – use *.addin file | drawing frames – single project option – use config_*.xml file | read-only mode – Special case: set in GENIUS TOOLS Project Configurator, like language selection |

5.10.3 Special cases

Inventor

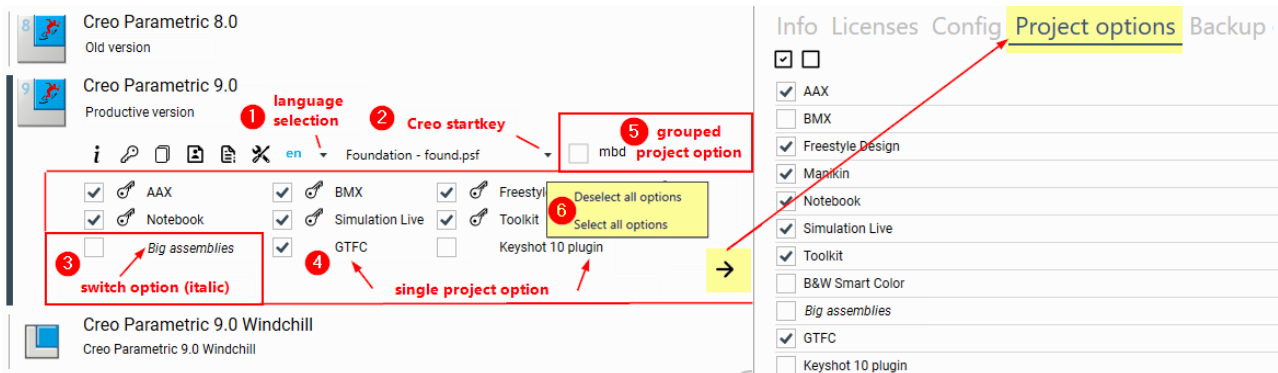
For Inventor projects, it is possible to specify in GENIUS TOOLS Project Configurator whether users can select to open the project in read-only mode. With this setting, the checkbox *Read-only mode* is displayed in the project area. See [Read-only mode](#).



Option to start read-only mode in GENIUS TOOLS Starter App

5.10.4 Arranging checkboxes


Single project options and switch options can be selected in checkboxes below the project name as well as in the Project options tab. The tab can be opened with the arrow symbol, which becomes visible if some checkboxes cannot be displayed below the project.

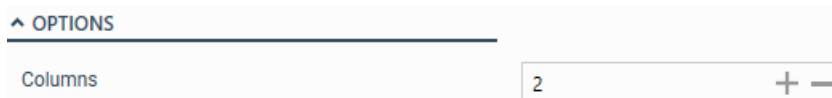


For displaying project options, such as display name, tooltip and position, can be defined, see [Single project options](#).

The display of the checkboxes can also be affected by specifying the number of columns. The default setting is four columns.

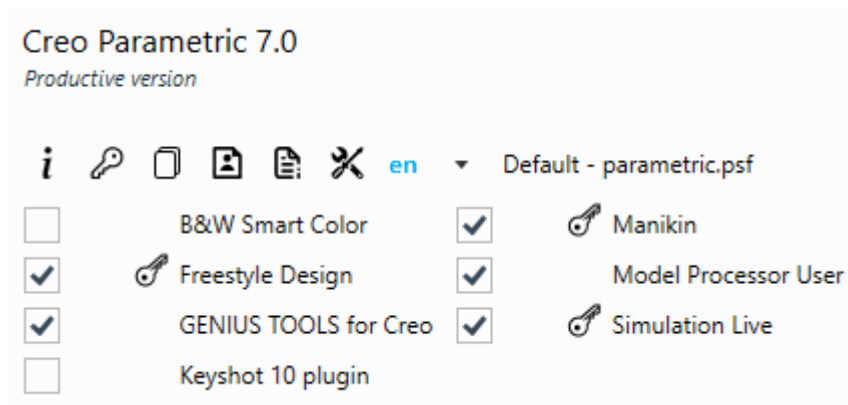
Procedure for arranging checkboxes for single and switch options

1. Open GENIUS TOOLS Project Configurator.
2. In the menu item Konfiguration  got to the item Settings.
3. Select a group or unit, or choose Standard for global settings.
4. In the the segment *Options* specify the number columns, here: 2



Settings in GENIUS TOOLS Project Configurator

Result: The checkboxes are arranged in two columns below the project name in GENIUS TOOLS Starter App.



Display in GENIUS TOOLS Starter App

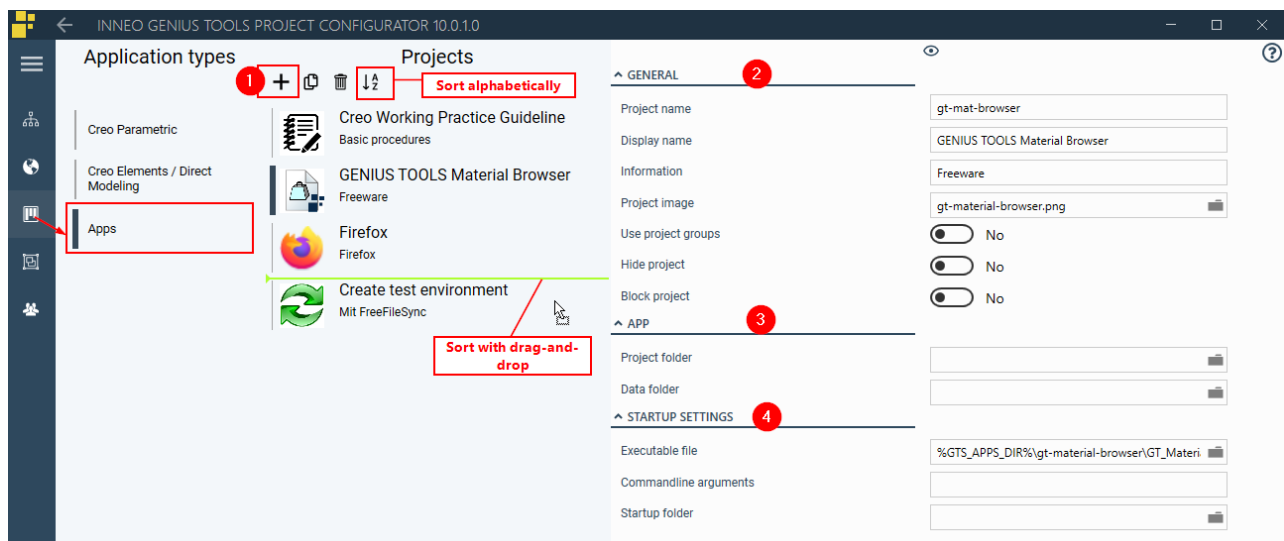
Please note: The arrangement of project options requires a subscription license.

5.11 Apps-Projects: Creating projects of other applications

In the sub item Apps you can create projects with any other program. For such Apps projects you can only create one project per application, whereby the latest version is used.

For Apps projects only simplified settings are available, but specifications from configuration blocks and batch files can be made, as for all programmes, in the **four configuration layers** of the directory *application*.

After filling in the **general project settings** (2), specify the required project and data directories (3) and the startup behavior (4).



Dialog box for Apps projects

The order of projects displayed in GENIUS TOOLS Starter App can be defined here by dragging and dropping projects in the *Projects* list or by sorting the projects alphabetically with the *Change sorting* button (5) in the *Projects* column.

► App

Project directory (optional)

Directory below *application\configuration\projects*. Batch files are copied from this directory to the user computer and executed at project start.

Data directory (optional)

Directory below *application\data*. From this directory data packages are copied to the user computer and applied at project start.

► Startup settings

Executable file

- Enter the file that is to be started. It can either be an executable file (such as *.exe, *.bat) or a file for which a standard application is available on the computer (such as *.docx, *.html). A command line (cmd) shell or cmd shell application will be executed visibly by following commands:
 - do not stop cmd after execution: `start cmd /K "%1"`
 - stop cmd after execution: `start cmd /C "%1"`
- If a website is to be called, enter the following command: `cmd.exe`

Command line arguments

- Enter commands that specify how the executable file is started. Set the commands in quotation marks.
- If a website is to be called, enter it with the following scheme: `/c start https://www.inneo.co.uk`

Startup folder

Select the startup directory.

The information about the startup behavior and the required directories are displayed for each project in GENIUS TOOLS Starter App in the Info tab.


5.12 Auto projects

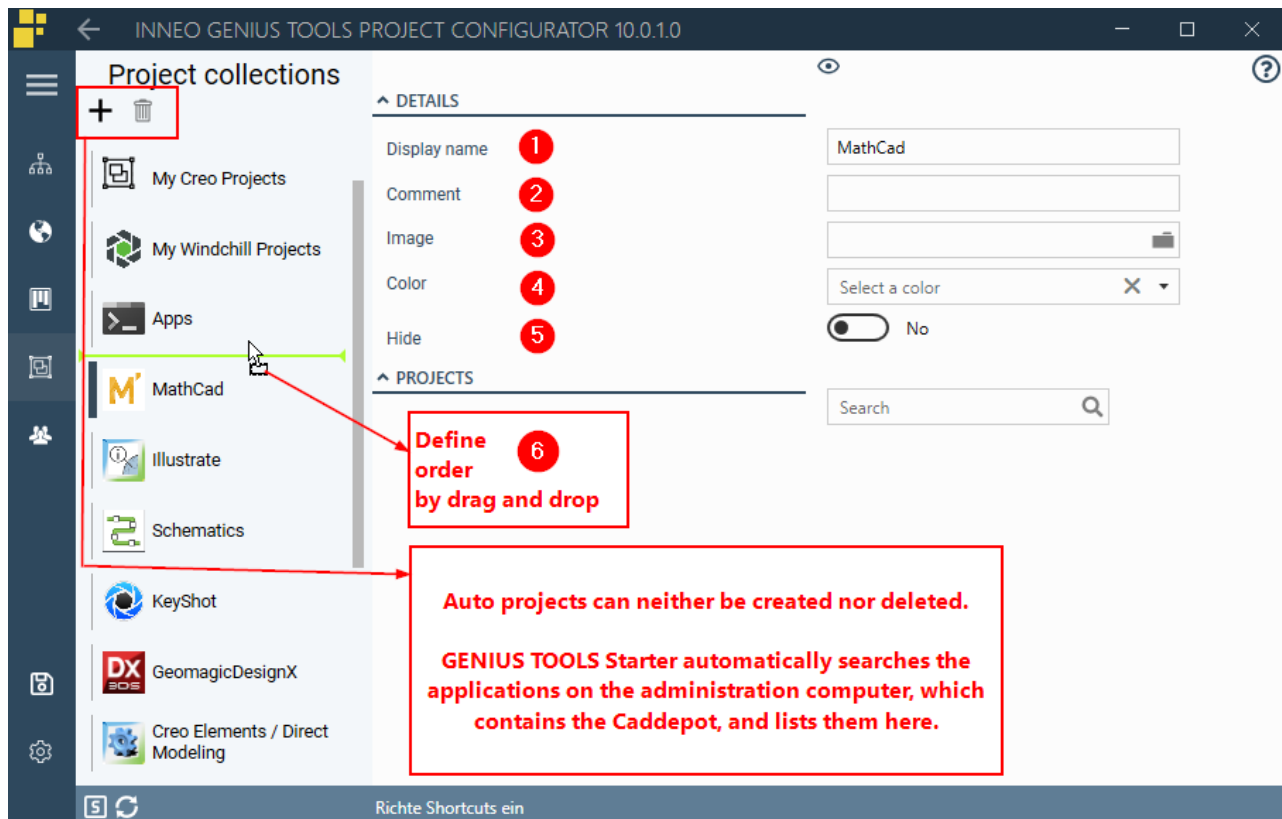
Auto projects are Starter projects of an application for which only one project can be created. This project will be automatically created by GENIUS TOOLS Starter App with the latest available software version on the user computer and will be displayed with an icon of the application.

Auto projects are generated from the following applications: Creo Elements/Direct Drafting, Creo Illustrate, Creo Schematics, Creo View, GeomagicDesignX, Keyshot and MathCad.

Please note: Auto projects are only available with a [subscription license](#).

The applications are automatically searched on the user computer. If several versions are installed, the latest version will be used. If the application is not installed on the user's computer, the Auto project will not be displayed.

Auto projects can, like all projects, be configured in the four configuration layers (standard, units, projects and users). For each Auto Project, a new folder structure is created for this purpose which includes a project directory. In GENIUS TOOLS Project Configurator, they are listed in the *Project collections* page .



Individual Auto projects can be hidden in the user interface of GENIUS TOOLS Starter (5). You can also hide all Auto projects for specific user groups in the *user rights*.

In the main page *Project collections* you can set the display of the Auto projects in GENIUS TOOLS Starter App, see *next chapter*.

5.13 Project collections

In the main menu item *Project Collections* you can organize individual projects into collections, which are displayed to users in GENIUS TOOLS Starter App. This is especially helpful for companies that work with many projects.

Warning: Creating collections for projects requires a subscription license. If you create a project collection without having a subscription license, you will not be able to continue using GENIUS TOOLS Starter with a perpetual license.

The order of both collections and individual projects can be defined here by using drag and drop.

Project collections are displayed to all user groups, but within a collection only those projects a user has access to are displayed. If a user has no access to any of the projects, the button for the collection will not be displayed. There are company-specific project collections, which can include any projects, and application-specific project collections, which are comprised of all projects of an application.

A distinction is made between company-specific and application-specific project collections. You can create company-specific project collections and assign individual projects. Application-specific project collections, on the other hand, already contain all projects that have been assigned to the an applications in the menu item *projects*, i. e. Creo Parametric, Creo Elements/Direct Modeling as well as *Apps projects*

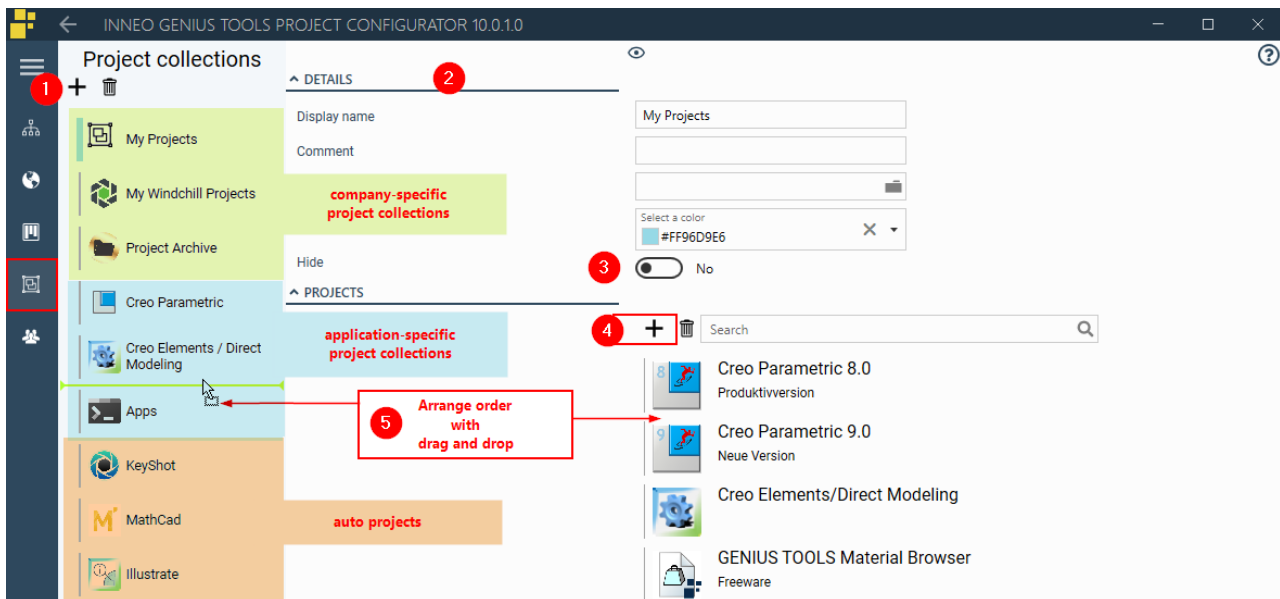
| | Company-specific project collection | Application-specific project collection |
|--|-------------------------------------|---|
| Collection can be created and deleted | yes, see below | no |
| Collection can include any project | yes | no, contains all projects of an application, – Creo Parametric – Creo Elements/Direct Modeling – or <i>Apps projects</i> |
| Individual projects can be added and deleted | yes | no |

In addition, this area lists all *auto projects*, which are displayed automatically.

Creating a new project collection

Create a company-specific project collection by clicking the Plus button *Add (1)*.

Application-specific project collections as well as auto project are generated automatically and cannot be created nor deleted.



Dialog window Project collections

Displaying project collections to users

In the Details dialog (2) on the right, fill in how the project collection should be displayed in GENIUS TOOLS Starter App.

For application-specific project collections and auto project display names and comments cannot be edited.

Display name

Enter a name for the project collection.

Comment

Enter an optional comment.

Image

A collection can be fitted with an icon in JPG or PNG format.

Color

A collection can be displayed with an individual color for better visualization.

Hide (3)

No (default): The project collection is displayed in GENIUS TOOLS Starter App.

Yes: An project collection is not displayed.

Define order (5)

Put projects in the order needed by using drag and drop.

Adding projects to a collection

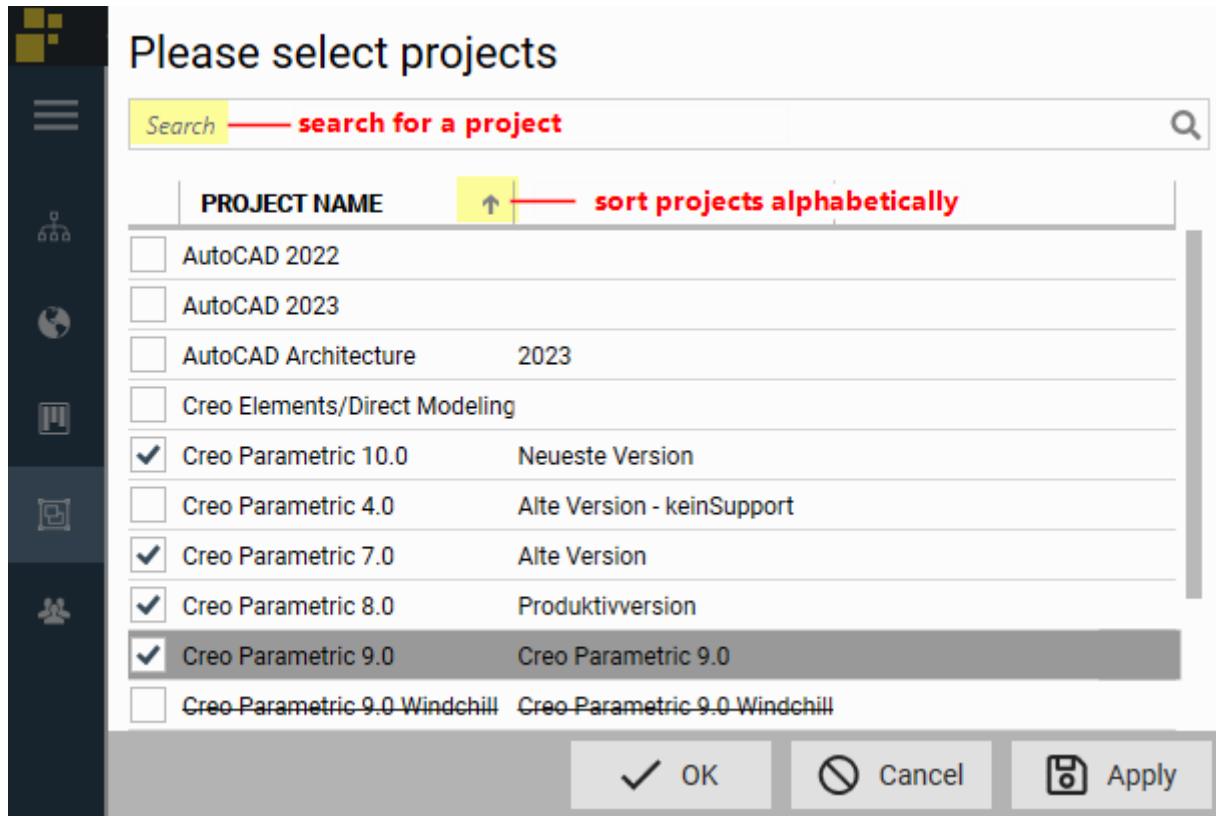
You can add, delete and search for projects only in company-specific collections.

The visibility of a project in GENIUS TOOLS Starter App is defined by the affiliation of a user to a group or unit and the access rights granted.

Add

Add projects that have been created in the *Projects* menu item.

A window will open where you can select, search and sort projects.

**Delete**

Select a project to delete it.

Search

Search a project by keywords.

5.14 Access rights

With the [role-based permission concept](#) of GENIUS TOOLS Starter users can be granted or withdrawn the following access rights:

- for specific projects ("[Project access](#)")
- for various functions in GENIUS TOOLS Starter App ("[Function access](#)")

5.14.1 Restricting project access

It is possible to restrict the access to one or more projects to certain users. To do this, create a role with the desired user group in the Details tab (1). Then go to the Project Access tab (3) and use the Plus button (4) to select the projects that the members of the role are allowed to access.




Defining projects that members of a role can access

As soon as the first project is assigned to a role, the restrictions for this project are set, meaning that the button *Restrict project access* in the Creo tab of the Projects page is automatically activated.



If no project is added to the project access of a role, then all projects will be accessible for this role.

Please note: Each user can only see the projects they are permitted to access. To verify which projects are accessible for a certain user, go to the card view under *Resources > Users* and click on the project symbol  on the user's card.

5.14.2 Granting function access rights

In the Function Access tab (2), select the rights you wish to grant to the members of a role for using functions in GENIUS TOOLS Starter App. If an access right is not given to a user, the corresponding button does not appear in GENIUS TOOLS Starter App. Also refer to the chapter on [GENIUS TOOLS Starter App User Interface](#).

These two functions concern the work with GENIUS TOOLS for CREO (GTFC):

- Is GTFC admin
- Can use network mode

Please note: Not every functionality can be controlled using access rights. Standard functions as well as starting GENIUS TOOLS Starter and opening a project cannot be changed.

► Administration

Can enter Project Configurator

The user may open GENIUS TOOLS Project Configurator. For users who do not have this right, a message will be displayed, and the Project Configurator will be closed when the user confirm the message.

Default for group Administrator: Yes

Default for group Everyone: No

Hint: When GENIUS TOOLS Starter is started locally from the Caddepot directory, Project Configurator is always accessible. In this way, an administrator will always have access to the configuration.

Please note: If this right is not assigned to any user, GENIUS TOOLS Project Configurator will revert to the default setting of granting the right to all users.

Is GTFC admin

The variable `%GTFC_ADMIN%` is set to 1, i. e. users have access to all editors of GENIUS TOOLS for Creo (GTFC) whose start switches have this variable. The specifications can be viewed in `gt_main.cfg` and in GENIUS TOOLS Configuration Utility. Consult the chapter [start settings of the Startup TOOLS software](#).

Default for group Administrator: Yes

Default for group Everyone: No

► Synchronization

Can pause synchronization

The user may pause the automatic data synchronization. Synchronization has to be paused if you want to make changes to files in the Cadpool locally, otherwise local changes would be overwritten as soon as the synchronization runs.

Default for group Administrator: Yes

Default for group Everyone: No

Warning: GENIUS TOOLS Starter App will keep the synchronization on pause even after a restart of the software as long as the user still has this right. If this right is withdrawn while the synchronization is paused, the synchronization will run automatically when the software is restarted, which may result in data loss from the Cadpool directory.

Prevent switch to local installation

By default, if the GENIUS TOOLS Starter App is started from the Caddepot directory on the administration computer, GENIUS TOOLS Starter App will switch automatically to the local

Cadpool. If set to Yes, there is no automatic switch and the user can work on the data in the Caddepot.


Default for all groups: No

Warning: If this right is granted to a user before the initial synchronization, GENIUS TOOLS Starter App will not be installed locally for this user, and the user will not be able to start locally.

► Project

The following settings are also explained in the chapter [Customizing information panes](#).


Can analyze project

Users are able to analyze and edit all configuration files of a project with GENIUS TOOLS Config Analyzer. The button  is displayed.

Default for group Administrator: Yes

Default for group Everyone: No


Can see project information

Users can open the Info tab containing the project name, paths to the project, data and working directory as well as the selected language and the startkey. The button  is displayed in GENIUS TOOLS Starter App.

Default for group Administrator: Yes

Default for group Everyone: No

Can create project report

The user can view all information about the project and user settings in a separate document. The button  is displayed in GENIUS TOOLS Starter App.

Default for group Administrator: Yes

Default for group Everyone: No


Can analyze licenses

Users can see the license statistics in GENIUS TOOLS Starter App. (See chapter Display license details.) To use this option, you also have to set *Show licenses* under *Configuration > Creo settings > Tab: Start* to Yes.

Default for group Administrator: No

Default for group Everyone: Yes

Can borrow licenses

Users can start the license borrowing process. The button  is displayed in GENIUS TOOLS Starter App in the Licenses tab. See [License borrowing for Creo Parametric users](#).

Default for group Administrator: No

Default for group Everyone: Yes

Warning: To borrow the PTC licenses, the user has to complete the PTC borrowing process.

Can disable configuration blocks

The user can temporarily disable Config files for a project. Disabled files will not be used by GENIUS TOOLS Starter App when creating the configuration settings.

Default for group Administrator: No

Default for group Everyone: Yes

Warning: Disabled configuration files will become active again on the next project validation or synchronization.

Hint: This right makes it possible to quickly disable configuration files on individual computers without having to change company-wide configuration settings.

Can open configuration blocks

Users can view and edit Config files. See [Config](#).


Default for group Administrator: No

Default for group Everyone: Yes. A double click opens the file in [GENIUS TOOLS Config Editor](#).

Can save private configuration blocks

Users can edit their private Config file and write it back to the userdata directory in the Caddepot of the server. See [Config](#). Set the path to the userdata directory in the configuration settings page under [User settings](#) in the Application tab.

Default for group Administrator: No

Default for group Everyone: Yes. The upload button  is displayed.

Sees auto projects

GENIUS TOOLS Starter will search for certain supported applications on the local application computer, for example Keyshot or Mathcad, see [auto projects](#), and will display them in the last installed software version in GENIUS TOOLS Starter App.


Default for group Administrator: No

Default for group Everyone: Yes

Can save customized settings/file

Creo Parametric users can view, edit and make a backup copy of the file `creo_parametric_customization.ui`, which contains all user-specific settings for the graphical user interface of Creo.

SolidWorks users can save their user specific settings, which are stored in the registry.

Default for group Administrator: Yes. The button  is displayed in GENIUS TOOLS Starter App in the Backup tab.

Default for group Everyone: No

5.15 Presenting projects to users

The display of projects in GENIUS TOOLS Starter App can be defined for all projects of a group or unit or for individual projects.

Group settings

In the Configuration menu item settings for all projects available for a group or unit are made. They affect

- the display of invalid projects and
- the possibility to provide language selection as a project option.

In the Resources menu item, you can control the information about a project or additional functions, e. g. license analysis, that are available to users, see [Customizing project information](#).

Project settings

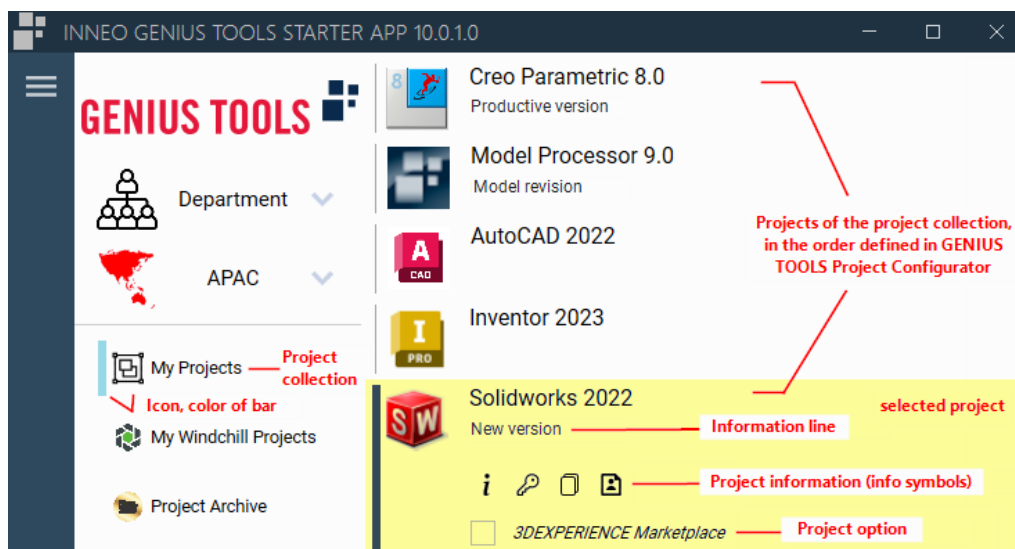
In the Projects menu item you can assign an icon to a project and an additional info line, see [General project settings](#).

Projects can contain selectable options that are created with configuration blocks, see [Project options](#).

You can also restrict access to a project to certain groups or units. To do this, assign the permitted projects to this group, see [Restricting project access](#).

Project collections

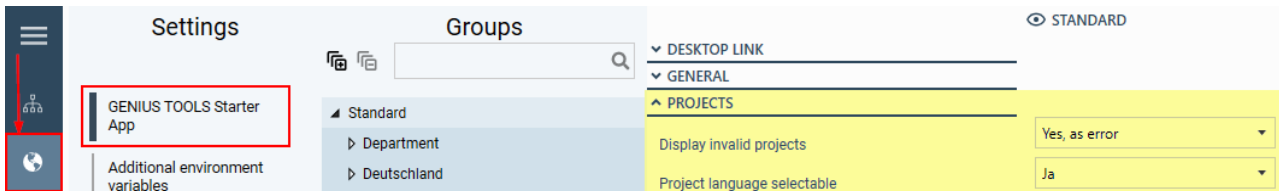
In the Project collection menu item you can group projects into collections and define their order, see [Project collections](#). Project collections can have an individually colored bar and an icon.



Projects of the collection "My projects" in GENIUS TOOLS Starter App

5.15.1 Marking invalid projects

You can control whether users can open projects for which they do not have a license or the required license extensions.



The following actions and warning colors can be set in the menu item *Configuration > Group (select) > Settings: GENIUS TOOLS Starter App > Segment: Projects*. The warning colors are only displayed after a project has been clicked upon or after activating the *Analyze licenses* function in the Licenses tab of the GENIUS TOOLS Starter App.

► Projects

Display warnings

Warnings appear for projects without a valid license (Creo Parametric, SolidWorks).

No: No warnings are issued.

Yes: Projects are marked with a yellow bar. The Warning tab appears.

Display invalid projects

Specifies how projects that cannot be started with GENIUS TOOLS Starter, e. g. because no PSF key is found, are displayed to the user.

No: Projects are hidden.

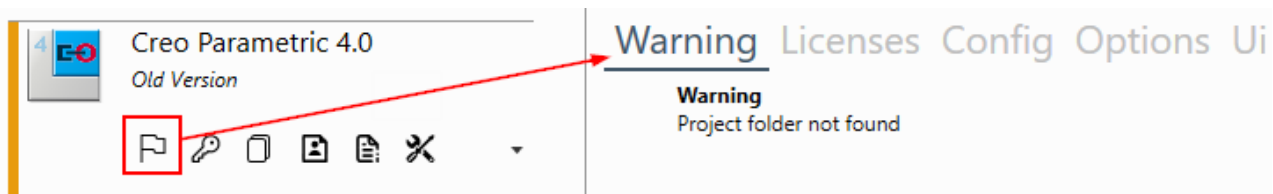
Yes, as error (default): Projects are marked with a red bar. The Error tab appears.

Yes, deactivated: Projects without are displayed marked a gray background. The Error tab appears.

Please note: Projects for which no corresponding software version can be found are never displayed.

Warnings

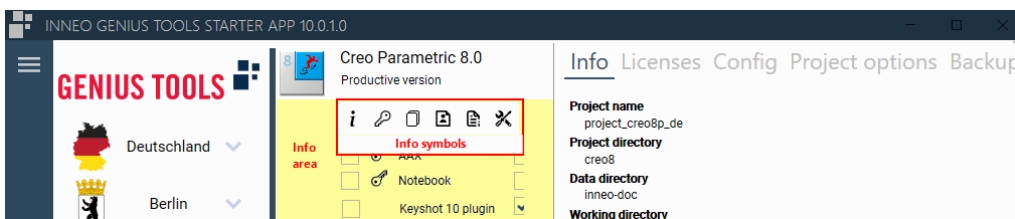
Project settings can cause warnings other than missing licenses, e. g. if the project directory cannot be found. The project bar will then be orange and a flag icon appears, which opens the Warning tab.



5.15.2 Customizing project information




The info area opens when a project is selected. The info icons open tabs with the corresponding information.






All projects display the Info tab. The Error and Warning tabs are displayed when an error has occurred or a project warning has been issued. The other tabs – Licenses, Config, Project Options and Backup – differ depending on the application, see the respective chapters in [GENIUS TOOLS Starter App](#).



Selected project with open Info tab

Most info icons and tabs can be hidden by the administrator in GENIUS TOOLS Project Configurator under Resources > Role > Tab: Function access. Consult the chapter [Granting function access](#) for detailed instructions.

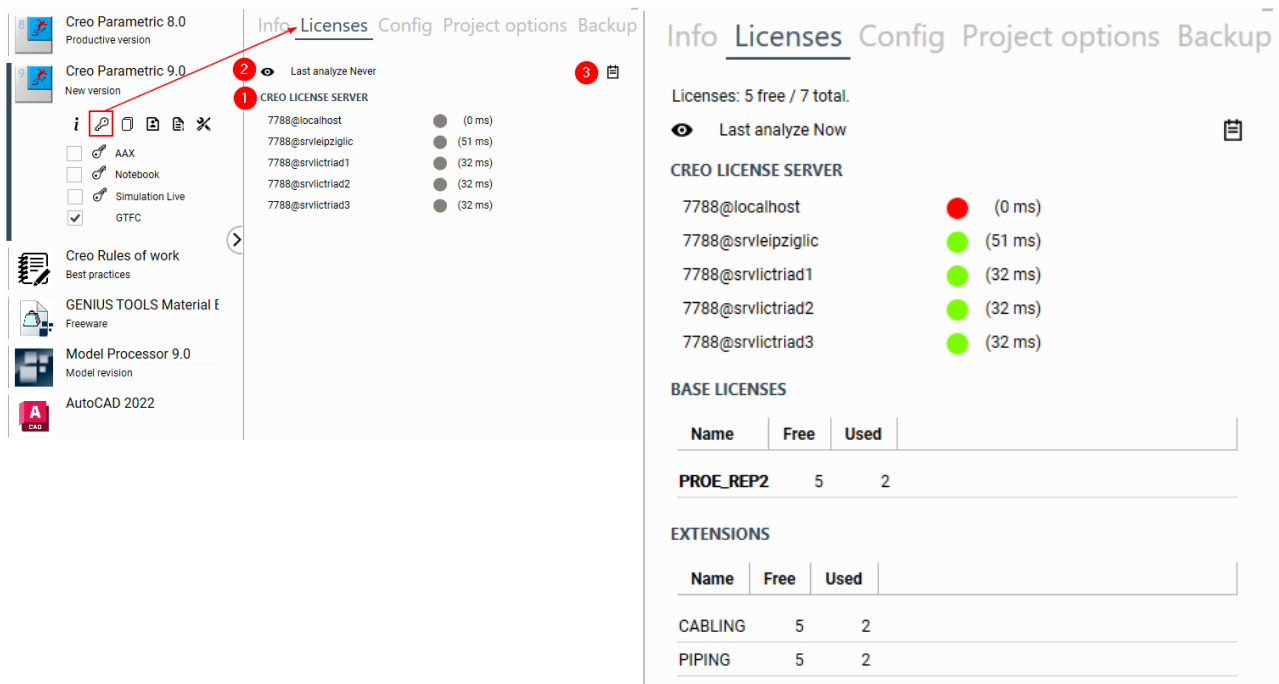
| Function | Description | Configurable under Function access? |
|--|--|--|
| Warning  | warning icon appears only if project settings trigger a warning, opens Warning tab | no |
| Information  | opens Info tab with <ul style="list-style-type: none"> – project name – path to project, data and working directories – language, and more | button and tab can be disabled with <i>Can see project information</i> |
| Licenses  | opens Licenses tab <ul style="list-style-type: none"> – shows licenses and license servers – button for analyzing licenses – button for access to the license borrowing process | button and tab can be disabled with <i>Can analyze licenses</i> , see Displaying license details |

| Function | Description | Configurable under Function access? |
|---|--|--|
| Configuration blocks (Config)  | <p>opens Config tab</p> <ul style="list-style-type: none"> – lists all used configuration blocks (config files) and additional applications (Toolkit Application) in the selected project – configuration blocks can be opened by double clicking | <p>button and tab: no users can be granted rights:</p> <p><i>Can open configuration blocks</i></p> <p><i>Can deactivate configuration blocks, see Editing configuration blocks</i></p> |
| Configuration blocks (UI)  | <p>opens UI tab in Inventor projects</p> <ul style="list-style-type: none"> – lists lists all used configuration blocks (ui files) and – behavior like config tab | like Config tab |
| Backup  | <p>opens the Backup tab</p> <ul style="list-style-type: none"> – users can create a backup of user-specific settings – für Creo Parametric: displays the <i>customization.ui</i> file, see Backup mechanism in GENIUS TOOLS Starter App. | button and tab can be disabled with <i>Can save user specific settings / customization.ui file</i> |
| Project report  | <p>Creo Parametric:</p> <p>opens PDF file containing all information about the selected project</p> | button can be hidden with <i>Can create project report</i> |
| GENIUS TOOLS Starter App Config Analyzer  | <p>Creo Parametric:</p> <p>opens separate utility to view and edit all configuration blocks and batch files used for the project and their location.</p> | button can be hidden with <i>Can analyze project</i> |

5.15.3 Displaying license information

The *Licenses* tab is available for projects of Creo Parametric and SolidWorks. It contains information on the license servers assigned to the selected project as well as functions to

analyze and borrow licenses, if the users have been granted the corresponding access rights.




Licenses tab before and after analyzing licenses

1. Display license servers

All license servers are listed to which a project has access to.

Visibility: License servers are displayed when *Analyze licenses* button is enabled.

2. Analyze licenses

Pressing the button  shows all available licenses and extensions as well as the time that has passed since the last analysis.


Settings: The functions 1 and 2 belong together and can be switched on or off with two settings in GENIUS TOOLS Project Configurator.

- *Configuration > Creo Parametric Settings > Select group > Tab: Start > Section: Licenses > Display Licenses to Yes/No*

and

- *Resources > Select role > Tab: Function access > Section: Projects > Can analyze licenses.*

3. Borrow licenses

The button  opens the Borrowing dialog.

Settings: *Resources* > *Role* > *Tab: Function Access* > *Section: Projects* > *Can borrow licenses: Yes/ No*.

Creo Parametric

GENIUS TOOLS Starter App borrows its license and then starts the borrowing process from PTC. Then Creo and GENIUS TOOLS for Creo - if configured in the project - each borrow their licenses, see License Borrowing Process.

The default and maximum borrowing duration can be preset in *Projects* > *Creo Parametric* > *Select project*) > *Tab: Start* > *License borrowing*

SolidWorks

SolidWorks licenses are borrowed directly from SolidNetWork License Manager Client.

5.15.4 Editing configuration blocks

In the Config tab, users can view and may edit configuration files which configure a project, so-called *configuration blocks*.

1. Open / edit configuration blocks

Double-clicking on a line will open GENIUS TOOLS Config Editor. For this, the user must be granted the access right *Can open configuration files from Starter App*, see chapter Granting function access rights.

| Info Licenses <u>Config</u> Project options | | | |
|---|------------------|--------------------------|---------|
| Standard config.pros standard | | | |
| Active | Name | | Toolkit |
| <input checked="" type="checkbox"/> | AAX | Activate by checking box | 0 |
| <input type="checkbox"/> | BMX | | 0 |
| <input type="checkbox"/> | Freestyle Design | Open with double click | 0 |

2. Disable / enable configuration blocks

Activated configuration blocks are used for the project configuration. For being able to check the corresponding box, users must be granted the access right *Can disable configuration blocks*, see chapter Granting function access rights.

3. Edit personal settings

Users have the ability to edit their local configuration block and write it back to the administration computer in the userdata directory, see *next chapter*.

5.15.5 User-driven configuration

Users may overwrite or append the settings established by the administrator, by managing private configuration blocks on their own. To do so, private configuration blocks must be saved in the *userdata* directory to which the user needs to be given write access.

The private configuration blocks in the *userdata* directory are appended to the configuration blocks in the users, projects, units and standard directories, i.e. they overwrite the entries made there. See also the chapter [Call sequence for files](#).

Special characteristic of Creo Parametric configuration blocks

The personal Config_*.pro file is attached to the Config_*.pro files in the users, projects, units and standard directories as a supplement. The user-defined Customization_*.ui file, on the other hand, replaces the Customization_*.ui files in the other directories.

Userdata directory

There are two ways to provide users with a *userdata* directory.

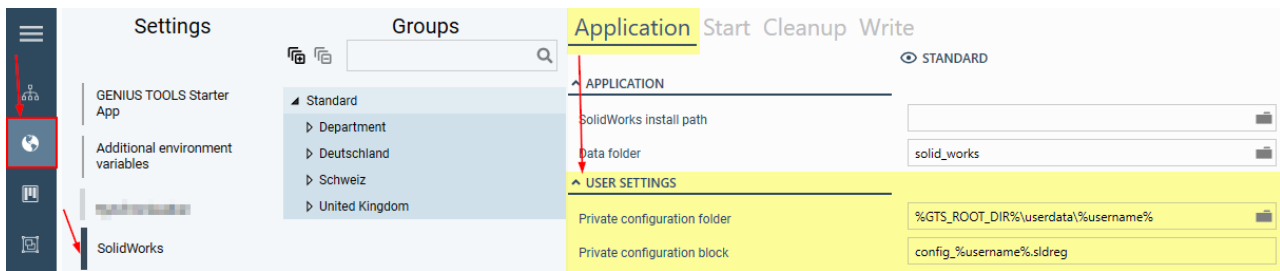
- The Userdata directory can be located in the Caddepot of the administration computer, from where it is synchronized to the Cadpool on the user computer. Users can use the directory with their Windows user name in the Userdata directory. For this the *userdata* directory must be located under GTS_ROOT_DIR. (See chapter [Directory structure](#).)
- A *userdata* directory can be set up on any location on the client computer where it does not undergo data synchronization.

Defining private configuration blocks

Administrators specify the path to the user data directory and the spelling of the file names of the configuration blocks in GENIUS TOOLS Project Configurator.

Procedure using SolidWorks as an example

1. In the menu item Configuration, go to SolidWorks under Settings.
2. In the Application tab, go to the User Settings section.
3. In the field Private configuration folder, enter the path to the *userdata* directory.
4. In the field Private configuration block, specify the notation for the configuration module, here for an SLDREG file: *config_%username%.sldreg*. (There is an overview of the file endings in the chapter [Configuration blocks](#).)



Application tab in the configuration settings for SolidWorks


Result: The section in the Config tab is visible when an SLDREG file is in the userdata directory.



Display of a private configuration block in GENIUS TOOLS Starter App

Editing private configuration blocks

Users can edit their local, private configuration module in GENIUS TOOLS Starter App. A double click opens the file.

The Upload button  is used to write the configuration block back to the administration computer in the userdata directory. The button is visible if the user has the **access right** Can save personal configuration blocks to server.

Please note: Data synchronization must be paused during editing.

5.16 Creo Parametric

A configured Creo Parametric project consists of the following components:

- a defined Creo release or weekly version
- the licenses to be used (Creo-Startkeys)
- configuration blocks for settings of
 - functions and behavior of Creo Parametric (config_*.pro files)
 - user interface ((config.ui)
- additional applications, toolkit applications (GENIUS TOOLS for Creo)
- settings and link-ups for additional applications (batch files)
- Windchill availability in the Creo Parametric session
- start object templates, drawing frames
- project libraries

- plot settings
- ModelCheck configurations
- and many other settings relevant to working with Creo, such as
 - data referenced in the configuration files (colors, materials, templates etc. in the data directory)
 - data for other tasks (information documents, additional tools)

Data packages and configuration directories

A project configuration consists of Creo object data – filed in the data directory – and Creo configuration files, which can be stored in any of the project-relevant directories *standard*, *units*, *projects* and *users*. Separating the Creo object data from the Creo configuration data and the additional applications ensures that Creo objects in an operating environment can be used in multiple projects.

Both Creo object data and project-specific configuration files for several Creo versions are included in the product package Startup TOOLS.

For Creo Parametric the configuration for a [Starter projekt](#) is made up by the following directories:

1. Data directory:

`<GTS-OperatingEnvironment>\parametric\data`

The data directory is a system directory under which all object data for an application can be found, the so-called [Creo data packages](#).

The directory *configuration* contains the directories *standard*, *units*, *projects* and *users*. Their behavior applies to all applications, see [directories of the configuration layers](#) and the [call sequence](#).

2. Standard directory

`<GTS-OperatingEnvironment>\parametric\configuration\standard`

3. Unit directory:

`<GTS-OperatingEnvironment>\parametric\configuration\units\%GTS_UNIT_DIR_NAME%`

4. Project directory:

`<GTS-OperatingEnvironment>\parametric\configuration\projects\%GTS_PROJECT_DIR%`

5. User directory:

`<GTS-OperatingEnvironment>\parametric\configuration\user\%USERNAME%`

Please note: In order to work with data for other CAD systems in the future, the entire directory structure has been changed in version 9.0.0 of GENIUS TOOLS Starter. Consult the comparison of the old and new [directory structure](#). The adjustment of the paths is done automatically during an update.

Installation directories of Creo

There are different ways to specify an installation directory and its start command. These are described in the chapter [CAD-specific project settings](#).

Consider the following criteria:

1. If you want to make sure that each application computer throughout your company uses the same Creo version, configure the Creo installation directory for the Standard group in the Configuration page. In this way, you will not have to specify it for each project.
2. If a variety of versions or weekly versions is in use, for example because you are providing services for different customers, configure the Creo installation directory in each project.
3. If local installations are inconsistent or not known in detail, fall back on the local Windows registry to determine the Creo installation directory. You can specify which Creo version to look for, the highest weekly version for which will be used.

Please note: It is generally recommended to determine the installation path via the local Windows registry.

5.16.1 Configuration and batch files

For Creo Parametric projects you can create configuration blocks and place them in the configuration levels where they will be processed according to the call hierarchy for files, see chapter [Configuration concept](#).

All batch files can be used, see also chapter [Batch files](#).

5.16.1.1 Creo configuration files

The behavior of Creo Parametric is largely determined by the configuration file *config.pro*. This is a text file storing all settings that determine how Creo Parametric runs.

Settings in config files are called configuration options – the calculation accuracy is, for example, set by the command `enable_absolute_accuracy yes`.

The config.pro file of Creo can be located in three different folders:

- in the text directory (`<installdir>\Common Files\text`),
- in the home directory,
- in the user directory (start directory of the user).

In this order Creo copies the configuration options defined there to a single config.pro file. If a configuration option is set more than once, the last entry is the valid option value, i. e. the config.pro file is read from top to bottom.

Configuration options can also be specified in another configuration file, the config.sup file. The options set there cannot be overridden by the options in the config.pro file.

The following configuration files determine the settings for a Creo application.

| Configuration file | Function |
|--|--|
| config.pro | <p>crucial configuration file of Creo</p> <p>contains settings for a user, e. g.</p> <ul style="list-style-type: none"> – appearance of objects and of the graphics window – behavior when creating, saving or opening objects – units, tolerances, search paths and default directories – printing, import and export settings – settings for optional modules such as Pro/NC, Pro/Sheetmetal, Pro/Mold – layers and mapkeys <p>If a configuration option is not defined, the default value will apply to Creo.</p> |
| config.sup | contains settings that the user may not modify, i.e., that cannot be overwritten by the config.pro file, for example to ensure drawing standards |
| config.val | contains validation settings for data import |
| creo_parametric_customization.ui | contains UI customizations for a user |
| creo_parametric_admin_customization.ui | Created by administrator, contains UI customizations |

5.16.1.2 Configuration blocks

By using GENIUS TOOLS Starter, configuration options are not written to the Config.pro file of Creo, but to different fragmented configuration files of GENIUS TOOLS Starter, called **configuration blocks**.

A configuration block for Creo Parametric:

- is a text file that must start with "config_" and
 - end with ".pro", e.g. *config_sut_de_c6p_dir_file.pro*, *config_c8p_mapkeys.pro* or
 - end with ".sup", e. g. *config_de.sup*.
- is one of many configuration files that are read by GENIUS TOOLS Starter and converted into a config.pro file for starting Creo,
- can contain one or more multiple Creo configuration options, i. e. settings for users,
- is not to be mistaken for the config.pro file of Creo, which exists only once,
- is also called config file.

Configuration blocks are created manually and distributed to the desired [configuration layers](#): standard, units, projects and user. Thus they provide company-wide settings as well as settings for specific departments, projects or user groups. Take note of the [Call sequence for files](#)

There are two types of configuration blocks: simple and conditional, see [Types of configuration blocks](#).

Create configuration blocks (.pro) for Creo Parametric

1. Create a text file in the desired configuration directory starting with *config_* and ending with *.pro*.
2. Write the configuration options for Creo Parametric.

Please note: For the correct display of German umlauts in GENIUS TOOLS Starter App, configuration blocks must be written in UTF8.

You can conveniently create and modify configuration blocks using the add-on program [GENIUS TOOLS Config Editor](#), which provides color highlighting, auto-completion and error messages.

Example: Configuration settings for welding

Create a text file with the name *config_c9p_welding.pro*. Write:

```
pro_weld_params_dir          $GTS_DATA\library_dir\weld_params_dir
weld_fillet_preferences_file  $GTS_DATA\library_dir\weld_params_dir\iso.spwx
weld_plug_slot_preferences_file $GTS_DATA\library_dir\weld_params_dir\iso.spwx
add_weld_mp                  yes
weld_color                   100 50 0
weld_ui_standard              ISO
weld_ask_xsec_refs            no
weld_dec_places               3
weld_edge_prep_driven_by      PART
weld_edge_prep_groove_angle   45
```

```
weld_edge_prep_groove_depth      6
weld_edge_prep_instance          YES
weld_edge_prep_root_open        1
weld_edge_prep_visibility        GENERIC
weld_geom_type_default          SOLID
```

Example: Create single project option for additional application GENIUS TOOLS for Creo

Create a text file with the name *config_1_lic_sim_live.pro*. Write:

```
! gts_display_name = GENIUS TOOLS for Creo
! gts_selection_name = GTFC
! gts_selection_default = true
! gts_is_selectable = true
protkdat $GTS_CONFIGURATION_DIR\application\protk_gtfc.dat
```

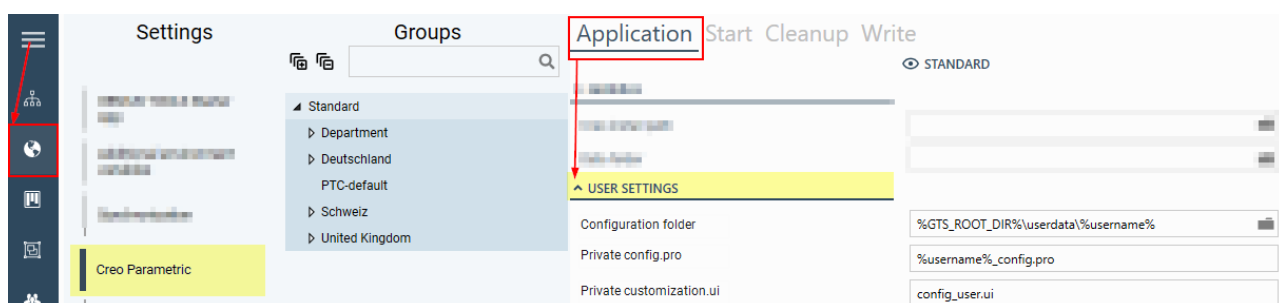
When creating single project options, note that an exclamation mark (!) must be used as a comment character, e. g. *! gts_is_selectable = true*. See chapter [Single project options](#).

5.16.1.3 User-driven configuration for Creo Parametric

Users may manage configuration blocks on their own, if granted the appropriate right, and are thus able to overwrite or append the settings established by the administrator. This is often done, for example, when working with user-defined mapkeys.

For a user to administer his or her own settings the configuration files have to be saved in the *userdata* directory, see chapter [Userdata directory](#).

Define the storage location in GENIUS TOOLS Project Configurator under *Configuration > Settings: Creo Parametric > Select a group > Tab: Application > User settings*, as well as the notation of the private configuration block.



Entering path to the userdata directory and file names

► User settings

Configuration folder

The configuration files of each user can be stored in the directory *userdata*.

Private config.pro

Name of a user-defined *config.pro* file, e. g. *config_%username%.pro*. It is appended to the

config_.pro* files in the *users*, *projects*, *units* and/or *standard* directories.

Please note: For storing their private config.pro file, users must have write access to the userdata directory, as well as the access right *Can save personal Config.pro file* [to userdata directory] *on server*. See also *Backup* tab in GENIUS TOOLS Starter App.

Private customization.ui

Name of a user-defined *customization.ui* file, e. g. *config_user.ui*. It replaces any *customization.ui* file in the *users*, *projects*, *units* and/or *standard* directories. See also *Backup* tab in GENIUS TOOLS Starter App.

5.16.2 Use in complex organizations

For companies with complex structures GENIUS TOOLS Starter offers advantages through the following functions.

| Company structure | GENIUS TOOLS Starter Functions | Procedure |
|--|--|--|
| Global distribution of locations | Working with satellites | See Installation Manual, chapter GENIUS TOOLS Starter Service. |
| | Working with Units | Creating units |
| Many departments and subdepartments | Map organizational structure | Creating subunits |
| Complex configuration for license distribution | Optimize Creo license distribution | Distribute Creo start keys (PSF key) automatically to user computers |
| | 1. Define license server per project | Define license server per project |
| | 2. Assign multiple base licenses or packages to a project | Provide several Creo start keys (PSF key) for selection in the project |
| | 3. Assign selectable license extensions to individual projects | Create project options with configuration blocks |

| Company structure | GENIUS TOOLS Starter Functions | Procedure |
|------------------------------|--------------------------------|--|
| Many additional applications | Selectable options per project | Create project options with configuration blocks |

5.16.3 Allocating Creo licenses with GENIUS TOOLS Starter

Companies that only have a few workstations may be able to maintain license files at each workstation individually, but as corporate structures grow this will be a tedious task: different workstations require different licenses, the expiration of licenses must be monitored, but most importantly an efficient assignment of licenses and license extensions to projects becomes difficult.

With GENIUS TOOLS Starter you can:

1. Specify license servers

You can assign one or more [license servers](#) to a project.

2. Assign licenses and license extensions to a project


Creo licenses can be made available to users in various ways, especially to minimize the number of projects and provide choices for users. See chapter [Optimally assigning licenses](#).

3. Distribute Creo startkeys (license keys, PSF keys) automatically

You can distribute Creo startkeys automatically to all user computers. GENIUS TOOLS Starter copies all PSF files located in the configuration folder (Cadpool) of the user computer to the bin directory of the Creo installation folder. Alternatively, only those PSF keys that control a specific project can be copied. See chapter [Start](#).

Automatic copying is greatly beneficial when changes are made to the PSF keys as the maintenance effort is reduced significantly.

4. Work offline by license borrowing

Borrowing licenses for a certain period of time is especially advantageous for mobile working. Users who have the right to borrow licenses can see the button  in the Licenses tab in GENIUS TOOLS Starter App and can use it to start the [license borrowing](#) process of PTC.

5.16.3.1 Basic information

This chapter introduces [Creo licenses](#) and [Creo startkeys](#).

Creo licenses

When purchasing Creo Parametric software from PTC, you receive a FlexNet license key (license key for FlexNet). This consists of the name of the base license and – if available – the numbers of the license extensions (modules), e.g. #116 for NC-SHEETMETAL, #339 for Mold Analysis.

1. **Creo Parametric base license**, e. g. Creo Foundation (*PROE_Foundation*)
 - is necessary to start Creo Parametric
 - depending on the purchased product, a base license can contain a list of modules and is then labeled **base license package**, e. g. Creo Advanced XE
2. **Creo Parametric license extensions** (also called license key features), e. g. Plastic Advisor (*134*)
 - extends a basic license (package) with functions
 - can be purchased separately
 - always requires a base license package
 - a **license extension package** contains several license extensions, e. g. Creo Advanced Assembly Extension (*AAX*)

Creo Parametric – together with the previous products Pro/ENGINEER and Wildfire – has been on the market for over 30 years. During this time many modules have been created and many products were sold by PTC and resellers. In addition, countless product packages were created as part of sales initiatives. Thus, it is hardly possible to keep track of all basic license packages and their diverse functions. As a result, all long-time users of Creo Parametric have a different license key architecture.

The following table lists some examples of products and their license keys.

| Produkt | Beschreibung | Lizenzschlüssel |
|---------------------------|--|-----------------|
| Creo Foundation | Base license | PROE_Foundation |
| Creo Advanced SE | Basic license package with the additional modules Surface, Design Animation, Modelcheck, Mold Analysis Lite and others | PROE_AdvSE |
| Creo Advanced XE with AAX | Basic license package with the additional modules Assembly/AAX and other modules | PROE_FAPAAX |

| Produkt | Beschreibung | Lizenzschlüssel |
|--|---|---------------------------------------|
| Assembly | License extension | 6 |
| Creo Advanced Assembly Extension (AAX) | License extension package with Notebook (0), Assembly (6), Process for Assemblies (97), WebLink (108), Creo Layout 3D Integration (292), Creo Options Modeler Basic (329) | PROBUNDLE_10119 0,6,97,108,292,329 |

Administrators of Creo Parametric have the task of correctly assigning existing as well as newly purchased licenses to users. In other words, administrator are faced with a license structure and have to set up the Creo Parametric startup options, i.e. the Creo startkeys, accordingly.

Creo startkeys (PSF keys)

A startkey is a configured start command that opens Creo with one or more specified licenses or license extensions.

Creo startkeys are created as PSF files and are located in the directory `<creoinstalldir>\Parametric\bin`. Startkeys are generated during setup with the PTC installation wizard or can be reconfigured later (`<creoinstalldir>\Parametric\bin\reconfigure`). Refer to the Creo manuals from PTC for more information.

When the program starts, Creo reads the startkey to determine which licenses and extensions are to be searched for on which license server(s). This is defined in the environment variables `PTC_D_LICENSE_FILE`- and `CREOPMA_FEATURE_NAME`.

GENIUS TOOLS Starter intervenes in this process and

- *replaces* the PTC environment variables:

when settings are made in GENIUS TOOLS Project Configurator, i. e. for license server and base license specifications.

or

- *adds* additional information to the PTC environment variables:

when settings are entered into configuration blocks, i. e. for license extensions and other project options, such as add-on programs.

Assigning licenses to a startkey

Each startkey should contain information about the base license package and the license extensions. One startkey can contain several license extensions, as well as several base licenses.

Usually, multiple startkeys are created for Creo, since the same license structure is typically not available for all workstations. The actual number of startkeys required and the license information they contain depends on the procedure you choose to [optimize license usage](#), as described in the next chapter.

Examples for license information in start keys:

Feature in der Datei *found.psf*: ENV=CREOPMA_FEATURE_NAME=PROE_FOUNDATION ()

Feature in der Datei *manikin.psf*: ENV=CREOPMA_FEATURE_NAME=PROE_FOUNDATION (277 278)

Feature in der Datei *AAX.psf*: ENV=CREOPMA_FEATURE_NAME=PROE_AdvSE ()

5.16.3.2 Determining license servers

If multiple license servers exist in an organization, you can assign one or more license servers to a specific project, unit or group.

You can also assign multiple license servers to a project and define the order in which the servers are accessed.

Example: For the unit United Kingdom the license server in the United Kingdom should be searched first and the license server in Asia last.

1. In the Resources main page create the resource Creo license server with the name *ALLSERVERS*, which contains all license servers, e. g.
7788@licserverUK;7788@licserverUS;7788@licserverAS

The order of the servers corresponds to the search query.

2. Go to the unit United Kingdom and select the license server *ALLSERVERS* in the tab *Start in Creo Settings*.

5.16.3.3 Optimally assigning licenses

There are three ways to use GENIUS TOOLS Starter to assign licenses and extensions to one or more projects.

- Method 1: Fixed assignment of a startkey to a project
- Method 2: Assigning several startkeys to one project
- Method 3: Assigning license extensions to a project

Choose the method according to the license structure.

The three methods can best be explained using an example.

Methods of license usage by example

The following example describes an optimal creation of Creo startkeys for different typical situations.

Assumptions: The license server CADLICENSES is used. Creo startkeys (PSF keys) are created by default with the PTC Setup or edited with "reconfigure". They are located in the bin folder of PTC, e. g. *PTC\Creo 8.0.0.0\Parametric\bin*.

Initial scenario: One type of license

A company employs 10 Creo users and has 10 "Creo Foundation" base license packages.

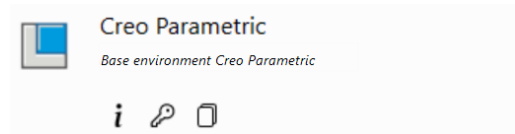
Solution / **Method 1**: You require one Creo startkey which is assigned to one project.

– Content of the file *parametric.psf*:

```
ENV=PTC_D_LICENSE_FILE==7788@cadlicenses
ENV=CREOPMA_FEATURE_NAME= PROE_Foundation ()
```

– In GENIUS TOOLS Project Configurator, assign the startkey *parametric.psf* to the project *Creo Parametric*. (Consult the chapter [Assigning Creo licenses to projects](#) for a step-by-step guide).

Result: 10 users can start the project without any options.



Scenario A: Several types of licenses

Two construction engineers join the team. The base license package "Creo Foundation" no longer exists, so the base license package "Creo Advanced SE" is purchased.

Situation: There are 10 Creo Foundation base license packages and 2 Creo Advanced SE base license packages for 12 users.

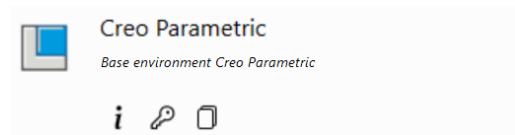
Solution / **Method 1**: The existing PSF key is extended.

– In the *parametric.psf* file the license specification for Creo Advanced SE has to be added:

```
ENV=PTC_D_LICENSE_FILE==7788@cadlicenses
ENV=CREOPMA_FEATURE_NAME= PROE_Foundation PROE_AdvSE ()
```

– No editing needed in GENIUS TOOLS Project Configurator for the 12 users to work.

Result: 12 users can start the project without any options.



Result: The project is started without any selections in the GENIUS TOOLS Starter App user component.

Scenario B: One license type with license extension package

The top-down technology (skeleton models, reference control etc.) is to be used. For this purpose, two license extension packages "Creo Advanced Assembly Extension" (AAX) are purchased.

Situation: There are 10 Creo Foundation base license packages and 2 AAX license extension packages for 10 users. Creo Parametric can be started without AAX and with AAX (but only 2 times).

Solution: You can use all three methods. For all of them users are given the option to start a project with or without an AAX license extension.

– Content of *parametric.psf* (as in initial scenario):

```
ENV=PTC_D_LICENSE_FILE==7788@cadlicenses
ENV=CREOPMA_FEATURE_NAME= PROE_Foundation ()
```

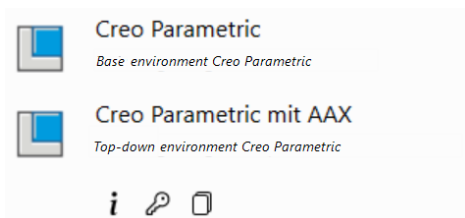
– For methods 1 and 2, a second startkey is created with the content:

```
ENV=PTC_D_LICENSE_FILE==7788@cadlicenses
ENV=CREOPMA_FEATURE_NAME= PROE_AdvSE (0 6 97 108 292 329)
```

Method 1: Assigning a startkey permanently to a project.

– GENIUS TOOLS Project Configurator a new project is created with the second Creo startkey *aax.psf*.

Result: Two projects can be started without any options.

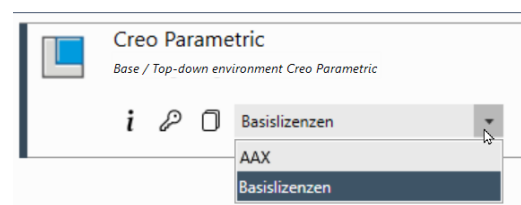


Hint: Project permissions can be used to grant selected users only the right to see the project with AAX.

Method 2: Assigning multiple startkeys to a project.

– The second startkey *aax.psf* is assigned to the project. (See [Projects with several startkeys to choose from](#)).

Result: The project has an option for selecting the Creo startkey.



Method 3: Assigning license extensions to a project

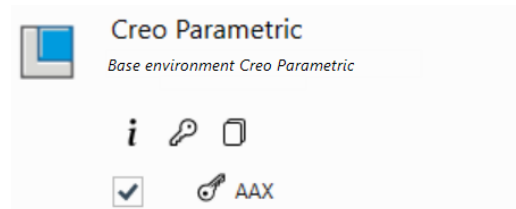
– The *aax.psf* startkey is not used.

– Create a configuration block in the project folder which contains information about the AAX license extension package. (See chapter [Single project options](#) for details).

– Contents of the `config_aax.pro` file:

```
! gts_creo_lic = 0 6 97 108 292 329
```

Result: The project has an option for selecting the AAX license extension (checkbox).

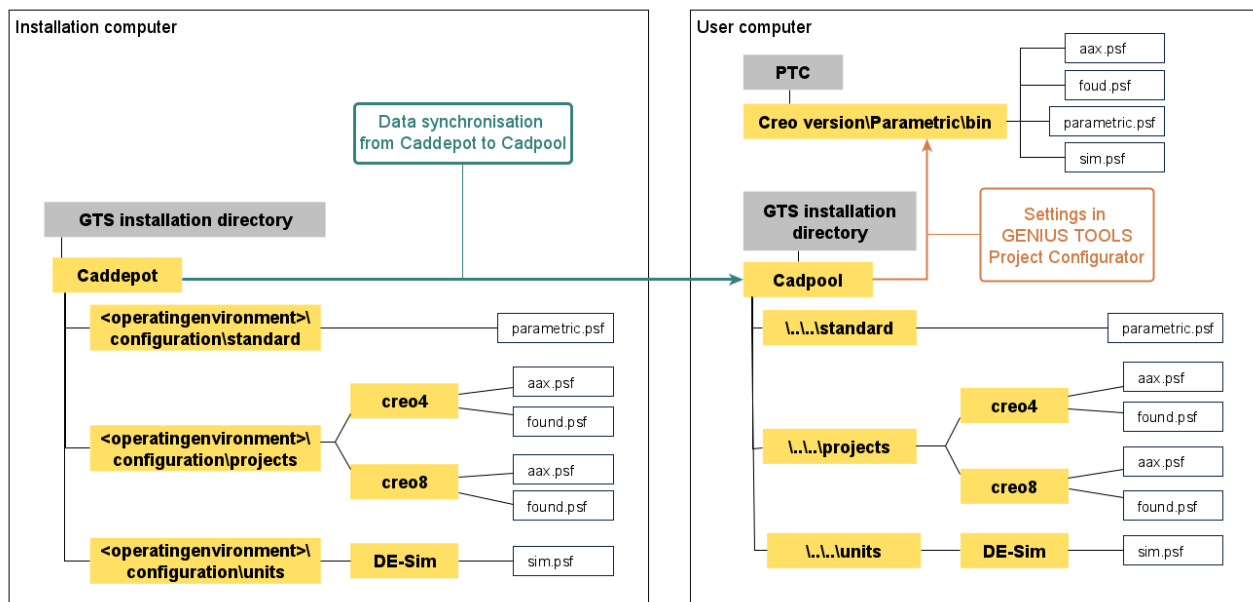


Tabular overview of license usage methods:

| | Method 1 | Method 2 | Method 3 |
|---|--|--|---|
| Description | Fixed assignment of a startkey to a project | Assigning several startkeys to one project | Assigning license extensions to a project |
| Project options in GENIUS TOOLS Starter App | No options for project | Selecting a startkey from a list of startkeys | Activating one or more project option(s) |
| Settings | <i>Projects > Application > Project > Tab: Start > Creo startkey</i> | <i>Projects > Application > Project > Tab: Start > Creo startkey configuration</i> | Creating a configuration block (<code>config_*.pro</code>) in a configuration directory |
| Advantage | Quick provision of a simple configuration | Number of projects is minimized | Number of projects is minimized significantly |

5.16.3.4 Automatic distribution of Creo startkeys

You can automatically distribute Creo startkeys (PSF keys) to all user computers. GENIUS TOOLS Starter copies all PSF files located in the configuration directory (Cadpool) of the user computer to the bin directory of the Creo installation directory of the user computer. The files are copied to the bin directory of the Creo version that is assigned to the project.




Automatic copying is useful when PSF keys were edited. The maintenance effort is significantly reduced.

The function to copy startkeys is activated in GENIUS TOOLS Project Configurator in the menu item *Configuration* under *Creo Settings* > *Tab: Start* > *Dialog: Creo startkey*. There you can choose:

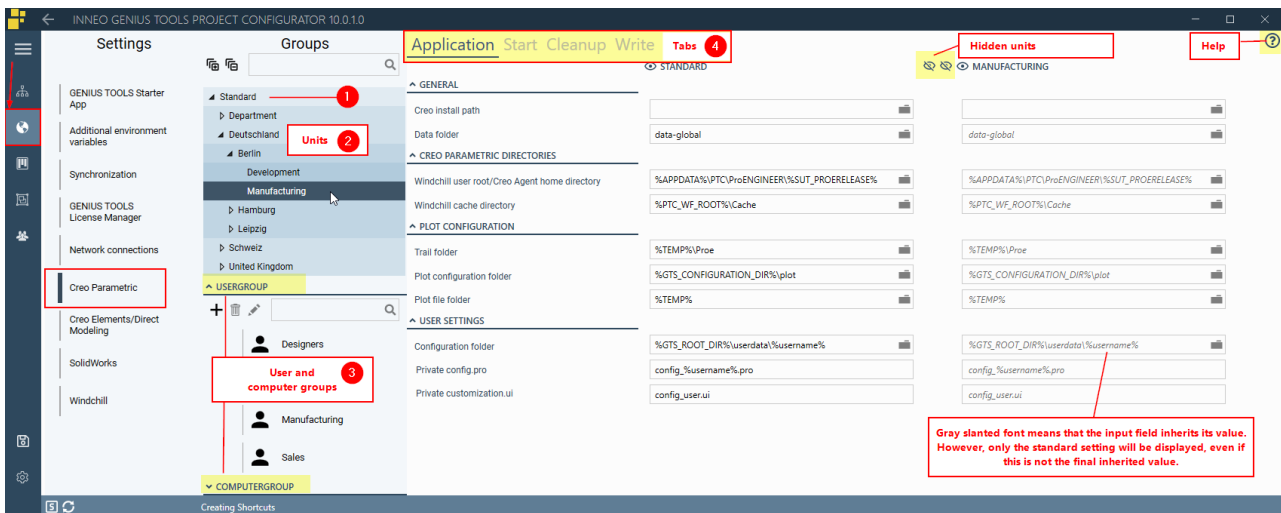
- whether all Creo startkeys are copied to the bin directory or
- whether only project-relevant startkeys are copied to the bin directory oder
- whether the bin directory is cleaned up before, i. e. all startkeys are deleted before copying. (This is only possible for startkeys in the units and users directories).

The startkey used for the project depends on the [call hierarchy for configuration blocks](#).

5.16.4 Group settings

In the main page Configuration  you can define the behavior of Creo Parametric. You can set the behavior here for the system-wide standard (1) as well as for units (2) and groups (3).

To switch between tabs click on [Application](#), [Start](#), [Cleanup](#) or [Write](#) (4).



The Application tab in the Creo Parametric settings dialog.

Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

You can also specify settings directly for individual projects, which will overwrite the data specified here for a unit or group. (*Projects > Creo Parametric > Select project > Creo tab.*)

For general information on groups, see the chapter [Configuring heterogeneous environments](#): and for the inheritance of settings go to the chapter [Call sequence for settings](#).

5.16.4.1 Application

► Startup settings

Creo install path

You can specify a directory on the user computer where Creo is installed, or leave the field empty, which means the installation directory is searched for automatically from the local Windows registry and the Creo version is used as specified in the project settings. For more information consult the chapter [CAD-specific project settings](#).

Please note: It is generally recommended to have the installation path be determined from the local Windows registry.

Data directory

Enter the data directory to be used. The data directory is the main directory of an operating environment containing Creo-related data.

The following data is stored in the data directory:

- **Libraries:** all library parts and their directories with MNU file
- **Configuration:** bend table, search.pro, hole chart, DTL file for drawing representation, DMT file for colors in Creo, FMT file for displaying parts lists in the

browser

- **Materials:** material files for Creo in the MAT format
- **ModelCheck:** configuration files for ModelCheck
- **NC:** templates and configurations for NC machining.
- **Drawings:** files for drawing frames, notes and symbols

Please note: The files *config_*.pro*, *config_*.sup* and *customization.ui* can be stored separately from the data structure due to their potential multiple use. If you want to use project-specific configuration files, set the folder for them as the project folder in *GENIUS TOOLS Project Configurator > Projects > Creo*.

► Creo Parametric directories

The input fields are described in the chapter [Workspace for Windchill](#).

► Plot configuration

Trail folder

Creo trail files, recording all production steps, are written to this directory, e.g. *%TEMP%\Proe*.

Plot configuration folder

This directory contains the configuration files (PCF and PNT) for the plotters, e.g. *%GTS_ROOT_DIR%\parametric\configuration\plot*.

Plot file folder

Directory on the workstation in which Creo stores the plot files. e.g: *C:\Temp*.

► User settings

Configuration folder

The configuration files of each user can be stored in the directory *userdata*.

Private config.pro

Name of a user-defined *config.pro* file, e. g. *config_%username%.pro*. It is appended to the *config_*.pro* files in the *users*, *projects*, *units* and/or *standard* directories.

Please note: For storing their private *config.pro* file, users must have write access to the *userdata* directory, as well as the [access right Can save personal Config.pro file](#) [to *userdata* directory] *on server*. See also [Backup tab in GENIUS TOOLS Starter App](#).

Private customization.ui

Name of a user-defined *customization.ui* file, e. g. *config_user.ui*. It replaces any *customization.ui* file in the *users*, *projects*, *units* and/or *standard* directories. See also [Backup tab in GENIUS TOOLS Starter App](#).

5.16.4.2 Start

In the Start tab you can define the start behavior of Creo Parametric.

For managing the behavior of a single project, go to the *Start* tab in *Projects* main menu.

► Startup Settings

Creo startkey

Specify the license key (PSF file) of the respective Creo installation. The query for license keys corresponds to the general query sequence: Standard > Unit > Computer group > User group > Project.

You can either enter a file name (e. g. *parametric.psf*) or a complete path (e. g. *D:\PTC\Creo 9.0.0.0\Parametric\bin\parametric.psf*). If a Creo startkey has not been synchronized to the user computer, this startkey cannot be displayed to the user for selection. Make sure that the settings in the groups and the display behavior in the licenses tab (add versus overwrite) are correct.

Warning: The behavior of the startkey will change, if multiple keys are permitted for a project in the Creo Startkey Konfiguration section below.

- If the entry is left empty, users must actively select a startkey in GENIUS TOOLS Starter App before being able to open a project.
 - If a startkey is entered here, it will become the default setting for the selection field in GENIUS TOOLS Starter App and users will be able to choose another startkey.
-

Startup folder

Enter the working directory of Creo.

Language

The language in which the application starts can be specified. If no setting is selected, the application will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (`LANG`) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable `LANG`, if defined on the application computer.

Show only installed languages

By default only languages of installed versions are displayed in the drop-down menu (see above setting).

Yes: Menu contains only installed languages.

No (default): Menu contains all languages supported by the application.

Enable stop batches

Yes: Additional batch files can be executed after Creo has been stopped.

No: No stop batch files can be executed after Creo has been stopped.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the *<application>\configuration* directory.

Activate Creo Update Notifier

Specify whether a notification should be displayed in Creo Parametric when new versions are available, including information about new functions.

Yes: The notifier from Creo appears. The environment variable CREO_MOR_NOTIFY_DISABLE is set to "false".

No: No notifier. The environment variable CREO_MOR_NOTIFY_DISABLE is set to "true".

► License borrowing

Maximum duration

Specify for how many days licenses may be borrowed at most. Please note that in Creo, the maximum borrow duration is determined by the environment variable LM_BORROW_DURATION. Project Configurator does not check whether the value you enter is valid for Creo.

Default duration

Specify the borrow duration in days that is set as the default when a user borrows licenses.

► Creo startkey

Synchronize Creo startkey

You can add Creo startkeys (PSF files) for each project in the project directory under *configuration*. For each PSF file, a matching BAT file will be created automatically. If you only want to copy startkeys required for a specific project to the application computers, set *Copy project-related startkey only* to *Yes*.

Yes: Creo startkeys and any startkeys stored in the project directory are copied to the BIN directory of the Creo installation *before* project selection.

Yes, cleanup before: All startkeys in the *bin* directory of the specified Creo version are deleted before synchronization, except *cocreatesim.psf* und *gts.psf*. This option can only be set for groups and units, not for projects.

Warning: Setting this option may lead to invalid projects, if no other Creo startkey(s) are synchronized.

No: Creo startkeys will not be synchronized to application computers.

Please note: The key synchronization setting is a general settings which will only be used for a project if the project does not have its own specific key synchronization setting.

Copy project-related startkey only

Only the startkey required for a project is copied. This option can only be used if the above option *Synchronize Creo startkey* is set to *Yes*.

Yes: Only the startkey relevant to a project is copied.

No: All PSF files stored in the project folder will be copied as startkeys.

► Creo License Server

Creo license server

Select the Creo license servers to be used for the group, unit or standard. The list is created in *Resources > Creo license servers*.

No selection (default): The license server, which is specified in the Creo startkey (PSF file), is used.

All: The corresponding license server is used.

► Licenses

Show licenses

Specifies whether the licenses specified in a project are displayed in the licenses tab of GENIUS TOOLS Starter App.

Yes: Creo licenses are listed. The license status is not obtained; validation is possible by using the Analyze Licenses function.

No: Creo licenses are not displayed. The settings *Get extensions*, *Calculate licenses by extension* and *Identify license users* can not be utilized.

PTC license reusable per host

State whether your PTC licenses can be used several times.

Yes: Use this option if you have DUP_GROUP in your PTC license file. The license validation will calculate the free PTC licenses in a way that PTC licenses that are already in use by another session on the same application computer will show an amount of at least one, making the project valid.

No: Use this option if you are unsure or cannot find DUP_GROUP in your PTC license file.

Please note: For this option to produce the correct result, the PTC license must contain the keyword DUP_GROUP according to CS234779. This information cannot be determined by GENIUS TOOLS Starter App.

Get extensions

Define whether extensions should be queried. To use this setting, *Show licenses* has to be set to *Yes*.

Yes: In addition to the basic license, extensions are also queried on the license server.

No: Only the basic license is queried.

Calculate licenses by extensions

Define whether a free license is calculated based on the basic license or on extensions. To use this setting, *Get extensions* has to be set to *Yes*.

Yes: Extensions are also used for license calculation.

No: Licenses are calculated on the basic license.

Identify license users

Define whether users of a license are identified.

Yes: User names are displayed on the client as a tooltip of the corresponding license name. The Windows user name is replaced by the GENIUS TOOLS Starter alias.

No: No user names are obtained or displayed.

Please note: If the alias should be displayed, the users have to be configured under *Resources > Users*. Otherwise, the Windows user name will be displayed.

Timeout for FlexNET server

Enter a maximum duration for the license query in seconds. The license servers are pinged before the license query is started. If the server does not respond to the ping, the query will still be executed.

The duration you enter is also used as a maximum time for the license query.

If you expect licenses to be unavailable from time to time, set the timeout to 0, which means that there is no timeout specified.

Default: 0 (no timeout specified)

► Creo Startkey Configuration - *Subscription* -

The startkeys listed here are those that have been added in *Resources > Creo Startkeys*. If multiple startkeys are made available, users can select a startkey at project start in GENIUS TOOLS Starter App. The utilization of startkeys corresponds to the general call hierarchy for configuration settings: Standard > Unit > Computer group > User group > Project. See also chapter [Assigning Creo licenses to projects](#).

Use: Define, whether one Creo startkey is used or whether several startkeys are displayed for selection in GENIUS TOOLS App.

Display name: Displays the name of the startkey as specified in *Resources > Creo startkeys*.

Comment: Displays the comment as specified in *Resources > Creo startkeys*.

5.16.4.3 Cleanup

Configuration files of Creo Parametric are not overwritten by default. If a new file is to be created, a previous deletion of the old configuration file is necessary. Here, you can manage the cleanup settings of GENIUS TOOLS Starter App for Creo projects.

► Text directory

Define whether following configuration files are deleted or retained in the text directory of a Creo installation: *config.pro*, *config.sup*, *customization.ui*.

Yes: Delete

No: Retain

Please note: Make sure the user has access rights to delete files in the text directory of a Creo installation. This will be of special importance if Creo is installed in *Programs*.

► Home directory

Config.pro

Determines whether the configuration file *config.pro* in the user's home directory is deleted or retained.

Yes: Delete

No: Retain

Customization.ui

Determines whether the file *customization.ui* in the Settings directory in *PTC_WF_ROOT* is deleted or retained.

Yes: Delete

No: Retain

► Startup directory

Config.pro, Customization.ui, Config.val

Define whether these configuration files are deleted or retained in the start directory of a Creo installation.

Yes: Delete

No: Retain

► Alternative path

Config.pro, Config.sup, Creo_parametric_admin_customization.ui

Define whether these configuration files in the alternative target directory are deleted or retained.

Yes: Delete

No: Retain

5.16.4.4 Write

Configuration files for Creo can be located in three different places, which can affect the configuration of Creo. Here, you can influence the copy settings of GENIUS TOOLS Starter and define target directories.

Warning: A new configuration file will only be written if no configuration file is yet stored at the location. Use the settings in the *Cleanup* tab to avoid difficulties.

► Target directories

Use alternative path (from 9.0.2.0)

As of version 9.0.2.0, it is possible to write the Creo configuration files *config.pro*, *config.sup* as well as *creo_parametric_admin_customization.ui* in a directory other than Text, Home or Start.

Yes: The alternative path below is used and the environment variable PTC_CREO_ALT_SETTINGS_PATH is set. The target directory for the file *config.pro* is no longer used for version 9.0.2.0 and later. For projects of older Creo version, the *config.pro* file is written to the target directory up to 9.0.1.0 and the *config.sup* file is written to the text directory.

No: Do not use an alternative path.

Alternative path

Specify a directory for which users have write access.

Config.pro (up to 9.0.1.0)

Select the directory to which the *config.pro* file will be copied. If no directory is selected, the file will be copied to the home directory.

Text: The *config.pro* file is copied to the text directory of the Creo installation.

Home (Default): The *config.pro* file is copied to the home directory of the user.

Start: The *config.pro* file is copied to the startup directory.

Please note: Make sure the user has access rights to create files in the text directory of a Creo installation. This will be of special importance if Creo is installed in the *Programs* directory.

Customization.ui

Select the directory to which the *customization.ui* file will be copied. If no directory is selected, the file will be copied to *PTC_WF_ROOT*.

PTC_WF_ROOT: The file *creo_parametric_customization.ui* is copied to the Settings directory in *PTC_WF_ROOT*. If the file *creo_parametric_admin_customization.ui* exists and no alternative path is specified from version 9.0.2.0 and later, it will be copied to the text directory.

Start: When existent, the *creo_parametric_admin_customization.ui* file is copied to the text directory. The *creo_parametric_customization.ui* file is copied to the Creo startup directory.

Please note: If Creo is to read the *customization.ui* file from the startup directory, the following option must be set in the *config.pro* file: `load_ui_customization_run_dir yes.`

► Config Handling

Specify whether the following configuration files should be written.

Please note: To copy current configuration files, the corresponding files in the target directory have to be deleted first (see *Cleanup* tab). This makes sure that the *config.pro* settings defined by the administrator will always be used.

Config.pro

Yes: A *config.pro* is compiled and copied to the target directory unless a *config.pro* file exists there already.

No: Writing *config.pro* is skipped.

Config.sup

Yes: If a *config.sup* is found in the project folder, it will be copied to the target directory unless a *config.sup* file exists there already.

No: Writing *config.sup* is skipped.

Customization.ui

Yes: If a *customization.ui* is found in the project folder, it will be copied to the target directory unless a *customization.ui* file exists there already.


No: Writing *customization.ui* is skipped.

Config.val

Yes: If a *config.val* is found in the project folder, it will be copied to the target directory unless a *config.val* file exists there already.

No: Writing *config.val* is skipped.

5.16.5 Project settings

Project settings are the specifications you make in the main page *Projects*  under *Applications > Creo Parametric* in the tabs *Creo*, *Start*, *Windchill* and *Environment*.

After having created a new project with the [general project specifications](#), fill in the following input fields. These entries overwrite both the group-specific entries and the standard settings for the startup behavior of the application, which are made under *Configuration > Creo Parametric > Tabs: Application / Start*. For more information, see the chapter [Configuration concept](#).

5.16.5.1 Settings for Creo projects

After having created a new project, specify the following settings in the *Creo* tab.

► Creo Parametric

Release

Defines the Creo Parametric version to be used. A path can be configured, or determined

automatically from the registry of the application computer. See [Installation directories of a CAD application](#).

Fixed path: Select the Creo directory from the drop-down menu. This may differ from the Creo directory for the standard settings. Without a directory defined here, the settings for the standard group will be used. (See *Configuration > Creo Parametric > Group: Standard > Application > General > Startup settings > Creo install path*).

Creo versions: Select a Creo version. If you select Creo 9, for example, the installation directory for the latest Creo 9 release on the application computer will be determined from the registry.

Please note: Creo has to be installed locally on the application computer in order to have registry entries available. The user has to have read permission in HKLM.

Lowest shipcode (optional)

Lowest usable weekly version. There is a dropdown list for versions up to Creo 4. Starting with Creo 5, enter the required version manually in a four-digit format like *8.0.1.0*.

Highest shipcode (optional)

Highest usable weekly version. There is a dropdown list for versions up to Creo 4. Starting with Creo 5, enter the required version manually in a four-digit format like *8.0.1.0*.

Project folder (optional)

Folder in *configuration\projects*. The files *config.pro*, *config.sup*, *customization.ui* and *config.val* are copied as templates from this directory to the application computer.

Data folder (optional)

Main directory of an operating environment to which Creo-related data is saved.

Please note: The configuration blocks (*config_*.pro*, *config_*.sup*) should be stored separately from the data structure due to their potential multiple use. These files should be managed in the specific subdirectories of the configuration directories *Units*, *Projects*, or *Users*, or in the *Standard* directory for global settings. See [Configuration concept](#).

The next section *Creo directories* is explained in the chapter [Workspace for Windchill](#).

5.16.5.2 Creo data packages

All Creo object data is stored in subdirectories for each operating environment, the data packages, for example *<GTS_ROOT_DIR>\parametric\data\sut_creo9*.

The Creo data is stored in the following directory structure within a data directory:

| Name | Type |
|----------------|-------------|
| config | Dateiordner |
| library_dir | Dateiordner |
| material_dir | Dateiordner |
| modelcheck_dir | Dateiordner |
| nc | Dateiordner |
| texture | Dateiordner |

- **config:** bend table, search.pro, hole chart, DTL file for drawing representation, DMT file for colors in Creo, FMT file for displaying parts lists in the browser
- **library_dir:** all library parts and their directories with MNU file.
- **material_dir:** material files for Creo in the MAT format
- **modelcheck_dir:** configuration files for ModelCheck
- **nc_dir:** templates and configurations for NC machining
- **Drawings (texture):** files for drawing frames, notes and symbols

All references to data in the data directory are defined in project configuration files, i. e. in **configuration blocks** (*config_*.pro* files) in the projects directory. If there are no project-specific references, the general configuration files in the *standard* directory will be used, i. e., the *config_*.pro* files under *<GTS-OperatingEnv>\parametric\configuration\standard*.

It is recommended to consistently use variables in your references. For example, a reference to a data directory from a *config_*.pro* uses the variable `$GTS_DATA`.

Example: A reference in the configuration file *config_sut_de_c9p_dir_file.pro* in the project directory *project_creo9p_de* reads

```
pro_library_dir $GTS_DATA\library_dir
```

This reference points to the directory *library_dir* within the data directory.

Hint: It is recommended to use variables where possible.

Please note: Many configuration options can be set only once in Creo. In this case, the value of the latest entry is used, that is, the value from the file that is copied last. There is a defined call hierarchy for the files, see [Call hierarchy](#).

5.16.5.3 Defining start behavior for a project

In the *Start* tab specify the start behavior of an individual project. These specifications overwrite the specifications for the start behavior set for groups or the default settings (main menu item *Configuration > Group (select) > Creo Settings > Tab: Application > Area: Startup behavior*). For more information consult [Configuration concept](#).

► Startup settings

Starting behaviour

Select the application which will open the project.

Creo (default): The project is started with Creo.

External: The project is started with another application (e. g. SAP). For more information got to chapter [Linking projects with SAP](#).

If *External* is selected two additional fields open:

External start command

Enter the path to the executable file that is to start the project.

Command arguments for external start

Enter commands that specify how the executable file is started. Set the commands in quotation marks.

Creo startkey

The start command (PSF file) of the respective Creo installation. The directory of the Creo installation is defined above under *Release*. You can also overwrite the default setting (e. g. parametric.psf) and specify a path here, such as `D:\PTC\Creo6\bin\proel.psf`

Warning: If several keys are permitted for a project (in the *Licences* tab), the startkey will become the default setting for the selection field in GENIUS TOOLS Starter App, i. e. users will be able to choose another startkey.

Please note: If a defined startkey is not available on the client computer, you can choose to display the project in GENIUS TOOLS Starter App as follow (Go to *Configuration > Groups > GENIUS TOOLS Starter App > Projects > [Displaying invalid projects](#)*):

- Display with error warning: Project without a valid license is displayed with a red background and cannot be started. (Select *Yes, as error*)
 - Project is not displayed. (Select *No*)
-

Synchronize Creo startkey

Yes: The start key (PSF file) is copied from the project folder to the Creo BIN directory.

No: The start key is not copied, even if system-wide synchronization has been set up.

Please note: For this option, write permissions are required on the application computer in the Creo BIN directory.

Please note: Take care when synchronizing startkeys. A configuration error may lead to erroneous distribution of startkeys to application computers that should not have defined licenses available.

Language /Show only installed languages

See chapter [Language of a Creo project](#).

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the `<application>\configuration` directory.

5.16.5.4 Language of a Creo project

The language of the user interface of Creo Parametric can be set in the *Projects* main page under *Creo Parametric > Select projects > Tab: Start > Startup settings*. The following languages are available: English, German, Italian, French, Spanish, Japanese, Chinese (simplified), Chinese (traditional), Korean, Russian, Brazilian Portuguese.

Define the following settings:

Language

The language in which Creo should run can be specified. If no setting is selected, Creo Parametric will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (`LANG`) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable (`LANG`, if defined on the application computer, will be set to that language.

Show only installed languages

By default only languages of the installed Creo versions are displayed in the drop-down menu (see above setting). This input overwrites any groups settings.

Yes: Menu contains only installed Creo languages.

No (default): Menu contains all languages supported by Creo.

Creo language as a project option

Administrators can also grant users the possibility to select a language, see [Define project options > language selection field](#).

5.16.5.5 Default settings for license borrowing

You can define the maximum duration of borrowing PTC and GENIUS TOOLS licences in *Creo Parametric > Projects > Tab: Start*. This information overwrites the group and unit specific settings.

► License borrowing

Maximum duration

Specify for how many days licenses may be borrowed at most. Please note that in Creo, the maximum borrow duration is determined by the environment variable `LM_BORROW_DURATION`. Project Configurator does not check whether the value you enter is valid for Creo.

Default duration

Specify the borrow duration in days that is set as the default when a user borrows licenses.

► Creo License Server

Creo license server

Select the Creo license servers to be used for the group, unit or standard. The list is created in *Resources > Creo license servers*.

No selection (default): The license server, which is specified in the Creo startkey (PSF file), is used.

All: The corresponding license server is used.

5.16.5.6 Environment variables

In the Environment tab you can set environment variables for a Creo Parametric project.

The variables set here are added to the variables defined for [groups and units](#). Values set here for an existing environment variable will overwrite the values for groups and units.

Outdated environment variables will continue to be created for compatibility reasons. A list of created and affected environment variables can be found in the [appendix](#).

5.16.5.7 Assigning Creo licenses to projects

A project can be started with a Creo license packages by assigning one or several Creo startkey to it. A startkey is a configured start command that opens Creo with one or several defined licenses or license extensions. Startkeys are PSF files located in PTC's bin directory.

In the section *Creo startkey configuration* (*Creo Parametric > Projects > Tab: Start*) all startkeys that have been created as a resource are listed. (See chapter [Creating Creo startkeys](#).) Startkeys checked in this dialog will be those that users can select in GENIUS TOOLS Starter App. If users are provided with several keys to choose from, the number of projects can be minimized.

Individual startkeys can be locked independently of the assigned options to select for users under *Resources > Creo startkeys > Block: Yes/No*.

Administrators can create projects that either have

1. one startkey or
2. several startkeys that users can choose from in GENIUS TOOLS Starter App.

Projects with several startkeys can either

- 2.1. have a startkey set as default or
- 2.2. use the startkey last selected by the user.

1. Projects with one startkey

In the *Start* tab select a startkey from the list in *Creo Startkey Configuration*.

Creo **Start** Windchill Environment

CREO STARTKEY CONFIGURATION

| Use | Display name | Comment |
|-------------------------------------|-----------------|----------------|
| <input type="checkbox"/> | AAX | aax.psf |
| <input checked="" type="checkbox"/> | Default | parametric.psf |
| <input type="checkbox"/> | Foundation | found.psf |
| <input type="checkbox"/> | Plastic Advisor | |

Projects > Start tab

You can specifically enter a startkey for a project in the above section *Startup Settings*, but it is not necessary. (Tab: Start > Section: Startup Settings)

If you do, take care to enter the same PSF file. If the two entries are not identical, users have to first chose one startkey in the selection dialog before being able to start a project.

STARTUP SETTINGS

Starting behavior

Creo

Creo startkey

parametric.psf

Licenses tab > Startup Settings

2. Projects with several startkeys to choose from

If several startkeys are permitted for a project in the *Licenses* tab, users can select one of them in GENIUS TOOLS Starter App:

CREO STARTKEY CONFIGURATION

| Use | Display name | Comment |
|-------------------------------------|-----------------|----------------|
| <input type="checkbox"/> | AAX | aax.psf |
| <input checked="" type="checkbox"/> | Default | parametric.psf |
| <input checked="" type="checkbox"/> | Foundation | found.psf |
| <input checked="" type="checkbox"/> | Plastic Advisor | |

☐ B&W Smart Color
☒ Freestyle Design
☒ GENIUS TOOLS for Creo

Default - parametric.psf

Default - parametric.psf

Foundation - found.psf

Plastic Advisor

Mehrere Startkeys in
der Registerkarte
Lizenzen

Auswahl eines Startkeys im Info-Bereich von
GENIUS TOOLS Starter App

1. Tick the Creo startkeys that are to be permitted for the project in Tab: Start> Section: Creo-Startkey Konfiguration.
2. Decide whether or not to fill in the field *Creo startkey* in the section *Startup Settings* (see Figure 1). This gives you the following possibilities:

2.1. Projects with several startkeys and a default startkey

In the *Startup Settings* enter the Creo startkey that should be the standard in the selection field in GENIUS TOOLS Starter App. Users then do not have to select a startkey before being able to start a project. If users need another startkey, they have to activate it in the selection dialog.

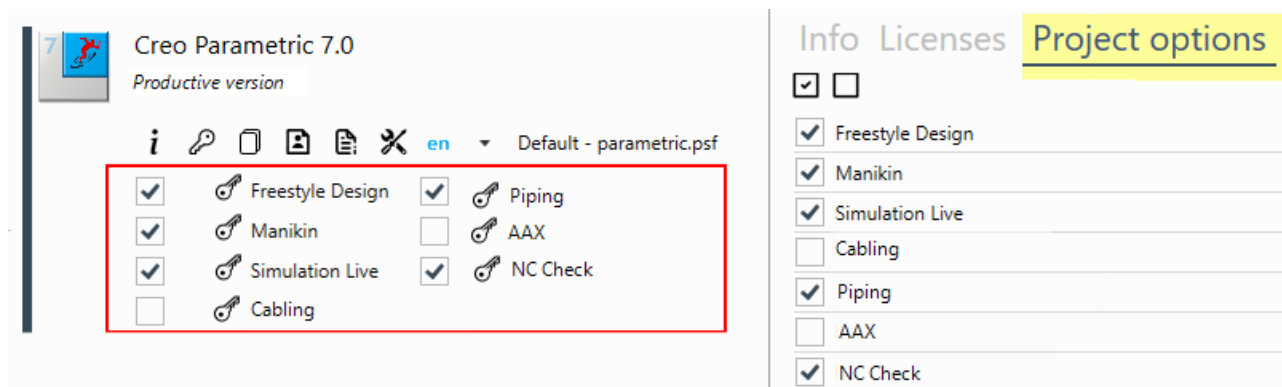
If this field is left empty and there are multiple startkeys permitted for a project, there is no default startkey set for selection.

2.2. Projects with several startkeys and without a default startkey

If there is no startkey inputted in the section *Startup Settings*, GENIUS TOOLS Starter App will start Creo with the startkey that was last selected by the user for this project.

5.16.5.8 Assigning Creo license extensions to projects

In addition to selectable Creo start keys, you can create the option for license extensions to be selected individually, i.e. independently of the start key for a project. Users see this as a checkbox in a project.



Project options in GENIUS TOOLS Starter App: checkboxes for license extensions

Advantages:

Assigning selectable license extensions to a project can reduce the number of Creo startkeys created, and therefore reduce the number of projects available to users in GENIUS TOOLS Starter App. If the license conditions allow it, you can, for example, dispense with the selection of a Creo start key altogether by creating all license extensions as project options

These project options are not created in GENIUS TOOLS Project Configurator, but with configuration blocks. The procedure is explained in the chapter [Using project options](#).

5.16.5.9 Workspace for Windchill

Set workspace directories for Windchill and Creo in the dialog *Creo Parametric directoires* in the *Creo* tab.

You can also define these entries on a group-specific basis in the *Configuration* menu item under *Creo Parametric > Tab: Application*.

► Creo Parametric directories

Windchill user root folder / Creo Agent home directory

Specify the PTC WF Root directory in which the workspace and user-specific Windchill data are stored. The directory corresponds to the Creo favorites folder.

The Creo Agent home directory, in which data relevant for Creo Agent, such as server information, is saved, has to be set to %PTC_WF_ROOT%.

Please note: If you want to specify separate Windchill directories for various Creo versions you can use variables like %GTS_PROERELASE%, which will resolve to the Creo version, e.g. Creo6, or %GTS_PROJECT_NAME% in building your path.

Windchill cache directory

Cache directory for caching of Windchill data. To use automatic server registration, the Windchill cache directory must be located below the Windchill user root folder, see chapter [Automatic Windchill Server Registration](#).

Please note: Try not to modify this option. To change the storage location of the cache, rather change the setting Windchill user root directory.

Use the Windchill tab is to register the servers. Detailed information about the procedure are in the chapter [Automatic Windchill server registration](#).

Dynamic server settings for different Creo versions

When you change the Creo version, the local cache directories should be deleted from the disk and re-created with the current Creo version. This means that when you use different Creo versions, you also need to create different cache directories. Also, the storage location for Windchill server registration information should be different.

There are two ways to ensure separate cache and server registration storage for different projects:

1. Configure independent Windchill user root directories for different projects.
2. Use variables in configuring the Windchill user root directory.

The following variables can typically be used:

| Variable | Description |
|--------------------|---|
| %GTS_PROERELEASE% | Returns the Creo version as Creo3, Creo4 etc. |
| %GTS_PROJECT_NAME% | Returns the project name |
| %username% | Returns the name of the Windows user |
| %computername% | Returns the computer name |

These variables can be used in the setting the path for the Windchill user root directory.

Example: `D:\ptc\workspaces\%username%\%GTS_PROERELEASE%\%GTS_PROJECT_NAME%`

The Creo Agent home directory, where server registration information is saved, should also depend on the Windchill user root directory. To set this up, you can define a variable for the Windchill user root directory under *Configuration > Standard > Additional Environment Settings*.

| Name | Value |
|-----------------|---------------|
| Creo Agent Home | %PTC_WF_ROOT% |

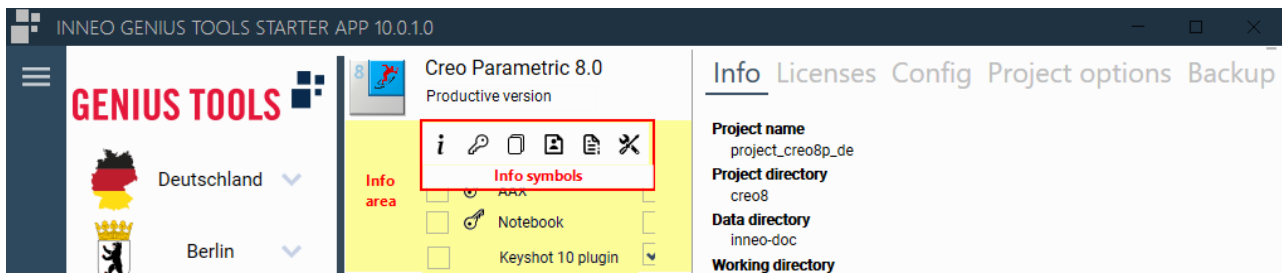
Making the Windchill user root directory dependent on the Creo version by using %GTS_PROERELEASE% and making the Creo Agent home directory dependent on that via %PTC_WF_ROOT% will lead to all server information and data being stored separately per version.

If you also make the Windchill user root directory dependent on the project name using %GTS_PROJECT_NAME%, the storage location will be project-dependent and will change with a new Creo version.


Do not use %GTS_PROJECT_NAME% if you use GENIUS TOOLS Starter projects to manage different Creo license packages, because you cannot use local workspaces for multiple projects in this way.

5.16.6 Displaying projects

You can define general settings to [present projects in GENIUS TOOLS Starter App](#), as well as provide the following project details and functions that are specific to Creo Parametric projects.



Analyse and borrow licenses

The key icon  opens the Licenses tab with the functions to analyze and borrow licenses, if users have the corresponding access rights.

- Setting: Under *Resources > Role > Tab: Function Access > Dialog: Project > Can analyze licenses* and *Can borrow licenses*.


GENIUS TOOLS Starter App borrows its license and then starts the borrowing process from PTC. Thereafter, Creo and, if configured in the project, GENIUS TOOLS for Creo each borrow their licenses, see [License borrowing process](#).

- The default and maximum borrowing period can be predefined in *Projects > Creo Parametric > Select Project > Tab: Start > Borrow Licenses*.

Backup


The `creo_parametric_customization.ui` (short: `customization.ui`) file contains the user-specific settings for the Creo graphical user interface and can be backed up and managed by the user. (See [Backup](#).)

Analysis

The info symbol  opens separate utility GENIUS TOOLS Config Analyzer to view and edit all configuration blocks and batch files used for the project and their storage location.

- Setting: Button can be deactivated under *Can analyze projects* under *Function access > Project*

Project report

The project report – created by clicking on the  button (5) – is a separate PDF file containing all information about the selected project and the current user.

- Setting: The button can be deactivated with *Can create project report* under *Function access > Project*

The information is grouped as follow:

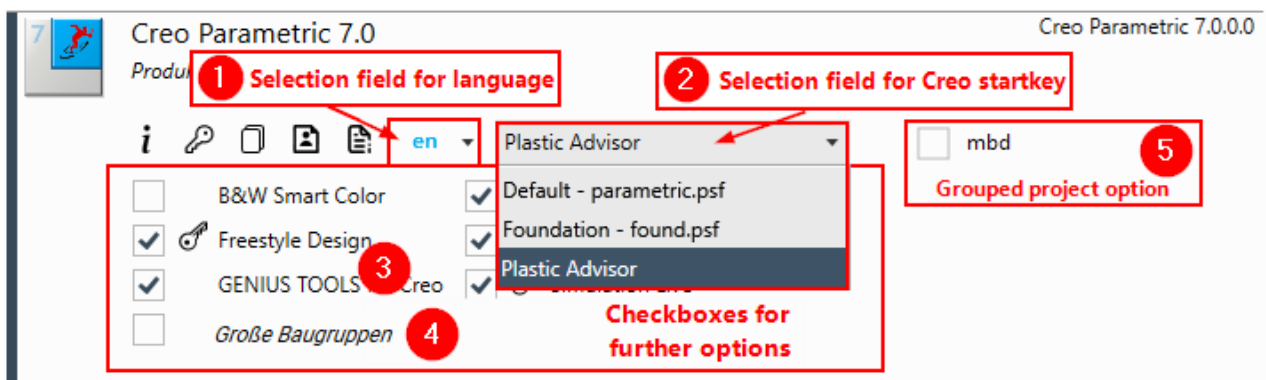
- General project details
- GENIUS TOOLS STARTER Network-settings
- GENIUS TOOLS Starter App

- Additional Environment Settings
- Synchronization
- Licensing
- Creo Settings
- Delete Creo configuration locally
- Write Creo configuration locally
- Windchill Settings
- Used Files
- Batch-files
- Config.sup
- Config.pro
- Customization.ui
- Dynamic Customization.ui
- Config.val
- Assigned rights
- Appendix
- All environment variables
- Generated config.sup
- Generated config.pro
- Generated config.val

5.16.6.1 Defining project options

Administrators can give users the option to select from the following project options.

- Creo language (1)
- Creo startkey (2)
- project options for license extensions, add-on programs and configuration settings:
 - single project options (3)
 - switch options (4)
 - grouped project options (5)



Selectable project options in GENIUS TOOLS Starter App

Like all [Creo Parametric project settings](#) project options can be defined for a specific project as well as for units, groups or system-wide.

Language selection field

You can set whether users can select the language of the projects they have access to. The right *Creo language selectable* is granted in *Configuration > GENIUS TOOLS Starter App > Select group > Projects* and applies to all projects. (See [Language selection](#).)

Selection field for Creo startkey

A startkey is a configured start command that opens Creo with one or more specified licenses or license extensions. Startkeys are PSF files in the bin directory. You can assign multiple startkeys to a project. The procedure is described in chapter [Assigning Creo licenses to projects](#). If users have multiple startkeys to choose from, a selection field appears in the selected project in GENIUS TOOLS Starter App.

Users can be given start keys to select from:

- per project: select the startkeys in *Projects > Creo Parametric > (select) Project > Tab: Start > Segment: Creo Startkey Configuration*. For more information, see the chapter [Assigning Creo licenses to projects](#).
- for several projects that can be accessed by a group or unit: Select the startkeys in *Configuration > Settings: Creo Parametric > Select project > Tab: Start > Segment: Creo Startkey Configuration*

The administrator can set in GENIUS TOOLS Project Configurator whether a project should have a default start command or whether the start command last selected by the user should be used again. (See chapter [Assigning Creo licenses to projects](#), 2.1. and 2.2..)

If the right to select is not assigned, neither selection field nor information about the used start key appears. If you want to give users an information about the start key, you can insert this in the name of the project or in the subtitle, e.g. *Creo Parametric 7.0. AAX*.

Checkboxes for project options

Administrators can define further project options that are tailor-made to a company's requirements, e. g. for starting Creo with:

- additional license extensions, such as Simulation Live or Manikin,
- additional programs such as Keyshot,
- any other configuration setting.

These types of project options are not created in GENIUS TOOLS Project Configurator, but with configuration blocks. The chapter [Making use of project options](#) explains the procedure.

For presenting the checkboxes in GENIUS TOOLS Starter App you can define the number of columns, see [Arranging checkboxes](#).

5.16.7 Linking Creo projects with SAP

With GENIUS TOOLS Starter you have the possibility to open a Creo Parametric project with a user-defined command. You can use this option, for example, to link a project with SAP-ECTR (SAP Engineering Control Center interface to PTC Creo).

To use other applications that start a Creo Parametric project, proceed as follows.

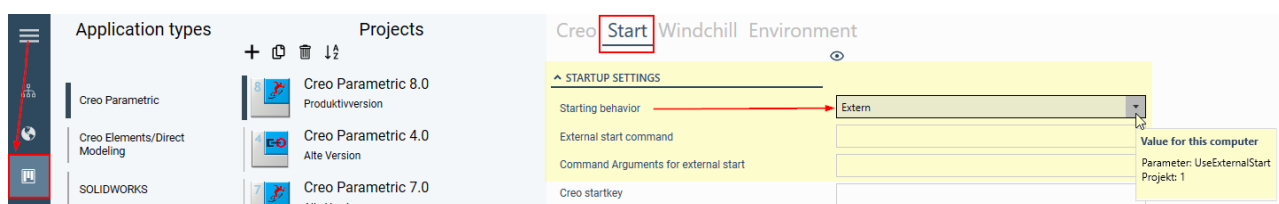
1. Check Creo versions and information for licenses and license servers (Creo startkey)

Check that the Creo version defined in the Creo project in GENIUS TOOLS Starter matches the Creo version that is to be started by the external application. The correct *parametric.exe* is available by the environment variable *PROE_START*.

Check that licenses and license servers defined in the Creo project in GENIUS TOOLS Starter match the entries in the external application. We recommend using the *gts.psf* file as Creo startkey for the external application. This ensures that the correct licenses and license servers are used.

2. Change startup behavior of the project

In GENIUS TOOLS Project Configurator in the *Projects* page, go to the corresponding project and in the *Start* tab, go to the *Startup settings* section. Change the startup behavior of the project from *Creo* to *External*. Two further input fields open.



3. Enter information about the external start behavior

In the field *External start command*, enter the path to the application (executable file) with which the project is to be opened.

In the field *Command line arguments for external start* field, enter the commands with which the executable file should be opened.

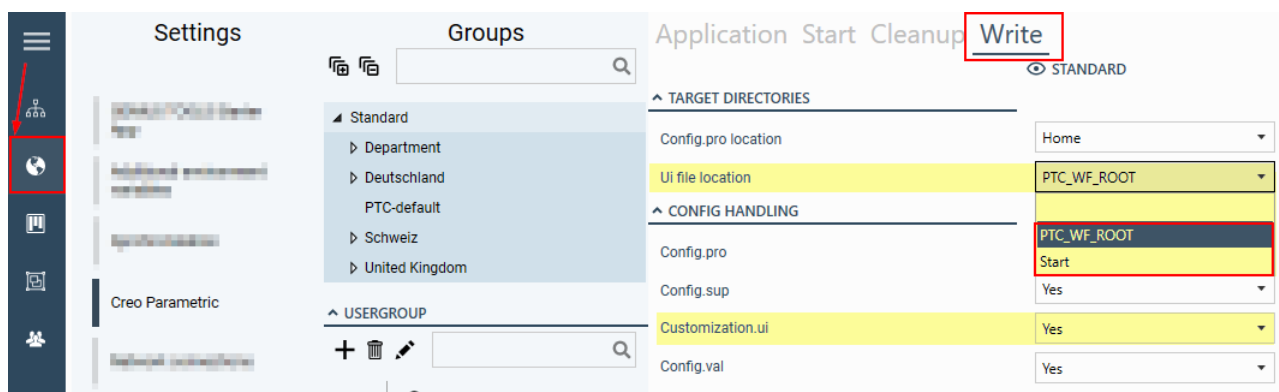
All other information about a project does not change. (See chapter [Settings for Creo projects](#).)

5.16.8 Customizing Creo user interface

If you want to customize the user interface of Creo, go in Creo to *File > Options > Configuration editor*.

Changes made in Creo will by default be saved in the file *creo_parametric_customization.ui* in the directory %PTC_WF_ROOT%\Settings, e. g. %APPDATA%\PTC\ProEngineer\creo4\Settings.

Alternatively, you can have this file stored in the startup directory. To do so, select a group in GENIUS TOOLS Project Configurator and in *Creo Settings > Write > Target Directories > Ui file location* select *Start*.



5.16.8.1 creo_parametric_customization.ui

The file *creo_parametric_customization.ui* (short: *customization.ui*) contains the settings for the graphical user interface (UI) of Creo.

To customize the user interface specific to a user or a group of users, do as follows:

1. Modify the settings for the user interface in Creo in *File > Options > Configuration editor*.
2. Copy the file *creo_parametric_customization.ui* that is saved in %PTC_WF_ROOT%\Settings by default. (The use of the startup directory as alternative storage location is described in the previous chapter.)
3. Save the copied ui-file to one of these directories: *userdata*, *users*, *projects*, *units* or *standard*. (See also [Directory structure](#).) In a subdirectory of *unit*, the UI file would, for example, determine the Creo user interface for the named unit.

The Customization.ui file is a [configuration file of Creo](#) and not a configuration block (config_*.pro file) of GENIUS TOOLS STARTER. This changes the procedure to read the settings. A single customization.ui file is read out, meaning that one customization.ui file cannot add configuration settings to an existing file, it can only substitute another customization.ui.

The customization.ui file that is found first determines the Creo user interface. The call hierarchy is as follows:

1. userdata > 2. users > 3. projects > 4. units > 5. standard

Company-wide configuration with `creo_parametric_admin_customization.ui`

The administrator can set up a configuration that is valid for the whole company or for specific users, projects or units. To do so, change the name of the ui-file that is automatically saved by Creo from *creo_parametric_customization.ui* to *creo_parametric_admin_customization* and save it to one of these directories: *userdata*, *user*, *project*, *unit* oder *standard*.

The settings in the admin file *creo_parametric_admin_customization* are overwritten or complemented by those in the individual *creo_parametric_customization.ui*.

Executing the file *creo_parametric_admin_customization.ui* follows a hierarchical search in these directories:

1. users > 2. projects > 3. units > 4. standard

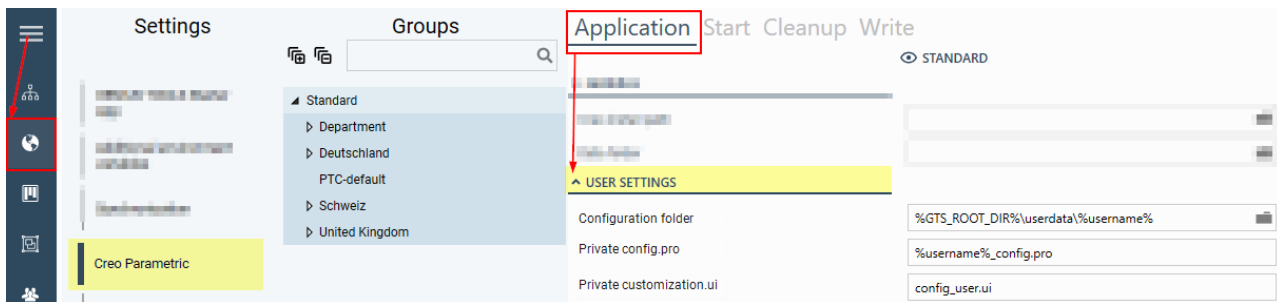
The administrator can thus set up a standardized graphical user interface for specific users, projects and units, as well as a company-wide UI configuration.

Please note: A company standard, i. e. a UI file in the *standard* directory, can only be implemented if there are no admin_customization.ui files in the directories *users*, *projects* and *units*.

Individual customization.ui file

A user can manage his or her own customization.ui file by saving it to a directory *userdata* to which the user needs write access. There are two possibilities. One, the user can access the *userdata* directory in the caddepot directory of the administration computer – from where it will be synchronized to the client computer. Two, a directory can be created in any location on the client computer. There, it does not undergo data synchronization. (See also the chapter on [User-driven configuration](#).)

The administrator can determine the storage location of the *userdata* directory in *Configuration > (select) group > Creo Settings > Application > User Settings > Configuration folder*.



Backup mechanism with GENIUS TOOLS Starter App

You can create a backup file from *creo_parametric_customization.ui* in GENIUS TOOLS Starter App. This can be useful for users who manage their own UI configuration files, as well as for administrators who modify Creo UI settings for test purposes. A description of the procedure can be found in the chapter [GENIUS TOOLS Starter App > Creating backup copies](#).

5.17 Creo Elements/Direct Modeling

A Creo Elements/Direct Modeling project consists of configuration files, an operating environment and data packages for standard parts.

Please note: The work with projects for Creo Elements/Direct Modeling is a feature that requires a subscription license.

A Starter project configuration is generated from settings of the Power Extension environment and is not from individual configuration blocks.

For Creo Elements/Direct Modeling, batch files can be used that are opened before the application is started, i.e. starter batch files. See also chapter [Batch files](#).


5.17.1 Project display in GENIUS TOOLS Starter App

For the Creo Elements/Direct Modeling application, project details are displayed in the tabs *Info*, *Licenses* and *Backup*.

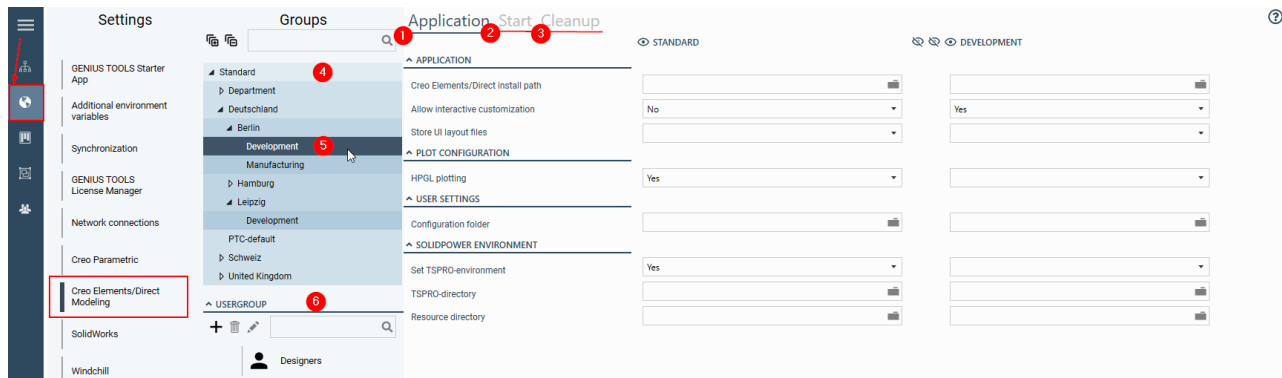
Language selection can be provided as a [project option](#). Project options that appear as checkboxes cannot be created.

Also note the general settings for [presenting projects to users](#) in GENIUS TOOLS Starter App.

5.17.2 Group settings

In the main page Configuration  you can define the behavior of this program for the selected group (6) or unit (5) or for the system-wide standard (4).

Click Application (1), Start (2) and Cleanup (3) to switch between tabs.



Settings for unit and groups for the application Creo Elements/Direct Modeling

Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

Settings that are made directly to for CED-project overwrite the group settings entered here and are made under *Projects > Creo Elements/Direct Modeling > Select Project > Modeling tab*, see [project settings](#).

For general information on groups, see the chapter [Configuring heterogeneous environments](#); and for the inheritance of settings go to the chapter [Call sequence for settings](#).

5.17.2.1 Application

► Application

Creo Elements/Direct install path

Enter a directory on the user computer which has Creo Elements/Direct Modeling installed.

Allow interactive customization

Defines whether interactive customization are allowed.

Yes: Interactive customization are allowed.

No: Interactive customization are not allowed. The variable SDDISALLOWINTERACTIVECUSTOMIZATION is set.

Store UI layout files

Defines whether user specific files (*_fluentui_layout.def) are saved.

Yes: Files are saved.

No: Files are not saved. The variable SDDONTSTOREUILAYOUTFILES is set.

► Plot configuration

HPGL plotting

Specify whether the plot settings from Power Extensions (*PowerX_Styles\plotdefs*) are used.

► User settings

Configuration directory

You can store customized configuration files of users in the *userdata* directory.

► Solidpower environment

Set TSPRO environment

If you have a data package for Creo Elements/Direct Modeling, select Yes.

TSPRO directory

Enter the path to the directory that contains the data for Creo Elements/Direct Modeling.

Standard parts directory / Solidpower directory

Enter the path to the directory that contains the data for standard parts.

5.17.2.2 Start

In the Start tab you define the startup behavior of the application.

► Startup settings

Startup directory

Enter the working directory of Creo Elements/Direct Modeling.

Language

The language in which Creo Elements/Direct Modeling starts can be specified. If no setting is selected, the application will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (*LANG*) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable *LANG*, if defined on the application computer

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the *<application>\configuration* directory.

► Creo Elements/Direct license server

Creo Elements/Direct license server

Enter the license server that should be used for the selected group or unit, e. g. *localhost*, *mels*

No input (default): The license server that was entered in the setup is used.

► Licenses

The license server is determined automatically from the registry and cannot be specified here.

Show licenses

Specifies whether the licenses specified in a project are displayed in the licenses tab of GENIUS TOOLS Starter App.

Yes: Licenses are listed. The license status is not obtained; validation is possible by using the Analyze Licenses function.

No: Licenses are not displayed. The settings *Get extensions*, *Calculate licenses by extension* and *Identify license users* can not be utilized.

Identify license users

Define whether users of a license are identified.

Yes: User names are displayed on the client as a tooltip of the corresponding license name. The Windows user name is replaced by the GENIUS TOOLS Starter alias.

No: No user names are obtained or displayed.

Please note: If the alias should be displayed, the users have to be configured under *Resources > Users*. Otherwise, the Windows user name will be displayed.

Timeout for FlexNET server

Enter a maximum duration for the license query in seconds. The license servers are pinged before the license query is started. If the server does not respond to the ping, the query will still be executed.

The duration you enter is also used as a maximum time for the license query.

If you expect licenses to be unavailable from time to time, set the timeout to 0, which means that there is no timeout specified.

Default: 0 = no timeout specified

5.17.2.3 Cleanup

Here, you can manage the cleanup settings of GENIUS TOOLS Starter App for projects.

► User directory

SolidPower directory

Determines whether the SolidPower settings directory in the user directory is deleted

before project start.

Yes: Delete

No: Retain

Default settings (LSP files)

Determines whether all LSP-files are deleted from the Default_Settings directory.


Yes: Delete

No: Retain

Further files or directories

Specify additional files or directories with user settings shall be deleted. The specification is relative to the user directory, e. g. *ANNOTATION\am_fluentui_layout.def*

5.17.3 Project settings

Project settings are the specifications you make in the main page *Projects*  under *Applications > Creo Elements/Direct Modeling* in the tabs *Modeling*, *Start* and *Environment*.

After having created a new project with the general project specifications, fill in the following input fields. These entries overwrite both the group-specific entries and the standard settings for the startup behavior of the application, which are made under *Configuration > Creo Elements/Direct Modeling > Tabs: Application / Start*. For more information, see the chapter *Configuration concept*.

5.17.3.1 Essential specifications

In the tab *Modeling* you specify essential details for a *Creo Elements/Direct Modeling* project.

Input fields without settings inherit the settings from *unit and group specifications*.

► Modeling

Release

Defines the Creo Direct/Elements Modeling version to be used. A path can be defined or determined automatically from the registry of the application computer.

Fixed path: Select the directory from the drop-down menu. This can differ from the Creo directory for the standard group as defined on the *Configuration* page. If you do not specify a Creo directory, the settings for the standard group will be used.

Direct Modeling versions: Select a version, e. g. <Direct Modeling 20.4>. The installation directory will be determined from the registry.

Please note: Creo Direct/Elements Modeling has to be installed locally on the application computer in order to have registry entries available. The user must have read permission in HKLM.

Project directory (optional)

Directory under *elements_direct\configuration\projects*.

Corp directory

Specify the path to the directory that contains company-specific configuration settings.

Site directory

Specify the path to the directory that contains site-specific configuration settings.

User directory

Specify the path to the user directory.

► Solidpower environment**Set TSPRO environment**

If you have a data package for Creo Elements/Direct Modeling, select Yes.

TSPRO directory

Enter the path to the directory that contains the data for Creo Elements/Direct Modeling.

Standard parts directory / Solidpower directory

Enter the path to the directory that contains the data for standard parts.

5.17.3.2 Startup behavior

In the *Start* tab you define the startup behavior for a *Creo Elements/Direct Modeling* project. The specifications set here overwrite the settings for groups and units.

Consult the chapter [Creo Elements/Direct Modeling > Group settings > Start](#) for a description of the input fields.

5.17.3.3 Environment variables

In the tab *Environment* you can set environment variables for a CED project.

The variables set here are added to the variables defined for [groups and units](#). Values set here for an existing environment variable will overwrite the values for groups and units.

Outdated environment variables will continue to be created for compatibility reasons. A list of created and affected environment variables can be found in the [appendix](#).

5.18 Solidworks

A [Starter](#) project for the application SolidWorks requires:

- [essential specifications](#)
 - a defined SolidWorks release
 - SolidWorks-related data packages

- group and project settings
- **configuration blocks** (SLDREG files)
 - for functions and behavior of SolidWorks
 - for embedding additional applications (AddIns)
- settings for additional applications / linkages (**batch files**)

Please note: Creating starter projects with SolidWorks is a feature that requires a subscription license.

For general information consult the chapter **Starter projects**.

For SolidWorks projects, **project options** can be created so that users can select directly at the project which AddIns should, for example, be also started.

For SolidWorks all batch files can be used, which are opened before, during or after the start of the application, see chapter **Batch files**.

5.18.1 Configuration blocks für Solidworks

The behavior of SolidWorks is determined by entries in the registry. GENIUS TOOLS Starter copies all project relevant **configuration blocks** (configuration component files) into a configuration file (*config.sldreg*) and writes the settings that it contains into the registry before starting SolidWorks .

The configuration blocks must be created manually and stored in the configuration layers Standard, Unit, Project, User, see chapter **Configuration concept**.

A configuration block for the application SolidWorks:

- is a text file that must start with "config_" and end with ".sldreg", e. g. *config_addin_3dexp.sldreg*,
- is one of many configuration sub files which are read by GENIUS TOOLS Starter and which create the configuration of a SolidWorks Starter project,
- can be defined with conditions (see chapter **Conditional configuration blocks**),
- can contain one or more configuration options, e. g. for
 - user interface and model appearance settings
 - template settings
 - settings for colors and materials
 - import and export settings

If a configuration option is set multiple times, the last entry – according to the **call hierarchy** of the configuration blocks – is the valid option value. If a configuration option is not set, the default value of the software is active.

Default settings

You can also write fallback options to an extra file named *default.sldreg*. This file can, for example, contain specifications for the user interfaces. The default file will be processed automatically if there is no user configuration in the registry (under Current User) for SolidWorks. Afterwards, the configuration file *config_*.sldreg* will be loaded if it is available.

Creating configuration blocks for SolidWorks

1. Create a text file that starts with config and ends with *.sldreg*, e.g. *config_addin_3D.sldreg*.
2. Write in the first line: Windows Registry Editor Version 5.00

Please note: For the correct display of German umlauts in GENIUS TOOLS Starter App, configuration blocks must be written in UTF8.

You can conveniently create and modify configuration blocks using the add-on program **GENIUS TOOLS Config Editor**, which provides color highlighting, auto-completion and error messages.

Example: Set drawing frame of company ABC

```
Windows Registry Editor Version 5.00

[HKEY_CURRENT_USER\SOFTWARE\SolidWorks\SolidWorks 2021\Document Templates]
"Default Part template"="%GTS_DATA%\Document templates\ABC\Part.prtdot"
"Default Assy template"="%GTS_DATA%\Document templates\ABC\Assembly.asmdot"
"Default Draw Template"="%GTS_DATA%\Document templates\ABC\Drawing.drwdot"
```

Example: Create a single project option for loading drawing frames of company ABC.

When creating single project options, note that a semicolon (;) must be used as comment character, e.g. ; gts_is_selectable = true. See chapter [Single project options](#).

```
Windows Registry Editor Version 5.00

; gts_display_name = ABC drawing frame
; gts_description = ABC drawing frame
; gts_selection_name = ABC drawing frame
; gts_selection_default = false
; gts_is_selectable = true

[HKEY_CURRENT_USER\SOFTWARE\SolidWorks\SolidWorks 2021\Document Templates]
"Default Part template"="%GTS_DATA%\Document templates\inneo\Part.prtdot"
"Default Assy template"="%GTS_DATA%\Document templates\inneo\assembly.asmdot"
"Default Draw Template"="%GTS_DATA%\Document template\inneo\drawing.drwdot"
```


Example: Create switch options for AddIns

To provide additional programs (AddIns) as options for SolidWorks projects, use the `gts_choose` expression and write 00000001 for true value (ON) and 00000000 for false value (OFF), see [Switch options](#).

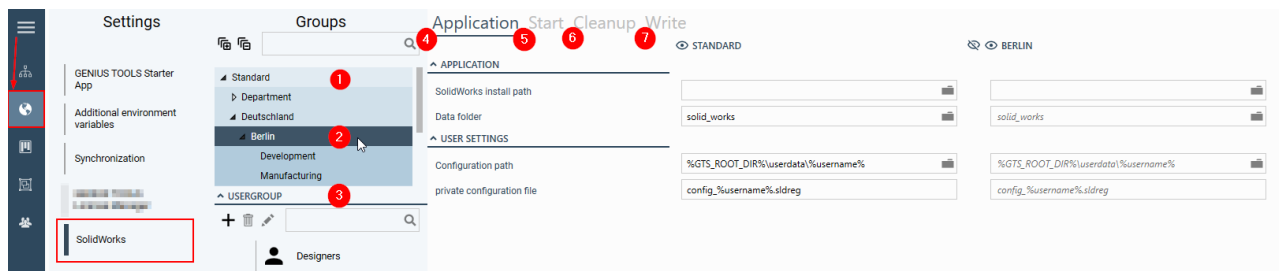
Windows Registry Editor Version 5.00

```
[HKEY_CURRENT_USER\SOFTWARE\SolidWorks\AddInsStartup\{1A49690A-CC1F-4C81-9B96-303C52F14AC3}]
@=dword:gts_choose{SolidWorks Composer|00000001|00000000}
```

5.18.2 Group settings

In the main page Configuration  you can define the behavior of SolidWorks that will apply to the system-wide standard (1) as well as for units (2), computer and user groups (3).

Click Application (4), Start (5), Delete (6), and Write (7) to switch between tabs.



Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

Settings made directly on a SolidWorks project overwrite the settings made here, see [Project Settings](#).

For general information on groups, see the chapter [Configuring heterogeneous environments](#): and for the inheritance of settings go to the chapter [Call sequence for settings](#).

5.18.2.1 Application

► Application

SolidWorks install path

You can specify a directory on the user computer where SolidWorks is installed or leave this field empty, which means the installation directory is searched for automatically from the local Windows registry and the version is used as specified in the project settings. For more information consult the chapter [CAD-specific project settings](#).

Please note: It is generally recommended to have the installation path be determined from the local Windows registry.

Data directory

Enter the data directory to be used. The data directory is the main directory of an operating environment containing SolidWorks-related data, e. g. `%GTS_ROOT_DIR%\solid_works\data\swx_22`.

► User settings

Configuration folder

Customized configuration blocks from users (Config files) can be stored in the *userdata* directory.

Private configuration block

Enter the name of user-defined *config_*.xml* files, e. g. *config_%username%.sldreg*. It is appended to the Config files in the *users*, *projects*, *units* and/or *standard* directories.

Please note: For storing their private *config_*.sldreg* files, users must have write access to the userdata directory, as well as the access right *Can save personal Configuration file* [to userdata directory] *on server*.

See also [Config tab in GENIUS TOOLS Starter App](#).

5.18.2.2 Start

In the Start tab you define the startup behavior of the application.

► Startup behavior

Startup directory

Enter the working directory of SolidWorks.

Language

The language in which the application starts can be specified. If no setting is selected, the application will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (`LANG`) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable `LANG`, if defined on the application computer.

Show only installed languages

By default only languages of installed versions are displayed in the drop-down menu (see above setting).

Yes: Menu contains only installed languages.

No (default): Menu contains all languages supported by the application.

Enable stop batches

Yes: Additional batch files can be executed after the application has been stopped.

No: No stop batch files can be executed.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the `<application>\configuration` directory.

► Licenses

The license server is determined automatically from the registry and cannot be specified here.

Show licenses

Specifies whether the licenses specified in a project are displayed in the licenses tab of GENIUS TOOLS Starter App.

Yes: Licenses are listed. The license status is not obtained; validation is possible by using the Analyze Licenses function.

No: Licenses are not displayed. The settings *Get extensions*, *Calculate licenses by extension* and *Identify license users* can not be utilized.

Identify license users

Define whether users of a license are identified.

Yes: User names are displayed on the client as a tooltip of the corresponding license name. The Windows user name is replaced by the GENIUS TOOLS Starter alias.

No: No user names are obtained or displayed.

Please note: If the alias should be displayed, the users have to be configured under *Resources > Users*. Otherwise, the Windows user name will be displayed.

Timeout for FlexNET server

Enter a maximum duration for the license query in seconds. The license servers are pinged before the license query is started. If the server does not respond to the ping, the query will still be executed.

The duration you enter is also used as a maximum time for the license query.

If you expect licenses to be unavailable from time to time, set the timeout to 0, which means that there is no timeout specified.

Default: 0 = no timeout specified

5.18.2.3 Cleanup

Here, you can manage the cleanup settings of GENIUS TOOLS Starter App for projects.

► HKEYCURRENT_USER

Registry branch

Defines, whether the configuration settings for SolidWorks are deleted in the registry before project start.

Yes: Delete

No: Retain

5.18.2.4 Write

► Registry settings


Specify whether the file config.sldreg, generated by GENIUS TOOLS Starter, is executed. This writes the entries to the registry.

Write registry entries

Yes (default): GENIUS TOOLS Starter writes into the registry.

No: No entries are written into the registry.

5.18.3 Project settings

Project settings are the specifications you make in the main page *Projects*  under *Applications > SolidWorks* in the tabs *SolidWorks*, *Start* and *Environment*.

After having created a new project with the *general project specifications*, fill in the following input fields. These entries overwrite both the group-specific entries and the standard settings for the startup behavior of the application, which are made under *Configuration > SolidWorks > Tabs: Application / Start*.

For more information, see the chapter *Configuration concept*.

5.18.3.1 Essential specifications

In the tab *SolidWorks* you specify essential details for a SolidWorks project.

► SolidWorks

Release

Define the SolidWorks version to be used. The path can be fixed or determined automatically from the registry of the application computer.

Fixed path: Select the directory from the newly appearing drop-down menu. If you do not specify a directory, the settings for the standard group will be used. (*Configuration >*

SolidWorks > Standard > Tab: Application > SolidWorks install path)

SolidWorks versions: Specify a certain version. For example, the selection <SolidWorks22> will determine the path to the latest SolidWorks 22 version from the registry.

Please note: SolidWorks has to be installed locally on the application computer in order to have registry entries available. The user must have read permission in HKLM.

Project folder

Directory in <application>\configuration\projects. From this directory configuration blocks are copied to the application computer.

Please note: Configuration blocks should be stored separately from the data structure due to their potential multiple use. They should be managed in the specific subdirectories of the configuration directories *units*, *projects* or *users*, or in the *standard* directory for global settings. See [Configuration concept](#).

Data folder

Main directory of an operating environment in which application-related data is located.

5.18.3.2 Start behavior

In the *Start* tab you define the startup behavior for a single project. The specifications set here overwrite the settings for groups and units.

Starting behaviour

Select the application that will open the project.

AutoCAD application (default): The project is started with the selected AutoCAD application.

External: The project is started with another application (e. g. SAP).

If *External* is selected two additional fields open:

External start command

Enter the path to the executable file that is to start the project.

Command arguments for external start

Enter commands that specify how the executable file is started. Set the commands in quotation marks.

Startup directory

Enter the working directory of SolidWorks.

Language

The language in which the application starts can be specified. If no setting is selected, the application will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (`LANG`) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable `LANG`, if defined on the application computer.

Show only installed languages

By default only languages of installed versions are displayed in the drop-down menu (see above setting).

Yes: Menu contains only installed languages.

No (default): Menu contains all languages supported by the application.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the *<application>\configuration* directory.

5.18.3.3 Environment variables

In the tab *Environment* you can set environment variables for a SolidWorks project.

The variables set here are added to the variables defined for *groups* and *units*. Values set here for an existing environment variable will overwrite the values for groups and units.

Outdated environment variables will continue to be created for compatibility reasons. A list of created and affected environment variables can be found in the *appendix*.

5.18.4 Project display in GENIUS TOOLS Starter App

General settings for projects are made in GENIUS TOOLS Project Configurator, see *present projects* in GENIUS TOOLS Starter App.

Project information

For the SolidWorks application, project details are displayed in the tabs *Info*, *Licenses*, *Config*, *Project Options* and *Backup*. For a description of the information and functions in the tabs, see the GENIUS TOOLS Starter App chapter under *SolidWorks*.



SolidWorks project display in GENIUS TOOLS Starter App

Project options

Administrators can set up a SolidWorks project with the following options:

- language: in the menu item *Configuration* under *Settings* > *GENIUS TOOLS Starter App* > *Projectste*, see also *Selection field for language*.
- project options (checkboxes)
 - for embedding addin applications (*switch option*, in italic font)
 - for one or more configuration settings (*single project option*)
 - for combining configuration settings (*combined project option*)

Consult the chapter *Making use of project options* for instructions of how to create the needed options as well as the *Configuration blocks* chapter for examples.

5.19 Inventor

A Starter project for the application Inventor requires:

- *essential specifications*
 - a defined Inventor release
 - Inventor-related data packages
- *configuration blocks*
 - for settings of functions and behavior of Inventor (XML files)
 - for embedding additional applications (ADDIN files),
- settings for additional applications / linkages (*batch files*)
- *Project file (IPJ-Datei)*
 - for managing Inventor data

Please note: Creating starter projects for Inventor is a feature that requires a subscription license.

For general information consult the chapter *Starter projects*.

5.19.1 Configuration principles

The behavior of Inventor is determined by two configuration files. These are:

UserApplicationOptions.xml

Configuration file for general configuration settings, e. g. for template paths, import and export settings, settings for colors and materials.

InventorCustomization.xml

Configuration file for user interface settings.

The XML configuration files are created for each version and are located at:

`%APPDATA%/Autodesk/Inventor <version>`

Embedding additional applications

By default, most additional applications (AddIns) that are installed with Inventor are started automatically. If the default behavior for an add-on application is to be changed, a file with the extension `.addin` must be created for that application. This is a text file that can have any name, e. g. `AdditiveMFG.inventor.addin`.

The default settings can be found under `%ALLUSERSPROFILE%\Autodesk\Inventor <version>\Addins`.

ADDIN files, version dependent

If the default behavior of the add-on module is to be changed for a specific version, the ADDIN configuration file is placed here:

`%APPDATA%/Autodesk/Inventor <Version>/Addins`

ADDIN files, version independent

If the default behavior of the add-on module is to be changed for all versions, the ADDIN configuration file is stored here:

`%APPDATA%/Autodesk/ApplicationPlugins`

5.19.1.1 Project configuration with GENIUS TOOLS Starter

Configuration settings

By using GENIUS TOOLS Starter, configuration options are not written to Inventor configuration files, but to different configuration subfiles of GENIUS TOOLS Starter, the [configuration blocks](#).

Configuration blocks that contain configuration settings can be stored in four different configuration levels. When selecting a project in GENIUS TOOLS Starter App, the blocks are loaded from the corresponding configuration levels and their contents are written to the two required Inventor configuration files, `UserApplicationOptions.xml` and `InventorCustomization.xml`, see [next chapter](#).

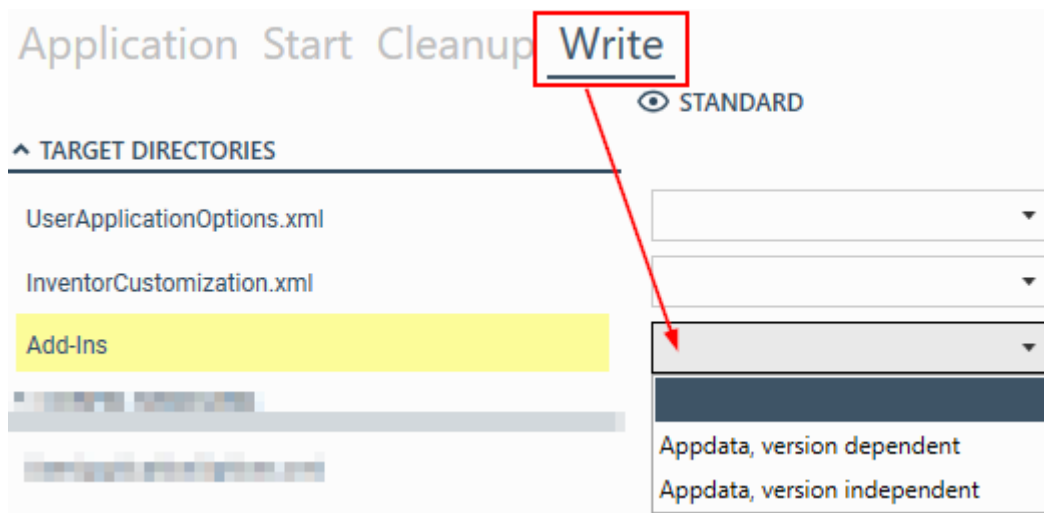
The XML configuration files must be deleted from the Inventor directory before they can be rewritten. This is set by default in GENIUS TOOLS Starter. Changes to this write behavior can be made in the Delete and Write tabs of the [group settings](#).

By default, the XML configuration files are saved to the Inventor version directory (`%APPDATA%/Autodesk/Inventor <version>`). However, you can specify a different directory, in the group settings in the [Write tab > Target Directories](#).

Additional applications (AddIns)

The inclusion of additional applications can also be defined in the four different configuration levels, by placing ADDIN files. The next chapter explains how to [create ADDIN files](#).

Decide whether AddIn applications should be started for a specific version or for all versions. Specify this in the group settings in the **Write** tab under *Target Directories* > *Add-Ins*. The possible locations are in the Appdata directory, see previous chapter Configuration principles.



Write tab in the group settings

Project options

For Inventor projects, options can be created so that users can select directly at the project which AddIns, for example, should be started.

A special feature is that for Inventor project options can be created to start the read-only mode, see [Read-only-Mode](#).



Batch files

For Inventor projects all batch files can be used, which are opened before, during or after the start of the application, see chapter [Batch files](#).

Inventor project files

For a Starter project you can use Inventor project files (IPJ files) which determine the location of the work data, templates, styles and libraries.

Libraries are defined in the [Libraries tab](#) of GENIUS TOOLS Project Configurator and are thereby written to the Inventor project file (IPJ file). If no IPJ file exists in an operating

environment, GENIUS TOOLS Starter uses the default project file at CC:
`\Users\Public\Documents\Autodesk\Inventor <version>.`

You can store one or more IPJ files in the [configuration layers](#) *standard, units, projects, users* of an operating environment. The search sequence is as follows:

1. users > 2. projects > 3. units > 4. standard

The first IPJ file found is read, i. e. no settings are added to an existing file. See [Call sequence for files](#).

5.19.1.2 Configuration blocks for Inventor

Configuration blocks must be created manually and stored in the configuration levels Standard, Unit, Project, User, see chapter [Configuration concept](#).

A configuration block for Inventor:

- is a text file with the extension *.xml* or *.addin*.

| Type | Notation | Content | Behavior |
|------|--|---|---|
| 1 | config_*.xml z. B. <i>config_dir_file.xml</i> | general configuration settings, e. g. for template paths, import and export settings, settings for colors and materials | specifications are transferred to the configuration file <i>UserApplicationOptions.xml</i> before startup |
| 2 | ui_*.xml z. B. <i>ui_customization.xml</i> | user interface settings | Details are transferred to the <i>InventorCustomization.xml</i> configuration file before startup |
| 3 | *.addin <i>AdditiveMFG.inventor.addin</i> | Includes or excludes additional applications | file is saved version-dependent or independent, starting an additional application possible as a project option |

- can contain conditions (see chapter [Conditional configuration blocks](#)),
- can contain one or more configuration option(s).

If a configuration option is set multiple times, the last entry is – according to the [call hierarchy](#) of configuration blocks – is the valid option value. If a configuration option is not set, the default value of the software is active.

Creating configuration blocks for Inventor

1. Create a text file with the file ending *.xml* or *.addin* in the required configuration directory.
2. Write in the first line: `<?xml version="1.0" encoding="utf-16" standalone="no" ?>`

Please note: For the correct display of German umlauts in GENIUS TOOLS Starter App, configuration blocks must be written in UTF8.

You can conveniently create and modify configuration blocks using the add-on program [GENIUS TOOLS Config Editor](#), which provides color highlighting, auto-completion and error messages.

XML file (type 1)

Example: Setting template paths

Create a text file named *config_templates.xml* with the following content.

```
<?xml version="1.0" encoding="utf-16" standalone="no" ?>
<ApplicationOptions Platform="Vista" Version="27.1 Production Candidate">
  <File TemplatesPath="%GTS_DATA%\Templates\%LANGUAGE%" />
  <Save SaveReminder="0"/>
</ApplicationOptions>
```

ADDIN file (type 3)

Example: Execute add-in module “Additive Manufacturing” at startup

Create a text file named *AdditiveMFG.inventor.addin* and specify the *ClassID* and *ClientID* of the add-on application, and the *LoadOnStartup* command:

```
<Addin>
  <!--Created for Autodesk Inventor Version 20.0-->
  <ClassId>{4e2d52fb-8288-4427-b912-20ef97f073c9}</ClassId>
  <ClientId>{4e2d52fb-8288-4427-b912-20ef97f073c9}</ClientId>
  <LoadOnStartup>1</LoadOnStartup>
</Addin>
```

ADDIN file (type 3) as project option

Example: Make add-in module “Additive Manufacturing” available as a single project option

Create the text file from the previous example. Insert the following between the first line and the *ClassID* and *ClientID*:

```
<!-- gts_is_selectable=true -->
```

```
<!-- gts_selection_default=true -->
<!-- gts_display_name= Additive Manufacturing -->
```

Other variables can be used, see table in chapter [Single project options](#). Note the application-specific notation of the GTS variables.


5.19.1.3 User-driven configuration for Inventor

Users can manage Inventor configuration blocks themselves, overriding the settings made by the administrator, if they have the appropriate access right.

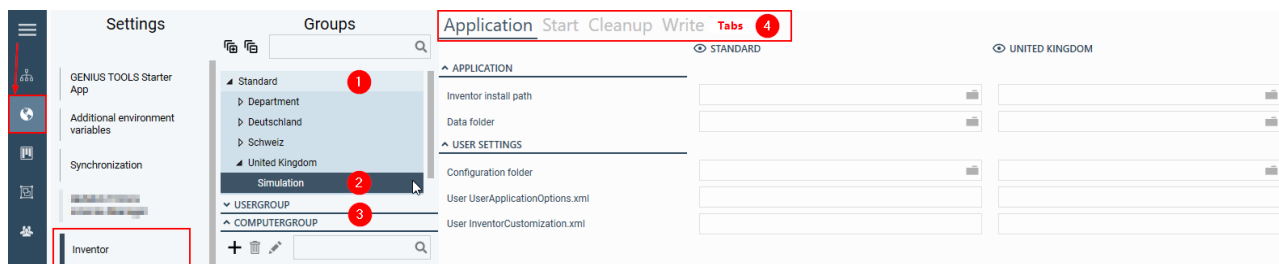
This type of user-defined settings are created by storing a private configuration block in the userdata directory. Set the path to the userdata directory in GENIUS TOOLS Project Configurator in *Configuration > Settings: Inventor > Select Group > Tab: Application > User Settings > Private configuration folder*, as well as the notation of the private configuration blocks.

Consult the chapter [User-driven configuration](#) for detailed instructions.

5.19.2 Group settings

In the menu item *Configuration*  you can define the program behavior of Inventor that should apply to the selected group. You can make settings globally for the Standard group (1), as well as for units (2), computer and user groups (3).

To fill in all fields, switch between the tabs Application, Start, Cleanup and Write (4).



Group settings for the application Inventor in GENIUS TOOLS Project Configurator

Settings for a single project are also possible. They overwrite the group settings made here, see [Project settings](#).

Please note: If an input field inherits values from the higher-level configuration levels, you will still only see the global default value displayed in gray.

For general information on groups, see the chapter [Configuring heterogeneous environments](#): chapter and on inheritance of settings, see the chapter [Call sequence for settings](#).

5.19.2.1 Application

► Application

Inventor install path

You can specify a directory on the user computer where Inventor is installed or leave this field empty, which means the installation directory is searched for automatically from the local Windows registry and the version is used as specified in the project settings. For more information consult the chapter [CAD-specific project settings](#).

Please note: It is generally recommended to have the installation path be determined from the local Windows registry.

Data directory

Enter the data directory to be used. The data directory is the main directory of an operating environment containing Inventor-related data, e. g. `%GTS_ROOT_DIR%\inventors\data\inv_22`.

Content Center directory

Target directory for Content Center libraries. Default: `C:\ProgramData\Autodesk\Inventor <Version>\Content Center\Libraries`

► User settings

Private configuration directory

Customized configuration files of users can be stored in the *userdata* directory.

Private configuration block (Config)

Enter the name of a user-defined *config_*.xml* file for general settings, e. g. *config_%username%.xml*. It is appended to the *config_*.xml* files in the *users*, *projects*, *units* and/or *standard* directories and copied to the file *UserApplicationOptions.xml*.

Private configuration block (UI)

Enter the name of a user-defined *ui_*.xml* file for user interface settings, e. g. *ui_%username%.xml*. It is appended to the *ui_*.xml* files in the *users*, *projects*, *units* and/or *standard* directories and copied to the file *InventorCustomization.xml*.

Please note: For storing their private configuration blocks, users must have write access to the *userdata* directory, as well as the [access right Can save personal Configuration file](#) [to *userdata* directory] *on server*. See also [Config tab in GENIUS TOOLS Starter App](#).

5.19.2.2 Start

In the Start tab you define the startup behavior of the application.

► Startup

Read-only mode selectable in GENIUS TOOLS Starter App

In GENIUS TOOLS Starter App a project options appears for selecting the read-only mode, e. g. models cannot be edited. (See [Project options](#).)

Yes: Users can select the reading mode.

No: There is no checkbox for selecting the read mode.

Startup directory

Enter the working directory of Inventor.

Language

The language in which the application starts can be specified. If no setting is selected, the application will select the operating system language automatically.

<not specified / empty>: GENIUS TOOLS Starter does not create a language variable (`LANG`) on the application computer (recommended).

System: The country-specific settings of the operating system are adopted.

<language>: This language is used, and the language variable `LANG`, if defined on the application computer.

Show only installed languages

By default only languages of installed versions are displayed in the drop-down menu (see above setting).

Yes: Menu contains only installed languages.

No (default): Menu contains all languages supported by the application.

Enable stop batches

Yes: Additional batch files can be executed after the application has been stopped.

No: No stop batch files can be executed.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the `<application>\configuration` directory.

5.19.2.3 Cleanup

By using GENIUS TOOLS Starter, you can store configuration subfiles ("blocks") in four configuration levels. When a project is selected by a user, the corresponding blocks are read from the configuration levels and the XML configuration files are created afresh. To do this, any existing XML configuration files must be deleted first. This is set in the default settings of GENIUS TOOLS Starter, but can be changed here.

► User directory

Define whether the following configuration files are deleted or retained in the target directory (as defined in the Write tab).

Yes: Delete

No: Retain

UserApplicationOptions.xml

Configuration file for general configuration settings, e. g. for template paths, import and export settings or settings for colors and materials.

InventorCustomization.xml

Configuration file for user interface settings.

Add-Ins, version dependent

Configuration file(s) for embedding additional applications (.addin).

Add-Ins, version independent

Configuration file(s) for embedding additional applications (.addin).

► Startup directory

Project file (*.ipj)

Define whether the Inventor project file (as defined in the Write tab) is deleted or retained in the target directory.

► Content Center libraries

Content Center libraries

Define whether the Content Center libraries (as defined in the Libraries tab) are deleted or retained in the target directory.

5.19.2.4 Write

Here, you can define target directories for Inventor configuration files and change the write settings of GENIUS TOOLS Starter.

► Target directories

UserApplicationOptions.xml

Select the directory in which the configuration file will be written. If no directory is selected, the file will be written to the Appdata directory.

Appdata (default): %APPDATA%/Autodesk/Inventor <version>

Custom: The file is written to the directory specified in the upcoming field.

InventorCustomizations.xml

Select the directory in which the configuration file will be written. If no directory is selected, the file will be written to the Appdata directory.

Appdata (default): %APPDATA%/Autodesk/Inventor <version>

Custom: The file is written to the directory specified in the upcoming field.

Add-Ins

Select the directory to which the configuration files (ADDIN files) will be written. If no directory is selected, the file will be written to the version dependent directory.

Appdata, version dependent (default): %APPDATA%/Autodesk/Inventor

<version>/Addins

Appdata, version independent: %APPDATA%/Autodesk/ApplicationPlugins

► Config handling

GENIUS TOOLS Starter reads configuration subfiles ("blocks") and writes their contents to Inventor configuration files. Specify whether the following Inventor configuration files are created (default) or not: UserApplicationOptions.xml, InventorCustomizations.xml, Add-Ins, Inventor project file (IPJ file), Content Center Libraries.

Yes (default): Write

No: Do not write

Warning: A new configuration file is only created if there is no configuration file with the same name in the target directory. Make sure that the default setting *Delete* is set in the Delete tab.

5.19.2.5 Libraries

Specify the libraries that should be available for the selected group or unit in the Inventor projects they have access to. Unlike other settings in GENIUS TOOLS Project Configurator, multiple entries are possible here. The inheritance behavior is therefore different.

Please note: The library information of a unit overwrites all library information of the higher order unit(s).

If you want to add a library path to a subordinate unit, do not forget to copy the paths of the unit above into this unit. Use the copy function for this purpose, because copied library entries (grayed out) adopt changes made in the original path.

The libraries defined here are written to the self-created **Inventor project file** (IPJ file) or to the default IPJ file.

Appearance libraries

Enter one or more ADSKLIB files.

Active: Check the box to activate the library in Inventor.

Path: Library. The folder icon opens the Windows Explorer.

Delete: Deletes the path.

Copy: Copies the path.

Material libraries

Enter one or more ADSKLIB files.

Workspace

Enter the directory of the workspace.

Path name: You can assign a name for the path.

Workgroup search paths

Enter one or more directories for workgroups.

Libraries

Enter one or more directories for further libraries.

Frequently used subfolders

Enter one or more subdirectories located in one of the above defined paths.

Content Center libraries

Enter one or more IDCL files.

ReadOnly: Activates the read-only mode for this library.

AttachName: You can specify a name for the library. Default: file name

Servename: You can specify a server name. Default: localhost.

Content Center libraries

By default, Inventor installs Content Center libraries (IDCL files) at C:\ProgramData\Autodesk\Inventor <version>\Content Center\Libraries. Additionally, you can create your own Content Center libraries. You can use GENIUS TOOLS Starter to distribute these to the user computers. To do so, store the IDCL files in the data directory in the Caddepot, i. e. under %GTS_DATA%\Inventor <Version>\Content Center\Libraries. GENIUS TOOLS Starter then copies these libraries to the target directory at project start, since all Content Center libraries must be located in the same directory.

The target directory is preset to C:\ProgramData\Autodesk\Inventor <Version>\Content Center\Libraries. If you want to change the target directory, you have to set two entries:

– In the UserApplicationOptions.xml file, set the following entry:


```
<ContentCenter DesktopContentDir="%GTS_DATA%\Inventor <Version>\Content Center\Libraries"/>
```

– In the **Application tab** change the target directory under *Content Center directory*.

In the **Write tab** you can activate or deactivate the copying of Content Center libraries. IDCL files are never overwritten, i. e. they are only copied if they do not yet exist in the target directory. Hence, standard Inventor Content Center libraries will not be overwritten.

In the **Delete tab** the cleanup behavior for Content Center libraries can be defined. Standard Inventor libraries are not deleted,. Only IDCL files are deleted whose file name does not begin with *AI<4-digit version number>_Inventor*.

5.19.3 Project settings

Project settings are the specifications you make in the main page *Projects*  under *Applications > Inventor*.

After having created a new project with the **general project specifications**, fill in the following input fields in the tabs *Inventor*, *Start* and *Environment*. These entries overwrite both the group-specific entries as well as the standard settings for the startup behavior of the application, which are made under *Configuration > Inventor > Tabs: Application / Start*.

For more information, see the chapter [Configuration concept](#).

5.19.3.1 Essential specifications

In the tab *Inventor* you specify essential details for an Inventor project.

► Inventor

Release

Define the Inventor version to be used. The path can be fixed or determined automatically from the registry of the application computer.

Fixed path: Select the directory from the newly appearing drop-down menu. If you do not specify a directory, the settings for the standard group will be used. (*Configuration > Inventor > Standard > Tab: Application > Inventor install path*)

Inventor versions: Specify a certain version. For example, the selection *<Inventor_22>* will determine the path to the latest Inventor 22 version from the registry.

Please note: Inventor has to be installed locally on the application computer in order to have registry entries available. The user must have read permission in HKLM.

Project folder

Directory in *<application>\configuration\projects*. From this directory configuration blocks are copied to the application computer.

Please note: Configuration blocks should be stored separately from the data structure due to their potential multiple use. They should be managed in the specific subdirectories of the configuration directories *units*, *projects* or *users*, or in the *standard* directory for global settings. See [Configuration concept](#).

Data folder

Main directory of an operating environment in which application-related data is located.

5.19.3.2 Start behavior

In the *Start* tab you define the startup behavior for a single project. The specifications set here overwrite the settings for groups and units.

Starting behaviour

Select the application that will open the project.

Inventor (default): The project is started with Inventor.

External: The project is started with another application (e. g. SAP).

If *External* is selected two additional fields open:

External start command

Enter the path to the executable file that is to start the project.

Command arguments for external start

Enter commands that specify how the executable file is started. Set the commands in quotation marks.

Use read-only mode

Specify whether the project is to start in read-only mode.

Yes: The project starts in read-only mode. The environment variable `GTS_USE_INVENTOR_READONLY` is set to 1. This allows the selected mode to be used as information in, for example, a batch script to start Inventor externally.

No (Default): The project starts in professional mode. The environment variable `GTS_USE_INVENTOR_READONLY` is set to 0.

Please note: The setting *Use read-only mode* can be overridden if the user is given the option to select the mode, in

Startup directory

Enter the working directory of Inventor.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the `<application>\configuration` directory.

5.19.3.3 Libraries

In the Libraries tab, specify the paths to the libraries that should be available at project level. The entries made here overwrite the settings for groups and units. They are described in the [Group settings > Libraries](#) chapter.

5.19.3.4 Environment variables

In the tab *Environment* you can set environment variables for an Inventor project.

The variables set here are added to the variables defined for [groups](#) and [units](#). Values set here for an existing environment variable will overwrite the values for groups and units.

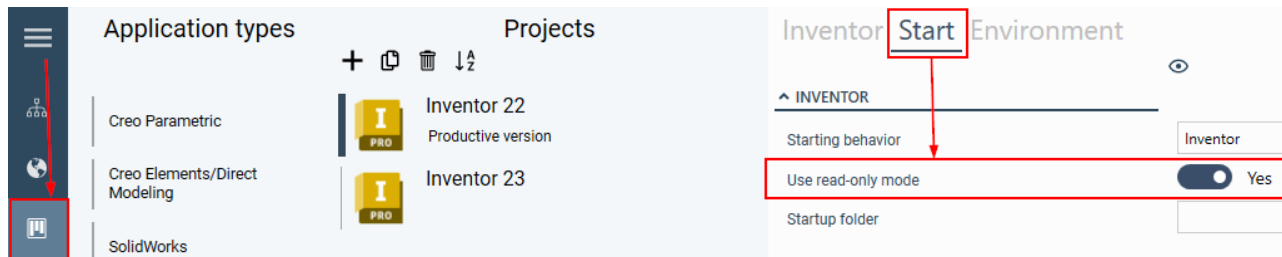
Outdated environment variables will continue to be created for compatibility reasons. A list of created and affected environment variables can be found in the [appendix](#).

5.19.4 Read-only mode

Inventor can be started in read-only mode. There are two options available.

1. Start project in read-only mode

Go to the Project Settings in the Start tab and turn on the switch *Use read-only mode*.



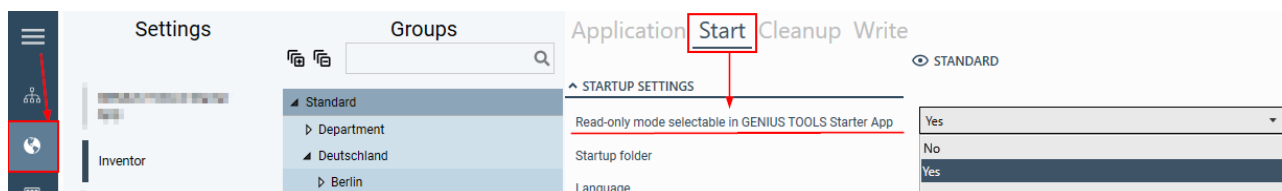
Using read-only mode as project setting

The project starts in read-only mode. The environment variable GTS_USE_INVENTOR_READONLY is set to 1. This allows the selected mode to be used as information in, for example, a batch script to start Inventor externally.

This setting can be overridden by the user if his unit or group is given the permission to select the mode, i.e. a project option is created.

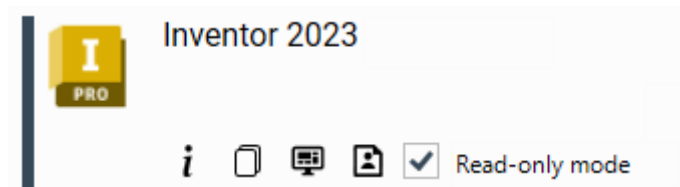
2. Project option for read-only mode

You can grant users the option to select the read-only mode directly on the project in GENIUS TOOLS Starter App. To do this, set the Read-only mode selectable in GENIUS TOOLS Starter App to Yes in the Start tab of the group settings.



Read-only mode as project option in the group settings

If in the project settings the switch *Use read-only mode* is set to *Yes*, as in the example above, the checkbox is by default already checked.



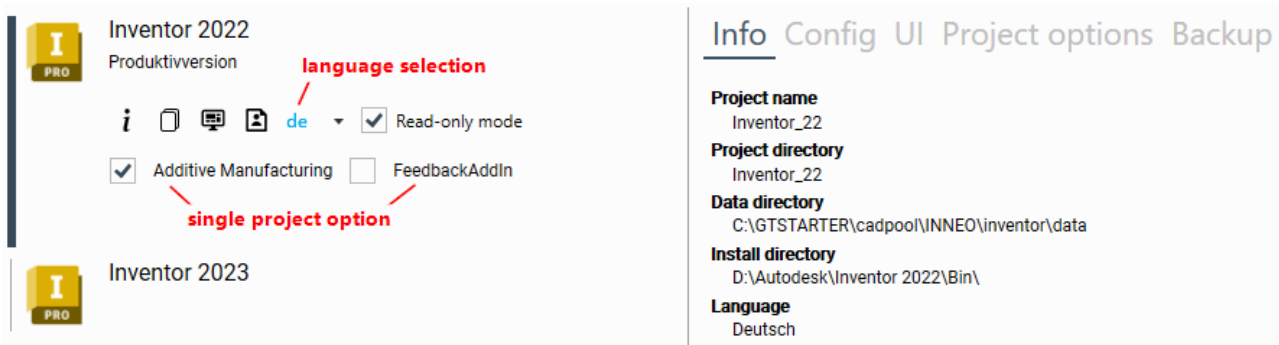
Checked project option in GENIUS TOOLS Starter App

5.19.5 Project display in GENIUS TOOLS Starter App

To present projects in GENIUS TOOLS Starter App, you can specify the general settings that apply to all applications. There are also the following application-specific options.

Project information

For the Inventor application, project details are displayed in the tabs *Info*, *Config*, *UI*, *Project Options* and *Backup*. For a description of the information and functions contained therein, see the GENIUS TOOLS Starter App chapter under *Inventor*.



Inventor project display in GENIUS TOOLS Starter App

Project options

The following project options can be made available:

- Language: in the menu item Configuration under Settings > GENIUS TOOLS Starter App > Projects, see [Selection field for language](#).
- Project options (checkboxes):
 - to start in read-only mode ([previous chapter](#))
 - for embedding add-in applications (single project option)
 - for one or more configuration settings (single project option)
 - for combining configuration settings (combined project options)
 - for switching between defined configuration settings (switch option)

For creating project options, consult the chapter [Configuration blocks for Inventor](#) as well as the instructions for [creating the different types of project options](#).

5.20 AutoCAD

Starter projects for the applications AutoCAD, AutoCAD Architecture und AutoCAD Mechanical are created with

- [essential specifications](#)
 - a defined release
 - application-related data packages
- specifications for the start behavior


– settings for additional applications / linkages (batch files)

Please note: No group settings can be defined yet for projects of the AutoCAD applications and no configuration blocks can be created.

Creating starter projects for AutoCAD applications is a feature that requires a subscription license.

For general information consult the chapter [Starter projects](#).

5.20.1 Project settings

Project settings are the specifications you make in the main page *Projects*  under *Applications > AutoCAD, AutoCAD Architecture or AutoCAD Mechanical* in the tabs *AutoCAD, Start* and *Umgebung*

The applications AutoCAD Architecture and AutoCAD Mechanical have the same input fields since all AutoCAD applications are started with the same execution file (EXE file). GENIUS TOOLS Starter generates the correct start command for the applications in the background.

5.20.1.1 Essential specifications

After having created a new project with the [general project specifications](#), fill in the following input fields.

Release

Define the version to be used. The path can be fixed or determined automatically from the registry of the application computer.

Fixed path: Select the directory from the newly appearing drop-down menu. If you do not specify a directory, the settings for the standard group will be used. (*Configuration > Application > Standard > Tab: Application > Install path*)

Versions: Specify a certain version. For example, the selection <2022> will determine the path to the latest installation of the version from the registry.

Please note: The application has to be installed locally on the application computer in order to have registry entries available. The user must have read permission in HKLM.

Project folder

Directory in *<application>\configuration\projects*. From this directory configuration blocks are copied to the application computer.

Please note: Configuration blocks should be stored separately from the data structure due to their potential multiple use. They should be managed in the specific subdirectories of the configuration directories *units*, *projects* or *users*, or in the *standard* directory for global settings. See [Configuration concept](#).

Data folder

Main directory of an operating environment in which application-related data is located.

5.20.1.2 Start behavior

In the *Start* tab you define the startup behavior for a single project.

Starting behaviour

Select the application that will open the project.

AutoCAD(default): The project is started with the selected AutoCAD application.

External: The project is started with another application (e. g. SAP).

If *External* is selected two additional fields open:

External start command

Enter the path to the executable file that is to start the project.

Command arguments for external start

Enter commands that specify how the executable file is started. Set the commands in quotation marks.

Startup directory

Enter the working directory of AutoCAD.

Synchronize with project start

Defines whether project data is to be synchronized before a project opens. This guarantees that all configuration and batch files are up to date when starting a project.

No (default): No data is synchronized before opening a project.

Yes: Data is synchronized, i. e. the directories *standard*, *units*, *projects* and *users* in the *<application>\configuration* directory.

5.20.1.3 Environment variables

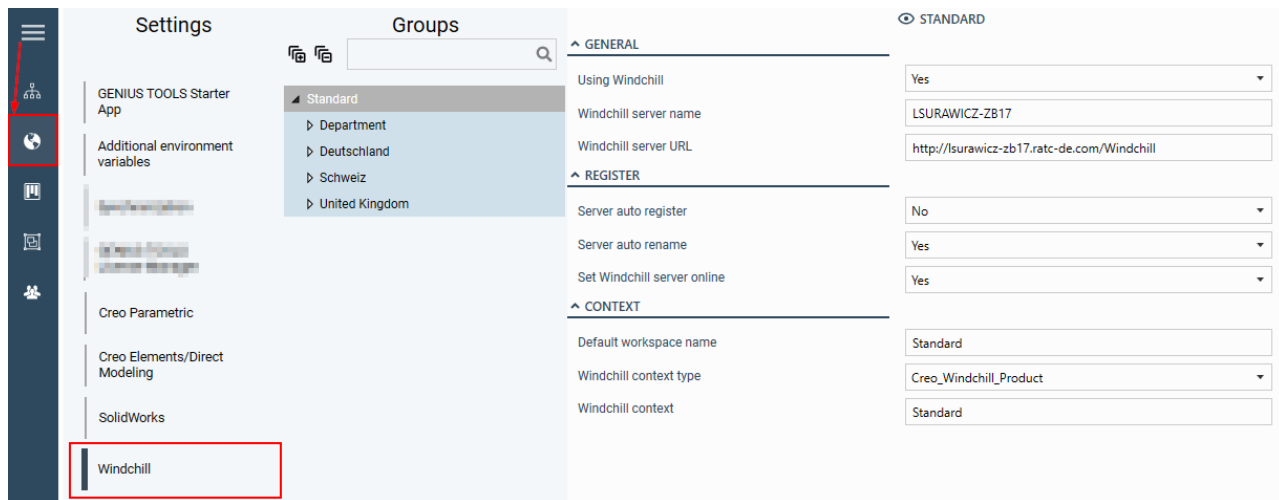
The variables set here are added to the variables defined for [groups](#) and [units](#). Values set here for an existing environment variable will overwrite the values for groups and units.

Outdated environment variables will continue to be created for compatibility reasons. A list of created and affected environment variables can be found in the [appendix](#).

5.21 Working with Windchill

GENIUS TOOLS Starter can be used in conjunction with Windchill. The following section describes requirements and considerations for working with Windchill.

If you want GENIUS TOOLS Starter to look for Creo data in Windchill first, and in the project directories in the second place, you should set your system settings to *Using Windchill*. To do so, go to *Configuration > Standard > Windchill settings > General > Using Windchill > Yes*.



Main menu item *Configuration > Settings*

5.21.1 Object search hierarchy in Creo

Creo looks for objects in the following order:

1. Creo session
2. Search or call directory in which the parent object has been found, or directory which is specified in the *Open* dialog.
3. Active Windchill workspace.
4. Active Windchill commonspace
5. Local working directory
6. Search paths

(See <http://www.ptc.com/appserver/cs/view/solution.jsp?n=131190>.)

5.21.2 Using a Windchill library

You can define dedicated directories for libraries, drawing frames, start objects and UDF in Creo. When you are using Windchill, these directories can point to products or libraries in the Windchill environment. The required syntax of the *config.pro* entry is as follows, using the library directory of Windchill PDMLink as an example.

```
Pro_library_dir wtpub://<Windchill_server>/<Context>/<Directory>
```

- wtpub: refers to the Windchill commonspace
- <Windchill server>: name of the Windchill server as registered in Creo
- <Context>: context you want to refer to, e.g., SUT libraries
- <Directory>: directory within the context

Each user can define their own name for the Windchill server. This means that the general *config.pro* entry cannot point unequivocally to a storage location, as maybe not all users have used the same name when first registering the server. The following section describes how GENIUS TOOLS Starter can be used to influence Windchill server naming.

5.21.3 Automatic Windchill server rename

In the general Windchill settings in GENIUS TOOLS Project Configurator, you can define a Windchill server name that should be used system-wide (*Configuration > Standard > Windchill settings > General > Windchill server name*). To link this name with an existing, manually configured Windchill server, you also have to make two other settings:

1. Windchill server URL: address of the Windchill server
2. Server auto rename: Yes (under *Register*)

If a server is found under the URL you have specified for the Windchill server, this server will be renamed to the specified name on the next Creo start.

5.21.4 Automatic Windchill server registration

The Windchill server registration enables the automatic registration of a Windchill server under a given name in PTC Creo.

The concept of automatic server registration is that previously registered servers are retained without changing the entire registration and that a newly registered server is set to *active*. It is also part of the concept that server registration does not result in the registered server reverting to *active* as soon as a project with the corresponding configuration is selected. Usually the user wants Windchill settings of the previous Creo session to be set again after restarting Creo.

Users who are to get access to a Windchill server via automatic server registration need to have a valid Windchill account and have access to the defined workspace in the defined Windchill context. It can be useful to create a context (product, library or project) that is not otherwise used and that these users have access to.

Please note: In order to use automatic server registration, the following requirements must be met:

- *Using Windchill* must be activated. (*Configuration > Select group > Windchill Settings > Section: General*)
 - The *Windchill Context* must be set and must exist.
 - The default workspace must be located in the *Windchill Context* that is given.
 - The Windchill cache directory must be a subdirectory of the Windchill user root folder.
-

Automatic server registration is configured under *configuration > (Select group) > Windchill settings*. The Windchill settings are expanded once you set *Use Windchill* to *Yes*.

► General

Use Windchill

Activate/deactivate the Windchill server. To use Windchill automatic server registration, this function must be set to *Yes*.

Yes: Activates Windchill-relevant settings such as automatic server registration.

No: Windchill settings will be disregarded.

No, don't register: The Creo session is started without an active Windchill server.

However, the Windchill server remains in the server registry without being selected.

Windchill server name

Specify the name with which the server will be registered in Creo.

Windchill server URL

Specify the URL under which the server can be reached.

► Register

Server auto register

Select whether the server should be registered automatically.

Yes: The above mentioned Windchill server is automatically registered and is then available within Creo.

No: The server is not entered automatically.

Server auto rename

If a server already exists at *Windchill server URL* and has a different name than *Windchill server name*, the server will be renamed when starting Creo next.

Set Windchill server online

Select whether the server should be put online.

Yes: A new server that was added by auto-registration will automatically be put online.

No: The server is registered offline.

► Windchill context

Default workspace name

Name of the workspace that is active during registration. The default workspace has to be present under the context given.

Windchill context type

Type of context: Product, Library, Project.

Windchill context

Context of the workspace.

Changing server path from HTTP to HTTPS

When changing the Windchill server path from HTTP to HTTPS, Creo Parametric may encounter errors that interfere with the correct execution of Windchill auto-registration. To avoid this, it is recommended to create a new cache directory and delete the old server path – after a transition period, if necessary.

The entry for the Windchill cache directory is located in the main menu item *Configuration* under *Creo settings* > *Section: Startup settings*.

5.21.5 Project-specific Windchill settings

You can also define a Windchill server to be used for a specific project. To do so, go to the *Projects* page, select the desired Creo Parametric project and make the project-specific Windchill settings in the *Windchill* tab.


See also [Workspace for Windchill](#).

5.21.6 Integration in Windchill Worker

If you want to open Creo with Windchill, you can use GENIUS TOOLS Starter to apply the project settings and environment variables. In this case, you will neither get the GENIUS TOOLS Starter user interface nor will Creo be opened. For this option, you must create an extra project for access by the Windchill Worker. Proceed as follows.

Steps for integrating GENIUS TOOLS Starter into an existing Windchill Worker

Creating a project in GENIUS TOOLS Project Configurator

1. In the main page *Projects*  click the *Create* button. A new project is created with the name "New Project".
2. Rename the project. The default name is *publish*.

3. If you want the project to be invisible to users, hide it in the *Creo* tab in the section *General* with *Hide Project*. Alternatively, you can *create a role* which you grant access to the project.
4. If necessary, assign a separate license to the project in a *Creo startkey* (PSF file).

Including the call to the GENIUS TOOLS Starter App in the Worker batch file

5. Open the batch file *proeworker.bat* in the Windchill Worker directory.
6. Enter the following line below the line `set PVIEW_HOME=D:\ptc\object adapter:`
`call <cadpoolpath>\<nameofoperatingenvironment>\software\worker.bat <project name>`

The project name corresponds to the name selected in step 2.

Install Cadpool on user computer

7. Make sure that GENIUS TOOLS Starter is installed on the user computers that are to access the project. To do so, perform an initial synchronization by opening the file *gts.exe* from the operating environment of the Caddepot directory which is located on the administration computer: `<caddepotpath>\<working environment name>\software\gts.exe`

This will install the Cadpool directory and synchronize it with the Caddepot directory.

5.21.7 Freely configurable debug mode

GENIUS TOOLS Starter provides a freely configurable debug mode that allows you to use the Windchill Workgroup Manager to interact with Windchill in debug mode.

The files *logger.cfg.debug* and *logger.cfg.bat* are used for this purpose according to the *call hierarchy for configuration files*. Place both files in the standard directory `<working environment name>\configuration\standard`.

Hint: Information on how to use client log files for debugging with Windchill Workgroup Manager can be found at PTC in [article CS140107](#).

logger.cfg.debug

If the *logger.cfg.debug* file exists multiple times within the directory, it is copied together like a *config.pro* file. File names are used in the following notation: *logger.cfg*.debug*

After merging *logger.cfg.debug* the log output folder is always set to `HOME\ANALYSEWF` by adding the line *log_dir_path*.

logger.cfg.bat

The batch file is used to define environment variables which should be additionally defined in the *Creo* session if the debug mode is used. If more than one batch file exists, all batch files matching the *logger.cfg*.bat* notation will be executed.

The debug mode is switched on in the [user menu](#) of GENIUS TOOLS Starter App with *Debug Creo/Windchill*.

6 GENIUS TOOLS Starter App

GENIUS TOOLS Starter App lists the projects defined in GENIUS TOOLS Project Configurator and lets the users start them.

If changes are made to the central configuration, these changes are taken up by GENIUS TOOLS Starter App with the next synchronization.

Information on the configuration of the interface and the selection options can be found in the chapter [Settings for GENIUS TOOLS Starter App](#).

6.1 Starting GENIUS TOOLS Starter App

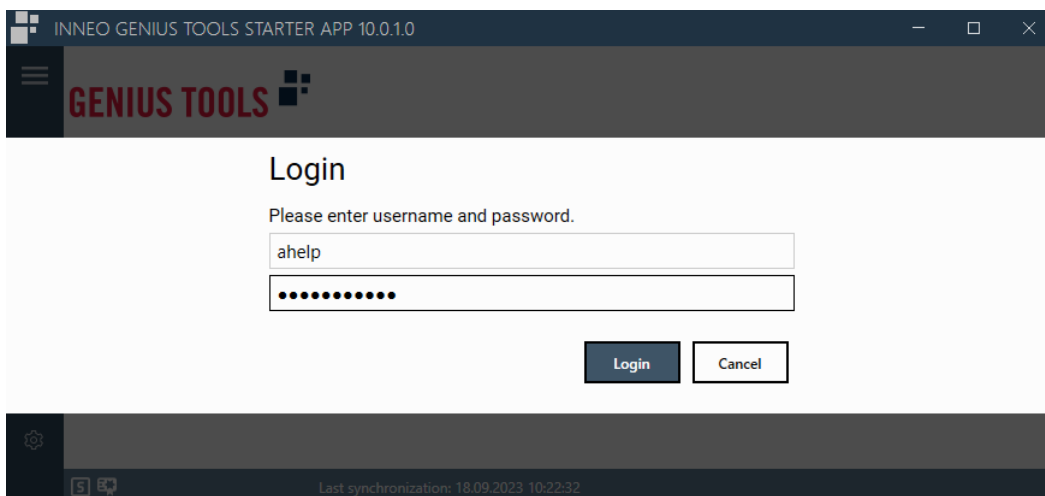
By default, GENIUS TOOLS Starter App is configured to start automatically with the operating system. GENIUS TOOLS Starter App is displayed in the Windows task bar and can be called up from there.

If GENIUS TOOLS Starter App is not started automatically, the app can be started via a centrally configurable desktop link.

Please note: To close GENIUS TOOLS Starter App, select *Exit* in the user menu ⚙️. When you click *Close*, the window is minimized.

6.2 Login

An input window for login credentials appears if a system other than Windows is required for authentication, e. g. Windchill.



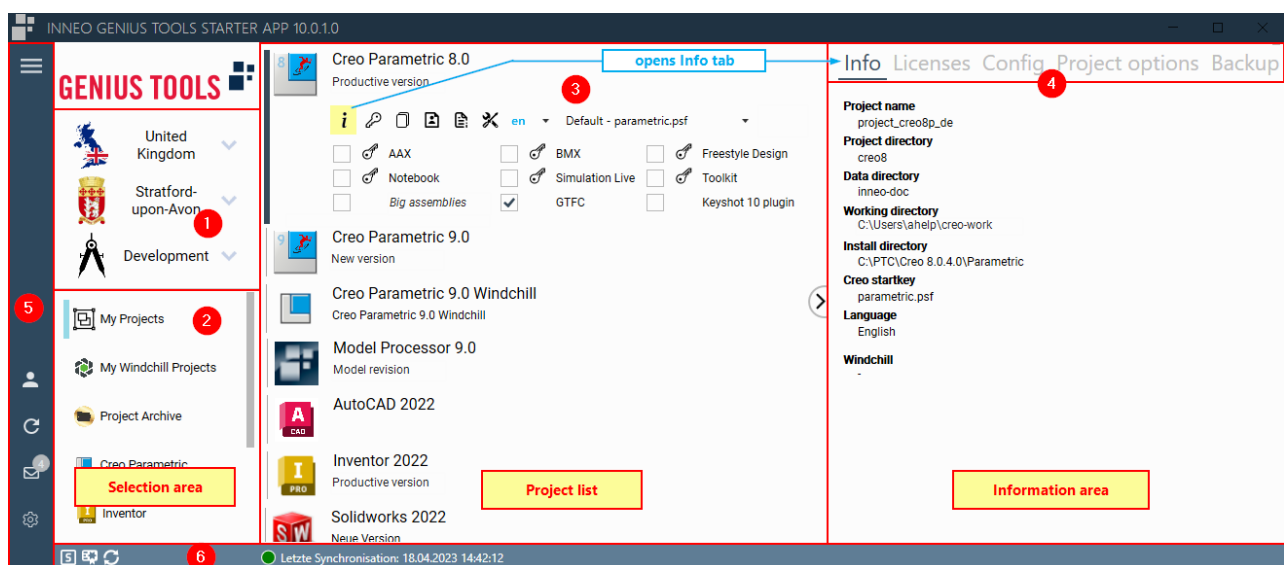
For more information, consult the chapter [Authentication](#).

6.3 User interface

GENIUS TOOLS Starter App comes with a clearly structured user interface. Depending on the configuration, for example, license information on the PTC products configured for each project is listed in the user interface.

Start the desired project with a double-click. The desktop application is started with the configuration defined for the project.

Auto projects are applications which cannot be configured and are automatically listed by GENIUS TOOLS Starter.



User interface of GENIUS TOOLS Starter App

The user interface of GENIUS TOOLS Starter App is divided into three areas.

Left **area for selection** of a

1. unit and
2. **project collections**: company-specific (e. g. My Projects, Project Archive) and application-specific (e.g. Creo Parametric, Creo Elements/Direct Modeling), as well as **auto projects**: applications that are be automatically listed by GENIUS TOOLS Starter (e. g. MathCad, KeyShot).

Central **area with project list**

3. Configured **Starter project**, maybe with project options

The **information area** on the right side opens when clicking on a project details button in a selected project. These are the corresponding

4. information tabs:

Info: shows the most important project (name, directories, Creo startkey, language of the project)

Licences: displays all license servers and gives access to analyzing and borrowing licenses if user has access rights.

Config: shows configuration blocks and their location for the selected project, as well as additional applications (toolkit applications).

Project options: shows all selectable configuration settings for license extensions, additional programs etc. (Single project options).

Backup: allows users to save user-specific settings, UI settings for Creo.

Warning / Error: these tabs are only displayed if a project cannot be started or causes a warning.

There are two bars for **operating the Starter App**

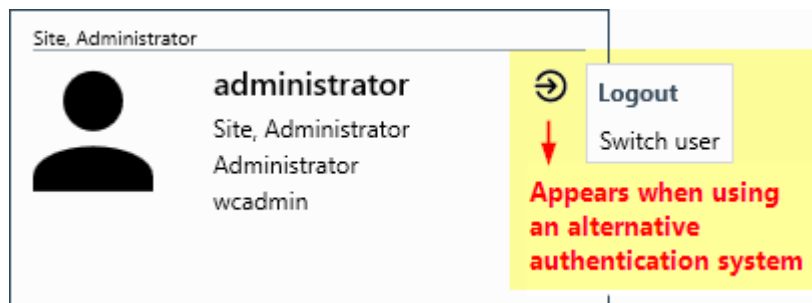
5. Sidebar with user menu 
6. Footer with information on licenses and synchronization

6.4 Sidebar

The sidebar contains the following functions.

User

A picture can be displayed here. Store it in the format 100 x 130 px under the name of the user in `<caddepot>\<environment>\userdata\%USERNAME%\%USERNAME%.png`.



Refresh Projects (F5)


Refresh Projects reloads all project configurations from the administration computer in the same way as when you restart the application.

Message from Administrator (F4)

There are new messages from your administrator when a red number is displayed on the letter symbol. Messages that have been opened are displayed in gray color and can be reread. Messages are saved as text files in the *_Information* directory, see also [Sending messages to the users](#).

 User menu

6.5 User menu

To access the user menu, click on the gear symbol  in the sidebar.

Language: user interface language

You can switch the user interface language between English, German and French at any time. The language setting is saved and will be used the next time you start the software.

The software first starts with a German user interface if the operating system locale is set to German. For all other locale settings, the software first starts with an English user interface.

Theme: user interface color settings

The software comes with the color themes *Blue*, *Light* and *Dark*. You can switch themes at any time. The theme setting is saved and will be used the next time you start the software.

Synchronize now (F8)

GENIUS TOOLS Starter immediately synchronizes from the central Caddepot, regardless of the specified synchronization interval, and loads any updated files into the Cadpool.

Pause synchronization (F7)

GENIUS TOOLS Starter stops synchronization until it is re-started by the user. The setting *Pause synchronization* is saved for the next start and marked by a yellow bar below the header. When the user resumes synchronization, they are asked whether they want to resume and overwrite local changes.

Pause synchronization if you want to prevent local changes from being overwritten until they have been added to the Caddepot by your administrator.

Please note: Your administrator defines whether you can pause the synchronization. If you are not allowed to pause the synchronization, the item *Pause synchronization* is not displayed in the menu.

Debug Creo/Windchill

Switches Creo debug mode on. This mode processes the files *logger.cfg.debug* and *logger.cfg.bat*. Settings for this are made by the administrator, see chapter [Freely configurable debug mode](#).

Help

- **Help (F1):** Software manual for GENIUS TOOLS Starter, which corresponds to this document.
- **Support:** Contact details for the technical support of INNEO or a company-specific link which can be set up in GENIUS TOOLS Project Configurator. Inneo's support can be reached by email, telephone and with Teamviewer.
- **Info (F12):** Current GENIUS TOOLS Starter version.

Open home

Opens the user directory in the file manager.

Open log file (F2)

Opens the log file that is written on each project start. The log file *gts-starter-INNEO.log* is saved in the user directory of the client.

Please note: Please always find and check your log file before opening a call with the support hotline. The log file is required for troubleshooting any issues.

Open sync log file (F3)

Opens the log file that is written by GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator at each synchronization. The log file *gts-starter-INNEO-sync.log* is saved in the user directory of the client.

Reset window size

Restores the default size of the dialog window of GENIUS TOOLS Starter. The window can be adjusted to all sizes.

Switch user – *only visible with an alternative authentication system*

Switches to another user of the applied authentication system, e. g. Windchill.

Exit

Closes the software. Clicking on the *Close* button (X) in the header will minimize the program window.

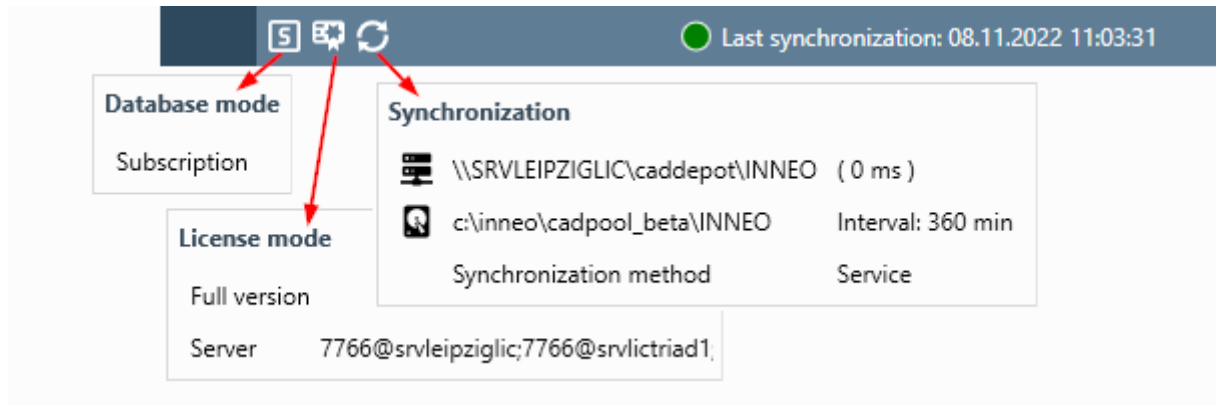
Project Configurator (F8)

Opens GENIUS TOOLS Project Configurator.

Please note: Your administrator defines whether you can access GENIUS TOOLS Project Configurator via access rights. If you are denied access, the item *GENIUS TOOLS Project Configurator* is not displayed in the menu.

6.6 Footer

The footer contains the following information.



Data base mode

The state of the database is displayed in the footer:

S Database requires a subscription license. Projects cannot be started when working with a permanent license.

P Database has been created with a permanent license. It can be accessed by both permanent and subscription license.

License mode

The GENIUS TOOLS Starter App footer shows the current license mode by displaying an icon.


F Full version

E Full version. No free subscription license available, i. e. projects cannot be started.

B Borrowed license

H Educational or home use


F Fail-safe mode for GENIUS TOOLS Starter: If the license server is not available, the fallback license is used.

A fail-safe license is available only after GENIUS TOOLS Starter has found valid licenses on a license server during project validation. Projects are validated by the command *Refresh Projects*  in the sidebar.

Warning: The fail-safe mode works for GENIUS TOOLS Starter only, not for GENIUS TOOLS for Creo or other products.

Synchronization mode and synchronization status


To the right of the icon for the license mode, information on the synchronization mode is displayed. For more information, please refer to [Procedures and synchronization](#).

 Synchronization is active

Hover the mouse on the synchronization symbol to see the paths to the Caddepot and to the local operating environment as a tooltip.

 Synchronization inactive

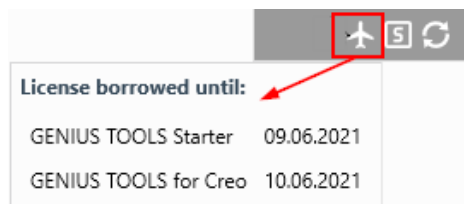
The synchronization of toolkit applications is paused as long as Creo is running

 Local operating environment

There is no synchronization; you work on a local directory

License borrowed until:

This icon appears when licenses have been borrowed.



The synchronization status with the date and time of the last synchronization is displayed in the middle area of the footer.

Running applications

If a supported desktop application is running, the application icon will be displayed in the footer.

 Creo Parametric

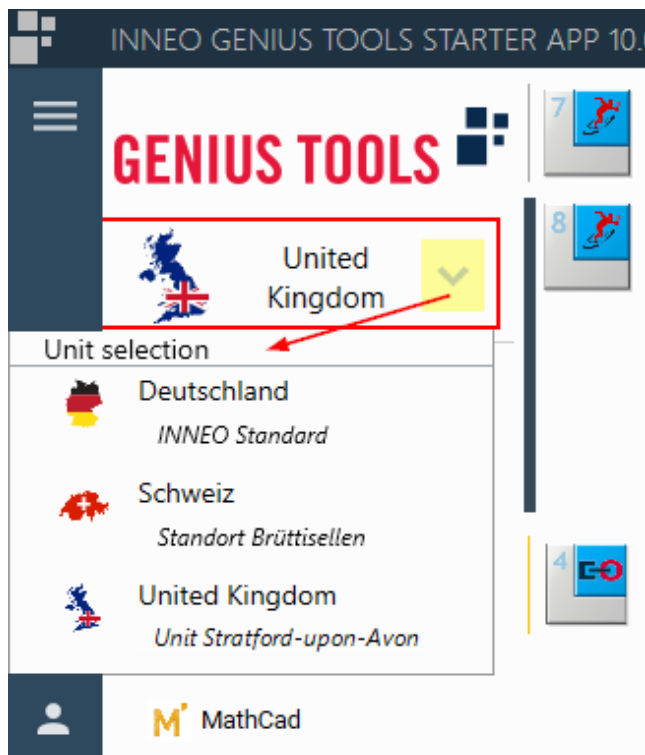
 Creo Elements/Direct Modeling

6.7 Selecting a unit

When you are using a subscription license, *units* can be defined as an additional configuration layer to reflect different company branches or divisions. (See chapter [Configuring heterogeneous environments](#).)

If units are used in your environment, the current unit is displayed in the header of GENIUS TOOLS Starter App.

If a user account is assigned to multiple units, the user can switch between units via the header.

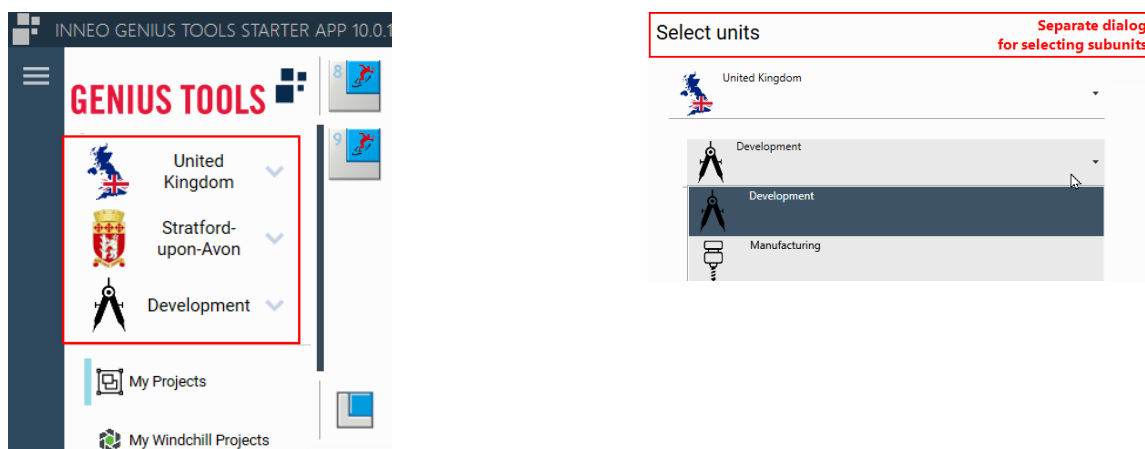


Unit selection

Units are displayed in alphabetical order unless a unit is defined to be the first on the list. This can be specified in GENIUS TOOLS Project Configurator by inserting a space character in front of the unit name. (See [Displaying units in GENIUS TOOLS Starter App.](#))

Selecting a subordinated unit (subunit)

If users can select from subordinate units (subunits), the selection field will open a separate dialog for selecting all subunits.



In this dialog box you can select a unit. Note that units can be selected from several levels. If no selection is made, the first unit in the drop-down menu will be used.

Confirm the selection with the Change button at the bottom right.

6.8 Display of projects

Information about a project is available in the area below the selected project, the info tabs, and by the color of the bar to the left of the project name.

Color coding: License check for projects

In GENIUS TOOLS Project Configurator, your administrator can define whether you can check for available licenses (this adds the *Analyze licenses* button in the Licenses tab) and how projects should be displayed if there is no license available for them. The display of projects without a license can be set by the administrator as follows:

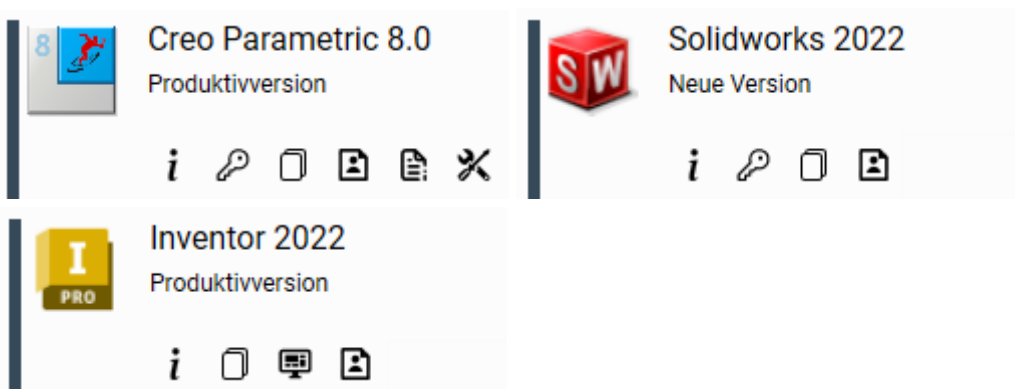
- The projects are not visible for the user.
- The projects are marked with a red background and cannot be started.
- The projects are marked with a gray background and cannot be started.
- The projects are marked with a yellow background and can be started.

The setting are made in GENIUS TOOLS Project Configurator under *Configuration > Group (select) > Settings: GENIUS TOOLS Starter App > Segment: Projects*, see [Marking invalid projects](#).










For Creo Parametric and SolidWorks projects, it is possible to check available licenses.

Info symbols

When selecting a project the following icons will appear in the area below the project name. Some icons can be disabled.



Clicking on an info icons opens tabs or functions.

| Symbol / Function | | Available for projects of | | | | | Can be disabled ? |
|---|--|---------------------------|-----|-------------|----------|----------------|-------------------|
| | | Creo | CED | Solid-Works | Inventor | Auto-CAD, Apps | |
|  | Will occur if a project triggers a warning. Opens the tab Warning | X | X | X | X | X | no |
|  | Opens the tab Info | X | X | X | X | X | yes |
|  | Opens the tab Licenses | X | X | X | | | yes |
|  | Opens the tab Konfig | X | | X | X | | no |
|  | Opens the tab UI | | | | X | | no |
|  | Opens the tab Backup | X | | X | X | | yes |
|  | Opens Project report (PDF file) | X | | | | | yes |
|  | Opens GENIUS TOOLS Starter App Config Analyzer | X | | | | | yes |
|  | Will occur if some checkboxes cannot be displayed in the dialog window. Opens the tab Project options | X | | X | X | | no |

An overview of how to configure the info icons and tabs can be found in the GENIUS TOOLS Project Configurator chapter under [Customizing information panes](#).

Tabs for all applications

Different tabs are available for the different applications. The *Info*, *Warning* and *Error* tabs are available for all applications. A description of further tabs is given in the corresponding chapters of the CAD applications.

Info

The *Info* tab is shown for all projects. It contains the following information on the selected project, e. g.

- Project name
- Project directory
- Data directory
- Working directory
- Language of the application
- Installation directory

The information varies from application to application.

Warning

The Warning tab will only be displayed if a project causes a warning. The application can be started.

- Project folder not found: Check the project folder specification in GENIUS TOOLS Project Configurator in the *Projects* menu item.

Error

The error tab will only be displayed if a project cannot be started. It contains information about the error. Errors can be:

- Creo cannot be started.
- No licenses are available.
- Creo startkey is incorrect or does not exist.

Project options

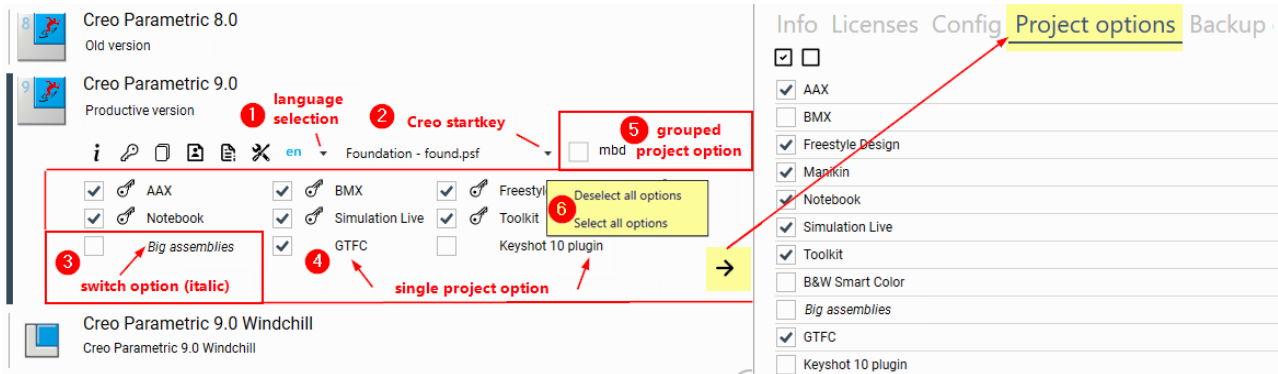
Project options can be made available for CAD applications, e. g. for the language and for additional applications. If the checkboxes cannot be fully displayed within the project, an arrow symbol appears which opens the [Project options](#) tab.

6.9 Project options


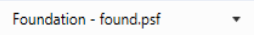
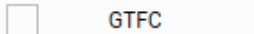
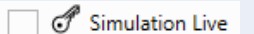
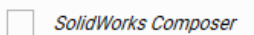
Projects of CAD applications can contain project options, either in the form of

- drop-down menus, for the choice of language and Creo start key, or
- checkboxes, for the choice of license extensions, additional applications and configuration settings.

If some checkboxes cannot be displayed below the project, an the arrow symbol appears that opens the Project options tab that lists all available options.



The following table explains the different types of project options

| Type | Function | Description |
|------|---|--|
| 1 | Language  | selects the language in which the application starts the project |
| 2 | Creo startkey  | selects the license package (PSF key) to start a Creo Parametric project with |
| 3 | Single project option  | activates one or more configuration settings activates additional programs for Creo Parametric projects |
| 3 | Single project option  | activates license extensions for Creo Parametric projects activates additional programs for Inventor projects |
| 4 | Switch option (italic)  | switches between two values of one or more configuration settings activates add-ins for SolidWorks |

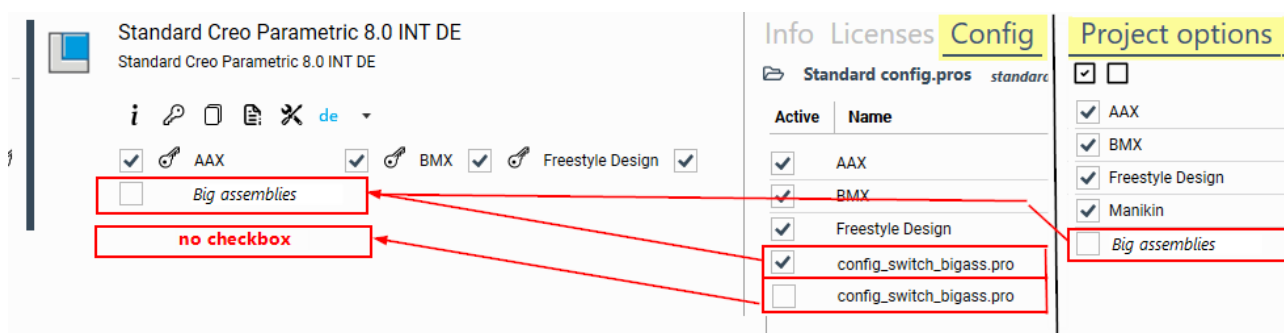
| Type | Function | Description |
|------|--------------------------------------|--|
| 5 | Combined project option | activates combined configuration settings, i. e. settings located in different directories and levels after selection further single project options (3) may become available |
| 6 | Context menu, opens with right-click | opens a menu to deselect or select all options |

The checkboxes for these project options are created with configuration blocks. Consult the instructions for [Making use of project options](#).

Behavior of switch options

In contrast to single project options, a value will be read from a switch option even if the option is not checked (disabled state), see [Switch options](#). For users who have the right to deactivate configuration blocks in the Config tab of GENIUS TOOLS Starter App, this means:

1. Deactivating the configuration block will ignore the content of the configuration block, i. e. as with all configuration blocks, it will not be included into the configuration.
2. In contrast to single project options, the checkbox of the switch options then disappears, because neither the checked (true value) nor the unchecked setting (false value) is to be used for configuration.




Only checked configuration blocks (in the Config tab) generate checkboxes for switch options

6.10 Creating backup copies

In GENIUS TOOLS Starter App, a backup file can be created of the configuration files of CAD applications. This is useful for users who manage their own configuration files, but



also for administrators who want to make test changes, for example to the Creo user interface.

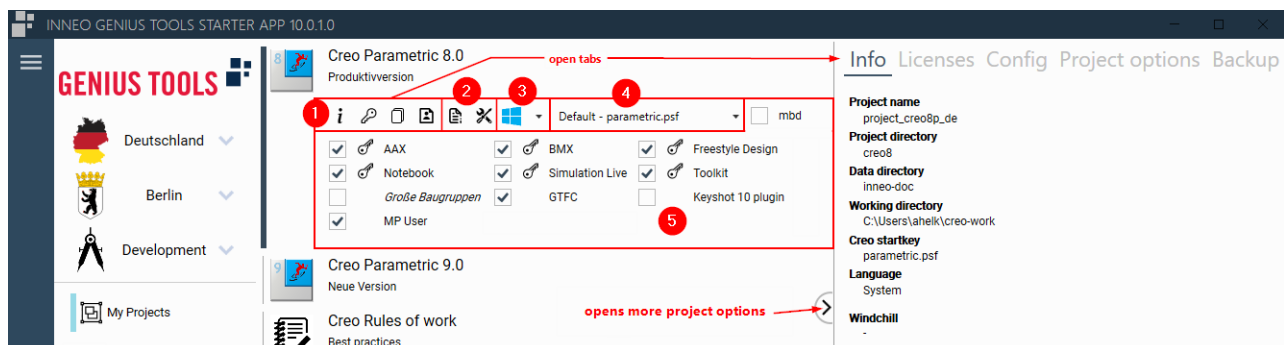
In the project details area of GENIUS TOOLS Starter App, click the button . The Backup tab of the project opens. The files for a backup differ depending on the application and are described below in the chapter Backup of an application.

6.11 Creo Parametric

For projects of the Creo Parametric application, you can open the tabs *Info*, *Licenses*, *Config* und *Backup* (1) as well as select the language (2) and a Creo Startkey (3) if you have the appropriate rights. The settings required for this are described in the *Defining project options* chapter.

Creo Parametric projects can contain project options checkboxes (4), e.g. to activate one or more configuration settings.

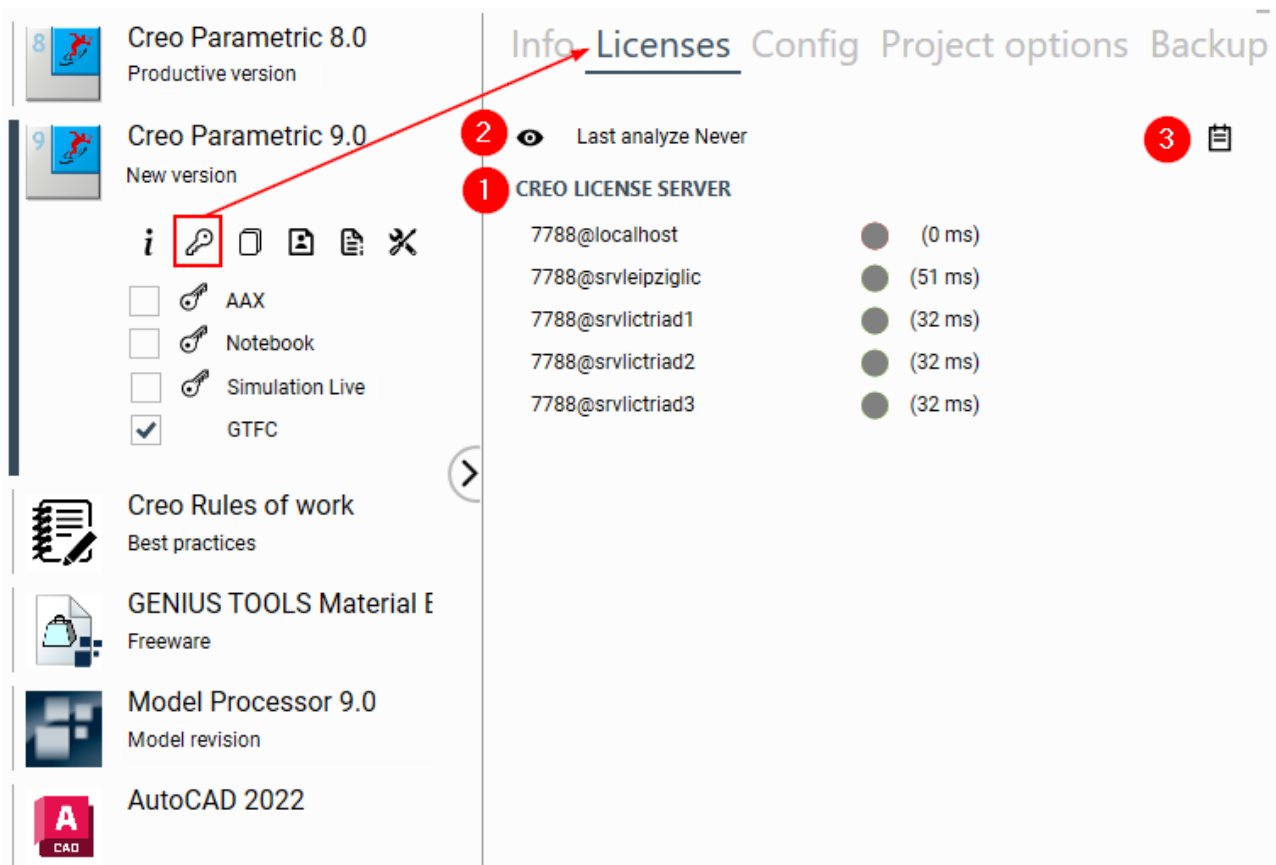
In addition, a project report can be generated for Creo Parametric by clicking the  icon and the GENIUS TOOLS Starter App Config Analyzer analysis program can be opened by clicking the  icon (2).



Project details and options of a Creo Parametric project

6.11.1 Licenses

The Licenses tab contains information on the license servers assigned to a project of a CAD application as well as the possibility to analyze these server as well as to borrow licenses, if the users have the corresponding user rights. The administrator defines which license functions users can use, see chapter *Displaying license information*.




License tab of a Creo Parametric project

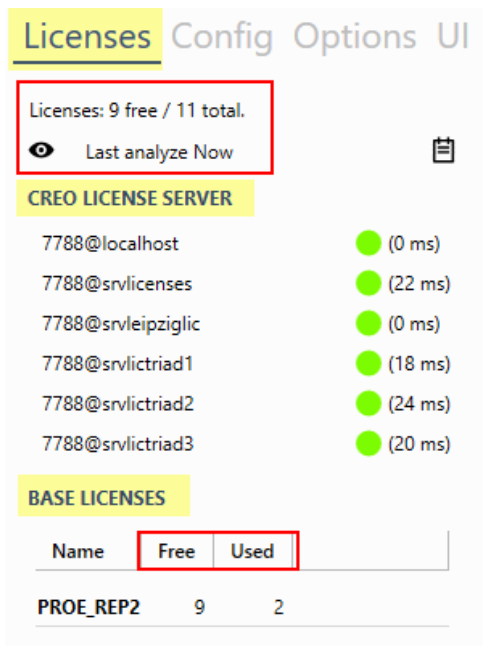
1. License server

All license servers specified in the project are listed here without being checked for availability. The dots turn green or red only after a license analysis (2)

2. Analyze licenses


After clicking the symbol  *Analyze licenses* (2) all licenses – and for Creo Parametric: all license extensions – needed for the project are listed and their availability is displayed in the column *Free*.

If you are running a CAD program on your local computer, using one license, and there are no other licenses available on the license server, the number of free licenses is given as 1, not 0. Also, the note *Multiple usage* is displayed. This is meant to show that you can start additional instances the CAD program because no additional license is required.



Also, the time passed since the last analysis is shown.

3. Borrow licenses

If a user is permitted to borrow licenses, the Borrow button  (3) is displayed, which opens the license borrowing dialog.

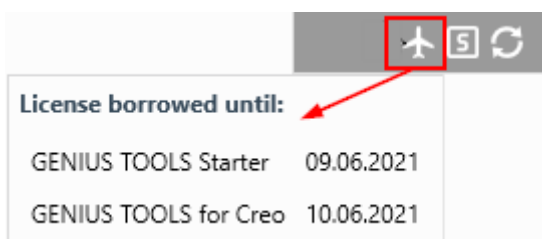
Please note: If you are working with borrowed licenses and without synchronization, the *Licenses* tab is hidden. If you are working with borrowed licenses, empty information tables are hidden.

Display of borrowed licenses

For projects: projects with borrowed licenses can be recognized quickly in the main window by the note on the right.

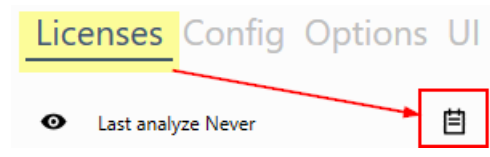


For applications: In the tooltip of the plane button in the footer you can see which GENIUS TOOLS licenses have been borrowed and until when.

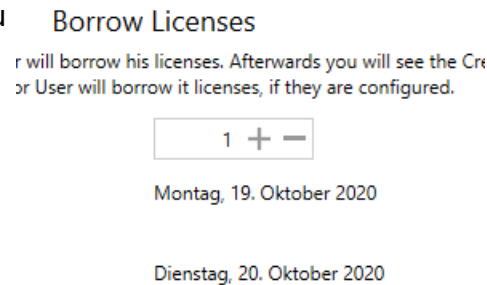


Borrow licenses

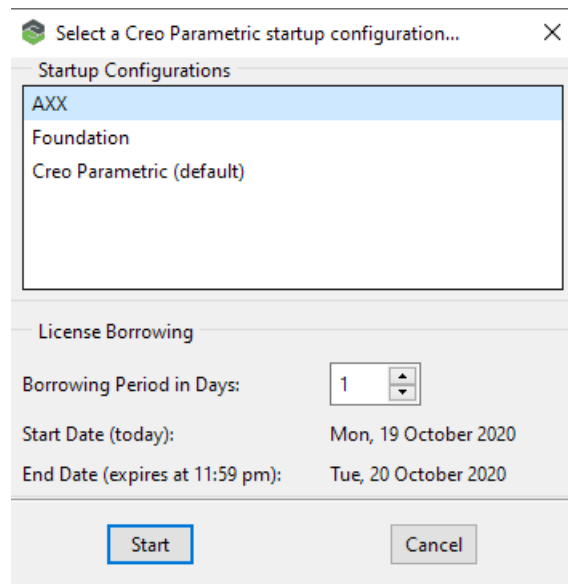
1. In the *Licenses* tab, click *Borrow* (2). The *Borrow licenses* dialog is displayed.



2. Select the number of days for which you want to borrow the licenses and click *Borrow*. GENIUS TOOLS Starter App borrows the licenses for GENIUS TOOLS Starter. The PTC license borrowing dialog for Creo opens.




3. In PTC Creo license borrowing dialog, select the correct startkey and the duration of borrowing in days. The correct startkey is the one that starts with the selected project (see Info tab in GENIUS TOOLS Starter App). Click *Start*. Creo is started with the borrowed licenses.



4. Once Creo has been started completely, GENIUS TOOLS for Creo will automatically borrow its licenses. If GENIUS TOOLS for Creo does not start, check in the PTC message window whether the full startup of Creo is displayed.

Please note: If you click on Borrow (step 2) and then cancel the PTC borrow dialog (step 3) you will have borrowed a GENIUS TOOLS license.

Return licenses

To return borrowed Startup TOOLS licenses, select *Return all borrowed GT licenses* in the user menu .

6.11.2 Config

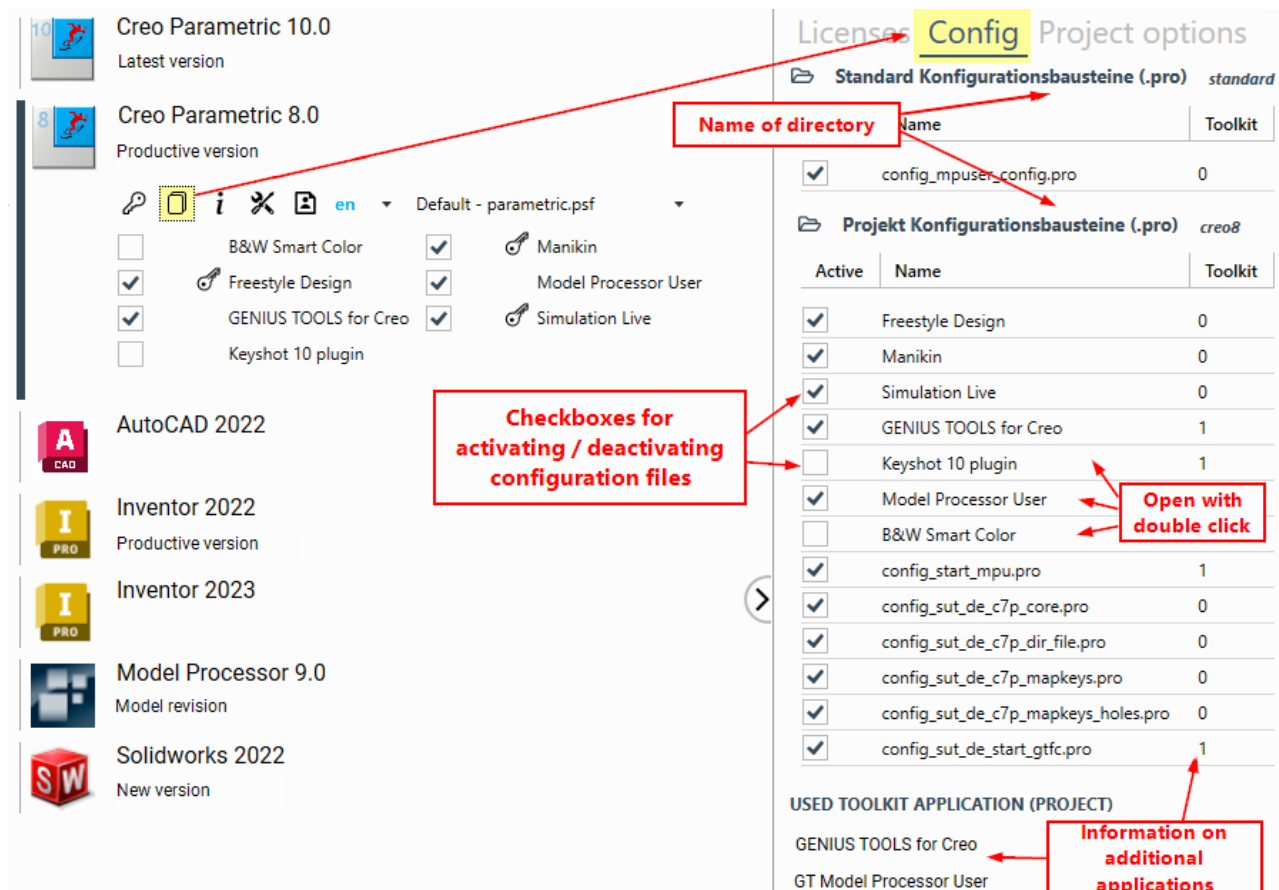
The *Config* tab lists all files used for configuring the project (configuration blocks) ordered in the directories the files are stored as well the additional applications (toolkit applications) used in the selected project.

The tab opens by clicking on the  button.

Configuration blocks can be

- opened and edited by double clicking on them and
- activated or deactivated for the selected project

if the user has been granted function access to do so. Your administrator defines this, see chapter Granting function access rights.



Config Project options

Standard Konfigurationsbausteine (.pro) standard

| Name | Toolkit |
|---------------------------|---------|
| config_mpuuser_config.pro | 0 |

Projekt Konfigurationsbausteine (.pro) creo8

| Active | Name | Toolkit |
|-------------------------------------|-------------------------------------|---------|
| <input checked="" type="checkbox"/> | Freestyle Design | 0 |
| <input checked="" type="checkbox"/> | Manikin | 0 |
| <input checked="" type="checkbox"/> | Simulation Live | 0 |
| <input checked="" type="checkbox"/> | GENIUS TOOLS for Creo | 1 |
| <input type="checkbox"/> | Keyshot 10 plugin | 1 |
| <input checked="" type="checkbox"/> | Model Processor User | 1 |
| <input type="checkbox"/> | B&W Smart Color | 1 |
| <input checked="" type="checkbox"/> | config_start_mpu.pro | 1 |
| <input checked="" type="checkbox"/> | config_sut_de_c7p_core.pro | 0 |
| <input checked="" type="checkbox"/> | config_sut_de_c7p_dir_file.pro | 0 |
| <input checked="" type="checkbox"/> | config_sut_de_c7p_mapkeys.pro | 0 |
| <input checked="" type="checkbox"/> | config_sut_de_c7p_mapkeys_holes.pro | 0 |
| <input checked="" type="checkbox"/> | config_sut_de_start_gtfc.pro | 1 |


USED TOOLKIT APPLICATION (PROJECT)

GENIUS TOOLS for Creo

GT Model Processor User

Private configuration block

The area *Private configuration block* is only visible in the Config tab, if an appropriate file is located in the userdata directory. Path specifications and notation of the file are defined in the user settings.

Users have the option to edit their local, private configuration block (config file) and write it back to the administration computer using the  upload button. The Upload button is visible if the user has been given the function access right *Can save private configuration block to server*.




Please note: Pause data synchronization when editing a private configuration block.

Toolkit applications used from alternative directory

Additional applications, as specified in the files *protk.dat*, *prodev.dat* and *creotk.dat*, are listed, if they are located in an alternative directory, see Alternative path specification.

6.11.3 Backup

In the Backup tab users can secure and restore the user specific settings for the user interface of Creo. It opens with the  button.

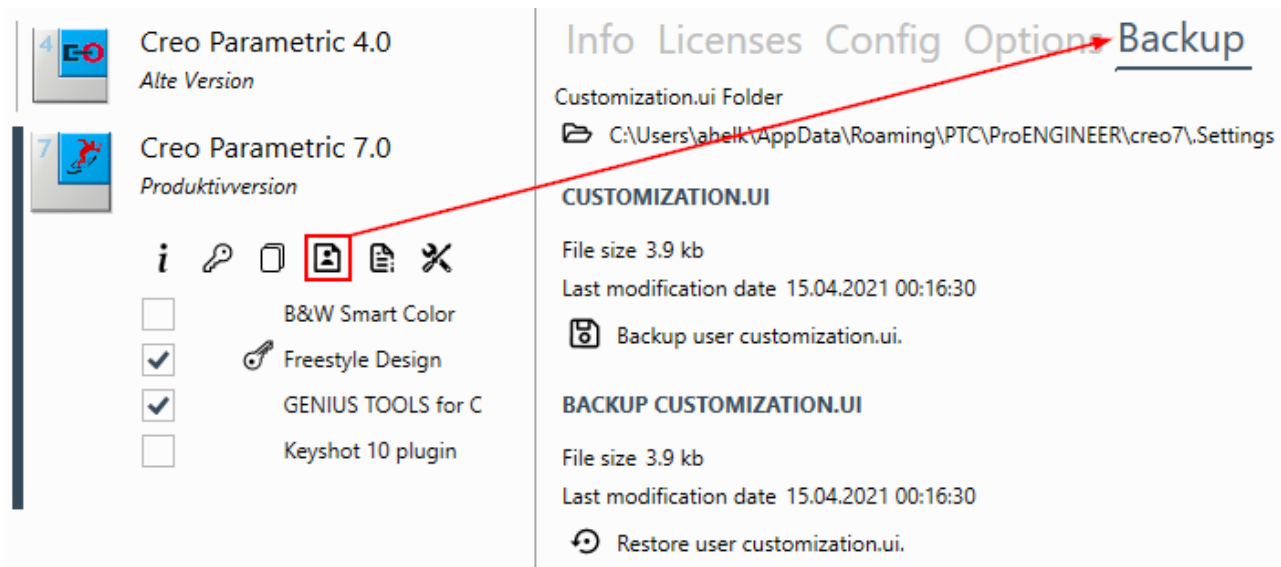
Please note: Backup tab and icon will be visible, if users are granted the access right *Can save user-specific settings / customization.ui file*.

The file *creo_parametric_customization.ui* (short: *customization.ui*) is the [Creo configuration file](#) that contains user-specific settings for the graphical user interface of Creo Parametric. You can create a backup copy of this file if you have the necessary access rights.

A click on the folder icon opens the target directory.

Procedure: Create a backup copy for Customization.ui configuration file

1. In the Backup tab click the button  *Backup user customization.ui*.



2. If a backup file already exists: Confirm in the following dialog box that the existing `creo_parametric_customization.ui` should be deleted.

Result: The file is saved as `creo_parametric_customization.ui.old` in the target directory.

To restore the user UI file:

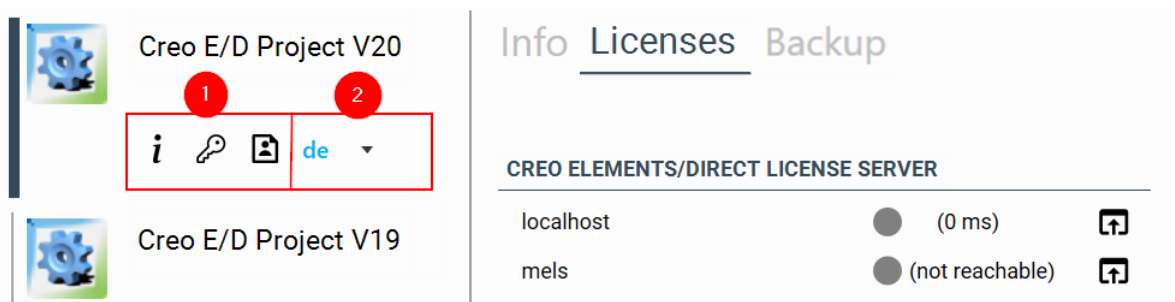
3. Click  Restore user customization.ui.

4. In the following dialog box, select whether to delete the backup file.

Result: The `creo_parametric_customization.ui.old` file is changed to `creo_parametric_customization.ui` in the %PTC_WF_ROOT%\Settings directory.

6.12 Creo Elements/Direct Modeling

For projects in Creo Elements/Direct Modeling, you can open the tabs *Info*, *Lizenzen* und *Backup* (1) and select the language (2), if you have the appropriate rights.




Project details and options of a CED project

The Info tab specifies the corp directory, the site directory and the user directory.

6.12.1 Licenses

The Licenses tab shows the license servers used in the project. The functions to analyze or borrow licenses analysis is not available.

6.12.2 Backup

In the Backup tab users can secure and restore the directory for user specific settings. It opens with the  button.

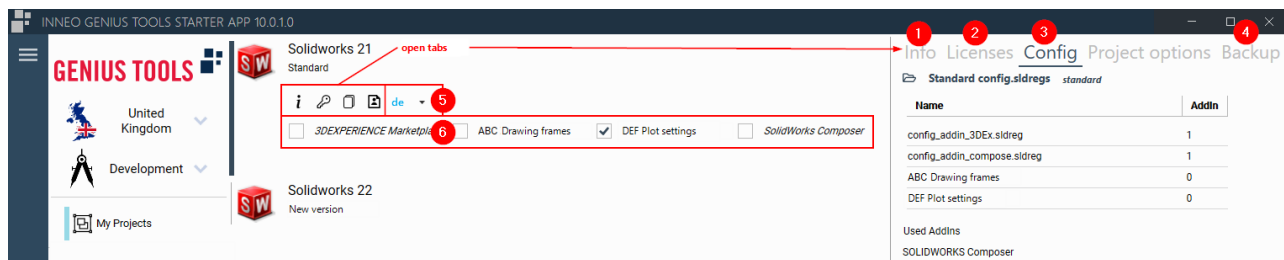
Please note: Backup tab and icon will be visible, if users are granted the access right *Can save user-specific settings / customization.ui file*.

6.13 Solidworks

For SolidWorks application projects, you can open the tabs *Info*, *Licenses*, *Config* and *Backup* (1-4) and select the language (5) if you have the appropriate rights.

SolidWorks projects can contain project options as checkboxes (6). Project options can be:

- activate additional programs (AddIns): shown in *italics*
- activate additional configuration settings



Project details and options of a Solidworks project

6.13.1 Licenses

The functions in the Licenses tab correspond to those of Creo Parametric projects. (See [Licenses](#).)


For SolidWorks projects, the borrowing process differs in that SolidWorks licenses are borrowed directly in the SolidNetWork License Manager client.

6.13.2 Config

The Config tab displays all configuration blocks for SolidWorks, i. e. files of the notation *config_*.sldreg*, sorted by their storage directories. The tab is opened with the button.

The functions for opening and deactivating the configuration blocks correspond to those in [Creo Parametric projects](#). Likewise, user-defined settings can be saved in a personal configuration block if the right to do so has been granted.

6.13.3 Backup

In the Backup tab users can backup (1) and restore (2) user-specific settings from the registry. It opens with the  button.

Please note: Backup tab and icon will be visible, if users are granted the access right *Can save user-specific settings / customization.ui file*.

User configuration

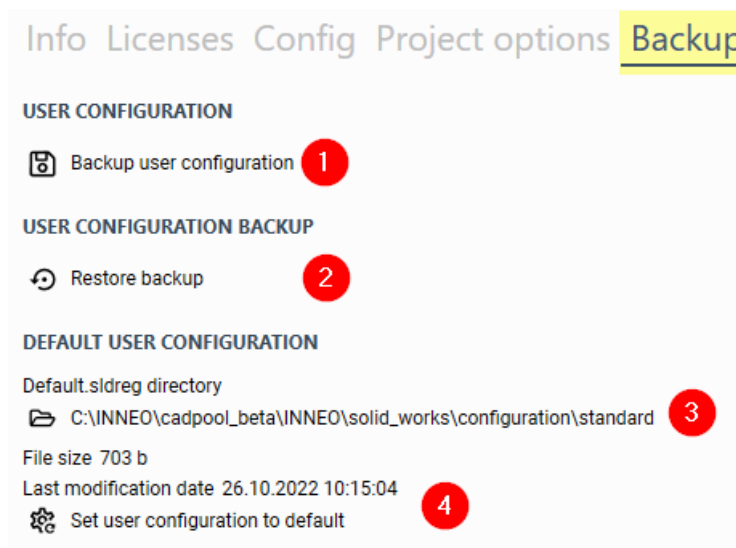
Users can back up (1) and restore (2) the entire SolidWorks user configuration from the registry.

The registry branch is backed up as:

`HKEY_CURRENT_USER\SOFTWARE\SolidWorks\SolidWorks <version> Old.`

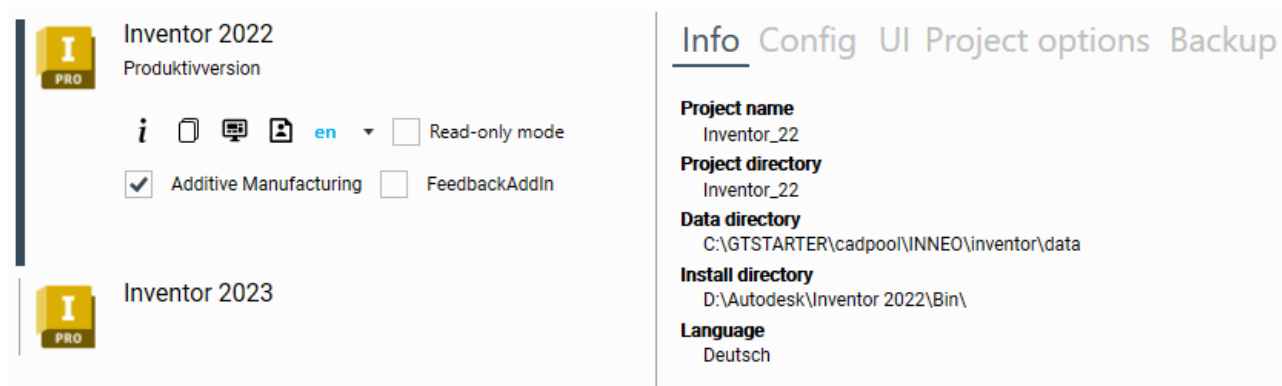
Default user configuration

Default user settings are settings from the configuration file *default.sldreg*. If GENIUS TOOLS Starter App finds a default file that applies to the select project, the path to the directory (3) as well as a button for taking over those settings (4) will be displayed.



6.14 Inventor

For projects in the Inventor application, you can open the Info, Config, UI and Backup tabs and select the language if you have the corresponding access rights.



Display of an Inventor project with open Info tab


Inventor projects can contain project options

– to select Inventor's Read-only mode, see chapter [Read-only mode](#).

- to activate one or more configuration settings
- start additional programs (AddIns)

To create them, consult the chapter [Read-only mode](#) as well as the instructions for creating company-specific project options.

6.14.1 Config


The Config tab displays all configuration blocks containing the general settings for the selected Inventor project. The tab is opened with the button .

The tab lists files of the notation *config_*.xml*, i. e. configuration blocks for configuration settings such as template paths, export settings or color effects. All configuration blocks are copied together into the Inventor configuration file *UserApplicationOptions.xml* before the project is started and stored in the target directory specified.

The functions for opening and deactivating the configuration blocks correspond to those of the [Config tab in Creo Parametric projects](#). Likewise, user-defined settings can be saved in a [private configuration block](#) if the right to do so has been granted.

All additional applications (AddIns) that are available for the project are also listed. (Whether an AddIn is started or not depends on the LoadOnStartup value).


6.14.2 UI

The UI tab lists all configuration blocks containing the user interface settings for the selected Inventor project. The tab is opened with the icon .

The tab lists files with the notation *ui_*.xml* notation, grouped by their storage directory. These configuration blocks are copied together to the Inventor configuration file *InventorCustomizations.xml* before the project is started and stored in the specified target directory.

The functions for activating and opening the files correspond to those of the [Config tab in Creo Parametric projects](#).

6.14.3 Backup

In the Backup tab, the user-specific settings of Inventor can be secured. The tab is opened with the icon .

A backup copy of the [Inventor configuration files](#) can be created if the access rights to do so are granted.


- *UserApplicationOptions.xml* is the configuration file for general configuration settings, e.g. template paths, import and export settings, settings for colors and materials.


– *InventorCustomization.xml* is the configuration file for user interface settings.

Please note: Backup tab and icon will be visible, if users are granted the access right
Can save user-specific settings / customization.ui file.

Clicking the folder icon opens the target directory. The XML configuration files are created for each version and are located at:

%APPDATA%/Autodesk/Inventor <Version>

Clicking the disk icon  saves the XML files as *UserApplicationOptions.xml.old* or *InventorCustomization.xml.old* in the destination directory.

If a backup copy exists, the file size and last modified date is displayed and the backup can be restored with the Restore icon .


6.15 Sending messages to the users

GENIUS TOOLS Starter includes a functionality for administrators to send messages in form of text files to users who can access them in the GENIUS TOOLS Starter App sidebar.

Creating a message


Step 1: Go to the operating environment's *_Information* directory in the caddepot directory.

Step 2: Create a TXT or a PDF file with your message. The name of the text file has to start with the prefix *alert_*, e. g., *alert_message.txt*.

After synchronization the existence of new messages is displayed to users by coloring the message symbol red . After reading the document can be opened again.

6.16 GENIUS TOOLS Starter App Config Analyzer

GENIUS TOOLS Starter Config Analyzer is a tool that allows you to view and edit configuration blocks (in the [Project information](#) page) as well as to directly compare configuration settings of two projects (in the [Compare projects](#) page). The batch files used are listed.

You can access the Config Analyzer by clicking the *Analyze* button  in the Config tab of GENIUS TOOLS Starter App.



This button can be hidden by the administrator in GENIUS TOOLS Project Configurator under *User Rights > Function access > Can analyze project*.

6.16.1 Project information

In the *Project Information* section **i** of the GENIUS TOOLS Starter App Config Analyzer, you will see a list of all configuration blocks (config files) and batch files used for the project, as well as their location (column: Location). Configuration files can be located in the Standard, Unit or Project directories.

You can edit configuration files with GENIUS TOOLS Config Editor by clicking on the Edit symbol (3).

The analysis of the configuration files refers to the found weekly version of Creo.

| LOCATION | NAME | LINES | UNKNOWN | DEFAULT | MAPKEYS | TOOLKIT | EDIT |
|---------------------|--|-------|---------|---------|---------|---------|------|
| ConfigPro 8 | | | | | | | |
| Standard | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_1_lic_aax.pro | 1 | 0 | 0 | 0 | 0 | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_1_lic_toolkit.pro | 6 | 0 | 0 | 0 | 0 | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_2_start_gtfc.pro | 7 | 0 | 0 | 0 | 1 | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_2_start_keyshot.pro | 7 | 0 | 0 | 0 | 1 | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_manikin_creo.pro | 9 | 0 | 0 | 0 | 0 | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\config_mapkeys.pro | 375 | 0 | 0 | 65 | 0 | |
| Project | C:\INNEO\cadpool_beta\INNEO\configuration\projects\creo8\config_z_c8p.pro | 3 | 0 | 0 | 0 | 0 | |
| StartBatch 2 | | | | | | | |
| Standard | C:\INNEO\cadpool_beta\INNEO\configuration\standard\start_test.bat | | | | | | |
| Unit | C:\INNEO\cadpool_beta\INNEO\configuration\units\Deutschland\start_env.bat | | | | | | |

User interface for project information

Search and sort configuration files


Search (1): Search for a file (at least three letters)

Sort (2): Click on the following areas to sort the files by the size of the value (ascending or descending)

- **Lines** (number of lines)
- **Unknown**: Config option not found in the Creo weekly version (i.e. does not exist or is hidden) or value not found
- **Default**: Default value of the configuration option in the Creo weekly version
- **Mapkeys**: Number of mapkey definitions
- **Toolkit**: Number of Toolkit applications

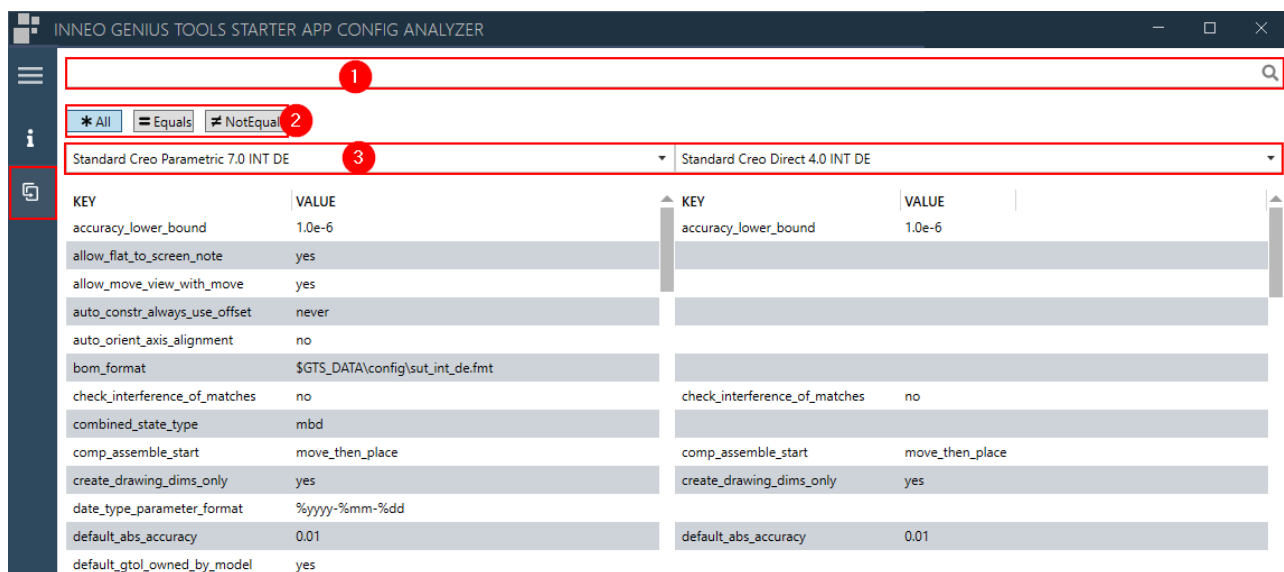
- **Edit:** opens GENIUS TOOLS Config Editor

6.16.2 Compare projects

The dialog *Compare Projects*  allows you to directly compare the configuration settings of two projects.

Select the projects from the drop-down menu (3). The projects available for selection are those that you are allowed to open in GENIUS TOOLS Starter App.

Search (1) for a configuration option (at least three letters) or use the *All*, *Equals* and *Not Equals* buttons to compare configuration options (2).



User interface for comparing projects

7 GENIUS TOOLS Config Editor

7.1 Introduction

GENIUS TOOLS Config Editor allows you to analyze and edit configuration files for various CAD applications.

The following functions are available:

- editing of configuration files and blocks for
 - Creo Parametric
 - SolidWorks
 - Inventor
- syntax highlighting
- for configuration options for Creo Parametric
 - auto-completion on inputting and display of the possible values
 - color coding for duplicate, hidden and unknown configuration options for each version
 - comparing configuration files of different versions
- easy editing of GTS config variables for creating company-specific project options in GENIUS TOOLS Starter App.
- Batch mode for editing multiple files.

GENIUS TOOLS Config Editor is delivered with GENIUS TOOLS Starter and is available with a subscription license.

GENIUS TOOLS Starter has been an independent module of GENIUS TOOLS Startup TOOLS since version 6.

7.2 Starting the program

You can open GENIUS TOOLS Config Editor from any user computer where GENIUS TOOLS Starter is installed. The program can be started as follows:

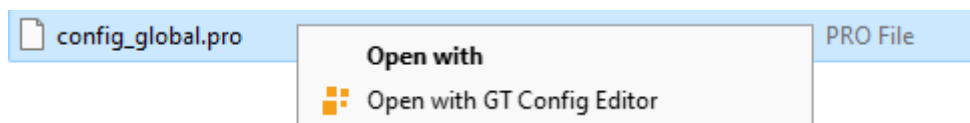
1. in the Windows context menu,
2. with the EXE file,
3. in the project display of GENIUS TOOLS Starter App.

GENIUS TOOLS Config Editor behaves like other editing programs in that all open files are opened the next time the program is started. A file can be dragged into the dialog window of the editor by clicking on it.

Please note: GENIUS TOOLS Config Analyzer requires a subscriptions license. Without a subscription license you can open a configuration file with other editing programs.

1. Starting with Windows context menu

The line *Open with GT Config Editor* is added to the context menu by default during setup and will be available after the first start via the EXE file or GENIUS TOOLS Starter App.




The entry *Register in Windows context menu* can be disabled in the Config Editor user menu.

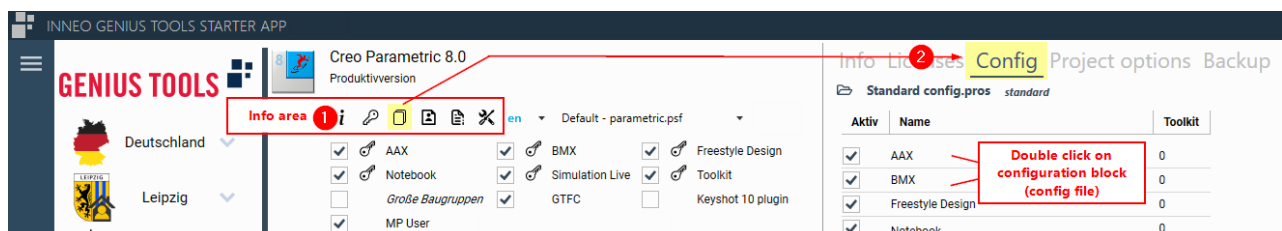
2. Starting the EXE file

The file *GTConfigEditor.exe* is located in the *tools* folder, which is located in the caddepot of the installation computer as well as in the cadpool of the user computer. Path: *cadpool/<working environment name>/tools/config-editor*


3. Starting in GENIUS TOOLS Starter App

3.1. For projects of Creo Parametric, Inventor and SolidWorks

Open the Config Tab using the Config files button  in the info area (1) of a project. Double-clicking on a configuration file in the Config tab (2) opens the file in GENIUS TOOLS Config Editor.



3.2. For projects of Creo Parametric

Open the tool GENIUS TOOLS Config Analyzer via the Analysis  button in the Info area (1) of a project.

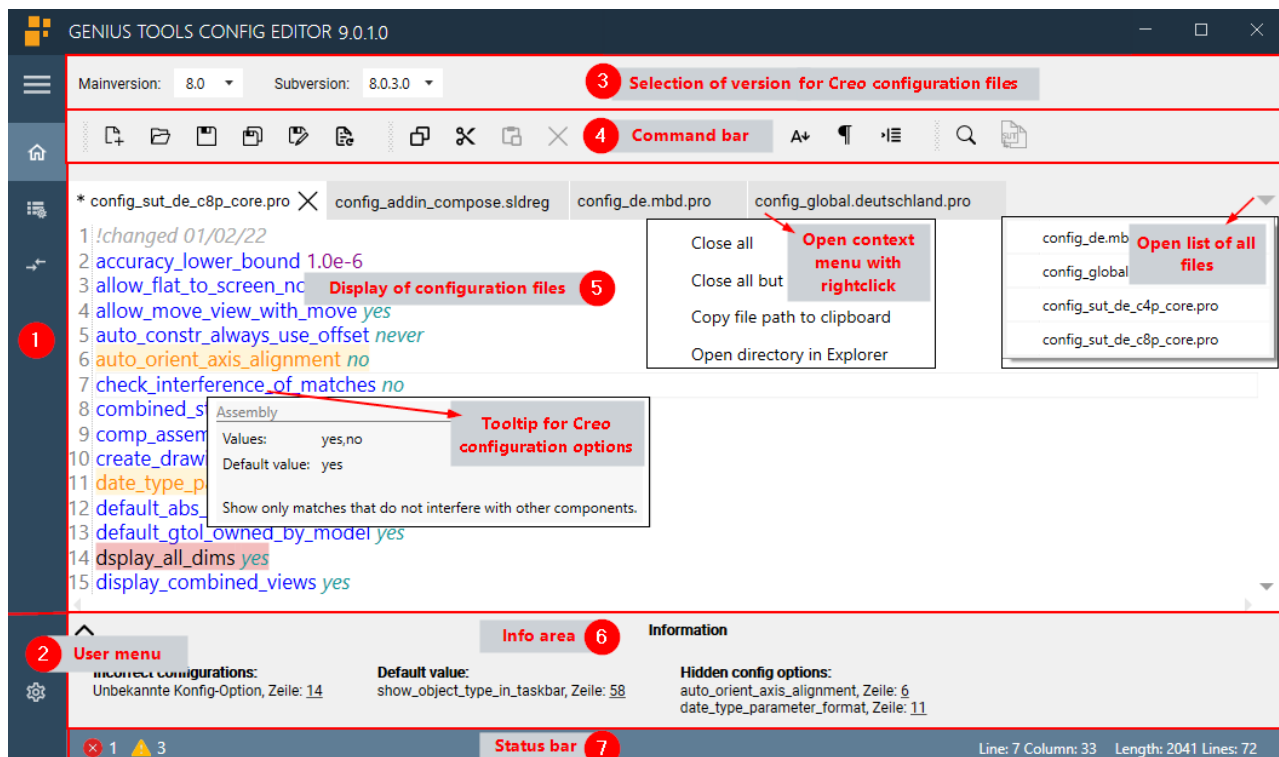
Clicking the Edit button in the last column of a config file opens GENIUS TOOLS Config Editor.

| INNEO GENIUS TOOLS STARTER APP CONFIG ANALYZER | | | | | | | |
|--|--|-------|---------|---------|---------|---------|------|
| Creo Parametric 7.0 | | | | | | | |
| LOCATION | NAME | LINES | UNKNOWN | DEFAULT | MAPKEYS | TOOLKIT | EDIT |
| ConfigPro 22 | | | | | | | |
| Standard | c:\inneo\cadpool_beta\INNEO\configuration\standard\config_global.d | 1 | 0 | 0 | 0 | 0 | |
| Unit | c:\inneo\cadpool_beta\INNEO\configuration\units\Deutschland\config | 6 | 0 | 0 | 0 | 0 | |
| Unit | c:\inneo\cadpool_beta\INNEO\configuration\units\Deutschland\config | 6 | 0 | 0 | 0 | 0 | |

Please note: The Analysis button can be hidden by the administrator in GENIUS TOOLS Project Configurator under *User Rights > Function Access > Can Analyze Project*.

7.3 User interface

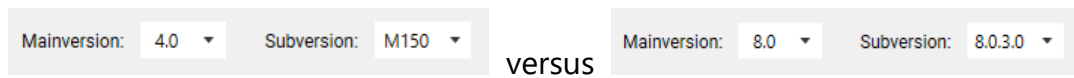
The user interface of GENIUS TOOLS Config Editor is divided into the following sections.



1. Sidebar with start dialog and batch mode and compare versions dialog
2. User menu
3. Selection of version (for configuration files for Creo Parametric)
4. Command bar
5. Display of Confi.pro files with context menu
6. Information area
7. Status bar

Select version for Creo Parametric files

Select the Creo Parametric version (3) and open the configuration file (*config_*.pro*) you want to edit. The **weekly versions** start with a letter up to Creo main version 4. After that, the weekly versions are digits of the main version.



You can compare several files by arranging them side by side in the window. (See [Display of files](#).)

Please note: This area is omitted for configuration files for Inventor and SolidWorks.

Command bar

The command bar (4) contains the following functions

- **New file:** Creates a new text file.
- **Open file:** Opens the Windows file manager with a dropdown menu for [supported file types](#). A file can also be dragged into the dialog window.
- **Save:** Saves the current file (Strg + S).
- **Save all files:** Saves all files (Strg + Shift + S).
- **Save as:** Opens the Windows file manager.
- **Reload file and revert changes:** Deletes the unsaved changes.
- **Copy:** Copies the selected text.
- **Cut:** Deletes the selected text and keeps it on the clipboard.
- **Paste:** Pastes the text from the clipboard.
- **Delete:** Deletes the selected text.
- **Undo / Redo:** Deletes or restores the last action.
- **Increase / decrease font size:** Decreases or increases the font size.
- **Show / hide tabs:** Shows or hides spaces, tabs and line breaks.
- **Format file:** Formats the currently selected file.
- **Find and replace:** Opens a dialog box with two tabs for Search and for Find/Replace, see [Editing config files](#). (Strg + F, Strg + H)
- **Replace SUT variables:** Replaces the GENIUS TOOLS Startup TOOLS (SUT) variables with the new GENIUS TOOLS Starter (GTS) variables that came into use as of version 6 of Startup TOOLS. (Since then GENIUS TOOLS Starter is an independent module of Startup TOOLS.)

Context menu

Open the context menu by right-clicking on the file name to get the following options: Close all – Close all but this file – Copy file path to the clipboard – Open directory in Explorer.

Information area

For Inventor configuration files (XML files), the first error is displayed with line specification.

For configuration files of Creo Parameter there is more information, see [Info area for config files](#).

Status line

The status line (7) contains the following information:

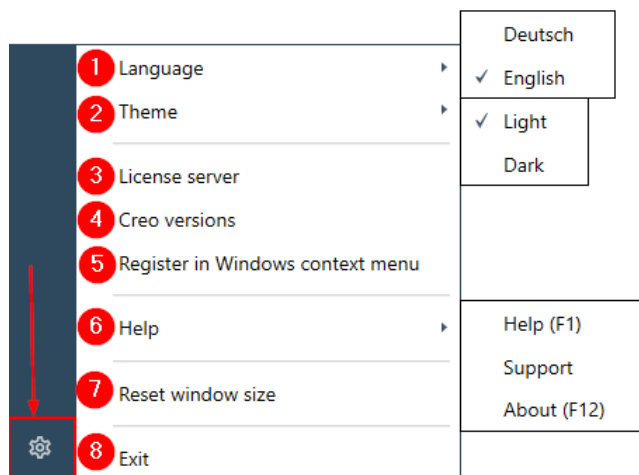
- Line: Indicates the line in which the cursor is located.
- Column: Indicates the position in the line where the cursor is located.
- Length: Displays the number of all characters.
- Lines: Displays the number of all lines.

And for configuration blocks for Creo Parametric:

- Number of configuration options with a warning. (Click on the red symbol to jump to the next option.)
- Number of configuration options with a note. (Click on the orange symbol to jump to the next option.)

7.4 User menu

The user menu opens in the header bar with the gear button.



1. Language

The language setting of the user interface can be changed between German and English while the program is running. The setting is saved for the next start. If the country setting of the operating system is German, GENIUS TOOLS Config Editor will start in German. All other country settings will start in English.

2. Theme

The user interface of the software is offered in the color schemes light and dark. The setting is saved for the next start.

3. License server

Opens the input dialog for the license server.

Change here the license server that provides the license for GENIUS TOOLS Config Editor in the notation `7766@localhost`.

4. Creo versions

Opens the input window for selecting the Creo versions for which you want to view configuration files.

The databases for configuration options are available for all Creo versions, meaning you can edit configuration files regardless of whether the Creo version is installed on your computer.

Please note: The databases of the enabled versions are loaded into the user directory `AppData\Roaming\INNEO\GENIUS_TOOLS\GENIUS TOOLS Config Editor`.

During setup, the activated checkboxes show the Creo versions that are installed on your computer. If no Creo version is found on the computer, all checkboxes are activated.

5. Register in Windows context menu

Adds the command *Open with GT Config Editor* to the [Windows context menu](#). This entry is activated by default.

6. Help

Help (F1): Opens the help for GENIUS TOOLS Config Editor. The help corresponds to

this document.

Support: Opens the website of the technical support of Inneo Solutions GmbH.

Info (F12): Displays the license agreement of the current version of GENIUS TOOLS Config Editor.

7. Reset Window Size

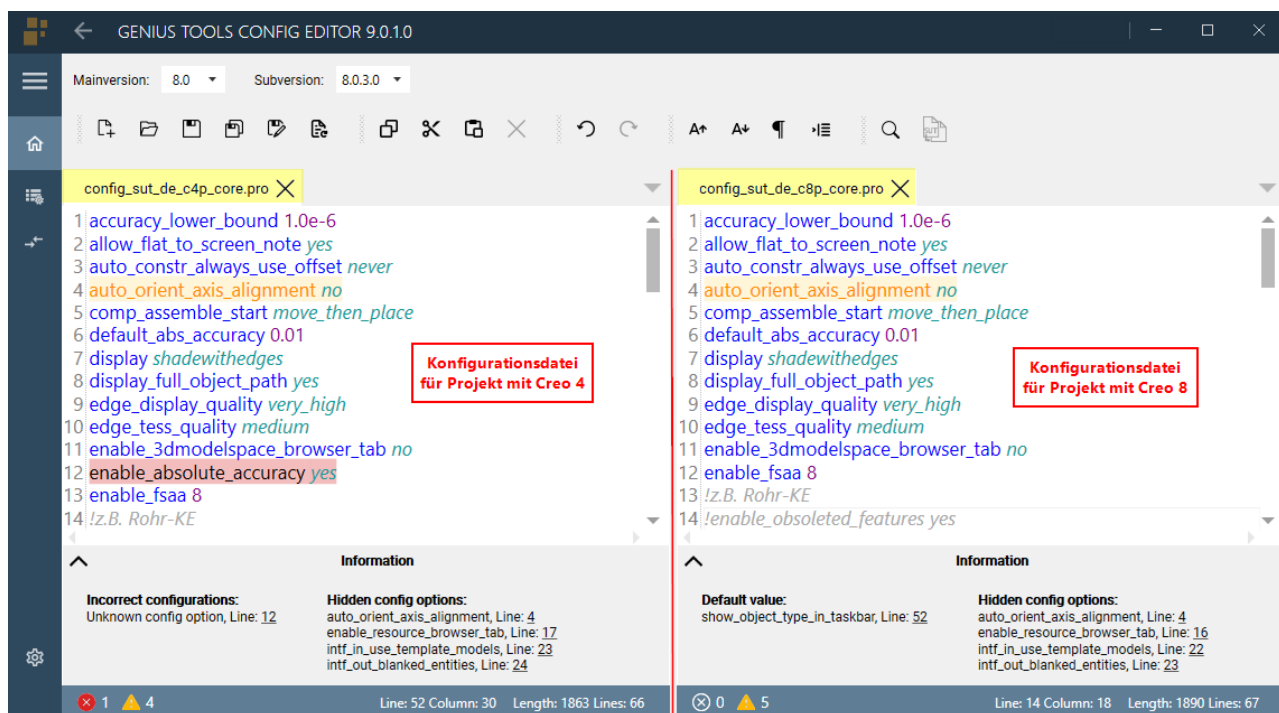
Restores the default size for the GENIUS TOOLS Config Editor dialog window. The dialog window can be resized to any size.

8. Exit

7.5 Display of files

You can display multiple files both one below the other and side by side, e. g. to compare two configuration files.

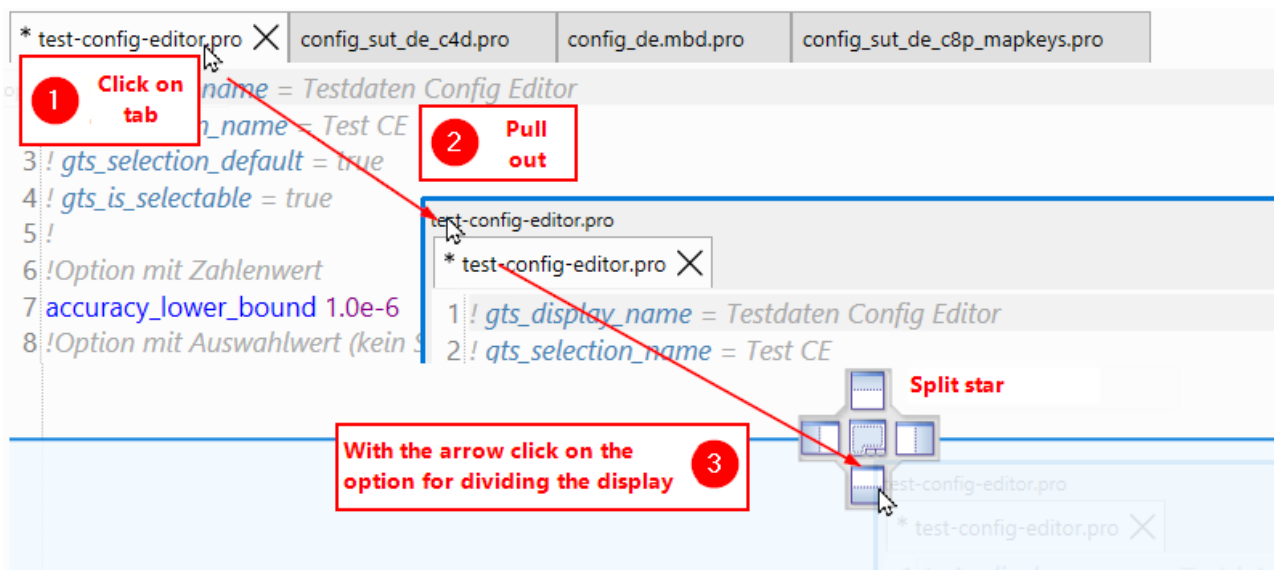
This is particularly useful for comparing Creo configuration blocks of different versions. See chapter [Comparing versions](#).



Display of two files next to each other

Procedure: Setting up the file display

- Change the position of a single file by clicking and dragging the file to the desired location using the split star.



7.6 Supported files

With GENIUS TOOLS Config Editor you can edit configuration files and blocks for different CAD applications.

A configuration file contains all settings of an application without using GENIUS TOOLS Starter, e. g. the file *config.pro* for Creo Parametric.

A configuration block

- is one of many configuration subfiles that are read by GENIUS TOOLS Starter to create the configuration of a Starter project,
- is a text file that contains one or more configuration settings,
- must be created with an application-specific name.

The following configuration blocks can be created for the respective CAD applications.

| Configuration-block | Content | Example |
|--|--|--|
| Creo Parametric | | |
| 1 config_*.pro (also: Config-Datei) | All settings (configuration options) for executing the application | <i>config_sut_de_c6p_dir_file.pro</i> <i>config_c5p_mapkeys.pro</i> |
| 2 config_*.sup | Settings that cannot be modified by users | <i>config_design_en.sup</i> |
| SolidWorks | | |

| Configuration-block | Content | Example |
|----------------------|---|------------------------------------|
| 3 config_*.sldreg | All settings, Embedding additional application (AddIns) | <i>config_addin_compose.sldreg</i> |
| Inventor | | |
| 4 config_*.xml | All settings | <i>config_dir_file.xml</i> |
| 5 ui_*.xml | Settings for user interface | <i>ui_customization.xml</i> |
| 6 *.addin | Embedding additional application | <i>AdditiveMFG.inventor.addin</i> |

7.7 Configuration files for Creo Parametric

Information and color coding are more extensive for configuration blocks for Creo Parametric.

7.7.1 Display of configuration options

Creo configuration option define settings in Creo Parametric and are written into a configuration block. For better readability GENIUS TOOLS Config Editor displays configuration options as follows.

Configuration options that are highlighted in color contain notes (orange) or warnings (red) which are explained in the information area.

| Color code | Description |
|-----------------------------|--|
| <i>accuracy_lower_bound</i> | Configuration option |
| <i>1.0e-6</i> | Numerical value |
| <i>yes</i> | Nonnumerical value (e. g. yes, medium) |
| <i>\$GTS_DATA</i> | Variable – e. g. variable of Startup TOOLS (SUT) and GENIUS TOOLS Starter (GTS) |

| Color code | Description |
|----------------------------|---|
| ! gts_display_name | GTS config variable – contains information to create a company-specific project option for GENIUS TOOLS Starter App |
| measure_auto_replace_mode | Configuration option with the default value – is listed in the info area |
| spin_center_display | Duplicates (multiple entries of a configuration option) – are listed in the information bar – Please note: Duplicate options that can regularly be entered several times in a config file – such as <i>mapkey</i> or <i>search_path</i> – are not marked in orange. |
| auto_orient_axis_alignment | Hidden configuration option – are not officially supported by the Creo manufacturer – is listed in the info area |
| disable_all | Unknown configuration option – due to incorrect spelling or because it is not known in the selected Creo version – is listed in the info area |
| mapkey(continued) | Mapkey line is too long – up to Creo version 4: max. 81 characters allowed – from Creo version 4: max. 260 characters allowed |
| !changed 01/02/22 | Comment |

7.7.2 Info area

In the lower part of the main window configuration options with a note or a warning, i. e. those colored in orange or red, are listed. You can thus get a quick overview of the content of a config.pro file for Creo Parametric.

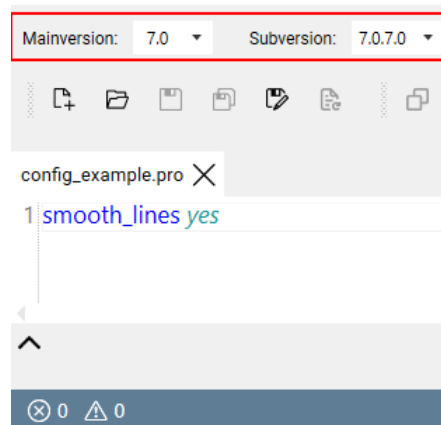
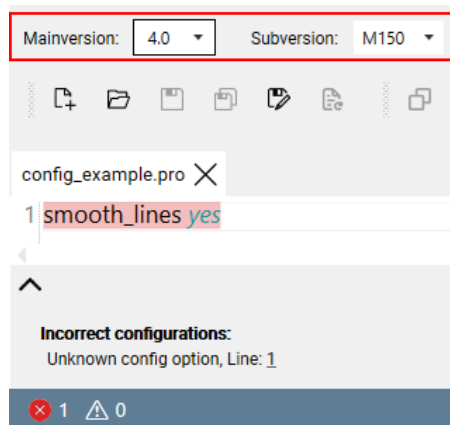


Info area of the Config Editor

1. Unknown configuration options

Options will not be recognised as such

- if they do not exist, e. g. in case of incorrect spelling notation, or
- if they are not known in the selected Creo version, e. g. the smooth_lines option exists only since Creo version 5.



2. Duplicates / duplicates

Configuration options that are set two or more times. Here: in line: 13 and 14.


3. Default value

Configuration options in which the default value is set.

4. Hidden configuration options

Options which are not officially supported by makers of Creo Parametric.

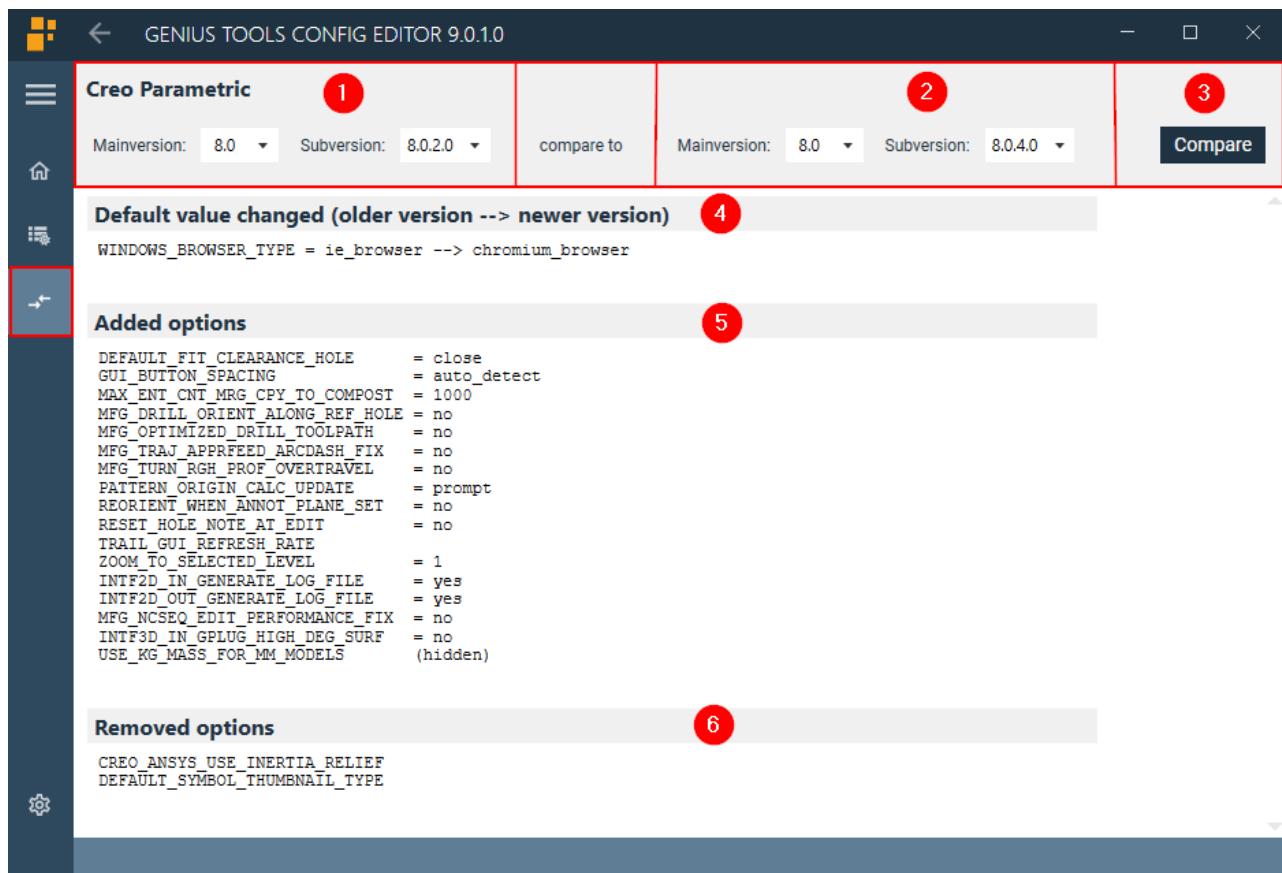
7.7.3 Comparing versions

In the menu item *Compare versions*  you can view the configuration options and the default values that have changed from one Creo Parametric version to another.

Select a version (main plus subversion) on the left (1) and another version on the right (2) and press the Compare button (3).

The following results are displayed:

- Configuration options whose default values have changed (4): The default values are listed first for the older version and then for the newer version, regardless of how the versions have been selected in the command bar.
- Added options with default values (5).
- Removed options (6).

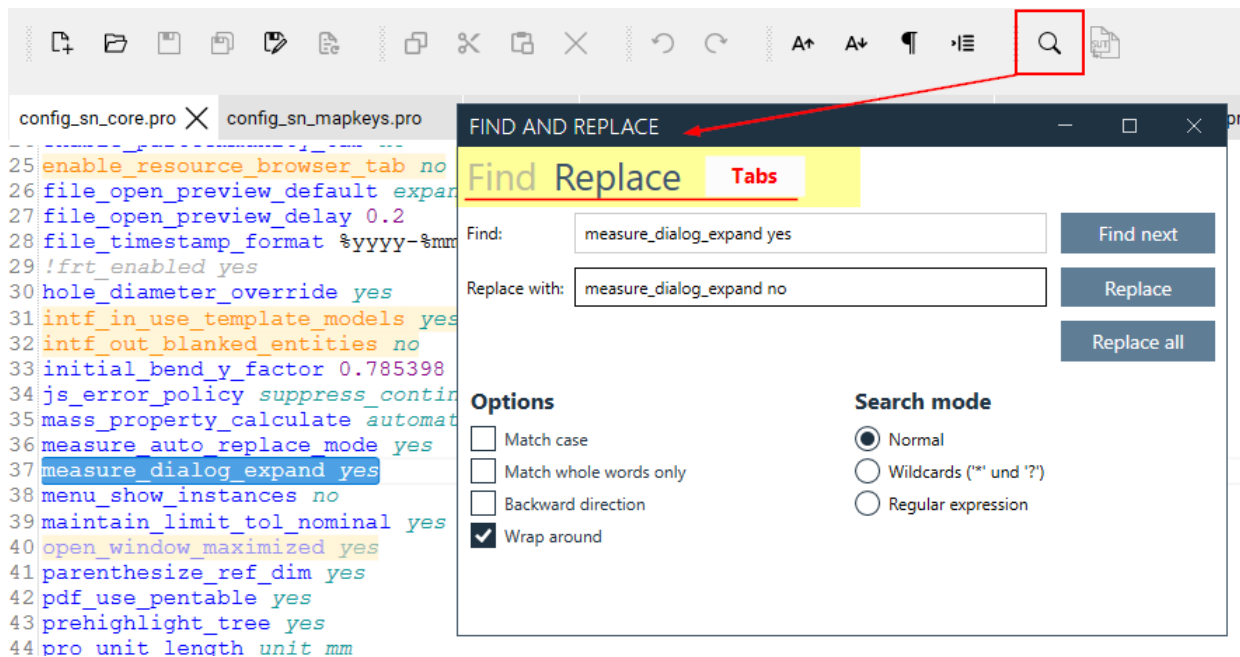


The information (*hidden*) refers to hidden configuration options.

7.8 Editing config files

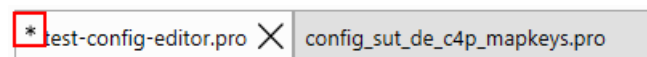
Find and replace

The magnifying glass button opens the Find and Replace dialog. So does Ctrl + F.



Edited file

Changes to a file are indicated with an asterisk.

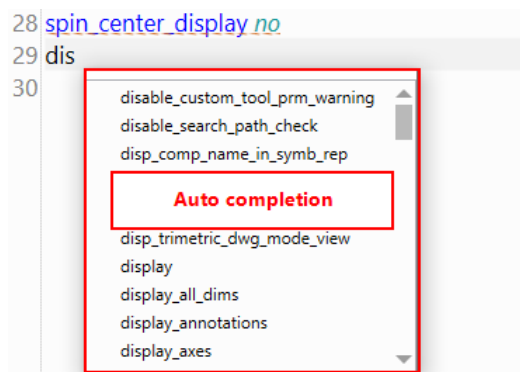


Functions for Creo configuration files

Files that contain configuration options for Creo Parametric (config_*.pro files) are supported by additional functions.

Autocomplete

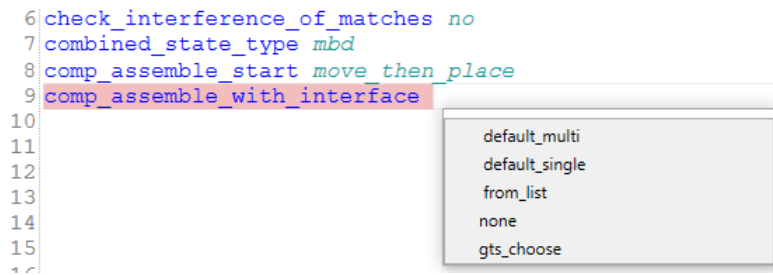
When entering a new configuration option, a list of the possible configuration options opens. The list includes hidden configuration options.



Options when entering "dis".

Suggest function

When entering a value for a the configuration option, a list of all possible values opens. For hidden configuration options no values are suggested. The GTS config variable `gts_choose` is always an option.

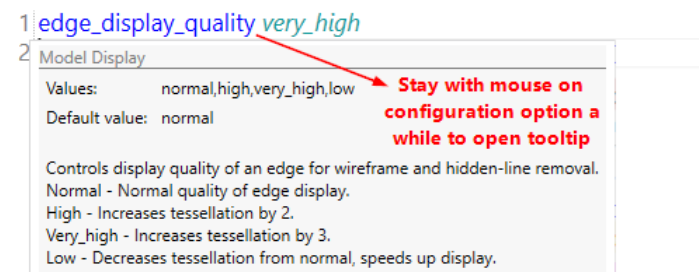


Possible values for a configuration option

Tooltip

Each configuration option is explained in a tooltip which contains

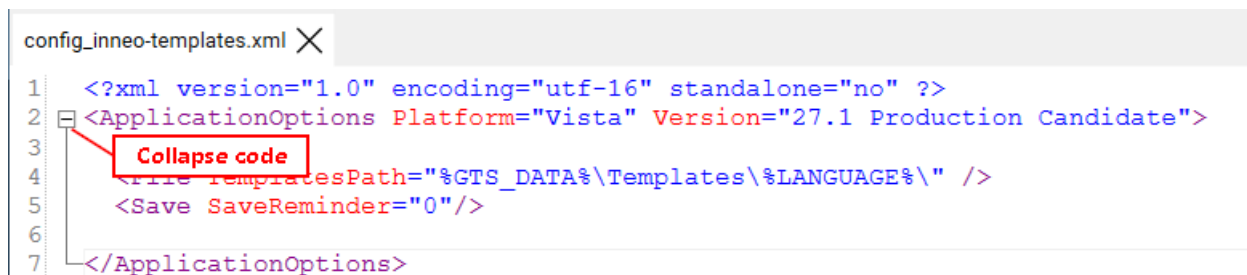
- the possible input values,
- the default value and
- a description of the option.



Functions for Inventor configuration files

Collapse

Program code can be collapsed with the minus symbol.



7.9 GTS config variables

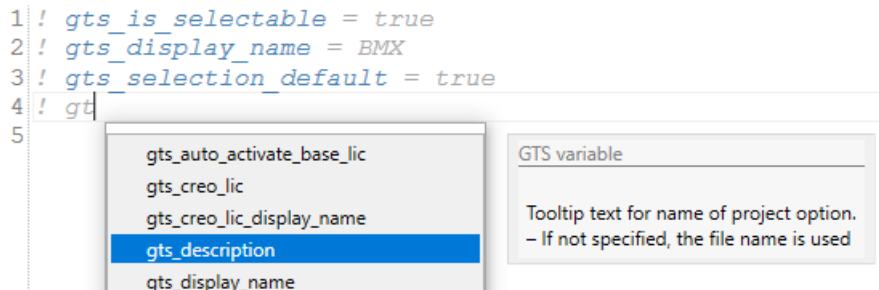
All configuration blocks can also be used for creating a project option. To do this, enter GTS config variables as a comment in the file (configuration block). #

Make sure to use the correct comment characters for the application-specific file type. These are:

- for Creo Parametric configuration blocks: !
- for SolidWorks configuration blocks: ,

– for Inventor configuration blocks: `<!-- -->`

Enter the necessary expression `gts_is_selectable = true` as a comment, as well as other GTS config variables if required for the display of the project option. Auto-completion and, after clicking on a function, an explanation are available for the input.



The table lists GTS config variables that can be used for all CAD applications. For detailed instructions and more variables for license extensions for Creo Parametric projects, refer to the GENIUS TOOLS Starter manual.

| GTS config variable for all applications | Specification / Example | Description |
|--|--|---|
| <code>gts_is_selectable =</code> | true/false | Defines if the project option appears as a checkbox (in the Options tab as well as below the project name) |
| <code>gts_selection_default =</code> | true/false | Defines whether the project option is selected by default or not, i. e. whether the box is checked. Default: false. |
| <code>gts_display_name =</code> | Simulation Live (Real-time simulation) | display name in the Config tab – if not specified, the file name is used |
| <code>gts_selection_name =</code> | Simulation Live | display name in selected project and in the Options tab – if not specified, <code>gts_display_name</code> is used |
| <code>gts_selectable_position =</code> | 1 | specifies the position in the list of project options. This does not change the order in which the configuration file is processed. – if this command is not specified, the project option will be placed after the options with position and ordered alphabetically |

| GTS config variable for all applications | Specification / Example | Description |
|--|--|---|
| gts_description = | Simulation for fluids for Creo from version 7.0. | Tooltip text for name of project option – if not specified, the file name is used |

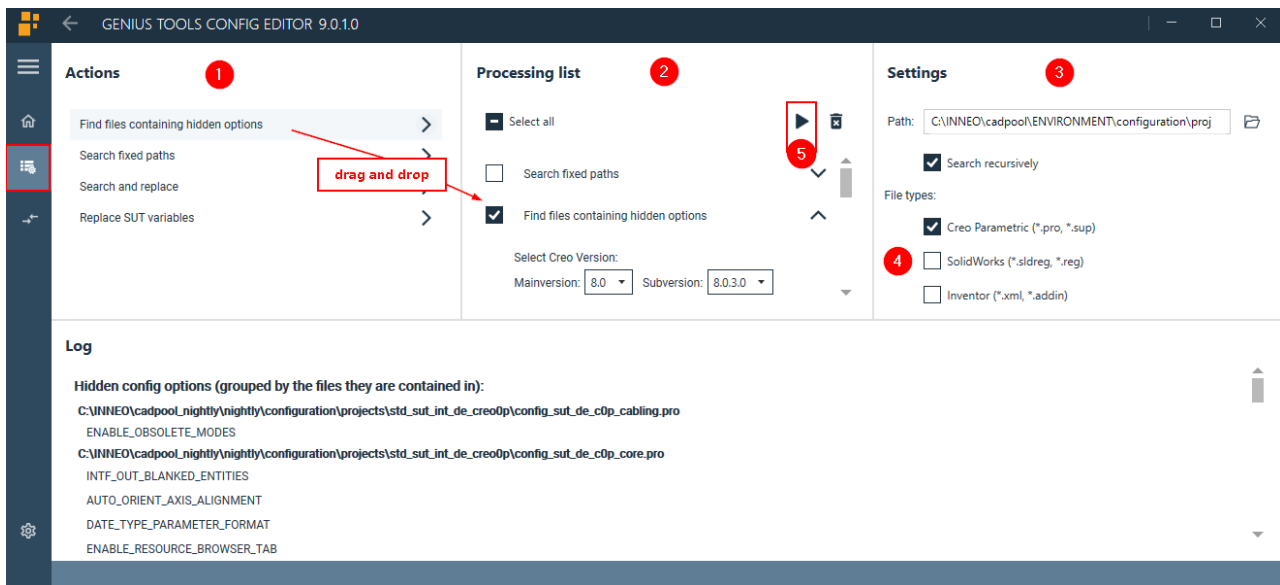
| GTS config variable for switch options | Specification / Example | Description |
|--|---|--|
| gts_choose | gts_choose{Big Assemblies display_points NO display_points YES} | The gts_choose expression is set instead of the value of a configuration option and must contain two values. |

7.10 Batch mode

In batch or batch mode , you can revise any number of config files. You can:

- find files with hidden config options,
- find files that contain fixed paths,
- search and replace words,
- replace SUT variables with GTS variables. (This actions assigns the corresponding GTS variables automatically.)

Please note: Do not mistake GTS variables (environment variables) for GTS config variables.



Batchmode dialog: Finding files with hidden options

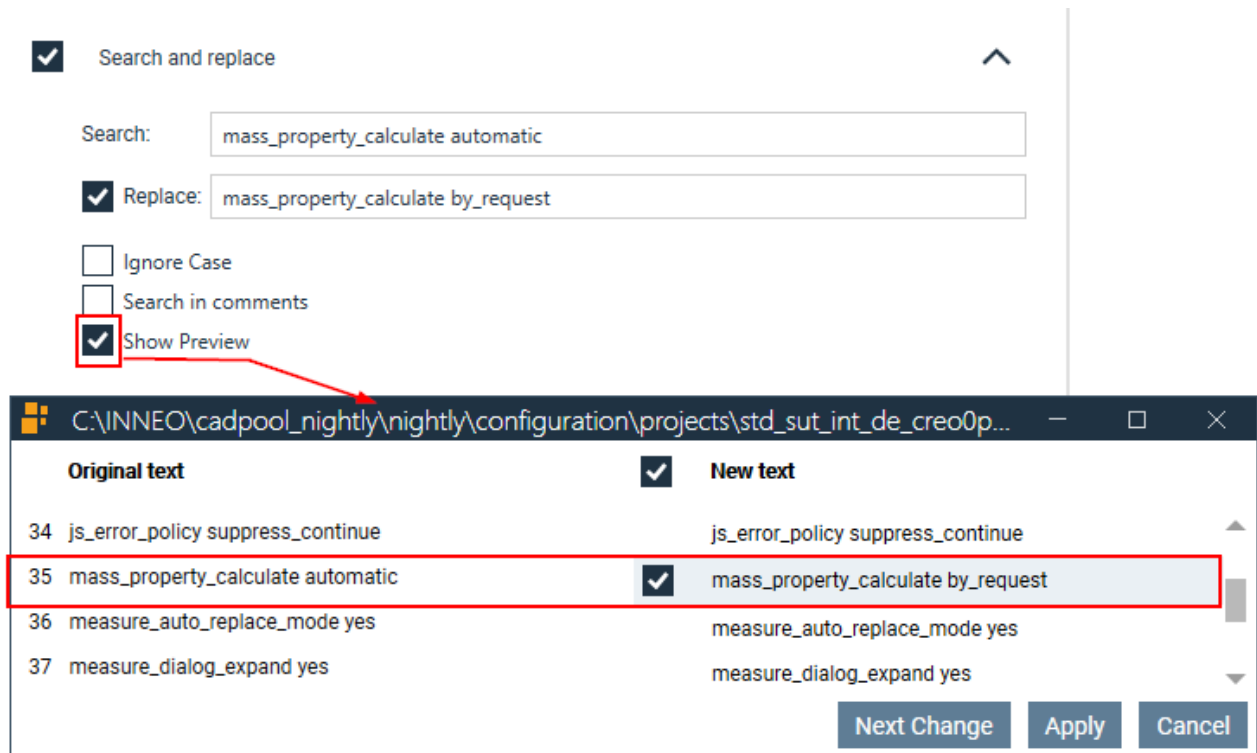
Procedure

1. Drag the action you want to perform to the processing list.
2. In the processing list click on the action and fill in the details.
3. Under *Settings* (3) specify the folder where the config files are located. Activate Recursive search to include files in all contained subfolders in the search.
4. Click the arrow icon (4).

Result: You will see the executed actions and the found options and paths in the log area.

Show preview

For the actions *Search and replace* and *Replace SUT variables*, you can get a preview in an extra window which shows all hits. You can disable individual hits and choose to apply or cancel the replacement. With the option *Next change* you can jump to the next hit within a file.



Preview for searching and replacing a value of a configuration option

8 Appendix

8.1 Start parameters

You can start GENIUS TOOLS Starter App with the following parameters.

| Start parameter | Description |
|-------------------------|--|
| -gts:admin | Starts GENIUS TOOLS Project Configurator. |
| -gts:appdata | Redefines the path to the Appdata directory. |
| -gts:debug | Activates debug logging. |
| -gts:expcfg | Defines the location of the <i>expcfg.bat</i> file of the worker. |
| -gts:home | Sets the home directory. Example: <i>D:\gtstarter\cadpool\inneo\software\GTS.exe -gts:home=%SystemDrive%\home\%USERDOMAIN%.%USERNAME%\pro.creo3</i> |
| -gts:lang | Starts GENIUS TOOLS Starter App in a defined language (de/en/fr). |
| -gts:L | Sets Creo language. |
| -gts:CL | Set language for GENIUS TOOLS Starter. |
| -gts:licDebug | Activates debug logging for the license server (loud alarm when license problems occur). |
| -gts:licServer | Sets the license server. |
| -gts:licTimeout | Defines the maximum waiting time to receive a license, in milliseconds. Entries from 1000 to 60000. Default: 10000. Setting is passed on to Creo by environment variable GT_LIC_TIMEOUT. |
| -gts:networkTimeout | Redefines the network timeout. Entries in milliseconds. |
| -gts:noChecksum | Deactivates checksum tests during synchronization. |
| -gts:noProjectAutostart | Prevents the project (gts:p) from being started immediately. |

| Start parameter | Description |
|-----------------|---|
| -gts:noSync | Deactivates synchronization. |
| -gts:p | Starts a project and filters the project list. |
| -gts:pui | Filters the project list to a list of projects specified separated by commas (-gts:pui=pname1,pname2,pname3). |
| -gts:temp | Redefines path to the Temp directory. |
| -gts:units | Defines the ID string of a unit. |
| -gts:worker | Starts in Worker setting. |
| -gts:workingDir | Defines the directory where the runtime data (log files) of GENIUS TOOLS Starter is stored. |

8.2 Environment variables

Created environment variables

| GTS environment variable | Description / example | Old SUT variable |
|--------------------------|--|------------------|
| GT_LIC_SERVER | contains the specifications of -gts:licServer | |
| GT_LIC_TIMEOUT | contains the specifications of -gts:licTimeout (maximum waiting time of a license query) | |
| GTFC_ADMIN | contains the result of the switch <i>Is GTfC Admin</i> in <i>GENIUS TOOLS Project Configurator > Resources > Role > Function Access</i> | TBXADMIN |
| GTS_APPS_DIR | Finds the selected, application-specific directory for add-on applications. <Caddepot>\<operatingenvironment>\<application>\apps | |

| GTS environment variable | Description / example | Old SUT variable |
|--|--|------------------|
| (GTS_CFG_LW) recommended instead: GTS_ROOT_DIR | GTS:<Cadpool>\<operatingenvironment> GTS: D:\gtstarter\cadpool\2017_latest SUT: <DriveLetter> SUT: P: | STOOLS_CFG_LW |
| GTS_*_ESCAPED | Variant of a variable that prevents the variable from being resolved, e. g. needed in mapkeys. Is defined automatically, see explanation in section below . | |
| GTS_CONFIGURATION_DIR | Finds the selected, application specific configuration directory. <Caddepot>\<operatingenvironment>\<application>\configuration | |
| GTS_COMPUTER_GROUP | Name of computer group | |
| GTS_DATA | Finds the selected data package directory, is from version 9.0 application specific: i. e. in Creo Parametric it has been changed from <Caddepot>\<operatingenvironment>\data\<companydata> to <Caddepot>\<operatingenvironment>\<application>\data\<companydata> | SUTDATA |
| GTS_DATA_LIB | Datalib directory | |
| GTS_ENV_NAME | Name of operating environment. | |
| GTS_EXECUTION_DIR | Points to the directory which contains the executed file (*.exe, *.bat, *.pdf). | |
| GTS_MC | | SUTMC |
| GTS_NET_LW | Name of the first network drive. | |
| GTS_PLOT_CONFIG_DIR | Directory for the plot configuration of Creo Parametric | PLOT_CONFIG_DIR |

| GTS environment variable | Description / example | Old SUT variable |
|---------------------------------|--|-------------------------|
| GTS_PLOT_FILE_DIR | File for the plot settings of Creo Parametric | PLOT_FILE_DIR |
| GTS_PROEDATECODE | Version of Creo Parametric | SUT_PROEDATECODE |
| GTS_PROERELEASE | Version of Creo Parametric | SUT_PROERELEASE |
| GTS_PROJECT_DIR | Finds the selected project directory, from version 9.0 application-specific. Path: <Caddepot>\<operatingenvironment>\<application>\configuration\projects\<projectname> | APPL_PROJECT_DIR |
| GTS_PROJECT_DIR_NAME | Name of project directory (until version 9.0 in GTS_PROJECT_DIR.) | |
| GTS_PROJECT_NAME | Name of current project | SUT_PROJECT_NAME |
| GTS_ROOT_DIR | Main directory of the operating environment | SUT_ROOT_DIR |
| GTS_SERVERONLY_DIR | Directory that exists only on the server | |
| GTS_SERVER_DIR | Path to the server | |
| GTS_SYNC_LAST | Last synchronization date | |
| GTS_SYNC_MODE | Synchronization mode | |
| GTS_TEMP | Points to the temp directory | |
| GTS_TRAIL_DIR | Trail directory of Creo Parametric | TRAIL_DIR |
| GTS_UNIT_DIR | Finds the selected unit directory, from version 9.0 application-specific. Path: <Caddepot>\<operatingenvironment>\<application>\configuration\units\<unitdirectoryname> | |
| GTS_UNIT_DIR_NAME | Name of the unit directory | |

| GTS environment variable | Description / example | Old SUT variable |
|--------------------------|--|-------------------|
| GTS_UNIT_NAME | Path to the unit that is selected by the user | |
| GTS_USER | | STOOLS_USER |
| GTS_USER_CONFIG_DIR | Directory that contains the personal settings of users | USER_CONFIG_DIR |
| GTS_USER_GROUP | Name of user group | |
| GTS_USER_LW | Letter of user drive | STOOLS_USER_LW |
| GTS_USERLONG | | STOOLS_USER_LONG |
| GTS_USERSHORT | | STOOLS_USER_SHORT |
| GTS_VERSION | Version of GENIUS TOOLS Starter | |
| GTS_WCSRVNAME | Windchill server name | STOOLS_WCSRVNAME |
| GTS_WCSRVURL | Url of windchill server | STOOLS_WCSRVURL |
| GTS_WORKING_DIR | Points to the start directory (for Creo Parametric: working directory) | |
| LANG | Language | LANG |

Created environment variables: ESCAPED variant

Since version 6.0.2.0 variables are resolved in configuration files. This means that mapkeys, in which environment variables with path specifications are used, no longer work. In order to allow you to continue using variables in mapkeys and other places where a resolution is undesirable, a new variant of all environment variables was introduced with the extension **_ESCAPED**.

The ESCAPED variant of a variable is defined automatically: If an environment variable is defined without the ESCAPED extension, GENIUS TOOLS Starter automatically writes the value of this environment variable into the ESCAPED environment variable.

All variables can be extended with `_ESCAPED`. In particular, the following variables are required for use in Mapkeys: `GTS_PLOT_CONFIG_DIR_ESCAPED`, `GTS_SERVERONLY_DIR_ESCAPED`, `GTS_SERVER_DIR_ESCAPED`, `GTS_TRAIL_DIR_ESCAPED`, `GTS_UNIT_DIR_ESCAPED`, `GTS_USER_CONFIG_DIR_ESCAPED`.

Affected environment variables

PTC_WF_ROOT

Environment variable that overwrites the default location of the Creo directory. (WF comes from "Wildfire", name of the predecessor product of Creo.)

PTC_WF_CACHE

Environment variable that refers to additional cache space.

PTC_SESSION_LOG_PATH

PTC_SESSION_TRACEBACK_PATH

PTC_SESSION_TRAIL_PATH

8.3 Regular expressions

Regular expressions can be used for names that [create users and computers](#).

| Character | Description |
|-----------|--|
| \ | Indicates the following character as a special or verbatim character. For example "n" is corresponds to the character "n". "\n" corresponds to a line-break character. The sequence "\\" corresponds to "\", "\" corresponds to "(". |
| ^ | Corresponds to the beginning of the input. |
| \$ | Corresponds to the end of the input. |
| * | Corresponds to the proceeding character zero or multiple times. For example "zo*" matches either "z" or "zoo". |
| + | Corresponds to the proceeding character one or multiple times. "zo+" for example matches "zoo", but does not match "z". |
| ? | Corresponds to the proceeding character zero or one time. For example "a?ve?" matches the "ve" in "never". |
| . | Corresponds to all single characters except for a line-break character. |

| Character | Description |
|-----------|--|
| (Pattern) | Matches Pattern and saves the equivalent. The compared substring can be retrieved from the resulting matches listing using the elements [0]...[n]. For comparing of characters put in parentheses () use "\" or \"\". |
| x y | Corresponds to either x or y. For example matches "l red" either "l" or "red". "(l r)ed" matches "led" or "red". |
| {n} | n is a positive integer. Corresponds to exactly n times. "o{2}" for example does not match the "o" in "Robert" but the first two "o"s in "Boooooat". |
| {n,} | n is a positive integer. Corresponds to at least n times. "o{2}" for example does not match the "o" in "Robert" but all "o"s in "Boooooat". "o{1,}" is equivalent to "o+". "o{0,}" is equivalent to "o*". |
| {n,m} | m and n are positive integers. Corresponds to at least n and maximum m times. For example "o{1,3}" matches the first three "o"s in "Boooooat". "o{0,1,}" is equivalent to "o?". |
| [xyz] | A group of characters. Corresponds to any of the included characters. "[abc]" for example matches the "a" in "falling". |
| [^xyz] | A group of excluded characters. Corresponds to any character not included. "[^abc]" for example matches the "f" in "falling". |
| [a-z] | A character range. Corresponds to any character in the specified range. For example, "[a-z]" matches any lowercase alphabetic character in the range from "a" to "z". |
| [^m-z] | An excluded range of characters. Corresponds to any character not included in the specified range. "[m-z]" for example matches all characters not included in the range from "m" to "z". |

8.4 GTS config variables

The following GTS config variables are needed for generating single project options to select license extensions and extensions for Creo Parametric projects.

| GTS config variable for all applications | Specification / Example | Description |
|---|--|---|
| <code>gts_is_selectable =</code> | true/false | Defines if the project option appears as a checkbox (in the Options tab as well as below the project name) |
| <code>gts_selection_default =</code> | true/false | Defines whether the project option is selected by default or not, i. e. whether the box is checked. Default: false. |
| <code>gts_display_name =</code> | Simulation Live (Real-time simulation) | display name in the Config tab – if not specified, the file name is used |
| <code>gts_selection_name =</code> | Simulation Live | display name in selected project and in the Options tab – if not specified, <code>gts_display_name</code> is used |
| <code>gts_selectable_position =</code> | 1 | specifies the position in the list of project options. This does not change the order in which the configuration file is processed. – if this command is not specified, the project option will be placed after the options with position and ordered alphabetically |
| <code>gts_description =</code> | Simulation for fluids for Creo from version 7.0. | Tooltip text for name of project option – if not specified, the file name is used |

The following GTS Config variables are used to create single project options for selecting license extensions for Creo Parametric projects.

| GTS config variable | Specification/ Example | Description |
|---------------------------------|------------------------|---|
| gts_creo_lic = | 379 | <p>Creo Parametric: License number(s) of the extension(s) to be added. Multiple numbers must be separated with empty space.</p> <ul style="list-style-type: none"> – if this entry is set, an icon key appears next to the checkbox in the project – license numbers can be read from the license.dat file in the licensing folder under PTC/FLEXnet Admin License Server |
| gts_creo_lic_displ ay_name = | Simulation Lives | <p>Creo Parametric: Tooltip text for license symbol (key)</p> <ul style="list-style-type: none"> – if not specified, the line under License name is empty |
| gts_requires_base_lic = | PROE_Foundation | <p>Defines condition: if the base license is not available, the project option will be deactivated, i. e. no checkbox is displayed.</p> <ul style="list-style-type: none"> – Multiple licenses must be separated with empty space. The project option will be deactivated, unless all of the listed licenses are available. |
| gts_auto_activate_base_lic = | PROE_Foundation | <p>Defines condition: If the base license is available, the project option will be preselected, i. e. the box is checked.</p> <ul style="list-style-type: none"> – Multiple licenses must be separated with empty space. The project option will be deactivated, unless all of the listed licenses are available. – Take care not to simultaneously set the variable ! gts_selection_default to true. |

If the file is to control an auxiliary application, specify the corresponding configuration option, such as a protkdat entry. (Example: protkdat \$GTS_ROOT_DIR\configuration\application\protk_keyshot.dat). These entries do not create icons next to the checkbox.

The gts_choose variable can be used to create switch options and to include add-on applications for Solidworks.

| GTS config variable for switch options | Specification / Example | Description |
|--|---|--|
| gts_choose | gts_choose{Big Assemblies display_points NO display_points YES} | The gts_choose expression is set instead of the value of a configuration option and must contain two values. |

| GTS config variable for SolidWorks | Specification / Example | Description |
|------------------------------------|---|---|
| gts_choose | gts_choose{SolidWorks Composer 00000001 00000000} | The gts_choose expression must contain two values for registry entry. |

Comment characters for each application

| Application | Configuration block required (text file) | Comment character | Example |
|-----------------|--|-------------------|--|
| Creo Parametric | config_*.pro, config_*.sup | ! | ! gts_display_name = Keyshot plugin |
| SolidWorks | config_*.sldreg | ; | ; gts_display_name = 3DConnexion |
| Inventor | config_*.xml, ui_*.xml, *.addin | <!-- --> | <!-- gts_display_name = Additive Manufacturing --> |

8.5 Start values in Startup TOOLS

Access to the individual extension modules of GENIUS TOOLS for Creo and editors

The start switches for user modules are set to 1, i. e. they can be opened by users.

The start switches for the editors of these modules are set to 1 or to %GTFC_ADMIN%. The %GTFC_ADMIN% variable contains the result of the switch *Is GTfC Admin* in *GENIUS TOOLS Project Configurator > Resources > Role > Function Access*.

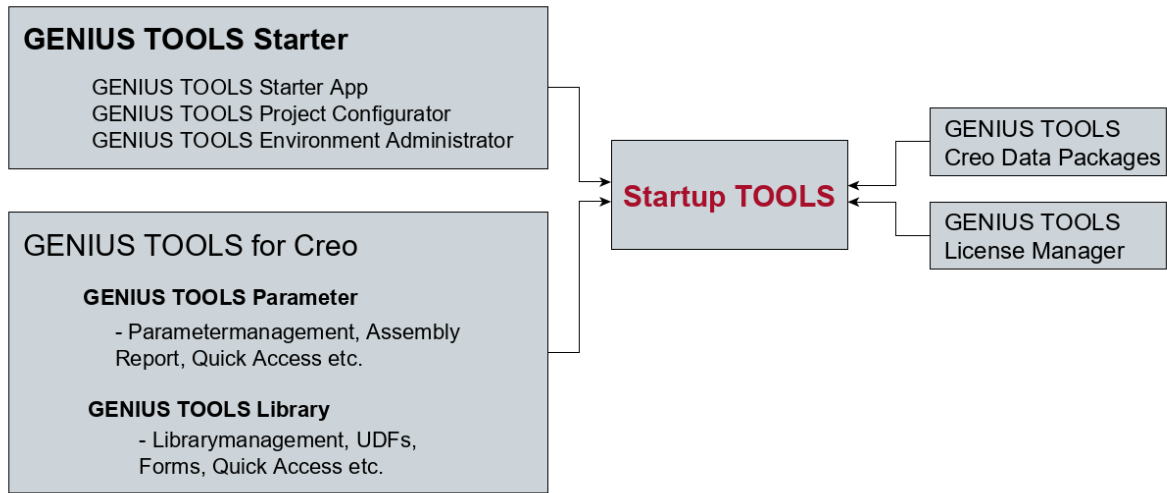
The variable %GTFC_ADMIN% is set in the delivery state of the Startup TOOLS in the following configuration options.

| Editor | Name and value of configuration option („start switch“) |
|------------------------------------|---|
| GENIUS TOOLS Library Editor | gt_start_library_editor=%GTFC_ADMIN% |
| GENIUS TOOLS Material Editor | gt_start_material_editor=%GTFC_ADMIN% |
| GENIUS TOOLS Name Generator Editor | gt_start_name_generator_editor=%GTFC_ADMIN% |
| GENIUS TOOLS Quick Access Editor | gt_start_quick_access_editor=%GTFC_ADMIN% |
| GENIUS TOOLS UDF Forms Editor | gt_start_udf_forms_editor=%GTFC_ADMIN% |

8.6 GENIUS TOOLS Starter: part of Startup TOOLS

GENIUS TOOLS® Starter is a stand-alone application within the product package GENIUS TOOLS Startup TOOLS.

Startup TOOLS product and module overview

**Legend**

Normal: modules / software components

Bold: products, individually available

9 Glossary

Administration computer

Computer on which the administrative user has full write access to the Caddepot directory in order to manage all data on the file system level.

Application computer, workstation

Computer on which the (Creo) user works. The application computer houses the Cadpool directory, which contains the local operating environment.

Authentication provider

An authentication provider is an executable file that requests or receives user data from an authentication system.

Cadpool

Directory on the application computer that contains the local operating environments. The Cadpool directory is synchronized from the Caddepot.

Caddepot

Directory on the administration computer that contains the central operating environment.

Client

Term for application computers for Startup TOOLS versions up to 2018.

Computer group

A defined group of configured Windows computers. Contains settings in which the computers' configuration differs from the general system-wide configuration and superordinate units.

Conditional configuration block

Configuration file whose validity is restricted to condition(s) by one or more tag ID(s).
Notation: `config_*.TAGID.pro`

Config file (also: config_*.pro file)

See configuration block.

Configuration block

Configuration file which is read by GENIUS TOOLS Starter to create the configuration of a Starter project. Notation: `config_*.pro`, `config_*.sldreg`.

Config.pro

Most important Creo Parametric configuration file, defines user settings.

Config.sup file

Creo configuration file which contains settings that cannot be changed by the users, e.g. to ensure drawing standards.

Config.val file

Creo Parametric configuration file which contains validation settings for data import.

Creo

Name of CAD software by PTC with the applications Creo Parametric (formerly Pro/Engineer) and Creo Elements/Direct (formerly CoCreate).

Creo configuration file

File which determines settings for a Creo session. There are four types of configuration file: *config.pro*, *customization.ui*, *config.sup* and *config.val*.

Creo startkey (also: PSF key, start command)

Configured start command that opens Creo Parametric with one or several defined licenses or license extensions. Stored as PSF file in PTC bin directory.

Customization.ui file

Creo Parametric configuration file which contains user interface customizations for a user. The precise name of the file is *creo_parametric_customization.ui*

Data directory

Main directory for all data related to an operating environment at *<GTS-OperatingEnv>\data*.

Educational license

License for academic institutions.

Escaped variable

Variant of an environment variable that prevents the variable from being resolved. It is defined automatically.

Free tag ID

Textual marking in a [configuration block](#) which restricts the file to the selection of a combined project option.

GENIUS TOOLS

Family of software products by INNEO Solutions GmbH, including Startup TOOLS, Model Processor, and freeware tools such as Purge.

GENIUS TOOLS for Creo

Component of the Startup TOOLS software product which contains functional enhancements for Creo.

GENIUS TOOLS Environment Administrator

Stand-alone administrative tool. It is used to create and update work environments, edit work environment properties and migrate from older versions of Startup TOOLS to version 6 and later. GENIUS TOOLS Environment Administrator is located at ...
`\installdepot\gtsa-latest\gtsa-exe`.

GENIUS TOOLS License Manager

Administrative tools for managing Startup TOOLS licenses.

GENIUS TOOLS Project Configurator

Administrative component of GENIUS TOOLS Starter for managing project configurations and other properties of an operating environment. Open GENIUS TOOLS Project Configurator from the user menu of GENIUS TOOLS Starter App.

GENIUS TOOLS Starter

Software product consisting of the three components GENIUS TOOLS Project Configurator, GENIUS TOOLS Starter App and GENIUS TOOLS Environment Administrator.

GENIUS TOOLS Starter App

Stand-alone component of GENIUS TOOLS Starter which lets users start configured Creo projects. GENIUS TOOLS Starter app is located in each operating environment under ...
`\caddepot\lokal\software\GTS.exe`.

GENIUS TOOLS Starter App Config Analyzer

Dialog box in GENIUS TOOLS Starter App, in which configuration settings of projects can be analyzed and edited.

GENIUS TOOLS Starter Service

Method in GENIUS TOOLS Starter for faster data synchronization.

GTS

Abbreviation for GENIUS TOOLS Starter.

GTS.exe

Name of the executable file for GENIUS TOOLS Starter App.

GTSA.exe

Name of the executable file for GENIUS TOOLS Environment Administrator.

GTS Alias

User alias in GENIUS TOOLS Starter, for use in additional applications for Creo. The GTS alias is available as an environment variable (%GTS_USER%) in Creo. If you do not specify an alias, the Windows user name will be used.

GTS Alias Long

Long user alias. The long alias is available in Creo via the environment variable %

GTS_USERLONG%.

GTS Alias Short

Short user alias. The short alias is available in Creo via the environment variable %

GTS_USERSHORT%.

GTS-config-variable

Variable that defines settings in a configuration block to create a single project option for GENIUS TOOLS Starter App, e. g. *gts_display_name*

GTS variable

Environment variable that creates information for GENIUS TOOLS Starter, e. g.

GTS_UNIT_DIR.

Home Use license

License for private use.

Initial synchronization, initialization

First synchronization run which creates the Cadpool directory on the application computer and synchronizes it with the Caddepot.

Installdepot

Subdirectory of the installation directory that contains the release and version setups without settings and customizations. All setup programs unpack their data to this directory.

Installation computer

Computer on which the setup programs are run. Typically, this is also the administration computer.

LDAP (Lightweight Directory Access Protocol)

Network protocol for accessing a distributed directory service, e.g. the Windows user management.

License extension

License for additional Creo Parametric functionality that is drawn at the start of the program and blocked during the session.

Mapkey

Macro defining a sequence of commands and functions which can be created in Creo to simplify often-used procedures.

Mediadepot

Subdirectory of the installation directory. It contains setup files for different releases and versions. All setup files will install or unpack to the Installdepot directory.

NAS (Network Attached Storage)

File server providing independent storage capacity in a network of computers.

NC (Numerical Control)

Computer-based applications for controlling machine tools and production lines.

Operating environment

Directory that contains all the data required for working with the desktop application. This includes configuration data, libraries, templates and additional applications. The operating environment also contains a database with all configured projects.

Operating environment, local

Operating environment on the application computer.

Organization tree

Structure of all units and subunits that specifies the call hierarchy. Created in GENIUS TOOLS Project Configurator.

Perpetual license, permanent license

License that allows using a defined version of a software for an unlimited period of time.

PDM directory

Subdirectory of the directory *standard*, *units*, *projects* and *users* which is included into the call hierarchy for configuration files and batch files if Windchill is active.

PDMLink

Component of the Windchill software product family that is used for product data management.

Power Extensions

Application from INNEO for central administration of an operating environment for Creo Elements/Direct projects.

PTC

The software company that develops Creo.

Project

See Starter project.

Project, blocked

Project that a user can neither access nor see in GENIUS TOOLS Starter App.

Projekt, hidden

Project that a user cannot see in GENIUS TOOLS Starter App, but is able to access it with a transfer parameter.

Project, invalid

Project, for which a user has no valid license or required license extensions. Access to it an display in GENIUS TOOLS Starter App can be configured.

Project directory

Directory for project data at *<GTS-OperatingEnv>\configuration\projects\%GTS_PROJECT_DIR%*

Project option

Option to select on one or more projects in GENIUS TOOLS Starter App the Creo language, Creo startkey as well as license extensions and add-on programs.

Resource directory

Directory *gt_resource_folder*, which is located in the system directory *configuration* of Creo Parametric and contains information for the modules of GENIUS TOOLS for Creo.

Role

Group of users or computers that are assigned access rights to projects and GENIUS TOOLS Starter App functionality.

Satellite (also: synchronization or mirror server)

Computer or shared folder on a computer to which the state of one or more operating environments of a central main server is mirrored.

Searchmode directory

Name of the directory *PDM* until version 9.0.0.

Starter project

Project created in GENIUS TOOLS Project Configurator which contains company-specific data and additional applications and whose settings, such as license and project specifications, can be made in different configuration levels.

Startup TOOLS

Software package that comprises the products GENIUS TOOLS Starter, GENIUS TOOLS Library, GENIUS TOOLS Parameter, as well as Creo data packages and the GENIUS TOOLS License Manager.

Startup TOOLS Server

Term for the administration computer for Startup TOOLS versions up to 2018.

STOOLS

Root directory name for Startup TOOLS versions up to 2018.

Subscription license

License that allows using a software for a limited period of time.

Subunit

Subordinate unit created by attaching a unit to another unit in the [organization tree](#).

SUT

Abbreviation for Startup TOOLS.

Synchronization

Functionality that copies the data of an operating environment in the Caddepot directory to the Cadpool directory on an application computer.

Tag ID

Textual marking in a configuration block that is recognized by GENIUS TOOLS Starter. There are tag IDs for units ([unit tag ID](#)) and for project options ([free tag ID](#)).

TeamViewer

Third-party software used by INNEO Solutions GmbH to provide remote support.

UDF (User-defined feature)

Template for repeatedly required Creo features.

Unit

Group of users who belong to a company department defined either geographically or organizationally. Created in GENIUS TOOLS Project Configurator.

Unit directory

Directory in the units system directory that contains [configuration blocks](#) and other files for a unit.

Unit tag ID

Tag ID that is assigned to a unit in GENIUS TOOLS Project Configurator.

Unit type

Individually defined category for units, for better representation in GENIUS TOOLS Project Configurator.

User, dynamic

Variable entry in the Resources menu item under *Role > LDAP or User group (authentication provider)*.

User group

A defined group of permanent user entries. Contains settings in which the users' configuration differs from the general system-wide configuration and superordinate units.

User, permanent

Manually entered entry in the Resources menu item under *Users*.

Windchill

Software product by PTC for managing product data over the entire product life cycle.

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