

GENIUS TOOLS Starter

13.0.0.0

Installation and Administration

© 2026 INNEO Solutions GmbH



1	Basics	3
1.1	Scope of delivery	3
1.2	Licenses	4
1.3	Important terms	4
1.4	Data synchronization	5
1.5	Caddepot and operating environments	7
2	Requirements	9
2.1	Hardware and software requirements	9
2.2	User rights	10
3	Installation scenarios	12
3.1	Standard scenario	12
3.2	Standard scenario with satellites	13
3.3	Caddepot on file server	15
3.4	Caddepot on local computer	16
4	Installation	17
4.1	Software setup	17
4.2	Data setup	20
4.3	General installation mechanism	23
5	GENIUS TOOLS Environment Administrator	24
5.1	Usage	24
5.2	Creating an operating environment	27
5.3	Adding components to an operating environment	31
5.4	Updating software in an operating environment	36
5.5	Modifying settings	39
5.6	Creating a Git repository	42
6	Update process	46
6.1	Updating Creo data packages and resource folder	48
7	Setting up user computers	51
7.1	Administration computer	51
7.2	Application computer	52
8	Customizing the GENIUS TOOLS Starter environment	54
8.1	Start parameters	54
8.2	Environment variables	55
8.3	Batch files	60
9	Test environment	63

9.1	Creating a test environment	63
10	Working with satellites	65
10.1	Registering GENIUS TOOLS Starter services	66
10.2	Operating active satellites	70
10.3	Operating passive satellites	75
10.4	Configuration options for satellites	76
11	Operating mainserver in cloud	80
11.1	Installing Git and Gitea	80
11.2	Gitea INI configuration	82
12	Directory structure	87
13	Glossary	90
14	Copyright	97

1 Basics

GENIUS TOOLS® Starter enables the start of locally installed applications with a centrally managed configuration. All required data is synchronized from a central storage location (Caddepot) to local computers (Cadpool). Heterogeneous IT landscapes can thus be administered globally and organized on a user-specific basis.

GENIUS TOOLS Starter software can be installed independently or is a component of the product package Startup TOOLS. The procedures for installation, updates and administration are the basically same.

1.1 Scope of delivery

GENIUS TOOLS Starter

The setup file *setup-GENIUS-TOOLS-<version>-software.exe* contains

- the software for GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator

GENIUS TOOLS Starter App is a stand-alone software application (*GTS.exe*) that allows users to start those Starter projects they have access to. It is located in each operating environment in the system directory *software*.

GENIUS TOOLS Project Configurator is a component of the GENIUS TOOLS Starter software for the configuration of Starter projects. It is opened from the GENIUS TOOLS Starter App. Administrators can prohibit access to GENIUS TOOLS Project Configurator for users.

- the software for GENIUS TOOLS Environment Administrator program

GENIUS TOOLS Environment Administrator is a stand-alone application for the administration. It is used to create and update operating environments, as well as edit properties and addon-applications. It is located in the installation directory under *\installdepot\gtsa-latest\gtsa-exe*.

- the service GENIUS TOOLS Control Service
- the service GENIUS TOOLS Starter Sync Service

All setups unpack their data in the installation directory into the directory *installdepot* according to their versions.

Startup TOOLS

Startup TOOLS is a product package consisting of the products GENIUS TOOLS Starter and GENIUS TOOLS Library / Parameter as well as Creo Parametric data packages.

The setup file *setup-Startup-TOOLS-<version>-software.exe* contains software products

- GENIUS TOOLS Starter and
- GENIUS TOOLS Library and / or GENIUS TOOLS Parameter. (The entirety of all Creo add-on modules is called GENIUS TOOLS for Creo. They are located in the GENIUS TOOLS Starter environment).

The data setup file *setup-Startup-TOOLS-<version>-data-creo<Creo-version>.exe* contains data for the different Creo releases. This is needed in two types of situations:

1. For installing a start environment for customers who have not worked with Creo Parametric before.
2. Comparative environment for customers who update to new Creo releases. The comparison is done manually with additional comparison or synchronization tools. The previous working environment is compared to the installed data from the install depot or a new working environment set up for test purposes.

1.2 Licenses

A FLEXNET license is required for GENIUS TOOLS Starter. You need to install GENIUS TOOLS License Manager and enter the license there.

The license file for the Startup TOOLS contains additional license keys for GENIUS TOOLS for Creo.

1.3 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.

Caddepot is a directory on the installation computer that can contain any number of operating environments. It is the source of synchronizing the local operating environments on user computers, that is, the source for the local **Cadpool** directories. The Caddepot directory must be shared to be accessible for distributed work.

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.

The **installation computer** is the computer on which the installation directory is located, i. e. the computer that contains the caddepot directory. In the standard scenario, the administration computer is also the installation computer.

An **operating environment** is a directory in the Caddepot 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 contains the software components GENIUS TOOLS Starter, GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator of a defined version.

1.4 Data synchronization

GENIUS TOOLS Starter is an application for synchronizing data from a central storage location to local user computers. This ensures that users have the fastest possible access to the centrally managed data as well as working offline.

Data synchronization means that local modifications to a configuration will be overwritten in the synchronization process. Local data are located in the Cadpool directory and are synchronized from the central directory at a configurable interval.

The central storage location on the installation computer can be

1. on a server: Caddepot on the installation computer
2. in the cloud: Git repository on the installation computer

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

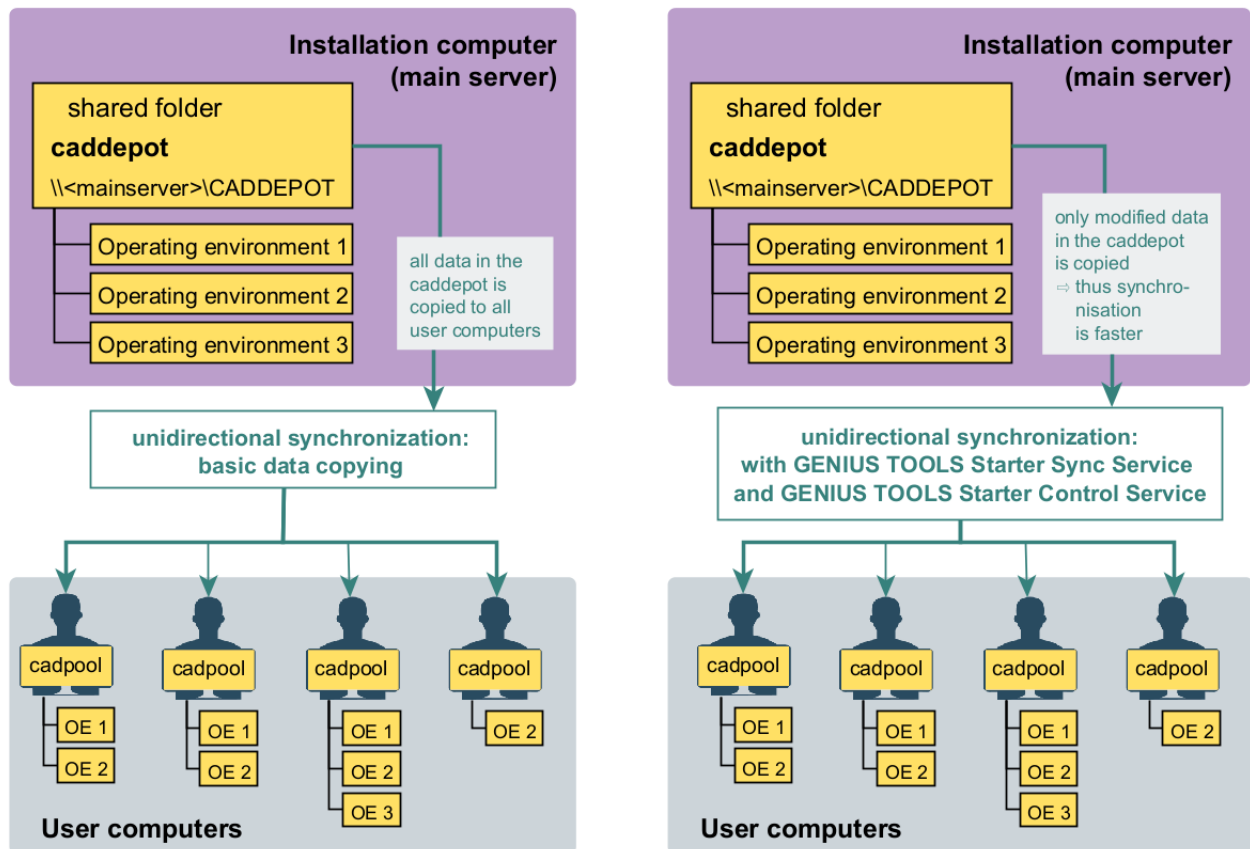
Data synchronization from a central Caddepot

For operating environments without version control, Caddepot serves as the source for synchronization. Changes to an operating environment that apply to all users must be created in the caddepot or copied to it.

Please note: For data synchronization to work, users need access to the Caddepot directory. We recommend granting read access only, if you do not want users to change settings by themselves.

Data synchronization from the Caddepot can be performed with or without the GENIUS TOOLS Starter services. GENIUS TOOLS Starter Sync Service and GENIUS TOOLS Control Service carry out accelerated data synchronization, in which only the changed data is copied, not every file.

GENIUS TOOLS Starter / Startup TOOLS – Synchronization of operating environments Basic or with GENIUS TOOLS Starter Service



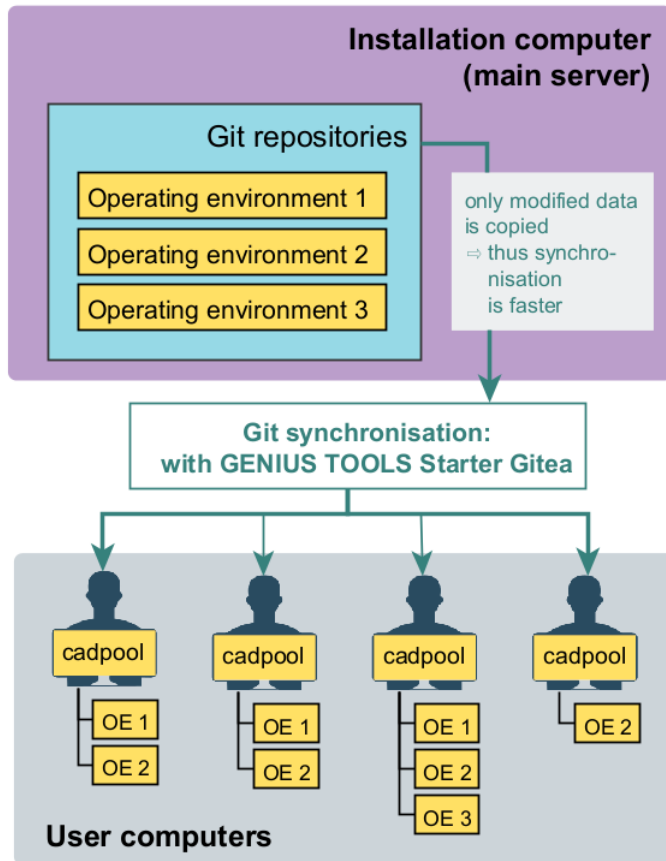
The GENIUS TOOLS Starter services are installed with the setups for GENIUS TOOLS Starter and Startup TOOLS, see chapter Installation.

The services are required for operating satellites (mirror servers).

Data synchronization from a Git repository

For git-versioned operating environments, a Git repository on the installation computer serves as the source for synchronization. Changes to an operating environment that apply to all users are made and checked in within Cadpool. The main server requires the GENIUS TOOLS Starter Gitea service.

GENIUS TOOLS Starter / Startup TOOLS Git-Synchronisation



Information on how to run git-versioned operating environments in a cloud are described in chapter [Operating mainserver in cloud](#).

1.5 Caddepot and operating environments

Caddepot is a directory on the installation computer that can contain any number of operating environments. It is the source of synchronizing the local operating environments on user computers, that is, the source for the local **Cadpool** directories. The Caddepot directory must be shared to be accessible for distributed work.

An **operating environment** is a directory in the Caddepot 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.

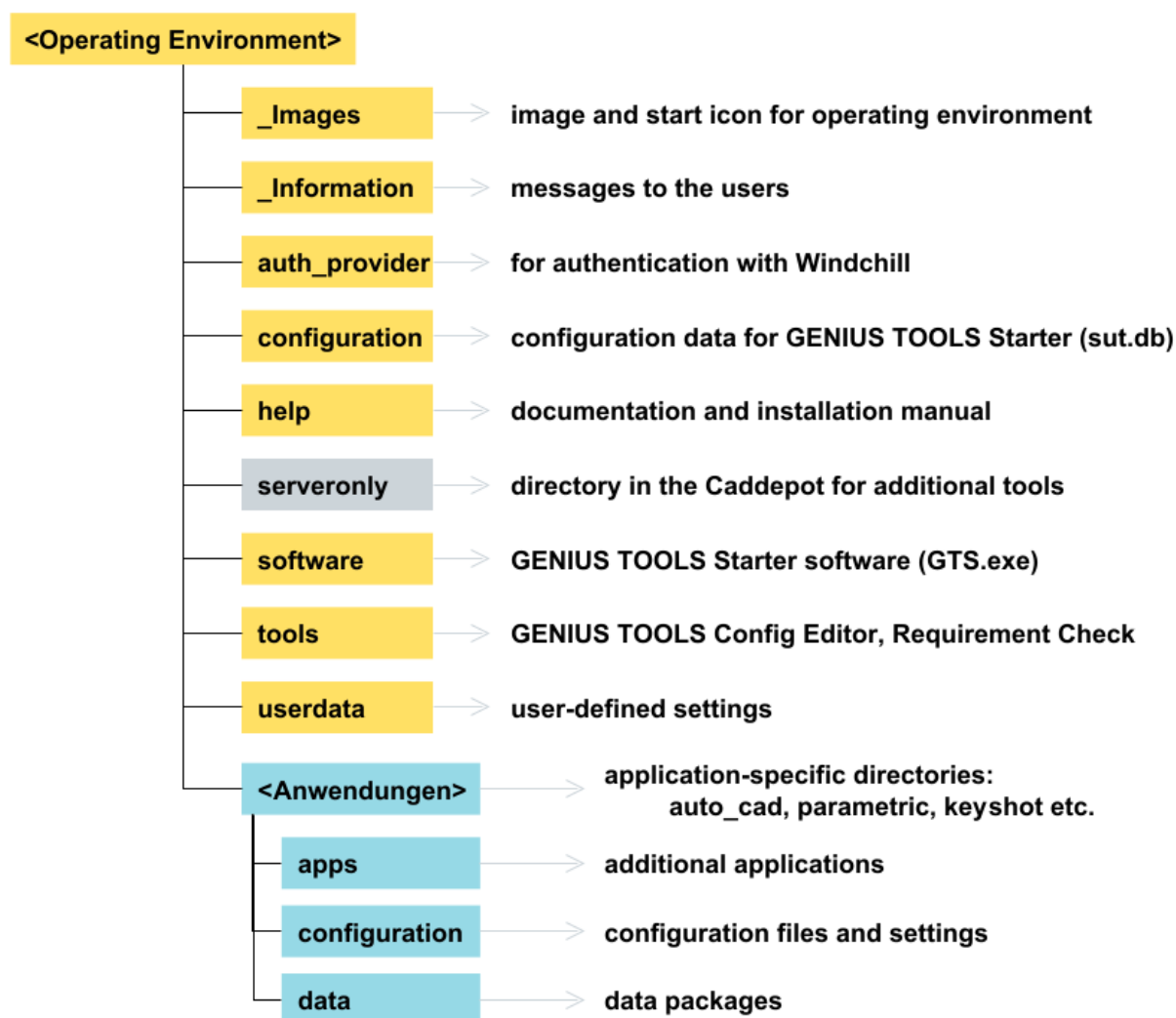
If you work across a network, the directory for the operating environment is the Caddepot on the administration computer and the Cadpool on the application computers.

The operating environments contains the software components GENIUS TOOLS Starter,

GENIUS TOOLS Starter App and GENIUS TOOLS Project Configurator of a defined version.

The database *sut.db* is located under *configuration\database* and the executable software for GENIUS TOOLS Starter, *GTS.exe*, in the software directory. The *serveronly* directory is the only directory that is not synchronized to the user computers.

The most important system directories of the first level are shown below. The complete directory structure can be found at the [end of the manual](#).



Directories of an operating environment on the installation computer

The GENIUS TOOLS Starter software is updated using GENIUS TOOLS Environment Administrator, while new data (data packages, configurations, etc.) is copied manually from the *installdepot* to the operating environments of the *caddepot*, see [Update process](#).

2 Requirements

The following section describes hardware, software and permissions requirements for GENIUS TOOLS Starter.

2.1 Hardware and software requirements

GENIUS TOOLS Starter (GTS) operates on all computers that fulfill the requirements for Creo 10 to Creo 13.

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

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

	GENIUS TOOLS Starter						
Version	7.0	8.0	9.0	10.0	11.0	12.0	12.0
Operating system	64-bit only Windows 10 / 8.1 / 7		64-bit only Windows 11 / 10				
.NET Framework	4.8 Delivered with Windows 10 -1903 (+8.1; +7) (May have to be installed separately on WIN7/8.1)		4.8 Delivered with Windows 10 - 1903		Installation computer: 4.8		
.NET	-				8.0 (is included in the GTS software setup)	10.0 (is included in the GTS software setup)	
Minimum screen resolution	X=1280 Y=1024						

	GENIUS TOOLS Starter
Flexnet	INNEO Licence Manager 1.0 M050 (Flexnet) and later
Caddepot directory (Central storage location with UNC access)	circa 1 to 5 GB for each operating environment
Cadpool directory (Storage location on the application computer)	Sufficient storage space to set up at least one operating environment
Data synchronization using GENIUS TOOLS Starter Service	Windows computer, where the Caddepot directory is located and where a service can be installed.
Operating satellites using GENIUS TOOLS Starter Service	Communication port for REST API on installation computer and satellites. Standard: 8092 Satellites need the same storage space as the installation computer.

2.2 User rights

Caddepot

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

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

- GENIUS TOOLS Starter App feedback on the last synchronization
... \serveronly_SyncResults\
- Central user configuration files
... \userdata

- Common databases for GENIUS TOOLS for Creo name generation (has to be configured manually)

...\serveronly\gt_numgen

Warning: This functionality cannot be used offline.

Cadpool

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

Client computers

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

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

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

3 Installation scenarios

These **installation scenarios** are possible for setting up data synchronization:

1. The Caddepot is located on a Windows computer: [Standard scenario](#)
2. The Caddepot is located on a [file server](#)

You can of course also use GENIUS TOOLS Starter locally without data synchronization, as a [single-user](#).

For companies that work at different locations, we recommend using mirror servers for faster data synchronization, see [Standard scenario with satellites](#).

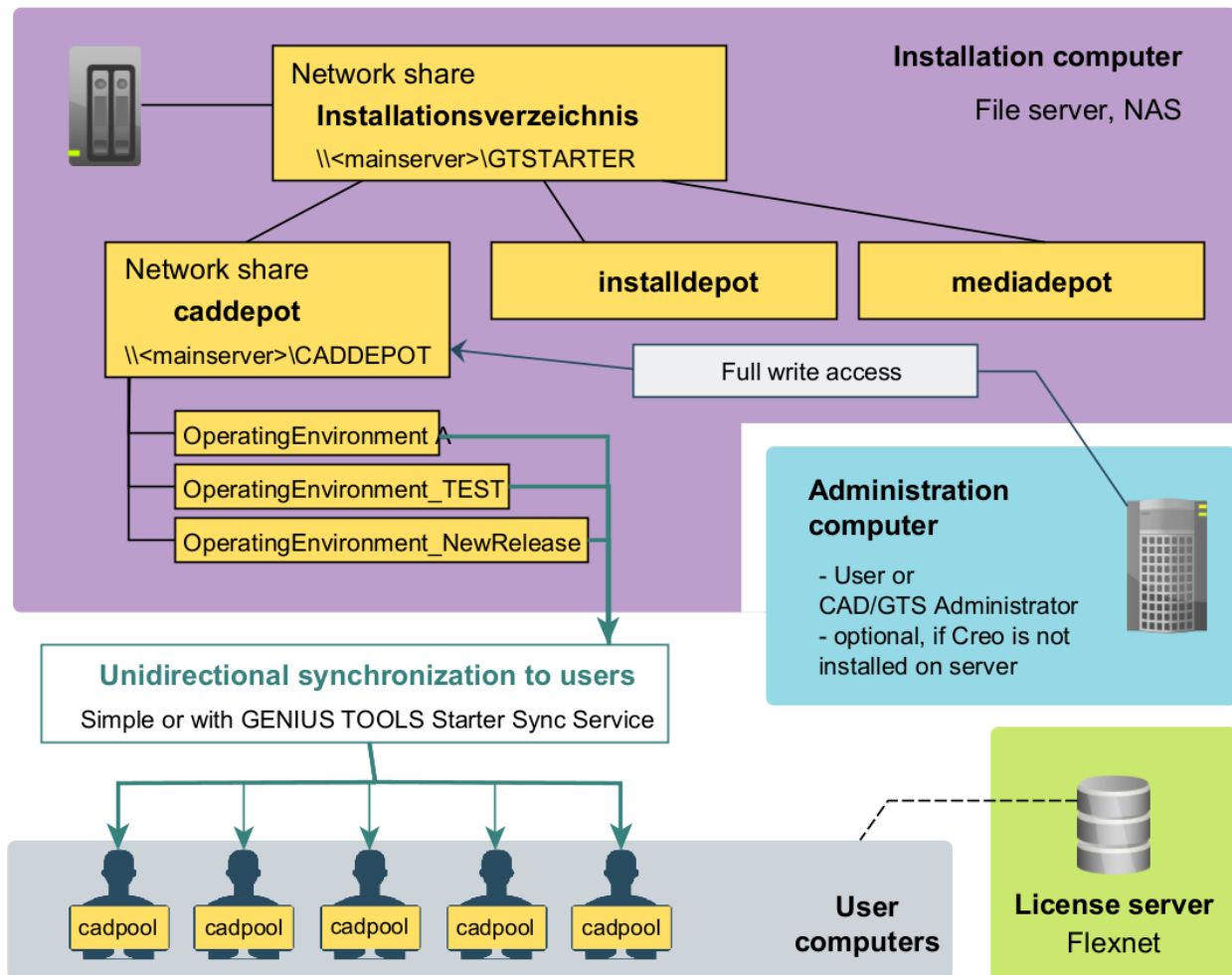
3.1 Standard scenario

In each installation scenario, operating environments are synchronized from a shared Caddepot directoy to many application computers.

In the standard scenario, the administration computer is also the installation computer, i. e. the computer that contains the Caddepot.

The installation computer is a Windows server.

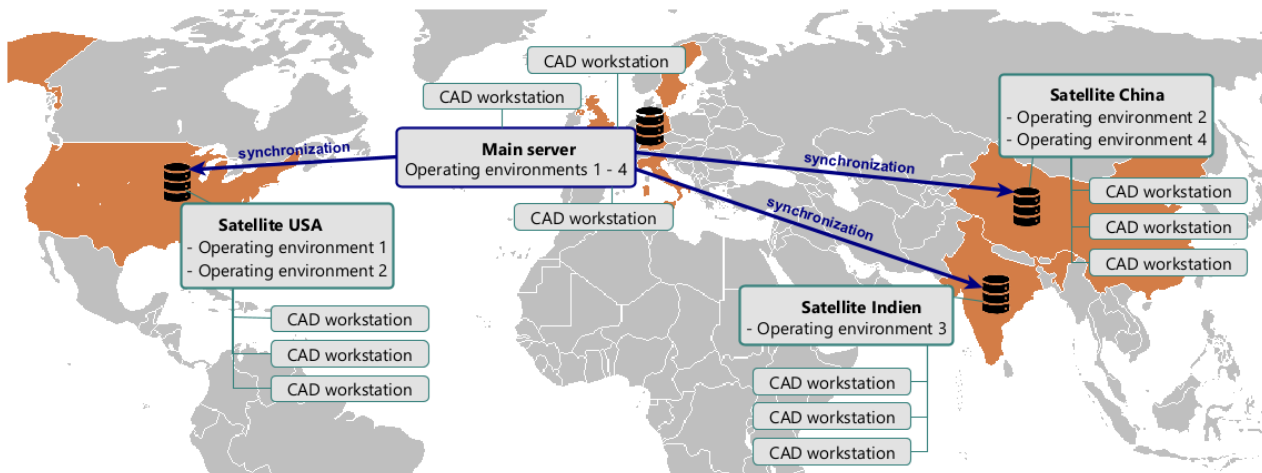
GENIUS TOOLS Starter / Startup TOOLS: Caddepot on file server



3.2 Standard scenario with 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.

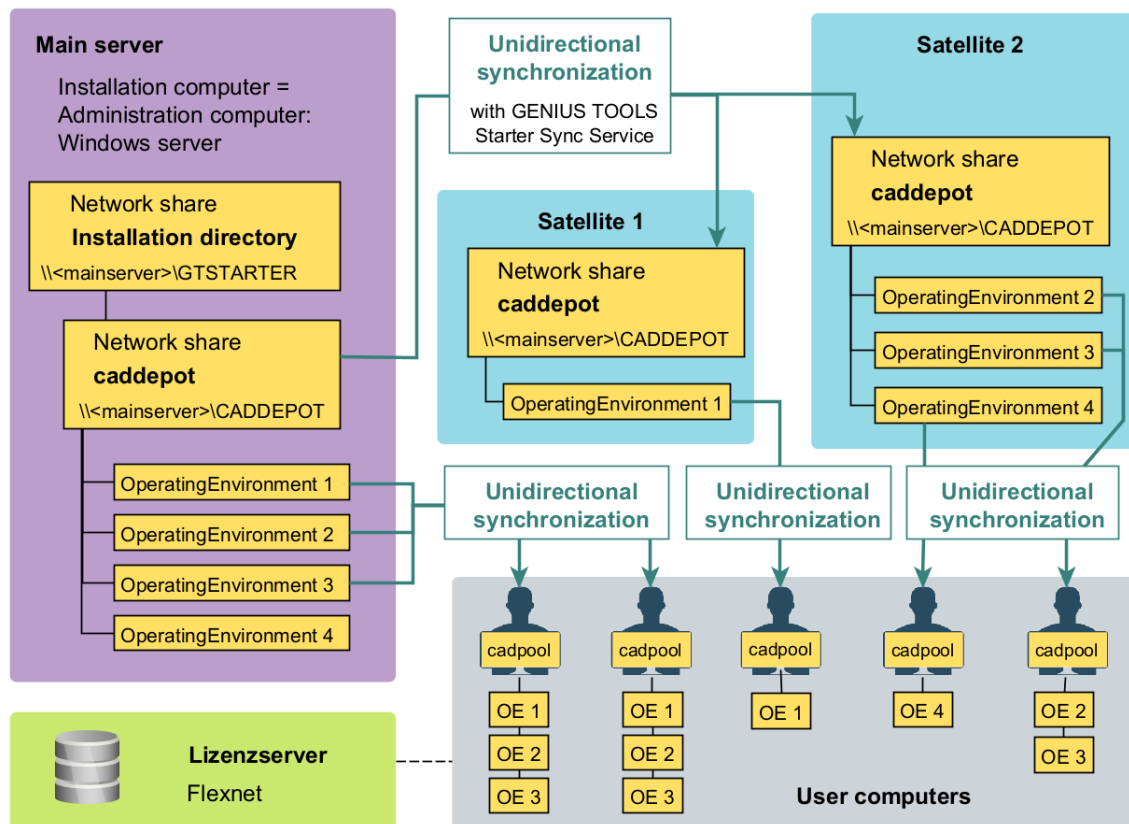
Locations with a slow connection to the main server would use this method to synchronize from a better accessible satellite, which can significantly reduce the time required for data synchronization.



In this installation, the caddepot on the main server is the source of synchronization for both user computers and satellites.

Data synchronization is performed by GENIUS TOOLS Starter Sync Service. The satellite or main server assigned to the unit in the organization tree is used for synchronization. The procedure of how to run satellites is described in the chapter [Working with satellites](#).

GENIUS TOOLS Starter / Startup TOOLS: Installation with satellites



3.3 Caddepot on file server

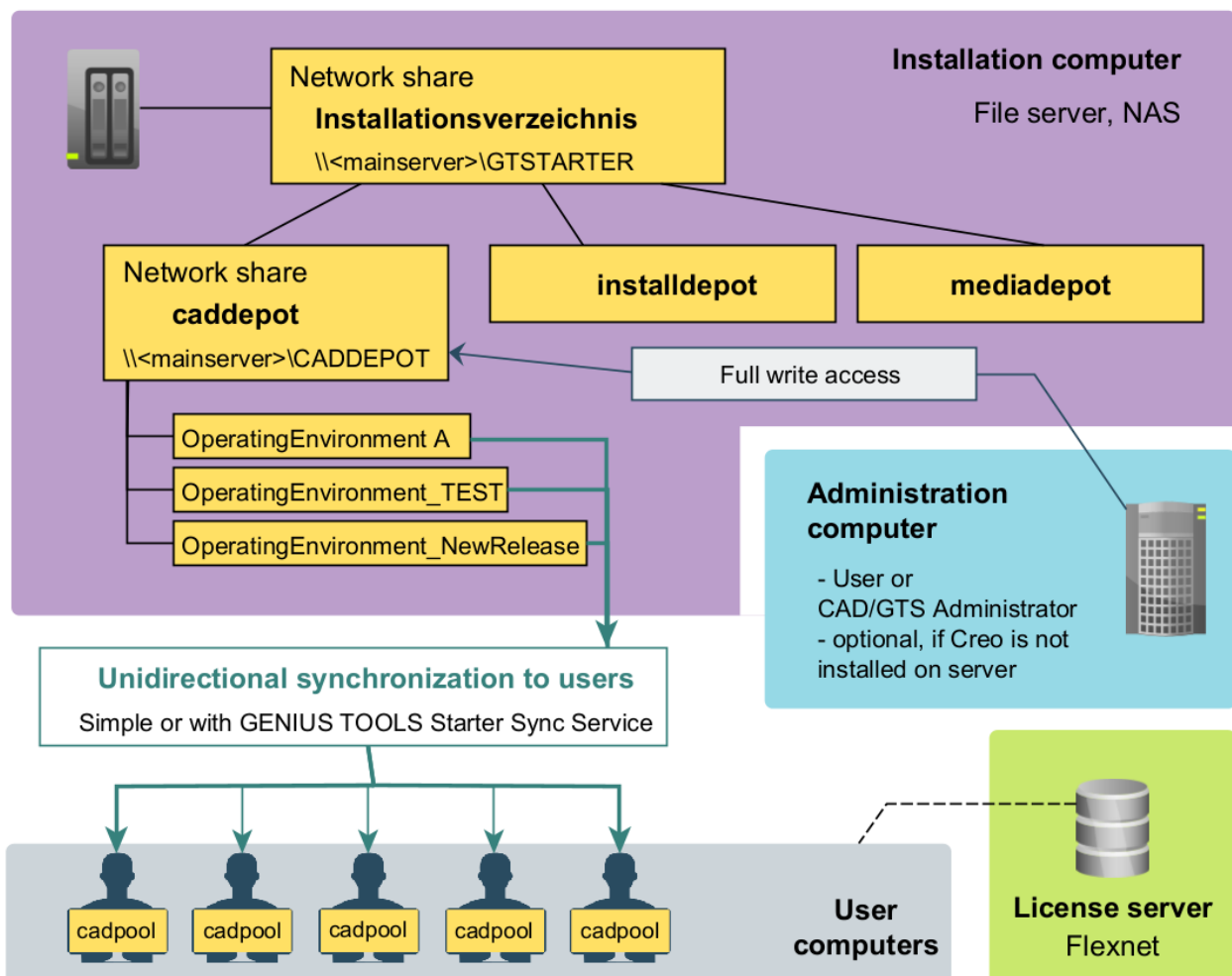
In this scenario, the operating environments are also synchronized from a shared Caddepot to many application computers. However, the Caddepot and the entire installation directory are located on a file server or NAS (Network Attached Storage). An administration computer is also required. The operating environments are managed from the administration computer using GENIUS TOOLS Environment Administrator.

The shared Caddepot directory must be created manually.

The services GENIUS TOOLS Starter Control Service and Sync Service cannot be used, since the service only runs on the computer that executes the setup.

The service GENIUS TOOLS Gitea cannot be used, which means that synchronizing the operating environment with Git is not possible in this installation scenario.

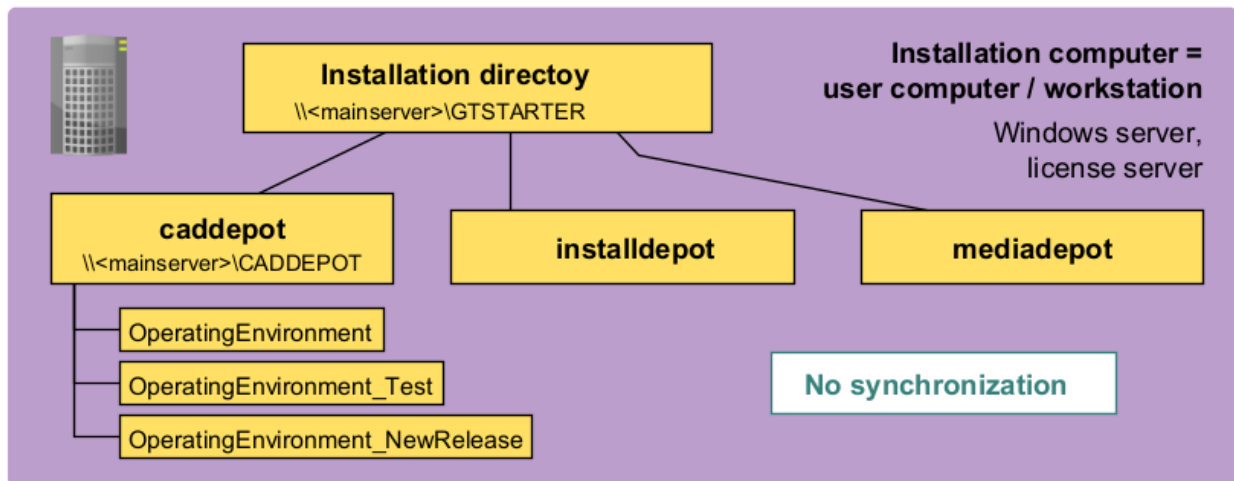
GENIUS TOOLS Starter / Startup TOOLS: Caddepot on file server



3.4 Caddepot on local computer

GENIUS TOOLS Starter can be used without data synchronization. The installation computer is also the application computer. No network shares are required.

GENIUS TOOLS Starter / Startup TOOLS: Caddepot on local computer



4 Installation

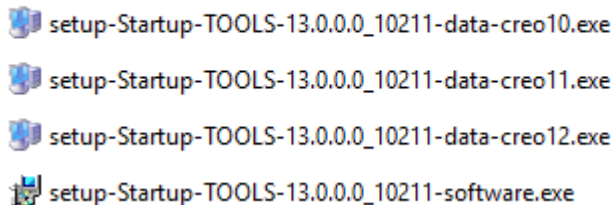
The **administration computer** is a computer on which the administrative user has full write access to the Caddepot directory in order to manage all data on the file system level.

The **installation computer** is the computer on which the installation directory is located, i. e. the computer that contains the caddepot directory. In the standard scenario, the administration computer is also the installation computer.

The **installation directory** (also: installdir) contains the subdirectories *Caddepot*, *Installdpot* and *Mediadepot*.

- Caddepot: empty directory which will later contain the **operating environment(s)**. This directory must be shared. (Default share name: CADDEPOT.)
- The **Installdpot** contains the release and version setups without settings and customizations. All setup programs unpack their data to this directory. The Installdpot can be shared to make it accessible to the administrator from any device.
- The **mediadepot** can be used to store setup files as well as data packages for different releases and versions.

```
> gtstarter > mediadepot > INNEO
```



setup-Startup-TOOLS-13.0.0.0_10211-data-creo10.exe
setup-Startup-TOOLS-13.0.0.0_10211-data-creo11.exe
setup-Startup-TOOLS-13.0.0.0_10211-data-creo12.exe
setup-Startup-TOOLS-13.0.0.0_10211-software.exe

4.1 Software setup

This chapter describes the initial installation of GENIUS TOOLS Starter for the **standard scenario**, i. e. the installation computer is the administration computer with the Windows operating system.

Warning: The GENIUS TOOLS Starter setups cannot be used to set up or update an operating environment. The stand-alone software component GENIUS TOOLS Environment Administrator is used for this purpose.

The installation of GENIUS TOOLS Starter is executed with the file

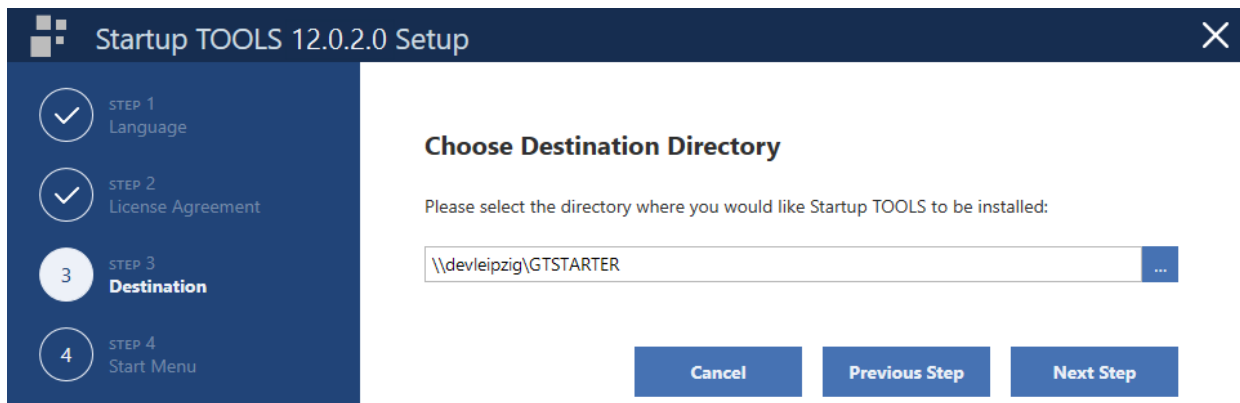
setup-GENIUS-TOOLS-Starter-<Version>-software.exe, or, if the program is part of the Startup TOOLS product package, with the file

setup-Startup-TOOLS-<Version>-software.exe..

Procedure:

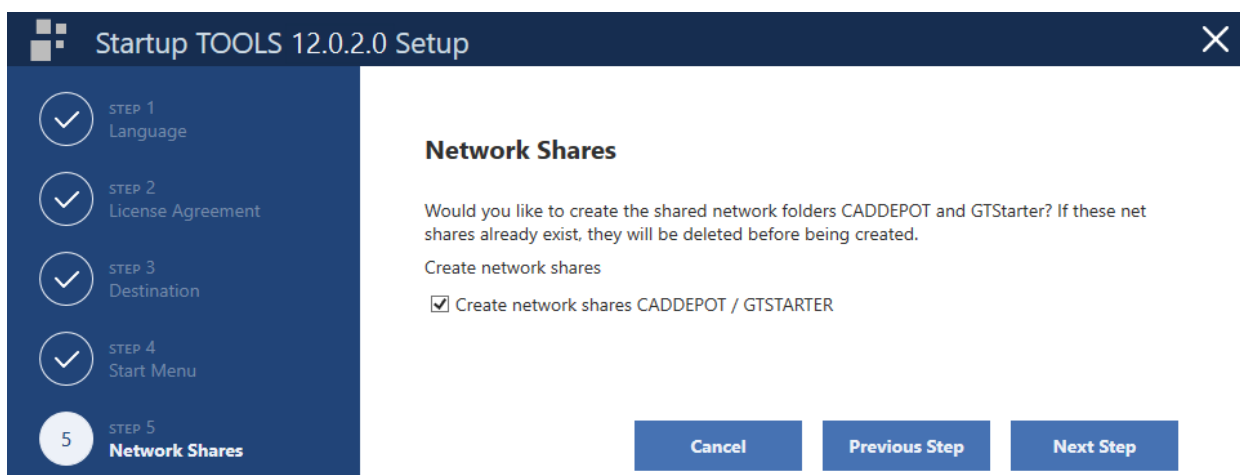
1. Select language
2. Accept license agreement
3. Select target directory. This is the installation directory.

Hint: Select "GTSTARTER" as the name, as the subsequent release will have this name: (\\<server name>\<drive>\GTSTARTER).



4. Specify the start menu folder
5. Create network shares

Activate the CADDEPOT and GTSTARTER shares. Shares to the installation directory and the caddepot are needed.



6. Install GENIUS TOOLS Starter Sync Service and GENIUS TOOLS Starter Control Service
As of version 7.0.0.0, it is possible to accelerate data synchronization with the GENIUS TOOLS Starter services. Find more information in the chapter [GENIUS TOOLS Starter services](#)
7. Complete installation

Result:

1. There is an entry in the registry containing the installation directory:

HKEY_LOCAL_MACHINE\SOFTWARE\INNEO\GENIUS TOOLS Starter

2. The setup program creates two network shares:



CADDEPOT



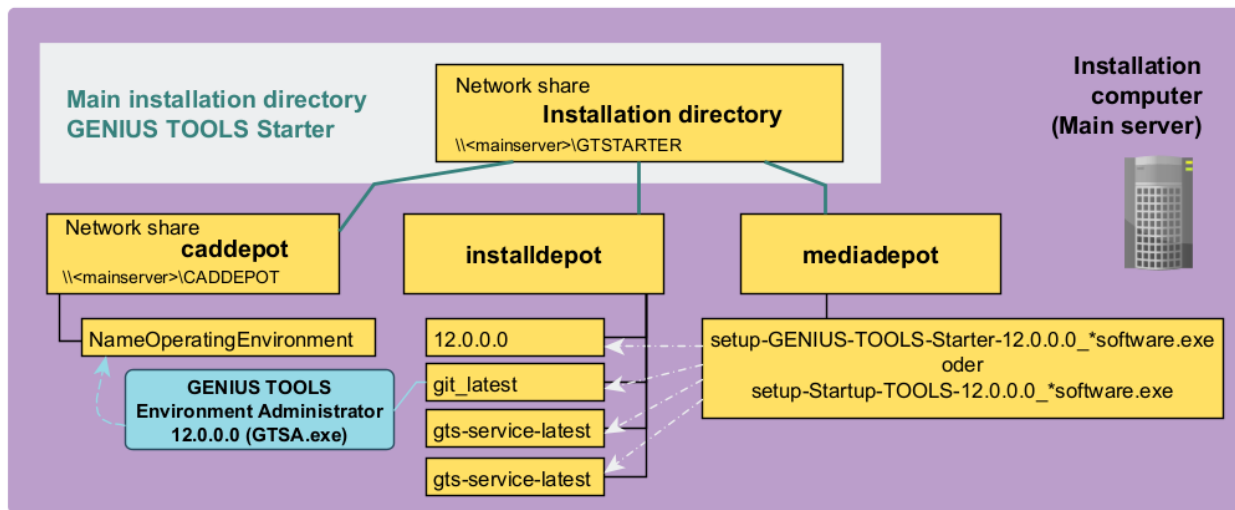
GTSTARTER

Path	Name of shared folder	Explanation
<installationdirectory>	GTSTARTER	Installation directory
<installationdirectory>\caddepot	CADDEPOT	All operating environments are located under this share. It is the source of synchronization for all workstations.

3. Three folders are created in the installation directory:

Path	Name of shared folder	Explanation
<installationdirectory>\caddepot	caddepot	– Contains all operating environments. – Source of data synchronization for all work stations.
<installationdirectory>\installdepot	installdepot	– Setups unpack their data here. – Is required for installations and updates.
<installationdirectory>\mediadepot	mediadepot	– For the collection of setups. – Use is optional.

GENIUS TOOLS Starter / Startup TOOLS: Initial installation



The **installd depot** contains three directories:

- release directory of the GENIUS TOOLS Starter software:
includes GENIUS TOOLS Starter App, GENIUS TOOLS Project Configurator and GENIUS TOOLS Config Editor.
- git_latest:
includes the latest version of GENIUS TOOLS Gitea service for [Synchronization with Git](#)
- gtsa-latest:
latest version of [GENIUS TOOLS Environment Administrator](#), program for creating or updating operating environments
- gts-service-latest:
latest version of GENIUS TOOLS Starter Sync Service und GENIUS TOOLS Starter Control Service for faster data synchronization and for [working with satellites](#)

4.2 Data setup

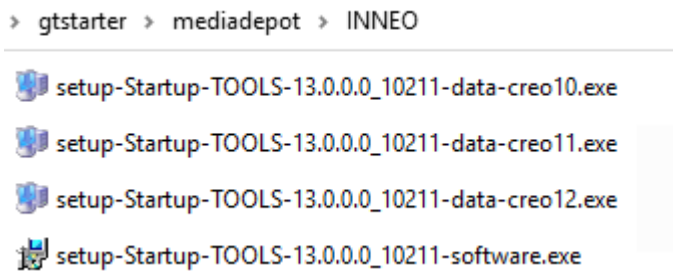
Startup TOOLS provide you with data packages for every Creo Parametric release from version 7.0.

The required data packages must be installed so you can, in a second step, add configuration and Creo object data to an operating environment. This is done with GENIUS TOOLS Environment Administrator.

Each data package also contains data for standard projects. You can use such standard project directories directly for Starter projects.

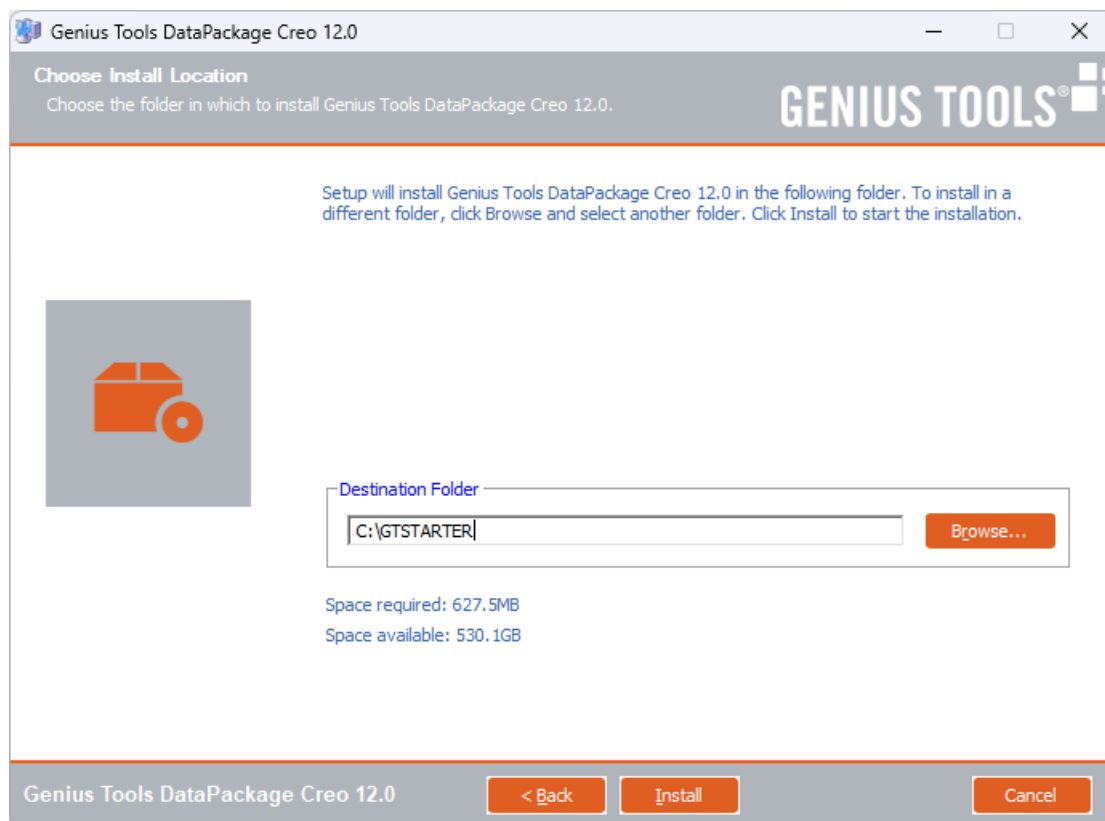
The installation of Creo data is executed with the file
setup-Startup-TOOLS-<Version>-data-creo<CreoVersion>.exe.

Store this file in the media depot, e.g. in a separate directory for INNEO products.



Procedure: Installing Creo data package

1. Select language
2. Accept license agreement
3. Select target directory. This is the GENIUS TOOLS Starter directory.



4. Complete installation

Result: Data is added to the install depot according to the version:

- Creo object data in the Data directory:

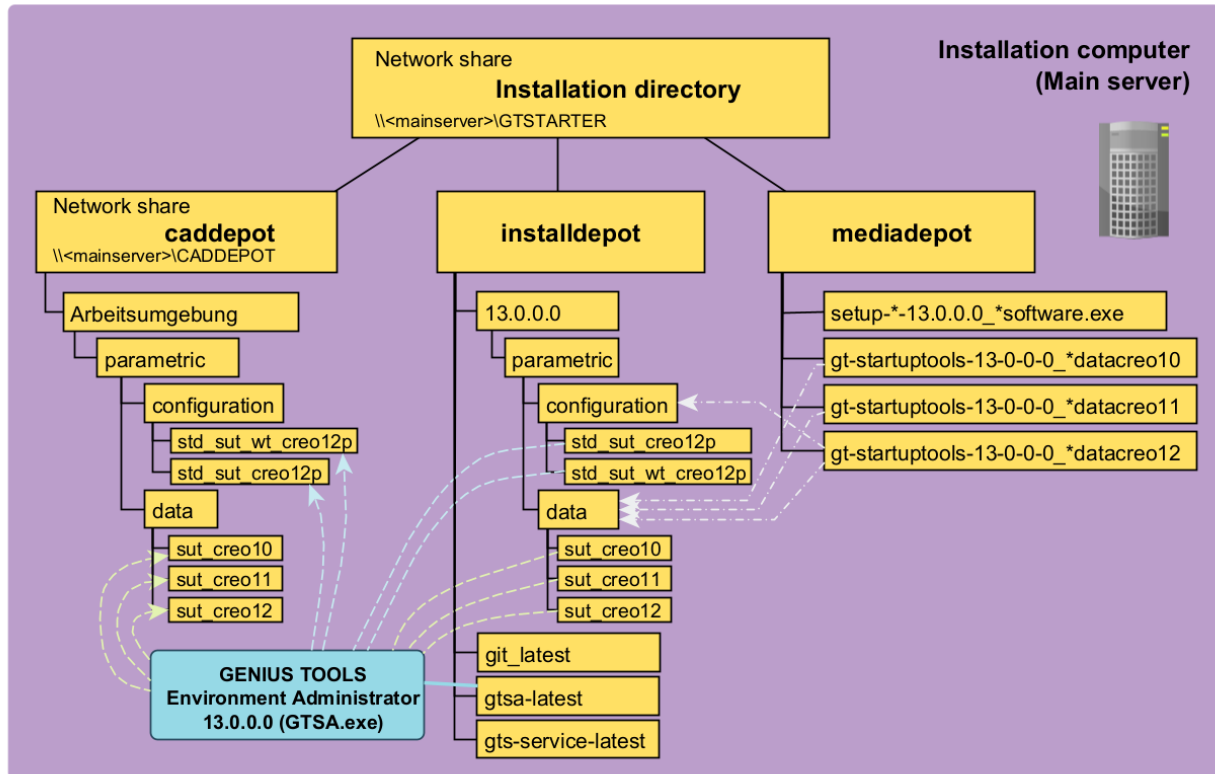
`<installationdirectory>\installdepot\13.0.0.0\parametric\data\sut_creo12`

- Standard start projects with and without Windchill in the Projects directory:

`<installationdirectory>\installdepot\13.0.0.0\parametric\configuration\projects\std_sut_creo12p`

<installationdirectory>\installdepot\13.0.0.0\parametric\configuration\projects\std_sut_wt_creo12p

Startup TOOLS: Installation of Creo data packages



Add Creo data packages to an operating environment

5. Open GENIUS TOOLS Environment Administrator and follow the description under Adding components to an operating environment.

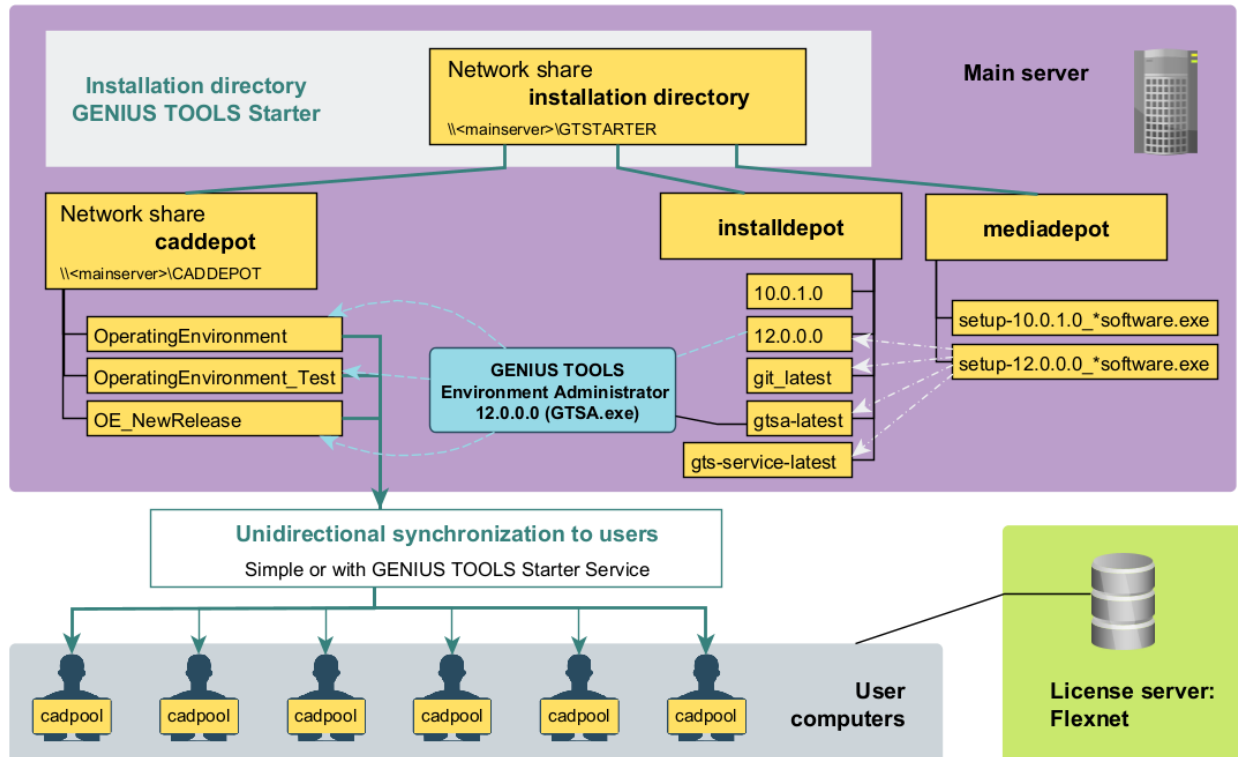
Customize data package according company-specific requirements

6. Change individual files depending on the company-specific requirements.

Warning: Once a data package has been customized, it must be manually adapted to newer software versions, see chapter [Updating Creo data packages and resource folder](#).

4.3 General installation mechanism

GENIUS TOOLS Starter / Startup TOOLS: General installation mechanism



5 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)

The next chapters describe each function in detail.

Warning: The following applies to git-versioned operating environments: All changes made on the user computer that have not been committed to Git are discarded when executing a function in GENIUS TOOLS Environment Administrator.

5.1 Usage

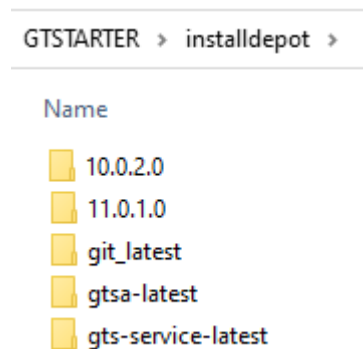
GENIUS TOOLS Environment Administrator must be started with write access to the caddepot directory.

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%*.

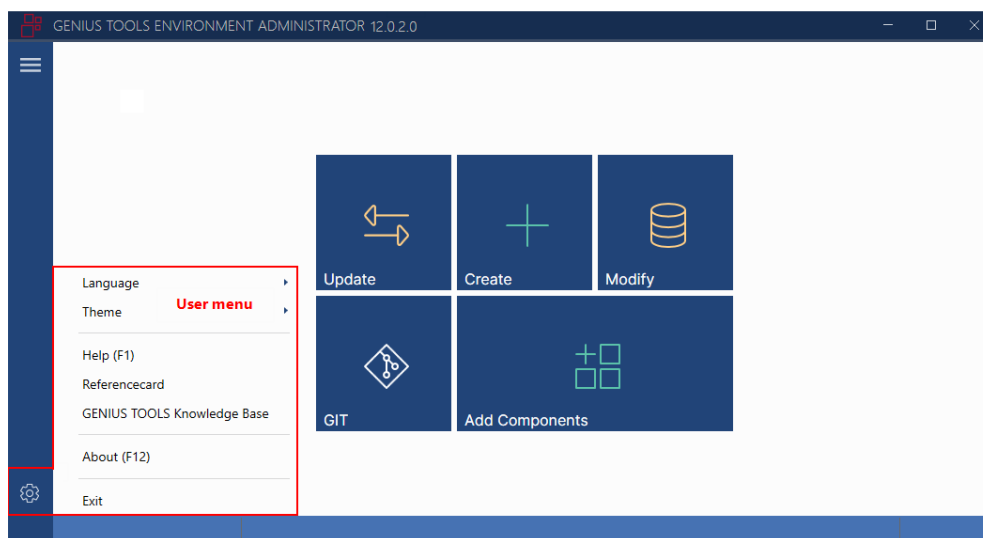
Warning: GENIUS TOOLS Environment Administrator can only be used with operating environments and Startup TOOLS software that have the same or older versions.

You need administrator rights on your computer for all functions that are used after creating an operating environment. GENIUS TOOLS Environment Administrator is restarted after a warning.

After installing the software for Startup TOOLS or GENIUS TOOLS Starter, the GTSA.exe file is located in the install depot in the gtsa-latest directory.



The user interface contains the user menu and the following functions.



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.

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.

5.2 Creating an operating environment

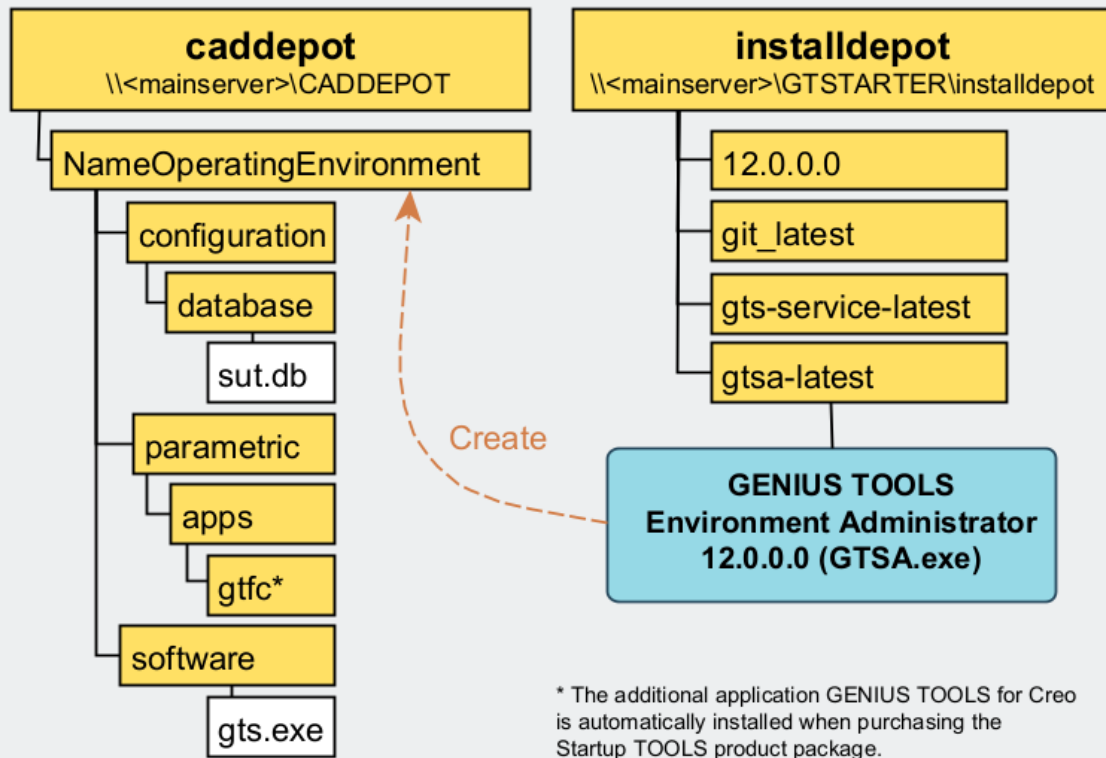
GENIUS TOOLS Environment Administrator lets you create different operating environments with just a few mouse clicks.

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

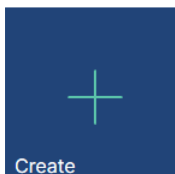
If you have purchased the Startup TOOLS product package, the add-on application GENIUS TOOLS for Creo is automatically installed in the *<OperatingEnvironment>\parametric\apps* directory when you create a new operating environment. This provides you with an operating environment with standardized templates (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 start projects at any time thereafter via the *Add Components* function.

GENIUS TOOLS Environment Administrator: Creating a new operating environment



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



Step 1: Define operating environment

GENIUS TOOLS Environment Administrator will find the Caddepot and Installdepot 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.

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

Select a software version (4) from the Installdepot.

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

The button *Send telemetry data* (5) transmits anonymized telemetry data from GENIUS TOOLS Starter, Model Processor User and the add-on applications GENIUS TOOLS for Creo to servers of Inneo Solutions GmbH. The data is collected for the purposes of troubleshooting and optimizing performance as well as for product improvement and development (user-centered development and sustainable decision-making in the development process). See *Documentation telemetry data* in the help directory. The environment variable GT_TELEMETRY is set to 1.

Click *Next*.

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.

Data synchronization allows you to keep all data up-to-date on the local application computers and give 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.

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*, the server name (2) that has been entered at setup is displayed.

Enter the path to the Caddepot netshare (3) of the synchronization server using UNC paths (`\\GTSServer\caddepot`), environment variables (`%GTS_SERVER_NAME%`) or a mixed form (`\\%GTS_SERVER_NAME%\caddepot`).

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.

1

2

Create operating environment

GENIUS TOOLS LICENSE MANAGER

Source

SYNCHRONIZATION SERVER SETTINGS

Name

Server path

Target directory

Synchronization interval

Please note: 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 quickly create test environments without having to change the settings. Also, operating environments can be renamed without having to change the settings.

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*.

5.3 Adding components to an operating environment

If you want to add components, you first have to install them into the Installdepot directory from the data setups, see [Data setup](#). With the Add components function you can then add the following components to an existing operating environment.

For Creo Elements/Direct Modeling:

- TSPRO environment
- SOLIDPOWERPARTS

For Creo Parametric:

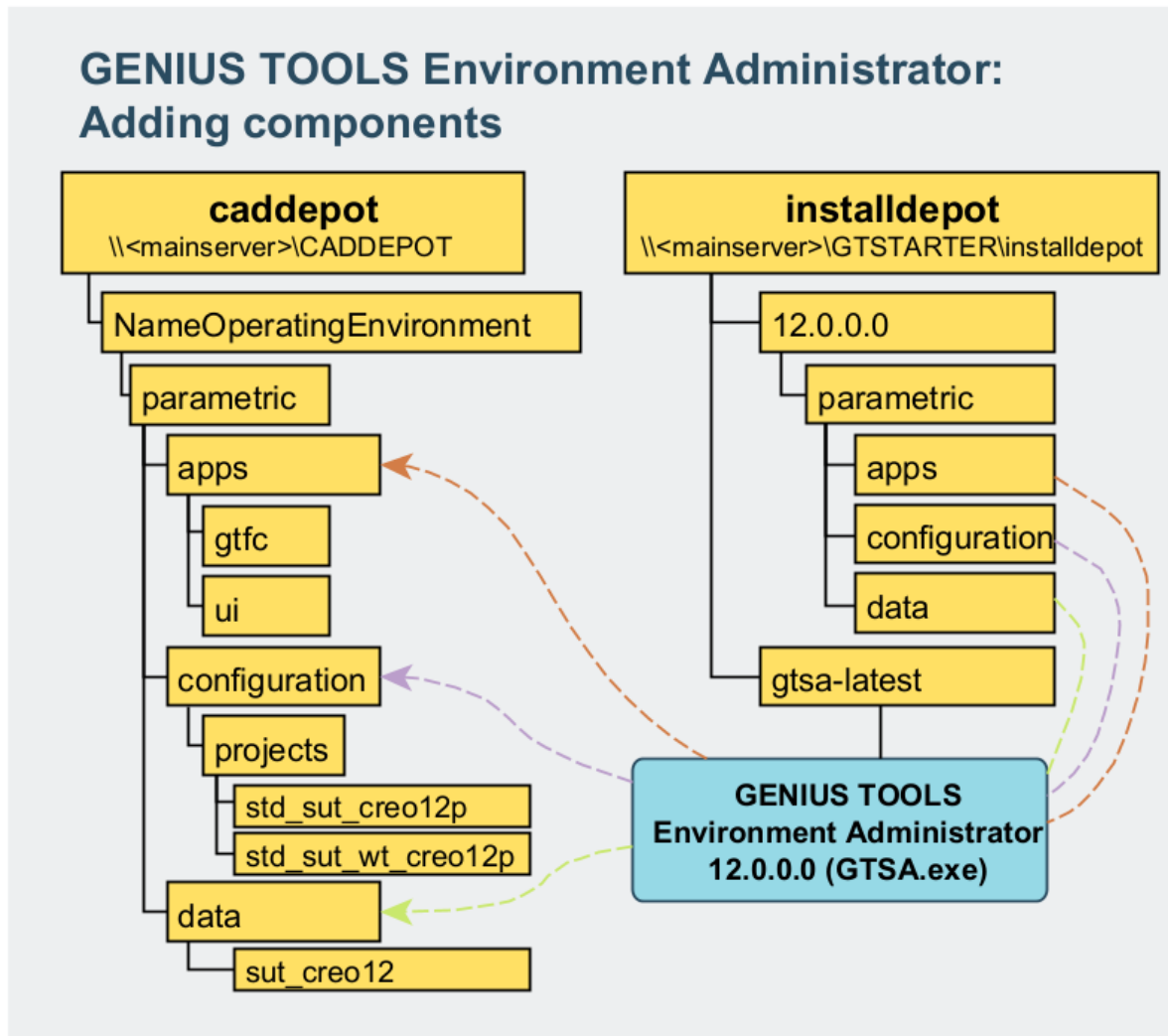
- data directories (data packages)
- project directories (directories with configuration blocks and other files)
- Toolkit applications GENIUS TOOLS for Creo (gtfc) and GENIUS TOOLS UI File Loader (ui)

Data packages

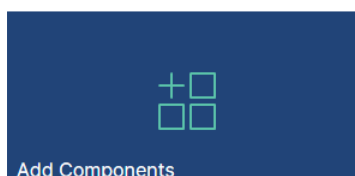
Data packages are subdirectories of the data directory, e. g. for Creo Parametric:

`<mainserver>\GTSTARTER\installdepot\11.0.0.0\parametric\data\sut_creo11.`

If you add data packages to an operating environment, you will get an operating environment with standardized templates (start object templates, project-related libraries, drawing frames, ModelCheck configurations), interface and function configurations for Creo (config.pro, config.sup, config.ui) as well as many add-on functions for Creo (toolkit applications).



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.

Step 2: Add CAD applications

Here, project components that have been installed in the install depot are selected.

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

For Creo Elements/Direct:

- TSPRO environment
- SOLIDPOWERPARTS

For Creo Parametric:

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

Components for Creo Parametric

Data packages and toolkit applications are added separately.

Projects can be added together with the data package subsequently as well as on 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
☐	sut_creo7	
☒	sut_creo10	INNEO_c10
☒	sut_creo11	INNEO_c11

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\<OperatingEnvironment>\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
☒	std_sut_creo8p	INNEO_c8	Creo Parametric 8.0	INNEO - Creo Parametric 8.0
☐	std_sut_wt_creo8p		Creo Parametric 8.0 Windchill	
☒	std_sut_creo9p	INNEO_c9_2	Creo Parametric 9.0	INNEO - Creo Parametric 9.0
☐	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 start projects

If the data packages have already been installed, standard start 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
☐	std_sut_creo9p		Creo Parametric 9.0		sut_creo9
☒	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. 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.

- GENIUS TOOLS for Creo (gtfc): Additional functions for Creo Parametric which are included in the products GENIUS TOOLS Library, GENIUS TOOLS Parameter and GENIUS TOOLS MBD for ISO GPS.
- GENIUS TOOLS UI File Loader (ui): Application that allows reloading multiple customization.ui files.

Please note: If you have purchased the Startup TOOLS product package, the GENIUS TOOLS toolkit applications will be automatically installed to the *parametric\apps* directory when creating a new operating environment or with a software update.

 Toolkit Application

Copy	Display name
☐	gtfc - GENIUS TOOLS for Creo
☒	ui

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

4. Customize data packages

When using Startup TOOLS for the first time, we recommend adapting the supplied data directory ("data package"). All company-specific data should be adapted, such as

- Startup parts,
- material files,
- drawing frames.

Data directories should be created version-neutral.

If data files are accidentally deleted, they can be copied back from the install depot at any time, i. e. no backup copies need to be made.

Hint: If possible, always work with variables. A reference to a data directory from a configuration block is made via the variable `$GTS_DATA`.

Once a data package has been adapted to company-specific requirements, it must be manually adapted to newer software versions, see [Updating Creo data packages and resource folder](#).

5.4 Updating software in an operating environment

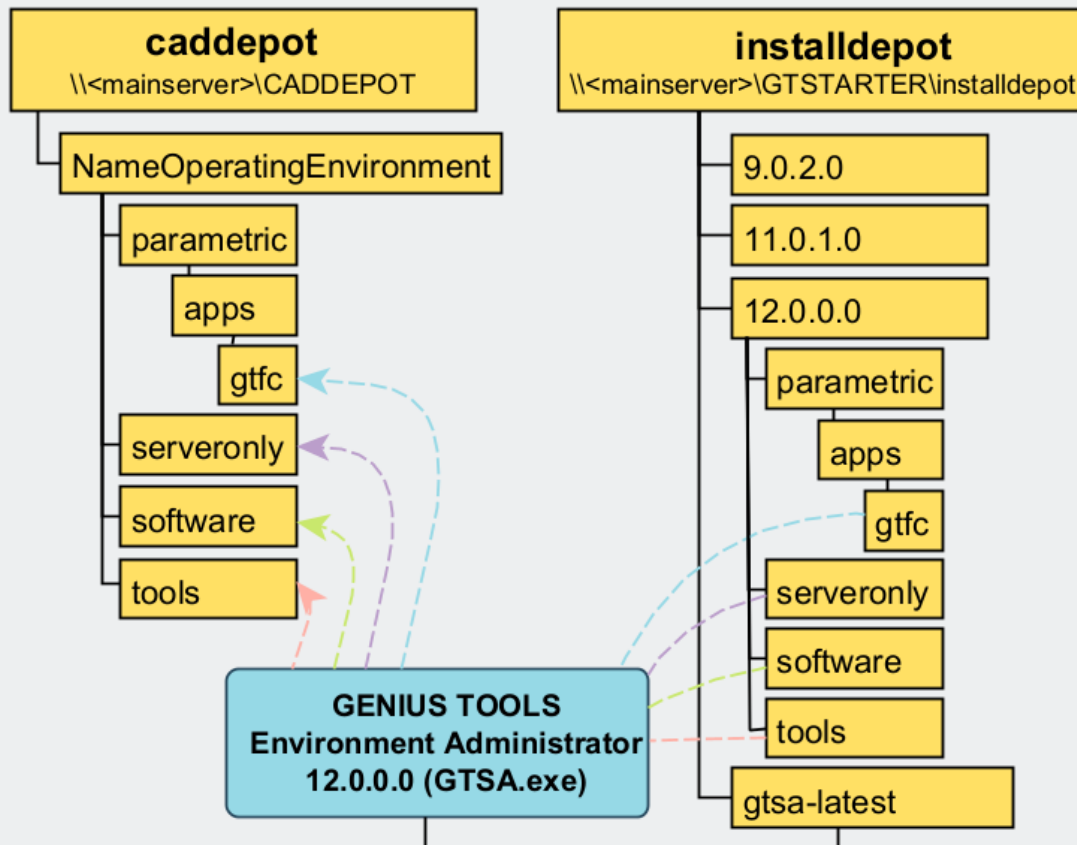
All software setups in GENIUS TOOLS Starter unpack their data to the Installdepot directory. You can use the *Update* function of GENIUS TOOLS Environment Administrator to update the software for GENIUS TOOLS for Creo and GENIUS TOOLS Starter App in the operating environments. This two-step process allows 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.

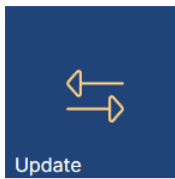
If you update GENIUS TOOLS for Creo, the synchronization on the application computers will only be run after Creo has been closed.

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.

GENIUS TOOLS Environment Administrator: Updating software



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.

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

Software Update

OPERATING ENVIRONMENT

Caddepot: (1)

Select operating environment: (2)

SOFTWARE

Installdepot: (3)

Select software version: (4)

UPDATE-EINSTELLUNGEN (5)

GENIUS TOOLS Starter App: ☒ Aktiviert

GENIUS TOOLS Library/Parameter: ☒ Aktiviert

GENIUS TOOLS MBD for ISO-GPS: ☐ Deaktiviert

Tools-Verzeichnis: ☒ Aktiviert

Freeware-Tools: ☐ Deaktiviert

Telemetriedaten senden: ☒ Aktiviert

- the software GENIUS TOOLS Starter (component of the Startup TOOLS product package)
- the software GENIUS TOOLS Parameter and GENIUS TOOLS Library (add-on application GENIUS TOOLS for Creo, component of the Startup TOOLS product package)

Please note: An update does not update the resource folder (*gt_resource_folder*). This has to be updated manually, see chapter [Update process](#).

- the software GENIUS TOOLS MBD for ISO GPS (add-on application GENIUS TOOLS for Creo)
- 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 button *Send telemetry data* (5) transmits anonymized telemetry data from GENIUS TOOLS Starter, Model Processor User and the add-on applications GENIUS TOOLS for Creo to servers of Inneo Solutions GmbH. The data is collected for the purposes of troubleshooting and optimizing performance as well as for product improvement and development (user-centered development and sustainable decision-making in the development process). See *Documentation telemetry data* in the help directory. The environment variable GT_TELEMETRY is set to 1.

Under Migration settings (6), you can set whether access restrictions for projects are transferred when updating to version 11.0.0.0 and newer.

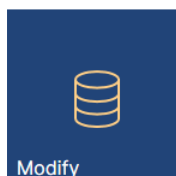
Result: The update process writes a new software directory for GENIUS TOOLS Starter and updates the database. For GENIUS TOOLS for Creo, the *gtfc* directory under *apps* is re-written. The *main.cfg* file remains untouched. The directories *tools* and *serveronly\tools* are copied from the Installdepot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

5.5 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 settings 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 unit *Standard*. If you have made individual settings for a unit or subunit, you have to change these settings using GENIUS TOOLS Project Configurator (*Configuration > Select unit > 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

\\devleipzig\GTSTARTER\caddepot

1

Select operating environment

INNEO | Version 11.0.1.0

2

GENIUS TOOLS LICENSE MANAGER

Source

7766@lictriad1;7766@lictriad2;7766@lictriad3

3

Active

Ja

4

Step 2: Change synchronization settings

Specify the server path (3) so that it points to the caddepot on the synchronization server. The server name (1) is automatically taken from this information.

You can enter a description for the server (2).

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

devleipzig

1

Comment

Mainserver

2

Server path

\\devleipzig\caddepot

3

Checksum verification

No

4

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

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

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
 - a. 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:\GTSTARTER\Cadpool, or environment variables that are available on the application computers, e. g. %GTS_SYNC_DESTINATION%.

Edit Synchronization

1

2

3

CLIENT SETTINGS

Activate synchronization

Ja 1

Target directory

C:\GTSTARTER\cadpool 2

Synchronization interval (minutes)

360 3

Start client with windows

Ja 4

Send telemetry data

Activated 5

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.

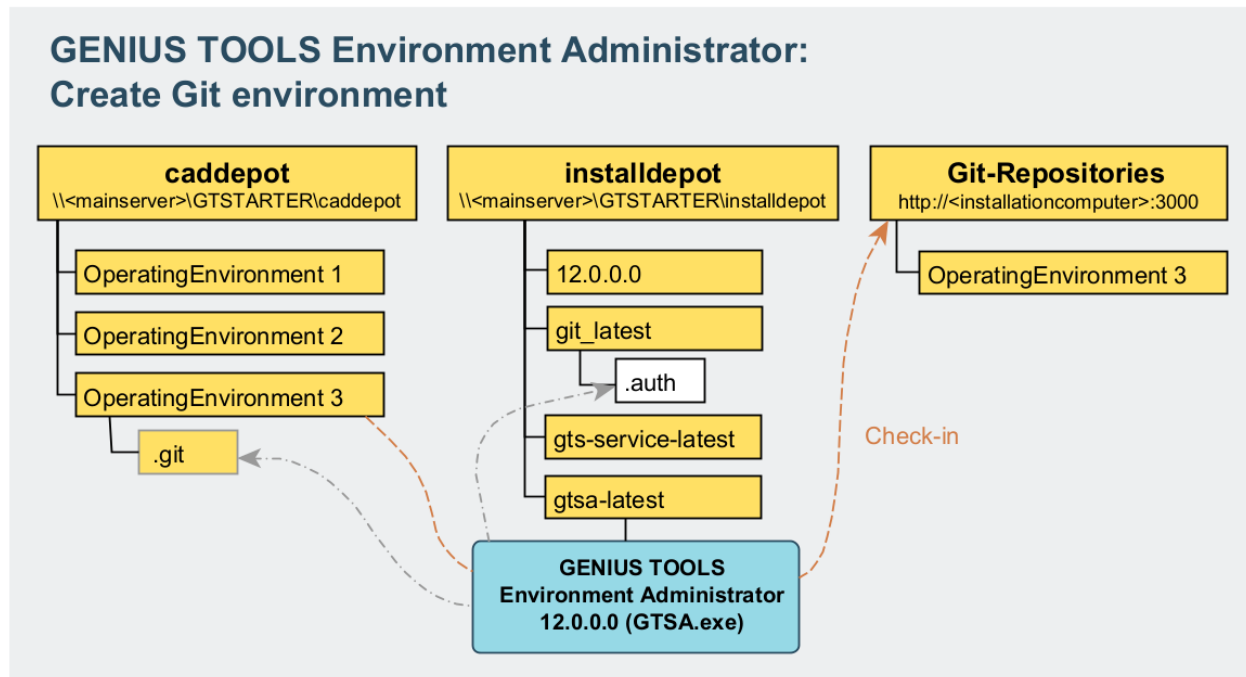
The button *Send telemetry data* (5) transmits anonymized telemetry data from GENIUS TOOLS Starter, Model Processor User and the add-on applications GENIUS TOOLS for Creo to servers of Inneo Solutions GmbH. The data is collected for the purposes of troubleshooting and optimizing performance as well as for product improvement and development (user-centered development and sustainable decision-making in the development process). See *Documentation telemetry data* in the help directory. The environment variable GT_TELEMETRY is set to 1.

5.6 Creating a Git repository

GENIUS TOOLS Environment Administrator allows you to connect an existing operating environment to the version control system Git.

Requirements

- A Git environment must be created on the [installation computer](#), i. e. on the computer on which the caddepot is located.
- For versioning with Git the service GENIUS TOOLS Gitea must be running. This requires GENIUS TOOLS Environment Administrator to be started with administrator rights. A warning message appears if this is not the case and GENIUS TOOLS Environment Administrator restarts.
- The administrator who creates the operating environment in Git is the administrator who checks in changes to GENIUS TOOLS Project Configurator.
- The security requirements are met, see [Encryption of the Auth file](#).



Creating Git environment

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



From the caddepot (1), select the operating environment (2) you want to connect to Git.

Under Git server (3), the URL address of the computer on which GENIUS TOOLS Environment Administrator is running is displayed. This must be the installation computer, see *Requirements* above.

Create Git environment

OPERATING ENVIRONMENT

Caddepot
 1

Select operating environment
 2

GIT

Git server
 3

Results

On the installation computer

1. The service GENIUS TOOLS Gitea is set up.
2. The Git server is automatically created with the address `http://<installationcomputer>:3000` and entered as the main server.

On the installation computer in the installdpot

3. The file `.auth` is created in the directory `git_latest`. This file should not be readable, see [Auth file](#).

On the installation computer in the caddepot

4. The hidden directory `.git` is created in the operating environment.
5. The file `GTS_Update.exe` is stored in the directory `software`.

On the Git server

6. Repositories (Git folders) are created on the Git server for each application.
7. Three users are created for Git:
 - A user for GENIUS TOOLS Environment Administrator ("Owner"): Is the user from the `auth` file.
 - A user for GENIUS TOOLS Project Configurator ("Contributor"): Has write access to all repositories.
 - A user for GENIUS TOOLS Starter App ("Reader"): Has read access to all repositories.

In GENIUS TOOLS Project Configurator

8. The Git checkin button in GENIUS TOOLS Project Configurator replaces the previous Save button in the user menu. This checkin process commits all changes to the database `sut.db` and to files of the operating environment.
9. Under *Configuration > Settings: Synchronization > Section: Server*, the synchronization type is changed to Git. The synchronisation type can no longer be changed in GENIUS TOOLS Project Configurator.
10. GENIUS TOOLS Project Configurator cannot be started in network mode.

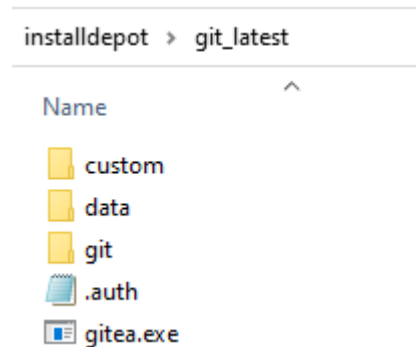
In GENIUS TOOLS Environment Administrator

11. During a software update, GENIUS TOOLS Environment Administrator recognizes whether an operating environment is git-versioned and installs the new version in the repository of the Git server.

Encryption of Auth file

Once the operating environment has been created in Git, the file *.auth* is created in the directory *git_latest*. This file is required to be able to check in to Git.

The Auth file contains the user name and password of the global administrator for GENIUS TOOLS Gitea service and is stored in encrypted form if all conditions are met. If errors occur during the encryption attempt, they are written into the log file *gtsa.log* in the user directory.



Warning: Save the Auth file in a safe place so that you can restore the installation environment if necessary.

Check out from Git

After migrating an operating environment to Git, GENIUS TOOLS Starter must be restarted on user computers.

For an initial installation of GENIUS TOOLS Starter, start the EXE file *GTS.exe* on the application computer.

Path: \\<mainserver>\gtstarter\caddepot\<operatingenvironment>\software\gts.exe

Check in to Git

With GENIUS TOOLS Environment Administrator the following changes are made on the installation computer: [Adding components](#), [Updating software](#) and [Modifying settings](#). These are checked in automatically.

Warning: The following applies to git-versioned operating environments: All changes made on the user computer that have not been committed to Git are discarded when executing a function in GENIUS TOOLS Environment Administrator.

On the user computer, changes are made in GENIUS TOOLS Project Configurator (database *sut.db*) and in configuration and batch files, which must be checked in with GENIUS TOOLS Git Utility.

All information on check in can be found in the chapter [Connecting operating environments to Git](#).

6 Update process

GENIUS TOOLS Environment Administrator can update any operating environment – even if located in different Caddepots – with the software versions stored in the Installdepot.

If setups for newer releases or versions are executed on the installation computer, the corresponding subdirectories are created in the Installdepot.

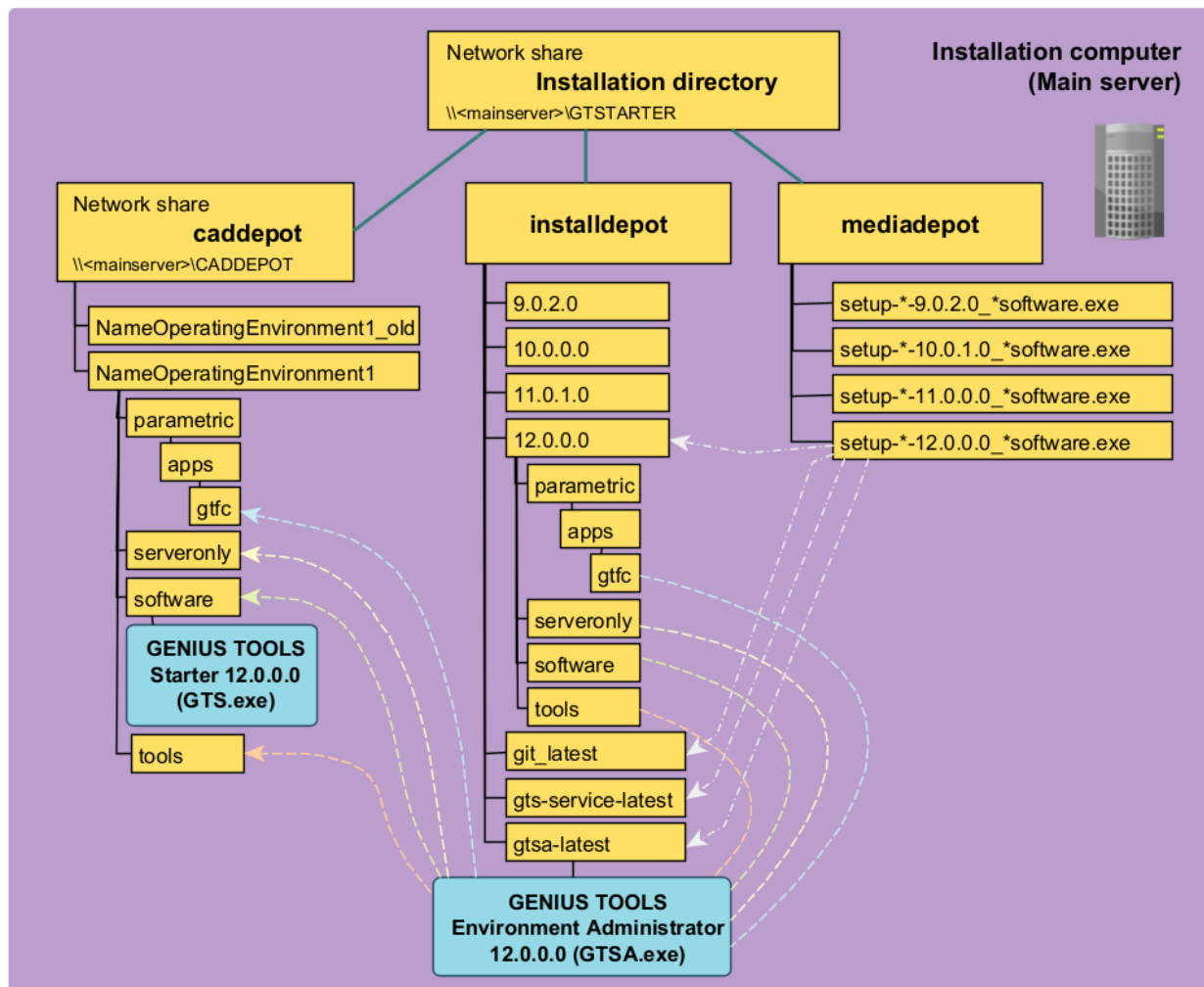
With GENIUS TOOLS Environment Administrator you can update:

- the software GENIUS TOOLS Starter (component of the Startup TOOLS product package)
- the software GENIUS TOOLS Parameter and GENIUS TOOLS Library (add-on application GENIUS TOOLS for Creo, component of the Startup TOOLS product package)

Please note: An update does not update the resource folder (*gt_resource_folder*). This has to be updated manually, see chapter [Update process](#).

- the software GENIUS TOOLS MBD for ISO GPS (add-on application GENIUS TOOLS for Creo)
- 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).

GENIUS TOOLS Starter: Update-Installation



Hint: Important information that you should consider when updating and all new functions can be found in GENIUS TOOLS Update Advisor at <http://updateadvisor.inneo.com>.

If you use synchronization, the software is updated in the background and the new software version is automatically transferred to the user computers during the next synchronization process.

If the add-on application GENIUS TOOLS for Creo is updated, synchronization to the user computer only takes place when Creo is closed.

If network mode is used, make sure that GENIUS TOOLS Starter App and Creo have been closed by all users, otherwise an update will not be possible.

Please note: The update function of GENIUS TOOLS Environment Administrator only updates the selected software GENIUS TOOLS Starter as well as, optionally, GENIUS TOOLS Parameter / Library, GENIUS TOOLS MBD for ISO GPS, GENIUS TOOLS Config Editor/Requirement Check and freeware products as well as the help directory in an operating environment. Updating configuration settings, configuration files and object data of an application (data packages) has to be undertaken manually, see chapter *Update process* in the Installation manual of GENIUS TOOLS Environment Administrator.

Update to versions 6.0.1. and following

From GENIUS TOOLS Starter version 6.0.1, there are license-dependent differences in product functionality, meaning that many new functions are only available with a subscription license. From 2020, GENIUS TOOLS Starter will only be sold with subscription licenses.

If you work with mixed licenses (permanent and subscription), please note the following: If functions that are linked to a subscription license are configured in GENIUS TOOLS Project Configurator, you can no longer start projects with a permanent license. If you want to undo an activation of subscription functions, use the backup copy *sut.db* of the database under .. \caddepot\<working environment name>\configuration\database\BackupBeforeUpgrade

Update to versions 9.0.0. and following

Due to new features in GENIUS TOOLS Starter version 9.0.0.0, the folder structure and the software are no longer backwards compatible, i. e. after updating an operating environment to version 9.0.0.0 or later, it is no longer possible to revert to an older version.

Due to this change, the update process takes longer than usual.

Warning: GENIUS TOOLS Environment Administrator 9.0.2.0 and newer cannot be used to create installations of versions 9.0.1.0 or 9.0.1.1.

Please note that due to the conversion of the database to release 9.0.0.0, GENIUS TOOLS Environment Administrator cannot be used to create versions older than version 9.0.0.0.

6.1 Updating Creo data packages and resource folder

Data packages for Creo Parametric are part of the Startup TOOLS product package and are primarily intended for new customers. They contain the latest INNEO state of the art that allows you to work optimally with Creo Parametric and Windchill.

- The data packages are subdirectories of the data directory in the parametric directory, e. g. : <operatingenvironment>\parametric\data\sut_creo9

The resource directory contains information for the modules GENIUS TOOLS for Creo, e. g. templates for export tables for GENIUS TOOLS Inspect or the material database for GENIUS TOOLS Material.

- The resource directory is located in the configuration directory of Creo Parametric:
`<operatingenvironment>\parametric\configuration\gt_resource_folder`.

Each customer data package contains company specific customizations, e.g. the drawing frames. Therefore, there is no automatic update function for data packages. The principle is that everything should continue to work immediately after an update of the Startup TOOLS.

Warning: An update of Startup TOOLS does not change any data in the data packages or the resource folder within an operating environment.

Before updating, always check the "Important Information" section in the Startup TOOLS news document (`<operatingenvironment>\help\en\Startup TOOLS_News.pdf`).

Update process

Changes in data packages can be diverse and vary in complexity. In a simple case, a Creo Parametric symbol may be changed – in this case only one file would be affected, which can easily be transferred manually after a user check. However, if a work process is changed, e. g. the use of appearances and hatch definitions in material files, many files and configuration settings will be affected.

To update new data, resource directory and Startup TOOLS configurations, two steps are necessary:

1. Installing the new data packages:
 - The data is only unpacked into the installation repository.
 - There is no change to an operating environment.
2. Testing data packages:
 - Each file that is manually transferred from the installation depot to an operating environment must be checked for its effects.
 - It is recommended to use a test environment.

Extensive modifications (e. g. changes in material appearances and hatching) are best implemented together with an INNEO expert.

Update of hatching, appearances and materials

If you want to transfer changed data for hatching, appearances and material files into your own operating environment, you have to adapt various settings starting with Startup TOOLS version 9.0.1.

Hatching

Creo Parametric 4.0 introduced the default hatching format **.pat*. Before, Creo Parametric used its own format **.xch*. Starting with Creo Parametric 9.0, the default value changed from XCH to PAT.

The configuration option *default_hatch_type* must be set to the new default PAT. All Startup TOOLS XCH files are converted to PAT format and are no longer delivered as XCH files.

Appearances

When updating to version 9.0.1, the graphics library must be changed from the Creo Parametric installation directory (*..\Common Files*) to the data directory. To do so, specify the data directory in the configuration option *graphics_library_dir*: *\$GTS_DATA*.

Material files

The material files include an additional default appearance as well as a hatch definition (if different from the default line). The material file only stores the names of the appearance or hatch definition. In a Creo Parametric session, access to the definitions/files must be configured accordingly.

7 Setting up user computers

Before a working environment can be transferred to the application computers, it has to be created using GENIUS TOOLS Environment Administrator. The work environment is defined by the following settings:

- Work environment name (e.g., company short name)
- License server
- Source Caddepot directory
- Cadpool directory on the application computers

Please note: After the initial transfer of a work environment to an application computer, no further work needs to be done there. The application computer does not require maintenance as all data in the work environment is updated by the local GENIUS TOOLS Starter App, while the GENIUS TOOLS Starter App itself is updated automatically from the Caddepot.

7.1 Administration computer

Please note: Typically the first computer to receive a work environment is the administration computer for this environment. This means that the user (normally the CAD or Startup TOOLS administrator) has full write access to the Caddepot.

Each application client needs to run an initial synchronization, which means that the work environment has to be copied in full from the Caddepot directory on the administration computer to a new Cadpool directory. The copying and other initialization steps can be performed by GENIUS TOOLS Starter. To use GENIUS TOOLS Starter, start it from the Caddepot directory:

1. Start GENIUS TOOLS Starter from the work environment of the Caddepot (`<Caddepot_path>\<work_environment_name>\software\gts.exe`) on the application client (e.g., `\\<server>\<share>\<work_environment_name>\software\gts.exe`).
2. When the central *gts.exe* is started, the software recognizes that the client computer does not yet have a Cadpool directory and work environment. This triggers the following initialization actions:
 - a. Creating the local directories
 - b. Copying the work environment
 - c. Creating a desktop icon
 - d. Creating an autostart entry in the registry

- e. Stopping GENIUS TOOLS Starter (central *gts.exe*)
- f. Starting the local GENIUS TOOLS Starter (*gts.exe* from the Cadpool directory)

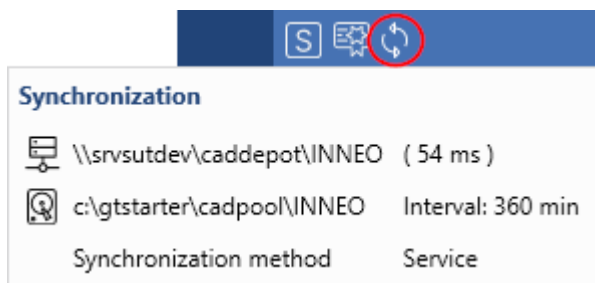
Synchronization status and license availability

The status line in the footer area of the local GENIUS TOOLS Starter App should now look like this:



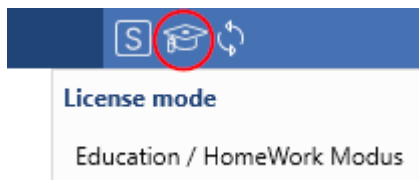
Status line

The license status  shows a full version and the synchronization status shows unrestricted synchronization.



Unrestricted synchronization

If the license mode is displayed as below, you need to check your license status.



Student license

Check whether the license is available or whether, for example, the license server has not been entered correctly in GENIUS TOOLS Starter.

Please note: Start *gts.exe* with the option `-gts:licDebug` to get error messages from GENIUS TOOLS License Manager.

7.2 Application computer

The initial transfer of a working environment has to be done for each application computer in the same way as for the administration computer. To start the initial transfer, call GENIUS TOOLS Starter from the work environment of the Caddepot on the application computer.

GENIUS TOOLS Starter initial call path:

`<Caddepot_path>\<work_environment_name>\software\gts.exe`

That is, for example: `\\<server>\<share>\<work_environment_name>\software\gts.exe`

You can, for example, distribute an UNC path to your users via e-mail with a short set of instructions.

A work environment can also be copied to the application computers by any Windows distribution mechanism. A desktop icon for the local *gts.exe* can also be created using an alternative tool.

8 Customizing the GENIUS TOOLS Starter environment

8.1 Start parameters

Start parameter	Description
-gts:admin	Starts GENIUS TOOLS Project Configurator.
-gts:appdata= <directorypath>	Redefines the path to the Appdata directory.
-gts:debug	Activates debug logging.
-gts:disableConfigCleanUp	Prevents invisible control characters from being deleted.
-gts:exp= <directorypath>	Defines the location of the <i>expcfg.bat</i> file of the worker.
-gts:forceSyncAll	Synchronizes all application folders, regardless of whether the application is installed.
-gts:home= <directorypath>	Sets the home directory. Example: D: \gtstarter\cadpool\inneo\software\GTS.exe -gts:home= %SystemDrive%\home%\USERDOMAIN%.\%USERNAME% \pro.creo3
- gts:lang= <languageacronym>	Starts GENIUS TOOLS Starter App in a defined language (de/en/fr).
-gts:L= <languageacronym>	Sets Creo language.
-gts:CL= <languageacronym>	Set language for GENIUS TOOLS Starter.
-gts:licDebug	Activates debug logging for the license server (loud alarm when license problems occur).
-gts:licServer= <licenseserver>	Sets the license server.
- gts:licTimeout= <timespecificat ion>	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.

Start parameter	Description
- gts:networkTimeout= <timespecification>	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.
-gts:noSync	Deactivates synchronization.
-gts:p= <projectname>	Starts a project and filters the project list.
-gts:pui= <projectlist>	Filters the project list to a list of projects specified separated by commas (-gts:pui=pname1,pname2,pname3).
-gts:temp= <directorypath>	Redefines path to the Temp directory.
-gts:units= <unitIDstring>	Starts GENIUS TOOLS Starter with the defined unit ID string. (The ID string is displayed in GENIUS TOOLS Project Configurator under <i>Configuration</i> > <i>GENIUS TOOLS Starter App</i> > <i>Desktop shortcut</i> for the selected unit).
-gts:worker	Starts in Worker setting.
- gts:workingDir= <directorypath> h>	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)	

GTS environment variable	Description / example	Old SUT variable
GT_TELEMETRY	1 if <i>Send telemetry data</i> is activated, otherwise 0	
GTFC_ADMIN	contains the result of the switch <i>Is GTfC Admin</i> in <i>GENIUS TOOLS Project Configurator > Organization > Access > Role > Function Access</i>	TBXADMIN
GTS_APPS_DIR	Finds the selected, application-specific directory for add-on applications. <Caddepot>\<operatingenvironment>\<application>\apps	
(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_CREO_INSTALL_DEFINITIONS_DIR	definitions directory under the install folder	
GTS_CREO_INSTALL_DIAGNOSTIC	1 if <i>diagnostic tools</i> are activated, otherwise 0	
GTS_CREO_INSTALL_FIREWALL	1 if <i>Write firewall entries</i> is activated, otherwise 0	
GTS_CREO_INSTALL_HELP	1 if <i>Install help</i> is activated, otherwise 0	

GTS environment variable	Description / example	Old SUT variable
GTS_CREO_INSTALL_HELP_XML_DIR	XML directory for the help (install/definitions/<Unit or standard>/XML/help_Creo<MainVersion>)	
GTS_CREO_INSTALL_MAIN_VERSION	Creo main version to be installed	
GTS_CREO_INSTALL_TASKKILL	1 if <i>Taskkill</i> is activated, otherwise 0	
GTS_CREO_INSTALL_UNITS_FOLDERS	List of the currently selected units (e. g. "Germany Leipzig Construction")	
GTS_CREO_INSTALL_UPGRADE	-upgrade if the installation type was set to upgrade, otherwise ""	
GTS_CREO_INSTALL_VERSION	Creo version to be installed (e. g. 11.0.1.0)	
GTS_CREO_INSTALL_VIEWER	1 if <i>Install Thumbnail Viewer</i> is activated, otherwise 0	
GTS_CREO_INSTALL_XML_DIR	XML directory (install/definitions/<Unit or standard>/XML/Creo<MainVersion>)	
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_MAIN_SERVER_DIR	Server path of the main server	

GTS environment variable	Description / example	Old SUT variable
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_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 GTS_PROJECT_DIR.)	
GTS_PROJECT_NAME	Name of current project	SUT_PROJECT_NAME
GTS_PSF_KEY_USED	Name of the selected Creo start key	
GTS_ROOT_DIR	Main directory of the operating environment	SUT_ROOT_DIR
GTS_SATELLITEONLY_DIR	Directory that only exists on the main server and the satellite	
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 environment variable	Description / example	Old SUT variable
GTS_UNIT_DIR	Finds the selected unit directory, from version 9.0 application-specific. Path: <Caddepot>\<operatingenvironment>\<application>\configuration\units\<unitdirectoryname>	as of version 11.0, use instead of: GTS_USER_GROUP, GTS_COMPUTER_GROUP
GTS_UNIT_DIR_NAME	Name of unit directory	
GTS_UNIT_NAME	Name of unit that is selected by the user	
GTS_USER	Contains the alias name of the user entry in GENIUS TOOLS Starter („GTS alias“)	STOOLS_USER
GTS_USER_COMMENT	Contains the comment of the user entry in GENIUS TOOLS Starter	
GTS_USER_CONFIG_DIR	Directory that contains the personal settings of users	USER_CONFIG_DIR
GTS_USER_EMAIL	Contains the email address of the user entry in GENIUS TOOLS Starter	
GTS_USER_LW	Letter of user drive	STOOLS_USER_LW
GTS_USERLONG	Contains the long alias name of the user entry in GENIUS TOOLS Starter („GTS alias long“)	STOOLS_USER_LONG
GTS_USERSHORT	Contains the short alias name of the user entry in GENIUS TOOLS Starter („GTS alias short“)	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 environment variable	Description / example	Old SUT variable
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 Batch files

Batch files can be run at different times during the start of a project, before or after the desktop application (e.g. Creo Parametric) has been started.

Types of batch files

Batch files that configure the CAD applications Creo Parametric, Inventor und SolidWorks have to start with one of the following prefixes.

For all other applications, e. g. Creo Elements/Direct Modeling, Apps projects and Auto projects, only start batch files can be executed.

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_ batch</i> 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 unit) > Creo Settings > Startup Settings</i> .

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.

User or computer-specific batch files

GENIUS TOOLS Starter can call batch files depending on which user or computer starts a project. These batch files and their call sequence do not differ from the general batch files.

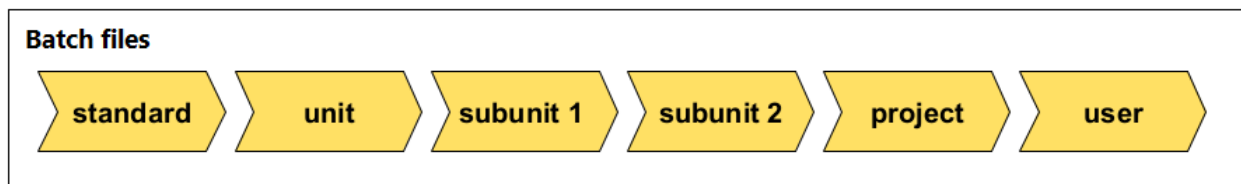
Use the following prefixes and be careful not to use special characters.

Batch file	Prefix (without the characters <>)	Example
User-dependent	U_<WindowsUsername>_ >_	U_MUELLER_stop_copy_workspace.bat
Computer-dependent	C_<WindowsComputername>_ >_	C_CAD13_start_map_drive.bat

Please note: User and computer groups are converted into units when updating to version 11.0.0.0 and later. Configuration blocks that were created for user or computer groups (UG_<nameofusergroup>_config.pro or CG_<nameofcomputergroup>_config.pro), will be migrated into a new unit directory of the same name.

Call hierarchy for batch files

Batch files are started in the order that they are located in the configuration layers, starting from the standard directory and ending with the users directory.



Call hierarchy for batch files of a Starter project

9 Test environment

Using a test environment allows administrators to check any changes before adding them to the productive environment. It is important that the test environment corresponds exactly to the productive environment. Test and productive environment should be located in the same Caddepot.

Test environment in a different Caddepot

It is possible in theory to create a test environment in a different Caddepot, i.e., on a different server or share, but it is not recommended. There is a Caddepot entry in the configuration database which points to the Caddepot of the productive environment. The name of the Caddepot can be changed for the test environment using GENIUS TOOLS Environment Administrator before the environment is first used. However, as soon as users have accessed a work environment, the Caddepot name cannot be changed anymore.

This means that you cannot copy the configuration database back to the productive environment from the test environment. If you need to do this, copy the test environment again after testing to have a pristine, unused environment, then change the Caddepot name using GENIUS TOOLS Environment Administrator, then copy back the database.

Local test environment

Use a local test environment if the administrator is also the only user. Copy the productive environment into a local directory, then deactivate synchronization for the copied environment using GENIUS TOOLS Environment Administrator.

Warning: Remember to reactivate the synchronization before you copy the configuration database back to the productive environment!

9.1 Creating a test environment

Create a test environment by making a copy of the productive environment. Distribute the test environment to the test users in the same way as you would first distribute any other work environment. Afterwards, the Cadpool of test users will contain both environments.

Hint: In order to keep the test environment up-to-date with the productive environment, use a third-party synchronization tool such as FreeFileSync in mirror mode.

To move any changes from the test environment to the productive environment, just copy the changed files. To find the changes quickly, use a synchronization tool.

Warning: The configuration database ...\\configuration\\database\\sut.db is linked to the GENIUS TOOLS Starter App software version. If you have changed the software version in the test environment, for example to test an update, remember to copy the ..\\software directory together with the database.

To immediately recognize the environment in which one is working, we recommend to:

- add a different image file in the test environment in the Images directory:
caddepot/<NameOperatingEnvironment>/_Images
The name of the image file has to be the same as the operating environment.

caddepot > INNEO_TEST > _Images



or

- delete the image file from the Images folder of the test environment. This results in the display of the name of the operating environment without a logo, as in the example below.

Example

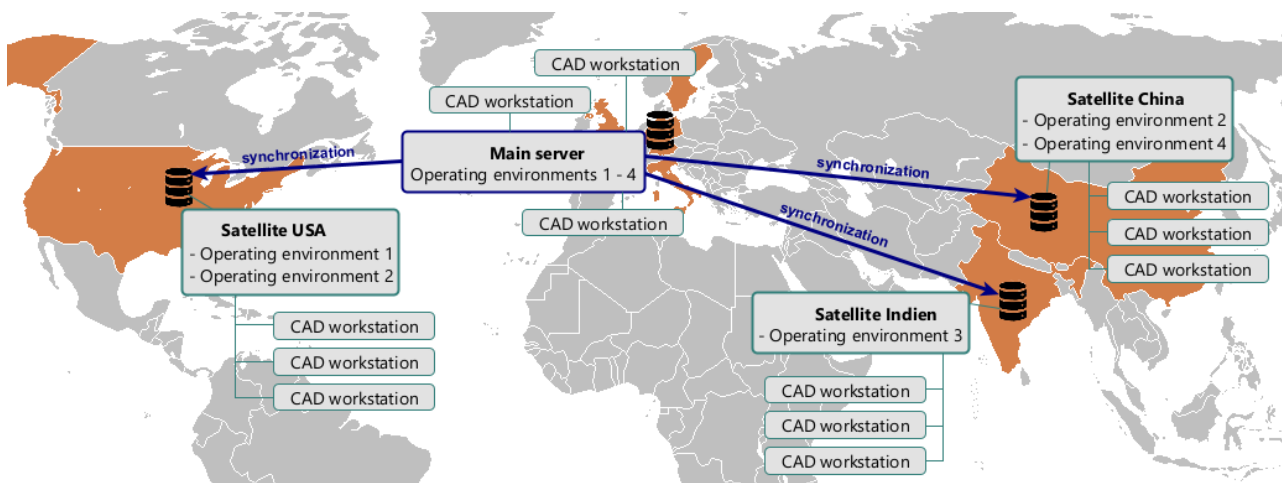
Productive environment	Test environment
\\SRVCAD01\\caddepot\\inneo	\\SRVCAD01\\caddepot\\inneo_test
Hint: If you are using GENIUS TOOLS for Creo, you can also add information to the empty Creo graphics window.	
<pre> INNEO Solutions GmbH GENIUS TOOLS Starter 11.0.0.6634 GENIUS TOOLS for Creo: 11.0.0.1222 C:\PTC\Creo 11.0.0.0\Parametric\bin\parametric.psf Working environment: INNEO UNIT: Development PTC_WF_ROOT: C:\Users\ahelk\AppData\Roaming\PTC\ProENGINEER\creo11 Project: INNEO_sut_creo11p Data: C:\GTSTARTER\cadpool\INNEO\parametric\data\inneo </pre>	<pre> INNEO Solutions GmbH GENIUS TOOLS Starter 11.0.0.6634 GENIUS TOOLS for Creo: 11.0.0.1222 C:\PTC\Creo 11.0.0.0\Parametric\bin\parametric.psf Working environment: INNEO_TEST UNIT: Development PTC_WF_ROOT: C:\Users\ahelk\AppData\Roaming\PTC\ProENGINEER\creo11 Project: INNEO_sut_creo11p Data: C:\GTSTARTER\cadpool\INNEO\parametric\data\inneo </pre>

10 Working with satellites

Data synchronization can be operated with satellites from version 7.0.1.0. A satellite is a server on which the state of one or more operating environments of a central main server is mirrored.

Using this method, business locations with a slow connection to the main server would instead access a satellite, which can significantly reduce the time needed for data synchronization, see [Standard scenario with satellites](#).

The satellite or main server assigned to the unit in the organization tree is used for synchronization. You can check in the log file *gts-starter-INNEO.log* whether GENIUS TOOLS Starter is able to access the satellites.



Please note: Git-versioned operating environment cannot be operated with satellites.

Active and passive satellites

You may operate active or passive satellites.

An active satellite is a server that request data to be synchronized from the main server at a defined time interval. This requires the GENIUS TOOLS Starter services, GENIUS TOOLS Sync Service and GENIUS TOOLS Control Service.

A passive satellite is a shared directory on a computer, to which data from the main server is copied. It does not require the services.

Active satellite	Passive satellite
Server	Shared folder on a computer
Requires GENIUS TOOLS Starter services	No service required

Active satellite	Passive satellite
Changes in files on the main server will be synchronized to the target with the next synchronization according to the defined time interval	Changes in files on the main server will be synchronized immediately. The defined synchronization interval serves as a back up, meaning that after this period all files will be synchronized at the latest.

10.1 Registering GENIUS TOOLS Starter services

The services of GENIUS TOOLS Starter provide a further type of data synchronization.

GENIUS TOOLS Starter Sync Service reduces the synchronization time significantly, since not every file must be copied, only altered data is loaded by GENIUS TOOLS Starter App. This variant offers a clear advantage, especially with slower connection speeds.

The synchronization service monitors the caddepot for changes and makes this information available to the operating environments in a ZIP file:

`\\<installationdirectory>\caddepot\<operatingenvironment>\gts_filetree_structure.zip`

GENIUS TOOLS Starter Control Service monitors the data synchronization. Only this control service requires administrator rights. The synchronization service can run under lower access rights.

The services are installed on the installation computer with the software setups for GENIUS TOOLS Starter and GENIUS TOOLS Startup TOOLS. Alternatively, they can be started subsequently in the installation depot under the directory *gts-service-latest*. Only the latest version is installed.

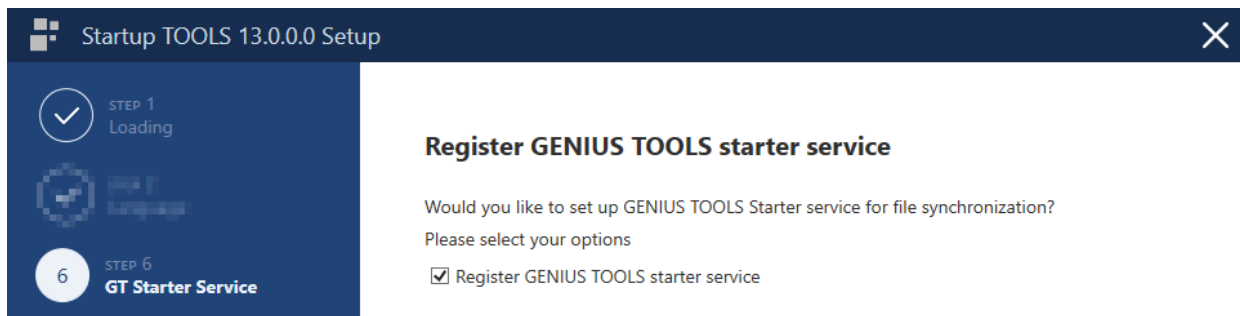
The services are only registered and started if this has been selected in the installation wizard for GENIUS TOOLS Starter. The control service starts automatically with Windows and activates the synchronization service.

Warning: The services automatically find the caddepot, therefore they must not be located elsewhere. Neither can they be renamed.

Procedure

Execute setup

1. Open the setup file for GENIUS TOOLS Starter (*setup-GENIUS-TOOLS-<Version>-software.exe*) or Startup TOOLS (*setup-Startup-TOOLS-<Version>-software.exe*) on the main server, that is, the server where the Caddepot directory is located.
2. In the installation assistant in step 6, check the box *Register GENIUS TOOLS Starter services*.



Result: The setup

- creates generates the required approvals Caddepot and GTStarter (if selected),
- installs GENIUS TOOLS Starter Control Service und GENIUS TOOLS Starter Sync Service.

Retroactive Registration

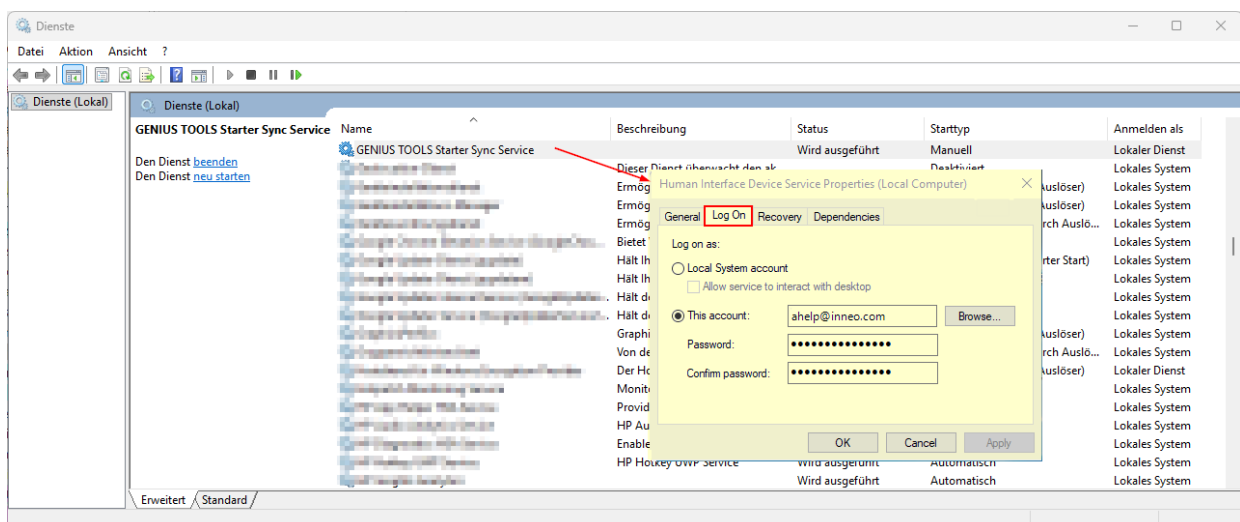
If the services are not registered during setup, this can be done later using the file *registerControlService.cmd* from the directory *gts-service-latest*. You will need administrator permissions to do so.

Set up account for the control service on main server

By default, the GENIUS TOOLS Starter Control Service is registered under the "LocalSystem" account.

3. Verify that local service user (LocalSystem) for the control service has write permissions on network drives. If the local system user does not have write access, specify a different account for the service that has administration rights. Follow the steps described under a or under b.

a. Settings in Windows under Services:



- Right-click the service entry and select Properties.
- In the Log On tab, switch from Local Service to a user who has write permissions on network drives. Specify the domain.

- Replace the default password placeholders provided by Windows with the user's password.
- In the next dialog box, confirm that the account used to run the GENIUS TOOLS Starter Control Service has read access by checking the checkbox.
- b. Alternatively, you can manually create a configuration file for the main server in the Conf directory:
 - Path: *installdepot\gts-service-latest\conf*
 - Create a text file with the name of the main server and the extension ".conf":
gt_service_<mainservername>.conf
 - Write these two configuration options into the file:

```
service.control.user=<Domain>\<WindowsUserName>
service.control.password=Password
```

Set up account for synchronization service on main server

By default, the GENIUS TOOLS Starter Sync Service is registered under the "LocalSystem" account.

4. Verify that local service user (LocalSystem) for the synchronization service has read permissions on network drives. If the local service user does not have read access, specify a different account for the service that has these rights. Follow the steps described in step 3 under a or under b. If you are following the procedure under b, you need to write these two configuration options in the CONF file for the main server.

```
service.sync.user=<Domain>\<WindowsUserName>
service.sync.password=Password
```

Edit configuration file for main server

- Steps 5–7 can be executed in GENIUS TOOLS Project Configurator under the Satellites menu item in *Mainserver > Edit (configuration file)* .
- 5. Open the main server file *gt_service_<mainservername>.cfg*, which has been created by the setup in the Conf directory. Path: *installdepot\gts-service-latest\conf*
 - These two entries must not be changed:


```
service.type=main
service.rest.baseaddress=<mainservername>
```
 - This entry must only be changed, if the port has changed:


```
service.rest.baseaddress=<mainservername>:<port>
```
- 6. Decide whether to use the web API. The web API allows you to start and stop GENIUS TOOLS Starter .
 - The configuration option `service.use.webapi` enables the Web API, that means that in the Satellites menu item in GENIUS TOOLS Project Configurator, the Synchronize, Restart and Exit" buttons are active. You can specify this setting for all satellites in the

main server's configuration file or for individual satellites in their respective satellite files.

- If port 8092 is not available, change the default port setting for the REST API in the configuration option `service.rest.port`.

7. To enter more specifications for the main server, edit the commands listed in the table [Configuration](#)

Create Windows Defender Firewall rules on the main server

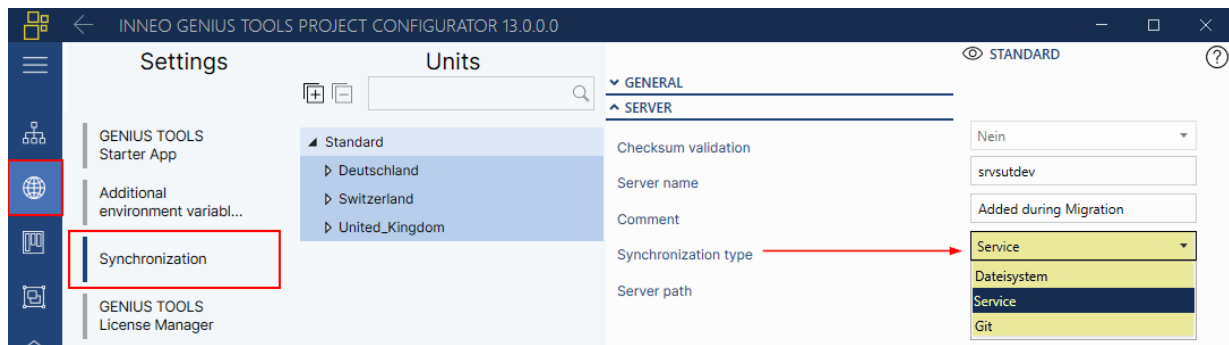
- Steps 8–11 are not applicable, if you are not using the REST API for satellite management.
- You can substitute these steps by specifying this configuration option in the main server's configuration file:

```
service.add.firewall=1
```

- Open the Windows Defender Firewall with the key combination Win + R and enter "wf.msc" in the input field.
- Click on *Inbound Rules* in the left column.
- Create a new rule under *Action*. The dialog window *Assistant for new inbound rules* opens.
- Choose the following settings:
 - Rule Type: Port
 - Protocol and Ports: Tick *TCP* and *Custom local ports*
Read the value for *Custom local ports* from the entry `service.rest.port` in the configuration file `gt_service_<mainservername>.cfg`. The default value is 8092.
 - Action: Check *Allow the connection*.
 - Profile: Check the required profile.
 - Name: Enter a name for the firewall rule.
- Save the rule.
- Restart the service.

Change the synchronization type

- After installing the GENIUS TOOLS Starter services you need to switch the synchronization type to *Service* in *Configuration > Synchronization > Server* in GENIUS TOOLS Project Configurator.

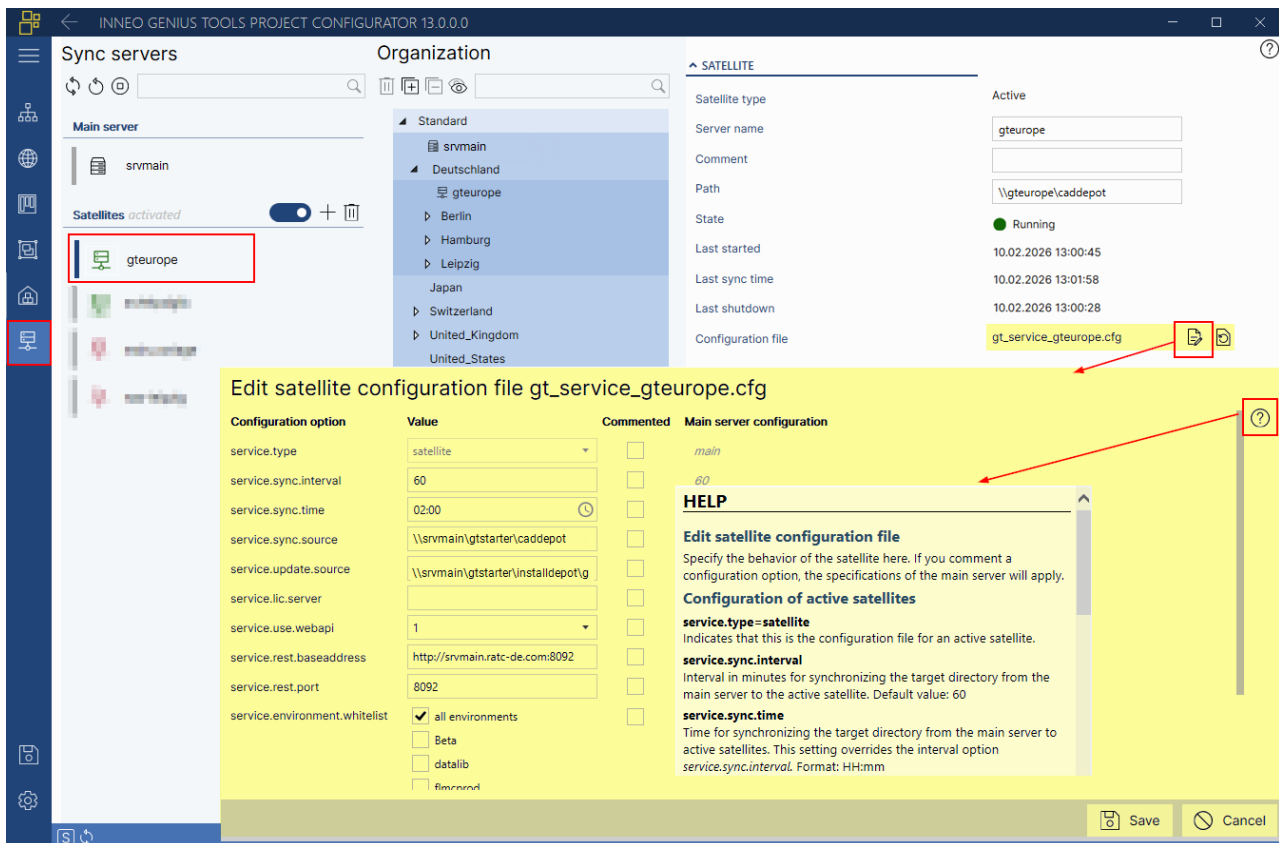


10.2 Operating active satellites

A computer will be installed as a satellite if you specify this in a configuration file of GENIUS TOOLS Starter Sync Service.

Follow these instruction for setting up active satellites. Please note:

- The path to the main server is specified in GENIUS TOOLS Environment Administrator.
- You need a free port for the REST API if you want to access satellites remotely, i.e., if you want to restart the satellite or start synchronization. Without using the REST API, the synchronization service must be started or shut down directly on the satellite. To stop the synchronization service without using the REST API, you must also stop the Control Service directly on the satellite.
- Configuration files for main server and satellites are located in the Conf directory (*installdepot\gts-service-latest\conf*). The *Satellites*  menu contains an overview of all satellites, i. e. the configuration files (CFG files) in the Conf directory, and displays their status. Configuration files can be edited in GENIUS TOOLS Project Configurator or directly with a text editor.



Dialog for satellite configuration options with program help in GENIUS TOOLS Project Configurator

Install GENIUS TOOLS Starter services on main server

1. Follow the steps in chapter [Registering GENIUS TOOLS Starter services](#).

Result: The GENIUS TOOLS Starter setup creates the following files under `\<mainserver>\gtstarter\installdepot\gts-service-latest\conf\`

- `gt_service_main.cfg` for the base configuration. This file must not be edited.
- `gt_service_<mainservername>.cfg` for the configuration of the main server. This file can be partially modified.
- `gt_service_satellite.cfg` is the copy template for active satellites.
- `gt_service_share.cfg` is the copy template for passive satellites.
- `_gt_service_main_template.cfg` is the template file of the current version to see which options are available and which values are allowed.

Install GENIUS TOOLS Starter services on the satellite

2. On the computer that is to function as a satellite: Download the GENIUS TOOLS Starter Services setup at www.inneo.co.uk > [Download](#) > [GENIUS TOOLS Downloads](#) > [GENIUS TOOLS Starter](#) and click on [Service](#). This will download the service setup `setup-GENIUS-TOOLS-Starter-Satellite-Service-XXX-software.exe`. Open this file.
3. In the dialog *Target directory* enter the path to the installation directory.

4. In the dialog *GENIUS TOOLS Starter Service*:

- Enter the name of the main server.
- If port 8092 is not free, change the default port setting for the RestAPI.
- Check the box to register the services.

5. In the next dialog check the box *Create net shares CADDEPOT / GTStarter* or create the net shares manually.

Result:

- The setup
 - creates the corresponding directory structure on the computer (caddepot/installdepot/mediadepot),
 - generates the required approvals Caddepot and GTStarter (if selected),
 - installs, registers and starts GENIUS TOOLS Starter Control Service and GENIUS TOOLS Starter Sync Service.
- These two services of GENIUS TOOLS Starter load the configuration files from the main server and restarts themselves. The configuration settings are used on the satellite.
- The satellites communicate their current status to the main server via an interface and are read into GENIUS TOOLS Project Configurator. The administrator can monitor the status of the satellites there. Additionally, the freeware GENIUS TOOLS Flexnet Watcher can be used for monitoring purposes.

Set up account for the control service on the main server

6. Verify that the user account has administration rights for the service GENIUS TOOLS Starter Control Service, as described in step 3 in the [previous chapter](#).

Set up account for the synchronization service on the main server

7. Verify that the user account has read access for the service GENIUS TOOLS Starter Sync Service, as described in step 3 in the [previous chapter](#).

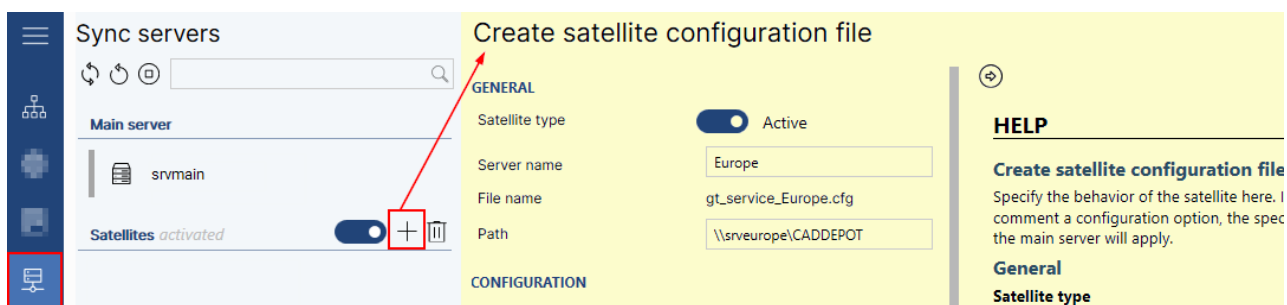
Check synchronization type

8. Check in GENIUS TOOLS Project Configurator that the synchronization type has been switched to *Service* in *Configuration > Synchronization > Server*. (Step 14 in previous chapter.)

Create configuration file for each active satellite

Configuration files (CFG files) can be created in GENIUS TOOLS Project Configurator in the Satellite menu item.

9. Turn on the switch *Satellites*.
10. Add further satellites by pressing the Plus symbol **+**.



Alternatively, you can create a configuration file directly in the Conf directory (\<mainserver>\gtstarter\installdpot\gts-service-latest\conf).

11. In the Conf directory copy the file *gt_service_satellite.cfg*
12. Rename the file to *gt_service_<activesatellitename>.cfg*.
13. The file contains one command that must not be changed:

```
service.type=satellite
```
14. Add the remaining information from the table [Configuration options](#) or follow the instructions in the program help in GENIUS TOOLS Project Configurator.
15. Each active satellite requires a separate file.

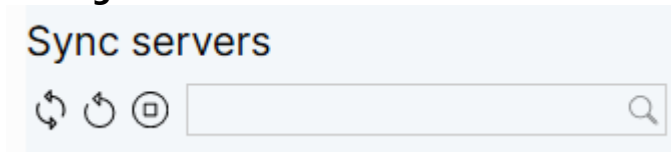
Restart services on main server

16. Start the GENIUS TOOLS Starter services on the main server fresh. You can do this directly on the server or in GENIUS TOOLS Project Configurator by selecting the main server and clicking the Restart button

Allocate satellites in GENIUS TOOLS Project Configurator

17. Satellites can be assigned to one or more units in the organization tree via drag-and-drop. If multiple satellites are assigned to one unit, GENIUS TOOLS Starter selects the fastest satellite for synchronization. By default, all synchronization servers are listed under *Standard*.
18. You can select a fallback synchronization server, which is used if a unit cannot access its assigned satellite or if a unit has no satellite assigned.

Manage satellites

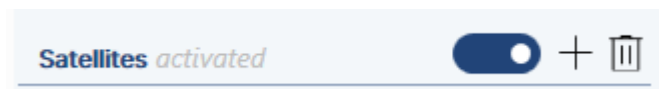


- Synchronize: Data synchronization is triggered.
- Restart: Starts the services on the selected satellite.
- Stop: Stops the services on the selected satellite.

Please also refer to the chapter *GENIUS TOOLS Project Configurator > Working with Satellites* in the GENIUS TOOLS Starter manual.

Delete satellites

- Delete: Removes the satellite and the CFG file.



Please note: If you delete a configuration file from the directory `installdepot\gts-service-latest\conf`, the satellite will still appear in the list since the file is still stored in the database. Synchronization with this satellite will fail. Selecting *Delete* will result in the complete removal of the satellite.

Monitoring satellites

The availability of satellites and synchronization process can be checked in GENIUS TOOLS Project Configurator in the menu item *Satellites* under *State*. The freeware GENIUS TOOLS Flexnet Watcher can also be used to monitor the availability of satellites.

Updating satellites

Satellites are updated automatically. Software updates from GENIUS TOOLS Starter services are uploaded to the main server via the setup. With the next synchronization, the satellite downloads the update and restarts itself automatically.

10.3 Operating passive satellites

A share on a computer will be installed as a passive satellite if you specify this in a configuration file of GENIUS TOOLS Starter services.

For setting up passive satellites, follow these steps:

Install GENIUS TOOLS Starter on main server

1. Install the setup for GENIUS TOOLS Starter, as described in chapter [Software setup](#).

Setting up GENIUS TOOLS Starter services on main server

2. Follow the steps as described in the [Registering GENIUS TOOLS Starter services](#).

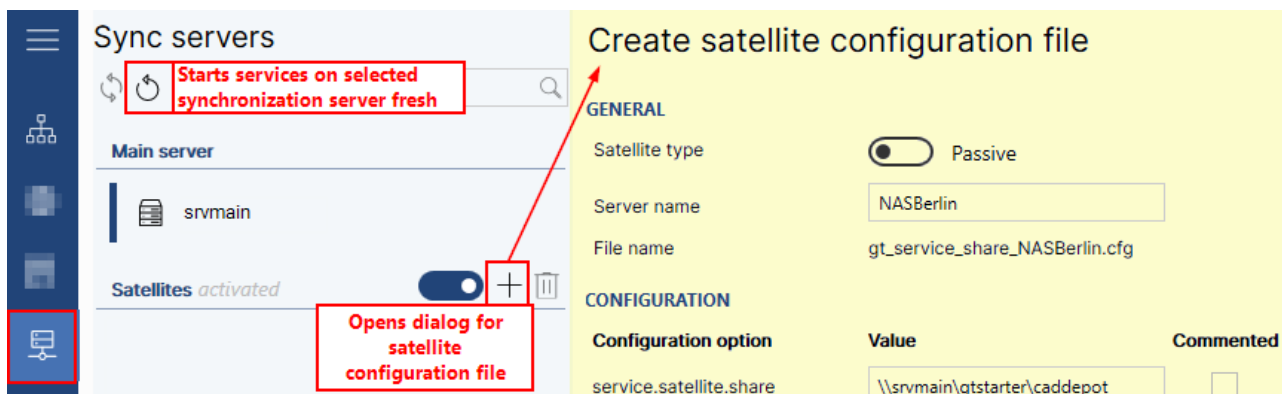
Check synchronization type

3. Check in GENIUS TOOLS Project Configurator that the synchronization type has been switched to *Service* in *Configuration > Synchronization > Server*. (Step 14 in previous chapter.)

Create configuration file for each passive satellite

The following steps can be carried out in the Satellites  menu item in GENIUS TOOLS Project Configurator.

4. Turn on the switch *Satellites*.
5. Add further satellites by pressing the Plus symbol .



Alternatively, you can manually create a CFG file in the Conf directory (`\<mainserver>\gtstarter\installdpot\gts-service-latest\conf`).

6. In the Conf directory copy the file `gt_service_share.cfg`
7. Rename the file to `gt_service_share_<displayname>.cfg`. The display name is the name shown in GENIUS TOOLS Project Configurator.
8. Add the information from the table [Configuration options](#) or follow the instructions in the program help in GENIUS TOOLS Project Configurator. The following configuration options are necessary.

```
service.share.name=
service.satellite.share=
```

9. Each passive satellite requires a separate file.

Connect satellites

10. Proceed with step 17 and following of the chapter [Operating active satellites](#).

10.4 Configuration options for satellites

Settings for satellites

The configuration options listed in the following table define the behavior of the main server and the satellites. You can either enter this information manually into the CFG configuration files or specify it in GENIUS TOOLS Project Configurator.

<code>gt_service_<mainservername>.cfg</code>	Settings for the main server (M).
<code>gt_service_<satellitename>.cfg</code>	Settings for an active satellite (A).
<code>gt_service_share_<displayname>.cfg</code>	Settings for an passive satellite (P).

Please note: If the configuration files for the main server and satellites contain different information, the setting of the satellite applies.

Command / configuration option	Required?	Explanation
<code>service.type=</code>	X (M,A)	Information, that this is the configuration file for the main server (main) or satellite (satellite)
<code>service.rest.baseaddress=</code>	X (M)	Enter name of main server or URL in notation <code>http://<mainservername>:<portnummer></code>
<code>service.sync.interval=</code>		Interval in minutes after which the active satellite will be synchronized from the main server. Default value: 60
<code>service.sync.time=</code>		Time (HH:mm) at which the active satellite is synchronized from the main server. This setting overrides <code>service.sync.interval</code> .

Command / configuration option	Required?	Explanation
<code>service.sync.source=</code>	X	Path of the caddepot directory that will be synchronized from: \\<mainserver>\gtstarter\caddepot
<code>service.update.source=</code>	X	Path to the GENIUS TOOLS Service directory on mainserver: \\<mainserver>\gtstarter\ installdepot\gt-service-latest
<code>service.lic.server=</code>	X	Address of GENIUS TOOLS License server, e.g. 7788@gtslicensesserver
<code>service.rest.port=</code>	X (M)	Port for the web API. Standard port: 8092
<code>service.environment.whitelist=</code>		Operating environments that are to be synchronized from the main server to the satellite: <environment1>,<environment2>: name(s) of operating environment(s): (list, separated by colon) <leer> (empty entry) : all environments

Command / configuration option	Required?	Explanation
<code>service.push.whitelist=</code>		Directories that are synchronized immediately when changes are made, regardless of the synchronization interval: <code>none</code> (default): no triggering before the synchronization interval expires <code>software</code>: GENIUS TOOLS Starter services software (<i>installdepot\gts-service-latest</i>) and GENIUS TOOLS Starter (<i>caddepot\<operatingenvironment>\software</i>) specify directories: <code><directory1>, <directory2></code> (list, separated by colon): Name(s) of directory / directories <code><leer></code> (no entry) – all data is synchronized immediately when changes are made
<code>debug=</code>		0 (default): No debug output is written to the log file. 1: Debug output is written.
<code>service.satellite.share=</code>	X (P)	Path to the Caddepot directory that is the synchronization target: <code>\\<rechnername>\<freigabename>\-<caddepot></code>
<code>share.sync.interval=</code>		Interval in minutes for synchronizing the target directory from the main server on the passive satellite. Default value: 480
<code>share.sync.time=</code>		Time (HH:mm) at which the passive satellite is synchronized from the main server. This setting overrides <code>share.sync.interval</code> .
<code>service.share.name=</code>	X (P)	Display name of the passive satellite in GENIUS TOOLS Project Configurator.

Command / configuration option	Required?	Explanation
<code>service.add.firewall=</code>		1 (default): Directories on passive satellites are automatically shared. 0: Directories on passive satellites must be shared manually.
<code>service.use.webapi=</code>		Defines, whether the web API is activated. The web API is needed to start and stop GENIUS TOOLS Starter Sync Service remotely on a satellite. 1 (default): Activates web API. In the Satellites menu item in GENIUS TOOLS Project Configurator, the Synchronize, Restart, and Stop buttons are active. 0: Web API is not activated.

Settings for passwords

These configuration options are used to register the GENIUS TOOLS Starter Control Service and GENIUS TOOLS Starter Sync Service. The settings must be specified in the Conf directory in a CONF file whose name matches the name of the CFG file for the main server or the respective satellite. This file is deleted after the services have been registered.

service.control.user

The control service is registered under this user. Specification:

<Domain>\<WindowsUsername>

service.control.password

The control service is registered under this user. Specification: Password

service.sync.user

The synchronization service is registered under this user. Specification:

<Domain>\<WindowsUsername>

service.sync.password

The synchronization service is registered under this user. Specification: Password

11 Operating mainserver in cloud

In this installation scenario, the main server and the license server are located in the Inneo cloud.

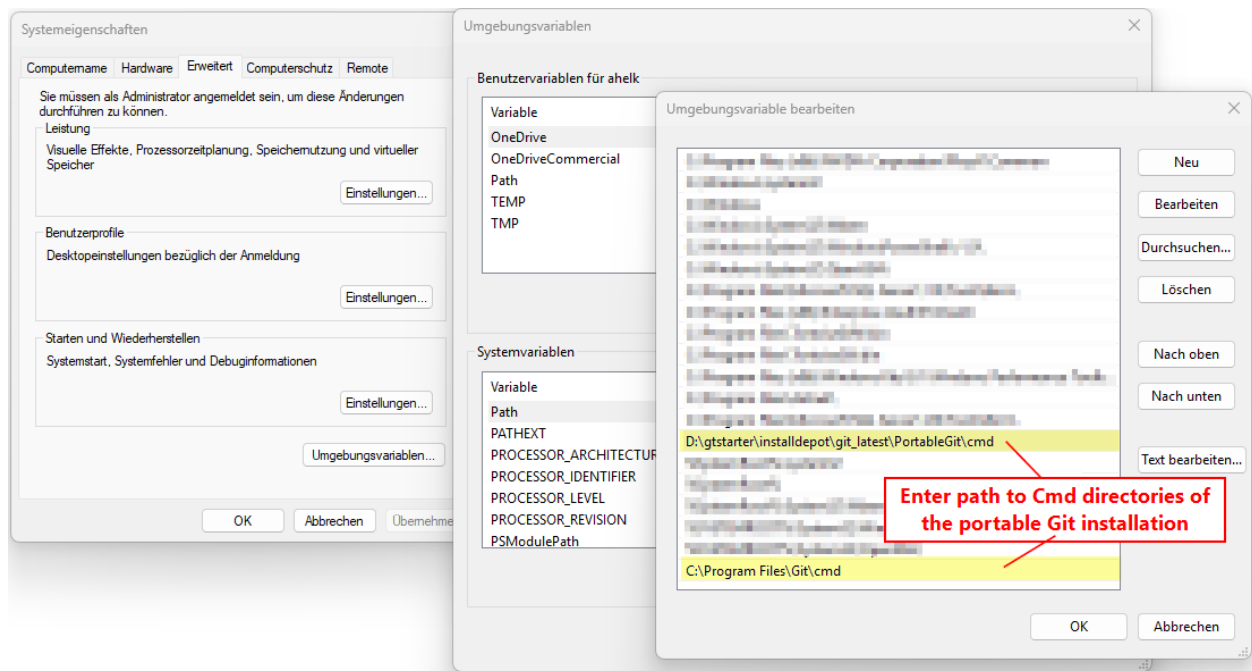
The main server contains the caddepot and the Git repositories with the operating environments. These are the synchronization sources for the user computers. The service Gitea is used for synchronization.

11.1 Installing Git and Gitea

To run the version control system Git the management software Gitea is required. Follow these steps:

Installing Git

1. Go to the Git website at git-scm.com/install/windows and download (a) the portable version (Git for Windows/x64 Portable) or (b) the Windows installer (Git for Windows). You need administrator rights for the Windows installation.
2. Run the setup.
 - a. For the portable version, run the setup file with the target directory:
`<installation directory>\Installdepot\git-latest\PortableGit`
 - b. For the Windows installation, run the following CMD command:
`winget install --id Git.Git -e --source winget`
3. a. For the portable version:
 - Change the value of the environment variable "Path" under *System Properties > Advanced > Environment Variables*. Edit the system variable *Path*, not the user variable.
 - Enter the path to the Cmd subdirectory of your portable Git installation in all paths ending with "cmd".

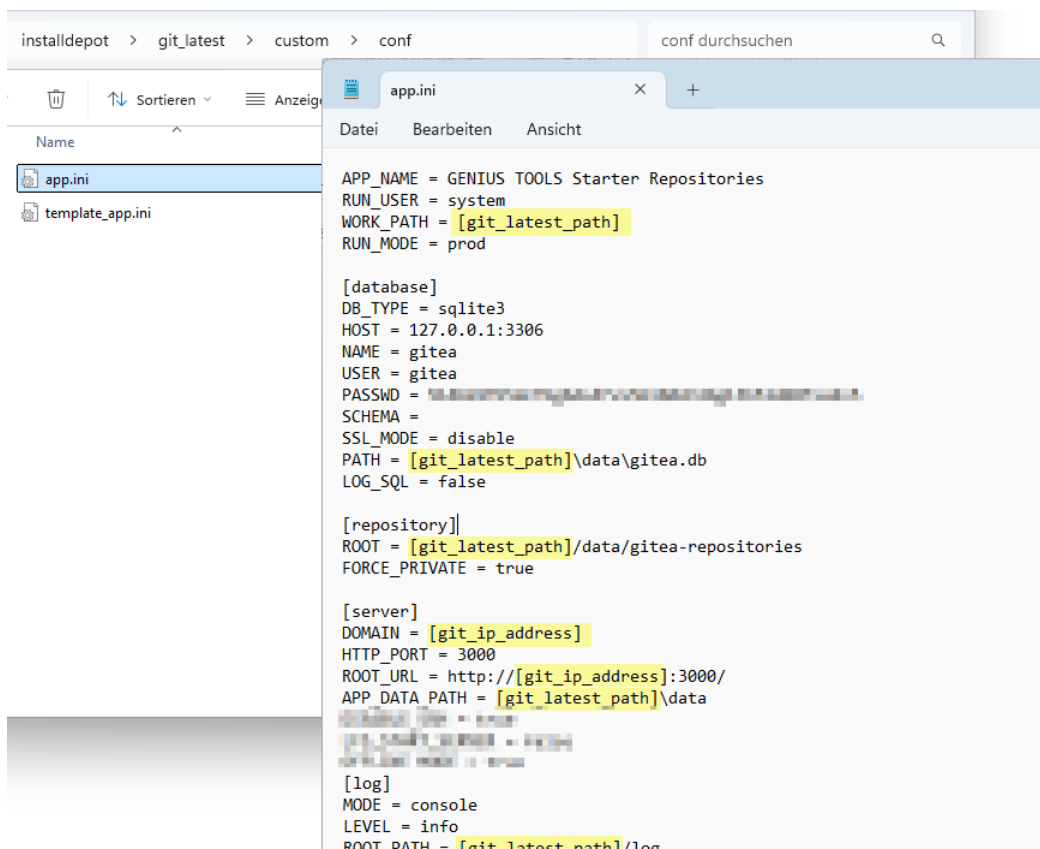


Download Gitea

- Go to the website <https://about.gitea.com/products/gitea>
- Download the software for Windows.
- Place the setup file in the Installdepot directory, in the folder *git-latest*, and rename it to: *gitea.exe*

Enter paths in INI file

- Open the file *app.ini* in the configuration directory *conf*:
installdepot\git_latest\custom\conf\app.ini
- Enter the path to the directory *git_latest* wherever you see the placeholder *[git_latest_path]*.
- Enter the name of the computer that contains the Git repository wherever the placeholder *[git_ip_address]* appears.



Restart Gitea service

10. Setup Gitea as a service and restart it on the main server.

Updating Git and Gitea

11. Install software updates for Git and Gitea as soon as they become available.

Please note: Stay informed about the availability of software updates and potential security vulnerabilities.

Create or migrate git-versioned operating environments

12. To integrate your operating environments into Git, they are created as Git repositories with GENIUS TOOLS Environment Administrator. Follow the steps described in the chapter <%TARGETTITLE%>.

11.2 Gitea INI configuration

This configuration describes a local Gitea instance for managing the GENIUS TOOLS repositories.

Two key placeholders are used:

Placeholder	Meaning
<caddepot>\\git-latest	Gitea installation and data directory

Placeholder	Meaning
[git_ip_address]	IP address or hostname of the Git server

1. General configuration

APP_NAME = GENIUS TOOLS Starter Repositories

RUN_USER = system

WORK_PATH = [git_latest_path]

RUN_MODE = prod

WORK_PATH must point to the installation directory:

WORK_PATH = <caddepot>\git-latest

→ The user "system" requires read and write permissions for this directory.

2. Database

[database]

DB_TYPE = sqlite3

HOST = 127.0.0.1:3306

NAME = gitea

USER = gitea

PASSWD = <secret database value>

SCHEMA =

SSL_MODE = disable

PATH = [git_latest_path]\data\gitea.db

LOG_SQL = false

→ Gitea uses an SQLite database. The database is located at:

<caddepot>\git-latest\data\gitea.db

Please note: HOST, NAME, USER, PASSWD, and SSL_MODE are not required for SQLite. The configured password should not be disclosed and must be stored securely.

3. Repository storage

[repository]

ROOT = [git_latest_path]/data/gitea-repositories

FORCE_PRIVATE = true

Meaning of the settings

FORCE_PRIVATE = true New repositories are created as private by default

→ The Git repositories are stored in the following directory:

<caddepot>\git-latest\data\gitea-repositories

4. Server configuration

[server]

DOMAIN = [git_ip_address]

HTTP_PORT = 3000

ROOT_URL = http://[git_ip_address]:3000/

APP_DATA_PATH = [git_latest_path]\data

DISABLE_SSH = true

LFS_START_SERVER = false

OFFLINE_MODE = true

Meaning of the settings

HTTP_PORT = 3000 Gitea uses port 3000.

DISABLE_SSH = true Built-in SSH access is disabled.

LFS_START_SERVER = false Git Large File Storage is disabled.

OFFLINE_MODE = true Gitea does not use any external online services.

APP_DATA_PATH Directory for application data.

Example with one IP address:

DOMAIN = 192.168.1.50

HTTP_PORT = 3000

ROOT_URL = http://192.168.1.50:3000/

APP_DATA_PATH = <caddepot>\git-latest\data

5. Automatic update check

[cron.update_checker]

ENABLED = false

→ The automatic check for new Gitea versions is disabled.

6. Logging

[log]

MODE = console

LEVEL = info

ROOT_PATH = [git_latest_path]/log

Meaning of the settings

LEVEL = info	The "info" logging level records normal operational information.
--------------	--

→ The log files are stored in the following directory:

<caddepot>\git-latest\log

7. Security

[security]

INSTALL_LOCK = true

INTERNAL_TOKEN =

PASSWORD_HASH_ALGO = argon2

Meaning of the settings

INSTALL_LOCK = true	The installation routine is locked.
---------------------	-------------------------------------

INTERNAL_TOKEN =	INTERNAL_TOKEN is not set and should be generated securely if needed.
------------------	---

PASSWORD_HASH_ALGO = argon	Passwords are protected using Argon2.
----------------------------	---------------------------------------

8. HTTPS/SSL Connection: HTTPS provided directly by Gitea

Gitea can provide HTTPS directly:

[server]

PROTOCOL = https

DOMAIN = [git_ip_address]

HTTP_PORT = 443

ROOT_URL = https://[git_ip_address]/

CERT_FILE = <caddepot>\git-latest\cert\gitea.crt

KEY_FILE = <caddepot>\git-latest\cert\gitea.key

Example:

[server]

PROTOCOL = https

DOMAIN = 192.168.1.50

HTTP_PORT = 443

ROOT_URL = https://192.168.1.50/

CERT_FILE = <caddepot>\git-latest\cert\gitea.crt

KEY_FILE = <caddepot>\git-latest\cert\gitea.key

The following files must be present:

<caddepot>\git-latest\cert\gitea.crt

<caddepot>\git-latest\cert\gitea.key

→ The private key gitea.key must be protected and must not be disclosed.

You can then test the connection:

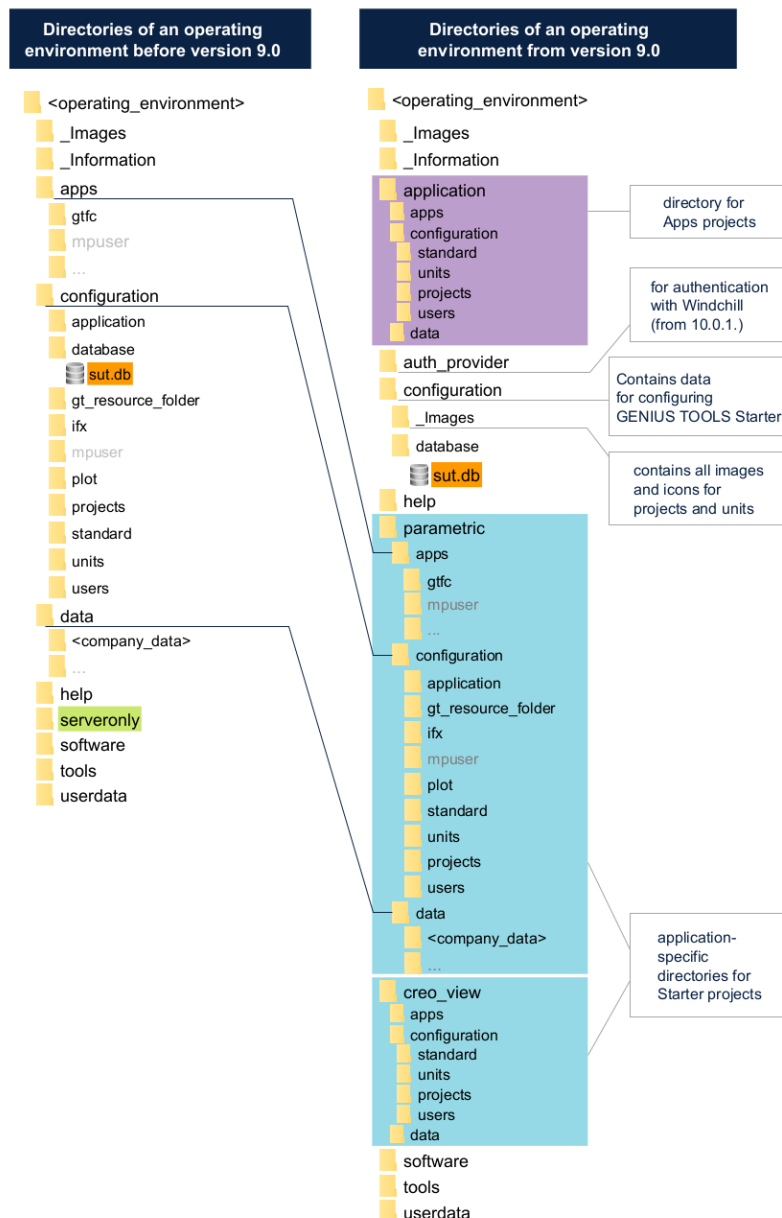
PowerShell

curl.exe https://[git_ip_address]/

12 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 images (JPEG, PNG, SVG) for the operating environment as well as the start icon (ICO). See also chapter *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. Model Processor.

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

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.

satelliteonly is located in the caddepot of the main server and all satellites. It can contain data specific to satellites.

serveronly is located in the caddepot directory of the main server only. 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 and user images. The name of a subfolder corresponds to the login name. See *Create user with image*.

In contrast to the directory in *configuration/Users*, this directory can be managed by the user themselves. See chapter *User-driven configuration*

The following application-specific directories are created:

auto_cad AutoCAD, AutoCAD Architecture, AutoCAD LT and AutoCAD Mechanical

ced_drafting Creo Elements/Direct Drafting

creo_view Creo View

elements_direct Creo Elements/Direct Modeling

geomagic_design_x Geomagic Design X

illustrate Creo Illustrate

inventor Inventor

key_vr KeyVR

keyshot Keyshot

mathcad Mathcad

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

schematics Creo Schematics

solid_works SolidWorks

For some applications, only one Starter project can be created: so-called auto projects.

Please note: Empty directories are not synchronized.

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.

install contains all data and setup files for installing Creo Parametric on user computers.

13 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

When updating to version 11.0.0.0 and newer, existing computer groups will be transformed into 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 services

Method for faster data synchronization. Comprises the services GENIUS TOOLS Starter Control Service and GENIUS TOOLS Starter Sync Service.

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 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 and 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

When updating to version 11.0.0.0 and newer, existing user groups will be transformed into 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.

14 Copyright

Copyright 2026 by:

INNEO Solutions GmbH

IT-Campus 1

73479 Ellwangen

Germany

This documentation is protected by copyright. All rights reserved.

Without prior written consent of an authorized representative of INNEO Solutions GmbH it must not be copied, photocopied, reproduced, translated, communicated or converted to electronic or machine readable form in whole or in part.

The unauthorized use of the documentation can lead to a claim for liquidated damages or legal prosecution. INNEO Solutions GmbH does not accept liability for possible faulty information in this documentation and the consequences resulting from such.

Note on registered trademarks:

Most of the software, hardware and trade names mentioned in this documentation are also registered trademarks of the respective software manufacturers.

Registered trademarks and trade names of INNEO Solutions GmbH:

GENIUS TOOLS, Startup TOOLS, INNEO

- A -

access rights 10
apps directory 87

- B -

batch files 60

- C -

caddepot 7, 17
cadpool 7
configuration directory 87

- D -

data directory 87
data packages 20
data synchronization 5
directory structure 87

- E -

environment variables
 affected environment variables 54
 created environment variables 54

- G -

GENIUS TOOLS Environment Administrator 24
GENIUS TOOLS Starter Service 5
glossary 90

- H -

hardware requirements 9

- I -

install directory 87
installation scenarios 12
installdepot 17

- L -

licenses 4

- M -

mediadepot 17
mirror server 65

- O -

operating environment 7
 add components 31
 create 27
 modify settings 39
 update 36, 46

- P -

parameters
 Start parameters 54

- S -

satellite 65
 configuration options 76
 operate active satellites 70
 operate passive satellites 75
satellites 13
scope of delivery
 GENIUS TOOLS Starter 3
 Startup TOOLS 3
software requirements 9
start parameters 54
synchronization 5
synchronization server 65

- T -

test environment 63

- U -

update 46
 appearances 48
 data packages 48
 hatching 48
 materials 48
user computers
 set up 51