

GENIUS TOOLS[®] 

for Creo

Release 8.0.0.0

News

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1 Important information

License-dependent functions

The following functions are limited to subscription licenses for either GENIUS TOOLS Library or GENIUS TOOLS Parameter.


Release	Function / module	Description
7.0.0.0	Load Save Converter	<p>Converts Creo objects from previous Creo-, Wildfire- or Pro/ENGINEER versions to the currently used version.</p> <p>⇒ Using models from older Creo versions</p>
7.0.0.0	Inspect Revision	<p>Stores all versions of inspection symbols on a drawing. Easily creates an overview of a revision history. (DIN 6770)</p> <p>⇒ Revision history of inspection symbols</p>
7.0.0.0	Open Base Model	<p>Opens geometric base models that are reference sources for features with one click in the context menu of a feature.</p> <p>⇒ Efficient construction of models</p>
7.0.0.0	Extend Relations	<p>Adds functions to model relations that define parameters for models and – in Creo 7.0 – also for bodies.</p> <p>⇒ Efficient construction of models</p> <p>GT_UpdateBodyParamMaterial: Body parameter retrieves material parameter</p> <p>GT_CalculateBodyBoundingBox: Body parameter retrieves bounding box values</p> <p>GT_CalculateBoundingBox: Model parameter retrieves bounding box values</p>
7.0.2.0		<p>GT_UpdateBodyParamMass: Body parameters are filled with body mass.</p>

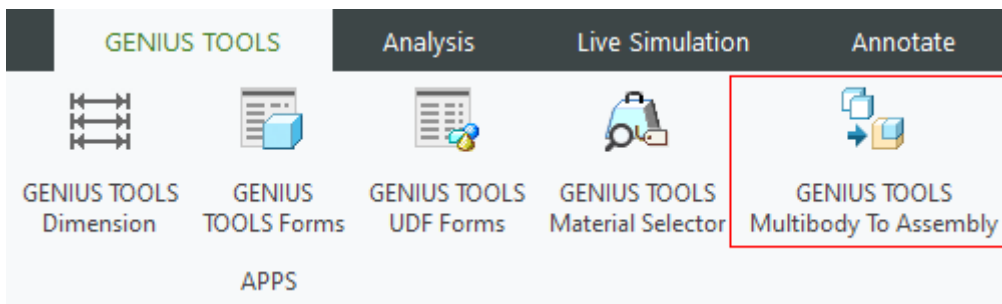
Release	Function / module	Description
7.0.1.0		GT_UpdateBodyParamVolume: Body parameters are filled with the body volume.
		GT_DoubleToString: Rounds parameter values and converts the obtained numbers into strings.
		GT_Round: Rounds parameter values.
8.0.0.0		GT_UnitToString: function converts the unit of a parameter into strings.
7.0.1.0	Select Surfaces By Color	Surfaces of the same color can be selected with one click and be colored or otherwise modified thereafter. ⇒ Efficient construction of models
7.0.1.0	CS Assembler	Automatically adds a number of components to an assembly by deploying a coordinate system (CS). ⇒ Efficient construction of assemblies
7.0.2.0	Extended Dimension Functions	Model dimensions can be increased or decreased very quickly with the mouse in a defined increment in the graphics window. ⇒ Efficient construction of models
7.0.2.0	Copy Component Parameter To Substitution Component Parameter	If a value has been assigned to a component parameter for a part in the master representation, this value can be copied to the component parameter for a simplified part.
7.0.2.0	Toggle Symbol Variants	If a grouped symbol in the first level has variants, these variants can be switched.

2 What's new in release 8

2.1 New component: Multibody to Assembly

This component allows you to transfer parts that have been created with bodies into an assembly structure. Every thus created part will include an external copy-geometry feature that references a body.

GENIUS TOOLS Multibody To Assembly  can be started in the APPS segment of the GENIUS TOOLS ribbon menu while in part mode.



Please note: The function GENIUS TOOLS Multibody To Assembly is only available with subscription licenses for GENIUS TOOLS for Creo.

2.2 GENIUS TOOLS Dimension

Body support

All functions of GENIUS TOOLS Dimension can now be applied to bodies. As of Creo 7.0 bodies are available as elements.

2.3 GENIUS TOOLS Forms

Automatic loading of external forms

If the selected or current model does not contain a form, but has a webcode, a new configuration option checks in a defined directory whether an external forms definition (XML) exists whose name equals the content of the parameter `WEBCODE`. If this is the case, it is loaded into the model and the form is opened.

Other parameter names for reloading externally stored forms can also be specified in the `gtf_autoload_parameter` configuration option. The need for this may, for example, arise

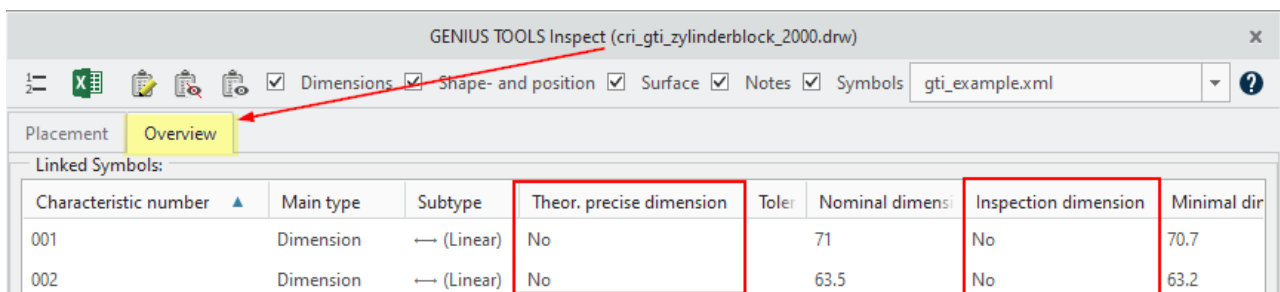
when you transfer models with old data such as models created with MUI – a tool of Startup TOOLS up to version 2018.

2.4 GENIUS TOOLS Inspect

Additional information for linked inspection symbols

In the Overview tab two new columns containing information about all linked inspection symbols can be displayed:

- Theoretically precise dimension
- Inspection dimension



GENIUS TOOLS Inspect (cri_gti_zyylinderblock_2000.drw)

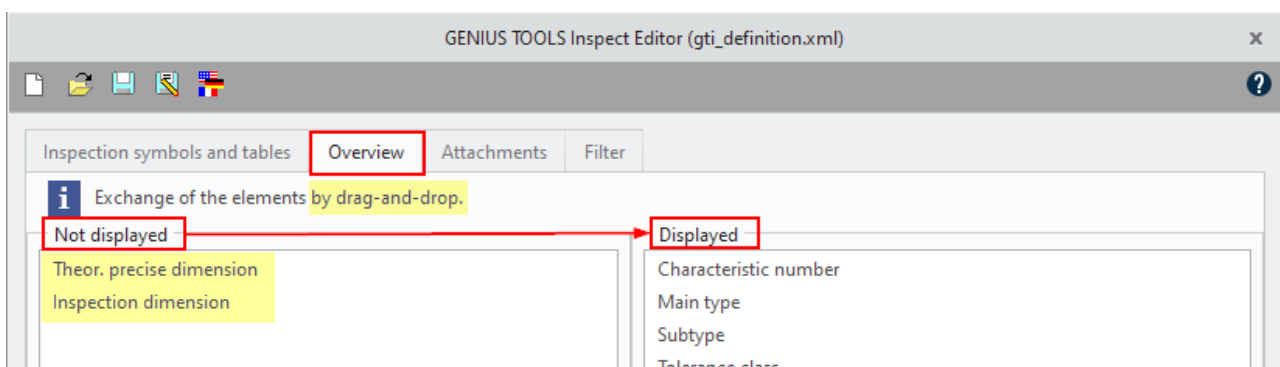
Dimensions ☒ Shape- and position ☒ Surface ☒ Notes ☒ Symbols

Placement Overview

Linked Symbols:

Characteristic number	Main type	Subtype	Theor. precise dimension	Toler	Nominal dimensi	Inspection dimension	Minimal dir
001	Dimension	↔ (Linear)	No		71	No	70.7
002	Dimension	↔ (Linear)	No		63.5	No	63.2

The two columns are turned off by default. They can be activated in the Inspect Editor in the Overview tab.



Altered column and window sizes are retained

After changing the size of individual columns, this size is retained when the window is opened again. This also applies to the size and position of dialog boxes.

Tooltip for long notes

In the Overview tab long notes are shortened and displayed completely in the tooltip.

Note	Tolerance standard	Sheet
Gewinde M2; 5 mm[...]		1
Gewinde M2; 5 mm tief; mit Deckel gebohrt		

Preview image in tooltip when positioning tables

In the Positioning tab a preview image is displayed in the tooltip in a size that corresponds to the size of the image provided. This allows to view large images in the tooltip, making the preview tables easier to read.

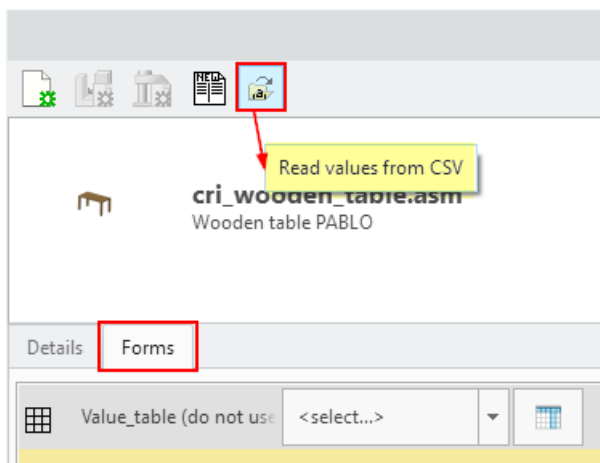
Preview	Name	Description
	inspect_long_DE	Inspection Report - long DE
	inspect_long_EN	Inspection Report - long EN

GENIUS TOOLS Inspect - Characteristics Report (long)														
No.	Sheet	Grid	Main Type	Sub Type	Nom. Dim.	Min. Dim.	Max. Dim.	Tol-Standard	Tol-Table	Tolerance	Parameter	Note	Description	Name of Inspection Feature
002	1	03	Dimension	Ø (Diameter)	45	44.7	45.3	ISO/DIN						DIN 8770
003	1	01	Dimension	Ø (Diameter)	80	79.97	80	ISO/DIN	Shaft	h7				DIN 8770
006	1	04	Note									break edge	before coloring	DIN 8770
007	1	01	Shape and position	Concentricity							0.2 * 0.2 * 0.2			DIN 8770


2.5 GENIUS TOOLS Library

Loading CSV data from Forms and UDF Forms

If a part contains forms or UDF forms the function for reading CSV data can be opened from the detail window in the Forms tab.




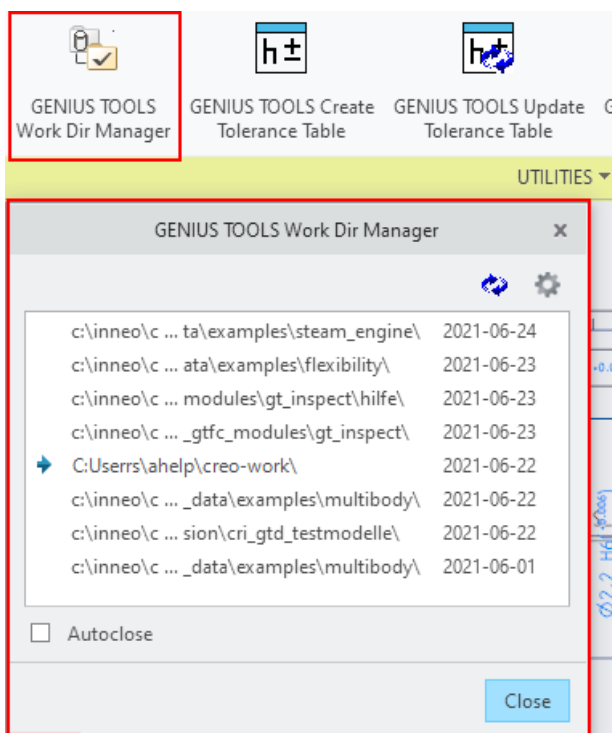
New action: Copy to production assembly

A manufacturing assembly (MFG file) can now also be copied in addition to the "Open" action. The MFG file is copied to the current working directory under a new name. In GENIUS TOOLS Library Editor the action is activated under *Object details* > *Actions* with the copy icon .

2.6 GENIUS TOOLS Utilities


New function: Work Dir Manager

With GENIUS TOOLS Work Dir Manager you can change the current working directory quickly. The function collects all used directories (outside of WT PDM) automatically during the regular working process. The button  is found in the segment UTILITIES in the GENIUS TOOLS ribbon menu.



Please note: GENIUS TOOLS Work Dir Manager is only available with subscription licenses for GENIUS TOOLS for Creo.

New function: Full Backup

This functions allows you to quickly save a model with all corresponding files. The function collects all referenced files and informs about missing ones. The Full Backup button  is found in the segment UTILITIES in the GENIUS TOOLS ribbon menu.

Please note: GENIUS TOOLS Full Backup is only available with subscription licenses for GENIUS TOOLS for Creo.

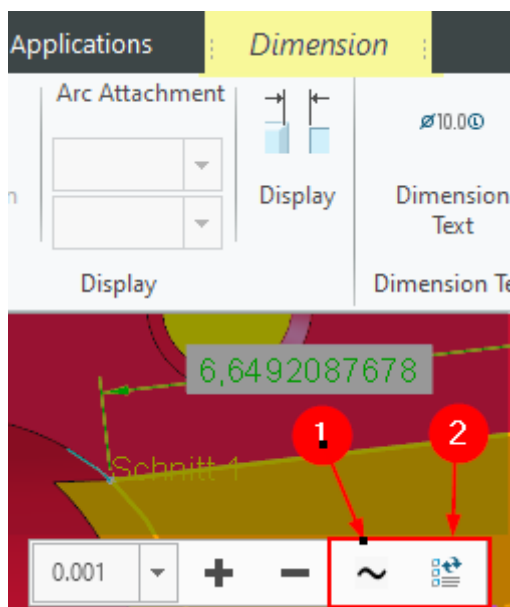
Open/create drawing: Use WT number generator

The number generation for drawings can now be defined as follows:

- in addition to the model name, extensions can be specified by variables, e.g.
`gtu_ord_drw_name=$$repl$mo-$dw-$mdlname$$`
- the Windchill number generator can be used for creating a new drawing. To do so, keep the entry of the configuration option `gtu_ord_drw_name` empty.

Extended Dimensions: New functions

The following functions were added to the tool: *Round to the digit of the selected step size (1)* and *Regenerate model (2)*.



Please note: GENIUS TOOLS Extended Dimension Functions are only available with subscription licenses for GENIUS TOOLS for Creo.

Create Tolerance Table: Number of decimal places and displaying a comma

With the configuration option `gtu_tol_table_tolerance_minimal_pending_zeros` you can define the number of decimal places for numerical values in the column *Tolerance*. Default is 2.

Entries:

0: No decimal places are displayed.

1...9: Number of decimal places. The last digit will be rounded if necessary.

-1: Decimal places are shown without alteration, i. e. no zeros are added.

With the configuration option `gtu_tol_table_decimal_marker_follow_dtl` you can change the representation of numerical values from period to comma as decimal separator. Default is 1.

Entries:

0: Period as separator for decimal places.

1: Reads the DTL file. If the DTL option `decimal_marker = = COMMA` is set, the separator is changed from period to comma. If `decimal_marker=period` or not set, numbers will be displayed with a period.

Extended Relations: New function

GT_UnitToString: function converts the unit of a parameter into strings. Example:

```
MASS_UNIT = GT_UnitToString("MASS")
```

Extend Relationships adds further functions to the model relationships that can be used to create parameters for models and - with Creo 7 - for bodies and ensures that the values are always up-to-date. The extended functions can be found in the *Creo Tools > Relationships dialog* under *Functions*.

Please note: GENIUS TOOLS Extended Relations is only available with subscription licenses for GENIUS TOOLS for Creo.

2.7 Input behavior

The following entries can now be confirmed with Enter:

- input of user variables
- input of the OnChange function in GENIUS TOOLS Forms: Under Functions, an OnChange function has so far been executed manually by exiting the input field and can now also be executed by pressing Enter.

3 Configuration options

The following configuration options have been added, changed or deleted since version 6.0.2.

3.1 New configuration options (8.0.0.0)

GENIUS TOOLS Forms

gtf_autoload_parameter

Defines the parameter whose value should be used to post load externally saved forms.
Default: WEBCODE

gtf_autoload_folder

Defines the folder that would be searched for the XML file based on the value of `gtf_autoload_parameter`.

gtf_autoload_overwrite

Defines, whether an external form should be searched only if no internal form exists (0), or always (1). Default: 0

gtf_auto_replace_comma_for_float_values

Defines, whether GENIUS TOOLS Forms also accepts numerical inputs with comma (,) as decimal separator (1) or not (0). Default: 1

GENIUS TOOLS Library

gtl_copy_remove_wt_templates_from_ws

Defines, whether the template for copying should be removed from the workspace (only Windchill) after the copy process (1) or not (0). Default: 0

GENIUS TOOLS Multibody To Assembly

gt_start_multibody_to_assembly

Defines whether GENIUS TOOLS Multibody To Assembly can be started by users (1) or not (0). Default: 1

gtmba_gtngc_name_rule

Defines the rule for generating names for bodies. @number@ = generated name, @oldname@ = name of the body or the current part. Default: @number@@oldname@

gtmba_gtngc_filter

Limits the name configurations from GENIUS TOOLS Name Generator. If only one result remains, this name configuration is automatically used.

gtmba_start_model_dir

Defines the full path to the directory containing start parts and assemblies. Options: Path or name of directory. Default: %start_model_dir%

gtmba_template_solidpart

Defines the model used as the default part template. Options: Path or name of directory. Default: %template_solidpart%

gtmba_template_designasm

Defines the model used as the default assembly template. Options: Path or name of directory. Default: %template_designasm%

gtf_open_with_selected_model

Defines whether the current model (0) or the selected model (1) should be used in the start of GENIUS TOOLS Forms. Default: 1

GENIUS TOOLS Utilities: Create Tolerance Table

gtu_tol_table_tolerance_minimal_pending_zeros

Defines the number of decimal places for the values in the column *Tolerance*.

Entries:

0: No decimal places are displayed.

1...9: Number of decimal places. The last digit will be rounded if necessary.

-1: Decimal places are shown without alteration, i. e. no zeros are added.

gtu_tol_table_decimal_marker_follow_dtl

Reads the DTL file (1) or not (0). If the DTL option `decimal_marker == COMMA` is set, the representation of numerical values will be changed from period to comma as decimal separator. Default is 1

GENIUS TOOLS Utilities: Extend Relations

gtu_relationextension_unitToString

Defines whether the converting command *GT_UnitToString* is available in the relations (1) or not (0). Default: 1

gtu_relationextension_round

Defines whether the rounding command *GT_Round* is available in the relations (1) or not (0). Default: 1

gtu_relationextension_doubleToString

Defines whether the rounding command *GT_DoubleToString* is available in the relations (1) or not (0). Default: 1

GENIUS TOOLS Utilities: Open/Create Drawing

gtu_ord_drw_name

Defines the name of the drawing that should be created or opened. The use of variables is possible. If the entry is left empty, the WT number generator will be used. Default: @mdlname@

GENIUS TOOLS Utilities: Work Dir Manager

gtu_start_work_dir_manager

Defines, whether GENIUS TOOLS Work Dir Manager can be started by users (1) or not (0). Default: 1

gtu_work_dir_manager_save_path

Defines the path for system files. Default: %appdata%\INNEO\GENIUS_TOOLS\for_Creo\work_dir_manager\

gtu_work_dir_manager_autodelete_after_days

Defines the number of days until paths get deleted from list. Default: 1

gtu_work_dir_manager_first_chars

Defines the number of characters from left side to shorten the path for display. Default: 10

gtu_work_dir_manager_last_chars

Defines the number of characters from right side to shorten the path for display. Default: 25

3.2 Altered configuration options (8.0.0.0)

GENIUS TOOLS Library: New default setting for tab

gtl_detail_window_preselected_tab = 2

The default tab that opens in the detail window of GENIUS TOOLS Library is now *Forms* (2) instead of *Details* (0).

GENIUS TOOLS Inspect: New default settings

The default settings for the following options has changed from 1 to 0. All options are controlled by the option `gti_din_compliant = 1`.

gti_number_sort_at_height = 0

gti_number_sort_at_type = 0

gti_numbering_all_sheets = 0

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