GENIUS TOOLS for Windchill

Bundles and Plugins – Version 8.2.0

Jörg Ehrenstein, Q3 2024

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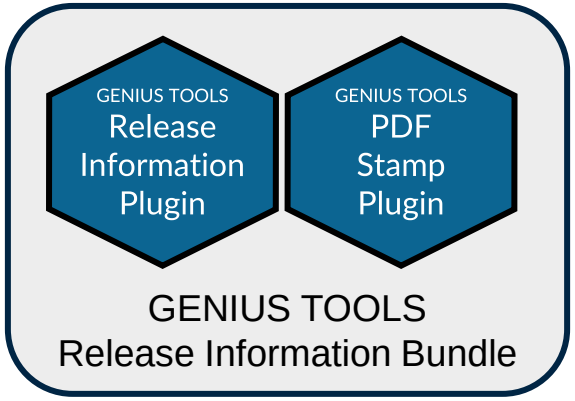
overview and philosophy

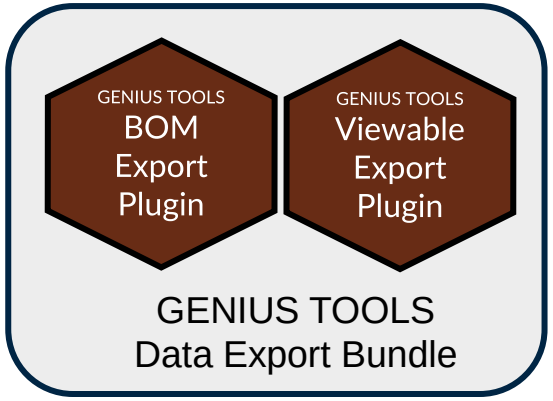
The "INNEO GENIUS TOOLS for Windchill" are functional extensions for the PLM system "PTC Windchill".

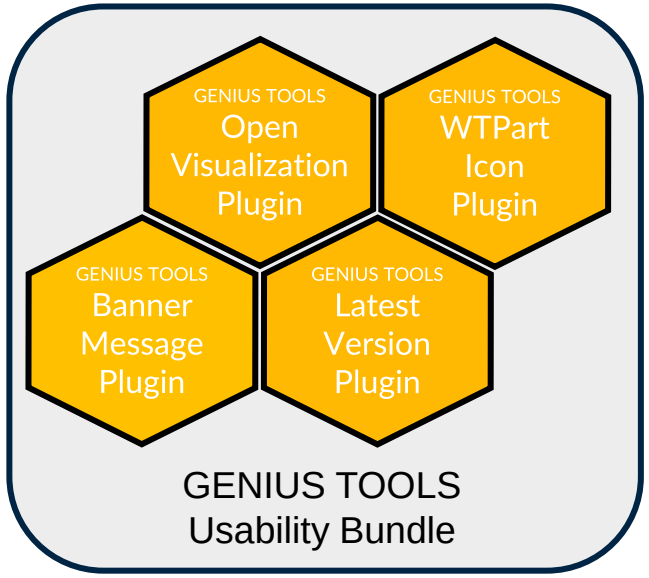
- The individual extensions are each referred to as a "plugin“
  - Each use of a plugin requires a license
- The "plugins" are installed and updated centrally in Windchill via the "INNEO Plugin Manager“
  - The usage of the INNEO Plugin Manager does not require a license
- Commercially, the plugins are combined in "bundles"
- Plugins can only be purchased in assigned bundles
- The "package" in which several bundles are combined is the superordinate element

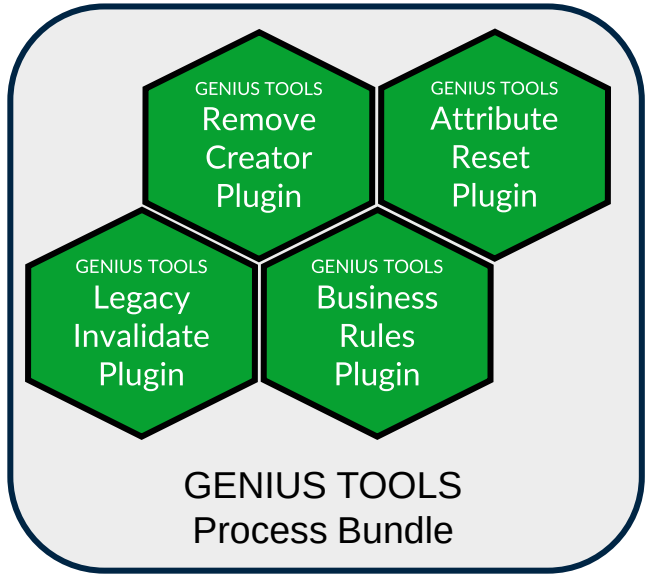
GT for Windchill Bundles overview

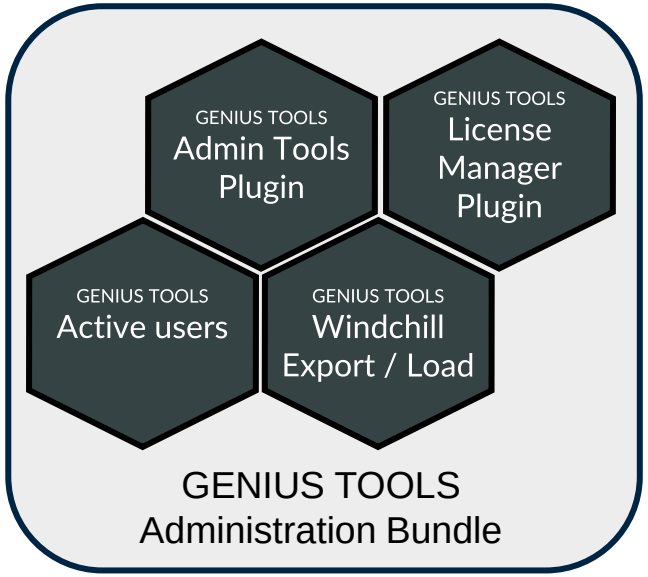
GENIUS TOOLS Plugin Manager









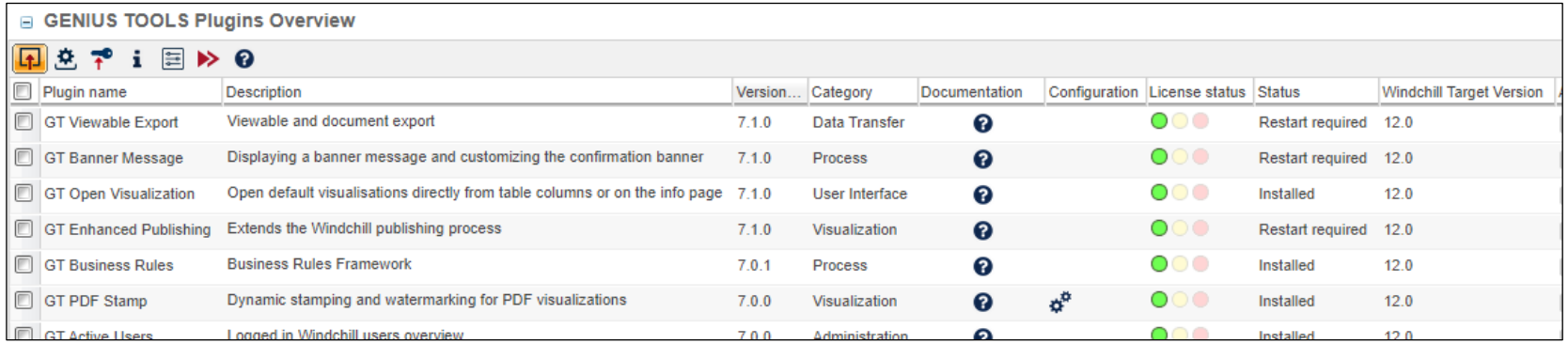


overview and philosophy

The "GENIUS TOOLS Plugin Manager" is the central tool within the Windchill system for the overview and installation of the individual bundles

- The plugin manager is automatically included with every plugin
- The Plugin Manager is also used when installing a Windchill customizing from INNEO
- The Plugin Manager is available for Windchill systems starting with versions 12.0
- The Plugin Manager enables the customer to install GENIUS TOOLS updates independently

picture: Placement of the plugin manager



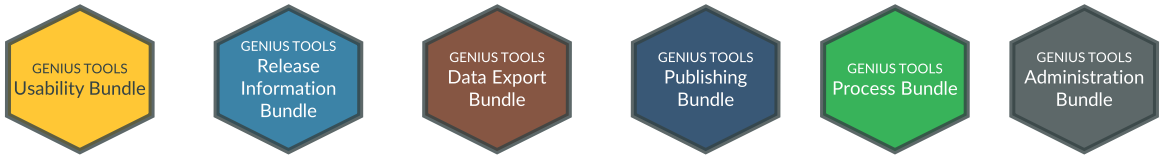
picture: Overview in the plugin manager

INNEO Windchill Bundles at a glance

There are six different bundles

- GT Usability Bundle
- GT Data Export Bundle
- GT Publishing Bundle
- GT Release Information Bundle
- GT Process Bundle
- GT Administration Bundle

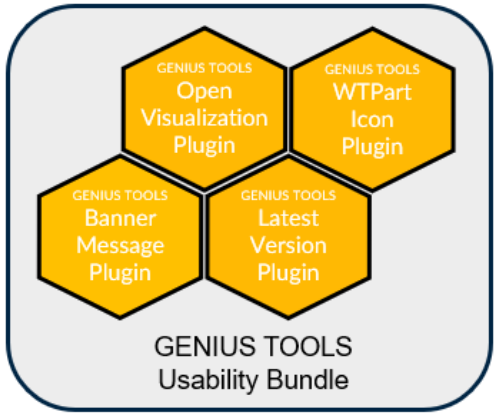
- Each of the bundles includes its own exclusive plugins



picture: Overview of INNEO GENIUS TOOLS Windchill Bundles

GT Usability Bundle

This bundle contains four plugins for a better user experience in the daily work of users



- GT Open Visualization
  - direct download of existing visualization data (PDF, STEP, IGES, …)
- GT WTPart Icon
  - Activation of end-item symbols for WTPart subtypes
- GT Banner Message
  - Easily configurable message in Windchill banner
  - Shorten the Windchill confirmation banner
- GT Latest Version
  - indicates whether a versioned object is the latest iteration of the latest revision

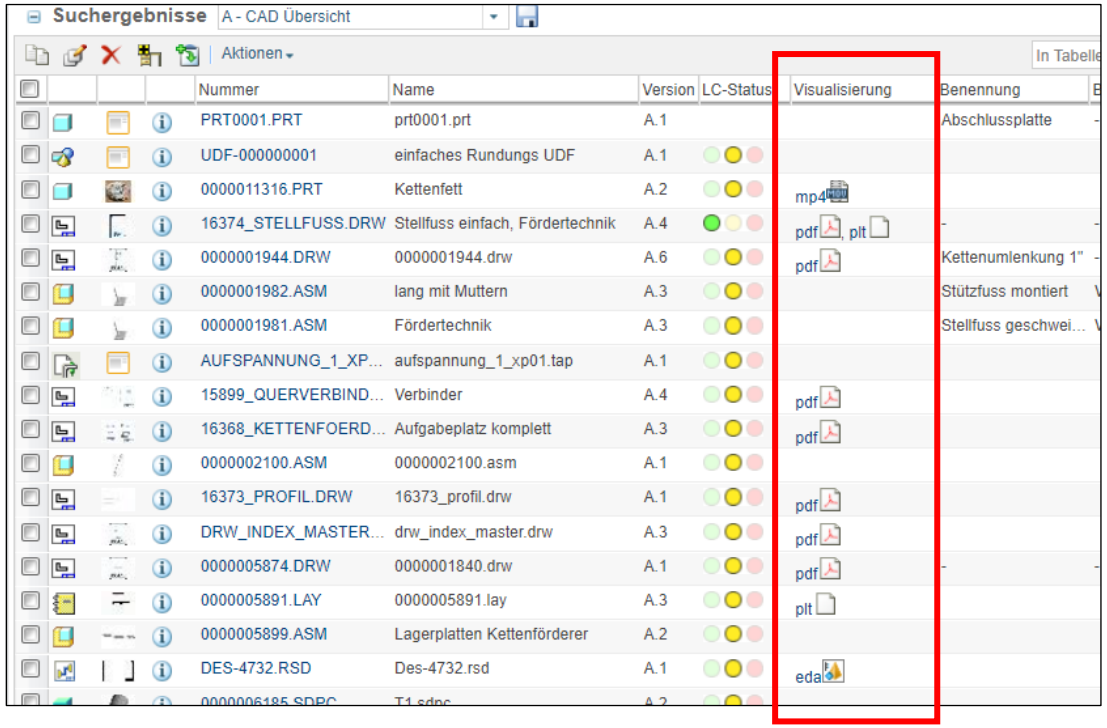
The GT Usability Bundle is automatically included with every other bundle and cannot be purchased independently

GT Open Visualization Plugin

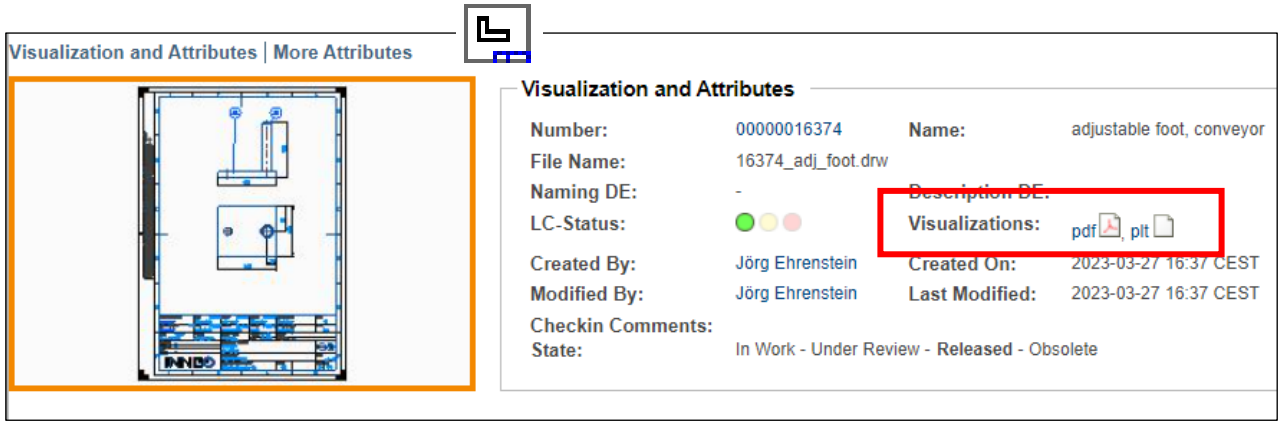
GENIUS TOOLS
Usability Bundle

View and quick-access of visualizations as a table column

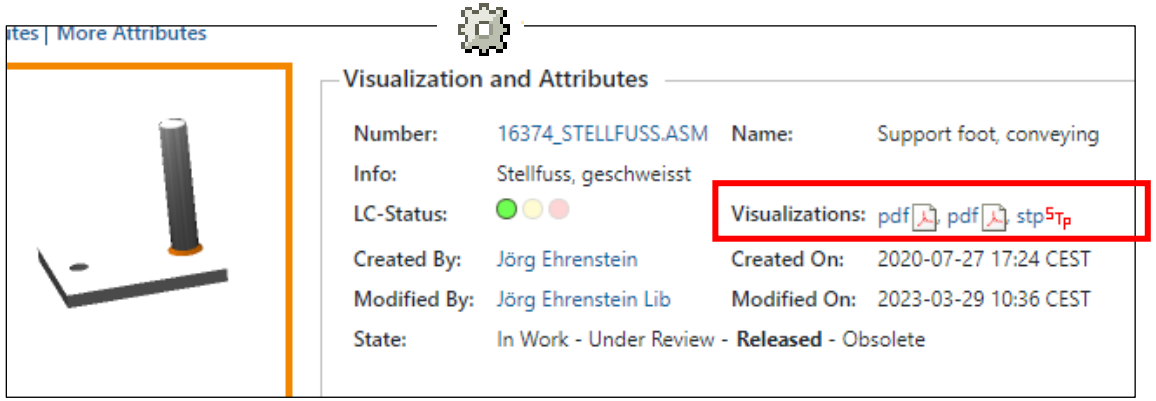
- offers the file extensions that are available for download
- Available in Folder/Search
- For display in the layout of the info page
- Customizable in Preference Manager



picture: Display and access to visualizations in a table



picture: Display and access on the detail page of a drawing (e.g. the associated DXF and PDF derivations)



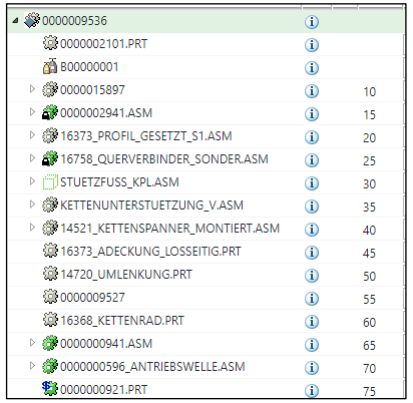
picture: Display and access on the detail page of a WTPart (e.g. the drawings and PDFs of the CAD-Object of a WTPart)

GT WTPart Icon Plugin

GENIUS TOOLS
Usability Bundle

Different icons for individual WTPart subtypes

- Differentiation based on:
  - Gathering, Phantom, Assembly Mode, Source
  - End Item, Configurable
  - Organization
  - View (Design, Manufacturing, ...)
  - Lifecycle State
- Custom attributes (IBAs) are not supported
- The Windchill administrator is responsible for “designing” additional icons



picture: with Plugin: Structural view of a WTParts

picture: WT Standard: all characteristics have the same icon

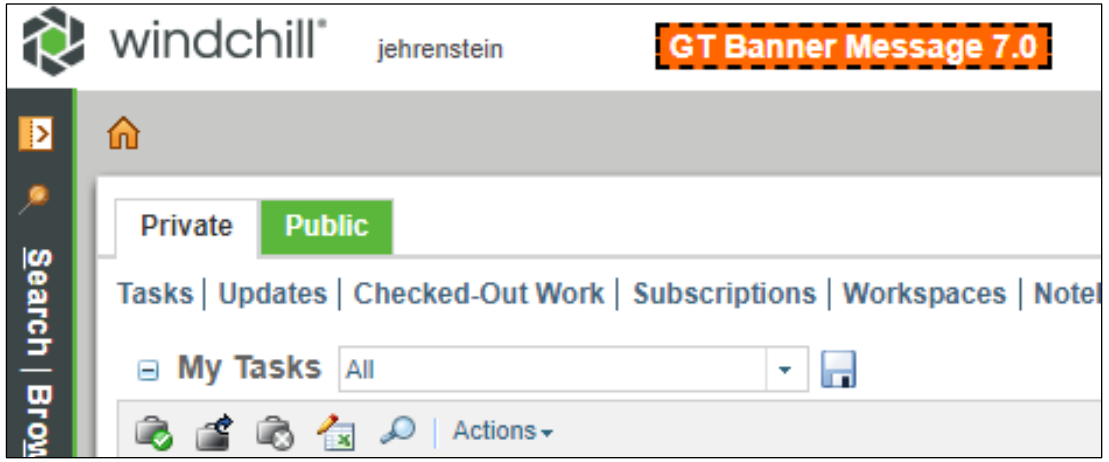
picture: with Plugin: all “versions” with their own icons

GT Banner Message Plugin – Banner Message

GENIUS TOOLS
Usability Bundle

Displays formatted messages in the header in Windchill

- E.g., test system, version, maintenance dates, information
- An HTML style can be stored in a setting
  - Color, position, font and more can be customized
  - There is an example in the documentation or as a default value
- By reloading the page, changes take effect immediately
- This is a site preference only



picture: Displaying a banner in Windchill

picture: Definition of the message text in the preference manager

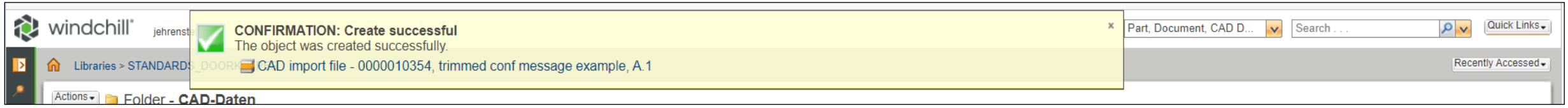
GT Banner Message Plugin – Confirmation Trimmer

Shorten the yellow "Confirmation" banner

- Percentage of total appearance
- Changes are available without rebooting
- This is a site preference only

GT Banner Message		Displaying a banner message and customizing the confirmation banner
01 Enabled	Yes	Activates the Plugin.
10 Configuration		Configuration of GT Banner Message
CSS style for confirmation message	width: 60%; margin-left: 200px;	Override CSS style for confirmation messages.

picture: preference manager options



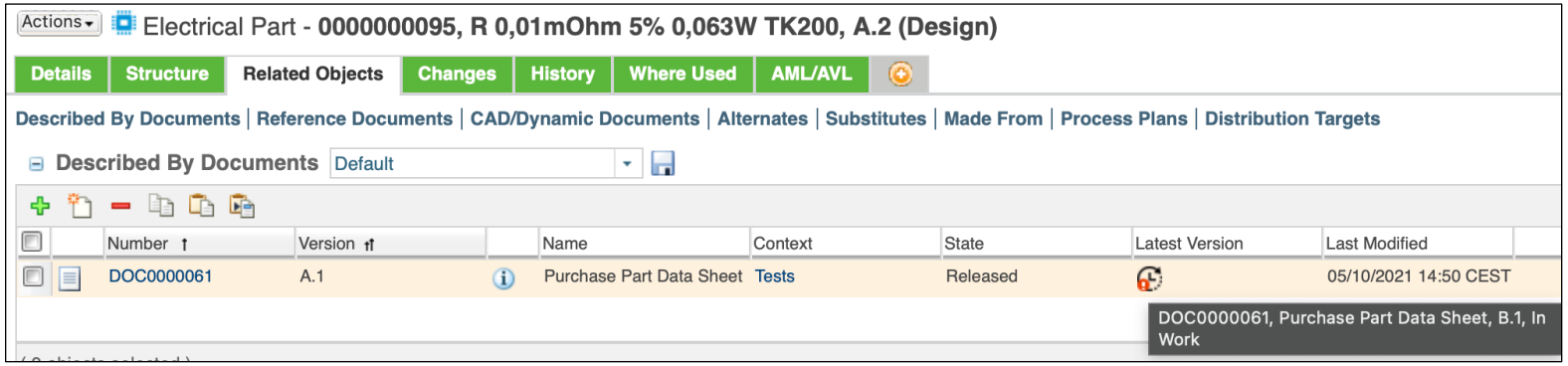
picture: customized confirmation banner in Windchill PDMLink

GT Latest Version Plugin

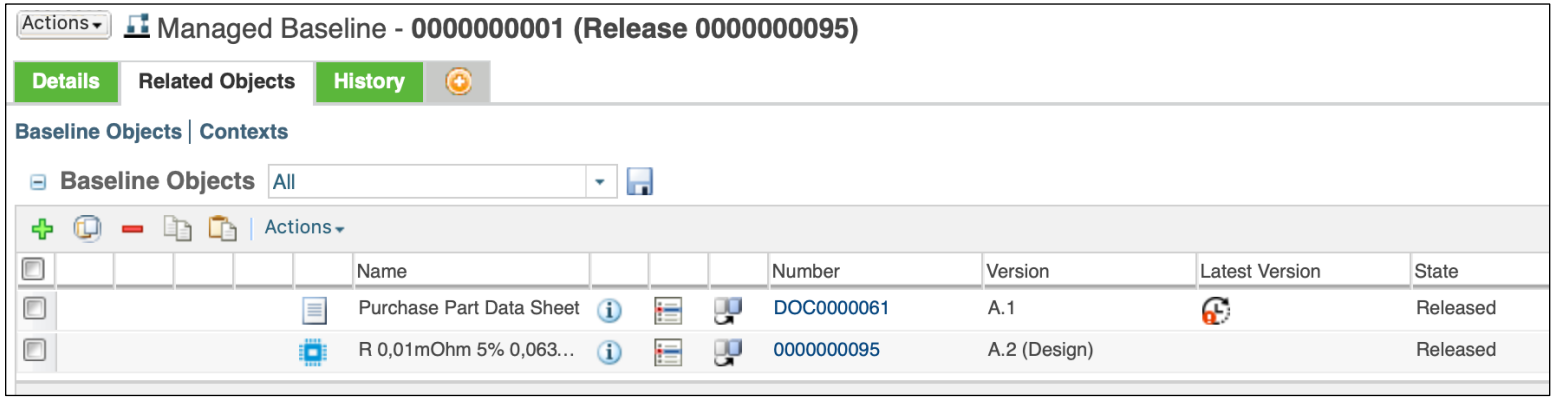
GENIUS TOOLS
Usability Bundle

Display in tables

- Icon to indicate if the document is not in the latest version
- Icon with hyperlink to the latest version



picture: Customized table with "Latest Version Symbol" on a WTPart

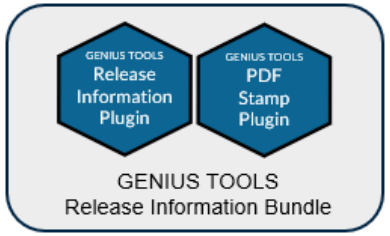


picture: Customized table with "Latest Version Symbol" on a Baseline

For performance reasons, do not insert in search results, folders or other large tables

GT Release Information Bundle

This bundle contains two plugins for release process support:



- GT Release Information
  - Deployment of Windchill release- and change-attributes to Creo
  - Releasers and reviewers from the Windchill process in Creo
  - All information usable in the title block of the Creo drawing
  - Applicable also for exiting legacy data in Windchill
  - Usable when publishing drawings into neutral format

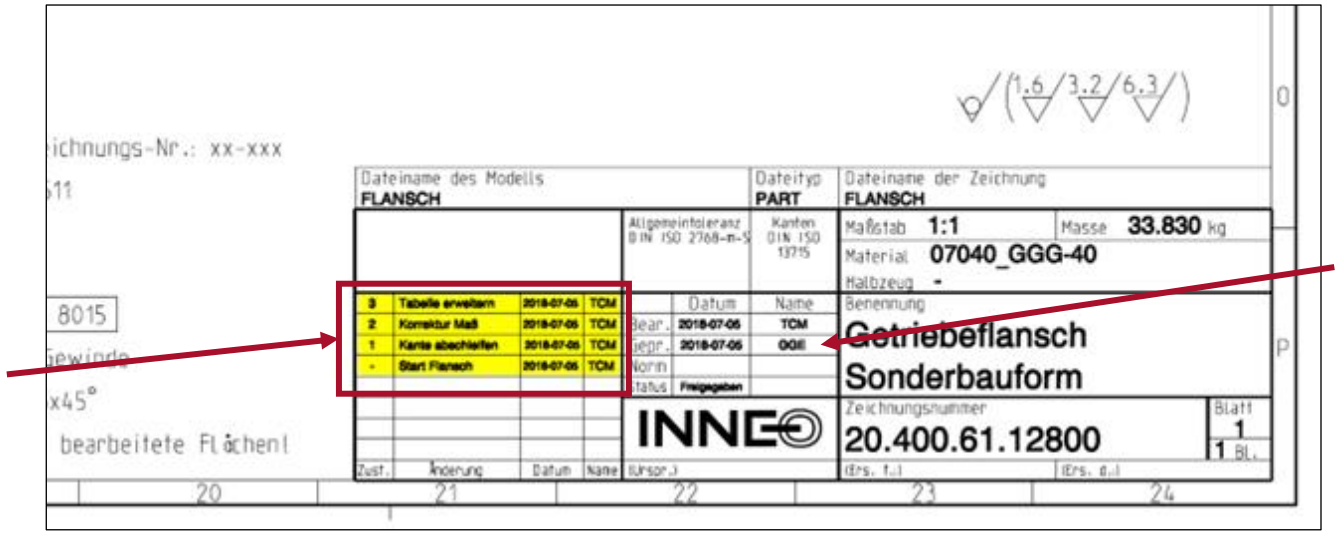
- GT PDF Stamp
  - Dynamic stamping and watermarking on PDF representations
  - Include and exclude objects by sophisticated filtering criterias
  - Mark drawings that are no longer current when opening or exporting
  - Also, for existing data in Windchill, no republication required
  - Usage of Windchill attributes as Stamp information

GT Release Information Plugin

Fully digital chain for the release and change process

- No manual filling of the title block in Creo
- Automatic rolling of last changes in title block
- Initials automatically calculated based on the Windchill user
- No checking out of drawings to fill the title block
- Visualization contains release data e.g., for export as PDF

Change history



Release data
Initials automatically filled and calculated

picture: Example of automatically filled release information in the drawing header

GT PDF Stamp Plugin

Dynamic stamping of PDF files

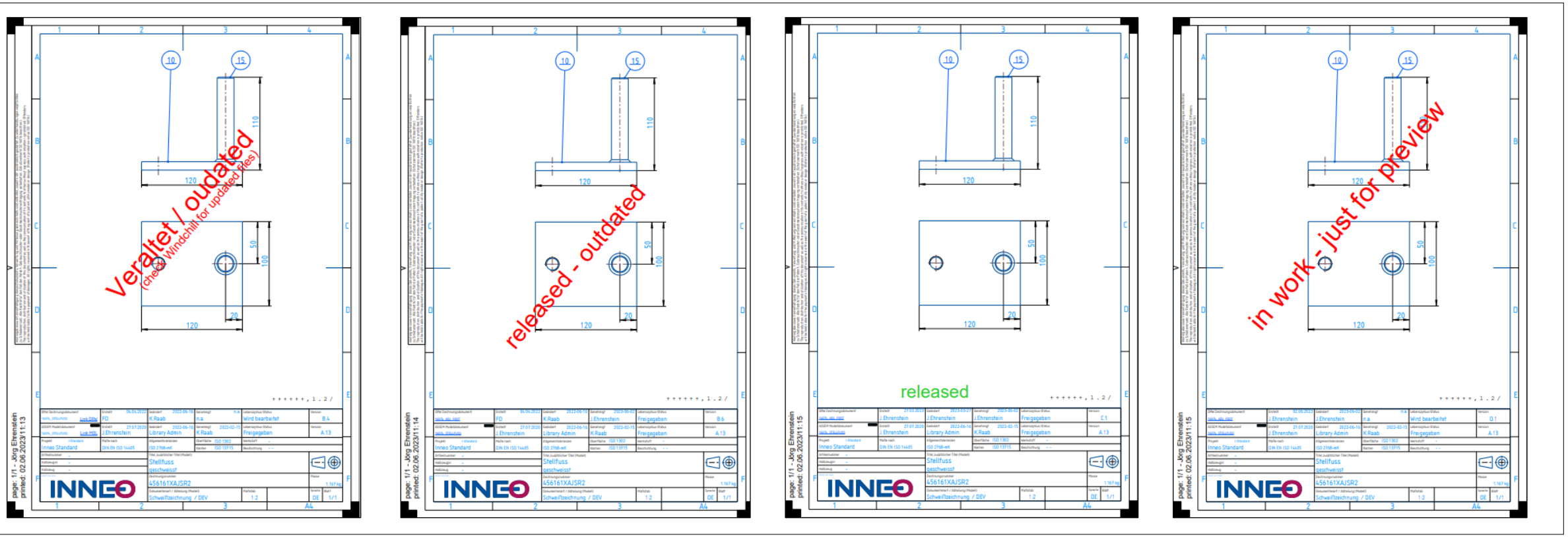
When "leaving" (export, download, open, ..) the Windchill system

Viewer, Download, Export

For PDF: Drawings and documents

File Name		Versio...	LC-Status	State
16374_adj_foot.drw		D.1		In Work
16374_adj_foot.drw		C.1		Released
16374_adj_foot.drw		B.6		Released
16374_adj_foot.drw		B.5		In Work
16374_adj_foot.drw		B.4		In Work

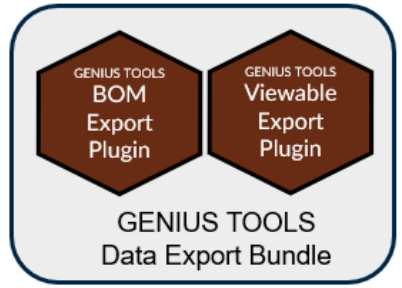
GENIUS TOOLS
Release
Information
Bundle



picture: Example of automatically stamped drawings depending on their history and lifecycle status

GT Data Export Bundle

INNEO That's IT.



This bundle contains two plugins for data export:

- GT Viewable Export
  - Automatic export of neutral formats of 2D and 3D data to file system
  - Download of complete drawing sets with one mouse click

  - Post-process support for automated post-processing
  - File naming based on Windchill attributes
  - Integration into the approval process

- GT BOM Export

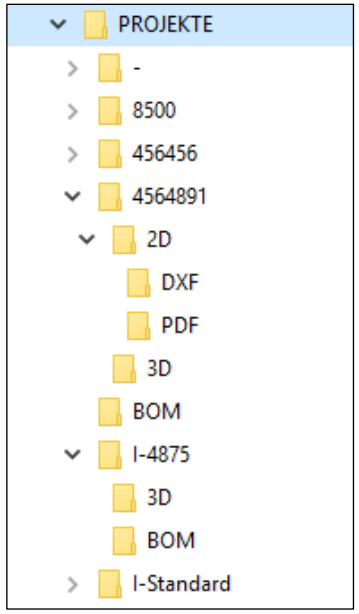
  - Export bills of material into the file system
  - Support of XML and ASCII formats
  - Multiple bill of material format options
  - Post-process support for automated post-processing
  - Integration into the release process

GT Viewable Export Plugin

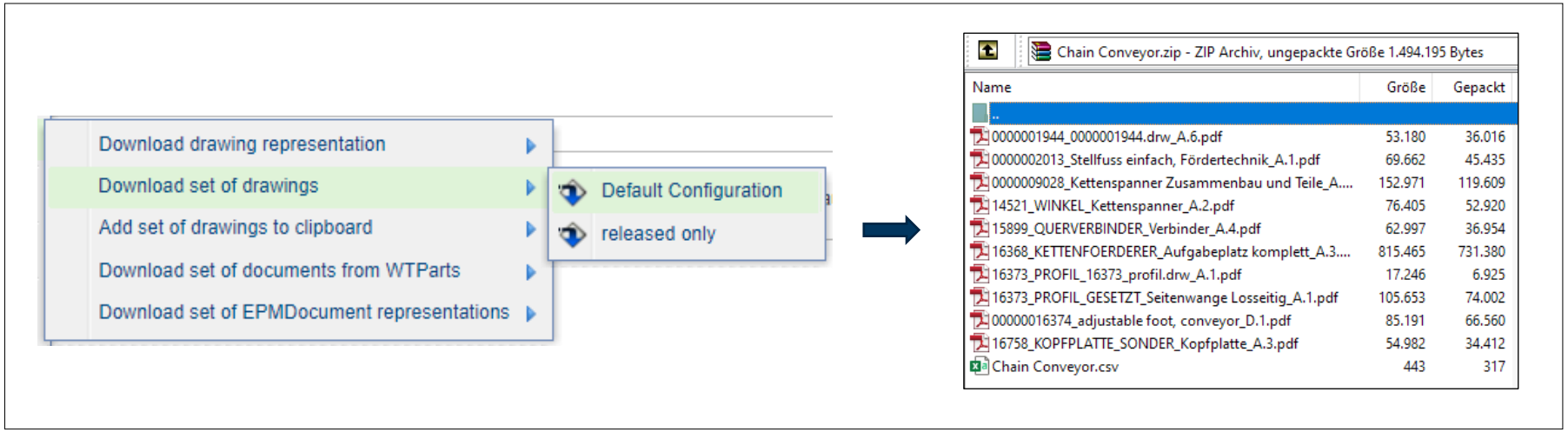
Automatic or manual export of neutral data

GENIUS TOOLS
Data Export Bundle

- As a trigger automated for Windchill events
- As an action on the "property page" of the Windchill object
- Use of configurations and filters
- The additional “PDF Stamp Plugin” stamps the drawing PDFs in the process



picture: Automatically generated export structure
(using object properties)



picture: Manually used function "Download drawing set" with generated ZIP file

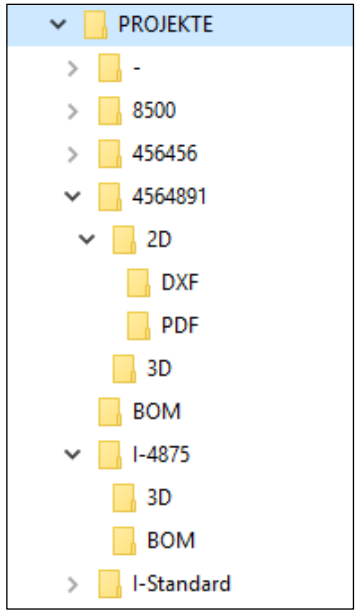
GT BOM Export Plugin

INNEO That's IT.

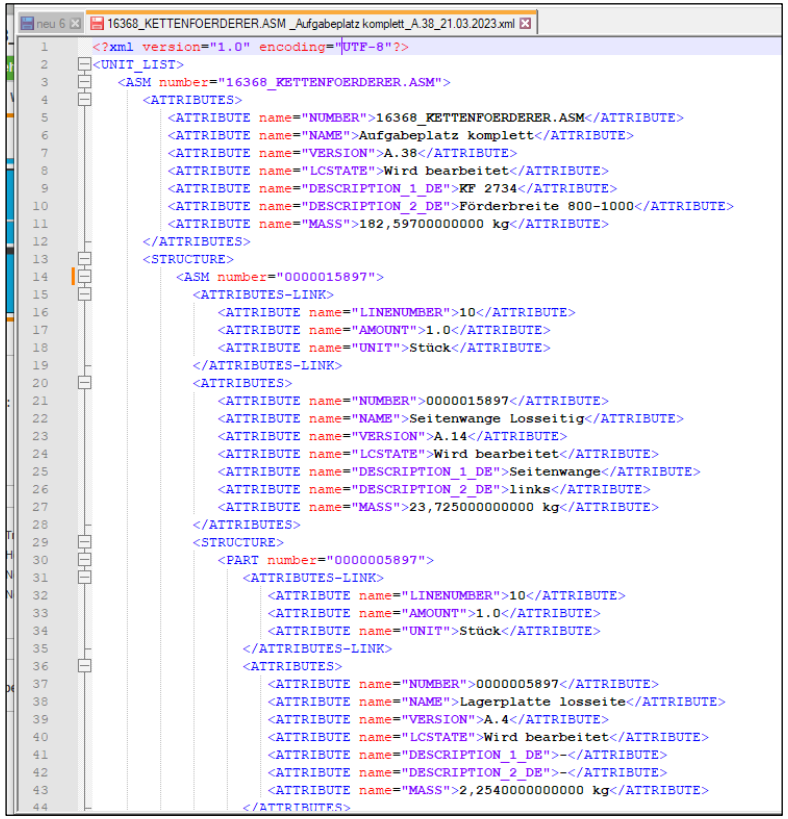
GENIUS TOOLS Data Export Bundle

Automatic or manual export of parts lists

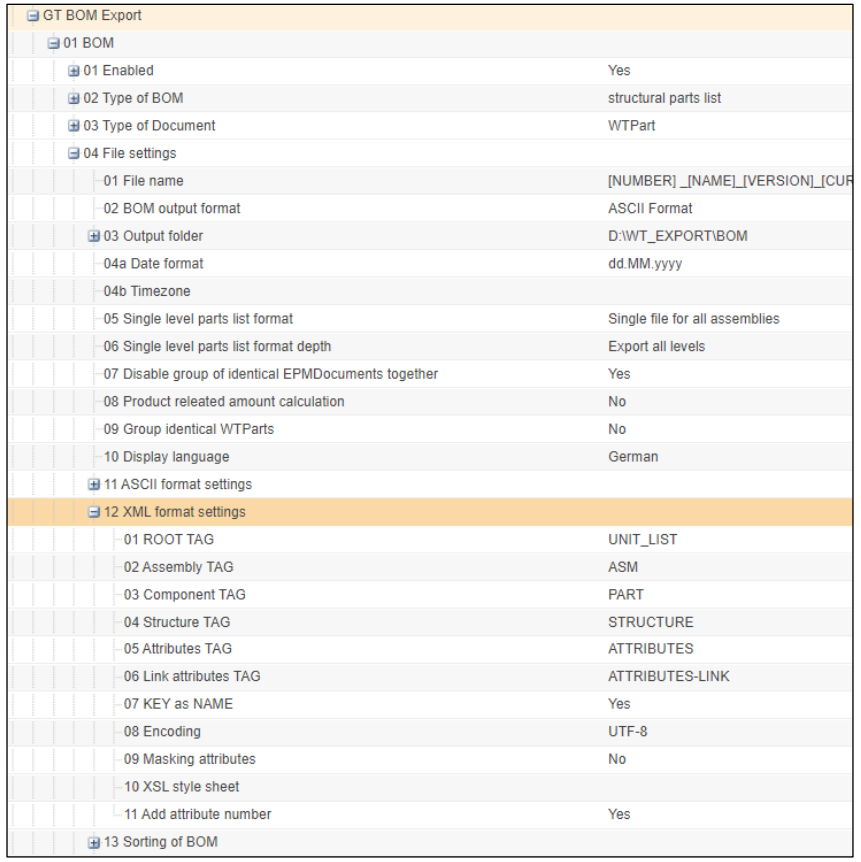
- Easily configurable in the preference manager
- XLT conversion possible as post process
- Postprocess possible afterwards



picture: Automatically generated export structure (using object properties)



picture: generated parts list as XML (CSV possible, too)



picture: extensive settings (excerpt)

GT Publishing Bundle

This bundle contains two plugins for publishing:

- GT Enhanced Publishing
  - Produce standard formats of Creo 2D and 3D data
    - 3D: STEP, IGES, Parasolid, STL
    - 2D: PDF, DXF, DWG, CGM, PLT, HPGL
  - Set priorities of publishing jobs based on sophisticated filter criteria
  - Directly integrated into the worker process, without additional application
  - Lifecycle Dependent Format Configuration
  - Support for multiple queues to separate 2D and 3D publishing

- GT Viewable Cleanup
  - Cleaning up obsolete visualizations
  - Free up hard disk space
  - Controlled via the Windchill Task Scheduler
  - Automated data maintenance in the background without further interactions
  - Optimization of Windchill performance
  - Preview of the "Cleanup" actions

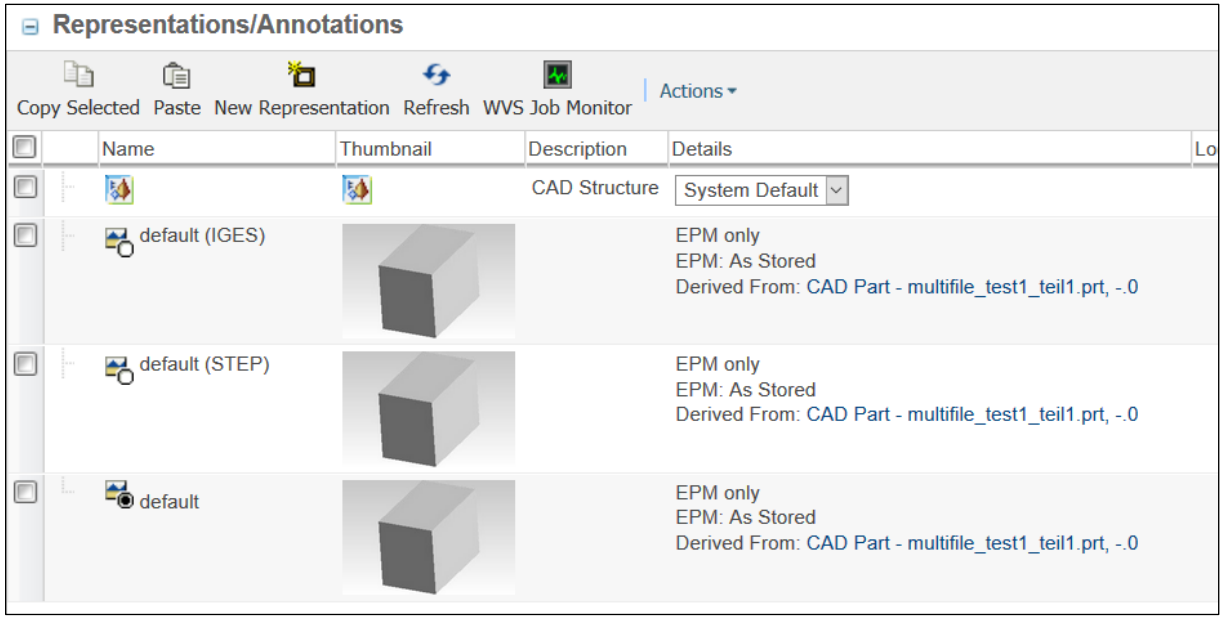
GT Enhanced Publishing Plugin

INNEO That's IT.

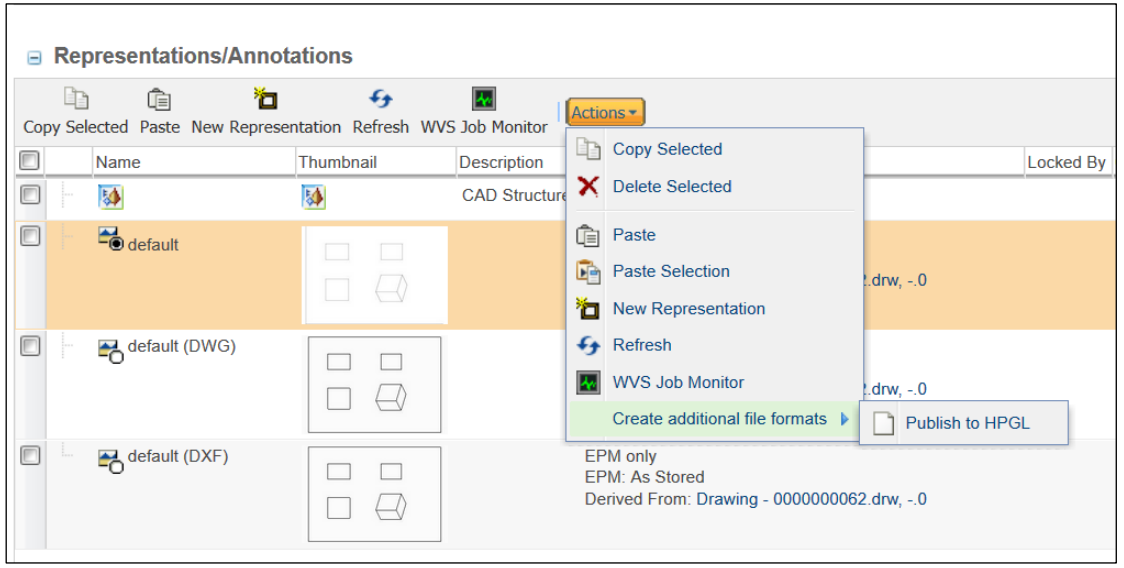
GENIUS TOOLS Publishing Bundle

Extensions for creating visualizations

- Automatic execution in the background (e.g. during revision)
- Interactive execution
- Complex set of rules and filters
- Context-dependent setting options
- Quickview Support



picture: automatic neutral data generation with preview



picture: interactive production

GT Viewable Cleanup Plugin

GENIUS TOOLS Publishing Bundle

Extensions to remove unnecessary visualizations

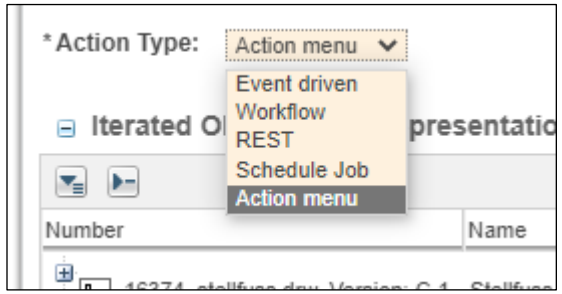
Automatic execution in the background (e.g., during revision)

Execution as Windchill Task

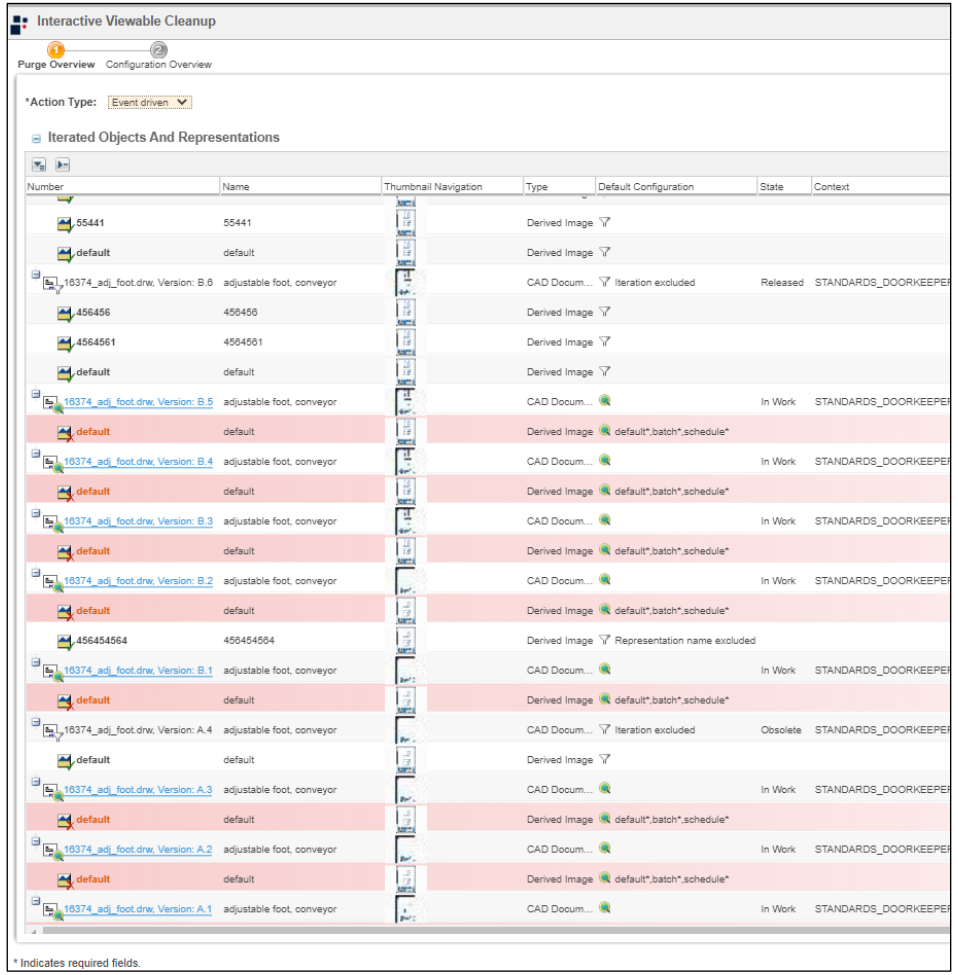
Interactive execution

Rest Call

Preview possible for all operations.



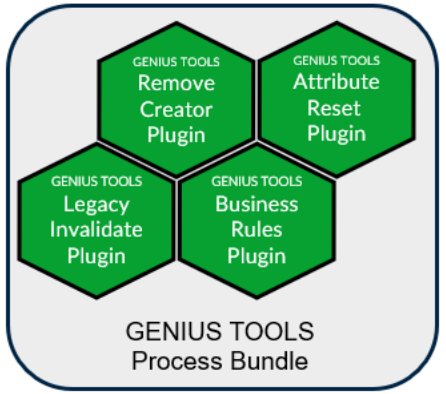
picture: Actions to start the „Cleanup“



picture: administrative preview of the cleanup action "Event driven"

GT Process Bundle

This bundle contains four plugins for process support:



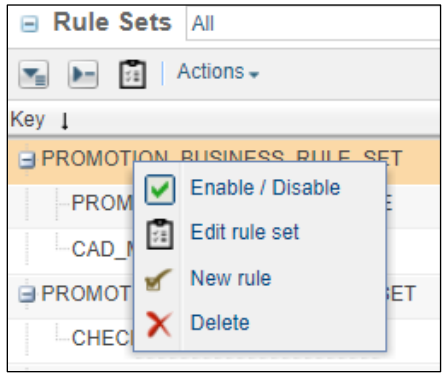
- GT Business Rules
  - Create, edit, delete business rules through the Windchill user interface
  - Enable and disable business rules as needed.
  - “On the fly” review of change notifications, change tasks or increase requests
  - The plugin comes with the following customizable rules:
    - BOM has line number rule
    - Part has document rule
    - Part document phase test
    - Part parent-child phase test
    - CAD drawing has the latest 3D model rule
- GT Invalidate
  - Sets "old" released versions to another defined lifecycle status (e.g. invalid, obsolete, ...)
  - Usable via a status change and/or a workflow
- GT Resetter
  - Reset of defined attributes when "Revise" or "Save as"
  - Valid for: WTPart, EPMDocument and WT Document
- GT Remove Creator
  - Prevention of self-release in release- and change management
  - Customizable for individual roles

GT Business Rules Plugin

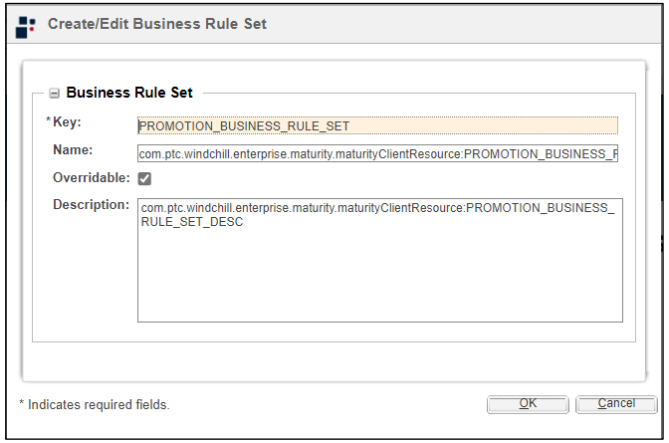
INNEO That's IT.

GENIUS TOOLS Process Bundle

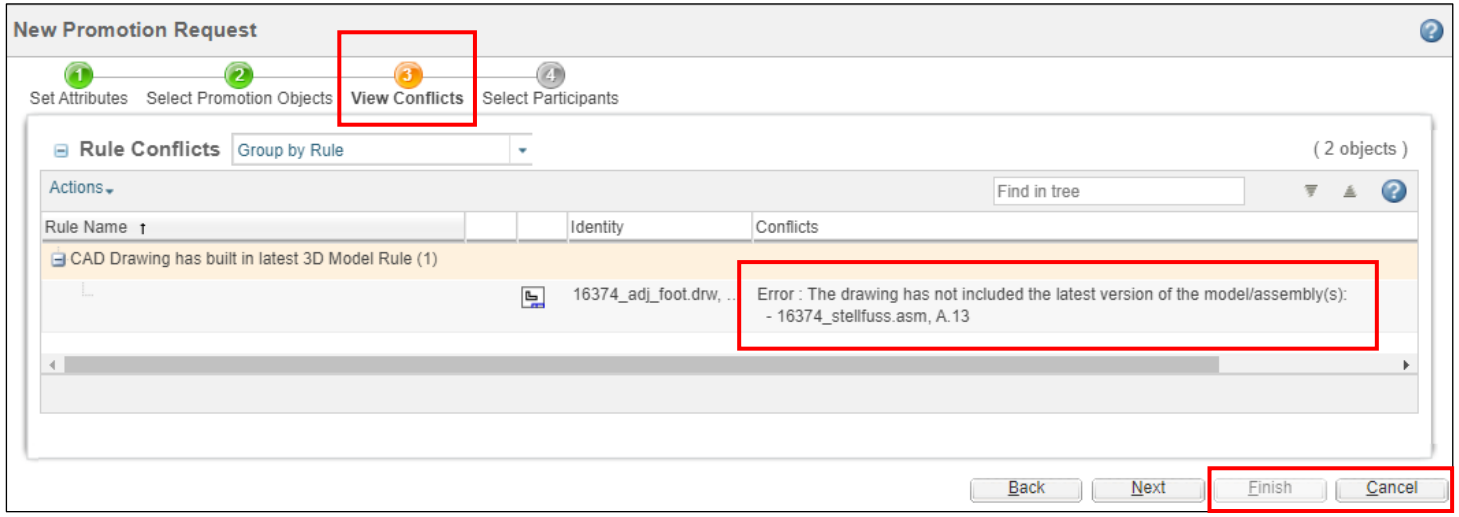
Enhancements in the UI of the rule sets and in the application



picture: additional actions the rule set editing



picture: Rule set editor



picture: Validation in the promotion request

GT Invalidate Plugin

INNEO That's IT.

GENIUS TOOLS Process Bundle

Via an event or a workflow, existing "old" versions are automatically transferred to another defined life cycle

GT Invalidate		Change lifecycle state of previous versions on set state or promote
01 Enabled	Yes	Activates the Plugin in the selected context.
10 Configuration		Configuration of GT Invalidate
EPMDocument		EPMDocument
Activate Event Trigger	Yes	Activate/Deactivate Event Trigger for EPMDocuments
Activate Workflow Robot	No	Activate/Deactivate the workflow robot for EPMDocuments
State Mapping	RELEASED:OBSOLETE	State Mapping Released - Obsolete
WTDocument		WTDocument
WTPart		WTPart
99. Product Information		Information about this GENIUS TOOLS Product

picture: configurable in the preference manager (also on product / library level)

Version History — A - released

File Name	Versio...	State	LC-Status
16374_adj_foot.drw	D.1	In Work	
16374_adj_foot.drw	C.1	Released	
16374_adj_foot.drw	B.6	Released	
16374_adj_foot.drw	B.5	In Work	
16374_adj_foot.drw	B.4	In Work	
16374_adj_foot.drw	B.3	In Work	
16374_adj_foot.drw	B.2	In Work	
16374_adj_foot.drw	B.1	In Work	
16374_adj_foot.drw	A.4	Released	
16374_adj_foot.drw	A.3	In Work	
16374_adj_foot.drw	A.2	In Work	
16374_adj_foot.drw	A.1	In Work	

Release of D.1

Version History — A - released

File Name	Versio...	State	LC-Status
16374_adj_foot.drw	D.1	Released	
16374_adj_foot.drw	C.1	Obsolete	
16374_adj_foot.drw	B.6	Obsolete	
16374_adj_foot.drw	B.5	In Work	
16374_adj_foot.drw	B.4	In Work	
16374_adj_foot.drw	B.3	In Work	
16374_adj_foot.drw	B.2	In Work	
16374_adj_foot.drw	B.1	In Work	
16374_adj_foot.drw	A.4	Obsolete	
16374_adj_foot.drw	A.3	In Work	
16374_adj_foot.drw	A.2	In Work	
16374_adj_foot.drw	A.1	In Work	

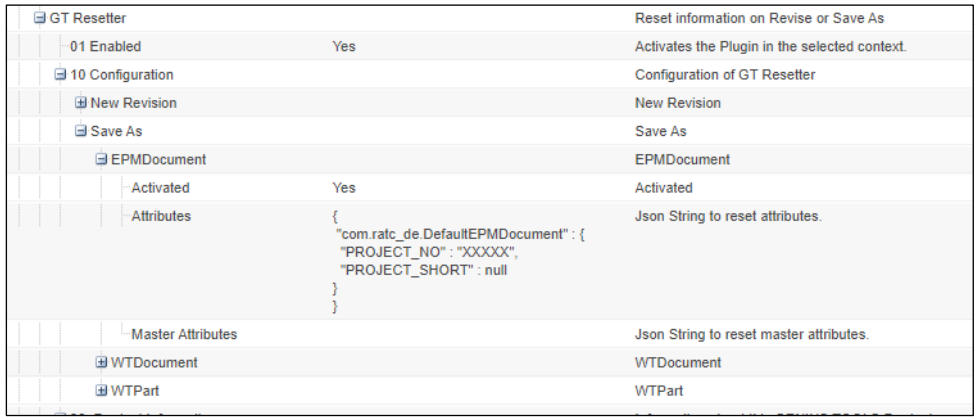
picture: changed lifecycle status of previous versions after release of the highest version

GT Resetter Plugin

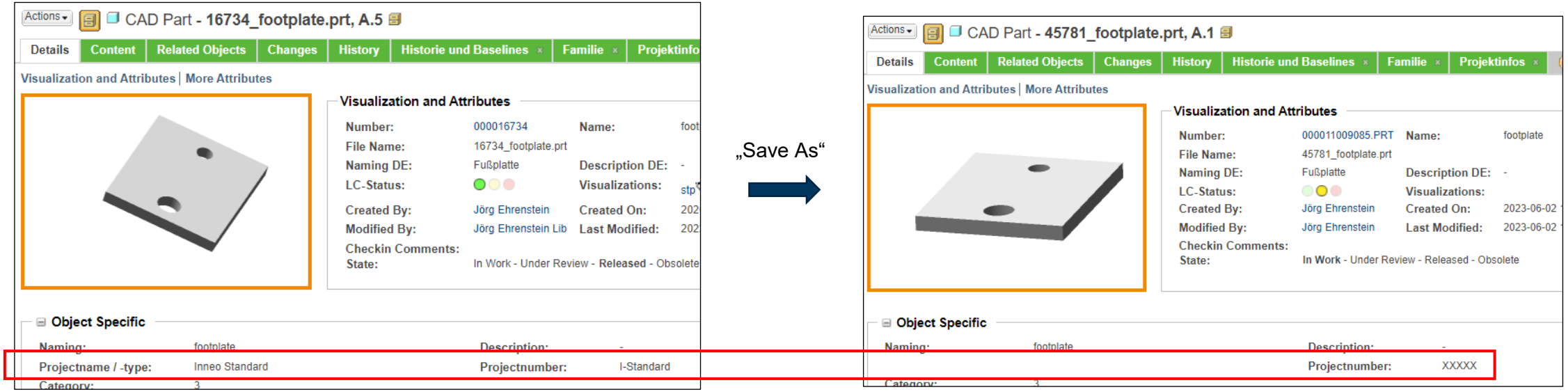
GENIUS TOOLS
Process Bundle

When "Revise" or "Save As" is used, the contents of specified attributes will automatically:

- deleted (null) – for WTParts Attributes only
- set to a default value



picture: Configuration in the Preference Manager (also at product / library level)



picture: automatically changed attributes after a "Save as" action (project name “nulled" and project number set to "XXXXX)

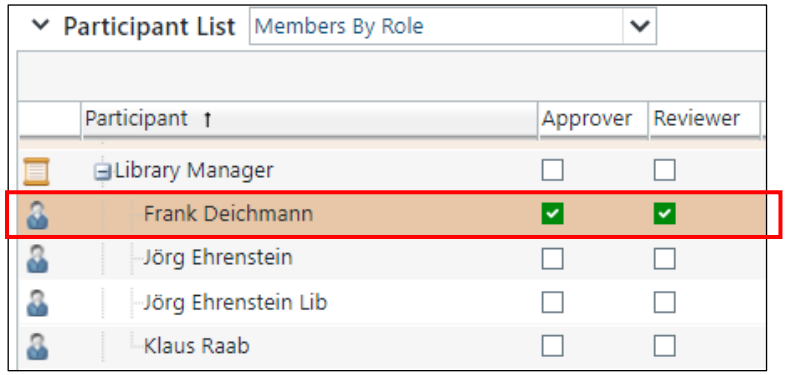
GT Remove Creator Plugin

INNEO That's IT.

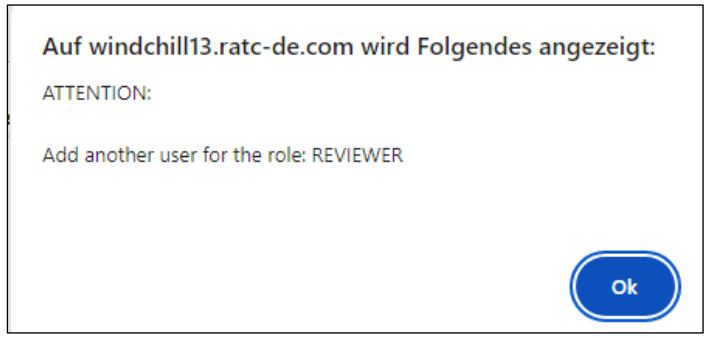
GENIUS TOOLS Process Bundle

Removal of the applicant from the decision roles of a workflow

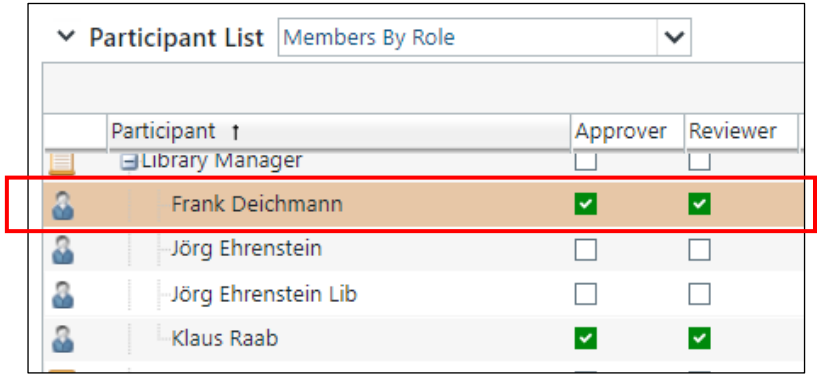
- In promotion requests
- In change management
- Configurable in the preference manager



picture: Only the applicant is the reviewer and approver

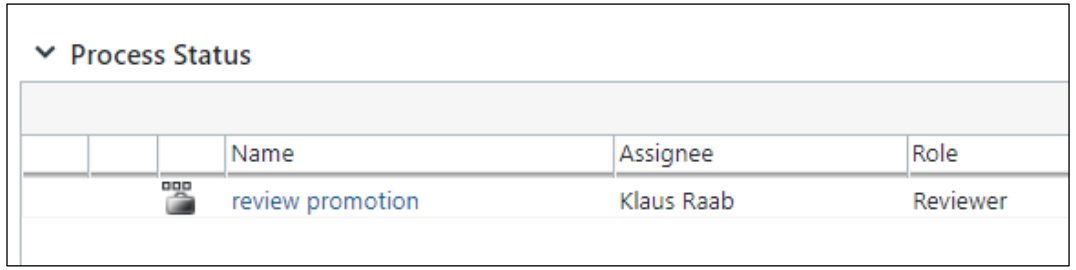


picture: Application cannot be made as only the applicant (who is removed) is registered as an examiner



picture: The applicant and a colleague is the reviewer and approver

Process flow

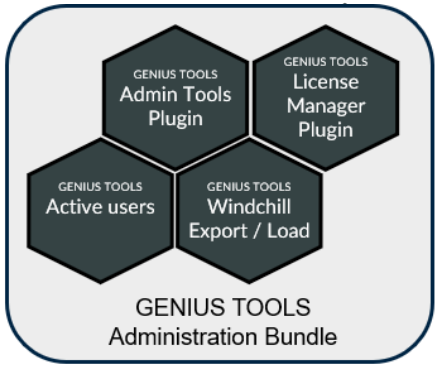


picture: The applicant is removed from the process

GT Administration Bundle

INNEO That's IT.

This bundle contains four plugins for administration:



- GT Admin Tools
  - GT Admin Tools consists of various useful Windchill administration tools.
    It supports with system maintenance and/or system expansion:
    - ACL utility to get access rights
    - Reassign Lifecycle Utility
    - Enumeration Details Tables showing the internal and translated values for lifecycle states and roles
    - Context push to copy ACLs or roles from one context to another
    - Enumeration generator to generate a partial load file for a global enumeration
- GT Windchill Export / Load
  - Export and import of Windchill business configuration
  - For transferring a configuration e.g., from a test system to the production system
- GT Windchill License Manager
  - simplified administration of allocation of Windchill licenses
- GT Active Users
  - Simplifies the display of logged-in users in Windchill.
  - The information has a delay depending on the Apache session timeout.

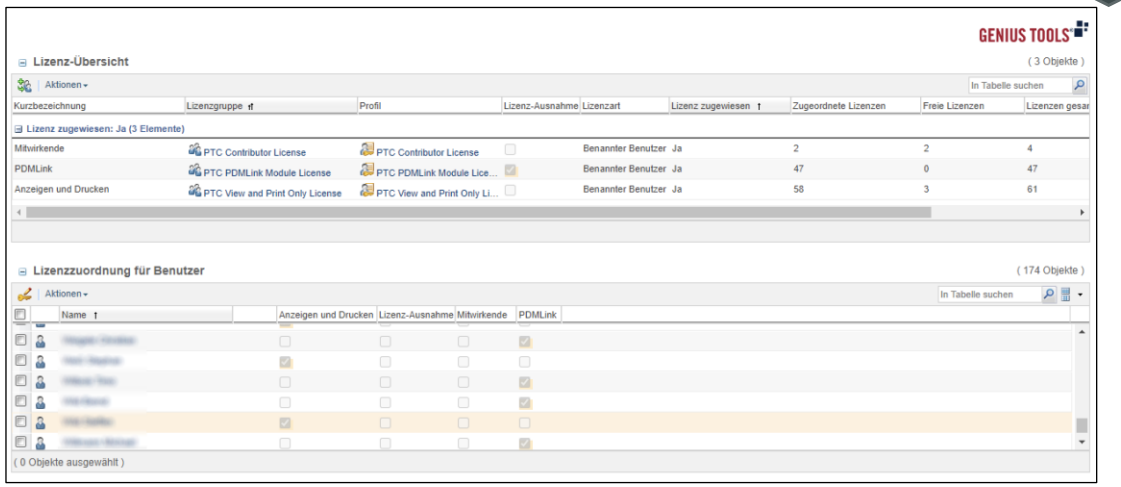
GT Administration Bundle

INNEO That's IT.

This bundle contains four plugins for administration:

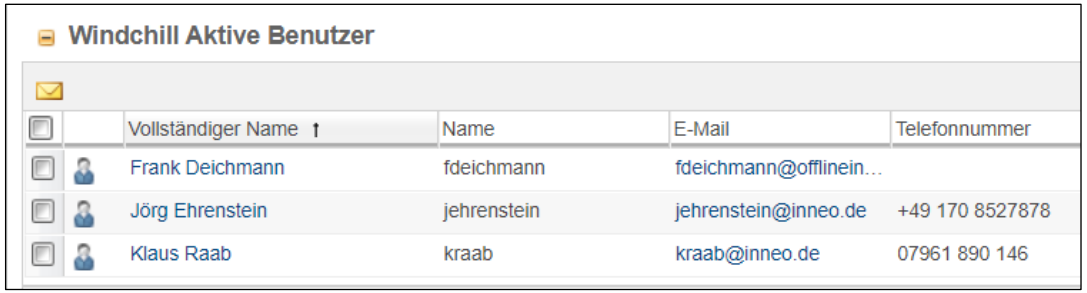
GENIUS TOOLS Administration Bundle

- GT Windchill License Manager Plugin
  - simplified administration of allocation of Windchill licenses



picture: License-Manager

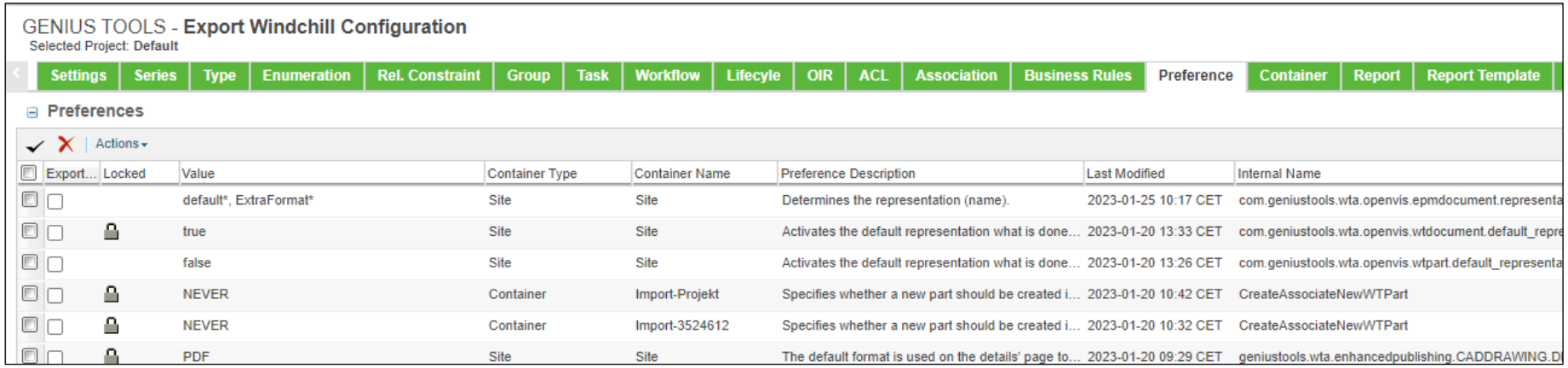
- GT Active Users Plugin
  - simplifies the display of logged-in users in Windchill.
  - The information has a delay depending on the Apache session timeout.



picture: Overview of registered users

GT Administration Bundle

- GT Admin Tools Plugin
  - GT Admin Tools consists of various useful Windchill administration tools. It supports in system maintenance and / or system expansion:
    - ACL utility to export/import access rights to Excel
    - Advanced utility to reassign lifecycle
    - Enumeration Details Tables showing the internal and translated values for lifecycle states and roles
    - Context push to copy ACLs or roles from one context to another
- GT Windchill „Export / Load“ Plugin
  - Export and import of Windchill business configuration
  - For transferring a configuration, e.g. from a test system to the production system



picture: Export function (using the “preferences” as an example)

Packaging

Pricing and Packaging

The bundles have different price models

- GT Usability Bundle
  - Is automatically included "free of charge" from the first bundle purchased
- GT Administration Bundle
  - Is licensed for two servers (e.g. productive and test system)
- GT Export, Release Information, Process…. Bundle
  - with a "Base" license for the server
  - with one “User” license per user in the Windchill system with the Windchill access licenses:
    - Author
    - Heavy-User
    - Base
    - Advanced
    - Premium

The bundles are also available as combined packages

Package overview

Single-Bundles

Base RA-SPN-213761
User RA-SPN-213762

Base RA-SPN-213763
User RA-SPN-213764

Base RA-SPN-213765
User RA-SPN-213766

Base RA-SPN-213767
User RA-SPN-213768

Base RA-SPN-213769
for two servers (prod / test)

Free installation & management platform

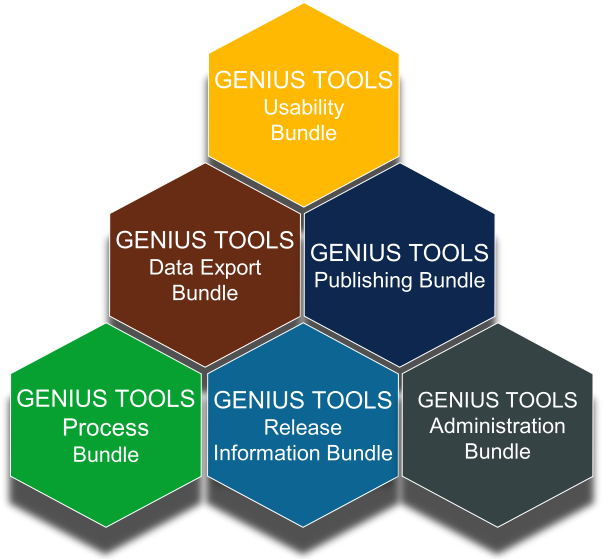
Included with every bundle and customizing

License model: Base, User / year

GENIUS TOOLS for Windchill

Base RA-SPN-213770
User RA-SPN-213771

GENIUS TOOLS for Windchill Enterprise



Base RA-SPN-213772
User RA-SPN-213773

Technical information

Prerequisites

INNEO GENIUS TOOLS for Windchill 8.1.0 are available for:

- Windchill PDMLink Version (check Matrix for CPS Version):
  - 12.0.2
  - 12.1.2
  - 13.0.2
- Windchill Databases:
  - MS-SQL
  - Oracle
- Server operating system
  - MS Windows Server
  - Linux

INNEO GENIUS TOOLS for Windchill are not available for clustered environments

Thank you for your attention!

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