

Model Processor

Version 9

Description of all functions

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I. Model Processor Suite

With the Model Processor, model information can be analyzed and processed with the help of so-called actions. The task of the Model Processor is to automate recurring tasks. You minimize sources of errors by eliminating the need to manually perform such tasks as exporting variant designations. You also save a lot of time, which is now available for more pertinent tasks.

Every step that you no longer want to perform manually, you define with the Model Processor in an "action". In "action lists" you bundle work steps in order to process them in sequence. The Model Processor is available in four versions that are designed to suit different users. With this range of products, you can use the advantages of the Model Processor in all departments of your company. Our Model Processor product range is presented on the following pages, including an overview of existing [actions](#)⁵.

The products of the Model Processor Suite help to comply with Creo Parametric model and work guidelines through a standardized implementation specified by the administrator. The individual products can be used in different situations.

- Interactive model preparation
- Batch processing
- Trigger mode (e.g. when saving a model in Creo Parametric)
- In the Windchill worker process

Model changes are defined in action lists. Action lists can also be used as commands within Creo Parametric to create specific functional extensions of Creo Parametric.



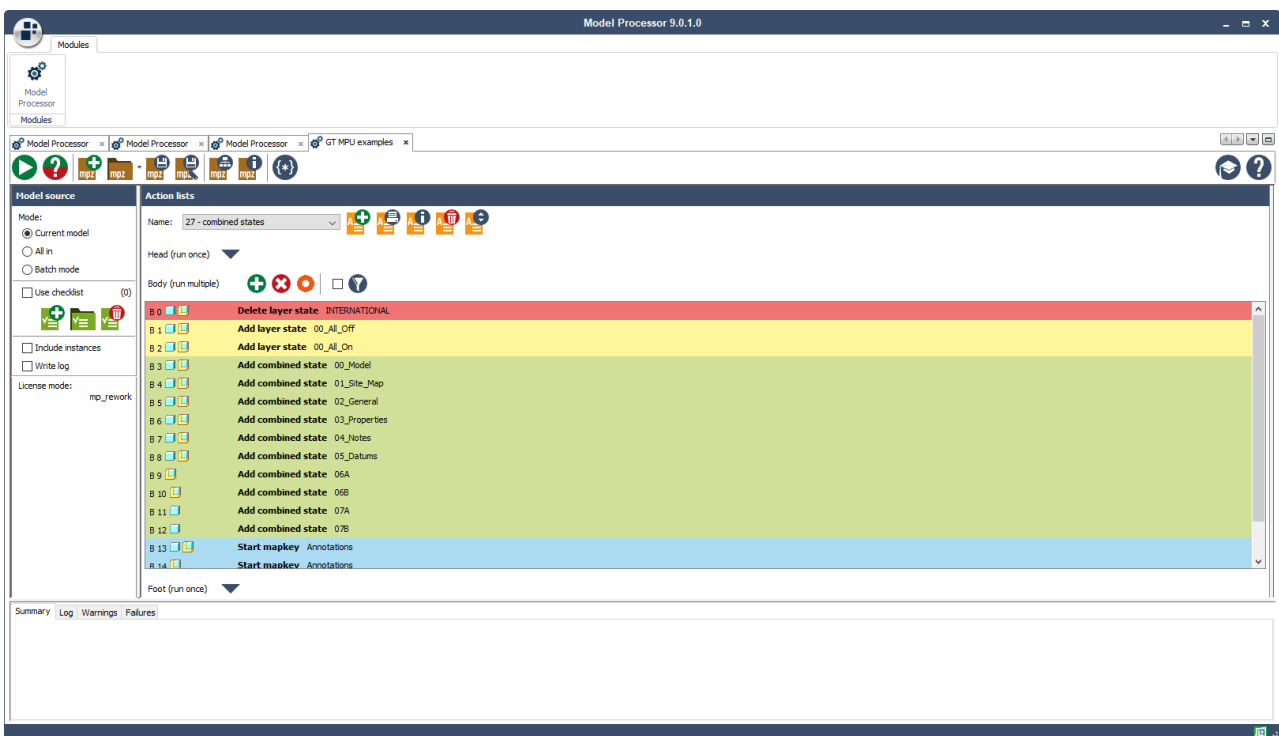
Overview of products and their usage

Model Processor	Usage
GENIUS TOOLS Model Processor Report	<ul style="list-style-type: none">– Definition of action lists– Batch processing for analysis of model information
GENIUS TOOLS Model Processor Rework	<ul style="list-style-type: none">– Contains Model Processor Report– Models modified during batch processing can be saved
GENIUS TOOLS Model Processor User	<ul style="list-style-type: none">– Action list processing embedded in Creo Parametric– Requires Model Processor Report or Model Processor Rework for action list generation
GENIUS TOOLS Model Processor Worker Extension	<ul style="list-style-type: none">– Action list processing in Windchill Worker– Requires Model Processor Report or Model Processor Rework for action list generation



II. GENIUS TOOLS Model Processor Report

The basic component of the GENIUS TOOLS Model Processor is GENIUS TOOLS Model Processor Report. This is a pure analysis tool and at the same time the editor for generating the action lists. These can also be used in the Model Processor User and Model Processor Worker Extension. In addition, batch processing can be used to automatically load models and write model information contained in them to CSV files. Via filters you can control whether each action of an action list is executed or not.





1. Actions

Environment

Clear all windows	Set model options (dtl)
Erase undisplayed models	Set user variable
Group action	Set user variable from URL
Request user input	Set working directory
Set config options	Write to Creo Log
Set environment variable	

PTC Windchill PDM

Add file to workspace	Clear workspace
Checkin model	Set server active
Checkout model	

Model

Add 3D annotation	Rename model
Backup action	Replace model
Cancel feature insert position	Rescale feature positions in assemblies
Compute mass	Save model
Copy model	Set accuracy
Create DM dot matrix	Set all dimension bounds
Create QR dot matrix	Set feature insert position
Edit PTC_COMMON_NAME	Set style
Edit model dimension from file	Set tolerance
Insert first features	Set units
Load tolerance table	Set user variable from bounding box
Regenerate model	Start ModelCHECK
Rename feature	



Model – Views

Add views	Set view
Rename view	

Model – Relations

Add feature relations	Edit feature relations
Add model relations	Edit model relations
Delete feature relations	Set relation unit sensitive
Delete model relations	

Model – Export

Export Creo View file	Export PDF/U3D file
Export IGES file	Export SAT file
Export JPG file	Export STEP file
Export PARASOLID file	Export STL file

Model – Family table

Delete family table instance	Unlock all instances
Split up family table	Verify family table

Model – Appearance

Set appearance	Set appearance from rgb
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Model – Layer

Add layer	Group layer
Add layer state	Rename layer
Delete layer / Move features	Set layer state
Delete layer state	Set layer status

Model – Combined state

Add combined state	Set combined state
Delete combined state	

**Modell – Explode state**

Add explode state

Set explode state

Delete explode state

Model – Cross section

Activate cross section

Show cross section

Add cross section

Update all cross sections in model

Delete cross section

Model – Material

Add material

Edit current material parameter

Add material parameter

Edit material from file

Delete material

Replace material

Model – Parameter

Add alternative model parameter to family table

Edit model parameter

Add associative parameter to flexible dimension

Edit model parameter from file

Add feature parameter

Edit parameter from dictionary

Add model parameter

Edit parameter from symbol text

Change all designation flags

Edit parameter from table cell

Delete feature parameter

Fill component parameters by reference

Delete model parameter

Rename model parameter

Edit drawing parameter from model

Model – Pro/PROGRAM

Delete model Pro/PROGRAM input lines

Delete model Pro/PROGRAM lines

Model – Simplified representation

Create simplified representation

Rename simplified representations

Delete simplified representation

Set simplified representation

Edit simplified representation



Drawing

Edit model notes from file	Replace view model display
Remove all annotations	Set current drawing model
Remove unused drawing models	Set current sheet scale
Replace format	Show unbend features on views

Drawing – Export

Export 2D PDF file	Export DXF file
Export DWG file	Export TIFF file

Drawing – Note

Add note	Move note
Delete note	

Drawing – Symbol

Add symbol	Delete symbol
Change symbol group	Move symbol
Create Barcode (PDF417)	Remove symbol paths
Create DM code symbol	Update symbol definitions
Create QR code symbol	

Drawing – Table

Add table	Move table
Delete table	



Report

Report Feature Parameters

Report Pro/PROGRAM

Report dependencies

Report drawing data

Report drawing table cell

Report family table

Report feature positions

Report geometry properties

Open CSV Report (only possible before the model revision)

Report layer

Report materials

Report model data

Report parameters

Report relations

Report universal

Write informative PDF

Write list all report



2. Filter options for actions

Assembly

Explode state exists

Style state exists

Drawing

Dimension text

Symbol in drawing

Format name

Symbol on drawing

Formats on sheets

Table on drawing

Is multi model drawing

current model

Sheet size

Environment

Creo version

Model exists

Environment variable

User parameter

File exists

Model

Dimension tolerance

Model sub type

Double defined Parameters

PDM object

File name

PDM object (deprecated)

Is modified

Parameter

Is regenerative

Parameter type

Layer

Path

Part

Current material name

Material parameter

Is skeleton



Solid

Accuracy	Is generic
Combined state	Is insert mode active
Contains circular dependencies	Is instance
Cross section exists	Layer state exists
Feature exists	Relation
Feature from type	Simplified representation exists
Feature is flexible	Tolerance
Feature suppressed	Unit system
Geometry check exists	Unverified instance
Instance with name	View exists



III. GENIUS TOOLS Model Processor Rework

Model Processor Rework is the complete version of the Model Processor Suite and contains the Model Processor Report. In addition, there are actions with which you can save modified models. With this you put into practice the analyses created with Model Processor Report. That means you define tasks to be performed by all team members in the same way and with the same result. To automate changes to models in batch mode, you need Model Processor Rework.

There are additional actions that allow saving modified models within the batch processing.

Additional Actions

Environment

Save config options

Start mapkey

Start MSDOS command

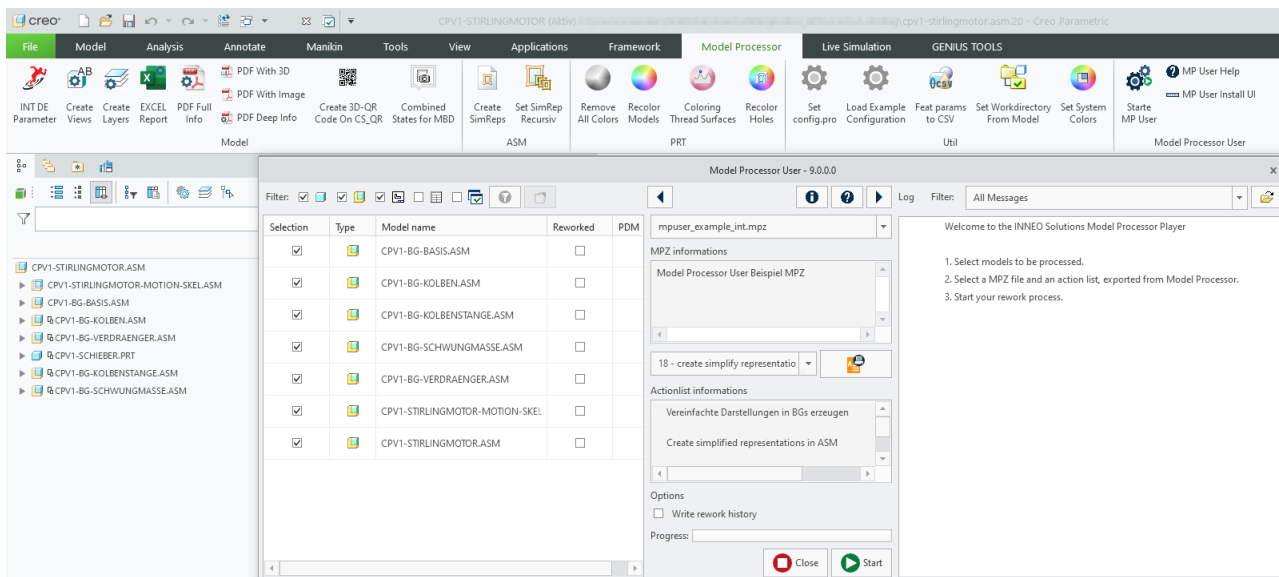
Start trail file



IV. GENIUS TOOLS Model Processor User

This version of the Model Processor is suitable for all team members. Action lists defined by the administrator are available to you with this license. You now execute these action lists via the Model Processor User within Creo Parametric. You can store one command per executable action list in the ribbon.

Action lists cannot be created or modified with the Model Processor User. This is for quality assurance purposes and has the advantage that different variants of an action list cannot circulate in a department.





V. GENIUS TOOLS Model Processor Worker Extension

While the variants of the Model Processor already presented are designed for engineers, the Model Processor Worker Extension is a way to let the whole company benefit from the automations. Model Processor Worker Extension works in the Windchill Visualization Process (also known as Windchill Worker). It processes action lists on your Creo Parametric models. You can also generate additional file formats from these models, such as STEP files, PDF files, and/or images rendered with KeyShot.

The data generated in this way are automatically linked to the original object in Windchill. At the same time, your original model is preserved.



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