

GENIUS TOOLS Model Processor

October 2026

Description of an Example MPX

© 2026 INNEO Solutions GmbH

Contents

I. Example MPX file

1. change drawing formats	2
2. insert drawing table	2
3. insert drawing symbol	2
4. insert drawing note	3
5. move drawing elements	3
6. INT DE parameter and mapping	4
7. DRW2PDF revision	4
8. MDL2PDF	5
9. MDL2PDF3D	5
10. recolor models	5
11. PARTCOMMUNITY	5
12. config pro	6
13. recolor surfaces with threads	6
14. remove all colors	7
15. create simplified representations	7
16. redefine simplified representations	7
17. create views	7
18. create layers	8
19. set working dir from model	8
20. set system colors	8
21. QR code	9
22. QR code 3D	9
23. recolor holes	9
24. combined states	9
25. write feature parameter	9
26. sheet info parameter	10

I. Example MPX file

The MPX file *mpuser_example_int.mpx* contains 26 sample task lists that can be used as templates and customized as needed. Each task list is self-contained and functions independently of the others. Also pay attention to the filters that are part of the task list settings.

All files required to run the task lists are included and can be found under *Model Tree*, such as PNGs, materials, and table templates.

You find the example MPX file under *<InstallationDirectory>\Model Processor 13\examples*.

1. change drawing formats

Description in the Task List

Create necessary parameters, fill the drawing frame with these. Set the drawing frame according to the sheet size.

Further Description

This task list applies the Startup TOOLS parameter concept to model and drawing in accordance with the company standard. In order to set the included drawing frames with the corresponding table, all of the parameters read from them must be present. This task list creates and fills in all the necessary parameters. Then, the sheet size is checked (A0–A3 and A4 portrait) and the drawing frame is set accordingly.

2. insert drawing table

Description in the Task List

Create modification parameters and place them in a newly created drawing table.

Further Description

To track changes, parameters are created and filled with the changes. A change table containing this information is then placed on the current sheet, to the left of the table in the drawing frame.

3. insert drawing symbol

Description in the Task List

Add and place drawing symbols.

Further Description

Symbols are added to the drawing and inserted above the table on the right within the drawing frame. The defined filters specify that this task list is executed only if no Startup TOOLS templates are currently in use. If task lists 01 and 02 have already been executed, this task list is skipped. Regular expressions were used to define the filter: `^sut_int.*`, `^sut_drw.*`, `^sut_md1.*`. These expressions search for all templates, drawings and models that contain `sut` in the filename, meaning that the necessary Startup TOOLS templates are already being applied.

4. insert drawing note

Description in the Task List

Add and place a drawing note.

Further Description

A note is added to the drawing and inserted above the table on the right within the drawing frame. The defined filters specify that this task list is executed only if no Startup TOOLS templates are currently in use. If task lists 01 and 02 have already been executed, this task list is skipped. Regular expressions were used to define the filter: `^sut_int.*`, `^sut_drw.*`, `^sut_md1.*`. These expressions search for all templates, drawings and models that contain `sut` in the filename, meaning that the necessary Startup TOOLS templates are already being applied.

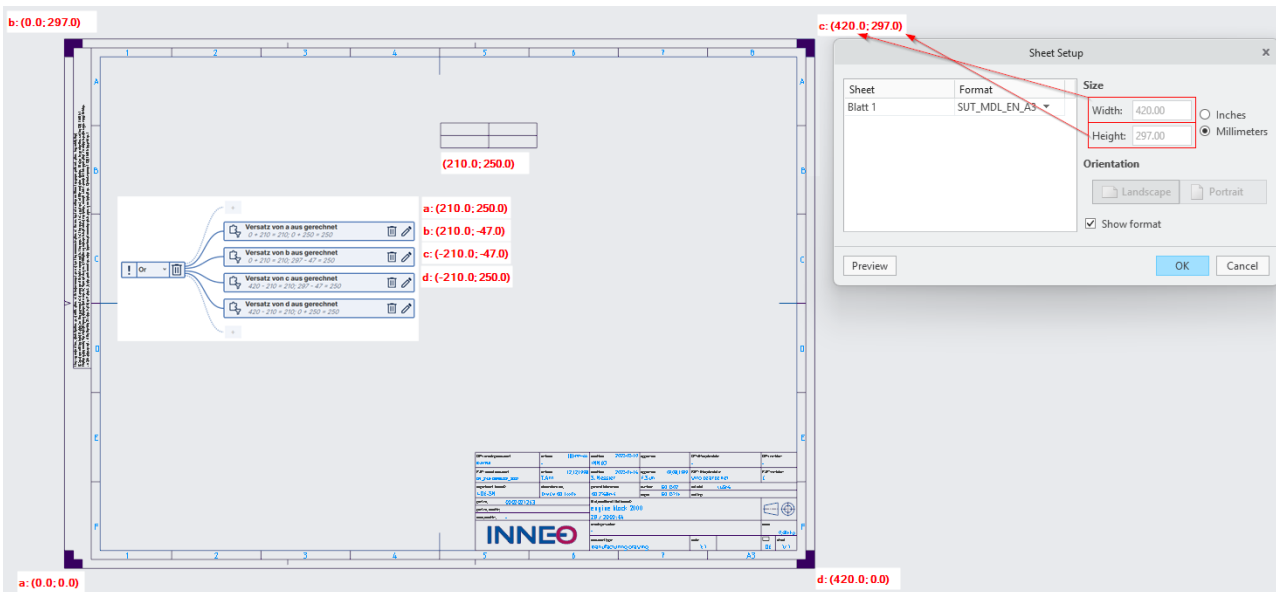
5. move drawing elements

Description in the Task List

Option to switch drawing tables, notes and symbols between different table positions.

Further Description

The table, along with all its predefined content, can be moved to a different position. Filters are used for this purpose. To customize the table's position, the filters can be adjusted. Depending on which corner the filter originates from, the position must be calculated accordingly. The key factor here is the specification under *Sheet Setup*, which applies to the top right corner of the sheet (e. g. A3: (420.00; 297.00)).



Four corners for calculating the position to which the drawing element is moved

6. INT DE parameter and mapping

Description in the Task List

Apply Startup TOOLS 2015 parameter concept.

Further Description

This task list applies the Startup TOOLS parameter concept to model and drawing in accordance with the company standard. All necessary parameters are created and needed model relations set.

7. DRW2PDF revision

Description in the Task List

Use mapkeys to customize the path and parameters. Then, export the current drawing as a PDF to the specified destination.

Further Description

This task list only executes *Start Mapkey* tasks. If certain parameters are present in the drawing, they are included in the PDF file name. If these parameters are missing, the PDF is exported using the model name as the file name. The decision on how to export data is configured using anonymous filters.



8. MDL2PDF

Description in the Task List

Use mapkeys to customize the path and parameters. Then, export the current model as a PDF to the specified destination.

Further Description

This task list only executes *Start Mapkey* tasks. If certain parameters are present in the model, they are included in the PDF file name. If these parameters are missing, the PDF is exported using the model name as the file name. The decision on how to export data is configured using anonymous filters.

9. MDL2PDF3D

Description in the Task List

Use mapkeys to customize the path and parameters. Then, export the current model as a 3D PDF to the specified destination.

Further Description

This task list only executes *Start Mapkey* tasks. If certain parameters are present in the model, they are included in the 3D PDF file name. If these parameters are missing, the 3D PDF is exported using the model name as the file name. The decision on how to export data is configured using anonymous filters.

10. recolor models

Description in the Task List

Different parts of a model are colored differently.

Further Description

Generics, curves, cross-sections, holes and threaded body surfaces are colored differently. Next, the magenta dye is removed from all surfaces. This allows only the threaded body surfaces to be dyed magenta.

11. PARTCOMMUNITY

Description in the Task List

Set the company standard for foreign parts.

Further Description

To import external models, whether from libraries or suppliers, the necessary preliminary settings are configured. These include accuracy, unit system, tolerances, and view names, which are adjusted to align with your standards. Next, the required parameters are set, including translation. Then, layer status and model relations are added. Finally, the model is regenerated.

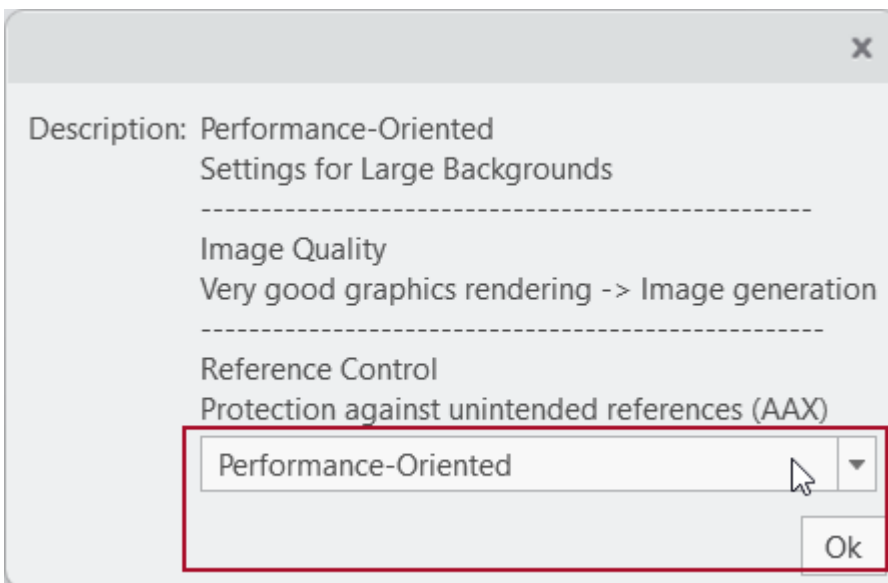
12. config pro

Description in the Task List

Creates a drop-down menu that allows the user to select the image quality.

Further Description

A selection window is created, in which the user can choose one of three configuration options from `config.pro`. Information for each setting is stored in the *Head* section of this task list to help the user make an informed decision. The selected option is saved as a user variable under *Resources*.



Once this task is executed, this window appears.

13. recolor surfaces with threads

Description in the Task List

Color-code the threads according to the standards.

Further Description

If magenta has already been used as a surface color in the model, it will be removed because magenta is reserved for threads. All threads are initially colored magenta and then colored differently according to the standards.

14. remove all colors

Description in the Task List

All colors are removed, and all edited models are reloaded.

Further Description

Removes all colors from the entire model and from all model surfaces. The models are then redrawn. To ensure that all models are redrawn only once after reworking, the corresponding task is executed in *Foot*.

15. create simplified representations

Description in the Task List

Create simplified representations in assembly mode.

Further Description

Several simplified representations are created for assemblies.

16. redefine simplified representations

Description in the Task List

Edit existing simplified representations.

Further Description

Simplified representations that have been created (e. g. via Task List 15) can be described in greater detail. A user request is set up to determine when to use which simplified representation. The selected value is set.

17. create views

Description in the Task List

Create a view and set it based on the language.

Further Description

This task list standardizes the layout of views. First, the models are placed in the view *Default*. Then, additional language-specific views are added in subsequent tasks.

18. create layers

Description in the Task List

Establish a standard for layers.

Further Description

This task list applies the Startup TOOLS layer concept to model and drawing in accordance with the company standard. Using a filter and the regular expression `(?!)^_00.*`, all layers that do not begin with `_00` are deleted. To make sure you know which expressions will be deleted, you can use the RegEx Editor to test various phrases. Then, new layers that follow the naming convention are created and populated. Finally, empty layers are deleted.

19. set working dir from model

Description in the Task List

Set the working directory to the folder that contains the current model.

Further Description

Depending on when the working directory is to be set, this task can be executed in *Head*, *Body* and *Foot*.

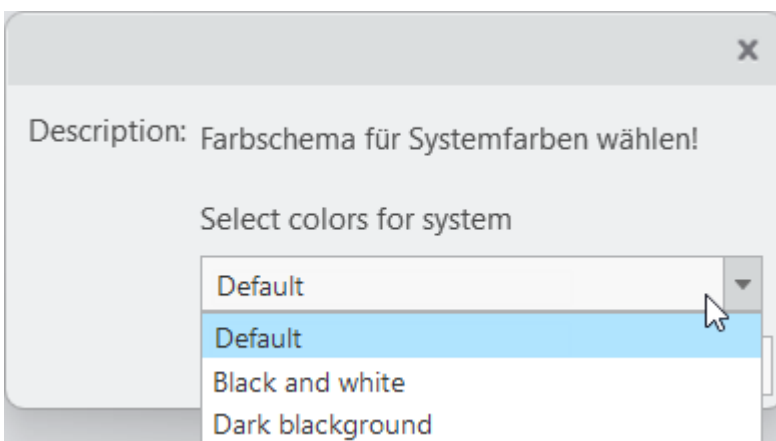
20. set system colors

Description in the Task List

Read and set system colors with mapkeys.

Further Description

A user request asks for the desired background color, and once selected, it is set using filters and the corresponding mapkey.



User request to set the system color



21. QR code

Description in the Task List

Create and place QR Codes.

Further Description

Creates a QR code that can be set via a global user variable. A temporary parameter and an icon are required to display the QR code.

22. QR code 3D

Description in the Task List

Creates a QR code that can be set via a global user variable.

Further Description

Create a QR dot matrix and set the QR dot matrix diameter

23. recolor holes

Description in the Task List

Recolor holes.

Further Description

Depending on their properties, the holes are recolored. This process involves applying the same task with different colors and filters.

24. combined states

Description in the Task List

Add combined states.

Further Description

A layer state and several combined views are added and set. Annotations are added using mapkeys.

25. write feature parameter

Description in the Task List

Generate a report for features using a List Report Definition.



Further Description

A List Report Definition is created under *Resources*. This template specifies how the report is saved. The template is filled out under *Body* so that features are reported. The report's content is defined under *Report Features*.

26. sheet info parameter

Description in the Task List

Set drawing sheet parameters.

Further Description

The user variable SNO (SHEETNUMBER) is created and populated to specify the sheet number. If the SHEETSTOTAL parameter does not yet exist, it is created. The value is then updated. All sheets are processed sequentially using a group, with each sheet being numbered in two-digit increments starting from 01.



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