New features in MTpro 3.2

This document describes the new features of MTpro version 3.2 as compared to MTpro 3.1.0.1.

Table of contents

1  New features of the basic software .............................................................2
  1.1 General........................................................................................................2
  1.2 Template-based Excel export of order lists .............................................3
  1.3 Inclusion of weight in CAD export ..........................................................5
  1.4 Translation to Chinese .................................................................5
  2  Layout Designer News .............................................................................6
     2.1 TS 2plus transport control elements and identification systems............6
        2.1.1 Transportation control elements..................................................6
        2.1.2 Identification systems .................................................................7
     2.2 CAD-Export to an MTpro assembly window ........................................9
     2.3 Other improvements of layout designer .............................................11
        2.3.1 New link element for user defined connections............................11
        2.3.2 Extension of the stretch function to other product lines ...............13
        2.3.3 Value entry for rotation function ..................................................14
1  New features of the basic software

1.1  General

In the new MTpro version 3.2 the catalogs of MGE, TS 1, TS 5, VarioFlow and VarioFlow-S were updated. Also new assembly instructions and CAD models are included.

The MTpro update can be downloaded and installed directly from Internet using the built-in update function (full MTpro installation, Internet connection and administrator privileges are required). Depending on the option settings MTpro can check automatically, if updates are available. To run the update manually, invoke the command “Check for updates...“ in MTpro’s help menu and follow the directions of the update wizard.

It is also possible to update an existing MTpro 3.x installation to version 3.2 from the new MTpro 3.2 DVD, without removing the software before.
1.2 Template-based Excel export of order lists

Now you are able to export order lists in the same way as you already know from filling out RTF templates. First, choose your type of template (1.), change the output destination to “Excel” (2.), set the template orientation to landscape, if needed, and finally click on “Fill out template” (3):

![Excel document template](image)

Excel is started (if not already open) and you get an Excel document based on the given template:

![Excel document](image)

The Excel document template is completely customizable. First choose the type of template you would like to change (1.), then change output destination...
Memo

New features in MTpro 3.2

to “Excel” (2.), set the template orientation to landscape, if needed, and finally click on the button “Open template” (3.):

Afterwards the document template is opened by Excel and you can customize the template:
1.3 **Inclusion of weight in CAD export**

In MTpro the weight of non-configurable products is directly listed. For strut profiles the weight is calculated depending on the length.

From now on the weight property is also exported to the CAD systems AutoCAD, Inventor, SolidWorks and Pro/Engineer. In addition the weight property is read back, when the order list is retrieved from the CAD file.

1.4 **Translation to Chinese**

As a seventh language, Chinese was included in MTpro. The language can be set in the Extras -> Language menu.

Please note that switching the language will have no effect on the entries of an order list. Order list entries are preserved in the language, which was set, when they were entered into the order list.
2 Layout Designer News

Stability and performance of the layout designer tool has been significantly increased. The speed of some functions was optimized and known bugs have been eliminated.

2.1 TS 2plus transport control elements and identification systems

In MTpro 3.2 transportation control elements and identification system components have been included, which can be attached to any TS 2plus section elements.

2.1.1 Transportation control elements

Now the TS 2plus transportation control elements like stoppers, dampers, rockers and proximity switches can be placed in the layout and configured. To better recognize them in the drawing, the functional elements are highlighted in red color and the proximity switches are green.

You can always switch to a more realistic representation by selecting a component or assembly and setting the property “Highlight transportation control” to “no”:

![Image]

- Highlight the transportation control
  
<table>
<thead>
<tr>
<th></th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component list


2.1.2 Identification systems

In addition to the already included mobile data tags (MDT) for work piece pallets, in version 3.2 elements like antennas and read/write heads can be docked to section elements. For a better recognition the identification system components are highlighted in orange color.
To toggle between different identification systems, select the complete transfer system and choose the desired system parameters in the “identification system” properties section. All the mobile data tags, read/write heads or antennas included in the selection, will be automatically adjusted to your choice.

You can always switch to a more realistic representation by selecting a component or group and setting the property “Highlight transportation control” to “no”:
2.2 CAD-Export to an MTpro assembly window

To convert a layout designer assembly to a solid CAD model without needing a CAD system, the layout can be exported to the built-in 3D-assembly window.

In the “Extras” / “Options” menu, under “CAD output”, the option “Extended CAD function” must be switched off. Otherwise MTpro will try to export the assembly to the selected CAD system. Also at this point, the CAD format (e.g. STEP) can be selected:
In the “Extras” / “Options” menu, under “View”, you can determine the level of detail of the exported CAD models.

Back in layout designer the whole or a selected part of the layout can be exported to a 3D assembly window by calling the menu item “Layout Designer” -> “Start CAD export”.

Like any other MTpro CAD model, the assembly can be saved to a CAD file by pressing the “Save” button in the toolbar or by choosing the same command from the “3D CAD model” menu:
2.3 Other improvements of layout designer

2.3.1 New link element for user defined connections

To connect imported CAD models or original layout designer components with any other part, a general link element is now available. This helps to connect (dock together) assemblies from different product groups, as the example below of a wedge conveyor with support structure built from basic mechanical elements, may illustrate:

The same procedure is used to dock imported CAD models with layout designer components and to dock together components from different product groups:

- Select the component, to which you want to dock a part. Then open the context menu by pressing the right mouse button and click on the “Create link element” command.
- At the base point of the selected component the link element will appear. The link element is surrounded by a red transparent cube.

- Drag another component over the link element and it will snap in a defined position.

- Select the link element and adjust the coordinates of the connected part with help of the link element properties “Displacement” and “Rotation”: 
- The property “link element” decides, if a link element is visible or not. For a more realistic representation of your layout set “Link element” to “Hide”.

2.3.2 Extension of the stretch function to other product lines
So far the stretch function was only implemented for basic mechanic elements. Now it is available for all product lines:
The stretch function can be invoked with the command “Stretch selected” from the context menu, provided that an assembly to be stretched has been selected.

2.3.3 Value entry for rotation function

The rotation of components around the x-, y- or z-axis has been greatly enhanced by allowing specification of the rotation angle by value. After clicking on a rotation handle, a dialog box is opened to enter the rotation angle in degrees.

By repeatedly pressing the keys x, y or z, or by invoking the equivalent menu commands, the rotation handles are switched on and off.