TECHNOLOGY GROUP
mk®

User Guide

mk Config

mk Config

Register

Register

1.1. CD-Start

Insert the CD.

--> The very first time the program is started a dialog box opens: **Language Selection**.

If Autostart is disabled, start the application by running the **cdstart.exe** file in the **.../software** subdirectory.

Select the required language from the list box and confirm with **OK**.

--> The startpage opens. (The startpage opens directly in future each time the program is started.) You can use the list box on the right to change the language at any time.
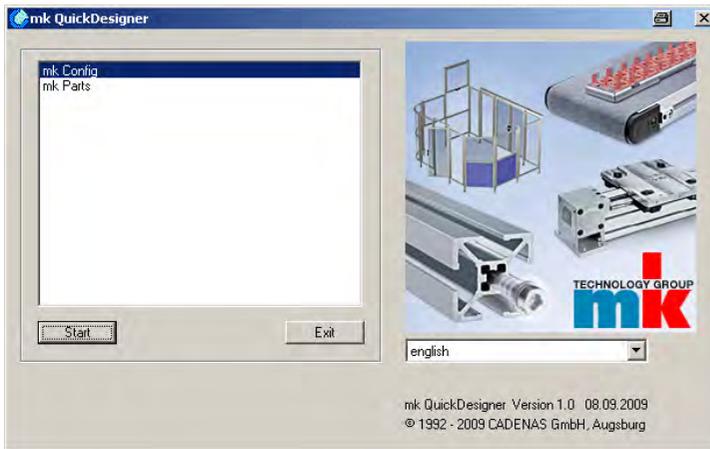
Startpage

You now have 2 options:
- Start the program directly from the CD without installing the program beforehand:
  To do this, click the **Start** button.
  --> The work area opens.
  Skip to the next section, "Start", in this document.

- Installing the program:
  More detailed explanations are given in the next section.

Note: Installation is recommended for better performance.

1.2. Installation

Start the installation by clicking the **Install** button.

The **Directory Name** dialog box opens.

Select the installation directory and confirm with **OK**.

All program files are now copied onto the hard disk.

In addition, a desktop icon is created, with which you can now start the application.

1.3. Start

If you decided to install the application, you now start it using the **Desktop Icon**; otherwise using CD Autostart, or the **cdstart.exe** file.

The very first time you start the program the **Registration Wizard** appears with the selection dialog for the **Sales Region**.

■ Select your **Sales Region** and the preferred **Unit** (mm/inch) from the list box:

■ Complete the fields (fields marked with an asterisk (*) are mandatory fields) and finish with **Send registration**.
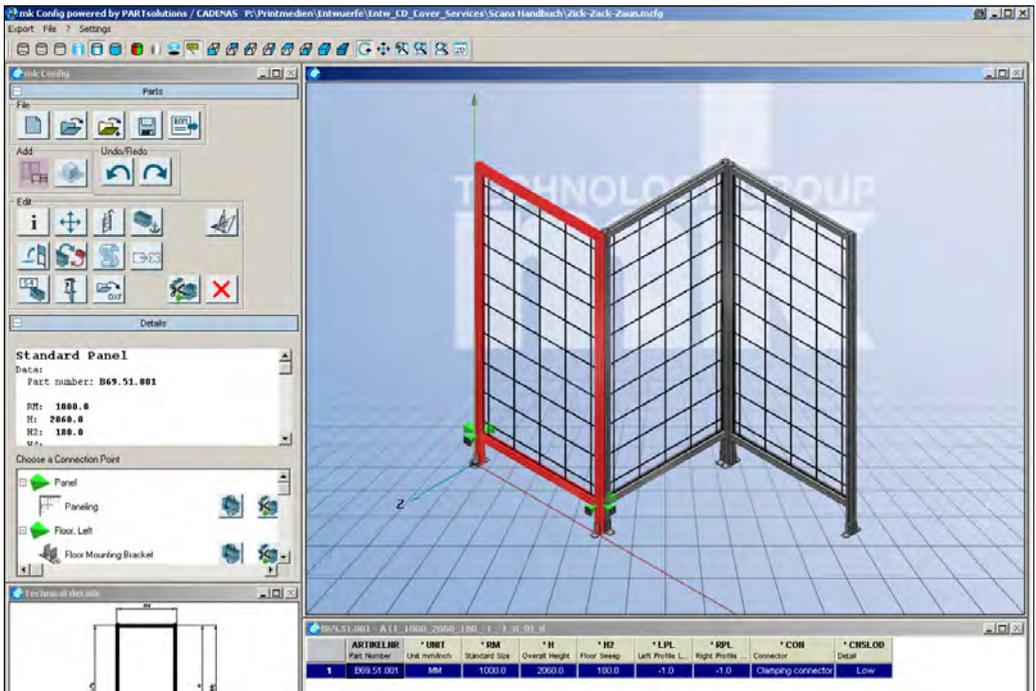

The startpage opens directly.

Select the required **Language** on the right in the list box.

To open the work area, click the **Start** button.

1.4. Layout of user interface and functions

1.4.1. Overview

After starting the configurator the work area opens:

Configurator

The work area layout is as follows:

- The left-hand side contains the Part buttons, Dialog boxes and Technical Details
- The 3D view is on the top right-hand side
- The part Table is on the bottom right-hand side
- At the very top, below the menu bar, are the 3D view buttons

Note: Please note that most buttons and dialog boxes do not become active until at least one part has been generated and activated.

1.4. Layout of user interface and functions

1.4.2. Part buttons

The following is an overview of the buttons.

- **File** (group box)

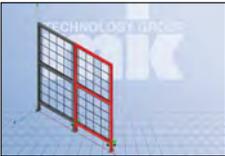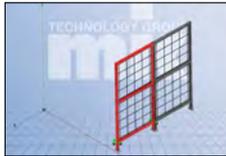**New Configuration**

Open File

Add File
Use **Add File** to add previously saved assemblies to an already open assembly.

Assembly 1

Assembly 2

Assembly 1 and Assembly 2 added

Save File   **Export Bill of Material**

- **Add** (group box)

Insert mk Guarding System   **Insert Objects**

- **Undo/Redo** (group box)

Undo   **Redo**

- **Edit** (group box)

Part overview   **Move/rotate part**

Arrange partitions   **Fix part at position**

Build fence   **Change paneling/windows**

Change part   **Comment for part**

Set level of detail   **Show comments in 3D view**

Measure   **Load DXF file**

Disconnect part   **Delete part** (Use this command to delete the selected part.)

1.4. Layout of user interface and functions

1.4.3. Menus

- **Export --> File** (see Section 1.5.6, "Export")
- **File --> Exit:** Closes the application
- **File --> 2D view** (see Section 1.5.7, "Create 2D view")
- **? --> About** (alternatively F8)

Product information, i.e. version details

- **Settings --> Preferences**

Select your **Sales Region** and the preferred **Unit** (mm/inch) from the list box:

1.4. Layout of user interface and functions

The following figure explains the various functions:

	Line view	All lines visible
	Hidden line grey display	Line display: Concealed edges are displayed in grey
	Hidden line view	Line display: Concealed edges are not displayed
	Shaded view	3-D body displayed with shading of the body
	Shaded view with edges	3-D body displayed with shading of the body plus contour lines
	Schematic view with edges	3-D body displayed without shading of the body plus contour lines
	Red/green effect	The part can be viewed spatially – in 3D – through 3D glasses
	Display sketched	Display as "pencil drawing"
	Display with shadow	3D solid display with a shadow beneath the body
	Front view	
	Rear view	
	Left view	

1.4. Layout of user interface and functions

1.4.4. 3D view Toolbar

	Right view
	Top view
	Bottom view
	Isometric view
	Perspective projection

	Rotate	Free rotation of the part while keeping the mouse button pressed
	Pan	Move the part while keeping the mouse button pressed
	Zoom	Keep mouse button pressed and zoom in (--> enlarge) or out (--> make smaller)
	Zoom view on rectangular clipping	Keep mouse button pressed and drag a frame around the required section of the drawing/window
	Zoom all	I.e. reset "Enlarge window"; restore complete view
	2D view	Create 2D view

1.4. Layout of user interface and functions

1.4.5. 3D view context menu

The context menu of the 3D view (right-click) contains several important additional commands.

■ **Rotate part around connection point.** For further information, refer to Section 1.6.15, "Rotate part about connection point".

■ **Part overview.** For further information, refer to Section 1.5.5, "Part Overview".

■ **Move/rotate part.** For further information, refer to Section 1.6.2, "Move/Rotate Part".

■ **Arrange partitions.** For further information, refer to Section 1.6.3, "Arrange Partitions".

■ **Fix part at position.** For further information, refer to Section 1.6.4, "Fix Part at Position".

■ **Change paneling/windows.** For further information, refer to Section 1.6.6, "Change Paneling/Windows".

■ **Change part.** For further information, refer to Section 1.6.7, "Change Part".

■ **Comment for part.** For further information, refer to Section 1.6.8, "Comment for Part".

■ **Set level of detail.** For further information, refer to Section 1.6.9, "Set Level of Detail".

■ **Disconnect part.** For further information, refer to Section 1.6.13, "Disconnect Part".

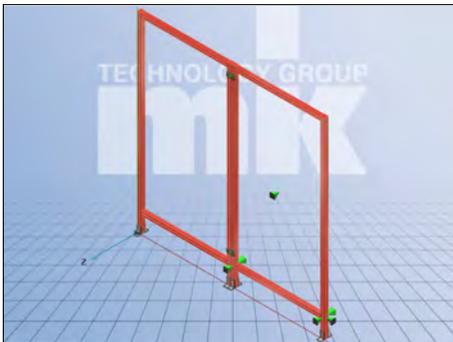# 1.4. Layout of user interface and functions

1.4.5. 3D view context menu

- **Select all**
  If several assemblies exist, all assemblies are selected.
  Selected assemblies turn red.

- **Select assembly**
 If several assemblies exist, the marked assembly only is selected.
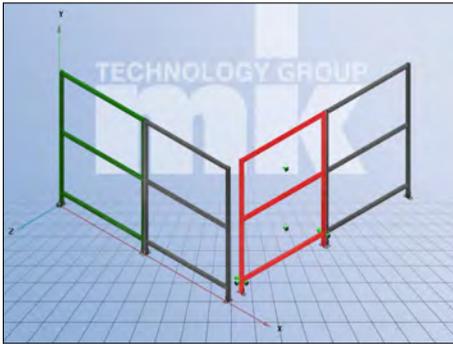
2 Assemblies

- **Connect unconnected parts**
  The command is only displayed if several parts have been marked (selected).
  The command is executed if the parts are positioned in such a way that they can be connected.

- **Cut, copy, paste**
  Mark all parts that shall be copied by mouse click while pressing the Ctrl-key.

1.4. Layout of user interface and functions

1.4.5. 3D view context menu

Open the context menu by right-click and choose **Copy**.
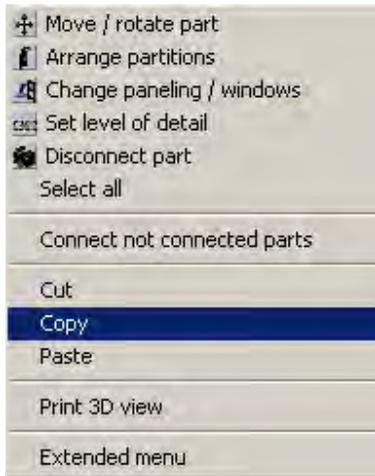
Open the context menu by right-click and choose **Paste**.
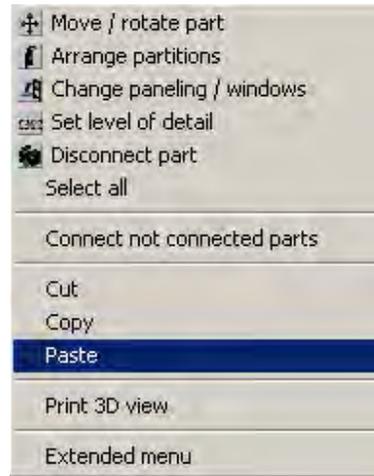
--> The dialog box opens on the left side. Insert the values the new parts shall be moved or rotated to.
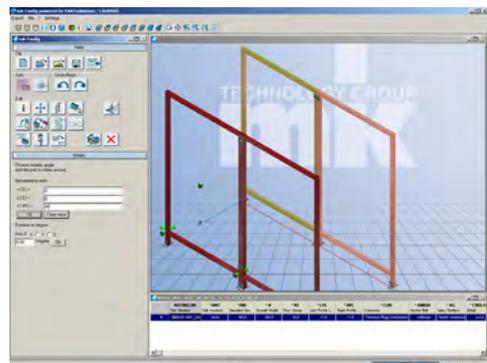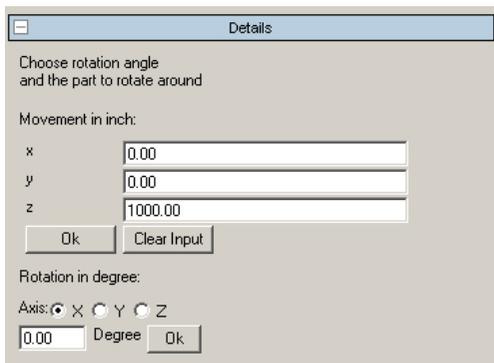
Note: Input point must be given or new part will be copied over existing part. This will not be visible on the screen and will cause unnecessary parts to be added to the final parts list.

1.4. Layout of user interface and functions

1.4.5. 3D view context menu

■ **Set transparency**

By clicking on part with the scroll wheel the part becomes transparent.
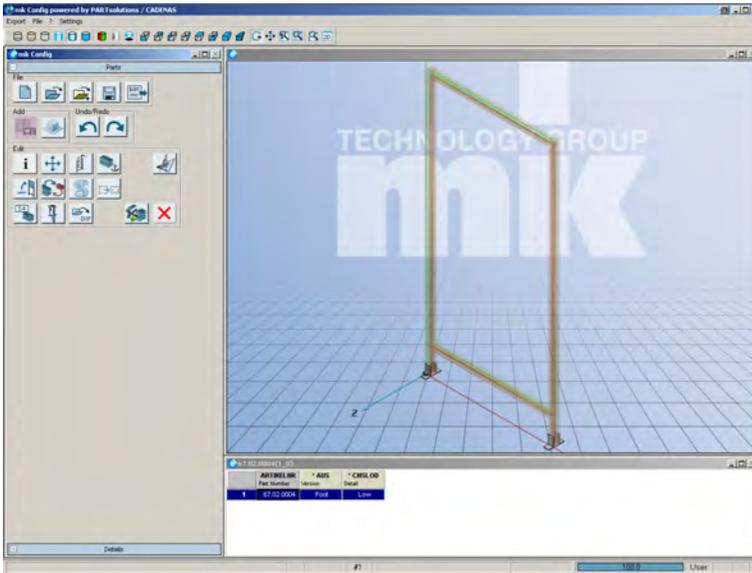
■ **Set/adjust transparency**

Activate the context menu by clicking the right mouse button. Choose **Extended menu**.

Activate the context menu by clicking on a part with the right mouse button. Choose **Assembly/ Transparency**. The degree of transparency can be choosen from the dropdown menu.
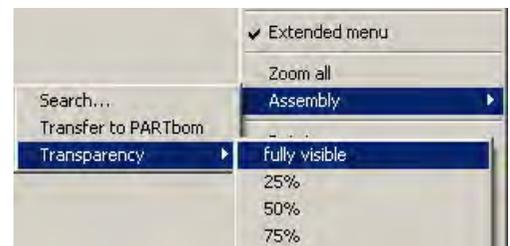
1.4. Layout of user interface and functions

1.4.6. Part Modification Table

In general, modifications can be made for all dimensions, connectors and panels using the part modification table. To modify a part: --> 1. Select Assembly --> 2. Select column --> 3. Choose value from drop down tab or enter custom (if available).
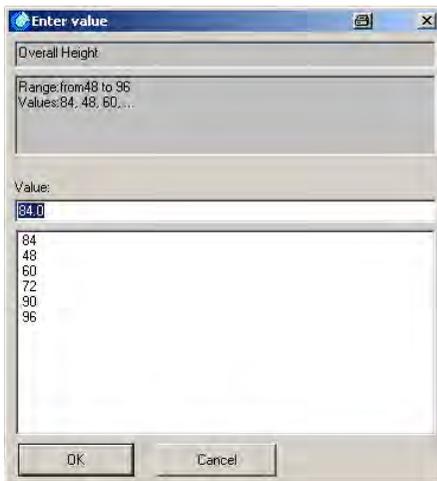
Click on field to change values.

	ARTIKELNR Part Number	* UNIT Unit mm/inch	* RM Standard Size	* H Overall Height	* H2 Floor Sweep	* LPL Left Profile L...	* RPL Right Profile ...	* CON Connector	* CNSLOD Detail
1	B69.51.001	Inch	48.0	84.0	6.0	-1.0	-1.0	Clamping connector	Low

--> The **Enter value** dialog box opens.

Select standard dimensions or enter custom value
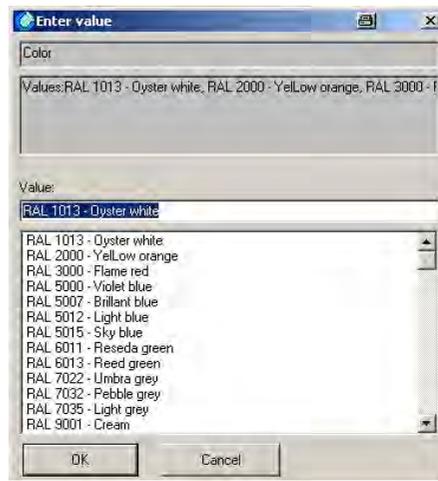
--> Change of values will automatically update in the 3D view.

1.5. Building a configuration – basic functions

1.5.1. Add the starting part

Begin with **New configuration**.

Select a type of part from the **Add Group**.

The following types are available to choose from:

Insert mk Guarding Systems

Insert Objects

The following explanations are given as examples and are illustrated using profiles and protective fences.

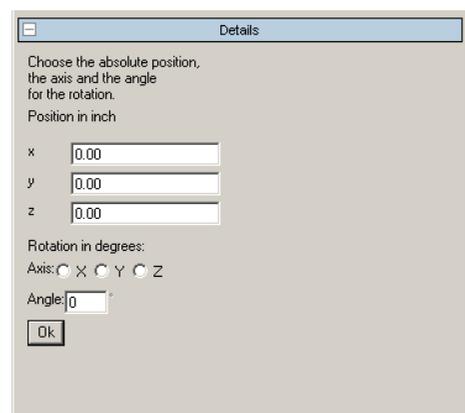The available parts are listed in the **Details** dialog area, in a Directory Tree.

Select the desired part and confirm with double-click or **OK**.

With the first part you also determine the Origin.

If necessary, modify the **Absolute position, Axis** and **Angle** or accept the default values.
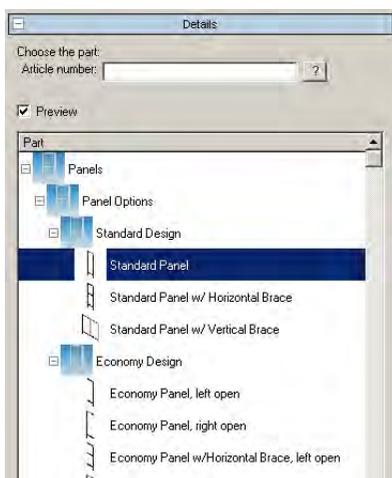
Selection in the directory tree

Specify the position of the starting part
Confirm with **OK**
--> The part is inserted

1.5. Building a configuration – basic functions

1.5.1. Add the starting part

Details: Part 1 inserted

Note: If assemblies or the whole structure are not centered in a suitable way, double-click the 3D area.

Technical details
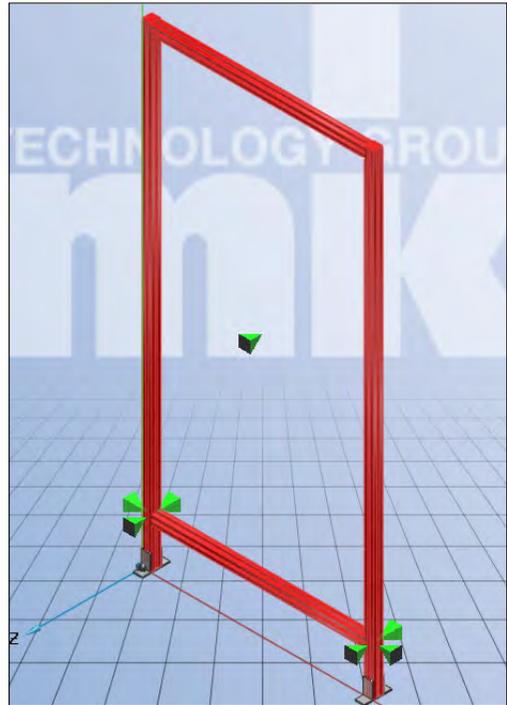
3D: Part 1 inserted
Select a part by clicking it.

The Connection Points for additional parts are marked in the 3D area in the form of green Pyramid Symbols. In addition, the connection points are listed under **Details**. Also, under **Details** you will find Part Information on the currently selected part.
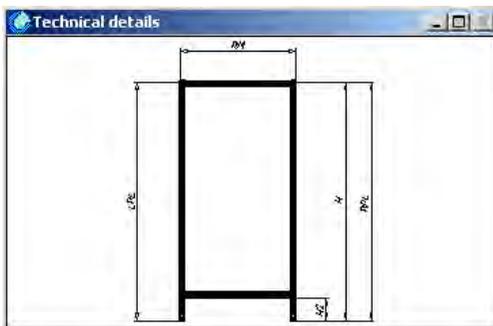
The **Technical details** window is displayed below the **Details** dialog area.

If necessary, zoom out the window and/or zoom in on the contents.

1.5. Building a configuration – basic functions

1.5.2. Select the connection point

Select a connection point in the 3D Area.
--> Possible parts for connecting to the insertion part are displayed under Details.
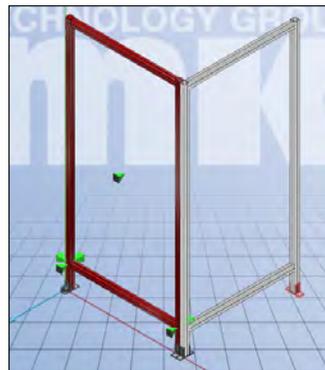Click ⊞ and the possible insertion positions become visible.

Part selection
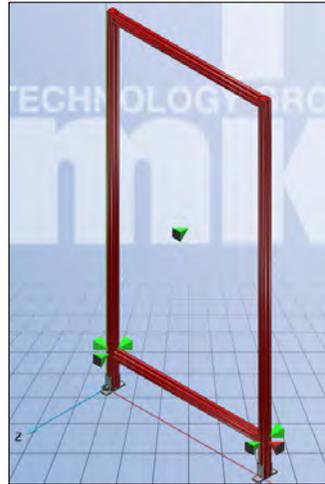
Connection point marked
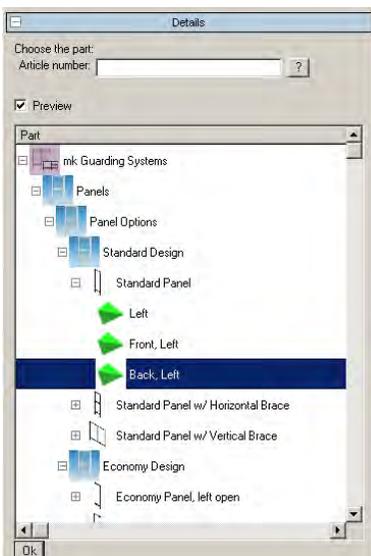

Insertion point marked

Preview of insertion part

As soon as you select an insertion point under details (**Front Left, Back Left, Left**) the insertion part is displayed in **grey** as a **Preview**.
After selecting the insertion point, confirm with **OK**.
--> The insertion part is now added and is shown in red. (The first part remains green)

1.5. Building a configuration – basic functions

Activate the insertion pyramid of the component
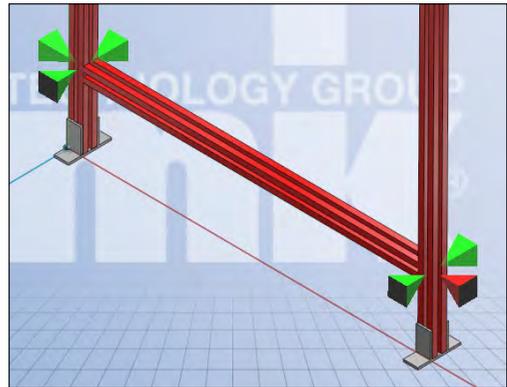
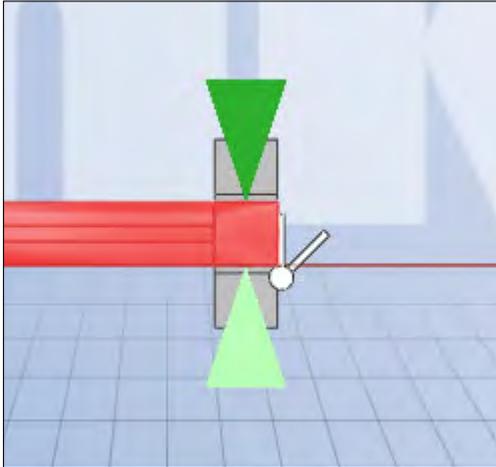Click [+] to open the angle side selection.
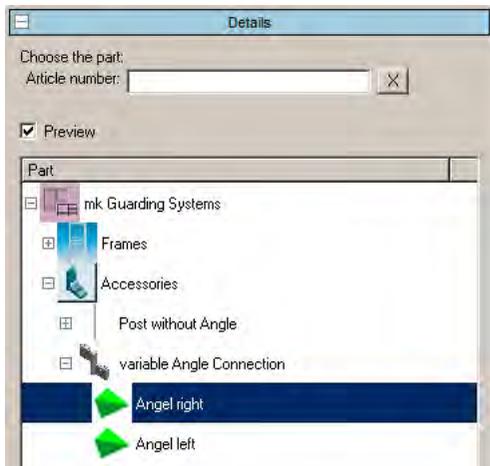
Mark the arrangement of the angle side, e.g. "Angle Right".

--> If the angle is added with a click of your mouse, it is then in a preview state in which the side selection (left or right) can be changed.
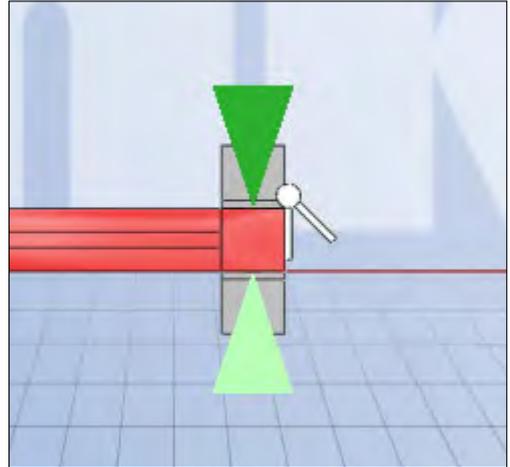
--> The default 45° angle can be changed to a degree in the range of 1°-89° and 91°-135° after activating the side selection.

1.5. Building a configuration – basic functions
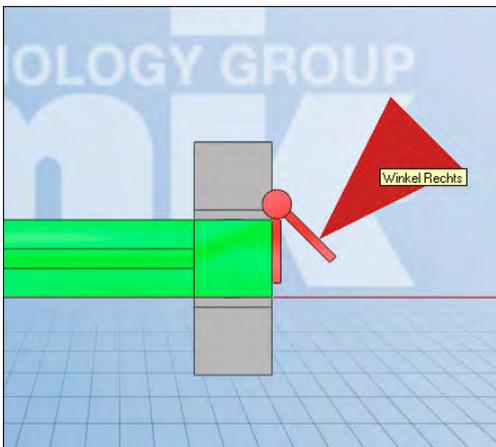
1.5.3. Variable angle
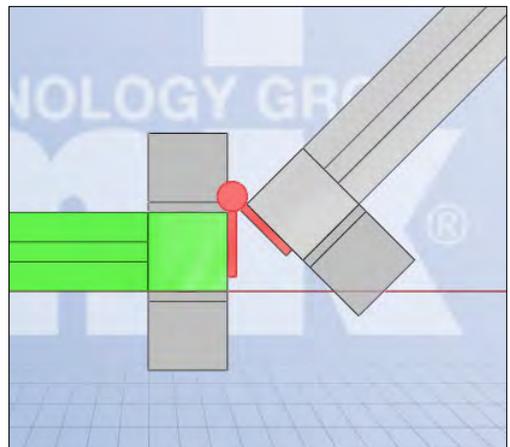

Arrangement angle right

Arrangement angle left

Note: After activating the required angle side, the side selection can no longer be changed

The insertion pyramid of the angle for connecting other components is active

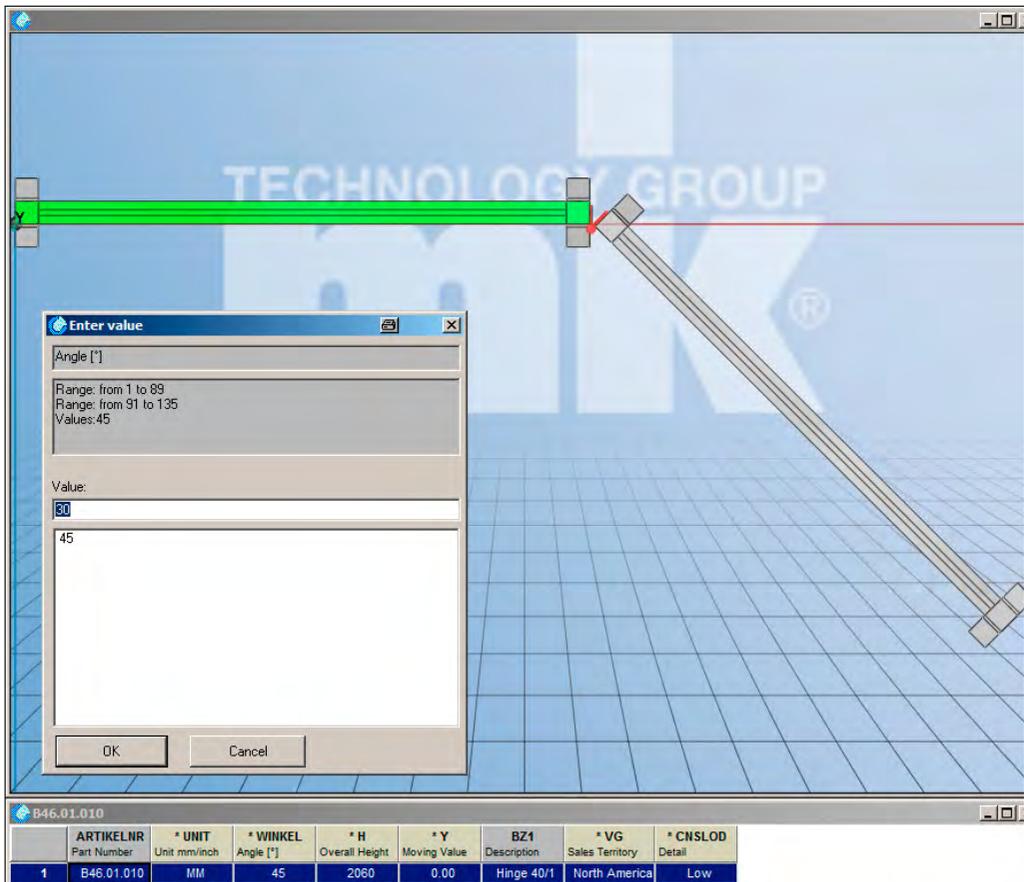Select and add the following component

1.5. Building a configuration – basic functions

1.5.3. Variable angle

--> Disconnecting an angle works similar to the disconnection function of components ("Disconnect Component" context menu).

Changing the angle input from the default angle 45° to e.g. 30°

1.5. Building a configuration – basic functions

1.5.3. Variable angle

Use of the variable angle is described below in an example:

■ Insert panel.

■ Activate insertion pyramid e.g. right.

■ Activate angle under the Accessories menu item (preview state).

■ The side selection (left or right) can be changed in the preview state.

■ The default angle is 45°.

■ The angle (1°-89°, 91°-135°) can be manually changed in the Angle dialog box.

■ Depending on H, the quantity of angles to be arranged per insertion point is controlled automatically.

■ Example of the number of angles: H<1200 mm results in quantity=2, H>=1200 mm results in quantity=3.

■ After installation of the angle and selection of the angle, the subsequent component can be inserted, e.g. the panel, by activating the insertion pyramid.

■ The foot rest of the successor field is automatic based on the installed orientation of the angle, so that no interference contour overlay results.

■ The component representation (field, number of angles, half floor mounting bracket, full floor mounting bracket and end cap) is reproduced exactly in the material list (BOM = Bill of Material).
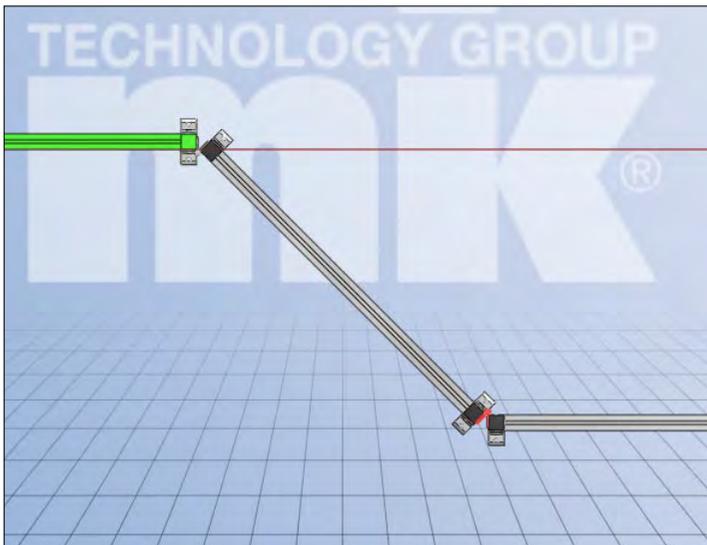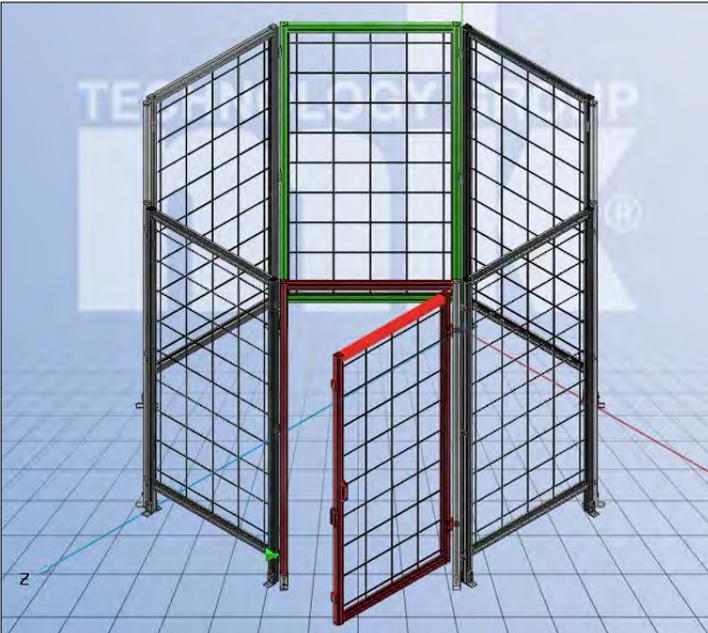

Variable angle in assembly S-curve

1.5. Building a configuration – basic functions
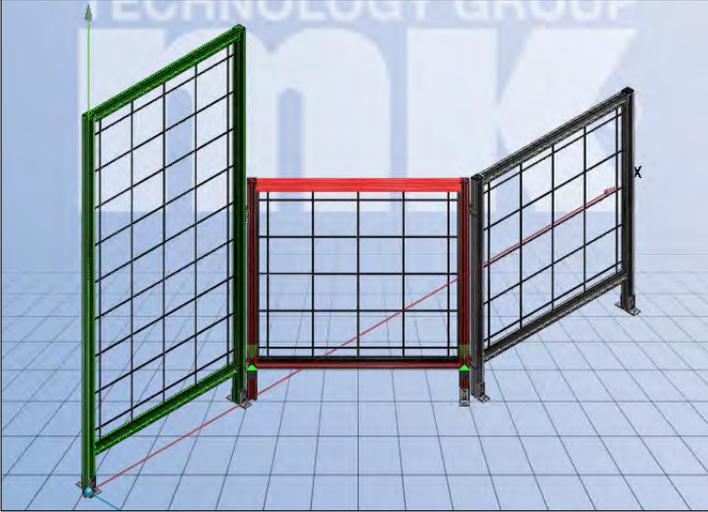
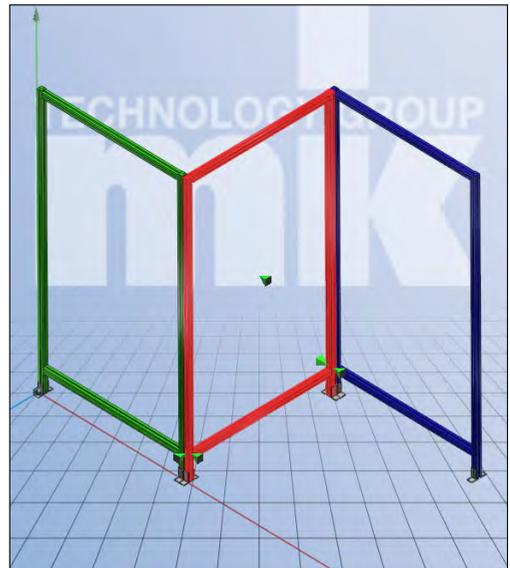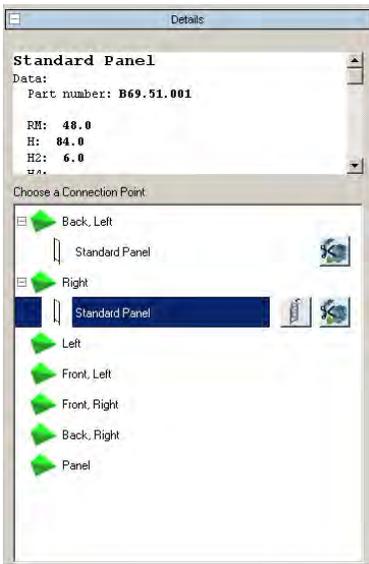Variable angle in assembly S-curve in a spatial representation

Variable angle in assembly octagon in a spatial representation

1.5. Building a configuration – basic functions

1.5.4. Add further parts

Insert a third panel in the same way.

Select the middle fence panel.

Note:
Other possible editing steps are displayed in the Dialog box for each connection point:

Arrange partitions

Disconnect part

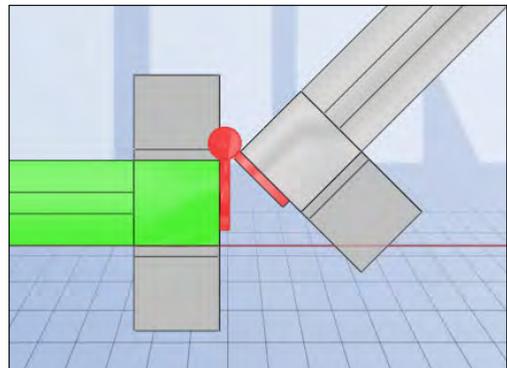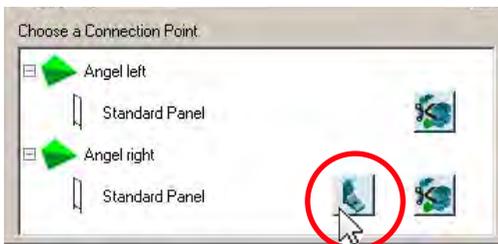# 1.5. Building a configuration – basic functions

1.5.5.1 Foot – selection of the variable angle

Changing the foot selection of the angle, e.g. from one floor mounting bracket into an end cap:

--> These command steps separate automatic floor mounting bracket control from the following component, but not the connection from components to the angle.

--> The connections between the field B69.51.001, angle B46.01.010 and the field B69.51.001 components are retained

Step 1: Mark angle connection and select angle.
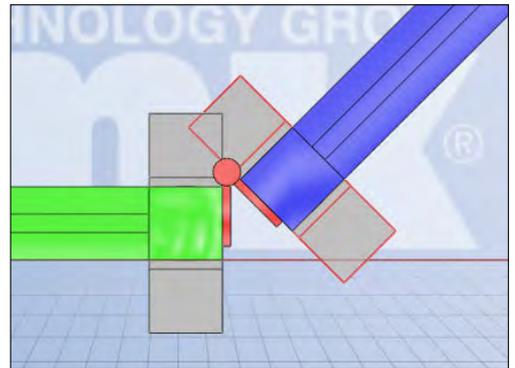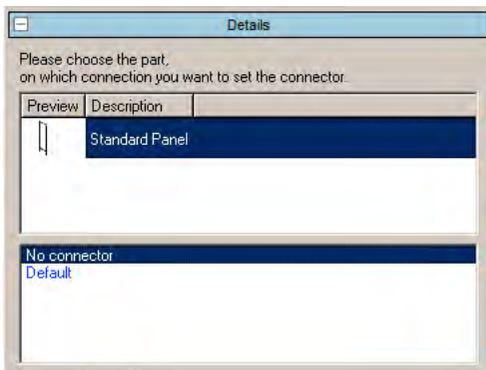

Step 2: Select no connection
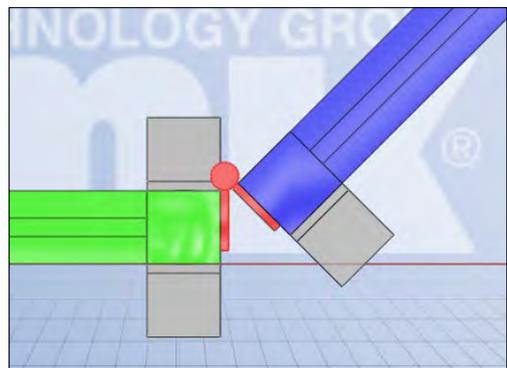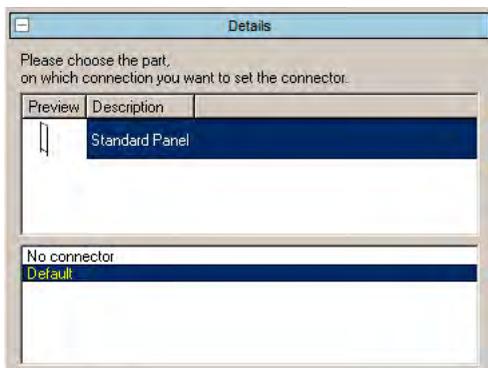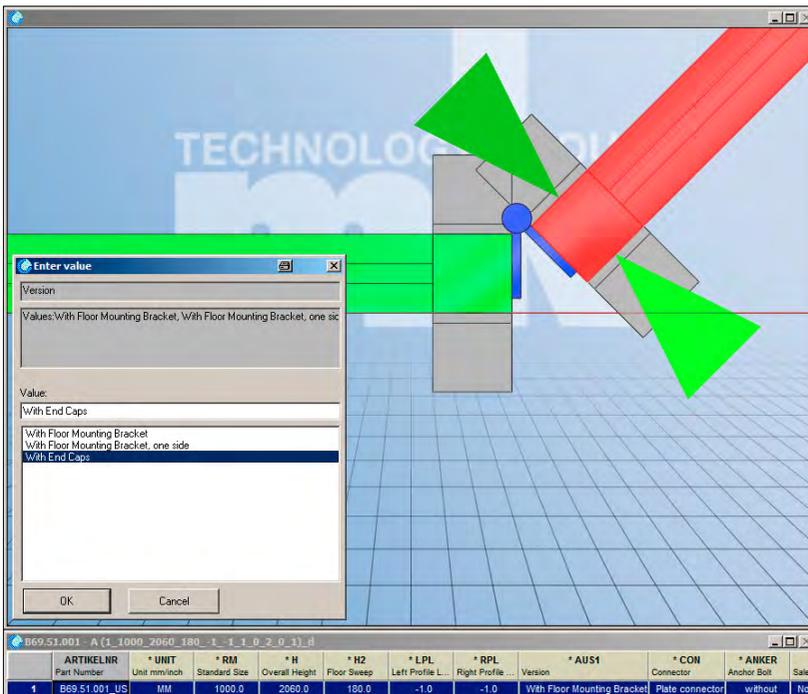
1.5. Building a configuration – basic functions

1.5.5. Foot – selection

Selection: "No connector" overrides the automatic foot rule set of the components with angle.

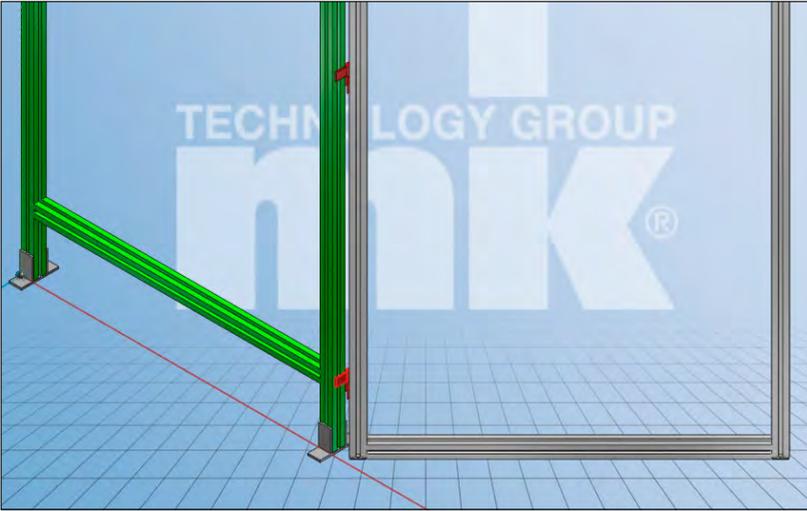--> Foot – selection of the following component (marked in blue) is activated.

Step 3: Foot selection for blue-marked component can now be changed, e.g. from floor mounting brackets to end cap

1.5. Building a configuration – basic functions

Step 4: Subsequent adaptation, e.g. change H2 = 0 mm
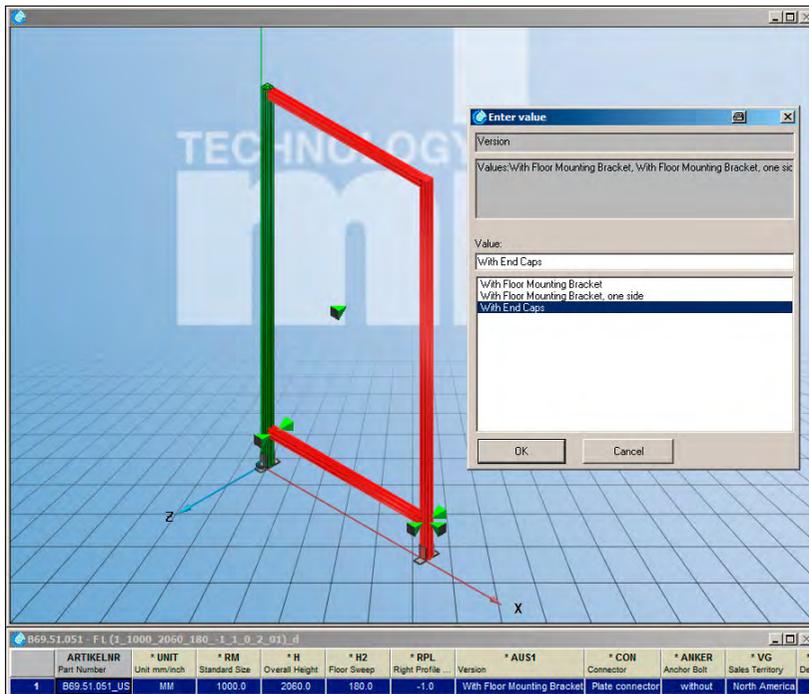
1.5.5. Foot – selection

1.5.5.2 Foot – selection for posts and fields

Example: Posts with F fields and end cap, if there should be a ceiling mounting, for example

- **Insert post**
- **Insert F field**
- **F field foot selection**

Note: Foot selection with full floor mounting bracket, half floor mounting bracket and end cap will be available in the future for the following components: B69.51.001, B69.51.002, B69.51.003, B69.51.051, B69.51.052, B69.51.053, B69.65.000
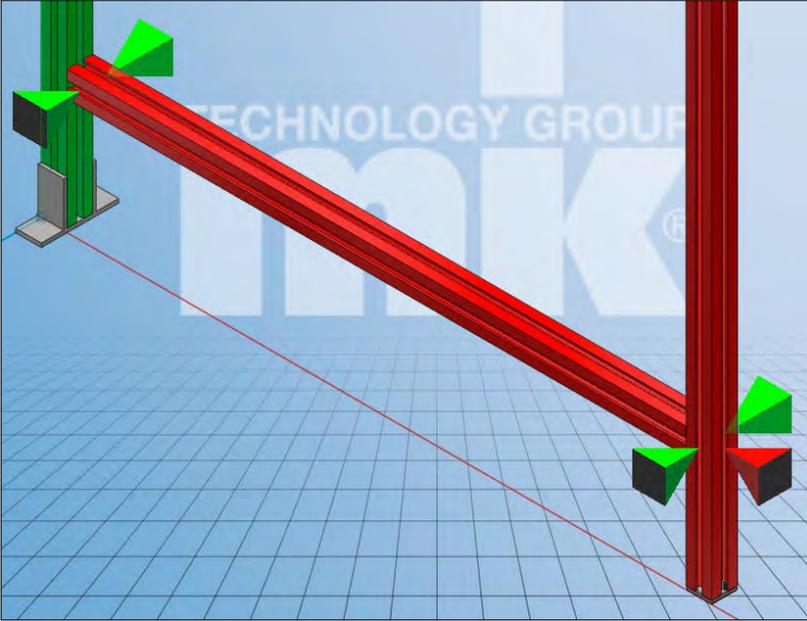
Foot selection F field

1.5. Building a configuration – basic functions

Foot selection with inserted end cap

1.5. Building a configuration – basic functions

1.5.6. Meaning of the part colors

- Green: Fixed part (origin)
- Red: Selected part
- Blue: Selected connecting part to selected part
- Grey: Neutral part
- Line display: Preview of the part to be inserted

1.5.7. Part overview

You can open the part overview at any time.

The following options are available for this:

1. Select the part for which you would like information.
   --> The part is marked red.
   Now click the **Part Overview** button

2. Click the empty space next to the 3D model and then select the part for which you would like information.

Possible actions for all parts connected to the selected part are now displayed in the Details dialog area.
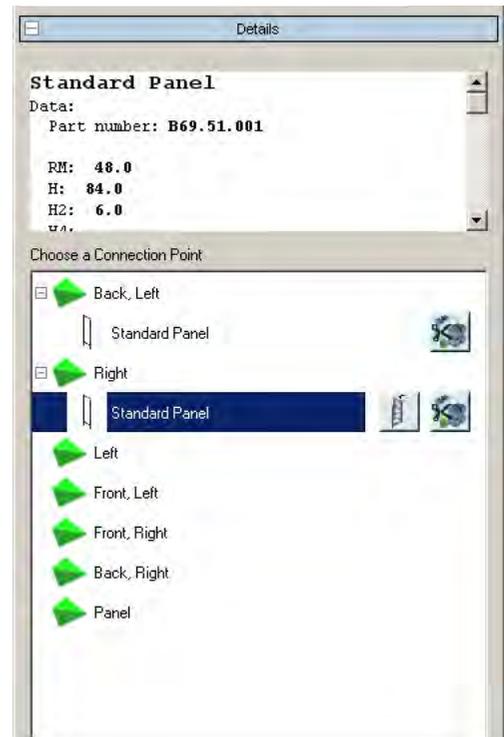
Part information/Connection point selection

1.5. Building a configuration – basic functions

1.5.8. Export

Select the export format in the **Export** menu via **File**.

Export format selection

> **Note:**
> To export a 2D format you must first create a 2D view.

Click the required format.

--> The **Export using .... format** dialog box appears.

Click **Destination file ...** and select the **Destination File**.

Click the arrow and select the required **Version** from the list.

Export in the selected format

1.5. Building a configuration – basic functions

1.5.9. Create 2D view

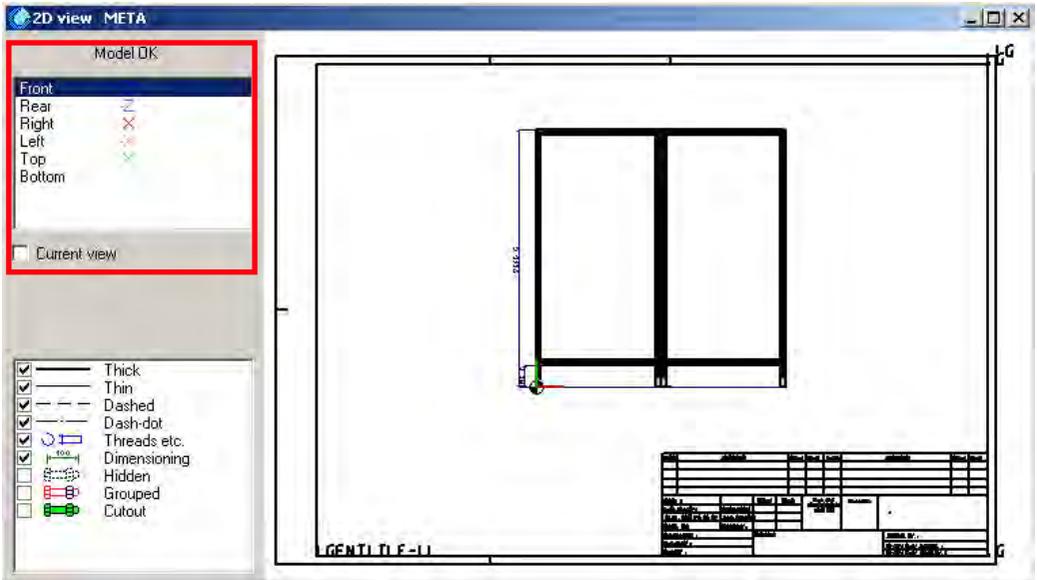Create the **2D view**, using either the button in the toolbar or using the menu:

Toolbar: **2D view**

Menu:
File --> 2D view

--> The **2D view META** dialog box appears.

Select the desired 2D view from the selection box below.

2D view from the front

1.5. Building a configuration – basic functions

## 1.5.9.1. Settings

■ **Perspective**

As soon as you click one of the 6 perspectives the 2D view of the part is created.

Current view: If you want to transfer the currently set orientation of the coordinate system from the 3D view into the 2D view, select the Current view option and select the Front Z perspective.

■ **Line types**

Line types can be selected and deselected. Thread and the Dimensioning are highlighted in color.
In Grouped mode the respective part can only be opened collectively after it is transferred to your CAD system. To pick individual lines of parts or individual components in assemblies you must resolve ("explode") the grouping. The effect of the grouping ultimately depends on the respective CAD system or export mode (with or without interface).
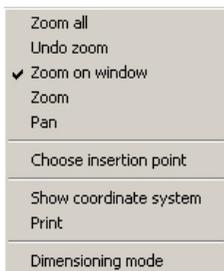
☑ ———	Thick
☑ ———	Thin
☑ – – –	Dashed
☑ —·—	Dash-dot
☑	Threads etc.
☑	Dimensioning
☐	Hidden
☐	Grouped
☐	Cutout
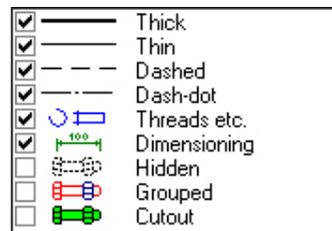
■ **Change in 3D**

Get model

If you make a change in the table (row change or change in a value range variable), the Get model button flashes red. Click the button to update the 2D view.

As soon as you press the Get model button the display of the "old" component disappears.
Select a perspective and the new selected part is displayed.

1.5.9.2. 2D view context menu "right-click" (click right mouse button)

Zoom all
Undo zoom
✔ Zoom on window
Zoom
Pan
Choose insertion point
Show coordinate system
Print
Dimensioning mode

■ **Zoom all**
■ **Undo zoom**
■ **Zoom on window**
■ **Zoom**
■ **Pan**
■ **Choose insertion point,** defines the insertion point.
■ **Show coordinate system,** shows a horizontal or vertical measurement scale.
■ **Print**
■ **Dimensioning mode**

Detailed information on this is given in the following section.
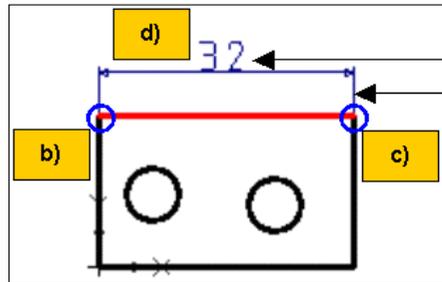
1.5. Building a configuration – basic functions

1.5.9.3. Dimensioning mode in 2D view META

**Dimensioning Mode** opens a toolbar with which you can dimension the **2D view**.

 Horizontal dimensioning at 2 points

a. Click the button.
b. Click the first point. Please note that a point is not picked until the snap symbol appears.
c. Click the second point.
d. Click location to place dimension.
e. In the Change parameter window, define the Measure text (the expression {AUTOMATIC%0} stands for the measured value), the Offset (distance between dimension text and measured line), the Height (height of the dimension text) and the Arrow Size.

Height: 3.5; Offset: 5.58...; Arrow size: 3.5
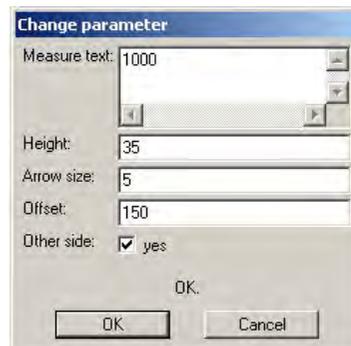
Change parameter

 Vertical dimensioning at 2 points
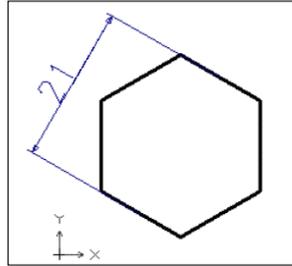
See Horizontal dimensioning at 2 points

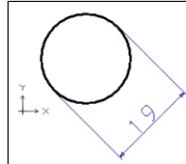# 1.5. Building a configuration – basic functions

Parallel dimensioning at 2 points

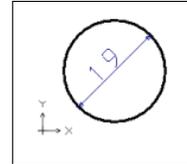See Horizontal dimensioning at 2 points

Diameter with angle and distance

a. Press the button.
b. Click the circle to be dimensioned. --> The dimensioning line appears.
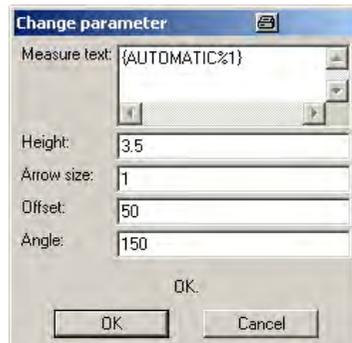c. Position the dimensioning.

Option 1   Option 2

Option 1: Fix the Angle of the line with a single mouse click. Then drag the whole dimensioning to the required Position and fix it with a click of the mouse.

Option 2: Fix the angle and position of the dimension with a double-click of the mouse.

a. You can of course adjust the angle (relative to the x axis) of the dimension in the Change Parameter window.

Change parameter

1.5. Building a configuration – basic functions
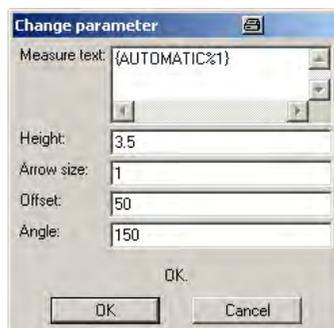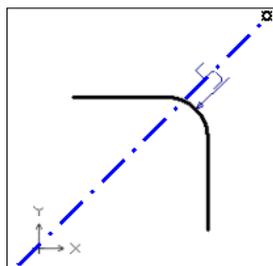
1.5.9.3. Dimensioning mode in 2D view META

Radius with angle and distance

a. Press the button.
b. Click the circle or arc to be dimensioned.
   --> The dimensioning line appears.
c. Position the dimensioning.

You can delete "of course" adjust the angle (relative to the x axis) of the dimension in the Change Parameter window.

0° lies on the angle bisector of the circle segment.

Change parameter

Measure text:	{AUTOMATIC%1}
Height:	3.5
Arrow size:	1
Offset:	50
Angle:	150

OK.

OK   Cancel

Centerline dimension

a. Press the button.
b. Click the reference line (mirror axis).
c. Click the point whose distance from the reference line is to be dimensioned.
d. Position the dimensioning.
   --> The Change Parameter window opens.
e. If necessary, use the input fields to adjust the dimensioning.

total
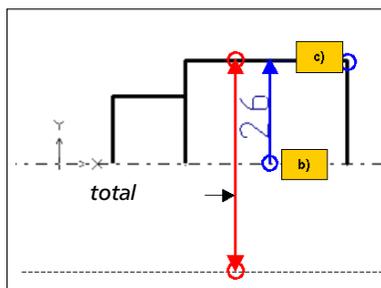
Note: Rotationally symmetrical points are dimensioned with the help of the "centerline dimension" function. Here the displayed dimension line describes half the measured distance only (therefore "half value"); however, the measurement value is the whole measured distance!
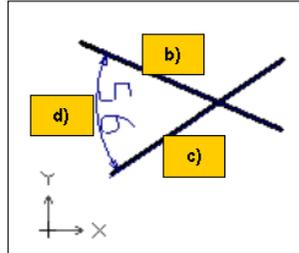
1.5. Building a configuration – basic functions

Angle dimensioning at 2 lines

a. Press the button.
b. Click the first line (follow clockwise direction!).
c. Click the second line.
d. Position the dimensioning.
   --> The Change Parameter window opens.
e. If necessary, use the input fields to adjust the dimensioning.

Distance dimensioning from point to line

a. Press the button.
b. Click the reference line.
c. Click the point whose distance from the reference line is to be dimensioned.
d. Position the dimensioning.
   --> The Change Parameter window opens.
e. If necessary, use the input fields to adjust the dimensioning.
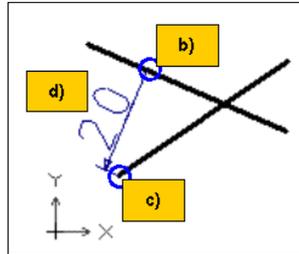
Delete dimensions

To do this, please select the required dimensioning.

Exit dimension mode

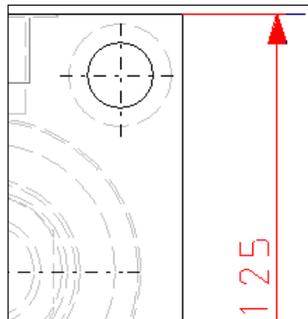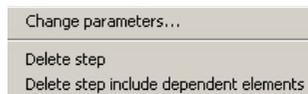Accepts the entered dimensions and exits dimensioning mode.

Save drawing

Dimensioning can be saved as a 2D drawing (file template *.2db).

When you select a dimension it appears in red and the context menu can be opened.

■ Change parameters...

Re-opens the **Change parameters** dialog box.

■ Delete step

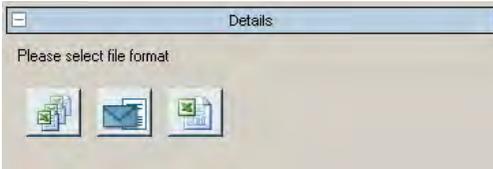■ Delete step including dependant elements

1.6. Other functions

1.6.1. Export Bill of Material

Click **Export Bill of Material** to create a bill of material (parts list) directly from the configuration.

Define the export mode:

■ **Export BOMs as single CSVs**

■ **E-mail BOMs**
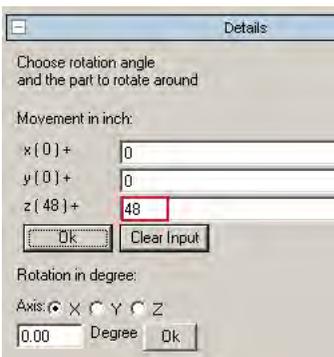
■ **Export BOMs to Excel**

For quotations or orders simply forward us the automatically generated E-mail.
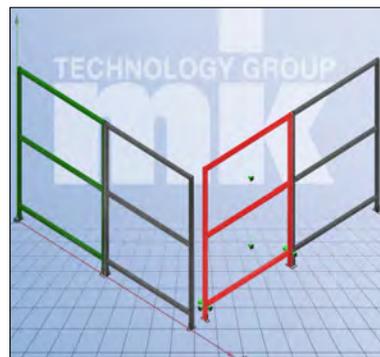
1.6.2. Move/rotate part

Click the **Move/rotate part** button to move a part along an axis or to rotate about a specific axis.

Select the part you want to move/rotate.

Axis: Z;
Movement:
-200 mm

Part 2
moved

■ Enter the displacement value for the required axis under **Movement in mm** and confirm with **OK**.

■ Enter the angle of rotation under **Rotation in degrees**, select option X, Y or Z and confirm with **OK**.
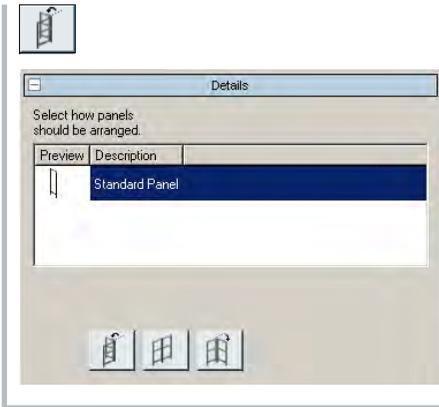
Note:
It is also possible to enter negative values.

Note: Parts can only be moved as individual parts if they have no connections!
Otherwise the whole assembly is moved.

1.6. Other functions

1.6.3. Arrange partitions

Select a part.

--> All fields which can be moved are displayed.
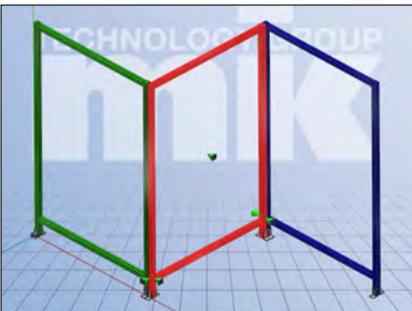
Select (mark) the required partition.

Click the **Arrange partitions** button to move an inserted partition (marked in blue in the 3D area).

Click the required button in the **Details** dialog area.

1.6.4. Fix part at position

The Fix part at position function can be used to transfer the fixing to any part.

When a configuration is built the first part is fixed.

This is displayed in green.

Complete the following steps to anchor a different part:

1. Select the part to be fixed
2. Click the **Fix part at position** button.

--> The new fixed part is now displayed in green.

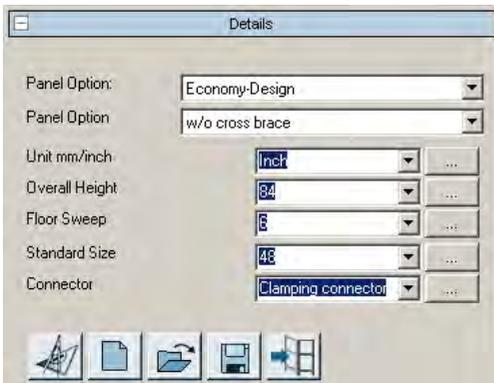Fixed part displayed in green

1.6. Other functions

1.6.5. Automatic Guard Generation

Create **footprint drawing** to automatically create **3D Model**.

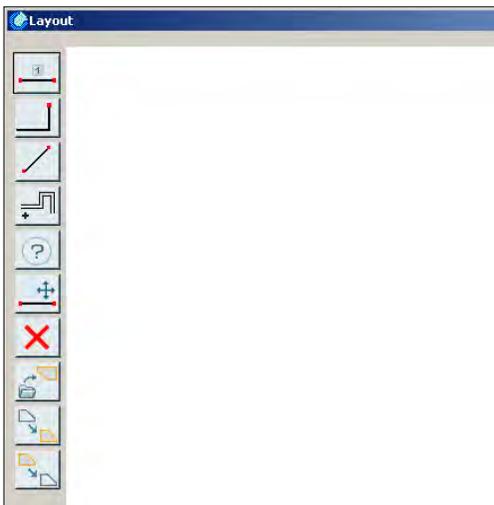The procedure is described in the following "Basic Functions" section by way of examples:

1.6.5.1. Basic functions

After clicking the **Edit layout** button the **Details** dialog area opens.

Enter the required presets from the **drop downs** or using the **browse button ...**:

- Unit

- **Overall Height**

- **Floor sweep**

- **Standard Size**

- **Connector**

After clicking the **Edit layout** button the
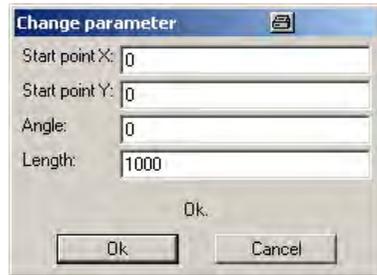
Drawing dialog box opens.

Drawing dialog box

1.6. Other functions

1.6.5.1. Basic functions

1. Create the starting line by pressing the button (**Draw Starting Line**).

You can use the context menu to open the
Change parameters dialog box at any time.
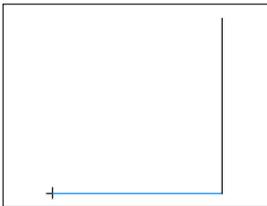In this case, change the **Length** if necessary.

2. Then switch to **Draw perimeter line** work mode.

3. Click the end point of the starting line.
   --> The **Snap** symbol appears.

4. Click the snap symbol.

5. Drag the required line at right angles.

6. Confirm the required end position with a left click.
   --> The **Change Parameters** dialog box re-opens.

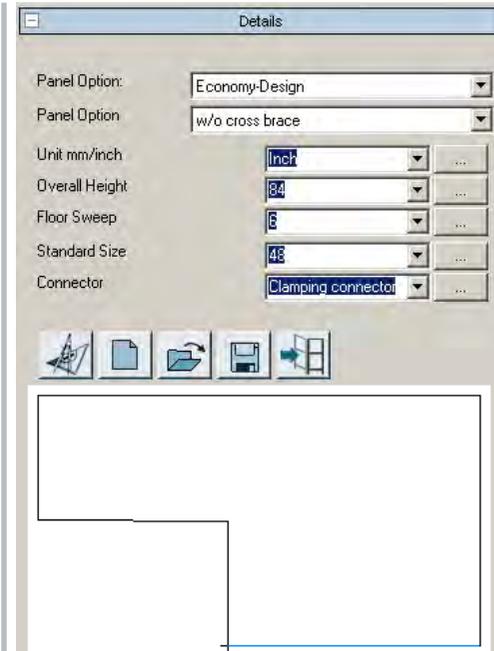

If necessary, adjust the **Angle** and **Length**.

In this way, create the outline of the guard or enclosure.

Exit the drawing with
Apply layout.

1.6. Other functions

1.6.5.1. Basic functions
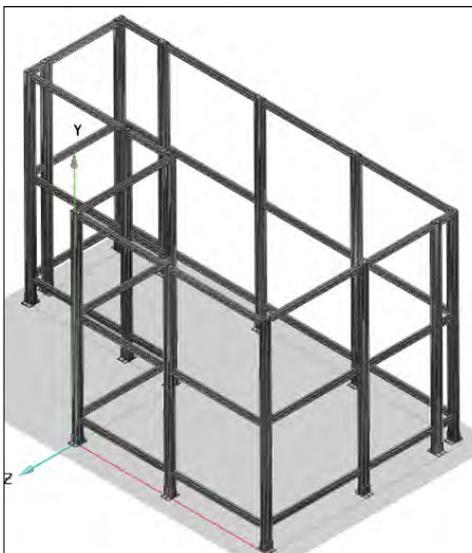

--> The drawing created is displayed under **Details**.

Use **Save layout** to save the drawing.

If necessary you can still adjust the enclosure's parameters.

Then click **Build fence**.

--> The **3D model** is created.

3D model

1.6. Other functions

1.6.5.2. Other functions

Buttons under Details

Edit layout

New layout

Load layout

Save layout

Build fence

Buttons in the Drawing dialog box

Draw starting line

Draw perimeter line

Draw perimeter line (free)

Define offset

Safety distance guide lines:
A PDF opens with guidelines for correct definition of the offset.

Move selected lines

Delete selected lines

Load contour
The Explorer window opens. Load a DXF file (*.dxf).

Change the contour line
In the Drawing dialog box you can create a contour and then convert it into a clearance con-
tour. Select the contour (zoom out rectangle with CTRL + Shift) and then click Change contour.

1.6. Other functions

1.6.5.2. Other functions

Change fence line
If you have loaded a clearance line you can then change the contour into a polyline.
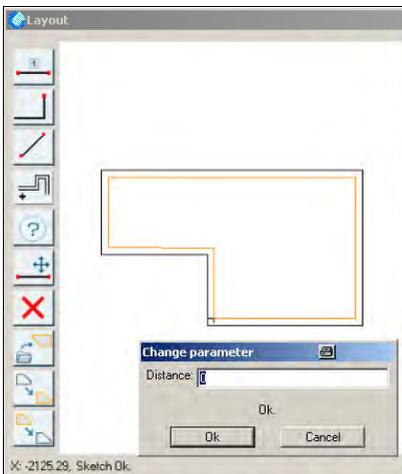
Apply layout

Zoom all

Pan

Zoom

Zoom, rectangular clipping

1.6.5.2.1. Insert offset from selected lines

1. Create or load a clearance contour (displayed in brown).
2. Select the clearance contour (zoom out rectangle with CTRL + Shift).
3. Click the **Define offset** button.
   --> The **Change Parameter** dialog box opens.

Enter the **Distance**.

Note:
Enter a negative value to offset to the inside.

1.6. Other functions

1.6.5.2.2. Move selected line

1. Select the required line.
2. Click the **Move selected lines** button.
3. Move the mouse cursor over the line until a snap symbol appears and then click the snap symbol.
4. Use the mouse cursor to zoom out a displacement vector and click the required position.
5. The **Change parameter** dialog box opens.
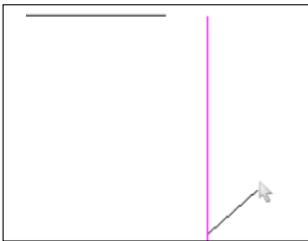
Adjust the required X and Y value for the displacement vector.
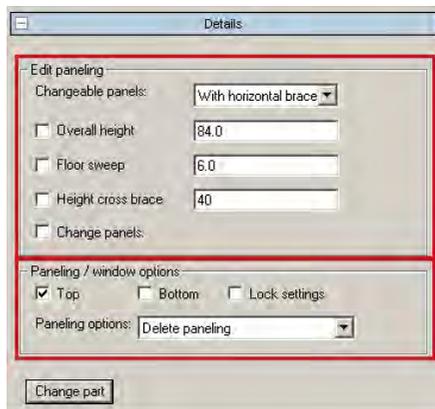
1.6.6. Change paneling/windows

Select the part you want to change.
--> The part is marked red.
Click the **Change paneling/windows** button.
The corresponding options are displayed under **Details**.

The Details dialog area is divided into the following areas:

1. **Edit paneling**

and

2. **Paneling/window options**

1.6. Other functions

1.6.6.1. Edit paneling

In the list box, select:

- **Without brace**

- **With vertical brace**

- **With horizontal brace**

Use the check boxes to activate the required change options:

- **Overall height**

- **Floor sweep**

- **Height cross brace**

Enter the required values in the input fields.
Use the checkbox to activate the **Change panels** option.
Click **Change part**.

1.6.6.2. Paneling/window options

The checkboxes are displayed depending on the type of protective fence element selected:

- **Top, Bottom**

- **Right, Left**

- **Middle**

Select the fields in which paneling is to be inserted or replaced.

Lock settings:

Use **Lock settings** to, i.e. adopt the **"Top"** setting for the **"Bottom"** setting. I.e., when the option is changed the previous setting is retained.
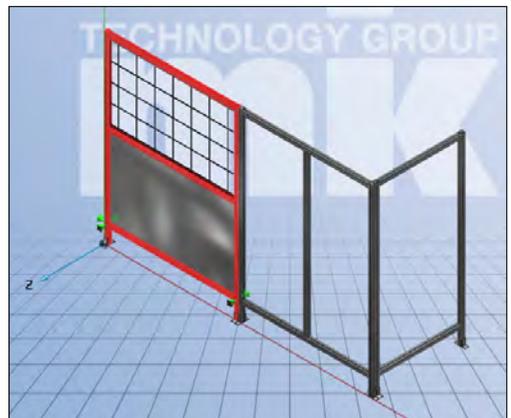
1.6. Other functions

1.6.6.2. Paneling/window options

You can also select the **Paneling options** in the list box:

■ **Delete paneling**

■ **Paneling**

■ **Access Door with Ball Latch**

■ **Swing Door with Cylinder Lock**

■ **Double Swing Door**

■ **Bi-fold Door with Acrylic Paneling**

■ **Bit fold Door with Polycarbonate Paneling**

■ **Sliding Door**

Additional setting options are also displayed
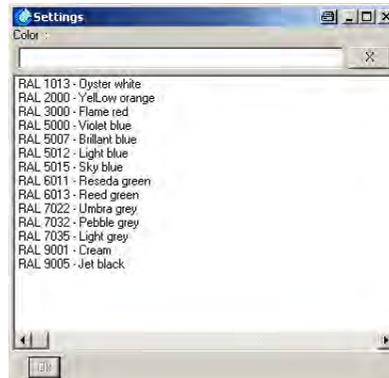underneath these for several types of paneling.

For example:

■ **Material**

■ **Thickness**

■ **Color**

■ **Panel Mounting**
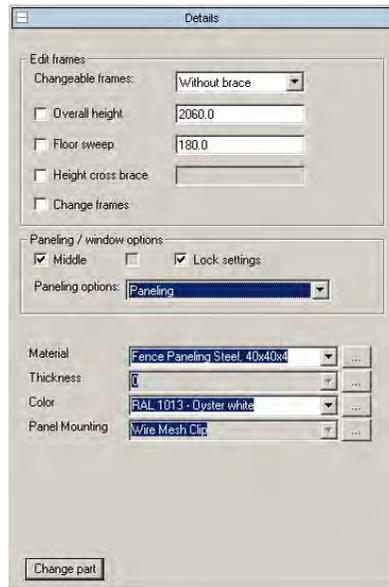
Click **Browse ...** to make the required setting.

If the value ranges are large, i.e. **Color Selection**,
you can quickly find the required value by filte-
ring with any expressions you wish in the top
input line. Confirm with OK.
Make the changes using **Change Part**.

1.6. Other functions

1.6.7. Change part

Select the part you want to replace.
Click the **Change part** button.

--> All parts which can possibly be used for the exchange are displayed under **Details**.
Select the required part and confirm with double-click or **OK**.
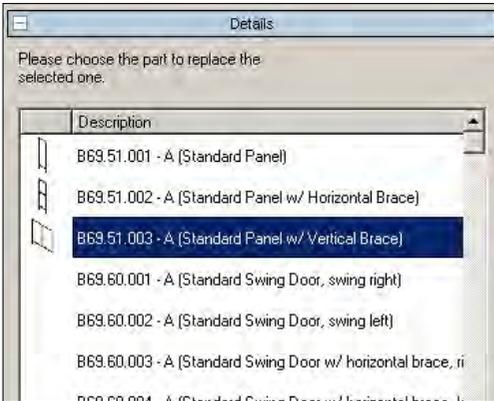
Select (mark) new part
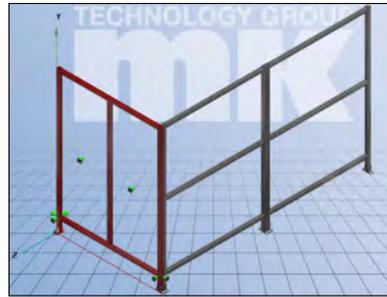
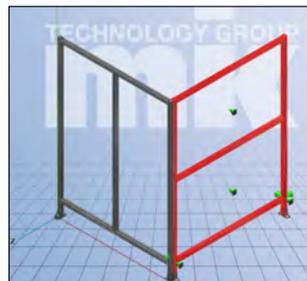**Part exchanged**

1.6.8. Comment for part

Use the **comment for part** button to insert or edit comments for any part in the assembly.

1. Select part for which you like to insert or edit comment.
2. Click the **Comment for part** button.

Enter/view comment

Part selected

1.6. Other functions

1.6.9. Set level of detail
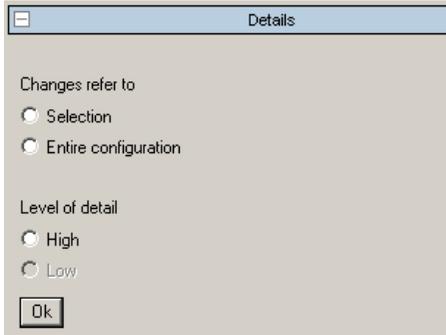
Choose from the following options:

- **Selection**
  Only the level of detail for the selected part will be changed.

- **Entire configuration**
  Right-click mouse an select „Mark all". Level of detail for the entire assembly will be changed.
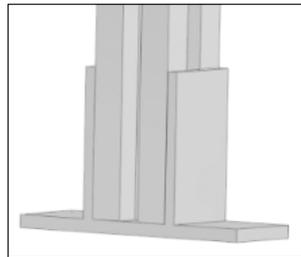
Select the level of detail:

- **High**
- **Low**

Confirm with **OK**.

Note: Adjusting level of detail to high will slow down processing speed.
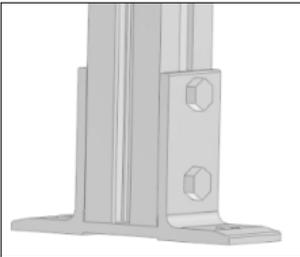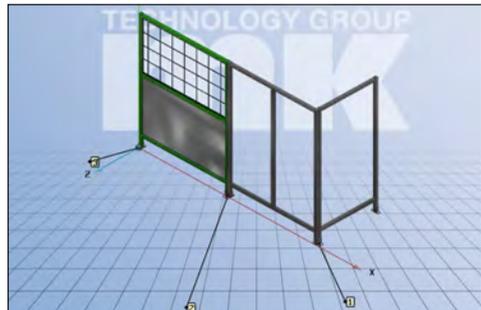

High level of detail

Low level of detail

1.6.10. Show comments in 3D view

Use the **Show comments in 3D view** button to display or hide the item numbers.

Item numbers displayed

1.6. Other functions

1.6.11. Measure

Click the corresponding button to open the Measure Dialog box. The **Measure Dialog** is divided into the following fields: **Element 1, Element 2**, **Result** and **Fixations**.

When the Measure command is activated in 3D view the mouse cursor has an object-related geometric symbol which indicates the respective type of element touched.

After you have consecutively clicked two Drawing Elements (surface, edge, hole, etc.) within the 3D view in each of the **Element 1** and **Element 2** fields a Symbol appears.

Here is an overview of the possible Geometric Symbols:

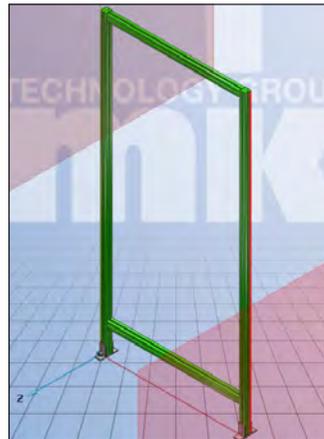| Holes and cylinders	Conical surfaces	Circular edges	Planar levels	Straight edge	Toroidal surfaces
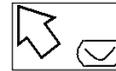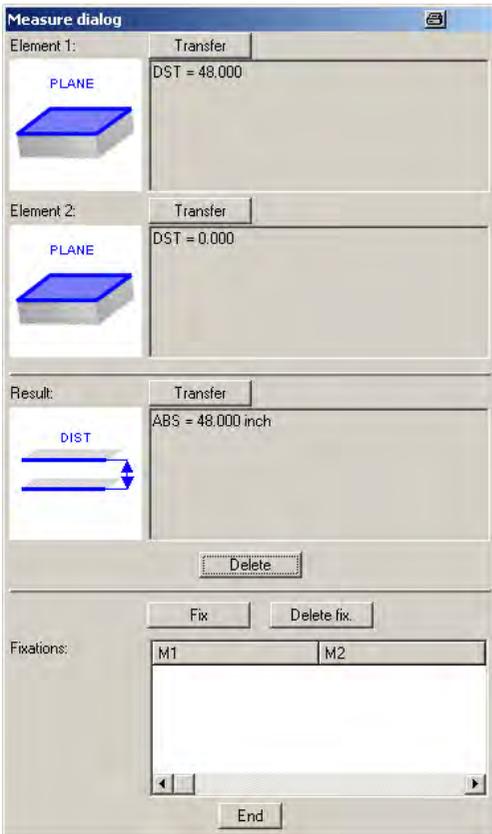
In the following example, two opposite surfaces have been clicked (see following Fig. top right-hand side).

Two surface planes selected

The two surfaces are at a distance of 48 inch apart, which is delete shown in the Result field. The distance dimension (ABS = 48.000) appears to the right of it.
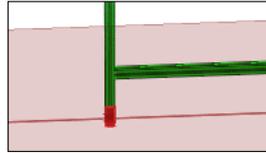
1.6. Other functions

1.6.12. Load DXF file

 Click the Load DXF file button to display, i.e. a floor plan.

-> The Explorer opens. Use the Explorer to open any DXF.

DXF with floor plan as background

1.6.13. Disconnect part

Select the part you like to disconnect. --> The part is marked red.

 Click this button **"Disconnect part"** to remove the connection between parts.

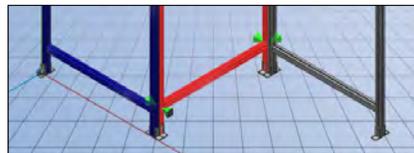--> All connections with the active part are listed in the dialog area.

Select the attached part you like to disconnect. --> This part will be marked blue. Confirm with disconnect.

All connections of the selected part can be disconnected by selecting **"Disconnect all connections"**.

--> You can now move the parts independently of each other.
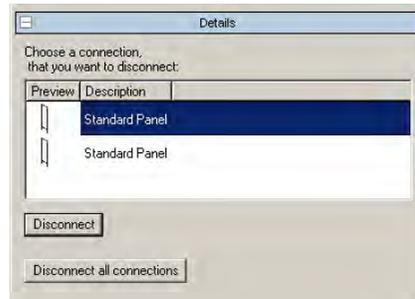
Select connection

Tip: If several options are available you can simplify the selection process by selecting the two target parts at the beginning using the CTRL key. The correct part is then immediately selected under Details.
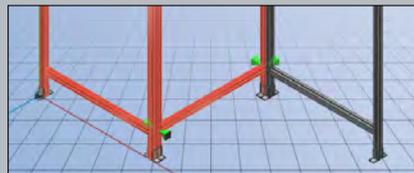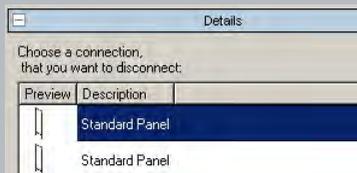
1.6. Other functions

1.6.14. Delete part

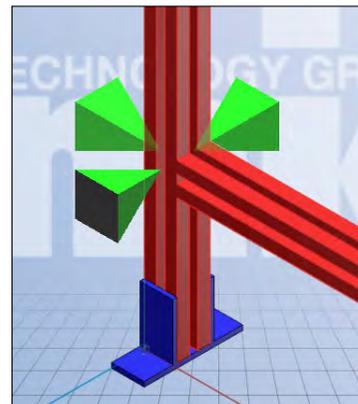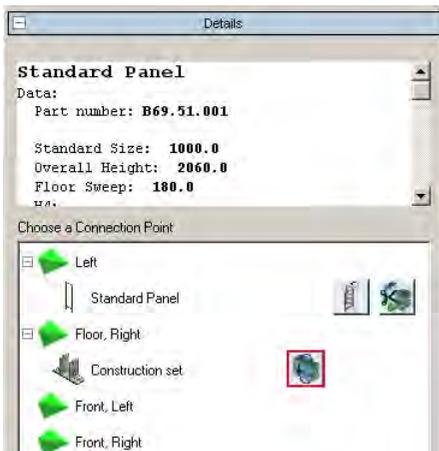
Select the required part.

--> The part is marked red.

Click the **Delete part** button.

The part is removed from the assembly.

1.6.15. Rotate part around connection point

Select the part to be rotated. The part is marked red.

--> If parts can be rotated they are displayed under **Details** using the **Rotate part around connection point** button.

Selection of the part to be rotated

Click the required button.
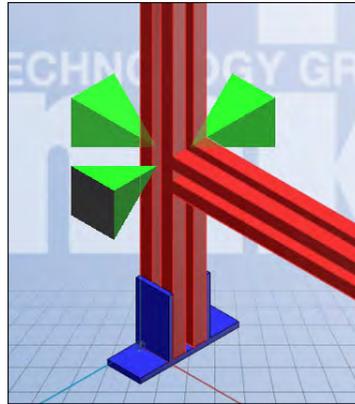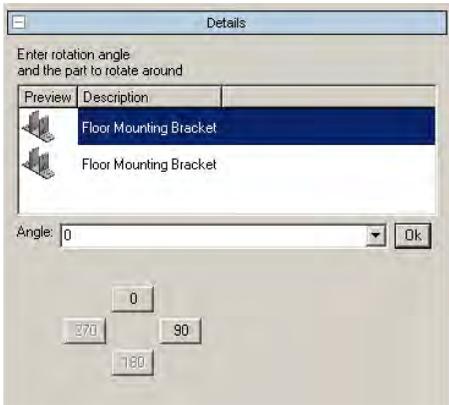

Part to be rotated marked blue

1.6. Other functions

--> The corresponding dialog appears.

Select part to be rotated and rotation angle.

Floor mounting bracket
rotated 90°

The part is displayed in blue in the 3D display.

Confirm with **OK**.

# 1.6. Other functions

1.6.16. Connect

You can also use the **Disconnect part** and **Move/rotate part** commands described above, to add an additional part. Parts can be joined together as described below:
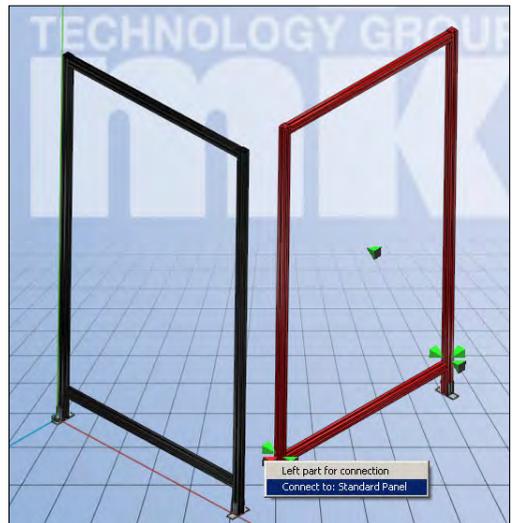
Example:
1. Select **Left part for connection** at part 1.

2. Select the **left** connection point at part 2 and, in the Context Menu, open the **Connect to: Standard panel** command.

--> The parts are connected.
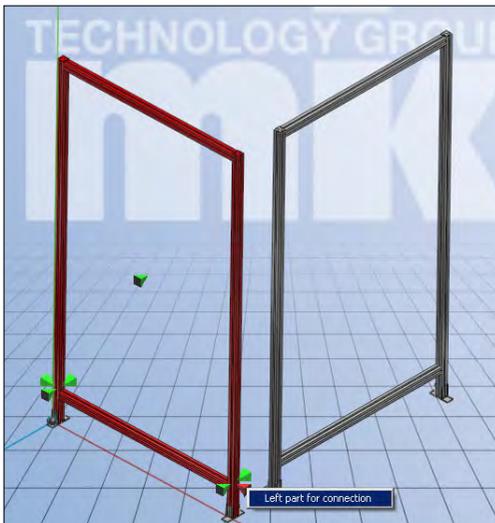
Left part for connection

connect to: Panel

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