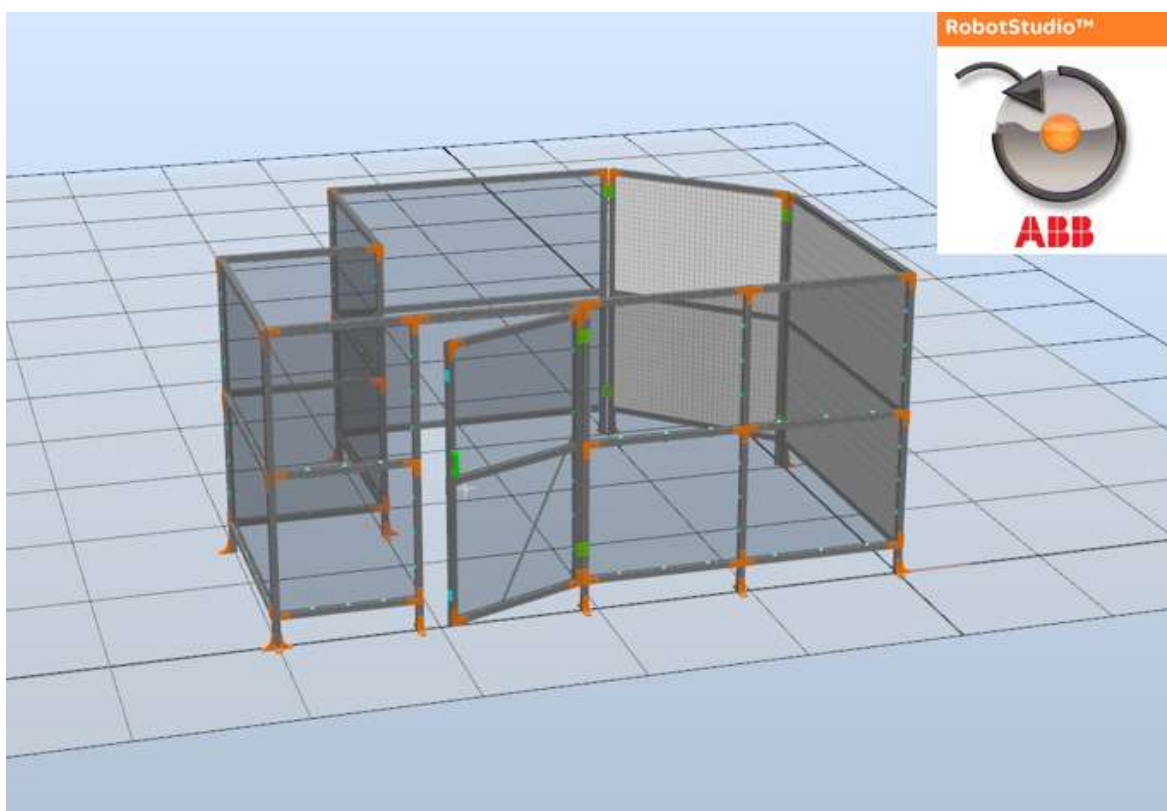


SAFETY PRODUCTS

Application manual

Fence PowerPac



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Purpose

The purpose of this user guide is to describe the use of the Fence PowerPac in RobotStudio.

Target group

This document is aimed for staff working with the design of safety fence.

Prerequisites

It is assumed that the reader of this document has the following knowledge:

- Basic knowledge of ABB Jokab Safety products
- Knowledge of safety products
- Knowledge of fence with functions relevant to safety

Special instructions

Please pay attention to the following special instructions in this document:



Attention!

Danger of personal injury!

Failure to follow instructions or work sequences properly may result in personal injury.



Caution

Risk of damage to the equipment!

Failure to follow instructions or work sequences properly may result in damage to the equipment.



Note

Notes are used to provide important or explanatory information.

1. Introduction

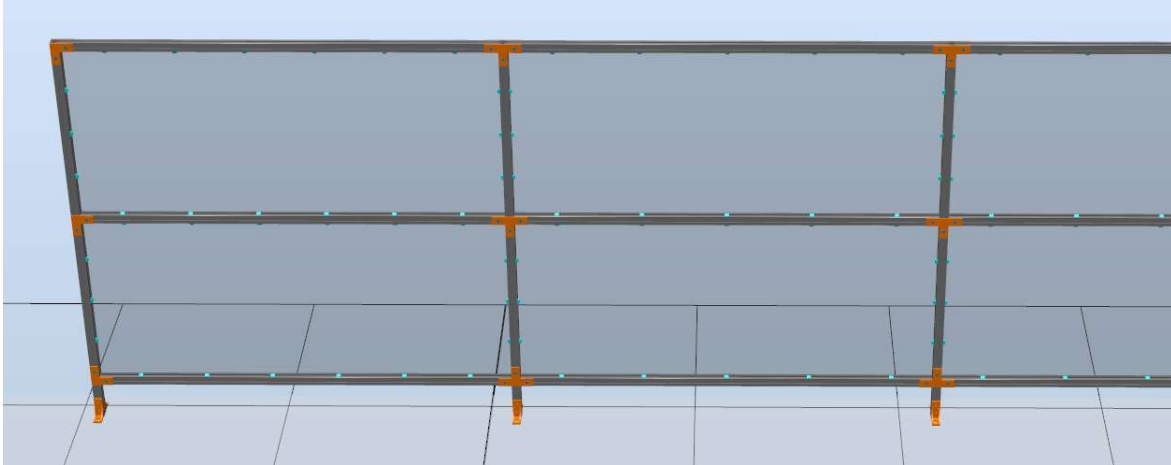
RobotStudio Fence PowerPac enables the design of ABB Quick-Guard fence in RobotStudio.

It is required to install ABB RobotStudio and the ABB Fence PowerPac.

1.1 Available types of fence

Quick-Guard standard with 44x44 profiles with a recommended maximum height of 2200mm.

All brackets that are required to mount the designed fence are included in the generated part list, e.g. premounted floor brackets, infill and infill fixings.



Please contact your local ABB contact if there is need for other fence constructions that are not supported in the Fence PowerPac; for example sliding doors, hatches and special openings (e.g. tunnels).

1.2 Available infills

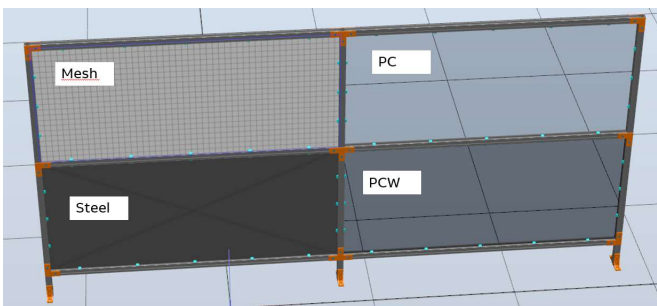
Four types of different infills are available in the Fence PowerPac. The infills can be mixed in the same fence design.

Short description in RobotStudio

Mesh:
PC
PCW
Steel

Long description

Welded mesh black powdered 40x40x3,5 mm
5mm polycarbonate uncoloured
3mm polycarbonate for welding applications
1mm galvanized steel panel X-reinforced

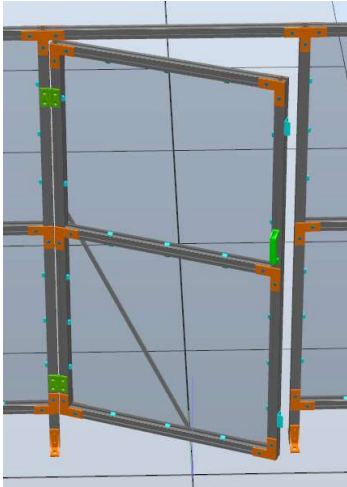


1.3 Available items

1.3.1 Normal door

The door is equipped with hinges, crossbar, door handle and doorstop.

- Selectable hinge side: Left or right.
- Selectable hinge direction: Inward or outward.
- Width: Default 1000mm. Maximum 1200mm.
- Height: Minimum 2000mm due to the upper profile.



2. Software

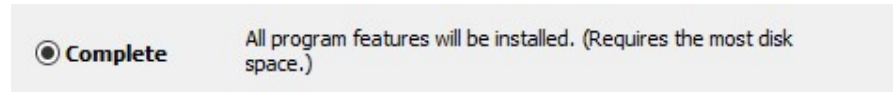
2.1 Install RobotStudio

Skip this step if you already have the latest RobotStudio installed on your computer.

Download and install the latest version of RobotStudio from the ABB website:

<https://new.abb.com/products/robotics/robotstudio/downloads>

Choose to make the complete installation:



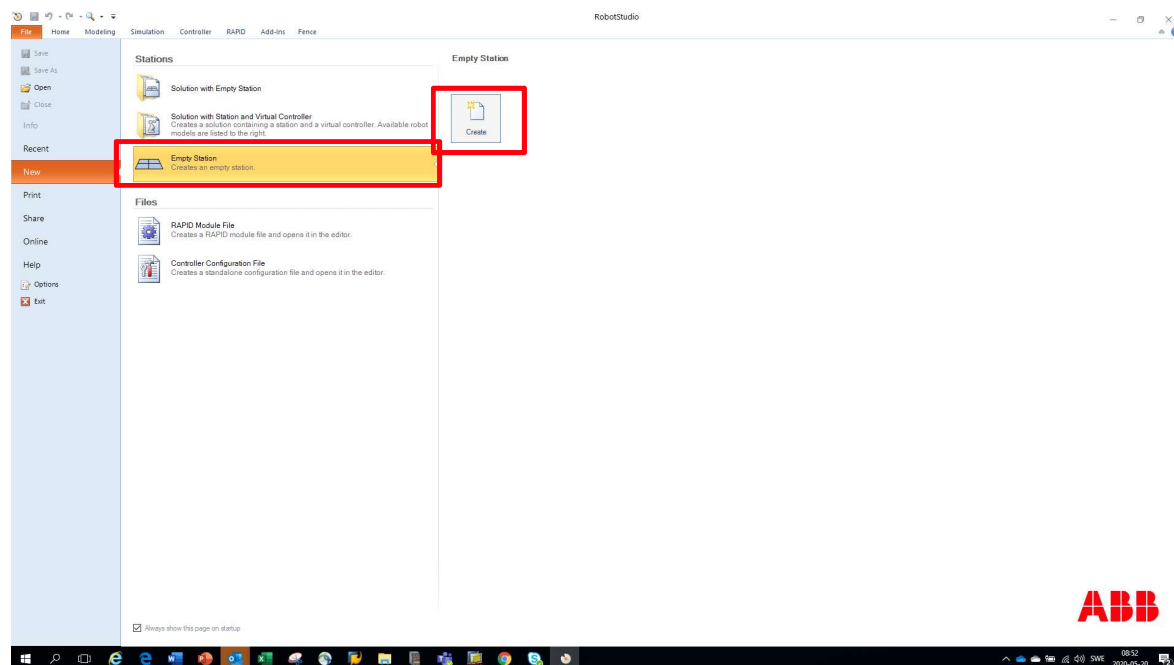
- It is not required to install RobotWare to use Fence PowerPac.
- It is required to activate the trial version of RobotStudio.

2.2 Install Fence PowerPac

1. Download the latest version of RobotStudio Fence PowerPac from the ABB website:
<https://new.abb.com/low-voltage/products/safety-products/fencing-systems>
2. Unzip the file on your computer (e.g. the desktop).
3. Move the unzipped folder to the folder:
"C:\Program Files (x86)\ABB\RobotStudio 2019\Bin\Addins"

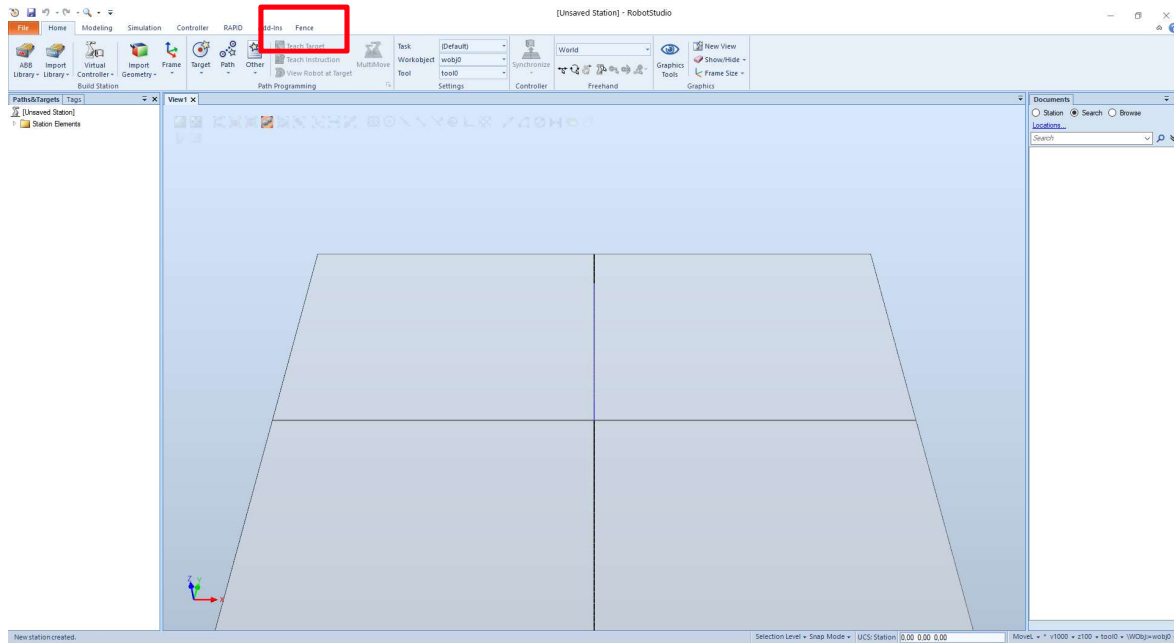
2.3 Launch RobotStudio with Fence PowerPac

1. Launch RobotStudio by double-clicking on the icon.
2. Click on "Empty Station", then click on "Create"



3. Click on the “Fence” tab in the top menu.

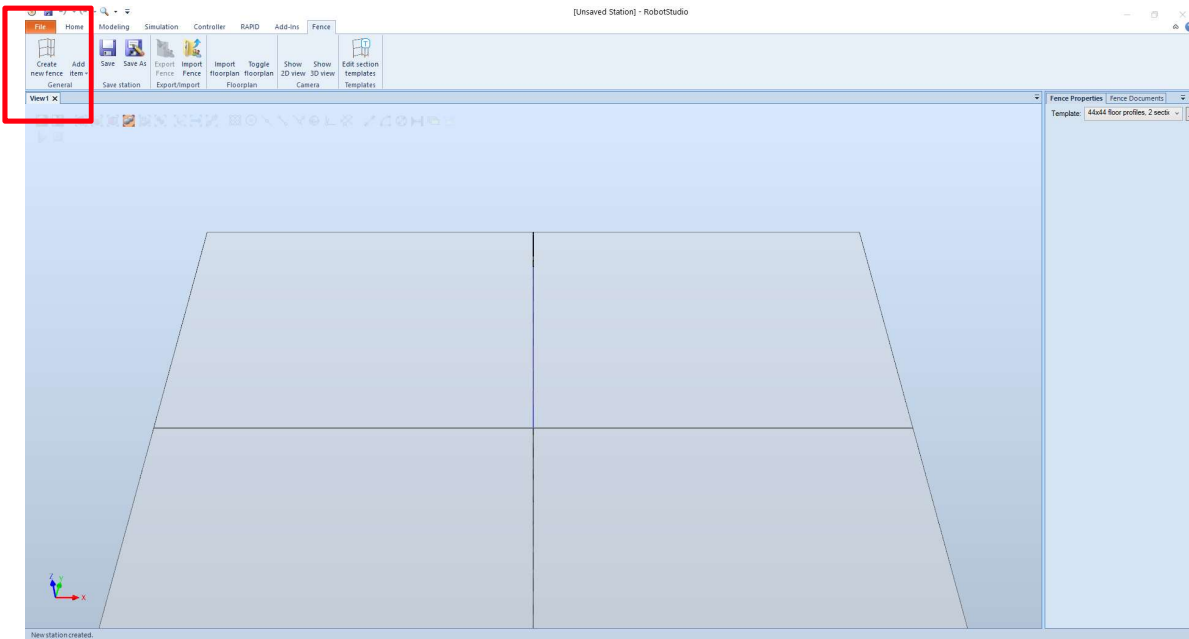
Your are now ready to create your first fence.



3. Create fence

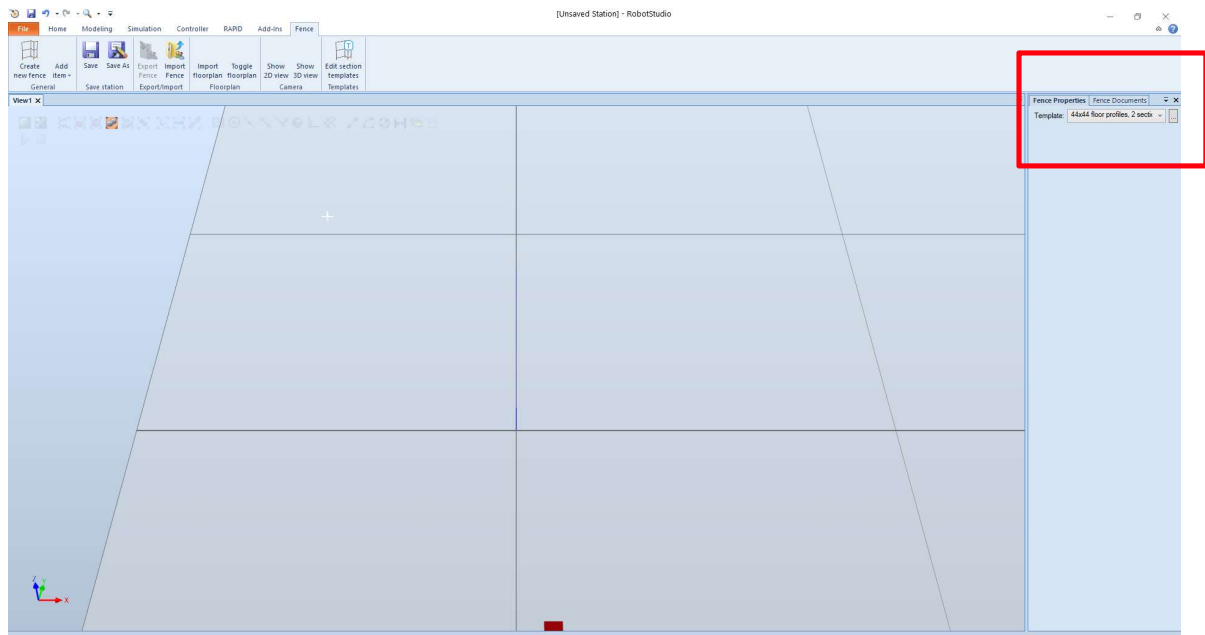
3.1 Create new fence

Start the design by clicking "Create new fence" in the upper left corner in the tab.

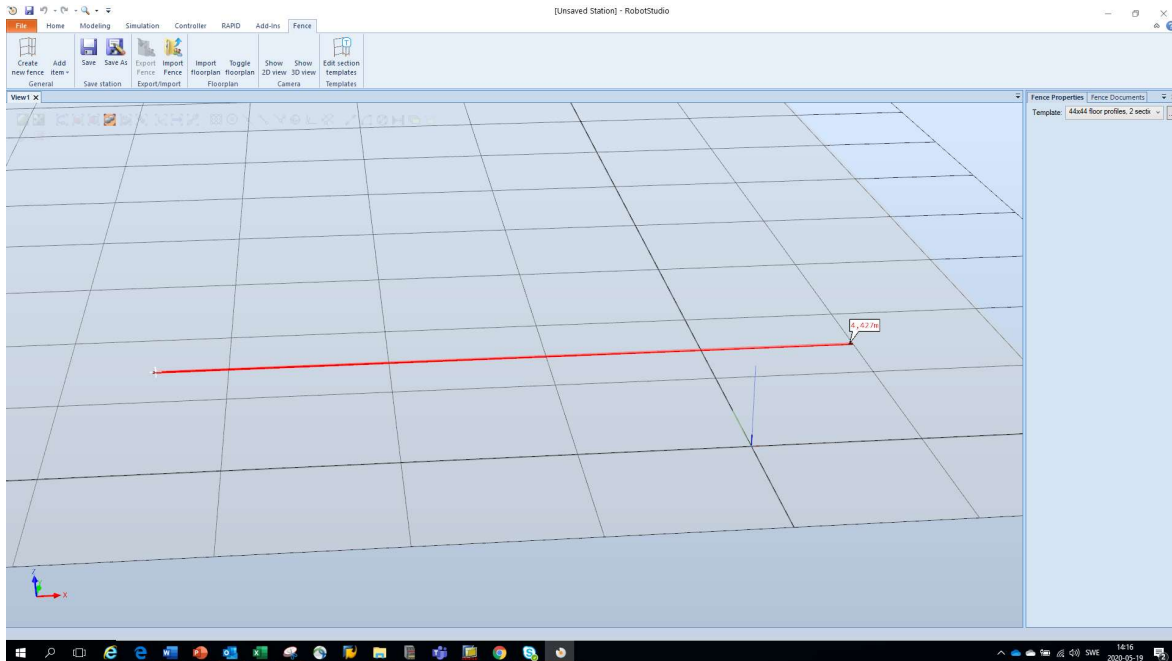


Selected type of fence in the template scroll down menu to the right.

It is possible to create and/or edit customized templates – see chapter “Section templates” for values regarding each preinstalled template..



Click with left mouse button at the first starting point of the fence.



A red line will appear showing the intended fence. The measurement shown at the end of the line is the distance center to center from the first and last fence post. Use the wheel on the mouse to zoom in/out to see the measurement in a good way.

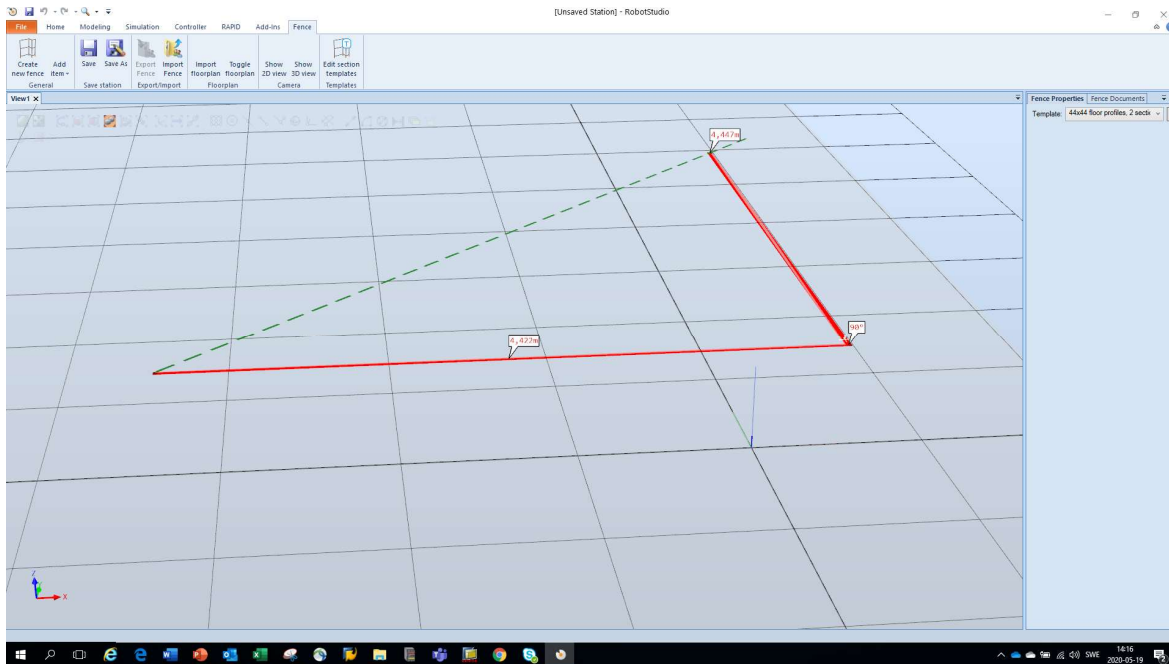


Note

Always design counter-clockwise, otherwise will brackets and infill fixings be mounted on the wrong side of the fence. And always start in a corner or in an end-point of the fence.

Click one time on the left mouse button at the desired position and continue to design the next fence section.

A green assist line will appear when the mouse pointer is in 45 or 90 degrees relation to the starting point. RobotStudio will “snap” into this conjunction.

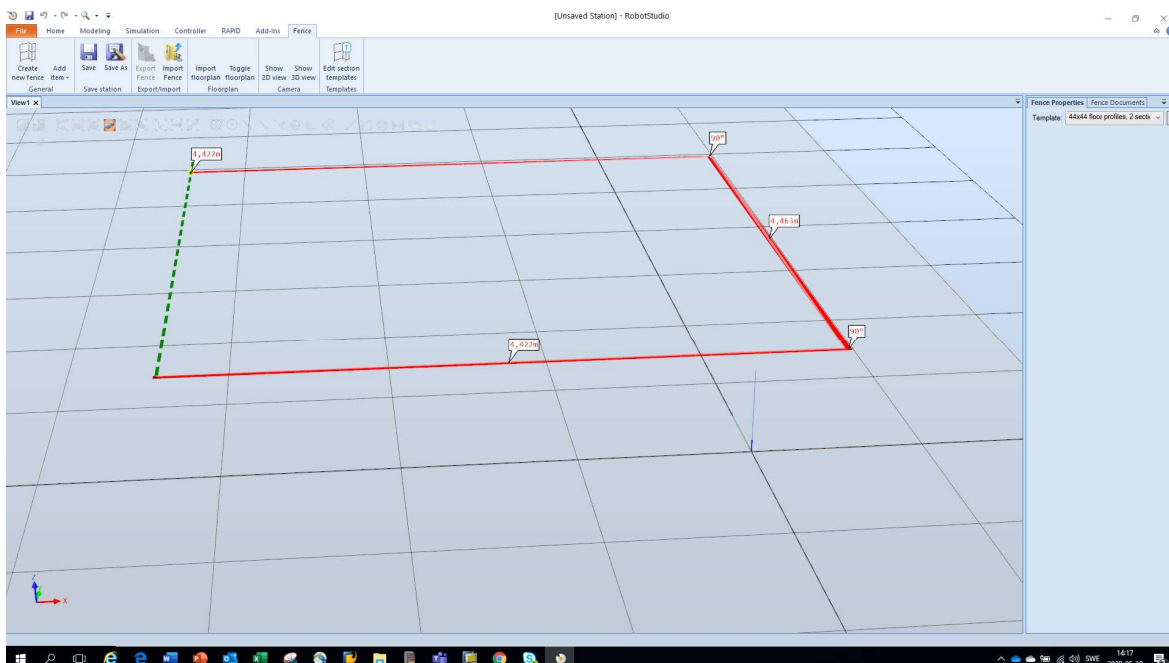


End the fence design and generate the final fence by double-clicking fast on left mouse button at the ending point of the fence.

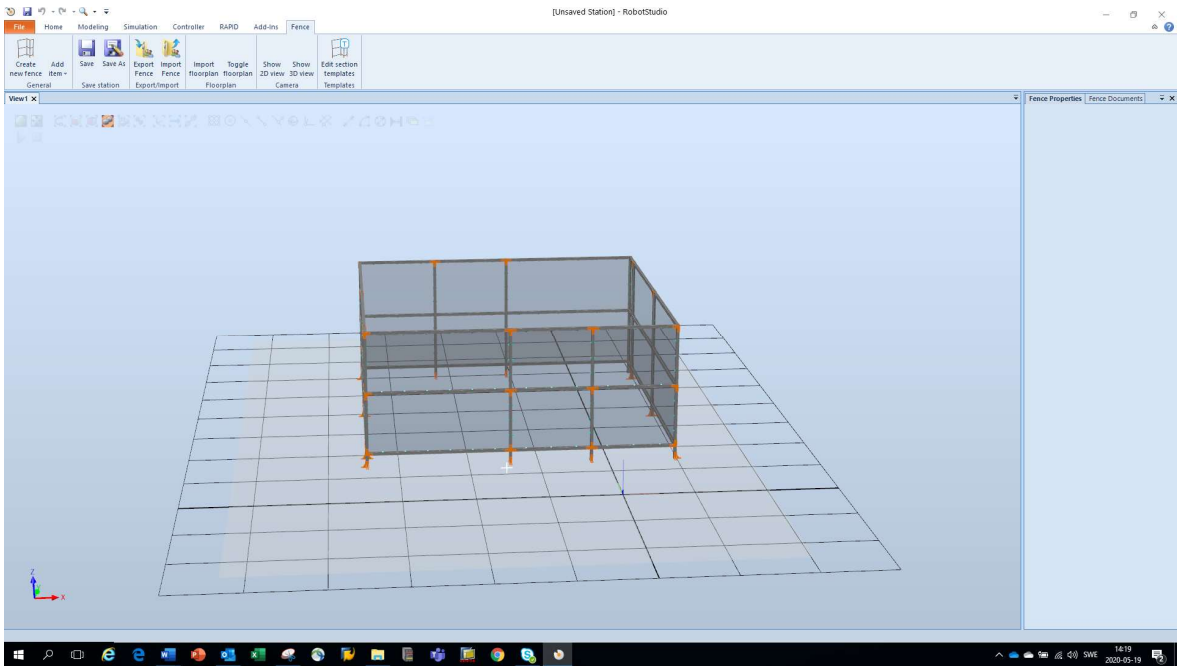


Note

If you are ending on the same point as you started the fence –zoom in using the scroll wheel on your mouse to make sure you are exactly on the right spot. A yellow spot will appear when the pointer is on the starting point.

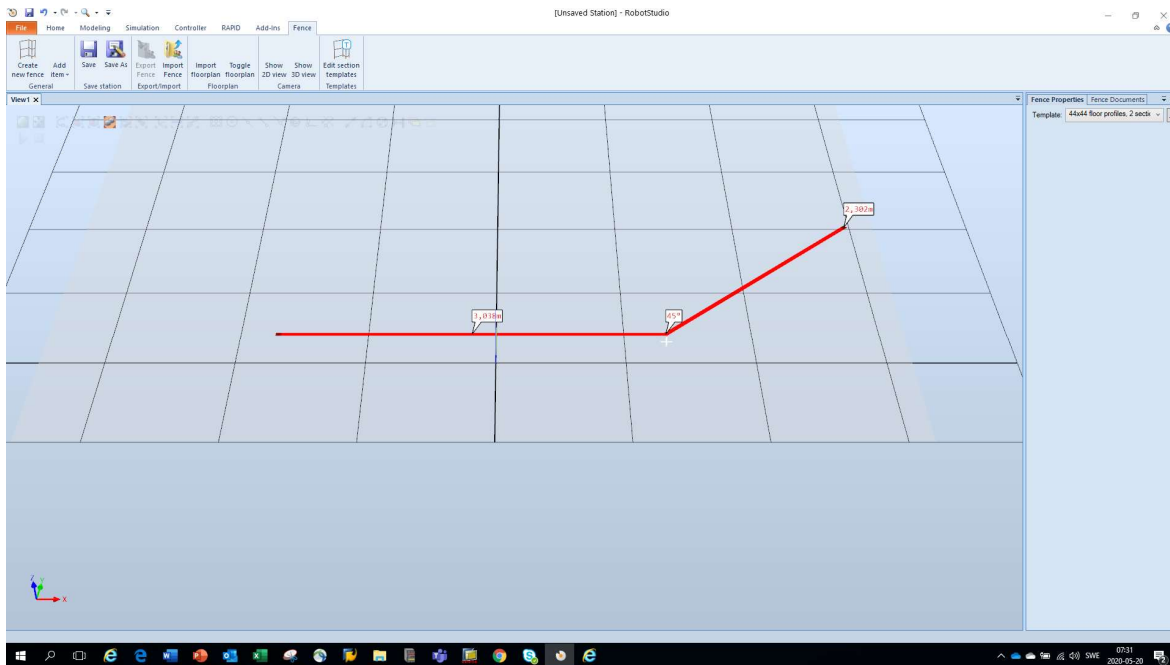


A realistic view of the fence will be generated when the double-click has been made. The creation of the fence can take a few seconds, depending on the size of the fence.



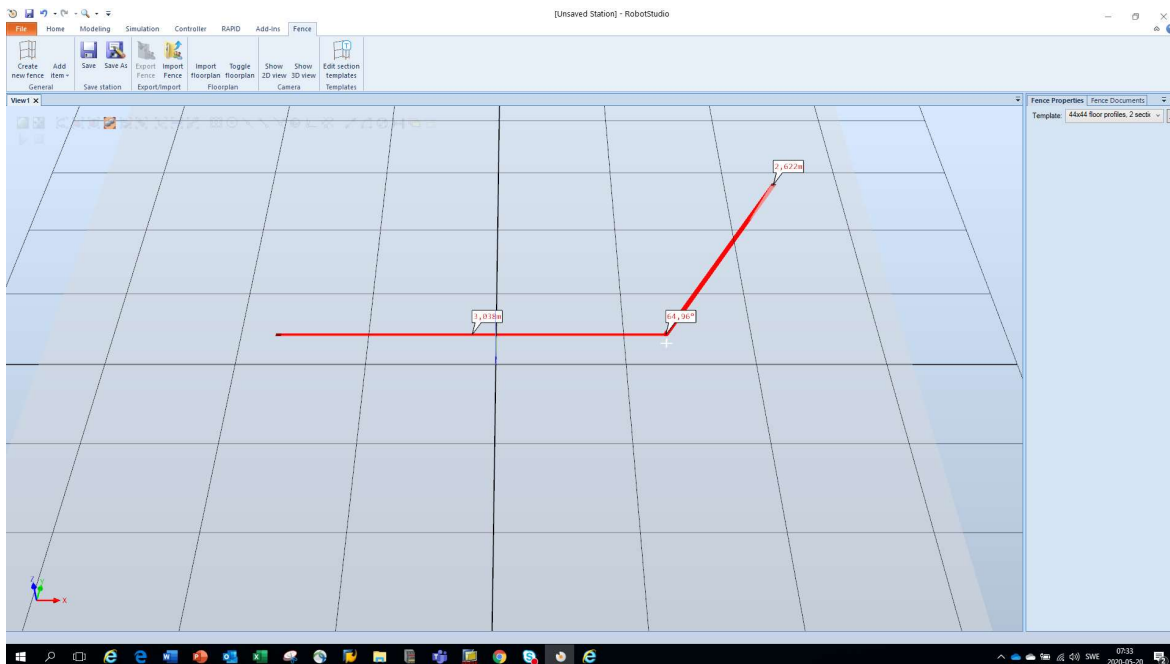
3.2 Create angled fence

Angled fences can be created. RobotStudio will snap at 45 degrees by default.



Note

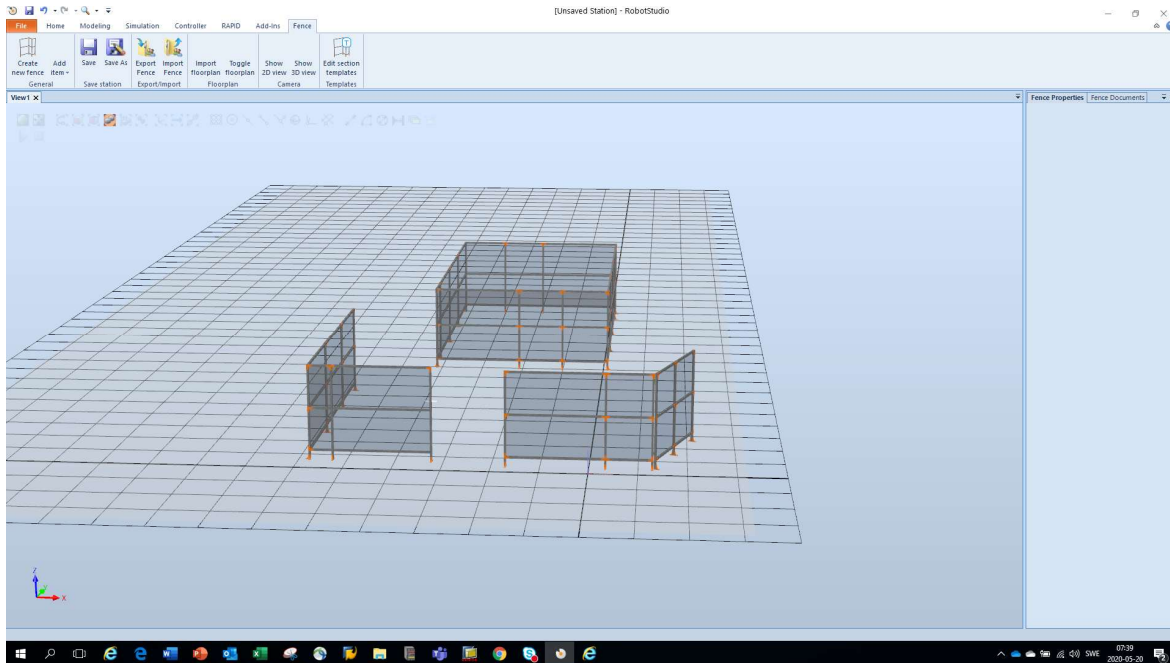
Hold down shift to choose another angle of any choice.



Click once on the left mouse button to create the angled fence section. Double click on left mouse button to finish the fence. Hinge brackets will be automatically added between all angled sections.

3.3 Several separated fence sections in same layout

Several separated fence sections can be designed in the same layout. See example below.

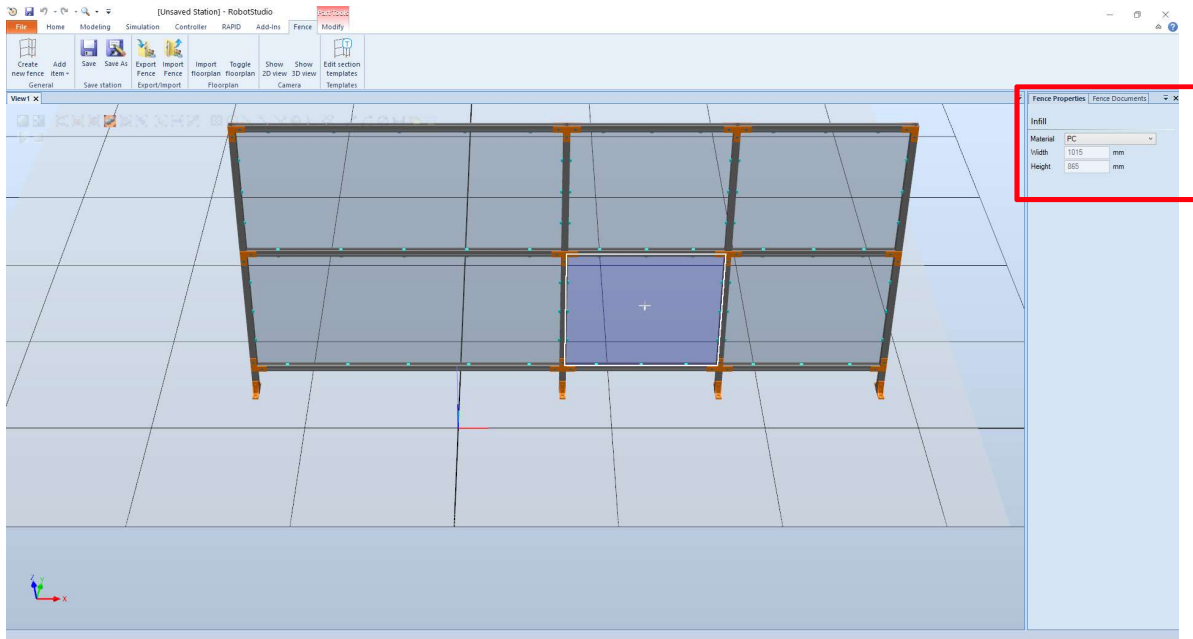


Be aware that the generated assembly drawings can be difficult to read and understand. The different fence sections will be printed in the same view and there is a risk that the fence sections in front and behind are mixed up.

It is recommended to make separate fence designs of the different fence sections.

3.4 Change an infilling in an existing fence

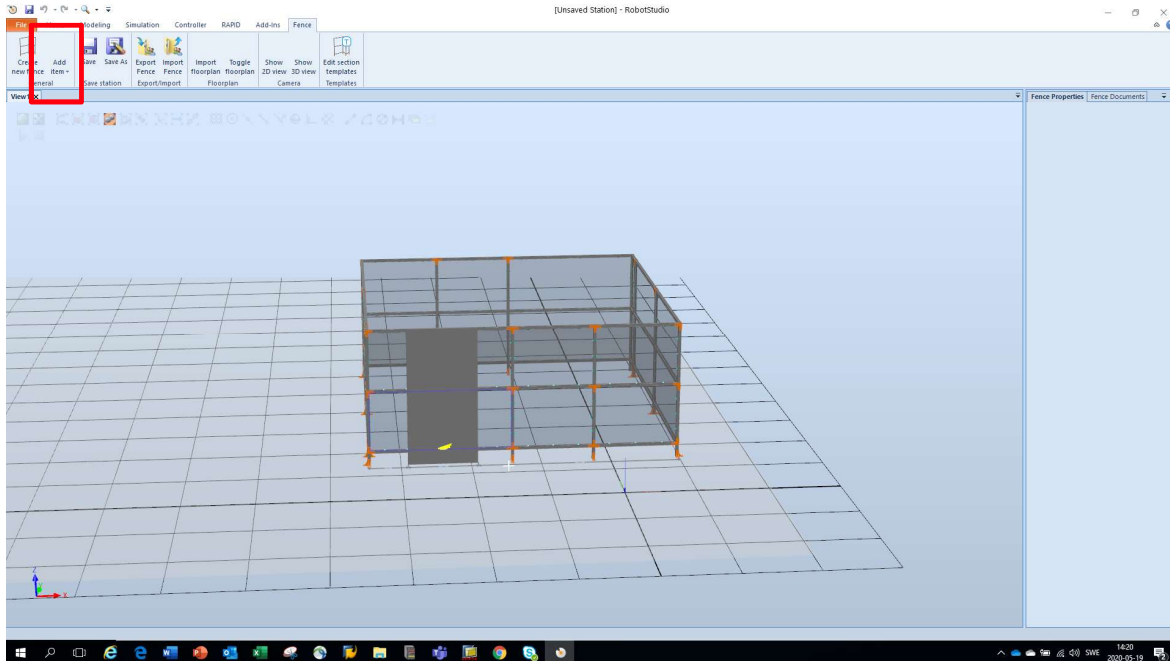
Click on the infilling that you want to changed. It is now possible to change the material of the infilling in the command section to the right. The dimensions of the selected infilling will also be visible.



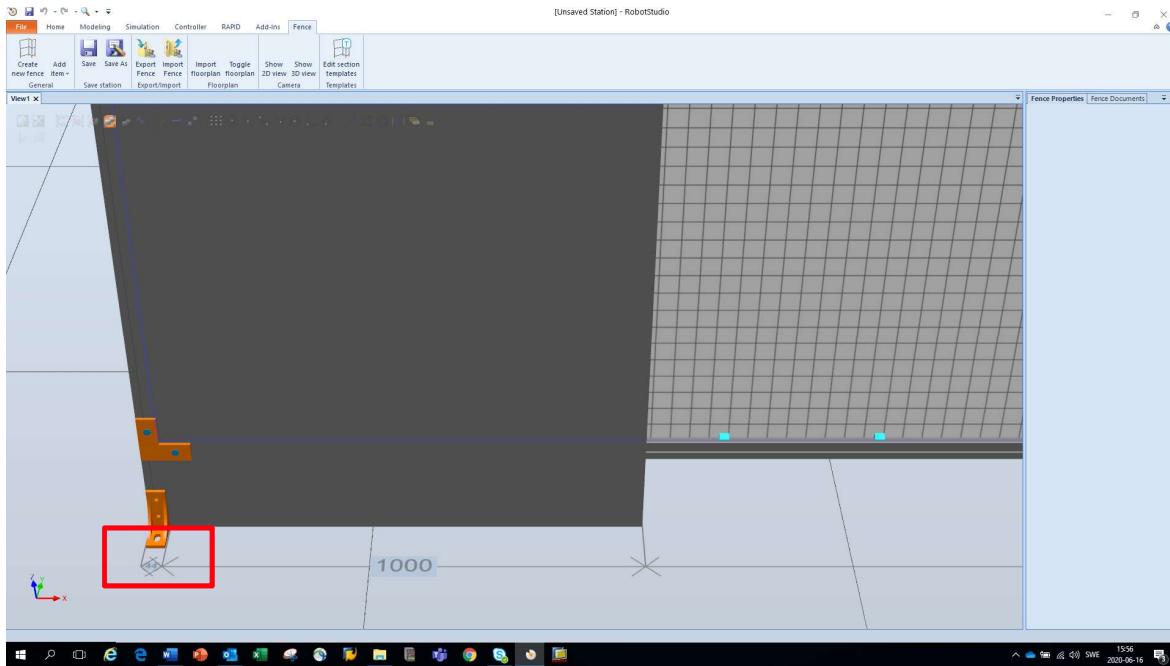
4. Add item

4.1 Add a normal door

Click on “Add item” in the top menu. Then click on “Normal door” and choose the position in the fence with the mouse pointer.



Click on left mouse button once and the door will be generated at the selected position. This can take a few seconds as RobotStudio will regenerate the fence.

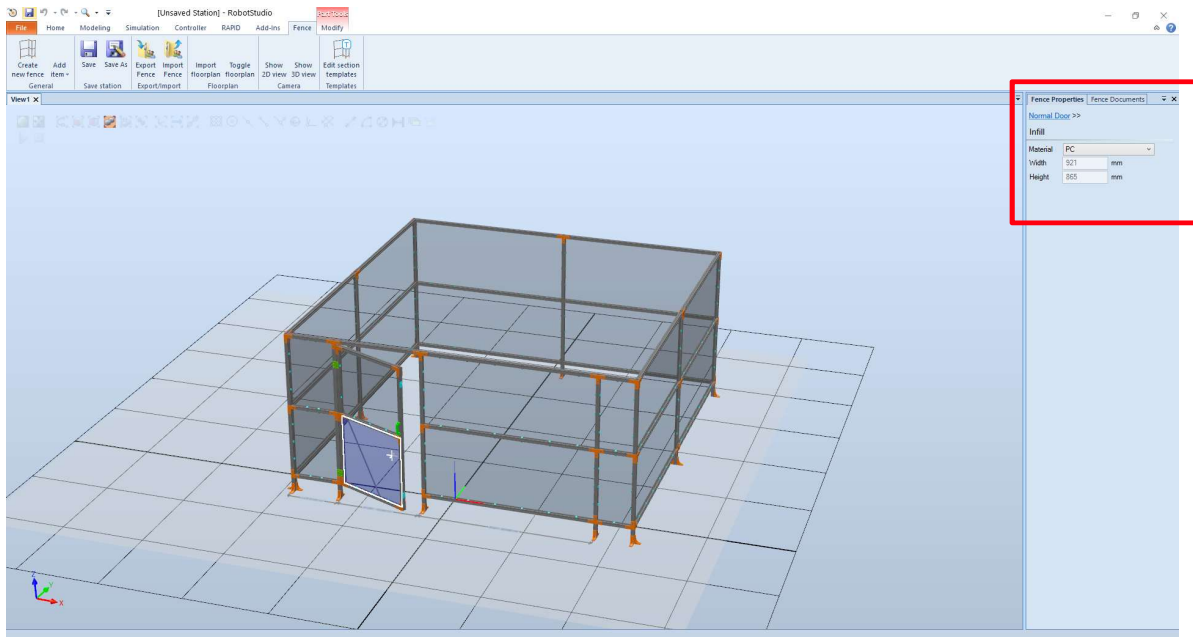
**Note**

Door is only available for fence with a height of minimum 2000mm.
The door must be placed minimum 45mm from the first or last corner post.

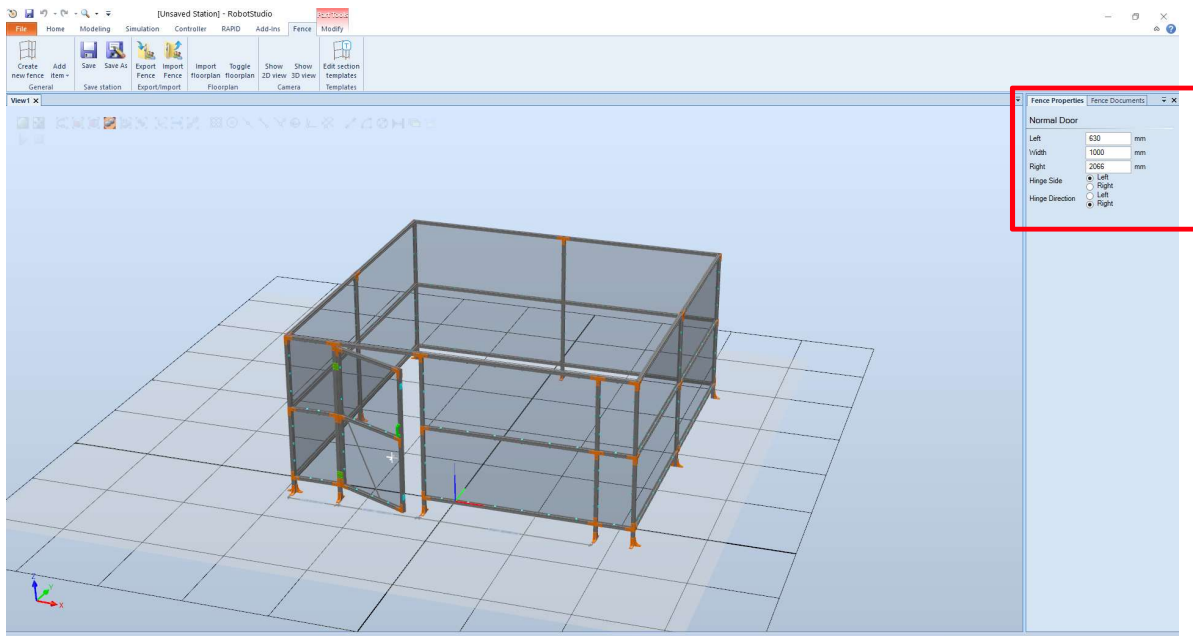
4.2 Edit door

Click with left mouse button on any part (infill, brackets or profiles) of the door.

Then click on “Normal Door” in the “Fence Properties” tab in the command section to the right.



An overview of the current door settings will appear. It is now possible to change the dimensions, hinge side and hinge direction. Maximum door width is 1200mm.

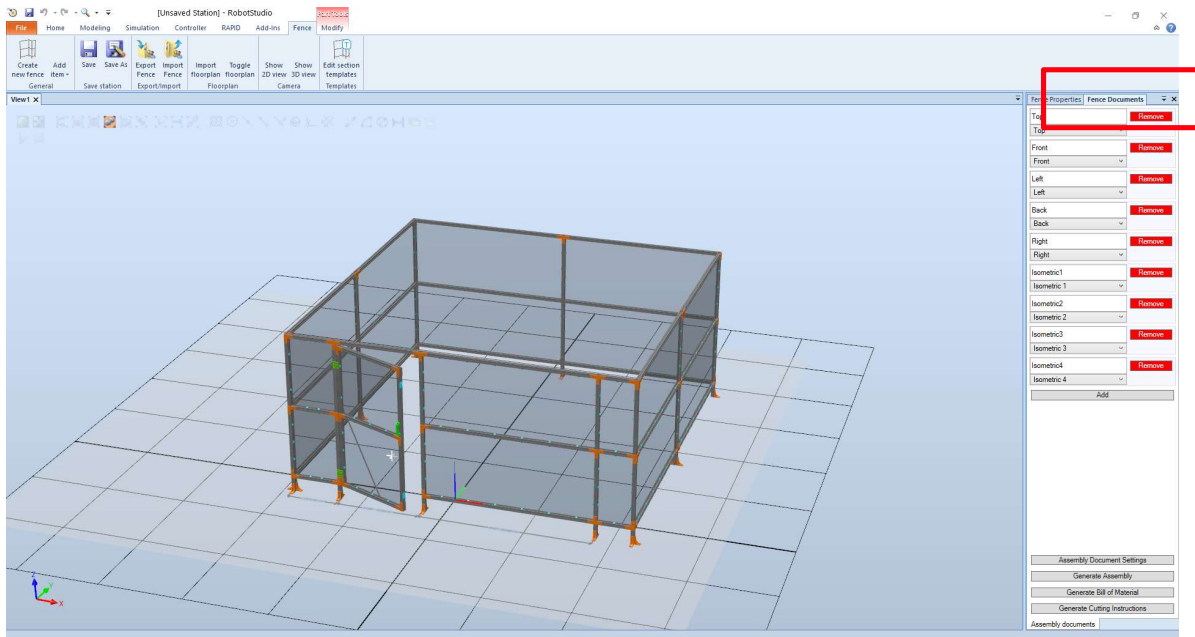


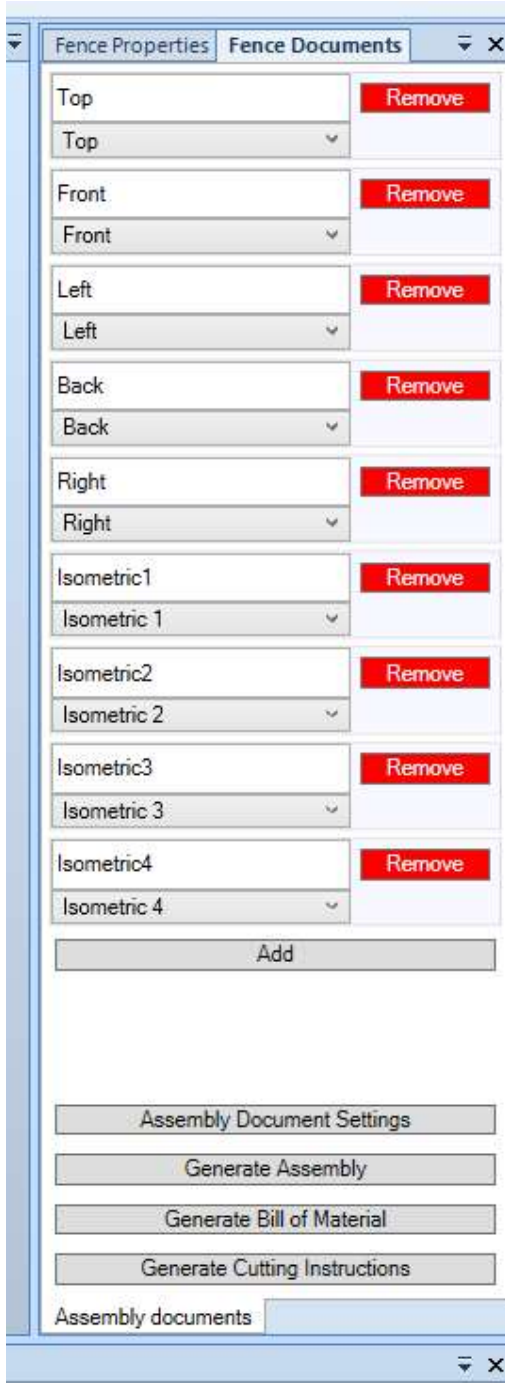
Hinge side: In relationship when you draw the fence counterclockwise (which you should) and then stand outside and look at the door.

Hinge direction: If you stand at the hinges and look at the door handle to select the side.

5. Generate fence documents

Click on tab “Fence documents” in the command section to the right.





The selected views in the tab will be generated in the printed assembly documents.

It is possible to change the views in the drop down menus.

Remove:

Will remove the view in the selected menu.

Add:

Will add a new view of any choice.

Assembly Document Settings:

Clicking on this function will open up a screen with the possibility to fill in information about the project. The information will be visible in the head when printing the assembly documents.

Generate Assembly:

Will print the selected views in PDF-format.

Generate Bill of Material:

Will generate a part list of the required components for the designed fence in Excel-format.

Generate Cutting Instructions:

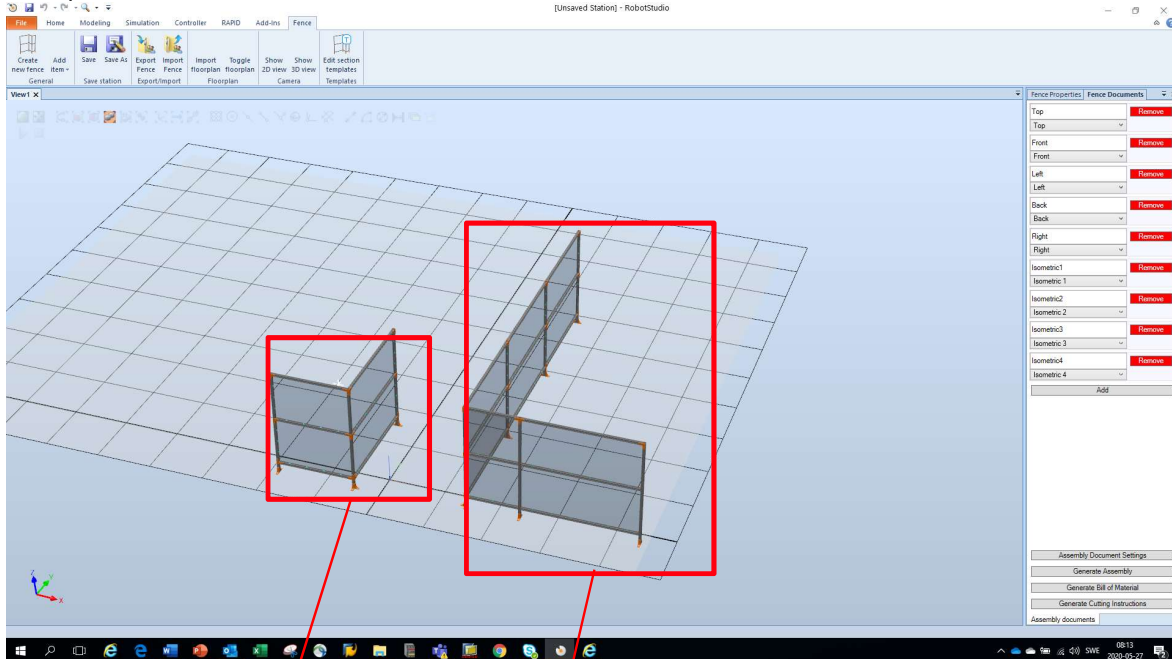
Will generate detailed part lists in Excel-format of the required profiles and infills with quantity and dimensions.



Note

The excel lists with Bill of Material and cutting instructions will contain all components required for the designed fence. But if the design contains separated fence sections, then the excel list will be divided with the components required for each section.

Example of bill of material:

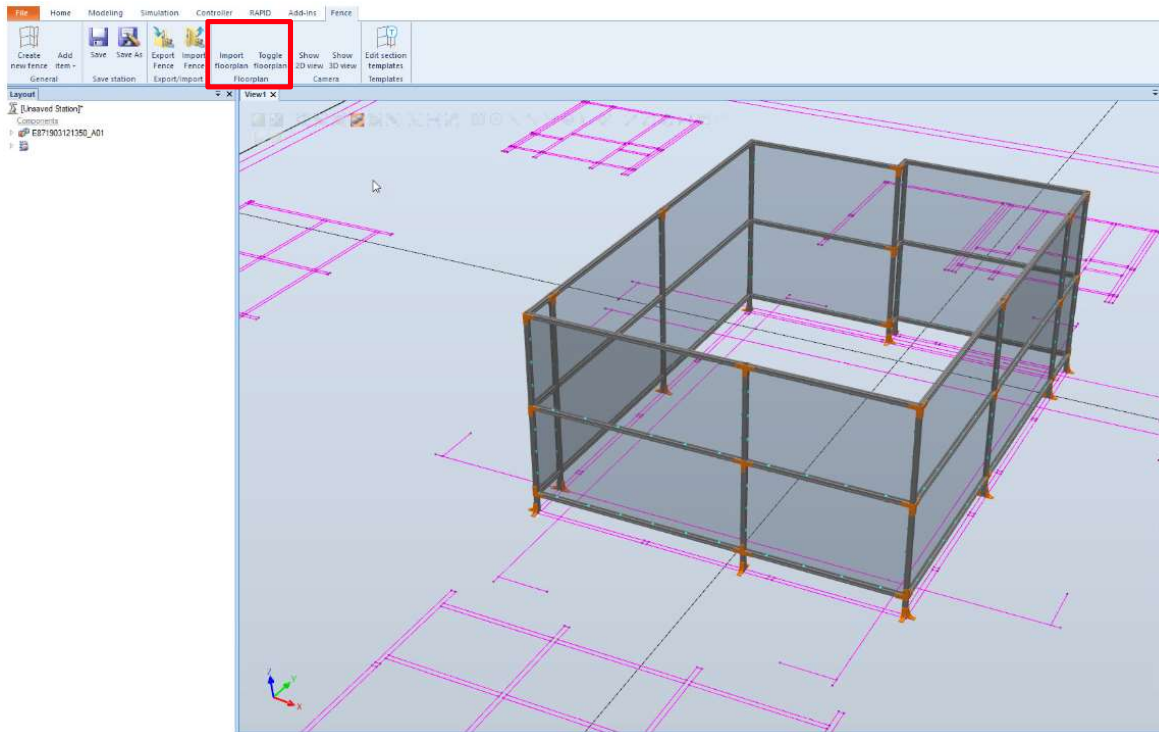


FenceBOM			
Generated 2020-05-27			
		Total number of sets:	1
Article no.	Description	Tot.qty	Unit
2TLA040030R1400	JSM 39-K Floor/angle bracket, premounted, Aluminum	6	pce
2TLA040030R0700	JSM 32B-K L-bracket premounted	14	pce
2TLA040038R1100	JSM PL3 Securing component for infill panels	60	pce
2TLA040037R3700	JSM A44A Aluminum profile 44x44 2000mm	3	pce
2TLA040037R3500	JSM A44A Aluminum profile 44x44, meter	9,61	m
2TLA040039R1200	JSM YPC5A9 Pc sheet 5mm uncoloured cut to size, m2	5,61	m²
2TLA040030R1400	JSM 39-K Floor/angle bracket, premounted, Aluminum	12	pce
2TLA040030R0700	JSM 32B-K L-bracket premounted	14	pce
2TLA040038R1100	JSM PL3 Securing component for infill panels	160	pce
2TLA040030R0800	JSM 33B-K T-bracket premounted	12	pce
2TLA040037R3700	JSM A44A Aluminum profile 44x44 2000mm	12	pce
2TLA040037R3500	JSM A44A Aluminum profile 44x44, meter	14,29	m
2TLA040039R1000	JSM YPC5A1 Pc sheet 5mm uncoloured 2020x865mm	6	pce
2TLA040039R1200	JSM YPC5A9 Pc sheet 5mm uncoloured cut to size, m2	4,85	m²

6. Import floorplan (BETA)

A DWG-file can be imported to be used as a 2D template for the fence design. Click on “Import floorplan” to choose the DWG-file to be imported.

The fence can now be created on the imported DWG-file.

**Note**

This function is not fully verified, and the functionality cannot be guaranteed.

7. Section templates

Section templates are used to create templates of fences of your own choice. Several templates are included from start. The templates are stored in this location on the pc and can be shared with other users: C:\Users\?userid!\AppData\Local\ABB\RobotStudio\FencingPowerPack

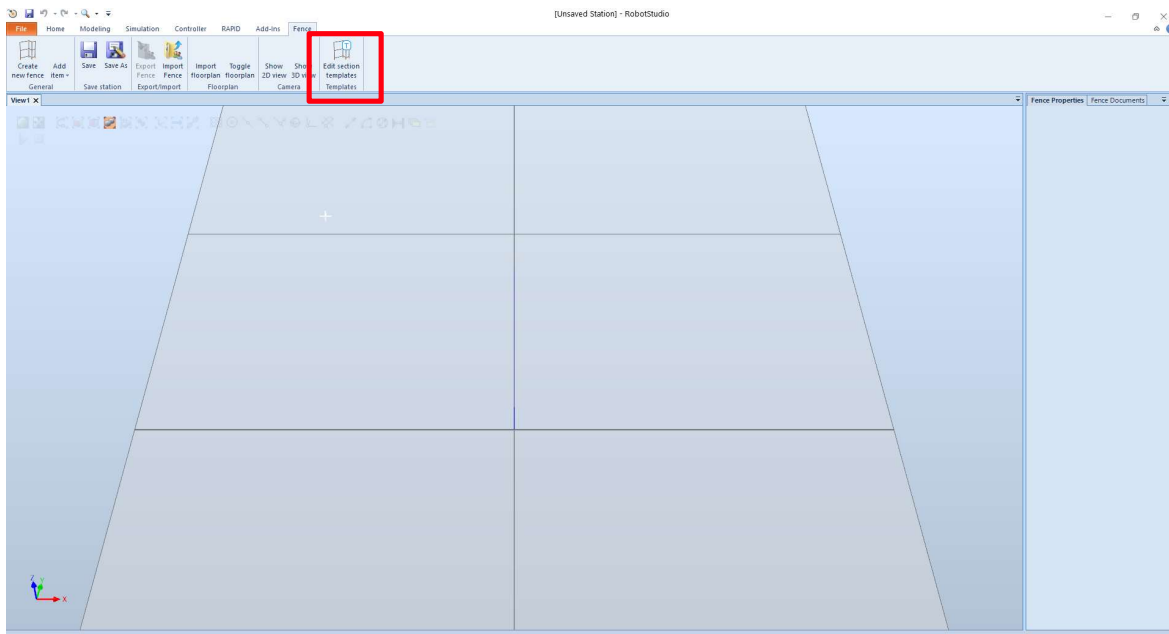
7.1 Available section templates

The following templates are available from start and can be chosen in the template scroll down menu.

No	Description	Height	Infill upper	Infill lower	Profiles
10	Q-G Standard 1400mm Mesh 44x44	1400	Mesh	Mesh	44x44
30	Q-G Standard 2000mm Mesh / Mesh 44x44	2000	Mesh	Mesh	44x44
31	Q-G Standard 2000mm PC / PC 44x44	2000	PC	PC	44x44
32	Q-G Standard 2000mm PC / Mesh 44x44	2000	PC	Mesh	44x44
33	Q-G Standard 2000mm Mesh / Steel 44x44	2000	Mesh	Steel	44x44
34	Q-G Standard 2000mm PC / Steel 44x44	2000	PC	Steel	44x44
35	Q-G Standard 2000mm PCW / Steel 44x44	2000	PCW	Steel	44x44
36	Q-G Standard 2000mm Steel / Steel 44x44	2000	Steel	Steel	44x44
50	Q-G Standard 2200mm Mesh / Mesh 44x44	2200	Mesh	Mesh	44x44
51	Q-G Standard 2200mm PC / PC 44x44	2200	PC	PC	44x44
52	Q-G Standard 2200mm PC / Mesh 44x44	2200	PC	Mesh	44x44
53	Q-G Standard 2200mm Mesh / Steel 44x44	2200	Mesh	Steel	44x44
54	Q-G Standard 2200mm PC / Steel 44x44	2200	PC	Steel	44x44
55	Q-G Standard 2200mm PCW / Steel 44x44	2200	PCW	Steel	44x44
56	Q-G Standard 2200mm Steel / Steel 44x44	2200	Steel	Steel	44x44

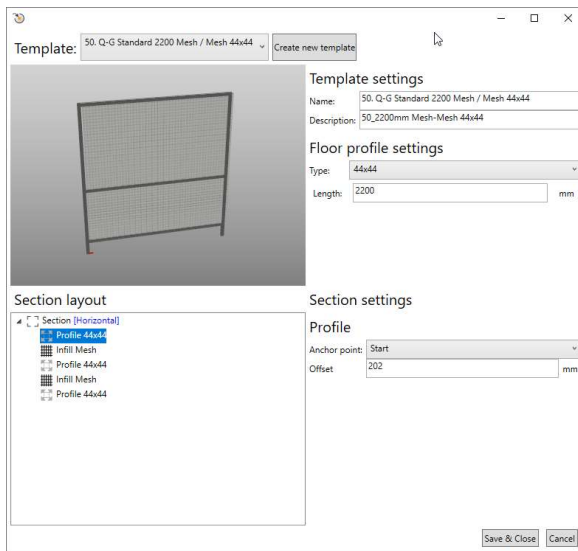
7.2 Create or edit section templates

Create or edit section templates by clicking on “Edit section templates”.



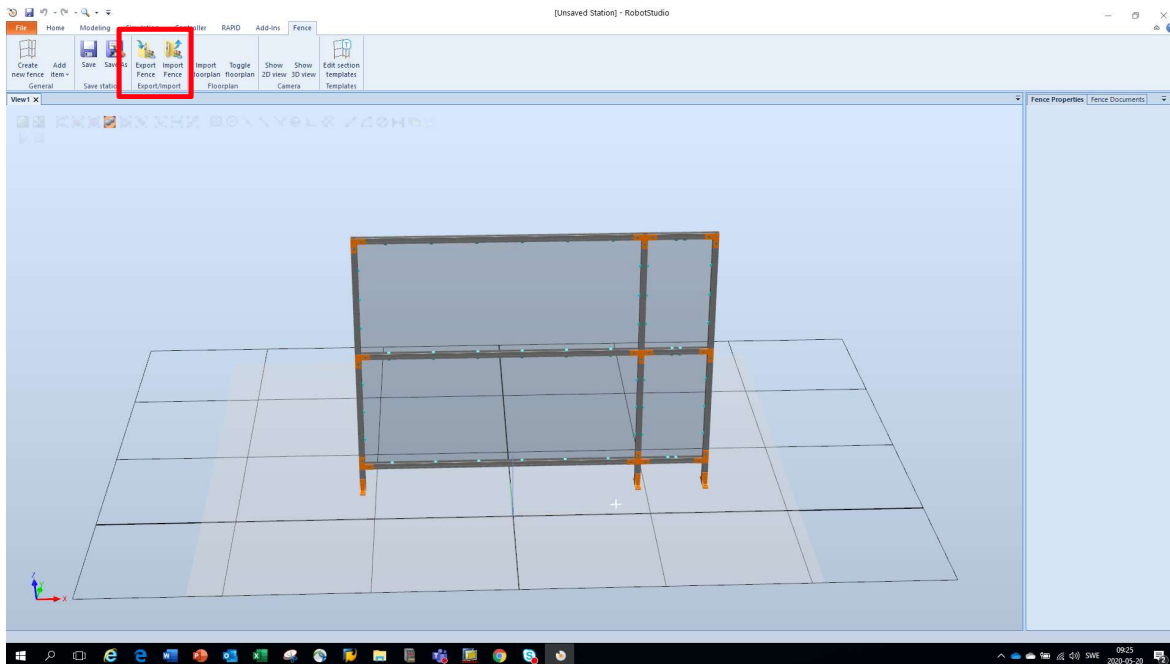
A command screen will appear, making it possible to create and edit templates.

The dimensions to enter are center-to-center of the profiles. Due to this it is required to type in 202 mm (180+22) in order to have a 180 mm opening from floor to the first profile. It is also required to enter -22 mm if the upper profile should be in level with the vertical posts.



8. Export and import Fence

A designed fence section can be reused in other fence designs by using the export and import functionality.



Export the designed fence section by clicking on the “Export Fence” button in the tab, and save the file.

The fence section can now be imported into other fence designs.



Note

The imported fence section will appear at the same coordinates as when it was exported. It is not possible to change the coordinate.

9. Mouse and keyboard commands:

Left click:	Click to design fence.
Double left click:	End fence section design and generate the fence.
Backspace:	Delete last fence section.
Hold shift:	Unlocks the choice of any angle.
Hold mid button and right button:	Rotate view.
Hold Ctrl and left button:	Pan view.
Right click:	Control the view. Use e.g. "View all" to see the whole fence.
Scroll wheel:	Zoom in/out.

10. Tips

An app for RobotStudio is available, making it possible to export to another file-format and then import into another 3D drawing tool.

Export Geometries Add-In 6.01

Anders Spaak



Version:
 Published: 2015-04-30
 Size: 843KB

Description

The Export Geometries AddIn is a RobotStudio add-in for exporting all geometries in a station to a CAD file in any format supported by RobotStudio and with a valid license.

The exported file can be imported into a 3D CAD software as for example SolidWorks.

Geometries placed in Component Groups and Smart Components are also exported. Dummy objects can be created for Parts without geometry.

Tags

RobotStudio-Addin

Content

Links

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[RobotApps](#)



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Revision B

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Document number
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