

Welcome to the DigiPara® Liftdesigner Training Basic Training

5/14/2019



www.digipara.com

- Profile
 - Founded: 1989
 - Location: Cologne / Germany
- Products:
 - 1996 DigiPara® Liftdesigner
 - 2007 DigiPara® Escalator designer
 - 2011 DigiPara® Elevator architect
 - for Autodesk Revit
 - 2012 DigiPara® Find (2012)
 - 2013 DigiPara® Liftdesigner
 - for Autodesk Inventor



- Worldwide operating enterprises
 - Overall more than 3000 licenses used worldwide
 - OTIS WHQ, Farmington, USA
 - Schindler WHQ, Ebikon, Switzerland
 - ThyssenKrupp, Neuhausen, Hamburg, Madrid
 - Kone WHQ, Finland, China
- SMB clients
 - More than 350 customers worldwide
 - Macpuarsa, Spain
 - Kleemann, Greece
 - Sematic, Italy
 - ...



- My Background
 - Alexandra Götttert
 - Start 02/14 in Elevator/Software Business

- At DigiPara
 - Technical Support
 - Training
 - Project Work
 - Template and Content Customization
 - BIM Model Product Loading

Agenda Content Session 1

- Program Basics
 - User Interface
 - Shaft Wizard
 - Main Project Data
 - Floor Levels
 - Control Elements
 - Docking Windows
 - View Frames & Section Plane
 - Sheets & Sheet Templates
 - BIM Components & Product Options
 - Dimensions & Annotations
 - Special View Types
- Level of Development - LOD
 - General
 - Individual Settings
- 2D Drawing Export
 - General
 - PDF & DWG
- Dimensions (Layout)
 - General
 - Properties
 - Dynamic Dimensions

- Practical Examples
 - General
 - Rail Bracket, Entrance Pocket, Sill Options, Car Balustrade & Platforms
 - Traction Elevators
 - Counterweight, Pulley Beam, Gear Base Construction & Car Frame
 - Hydraulic Elevators
 - Cylinder, Rail Bracket & MRL
- Shaft Groups
 - Copy and add Shafts
 - Group Shaft Wall Opening
 - Machine Room
- Overwrites
 - General
 - Dimension Overwrites
 - Component Overwrites
 - Annotation Overwrites
 - The *Operator
 - Extended *Operator & Combinations
- Project References & External Blocks
 - Data Tree & Project References
 - External Blocks (AutoCAD DWG's)
 - Export Project Values (*.rtf, *.xls, *.html)

- Material Configuration
 - Shaft Walls
 - Machine Room Walls
 - Pit & Ceilings
 - Floor Levels
 - Preferences / Material Hatching
- 3D Data Exchange
 - General
 - IFC & STEP
 - Coordinate System (IFC)
 - 3D LDBIM Export (LdBIM)
- Additional Objects
 - Additional Child Objects
 - User Component
 - Additional Wall Openings
 - Additional Wall Segments
- Cabin Configurator
 - Cabin Design

- Practice - Custom Sheet Template
 - Develop own title block & drawing border
 - Create and store own view frames
 - Save costum sheet templates under LOD consideration
- Übung – Additional Objects
 - Develop a steel shaft according to training materials
- FAQ's
 - Discussion of open questions

Program Basics

User Interface

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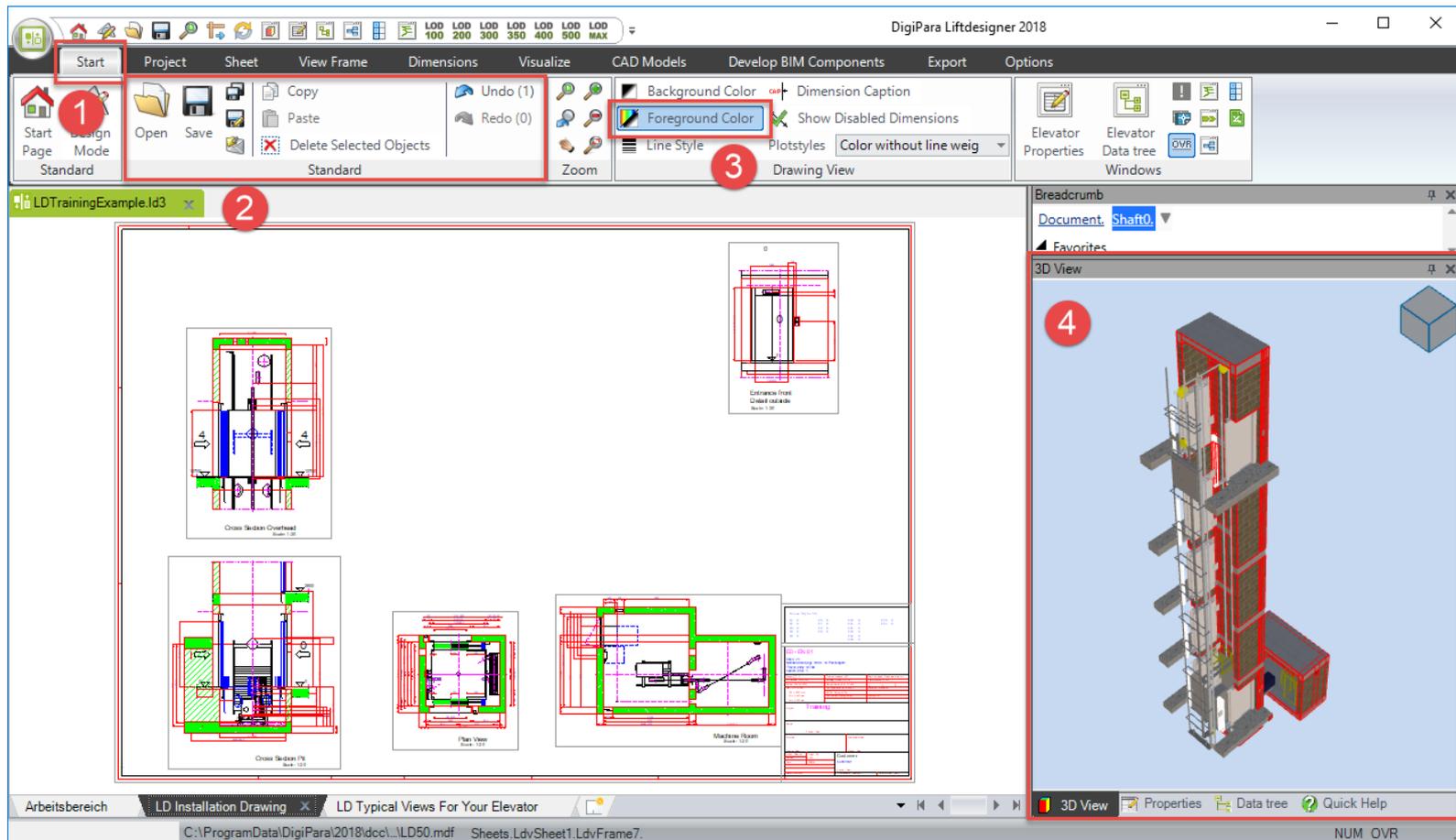
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1 Ribbon tabs

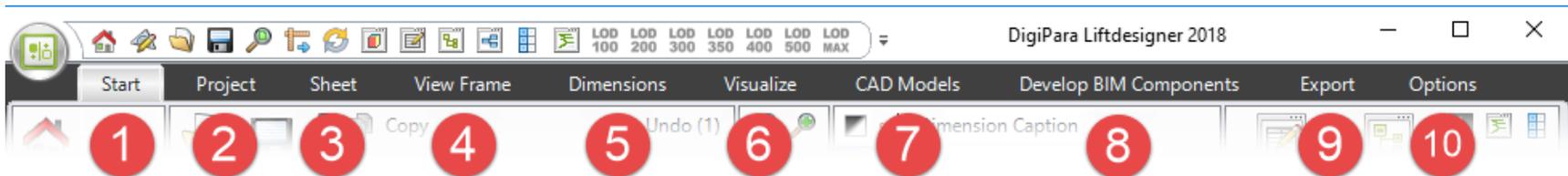
2 Ribbon groups

3 Ribbon items

4 Docking windows



- Provide elevator, project, layout and program specific options



01. File, zoom and window operations

02. Project, shaft groups, main project data, cabin configurator, calculation, object selection, selection mode

03. Sheet, sheet template, view frame template and sheet overlay operations, language operations

04. View frame, type, view direction, component visibility, selection operations, LOD settings

05. Dimension, dimension setting and dynamic dimension operations

06. 3D window operations, visualisation, display options, render, image export

07. Add CAD model, orientation settings, CAD automation, performance

08. Develop BIM components, develop geometry, orientation, characteristic points, BIM component rules, DigiPara BIM library, Macro and VBA operations

09. Data export, 2D drawing export, 3D view frame export and BIM exchange operations

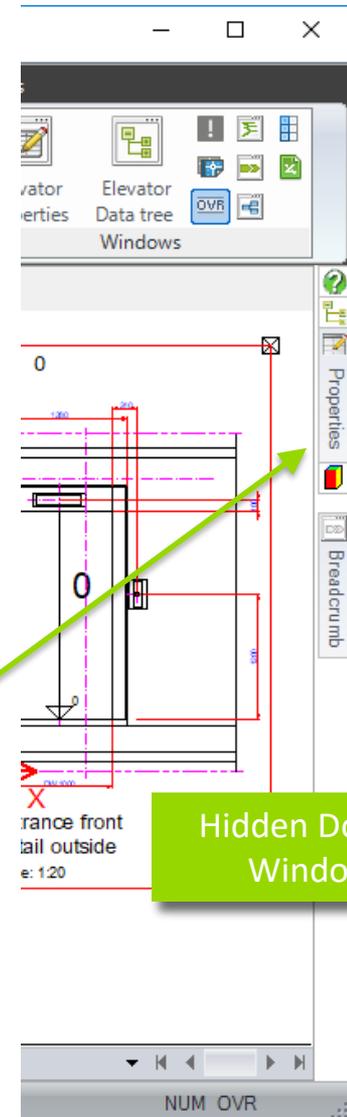
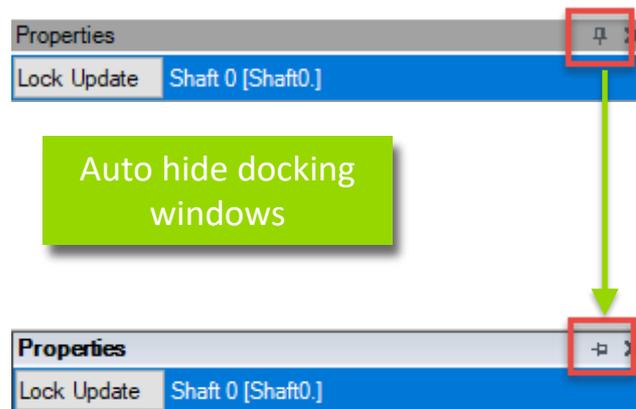
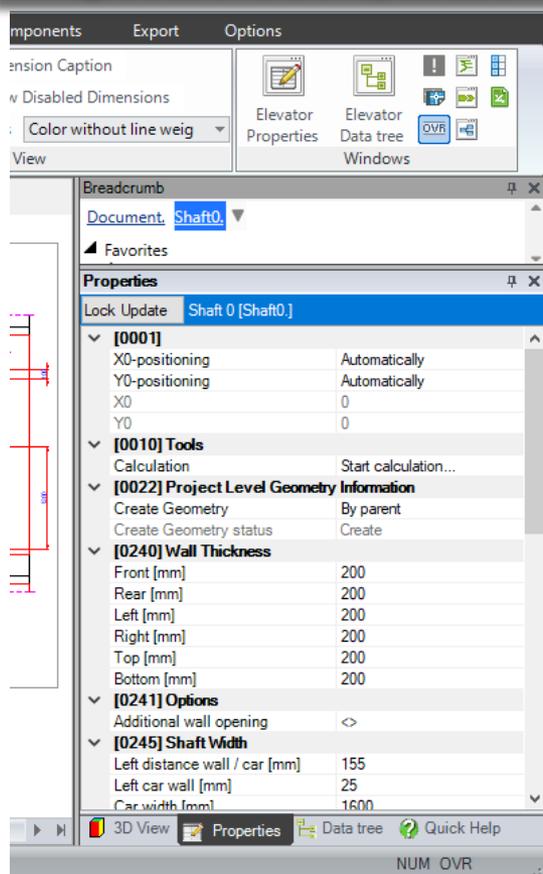
10. Software activation, DigiPara online and help operations

- Properties, Data tree, 3D View, Breadcrumb

The screenshot displays the DigiPara Liftdesigner 2018 software interface. The main window shows a 3D view of an elevator shaft. Several docked windows are visible: Properties, Data tree, Breadcrumb, and 3D View. A red box highlights the 'Export' and 'Options' groups in the top ribbon, which contain icons for 'Elevator Properties', 'Elevator Data tree', and 'Elevator Windows'. A green callout box with the text 'Disabled docking windows can be enabled via the corresponding Windows group items.' points to these icons. Another green box highlights the '3D View' icon in the 'Visualize' ribbon group. The 'Data tree' window shows a hierarchical structure of the model, including 'Shaft 0 [Shaft0]', 'Car [Car]', 'Component [Components.]', 'Counterweight', 'Deairing [Ventilator]', 'Entries Front [Entrance]', 'Entries Left [Entrance]', 'Entries Rear [Entrance]', 'Entries Right [Entrance]', 'Finished Floor', 'Gearing [Gearbox]', 'Headroom Unit', 'Hole 0 [Hole0]', 'Ladder [Ladder]', 'Lamps 0 [LampList0]', 'Lamps 1 [LampList1]', 'Lamps 2 [LampList2]', 'Logical center point [PTM]', 'Machine room [MachineryRoom]', 'Machine room door [Door]', 'Refuge space 0 [RefugeSpace0]', 'Refuge space 1 [RefugeSpace1]', 'Refuge space 2 [RefugeSpace2]', and 'Rope compensation unit [RopeCompensator]'. The 'Breadcrumb' window shows the current path: Document > Shaft0.

■ Display Option

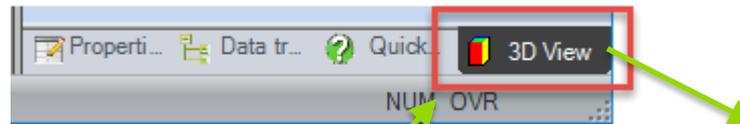
Docking windows are docked on the right side of the UI by default.



■ Docking Options

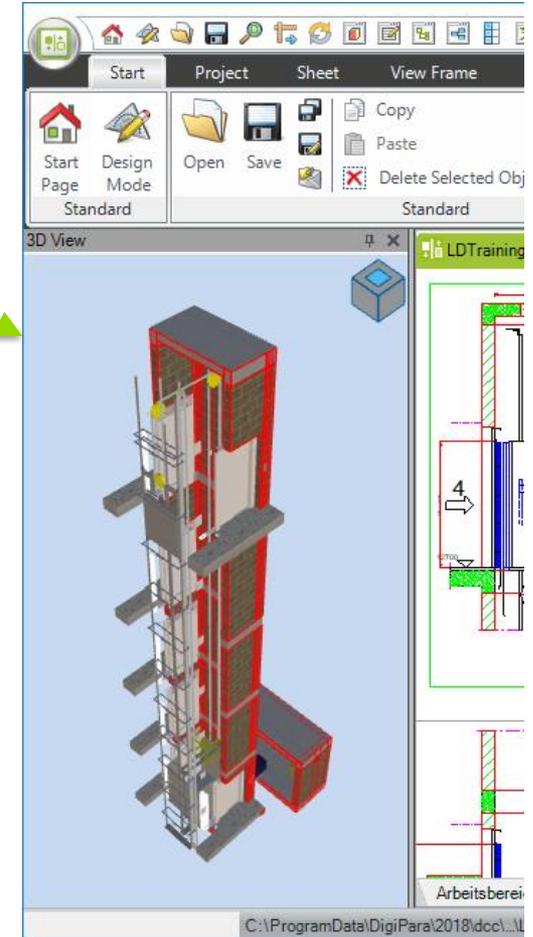


Changing the docking window location



Via the window tab (by clicking and holding the left mouse button).

Single window docked on the left side of the UI.



Program Basics

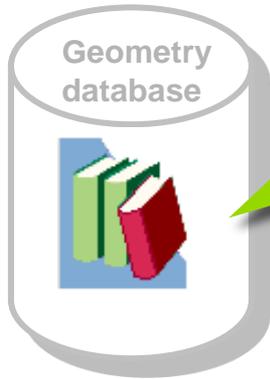
Shaft Wizard & Main Project Data

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Program Basics - Shaft Wizard



The standard elevator arrangements provided by the shaft wizard are stored in duty tables in the DigiPara Liftdesigner geometry BIM data base.



DigiPara Liftdesigner - Select product

Tree View

- Common Components Hydro, Central Guided, with MR
 - Hydro - double piston central
 - Hydro - single piston central
- Common Components Hydro, Lateral Guided, with MR
 - Hydro - double piston 1:1
 - Hydro - double piston 2:1
 - Hydro - single piston 1:1
 - Hydro - single piston 2:1
- Common Components Traction, Central Guided, MR
 - Traction 1:1
 - Traction 2:1 - car 1 pulley top - cwt 1 pulley top
 - Traction 2:1 - car 1 pulley top - cwt 2 pulleys top
 - Traction 2:1 - car 2 pulleys bottom - cwt 1 pulley top**

kg 320

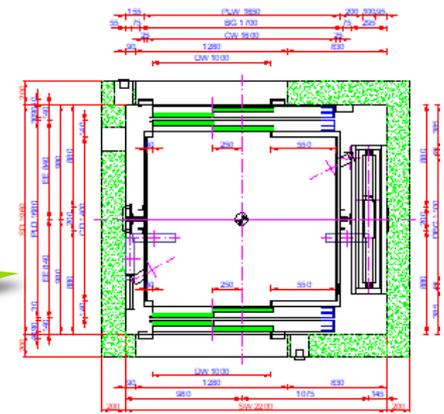
m/s 1

Table View

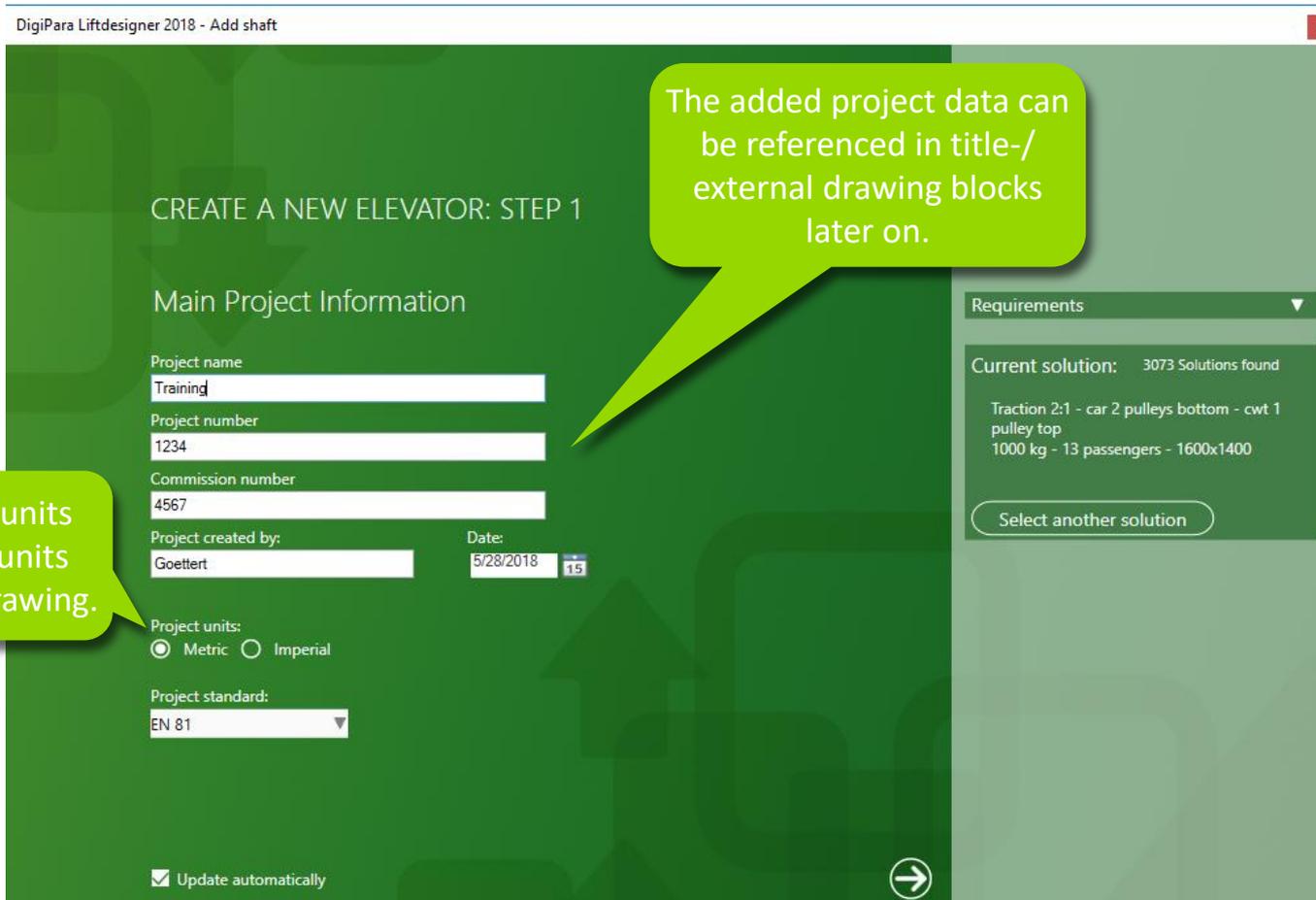
STD_RID	DTH_DESC
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1000kg - 1600x140
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1050kg - 1100x210
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1050kg - 1100x210
1	2:1 - car 2 pulleys bottom - cwt 1 pulley top - 1050kg - 1100x210

OK Cancel Help

The major elevator size as well as the selected elevator components are read from the duty table records.



- Project / Elevator Data
 - Provide project specific information



DigiPara Liftdesigner 2018 - Add shaft

CREATE A NEW ELEVATOR: STEP 1

Main Project Information

Project name
Training

Project number
1234

Commission number
4567

Project created by:
Goetter

Date:
5/28/2018

Project units:
 Metric Imperial

Project standard:
EN 81

Update automatically

Requirements

Current solution: 3073 Solutions found

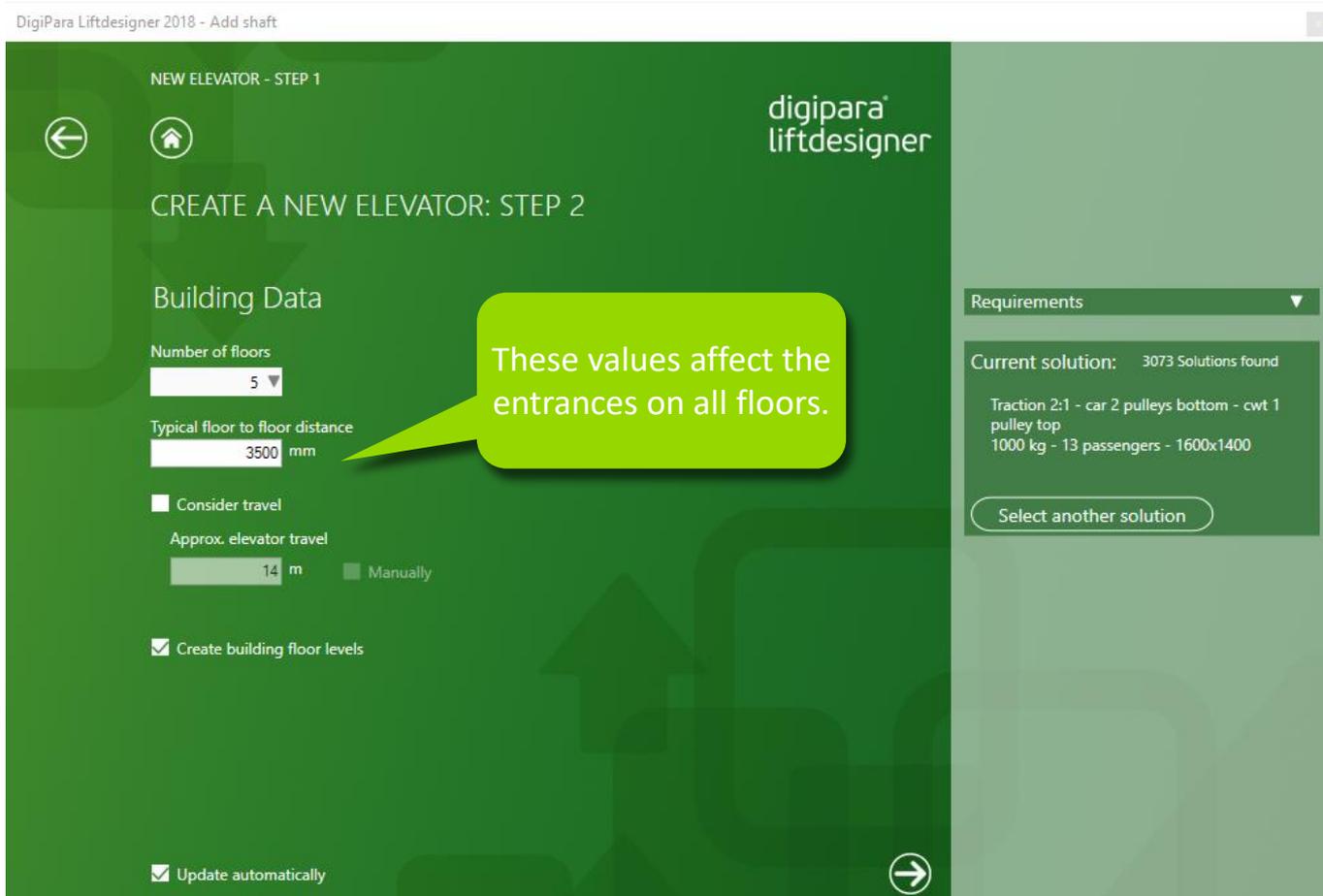
Traction 2:1 - car 2 pulleys bottom - cwt 1 pulley top
1000 kg - 13 passengers - 1600x1400

Select another solution

The project units specify the units used in the drawing.

The added project data can be referenced in title-/ external drawing blocks later on.

- Building Data
 - Number of floors / Floor to floor distance



DigiPara Liftdesigner 2018 - Add shaft

NEW ELEVATOR - STEP 1

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CREATE A NEW ELEVATOR: STEP 2

Building Data

Number of floors
5

Typical floor to floor distance
3500 mm

Consider travel

Approx. elevator travel
14 m Manually

Create building floor levels

Update automatically

Requirements

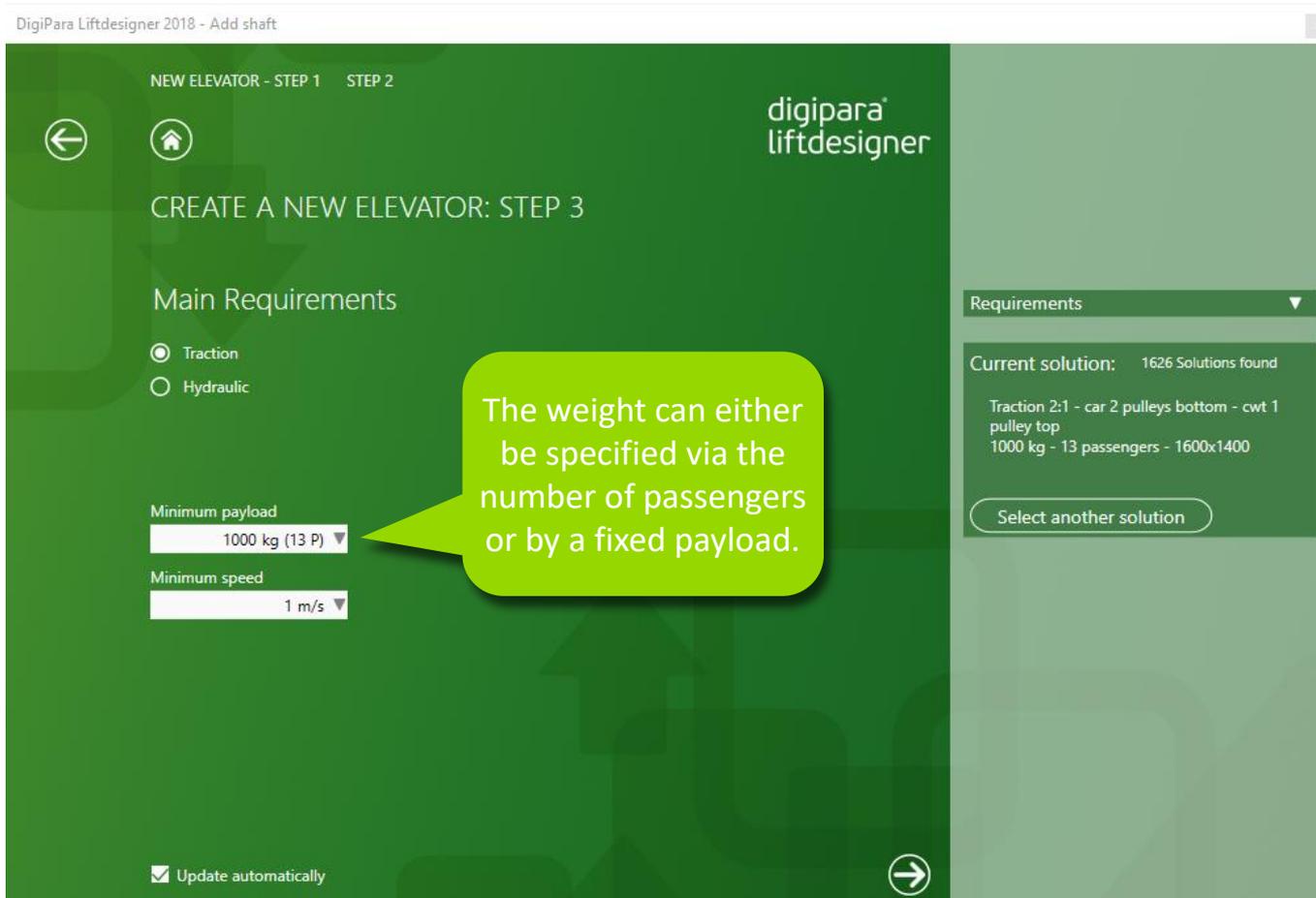
Current solution: 3073 Solutions found

Traction 2:1 - car 2 pulleys bottom - cwt 1 pulley top
1000 kg - 13 passengers - 1600x1400

Select another solution

These values affect the entrances on all floors.

- Main Requirements
 - Specifying the general elevator type



DigiPara Liftdesigner 2018 - Add shaft

NEW ELEVATOR - STEP 1 STEP 2

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CREATE A NEW ELEVATOR: STEP 3

Main Requirements

Traction
 Hydraulic

Minimum payload
1000 kg (13 P) ▼

Minimum speed
1 m/s ▼

The weight can either be specified via the number of passengers or by a fixed payload.

Requirements ▼

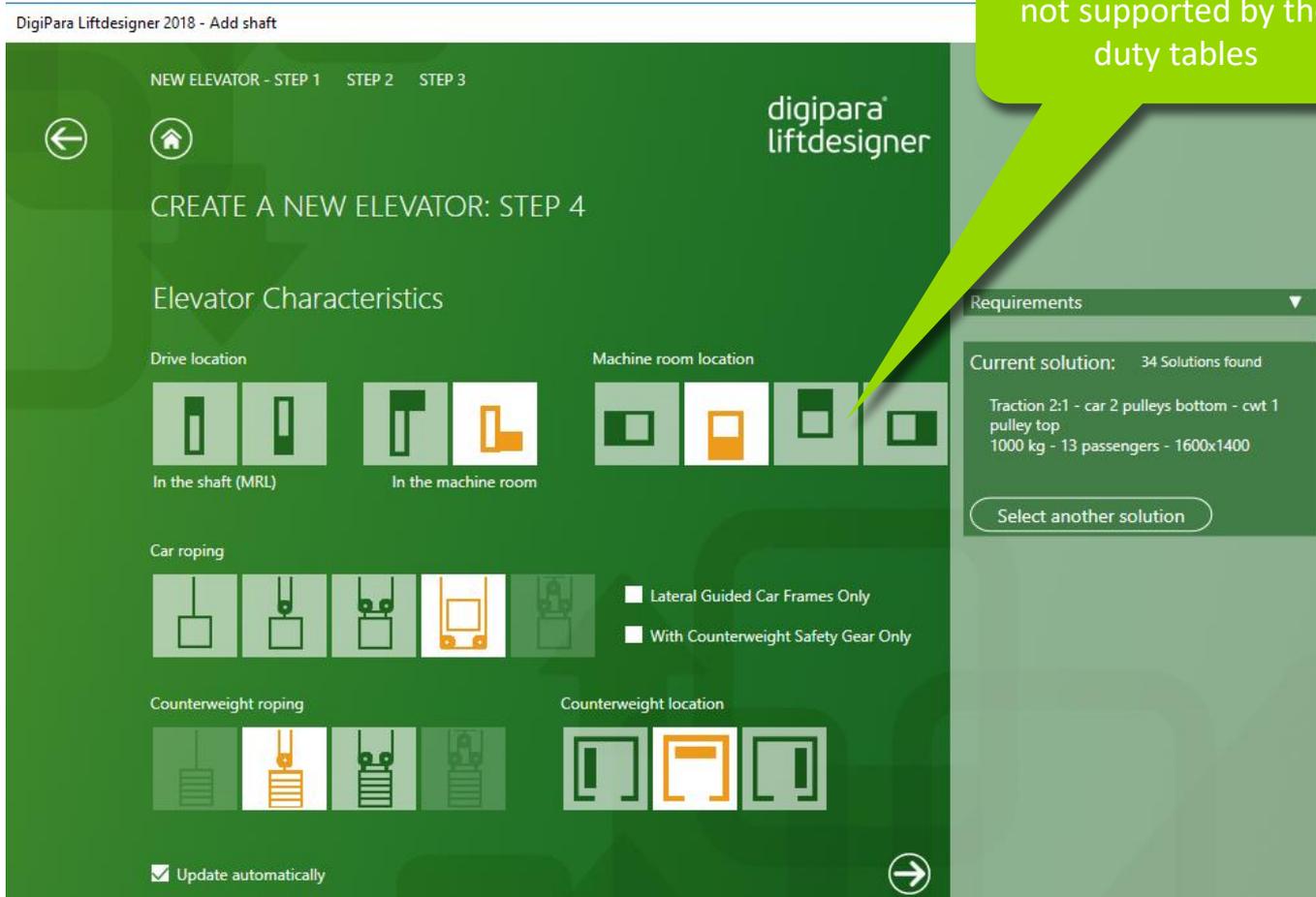
Current solution: 1626 Solutions found

Traction 2:1 - car 2 pulleys bottom - cwt 1 pulley top
1000 kg - 13 passengers - 1600x1400

Select another solution

Update automatically

- Elevator Characteristics



DigiPara Liftdesigner 2018 - Add shaft

NEW ELEVATOR - STEP 1 STEP 2 STEP 3

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CREATE A NEW ELEVATOR: STEP 4

Elevator Characteristics

Drive location

In the shaft (MRL) In the machine room

Machine room location

Car roping

Lateral Guided Car Frames Only
 With Counterweight Safety Gear Only

Counterweight roping

Counterweight location

Update automatically

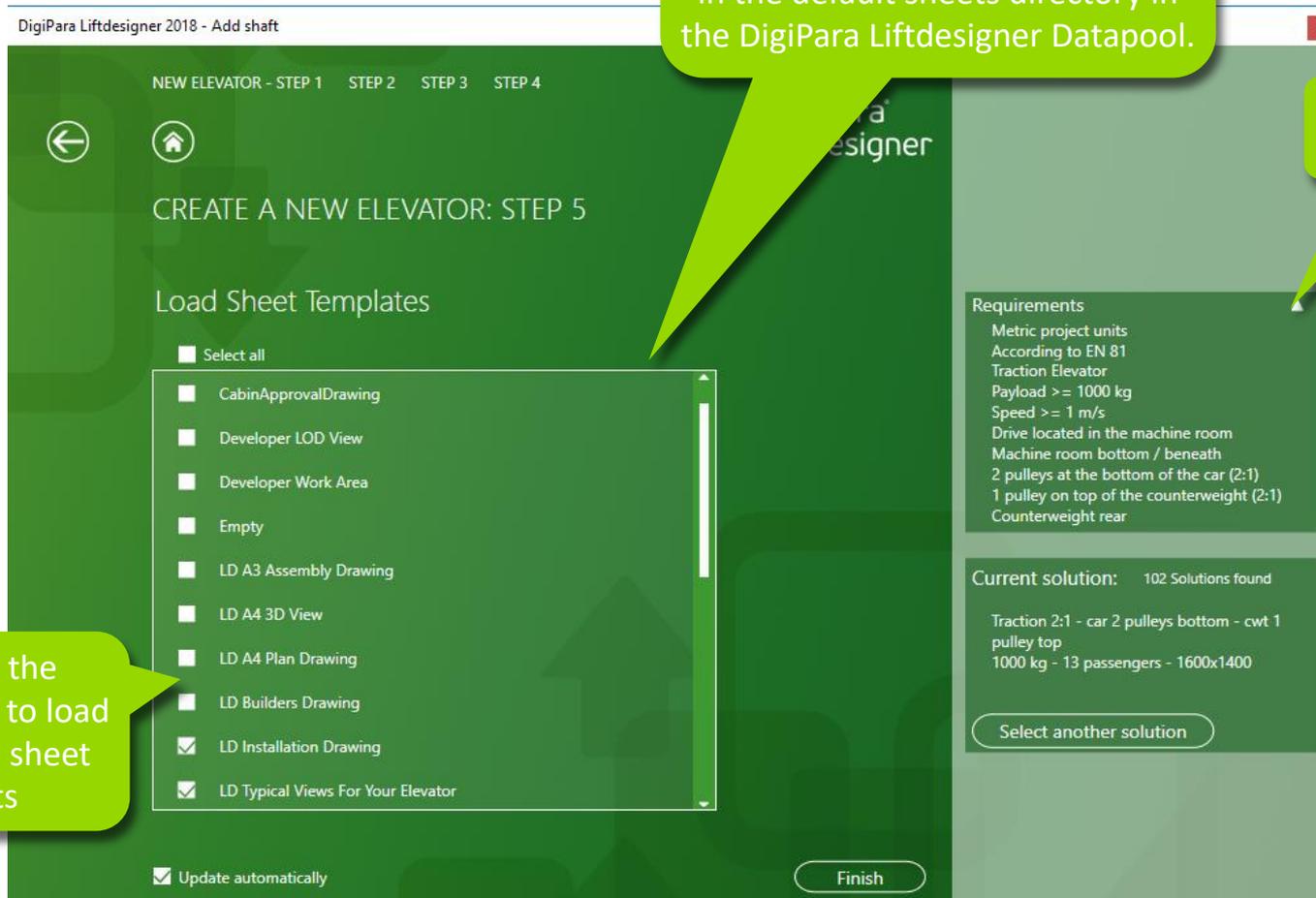
Requirements

Current solution: 34 Solutions found

Traction 2:1 - car 2 pulleys bottom - cwt 1 pulley top
1000 kg - 13 passengers - 1600x1400

Select another solution

▪ Load Sheet Templates

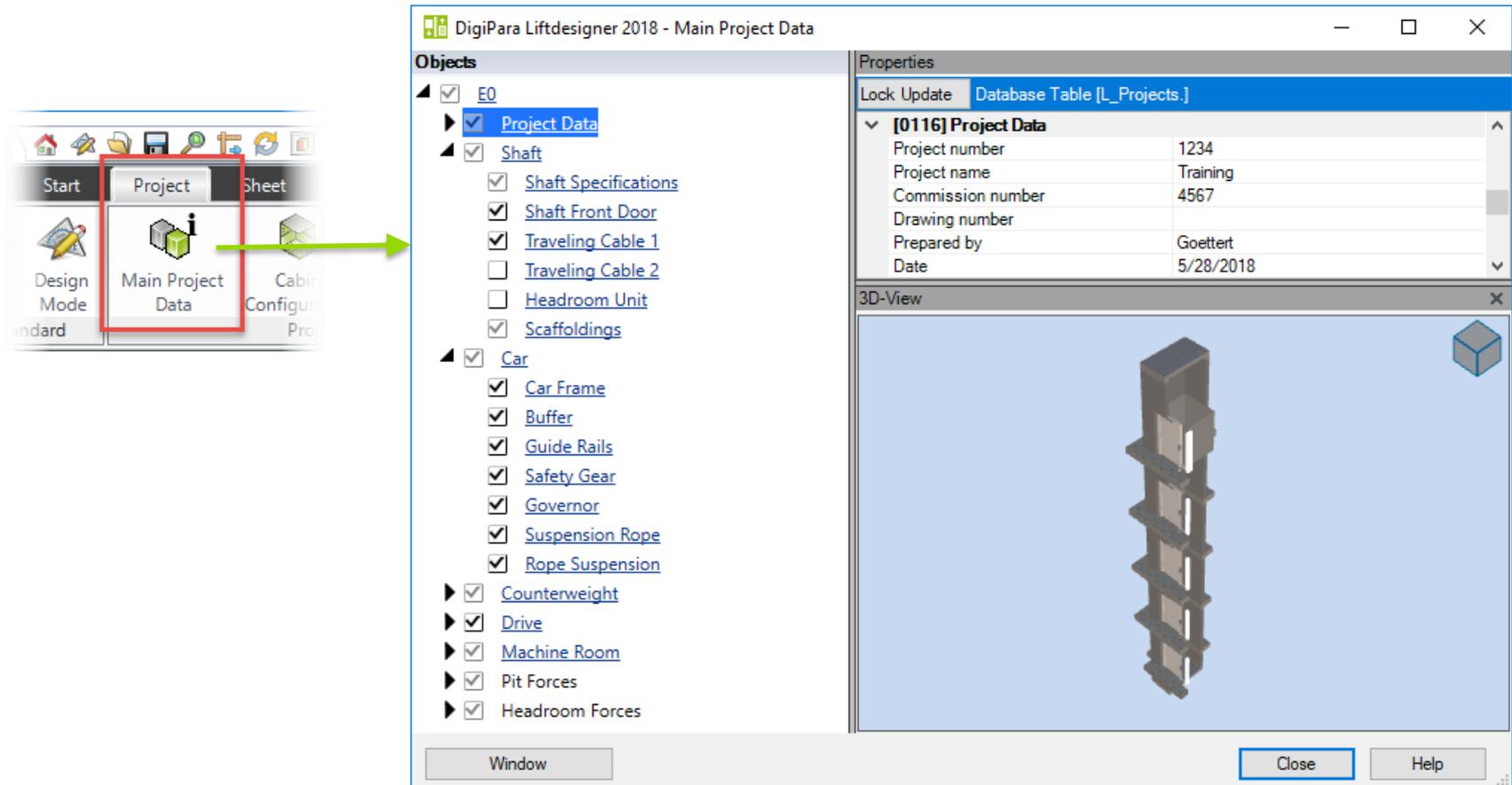


The sheet template list can be supplemented with your own templates as well by storing them in the default sheets directory in the DigiPara Liftdesigner Datapool.

List of project requirements

Provides the opportunity to load predefined sheet layouts

- Combines the properties of the major elevator components
 - Can be displayed via Project Tab → Project Group



The screenshot displays the 'DigiPara Liftdesigner 2018 - Main Project Data' window. The interface is divided into several sections:

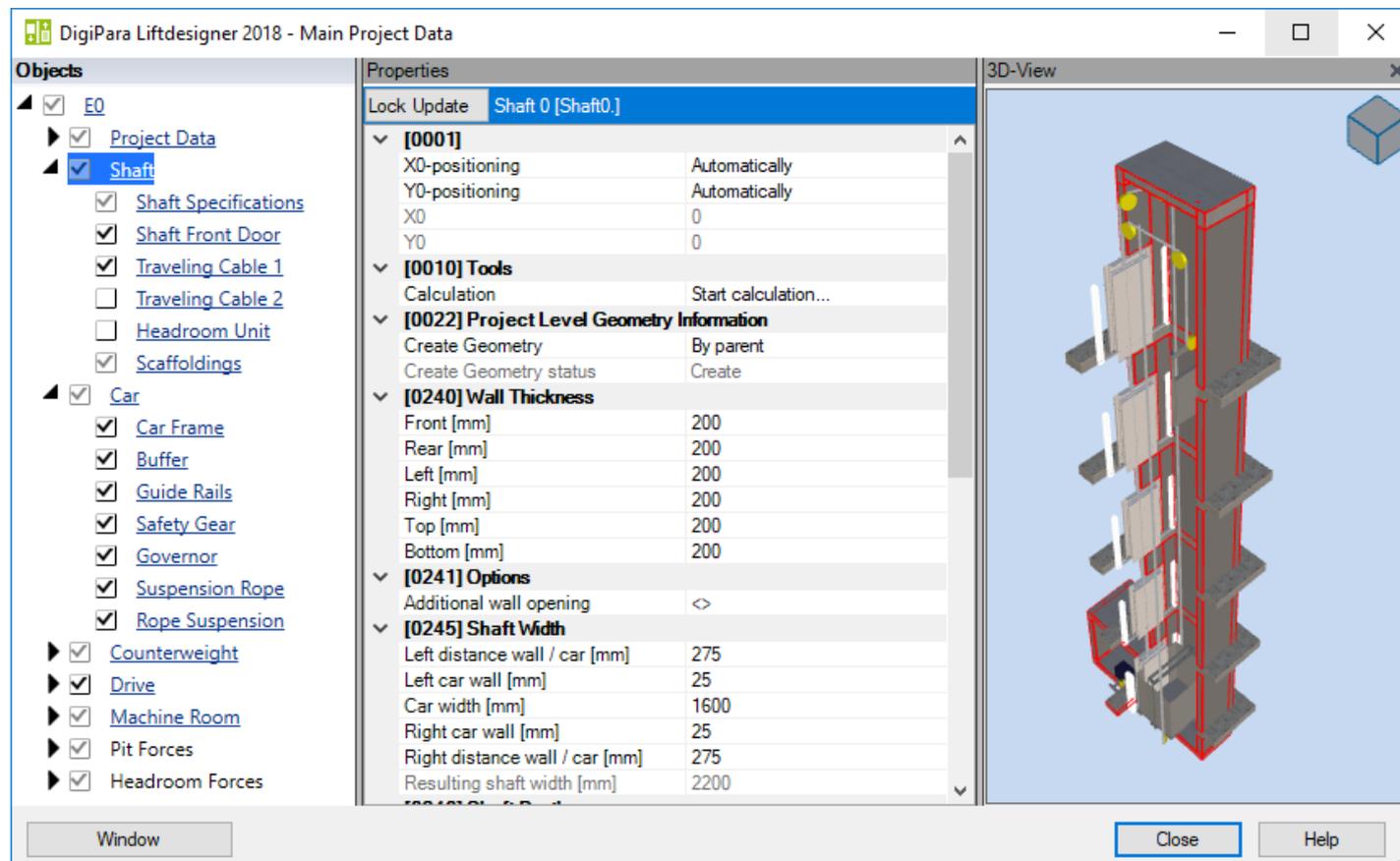
- Objects:** A tree view showing the project structure. The 'Project Data' object is selected and expanded, showing its sub-objects: Shaft Specifications, Shaft Front Door, Traveling Cable 1, Traveling Cable 2, Headroom Unit, and Scaffoldings. Other major objects include Car (with sub-objects like Car Frame, Buffer, Guide Rails, Safety Gear, Governor, Suspension Rope, and Rope Suspension), Counterweight, Drive, Machine Room, Pit Forces, and Headroom Forces.
- Properties:** A table showing the properties for the selected '[0116] Project Data' object. The table is titled 'Database Table [L_Projects.]' and contains the following data:

[0116] Project Data	
Project number	1234
Project name	Training
Commission number	4567
Drawing number	
Prepared by	Goettert
Date	5/28/2018

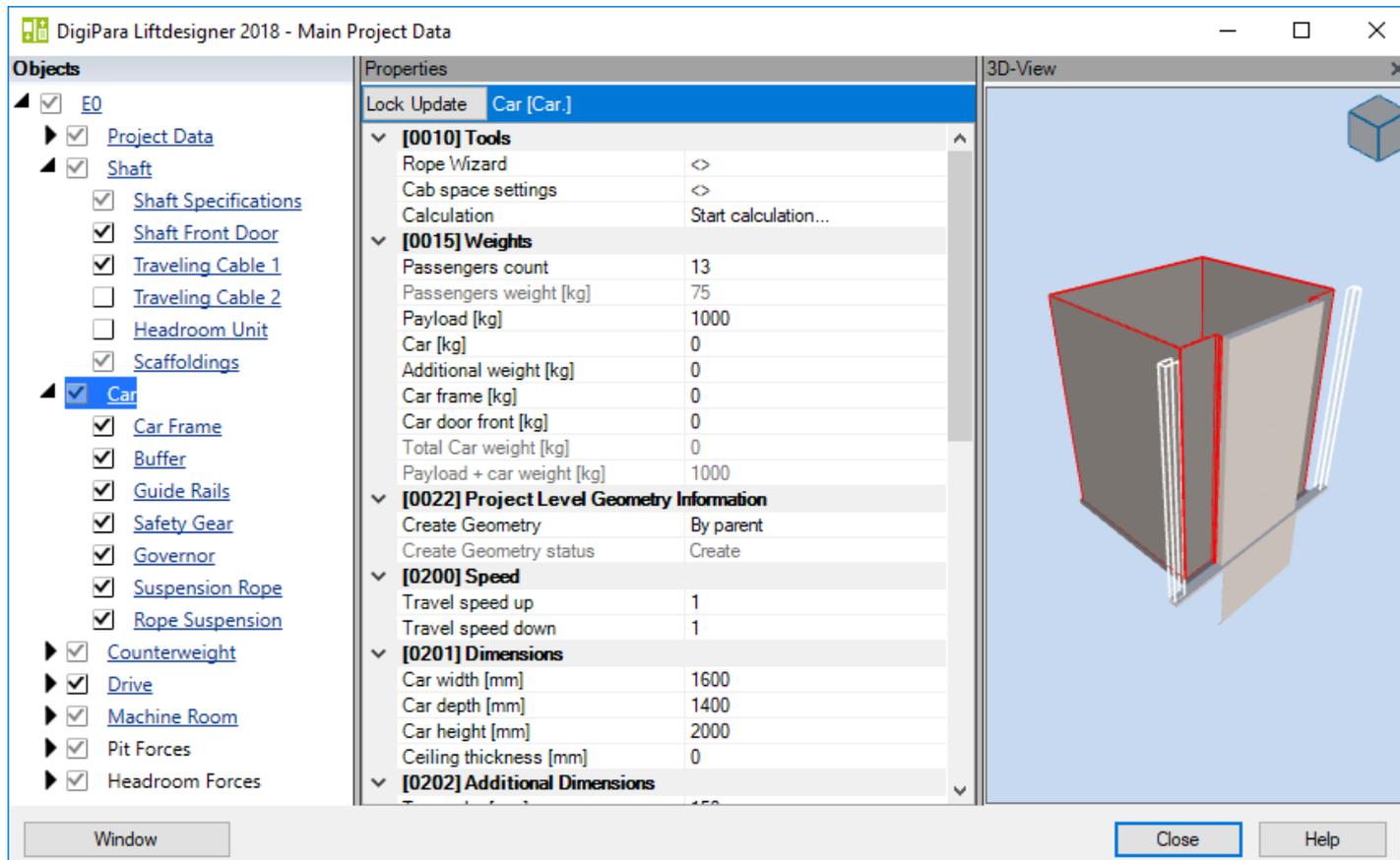
- 3D-View:** A 3D rendering of the elevator shaft assembly, showing the shaft, cables, and car frame.

The window also includes a 'Window' button at the bottom left, and 'Close' and 'Help' buttons at the bottom right.

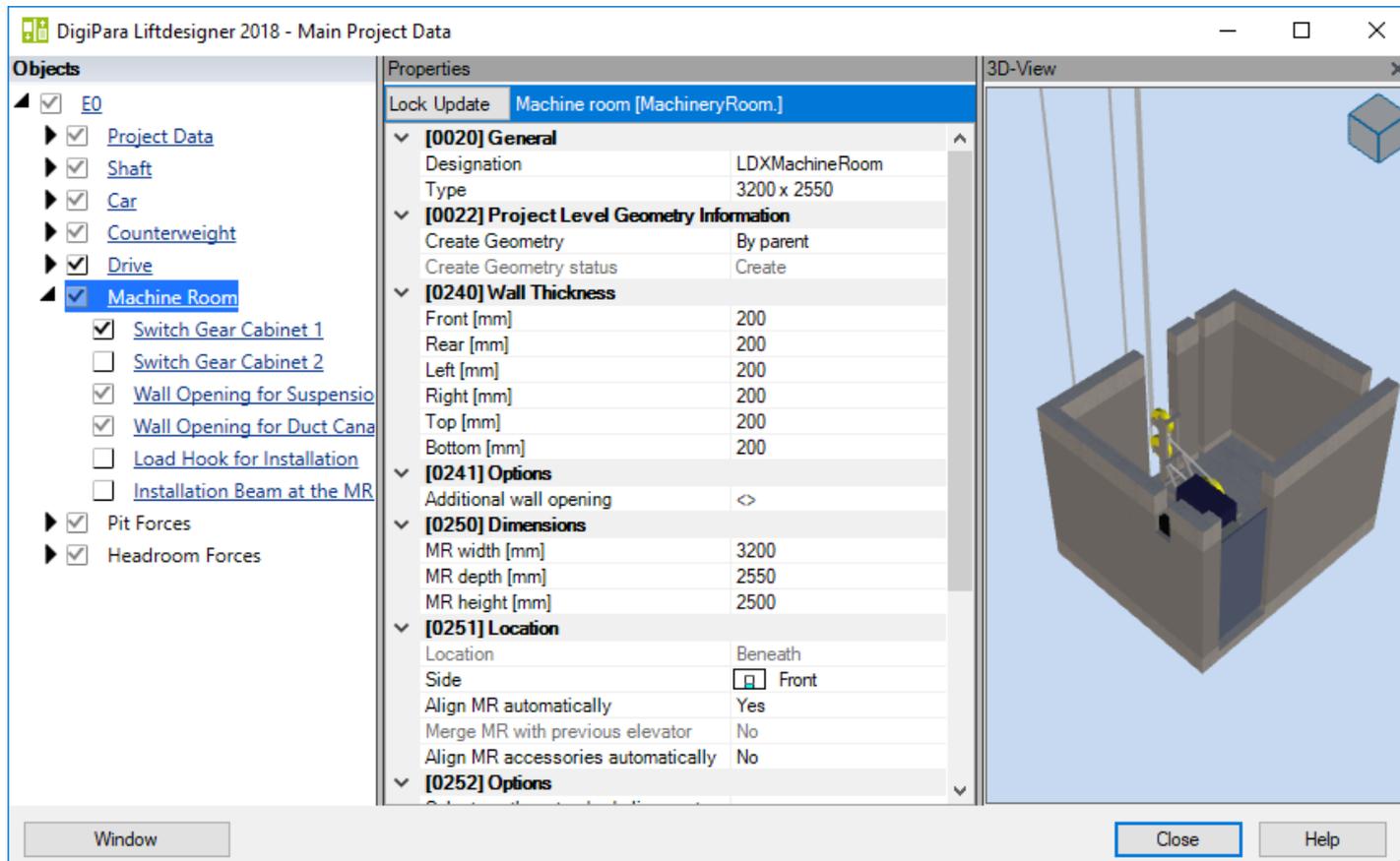
- Shaft
 - Provides the opportunity to customize the shaft and shaft-related component parameter



- Car
 - Provides the opportunity to customize the car and car-related component parameters



- Machine Room
 - Provides the opportunity to customize machine room and machine room-related component parameters



Program Basics

Floor Levels

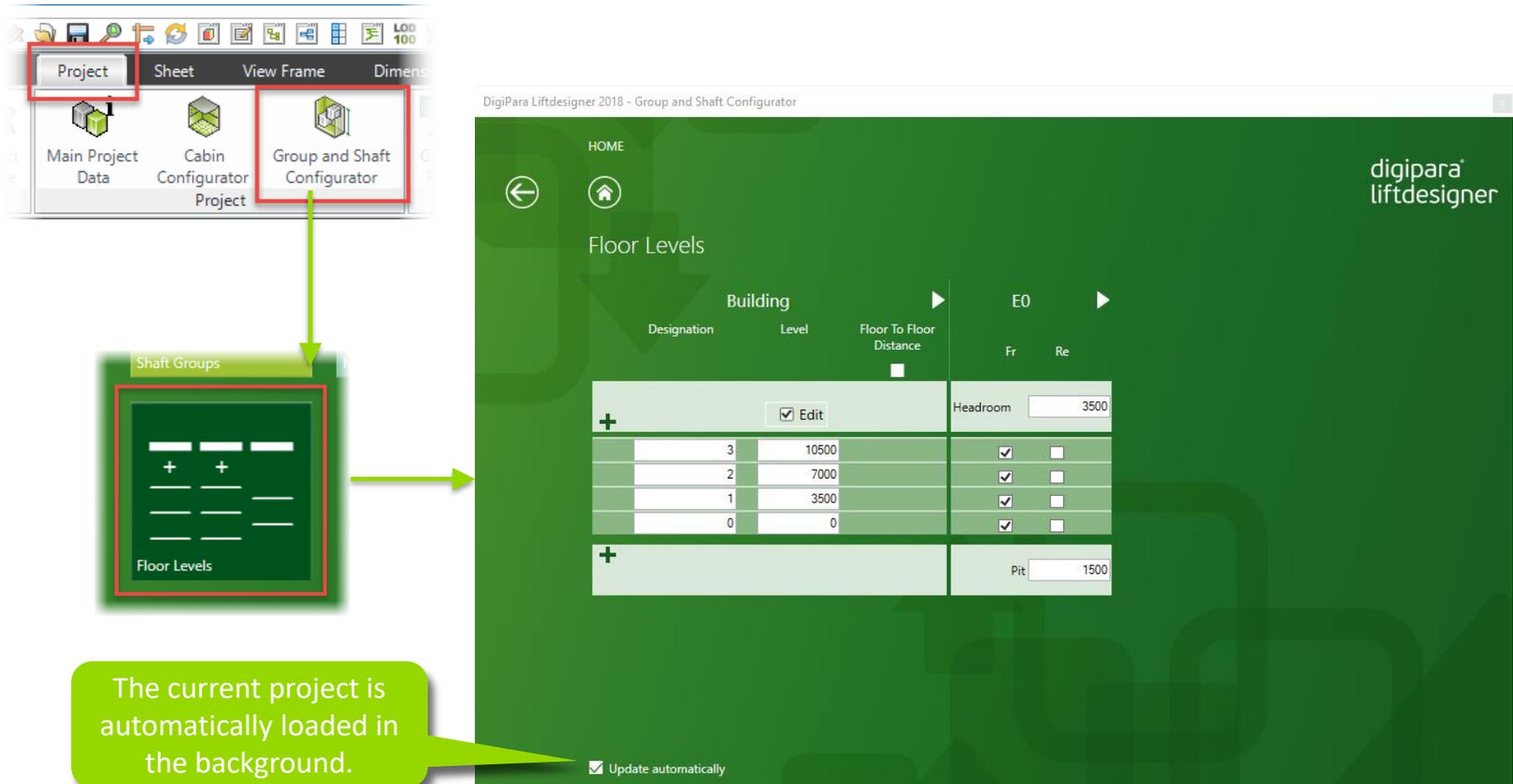
YouTube: [Adding and removing floor levels](#)

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- Activation via the Group and Shaft Configurator



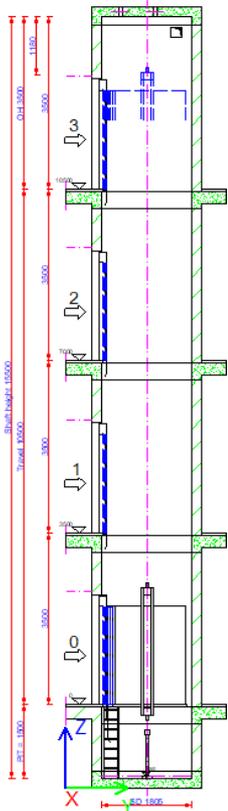
The current project is automatically loaded in the background.

Building			E0	
Designation	Level	Floor To Floor Distance	Fr	Re
+			Headroom	3500
	3	10500	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	2	7000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	1	3500	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>
+			Pit	1500

Update automatically

Program Basics – Floor Levels

- Increase the number of floors

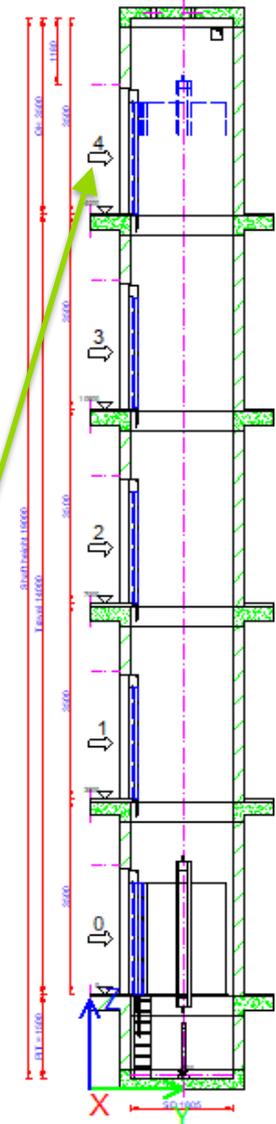


Building			E0	
Designation	Level	Floor To Floor Distance	Fr	Re
+ Edit			Headroom	
3	10500		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	7000		<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	3500		<input checked="" type="checkbox"/>	<input type="checkbox"/>
0	0		<input checked="" type="checkbox"/>	<input type="checkbox"/>

For deleting a floor level cross the corresponding row with the mouse cursor.

Building			E0	
Designation	Level	Floor To Floor Distance	Fr	Re
+ Edit			Headroom	3500
4	14000		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	10500		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	7000		<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	3500		<input checked="" type="checkbox"/>	<input type="checkbox"/>
0	0		<input checked="" type="checkbox"/>	<input type="checkbox"/>

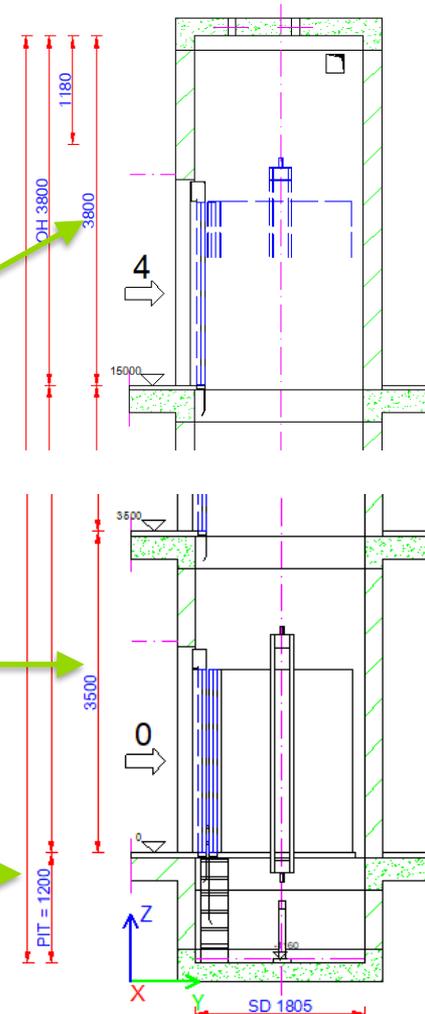
Pit: 1500



- Customizing the Floor to Floor Distance, Headroom and Pit

Add a check mark to activate the editing option: Floor to Floor

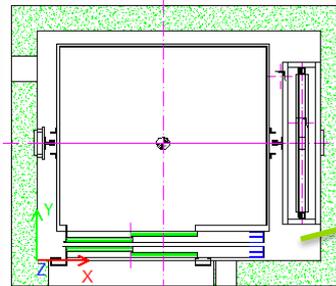
Floor Levels			Building		E0	
Designation	Level	Floor To Floor Distance	Fr	Re		
		<input type="checkbox"/> Edit				
		<input checked="" type="checkbox"/> Edit	Headroom		3800	
+						
	4	15000	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		3800	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	3	11200	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		3900	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	2	7300	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		3800	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	1	3500	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
		3500	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
+						
			Pit		1200	



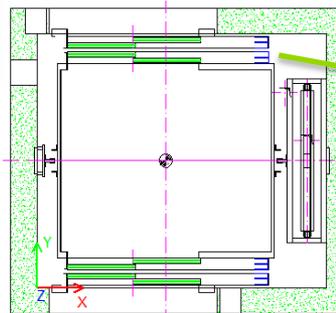
■ Determine Entrances & Designations

Shows the editing option

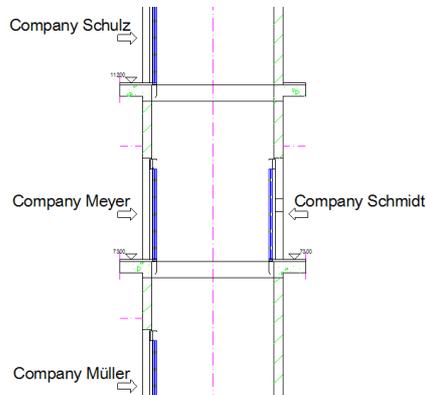
Building			
Designation	Level	Floor To Floor Distance	Designation Rear (if deviating)
+ <input type="checkbox"/> Edit <input checked="" type="checkbox"/> Edit			
Company Muster	15000		
		3800	
Company Schulz	11200		
		3900	
Company Meyer	7300		Company Schmidt
		3800	
Company Müller	3500		
		3500	
0	0		



+ <input type="checkbox"/> Edit <input checked="" type="checkbox"/> Edit			Headroom	3800
4	15000	3800	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	11200	3900	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	7300	3800	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	3500	3500	<input checked="" type="checkbox"/>	<input type="checkbox"/>
0	0		<input checked="" type="checkbox"/>	<input type="checkbox"/>
+ Pit			1200	



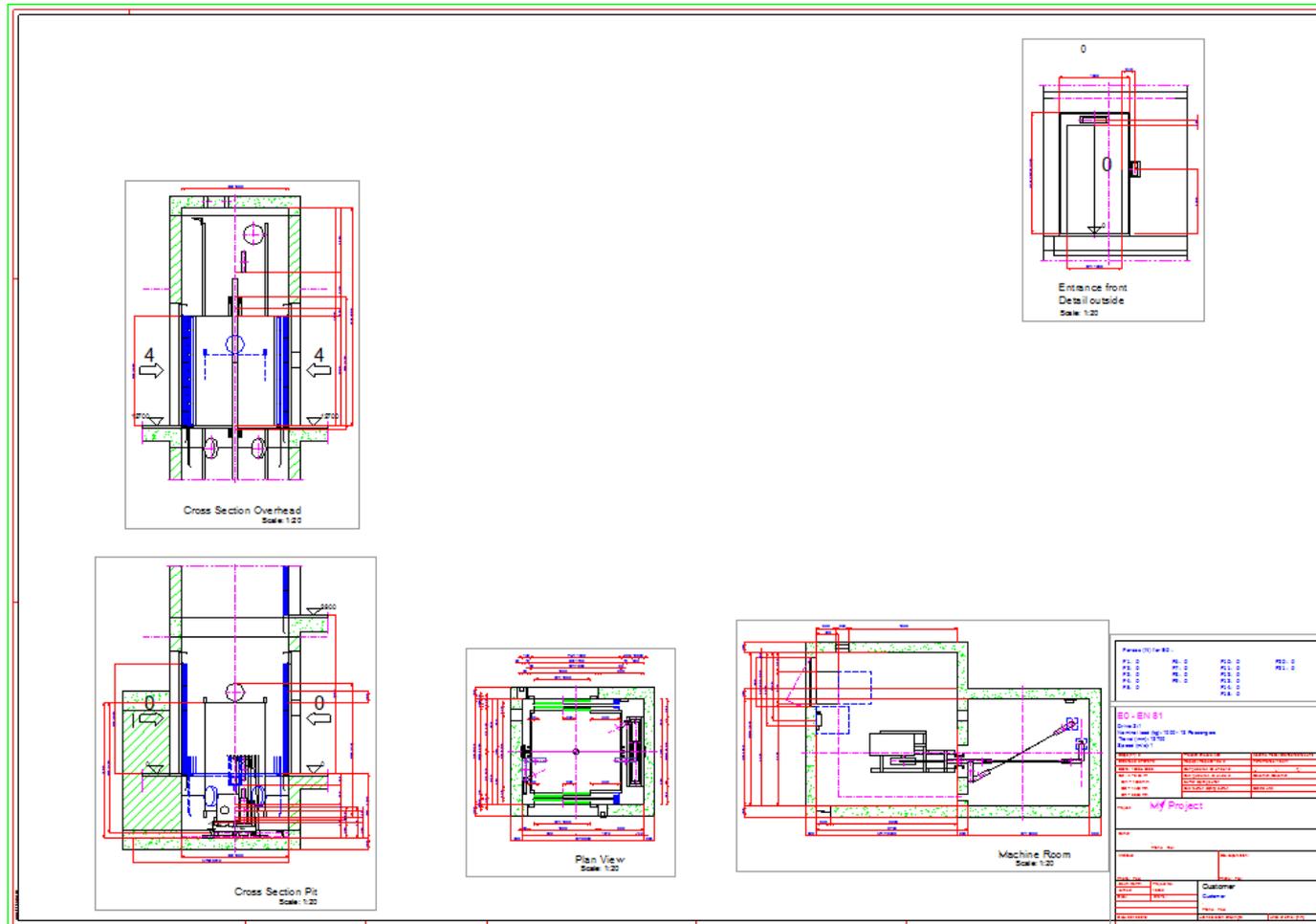
+ <input type="checkbox"/> Edit <input checked="" type="checkbox"/> Edit			Headroom	3800
4	15000	3800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	11200	3900	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	7300	3800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1	3500	3500	<input checked="" type="checkbox"/>	<input type="checkbox"/>
0	0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
+ Pit			1200	



- Create an elevator with the following specifications:
 - Consider travel - no
 - Create building floor levels - no
 - 5 Floors
 - Typical floor to floor distance 3000
 - Traction elevator 2:1
 - 13 persons / 1000 kg, 1 m/s
 - with CW safety gear
 - Machine room
 - Below / left
 - Car roping
 - 2 pulleys below
 - CW roping right
 - 1 pulley top
 - Car size 1600 mm x 1400 mm

- Sheet Templates:
 - LD Installation Drawing
 - LD Typical Views For Your Elevator
- Entrances
 - Front: all floors
 - Rear: first and last level
- Individual Floor to Floor Distance:
 - Pit: 1200 mm
 - E1: 2900 mm
 - E2: 3000 mm
 - E3: 3000 mm
 - E4: 3800 mm
- Save the project under the following file name:
 - LDTrainingSample.Id3

- The result should look as shown below:



Program Basics

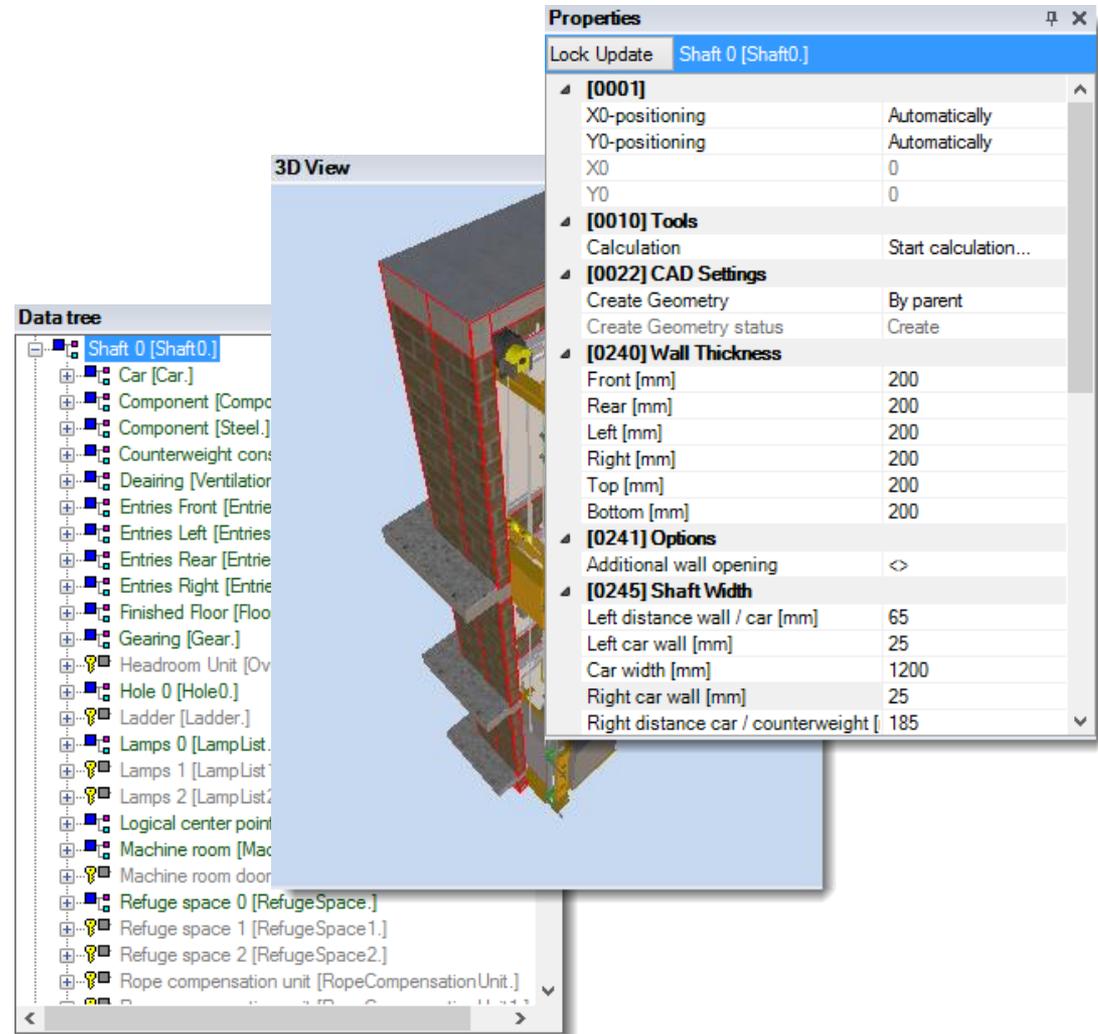
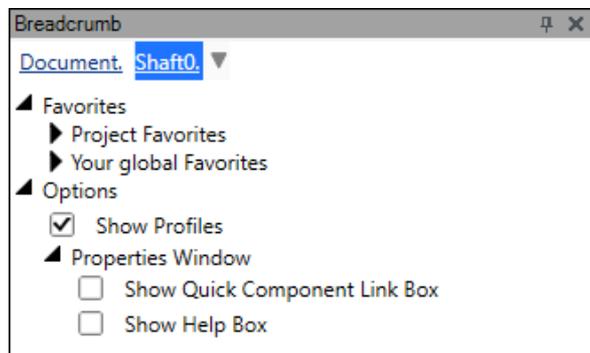
Controls & Docking Windows

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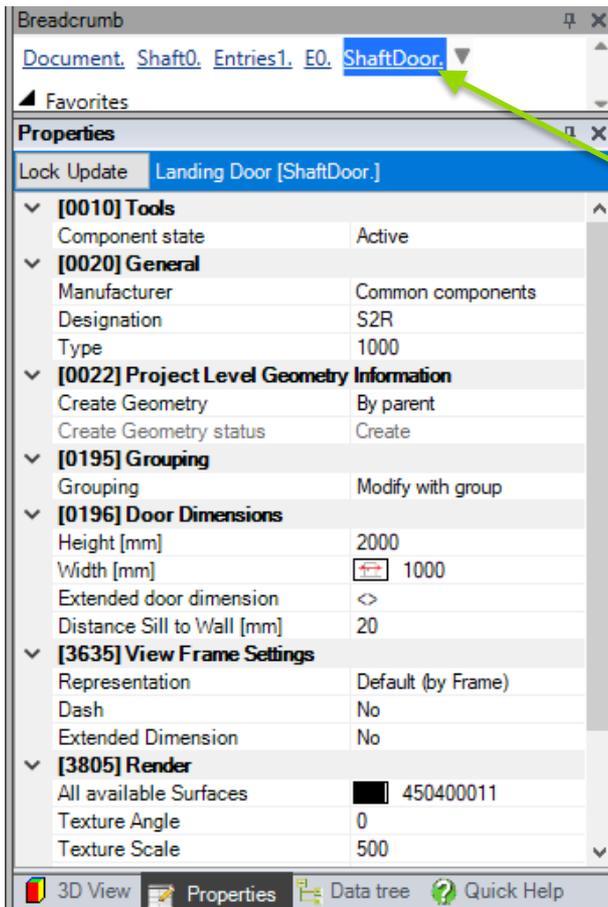


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- Data tree
- Properties
- 3D View
- Breadcrumb



- Represents the elevator project in hierarchical text tree structure

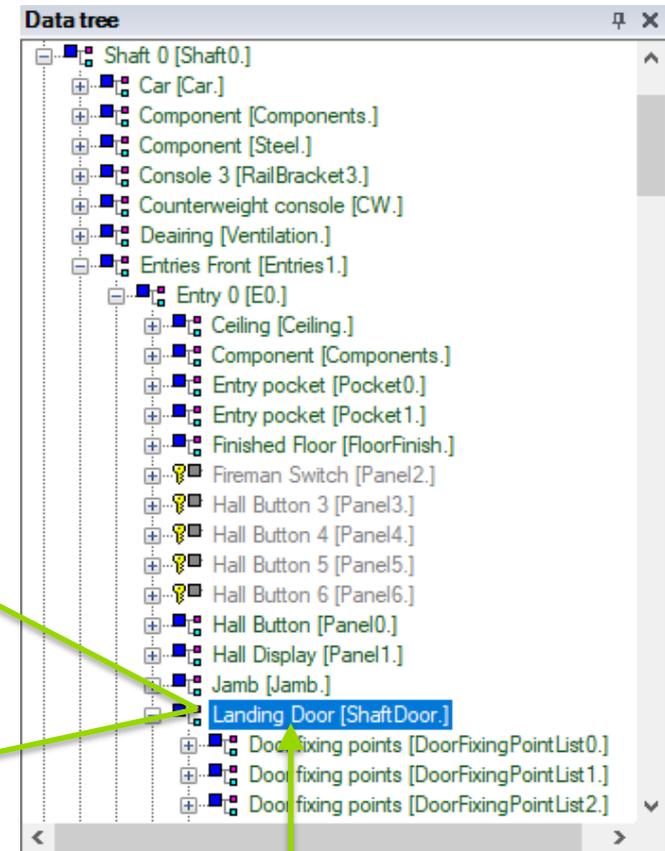
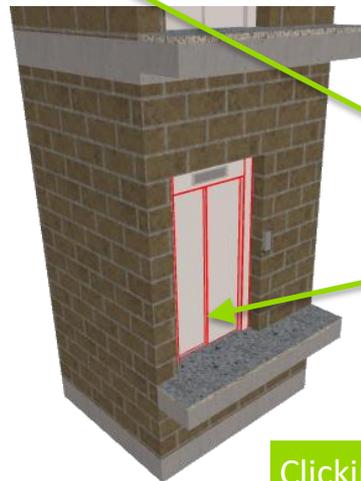


Breadcrumb: Document, Shaft0, Entries1, E0, ShaftDoor

Properties: Lock Update, Landing Door [ShaftDoor.]

[0010] Tools	
Component state	Active
[0020] General	
Manufacturer	Common components
Designation	S2R
Type	1000
[0022] Project Level Geometry Information	
Create Geometry	By parent
Create Geometry status	Create
[0195] Grouping	
Grouping	Modify with group
[0196] Door Dimensions	
Height [mm]	2000
Width [mm]	1000
Extended door dimension	<>
Distance Sill to Wall [mm]	20
[3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
[3805] Render	
All available Surfaces	450400011
Texture Angle	0
Texture Scale	500

3D View | Properties | Data tree | Quick Help



Data tree

- Shaft 0 [Shaft0.]
 - Car [Car.]
 - Component [Components.]
 - Component [Steel.]
 - Console 3 [RailBracket3.]
 - Counterweight console [CW.]
 - Deairing [Ventilation.]
 - Entries Front [Entries 1.]
 - Entry 0 [E0.]
 - Ceiling [Ceiling.]
 - Component [Components.]
 - Entry pocket [Pocket0.]
 - Entry pocket [Pocket1.]
 - Finished Floor [FloorFinish.]
 - Fireman Switch [Panel2.]
 - Hall Button 3 [Panel3.]
 - Hall Button 4 [Panel4.]
 - Hall Button 5 [Panel5.]
 - Hall Button 6 [Panel6.]
 - Hall Button [Panel0.]
 - Hall Display [Panel1.]
 - Jamb [Jamb.]
 - Landing Door [ShaftDoor.]
 - Door fixing points [DoorFixingPointList0.]
 - Door fixing points [DoorFixingPointList1.]
 - Door fixing points [DoorFixingPointList2.]

Clicking on an elevator component in the Data tree activates the selected component in the view frames and displays the corresponding component properties.

- Displays the selected component properties

Properties

Lock Update Landing Door [ShaftDoor]

- ▼ [0010] Tools
 - Component state Active
- ▼ [0020] General
 - Manufacturer Common components
 - Designation** S2C
 - Type 300
- ▼ [0022] Project Level Geometry Information
 - Create Geometry By parent
 - Create Geometry status Create
- ▼ [0195] Grouping
 - Grouping Modify with group
- ▼ [0196] Door Dimensions
 - Height [mm] 2000
 - Width [mm]** 300
 - Extended door dimension** <>
 - Distance Shaft to wall [mm] 20
- ▼ [3635] View Frame Settings
 - Representation Default (by Frame)
 - Dash
 - Extended Dimension

Dimensions

User defined

SY: 65
SY0: 60
BY: 60

A1: 470 Dw: 900 A2: 470

Special door frame

User defined

Wall clearance: 20

Adapt door frame to shaft width
 Fixed door frame widths

Left: 120 Right: 120

Surface

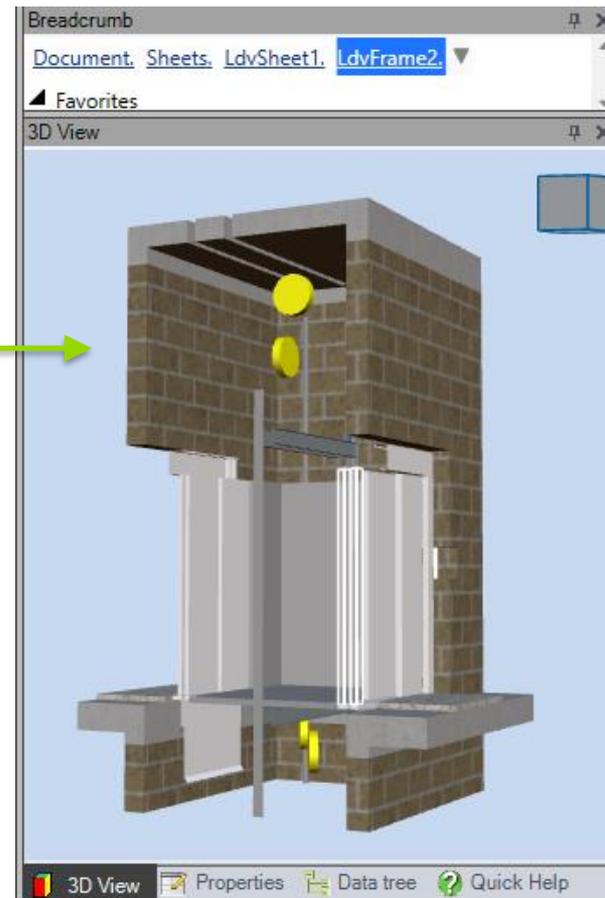
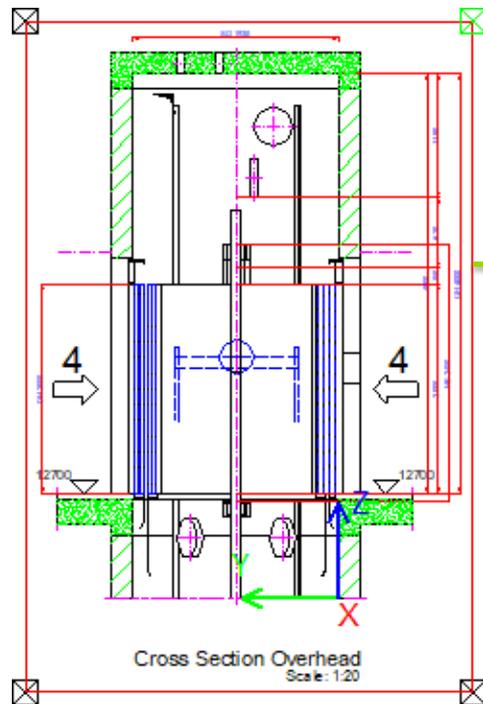
Description: Blank steel

OK Cancel Apply Help

Clicking on the Select buttons of the category [0020] items opens the Navigator window

Displays the extended component dialog

- Shows the 3D elevator model depending on the selected / active view frame



- The current 3D View can be saved as an image file (.png) or copied to the clipboard.

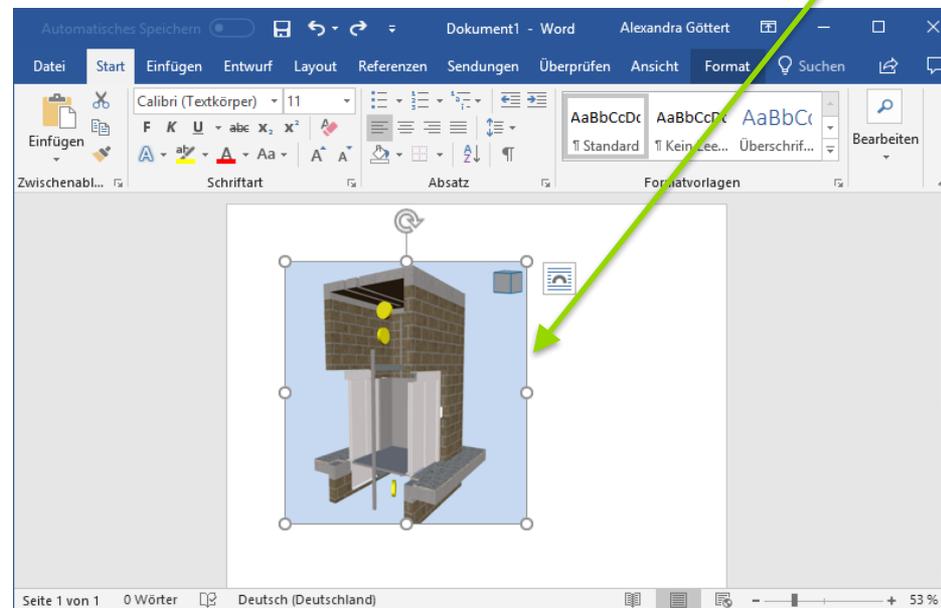
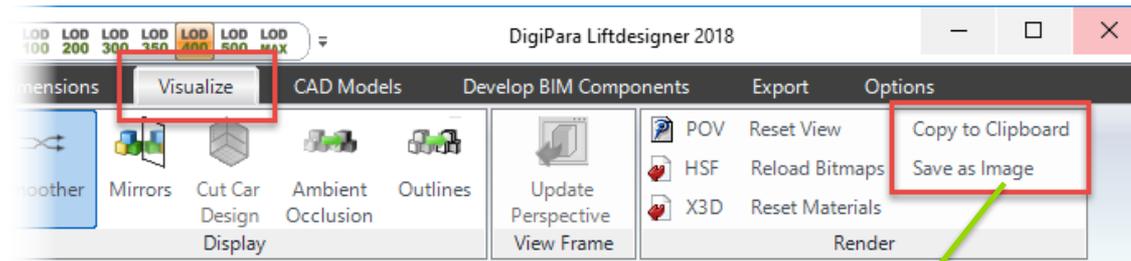
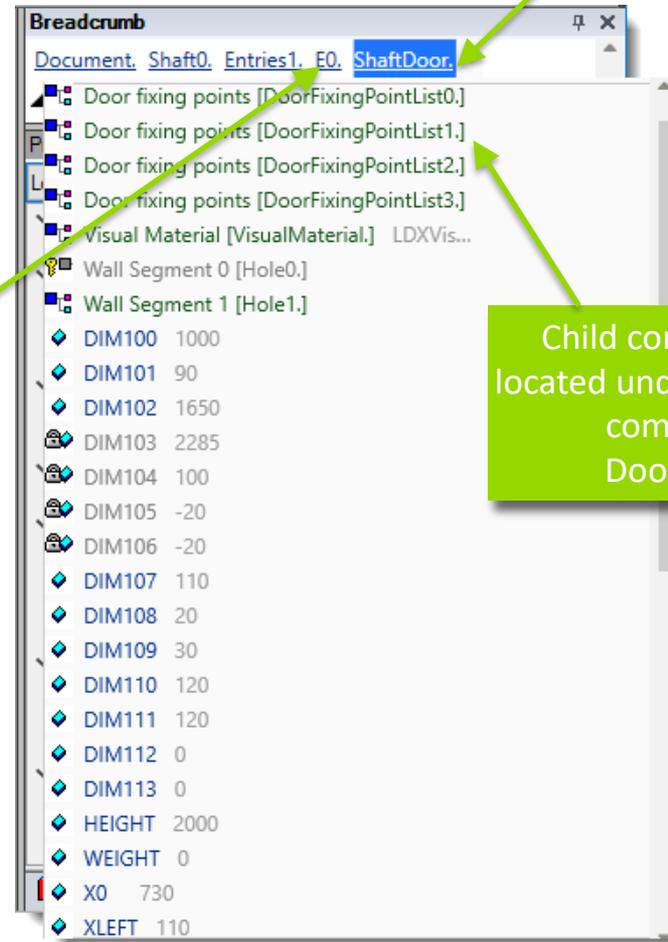


Image files can be loaded directly into the DigiPara Liftdesigner drawing via drag & drop.

- Represents the respective section of the project structure in a flat hierarchy
 - Similar to the structure in the Data tree docking window

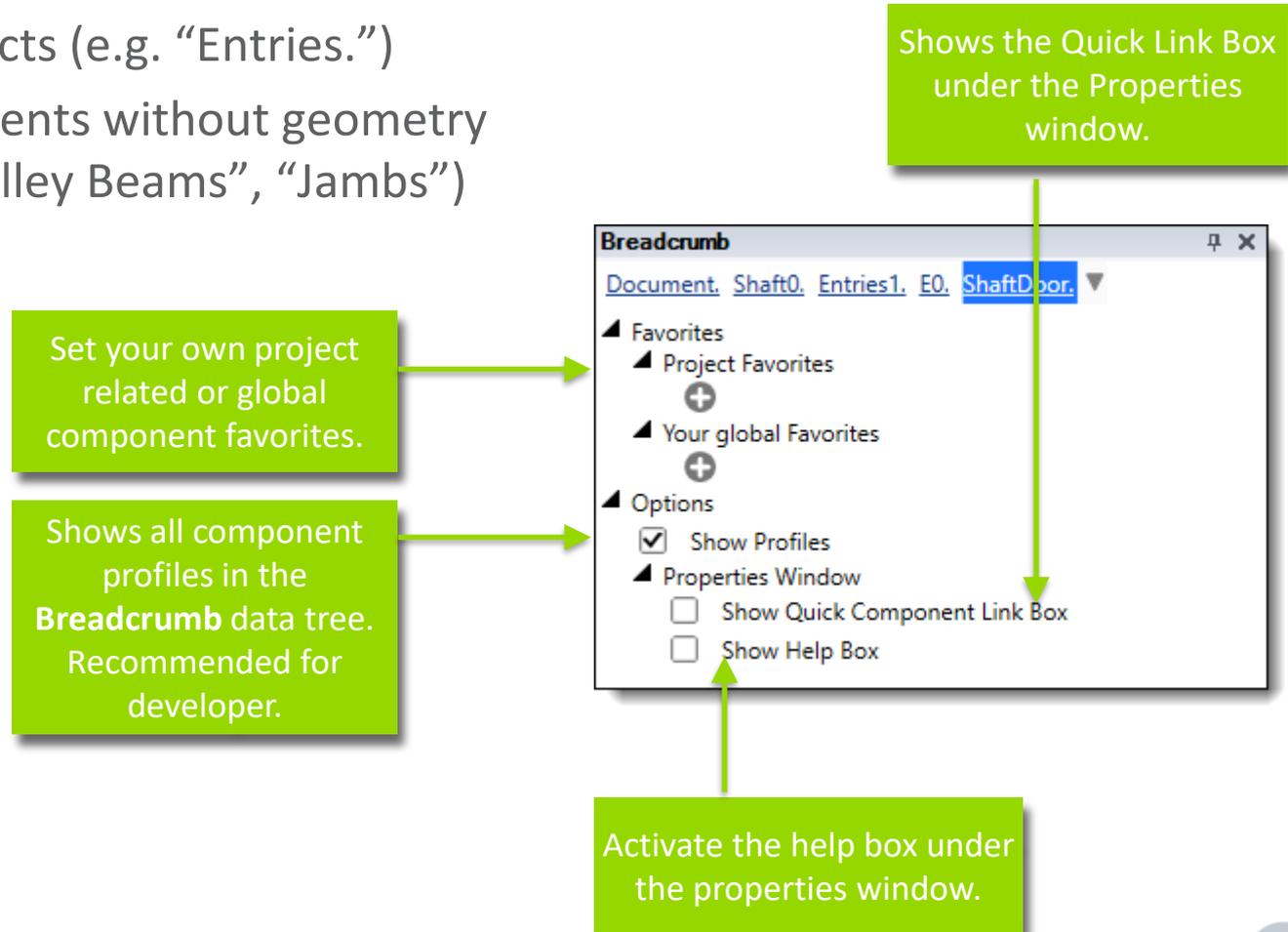
The parent component:
Entry



The currently selected component:
Shaft Door

Child components ->
located under the selected component:
Door Fixings

- Provides the opportunity to select visible as well as invisible and inactive components like e.g.
 - List objects (e.g. “Entries.”)
 - Components without geometry (e.g. “Pulley Beams”, “Jambs”)
 - etc.



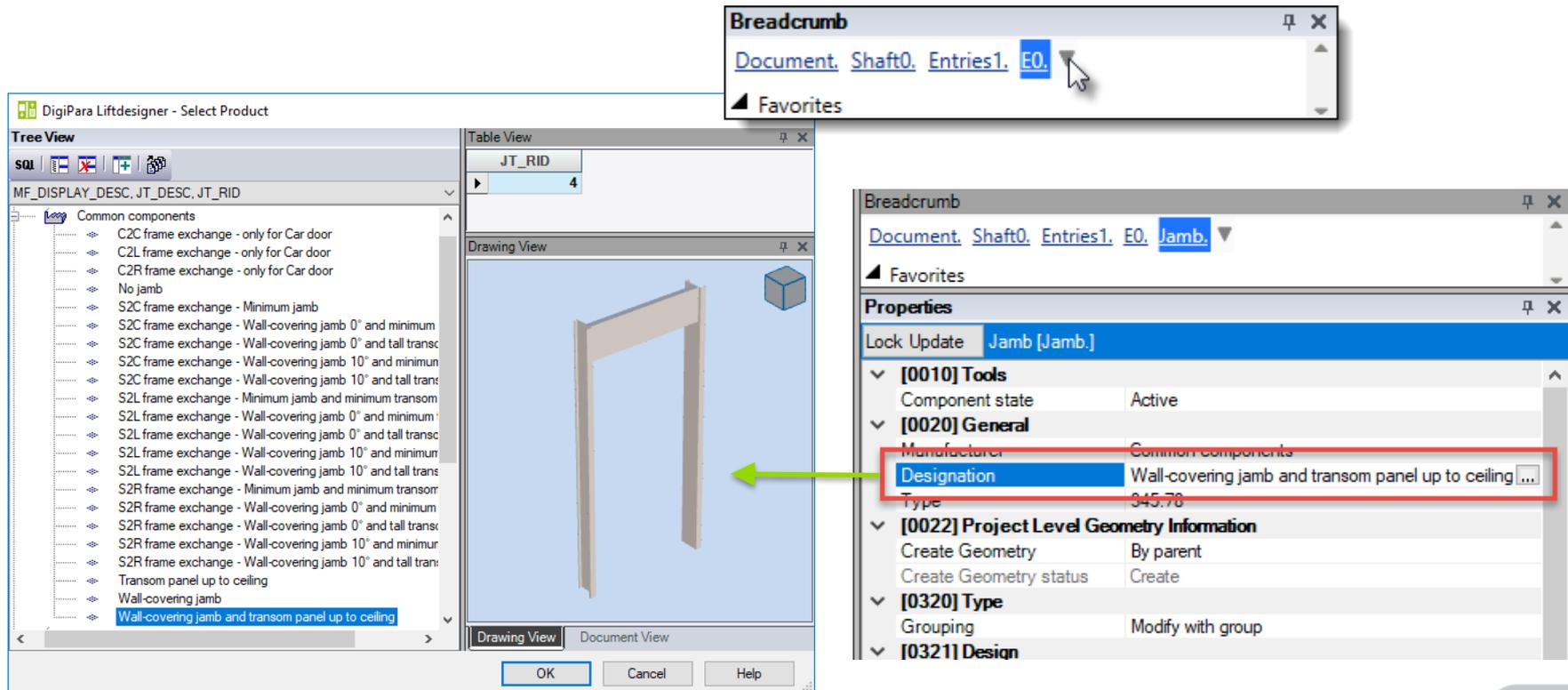
The screenshot shows the Breadcrumb docking window with the following structure:

- Document, Shaft0, Entries1, E0, ShaftDoor
- ▲ Favorites
 - ▲ Project Favorites (+)
 - ▲ Your global Favorites (+)
- ▲ Options
 - Show Profiles
 - ▲ Properties Window
 - Show Quick Component Link Box
 - Show Help Box

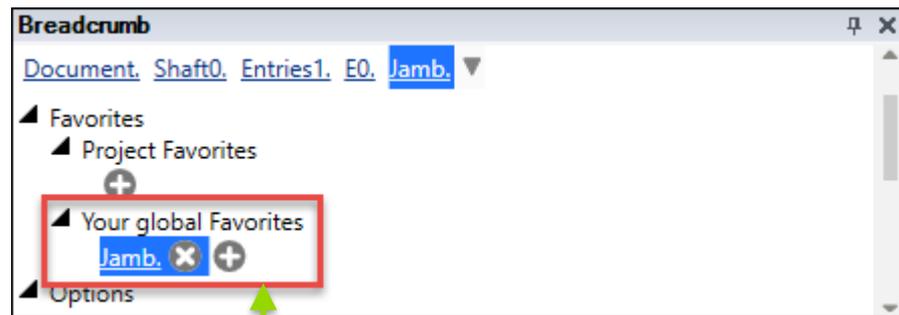
Callouts and their targets:

- Top callout: Shows the Quick Link Box under the Properties window. (Points to the 'Show Quick Component Link Box' checkbox)
- Left callout: Set your own project related or global component favorites. (Points to the 'Project Favorites' and 'Your global Favorites' sections)
- Bottom-left callout: Shows all component profiles in the Breadcrumb data tree. Recommended for developer. (Points to the 'Show Profiles' checkbox)
- Bottom callout: Activate the help box under the properties window. (Points to the 'Show Help Box' checkbox)

- Select the add. door jamb for the front entrance via the Breadcrumb:
 - Change the type to **Wall-covering jamb and transom panel up to ceiling** via the Properties docking window

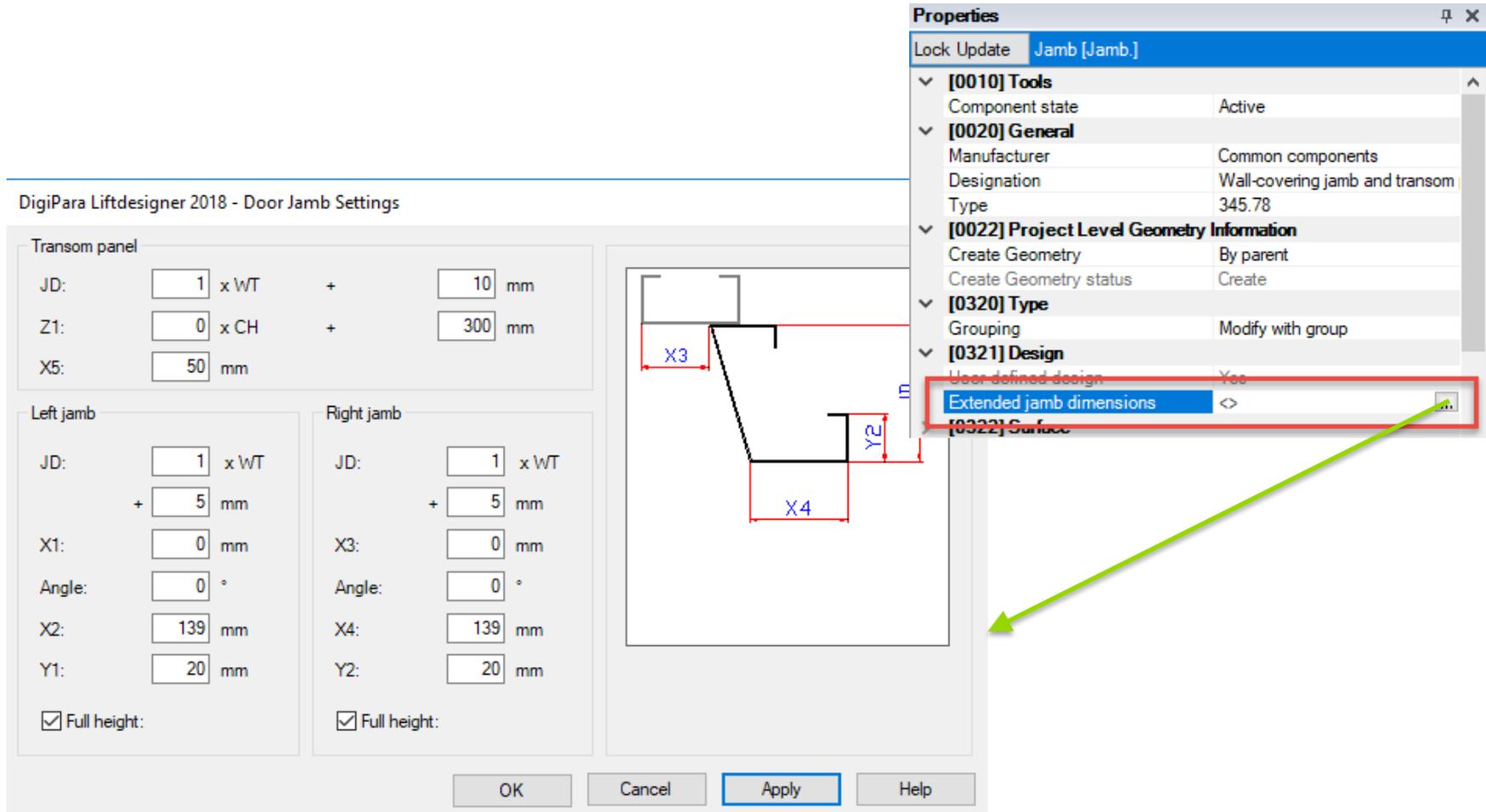


- Set the additional door jamb as your global favorite in the Breadcrumb window.



For all existing and new projects

- Change the extended jamb settings as follows:



The image shows the 'DigiPara Liftdesigner 2018 - Door Jamb Settings' dialog box and the 'Properties' window for a 'Jamb [Jamb.]' component.

Door Jamb Settings:

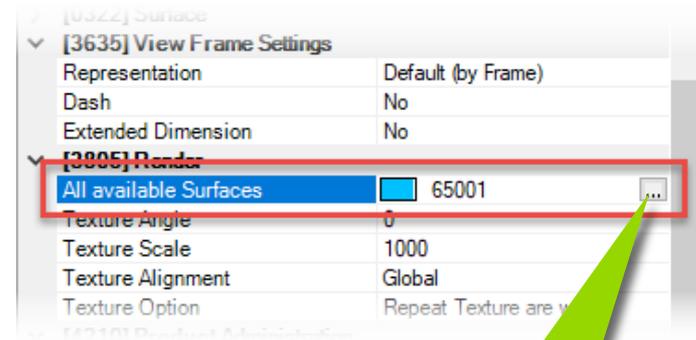
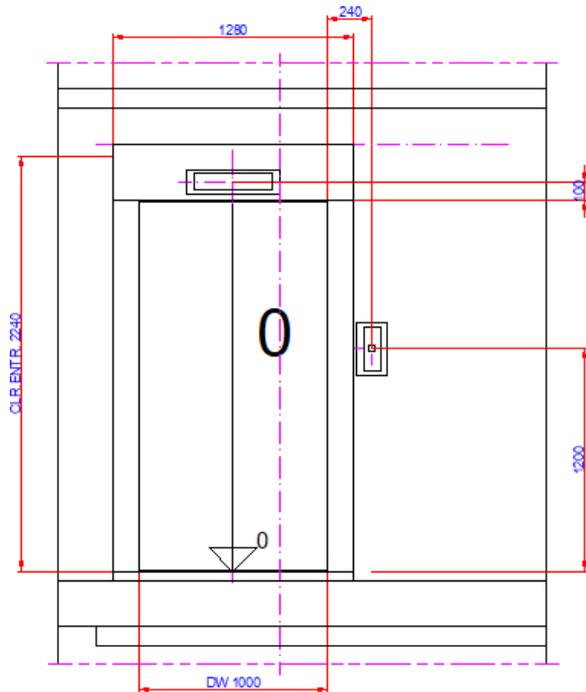
- Transom panel:** JD: 1 x WT + 10 mm; Z1: 0 x CH + 300 mm; X5: 50 mm
- Left jamb:** JD: 1 x WT + 5 mm; X1: 0 mm; Angle: 0°; X2: 139 mm; Y1: 20 mm; Full height:
- Right jamb:** JD: 1 x WT + 5 mm; X3: 0 mm; Angle: 0°; X4: 139 mm; Y2: 20 mm; Full height:

Properties window (Jamb [Jamb.]):

- [0010] Tools:** Component state: Active
- [0020] General:** Manufacturer: Common components; Designation: Wall-covering jamb and transom; Type: 345.78
- [0022] Project Level Geometry Information:** Create Geometry: By parent; Create Geometry status: Create
- [0320] Type:** Grouping: Modify with group
- [0321] Design:** User defined design: Yes; **Extended jamb dimensions** (highlighted in red)
- [0322] Surface:** (partially visible)

A green arrow points from the 'Extended jamb dimensions' property in the Properties window to the 'Apply' button in the Door Jamb Settings dialog box.

- The result in the drawing / 3D View should look as follows:



Define an own color for your BIM component via the properties.

Program Basics

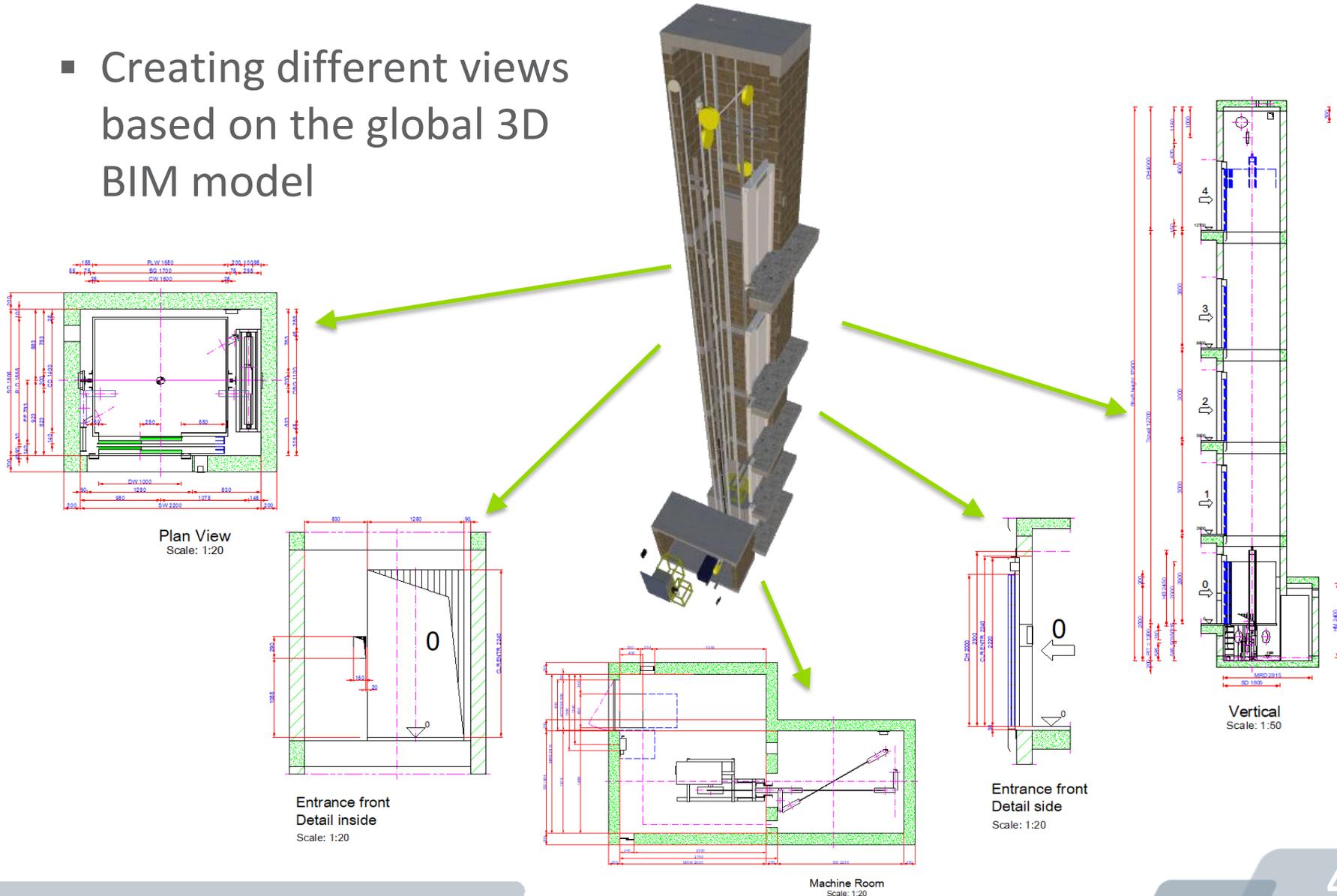
View Frames & Section Planes

5/14/2019



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- Creating different views based on the global 3D BIM model



- Switching views via the View frame tab → Type group

The screenshot shows the software interface with the 'View Frame' tab selected. The 'Type' group is highlighted, containing icons for 'Plan', 'View from Left', and 'Type'. A green box labeled 'Rotate entrance views and vertical sections' points to the 'View from Left' icon. A green box labeled 'Create any kind of view from one data model' points to the 'Plan' icon. A 'View Direction' panel is also shown, with a green arrow pointing to a detail view.

Plan View
Scale: 1:20

Vertical
Scale: 1:50

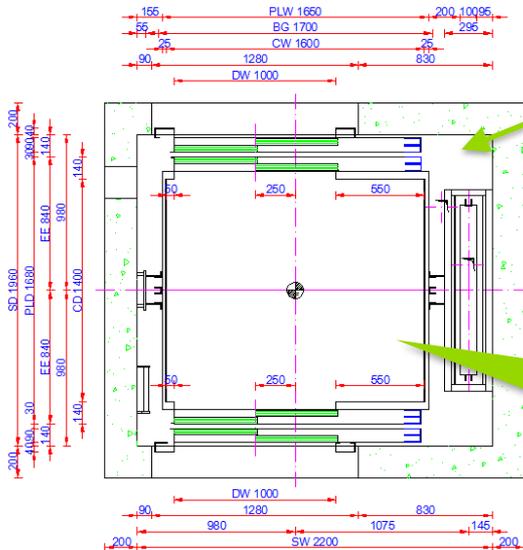
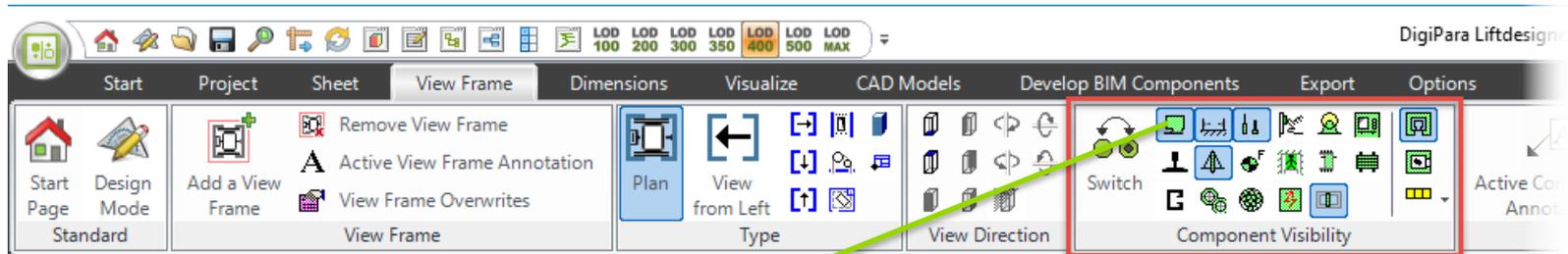
Machine Room
Scale: 1:20

Entrance front Detail outside
Scale: 1:20

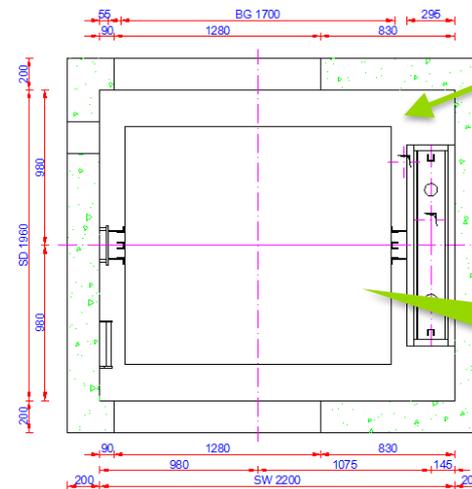
Entrance front Detail outside
Scale: 1:20

Entrance front Detail outside
Scale: 1:20

- Switching on/off elevator BIM components in the view via the View frame tab → Component Visibility group
 - Local per view frame operation

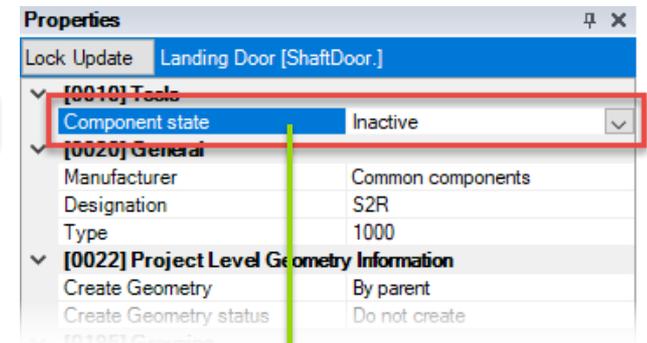
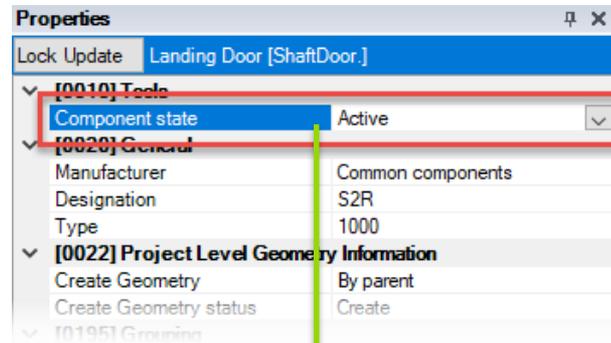


Switched on car and door components.

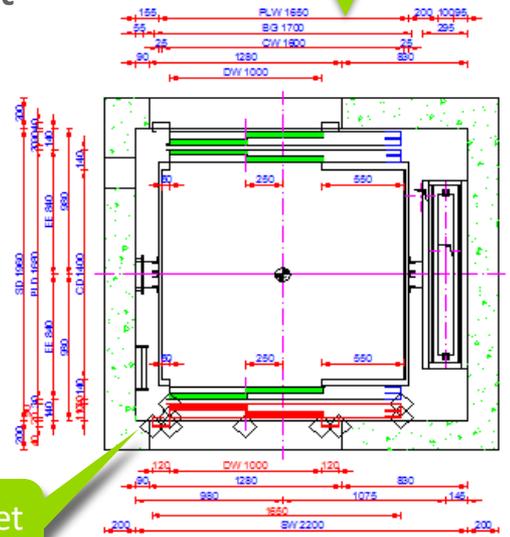


Switched off car and door components

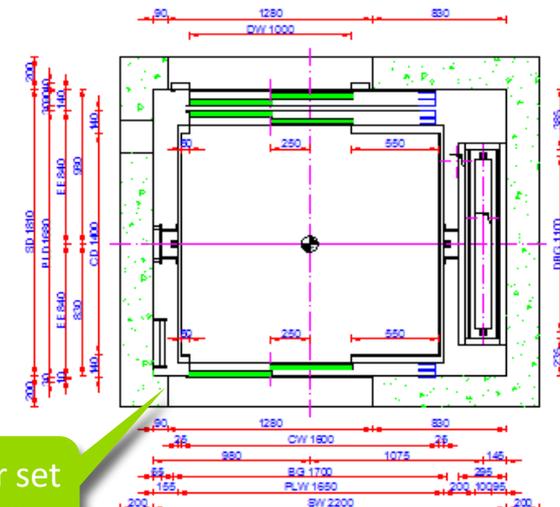
- Deactivating single BIM components via the Component state property



- Global project operation

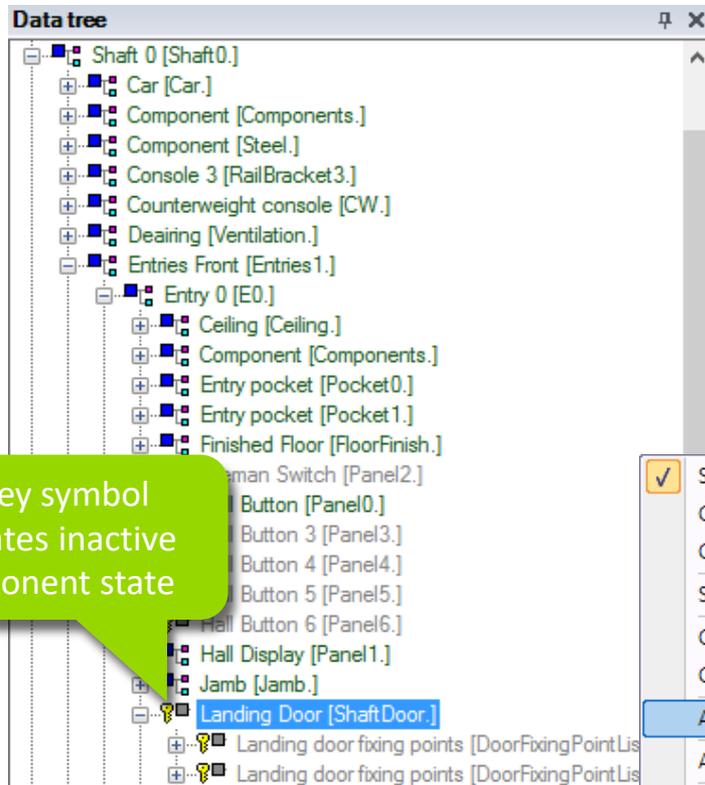


Door set active.

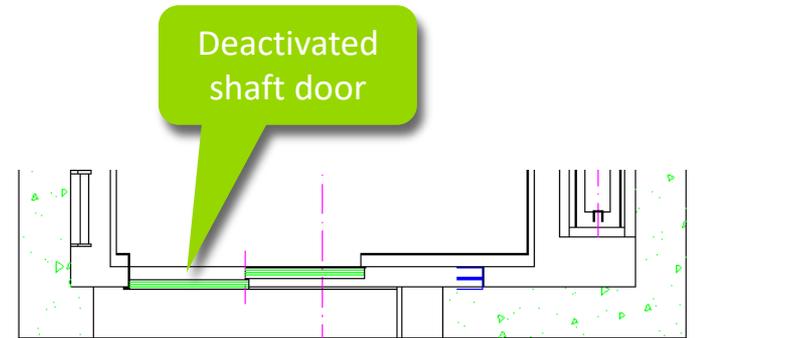


Door set inactive

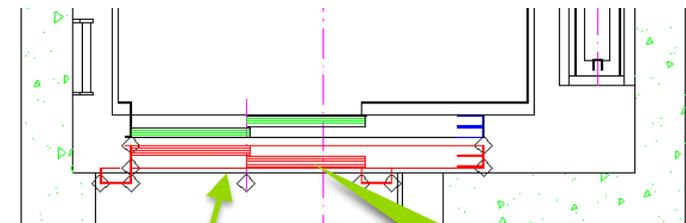
- Reactivating BIM components
 - via the corresponding component Data tree node / item



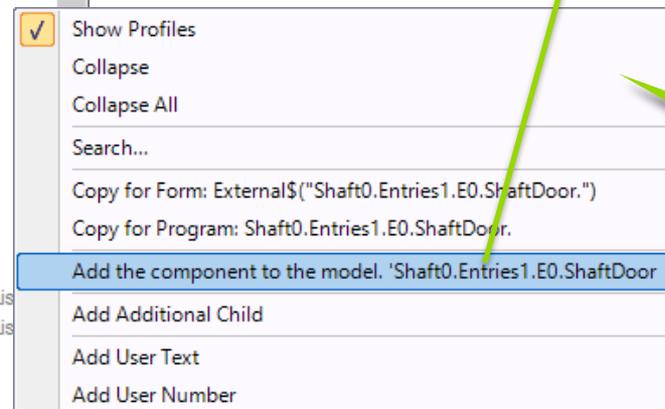
1. Key symbol indicates inactive component state



Deactivated shaft door

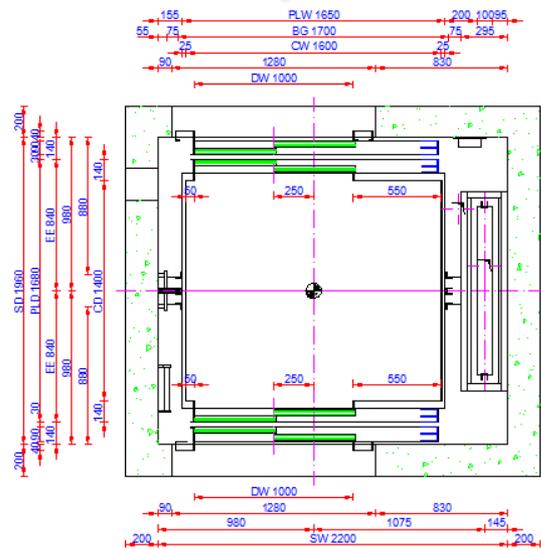
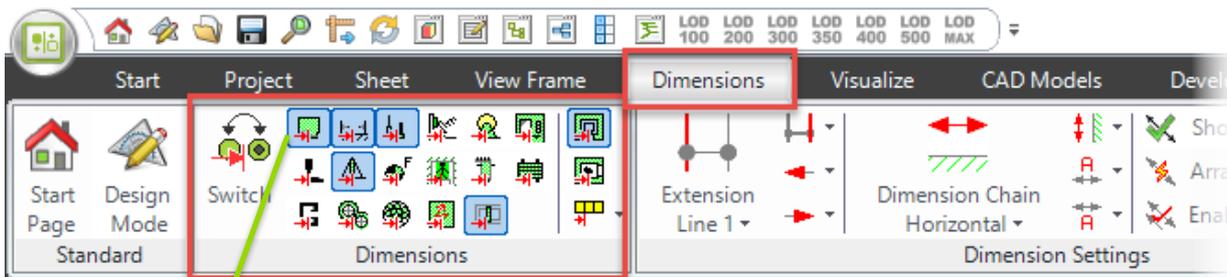


3. Reactivated shaft door

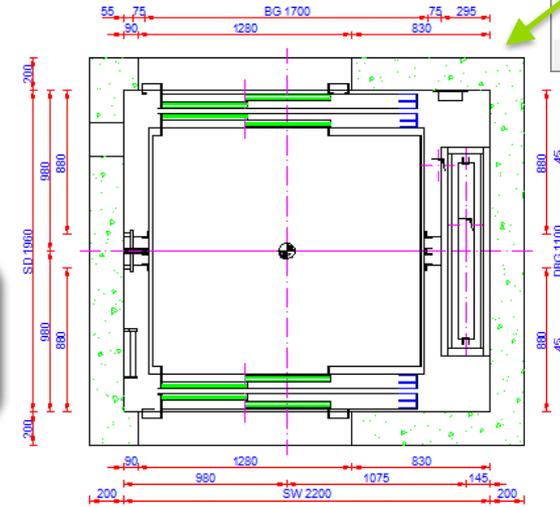


2. Tree node context menu via right mouse button

- Switching dimensions on/off via the Dimensions tab → Dimensions group
 - Local per view frame operation

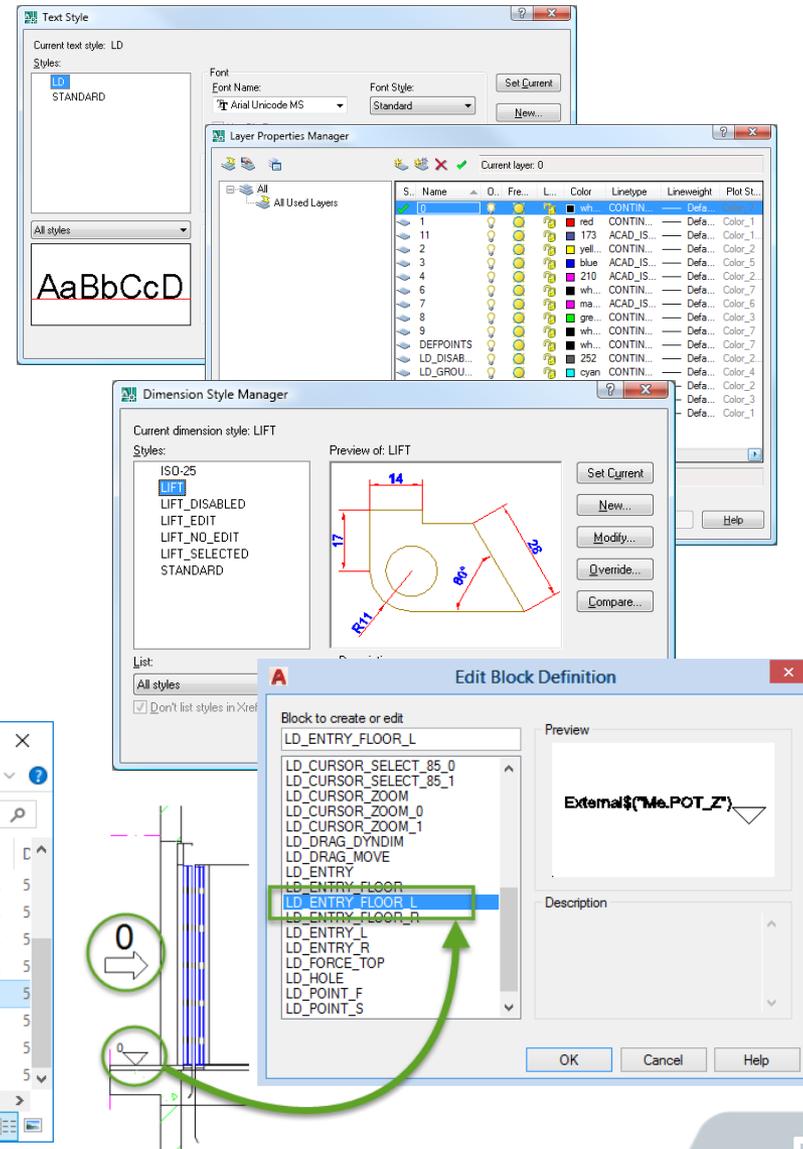
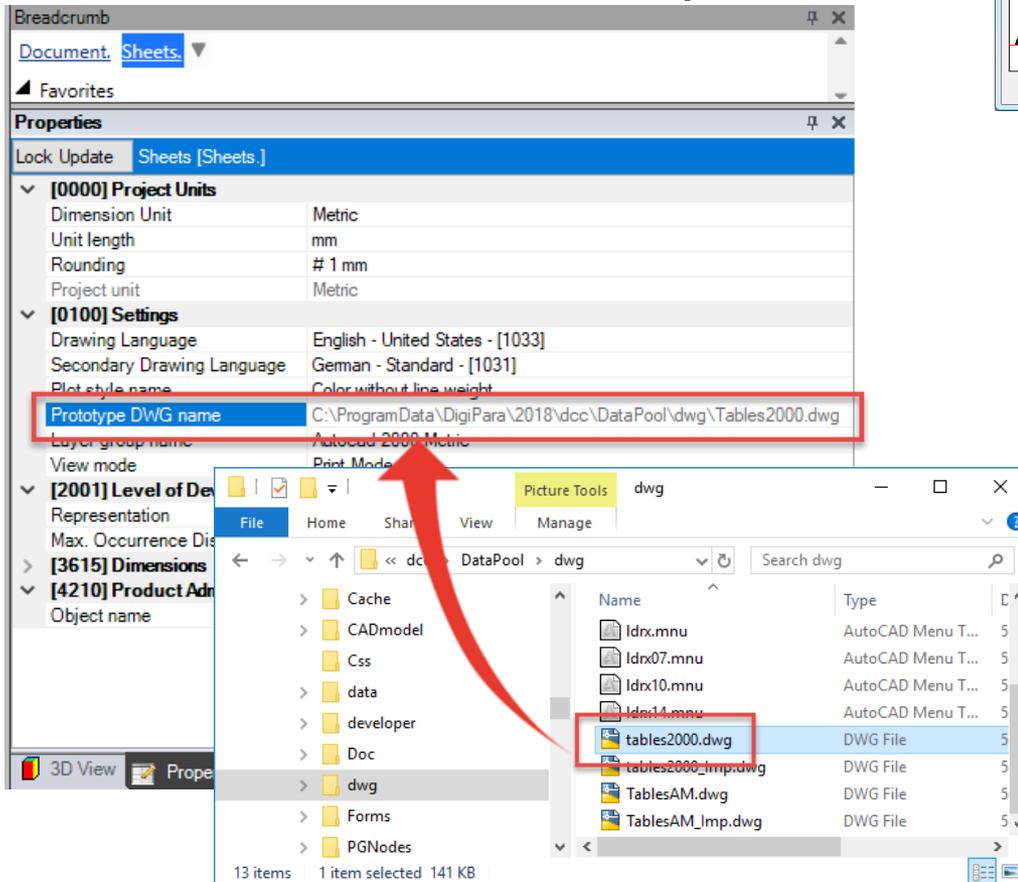


Switched on car & door dimensions

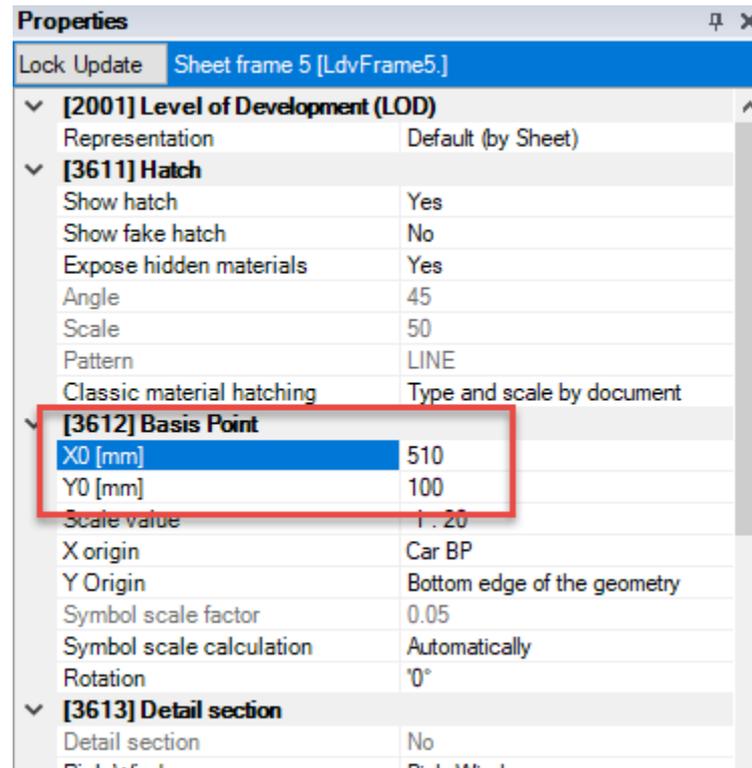


Switched off car & door dimensions

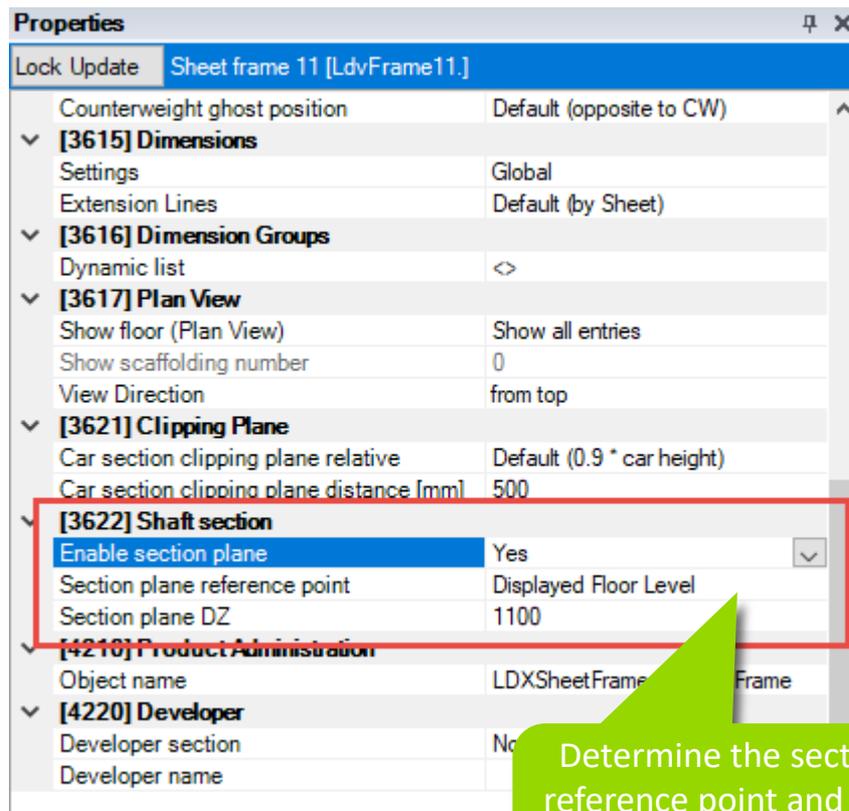
- Prototype DWG file
 - contains predefined **Dimension Style**, **Blocks** and **Text Style** configurations as well as the default **Layers**.



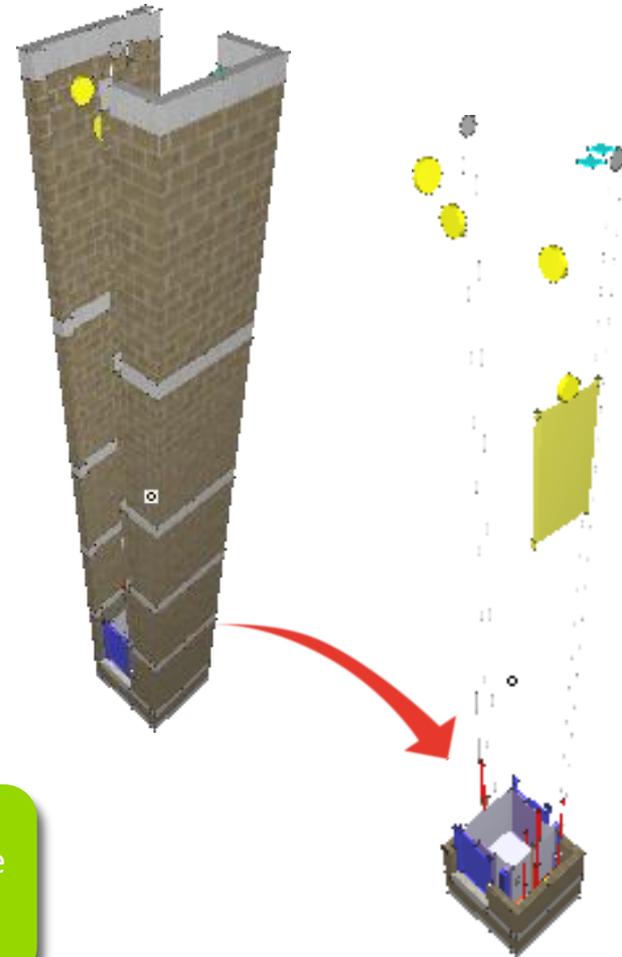
- Can be positioned relatively to the sheet basis point via the X0 and Y0 properties
 - The sheet basis point is specified by the lowest left point of the geometry in the drawing area



- For setting up own section plane positions the status of the **Enable section plane** operation has to be **Yes**.



Determine the section plane reference point and define the corresponding section plane dimension value.



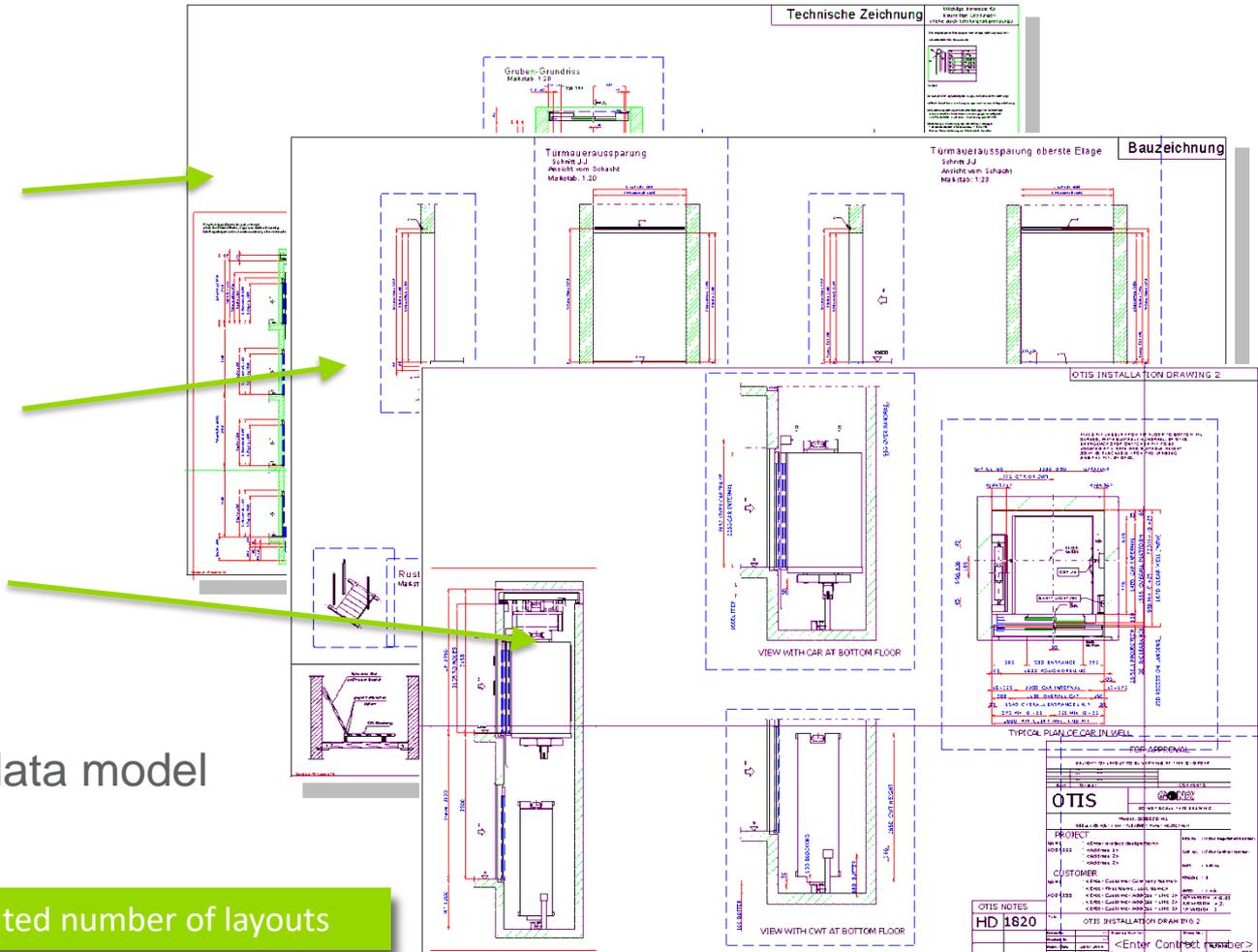
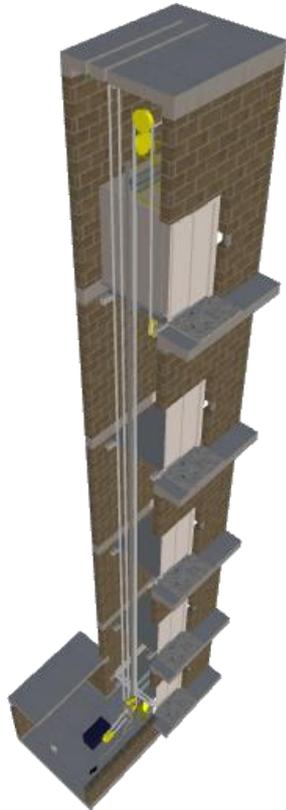
Program Basics

Sheets & Sheet Templates

5/14/2019



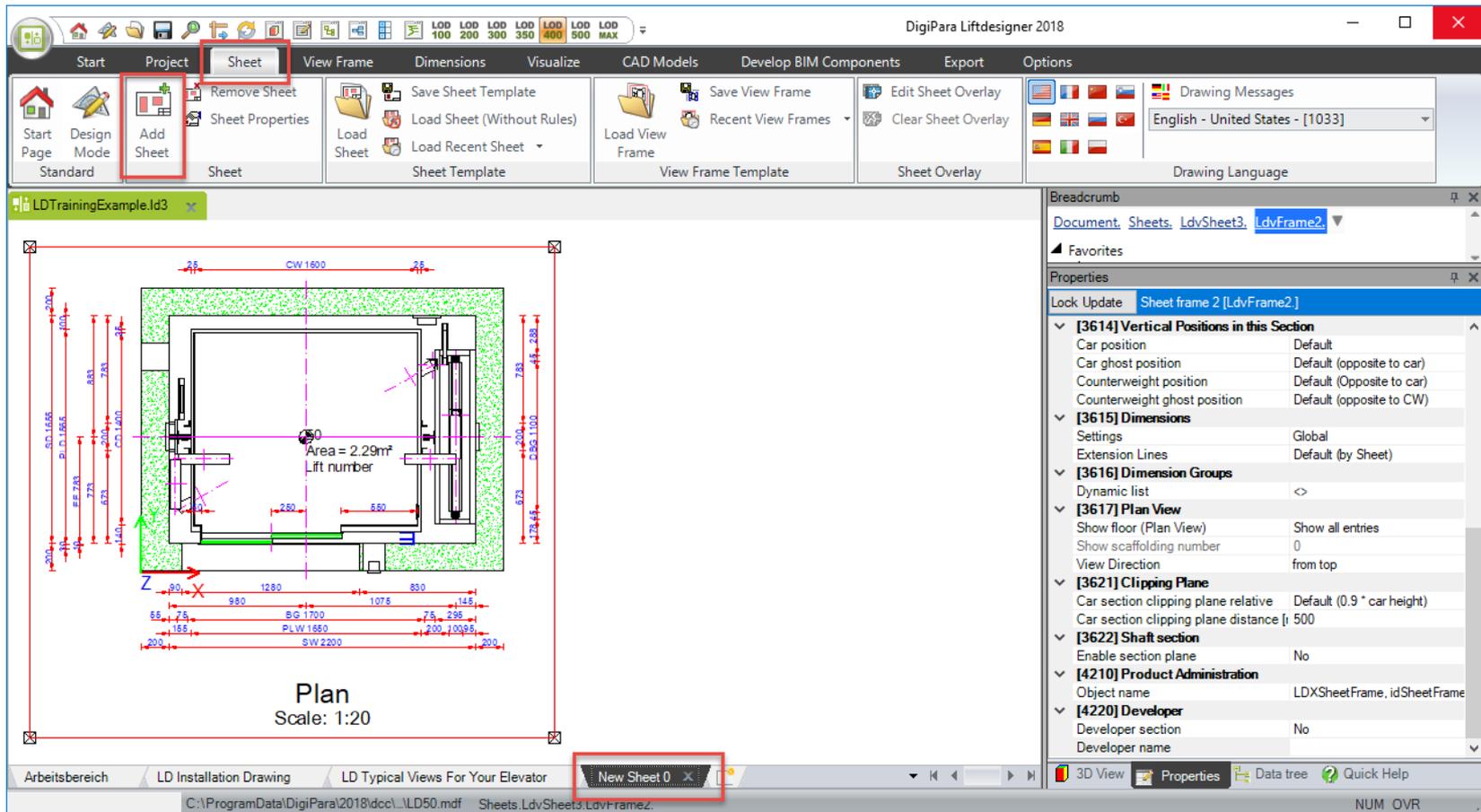
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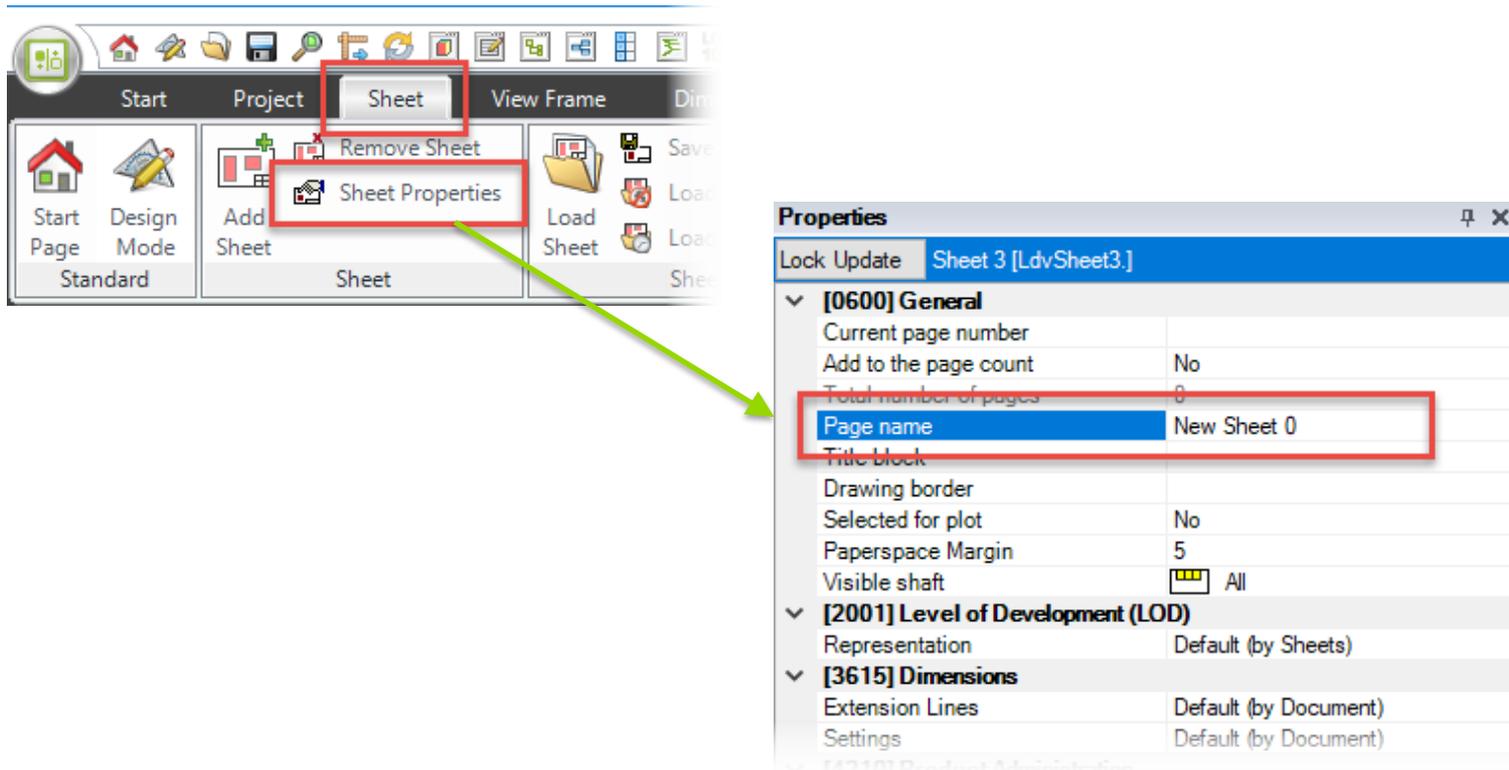
One elevator = One data model

Unlimited number of layouts

- Can be added via the Sheet tab → Sheet group
 - A new sheet always contains a plan view by default



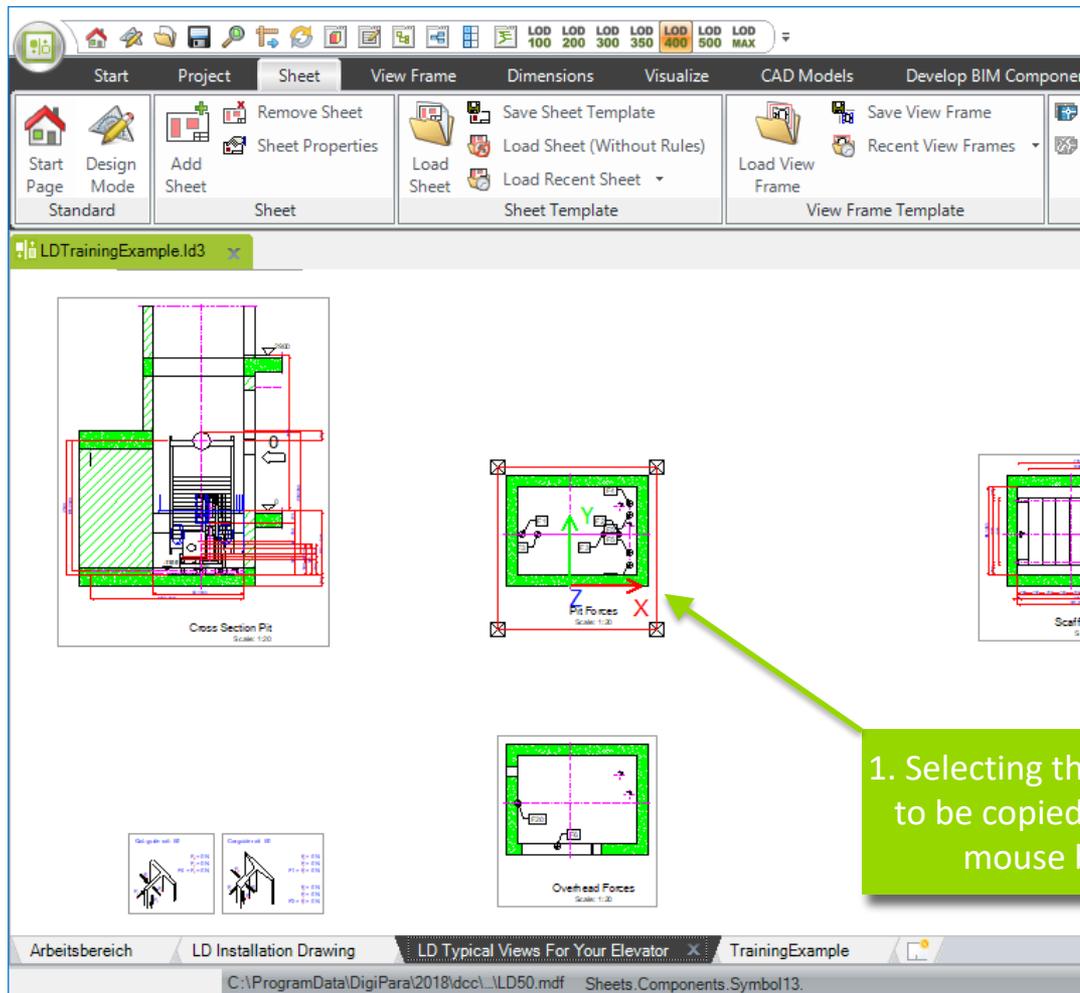
- Can be renamed via the Sheet properties
 - Displaying the corresponding properties via the Sheet tab → Sheet group or in the drawing area via the right mouse button context menu



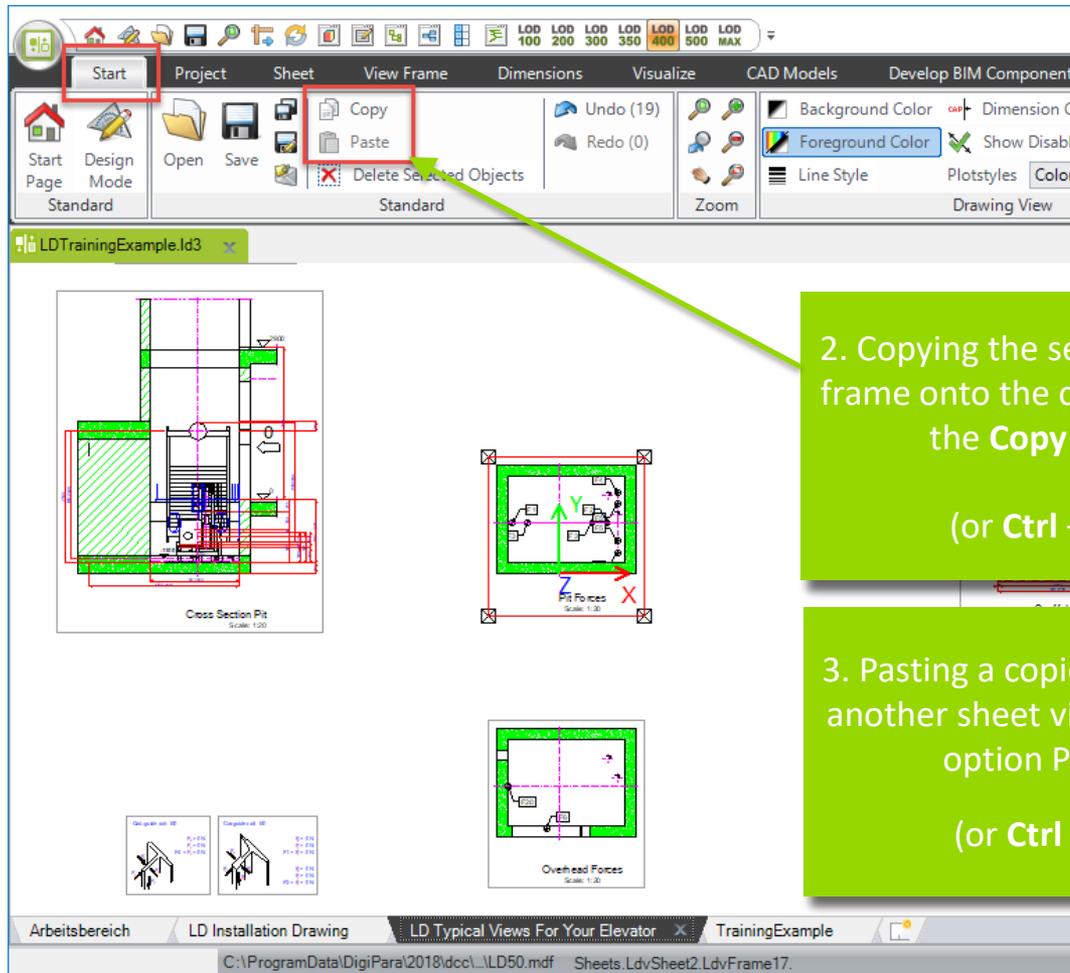
The screenshot shows the software interface with the 'Sheet' tab selected in the ribbon. The 'Sheet Properties' button is highlighted with a red box. A green arrow points from this button to the 'Properties' panel on the right. The 'Properties' panel shows the 'Page name' field highlighted with a red box, containing the text 'New Sheet 0'.

Properties	
Sheet 3 [LdvSheet3.]	
[0600] General	
Current page number	
Add to the page count	No
Total number of pages	0
Page name	New Sheet 0
Title block	
Drawing border	
Selected for plot	No
Paperspace Margin	5
Visible shaft	All
[2001] Level of Development (LOD)	
Representation	Default (by Sheets)
[3615] Dimensions	
Extension Lines	Default (by Document)
Settings	Default (by Document)

- Copying view frames from one sheet into another



- Copying view frames from one sheet into another



2. Copying the selected view frame onto the clipboard via the **Copy** item

(or **Ctrl + C**)

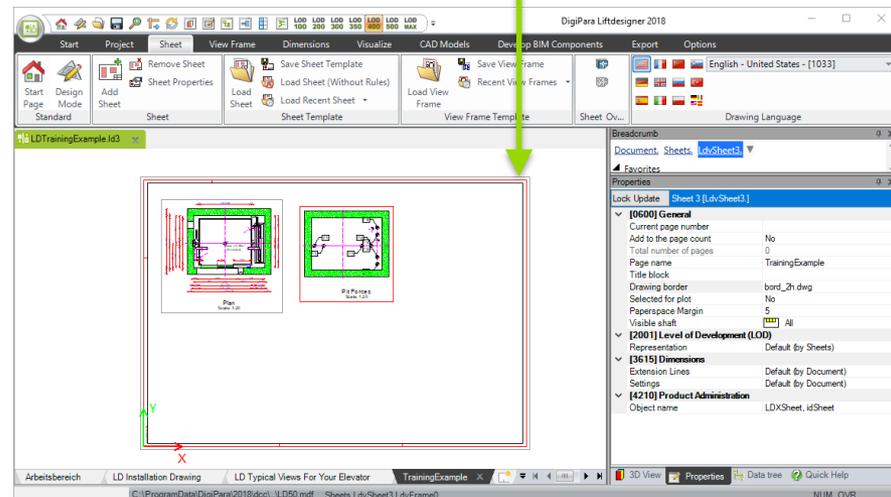
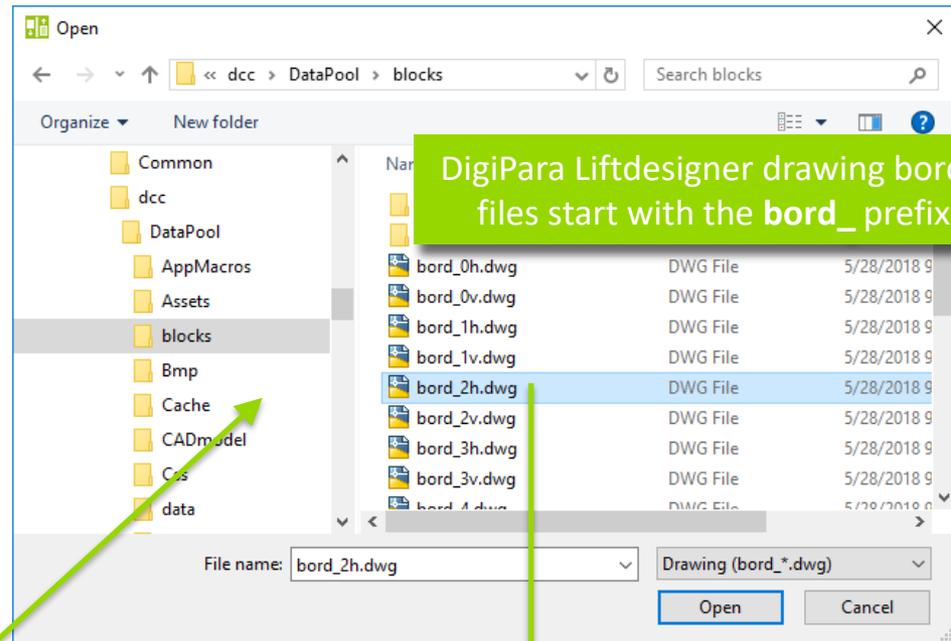
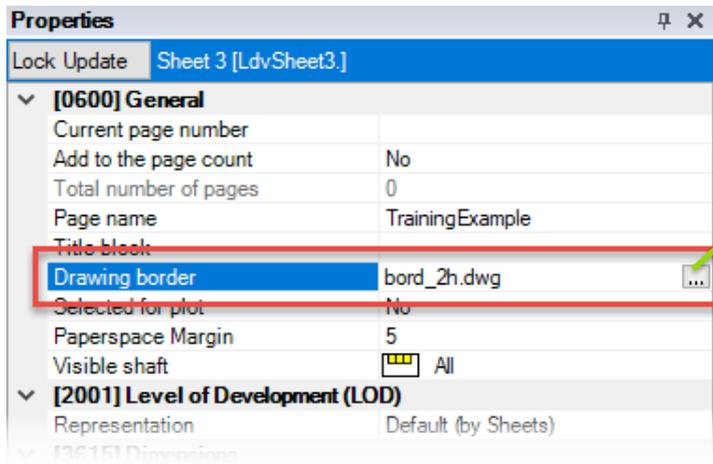
3. Pasting a copied view into another sheet via the menu option **Paste**

(or **Ctrl + V**)

Sheets - Drawing Borders

- Can be loaded via the Sheet properties

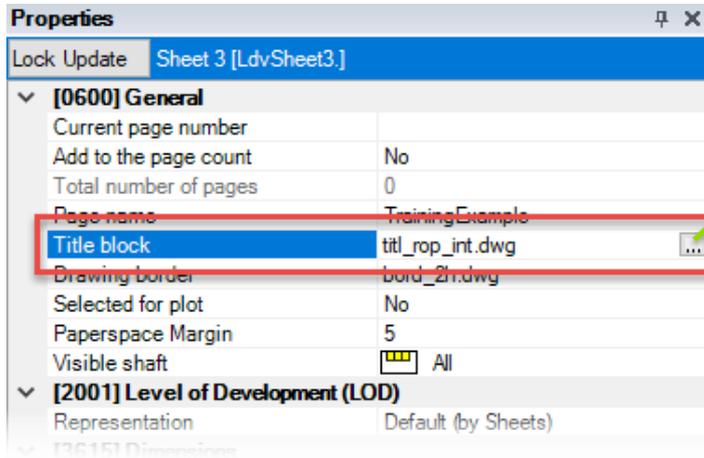
The sheet properties get displayed via the **Sheet** tab → **Sheet** group



Sheets - Title Blocks

- Can be loaded via the Sheet properties

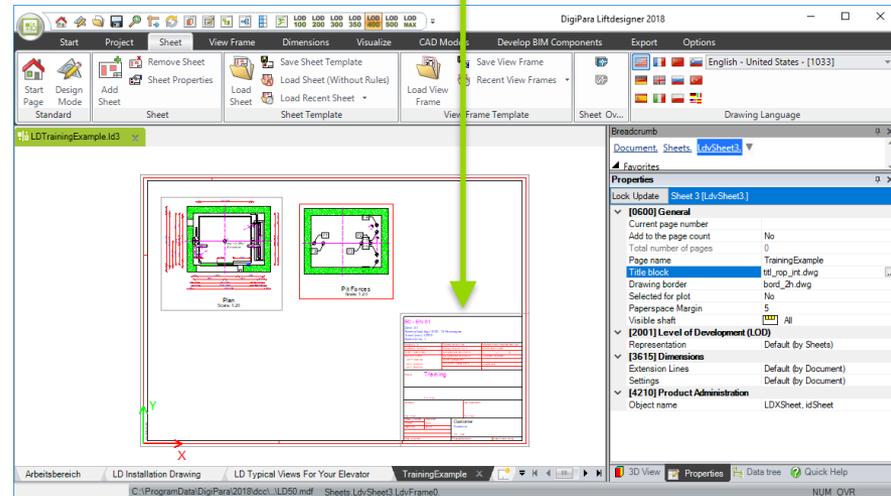
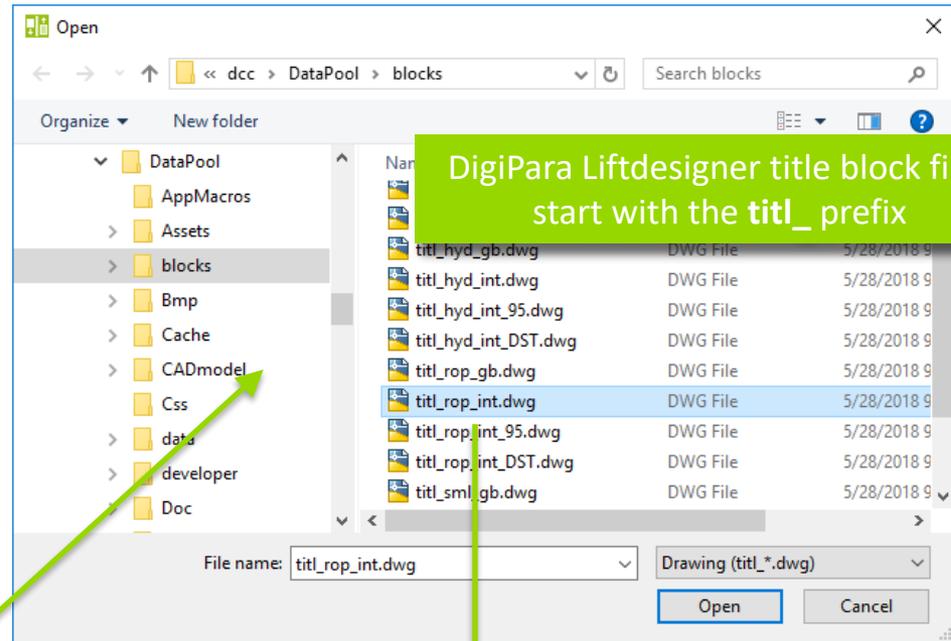
The sheet properties get displayed via the **Sheet** tab → **Sheet group**



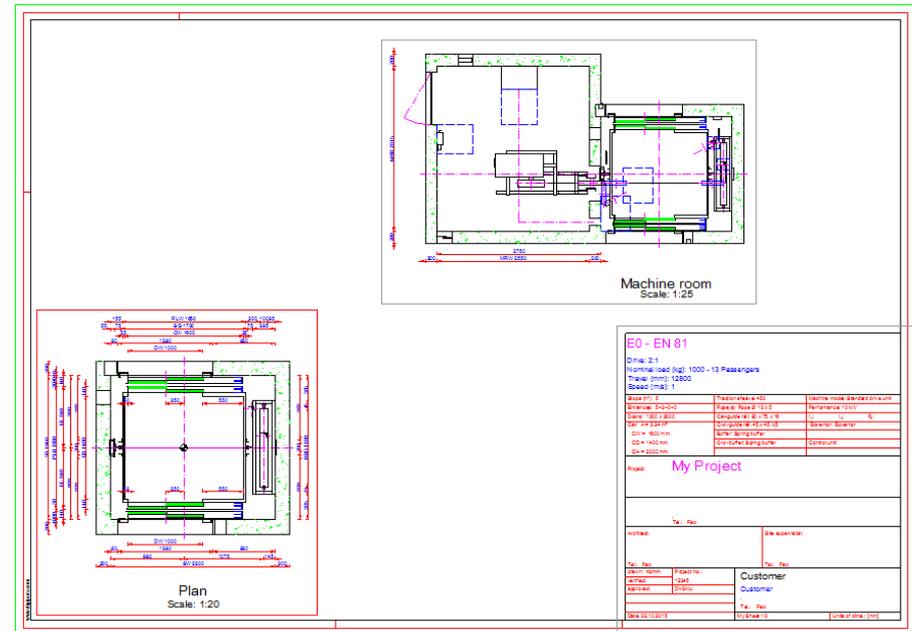
Differences between title blocks for:

Traction elevator – *_rop_*

Hydraulic elevator – *_hyd_*



- Please modify the previously created LDTrainingSample.Id3 file as follows:
- Create a new sheet
 - Add a Machine Room View
 - Add a Plan View
 - Add a drawing border bord_2h.dwg
 - Add a title block titl_rop_int.dwg
 - Move the views inside the drawing border
 - Rename the sheet to: My Views
- Save the project afterwards



Program Basics

BIM Components & Product Options

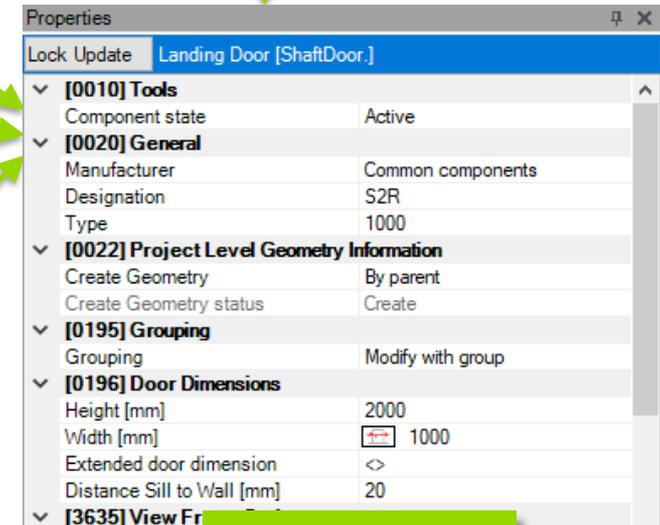
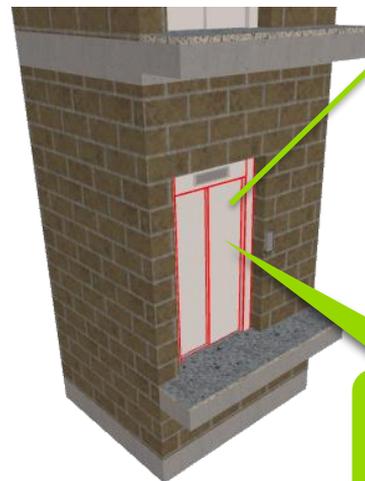
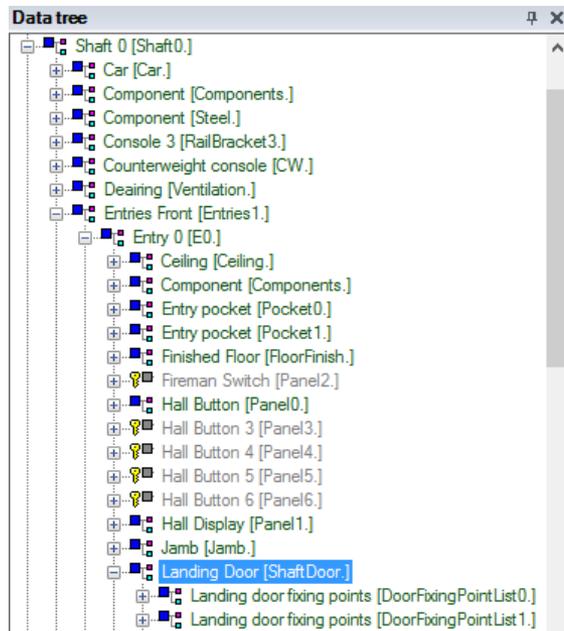
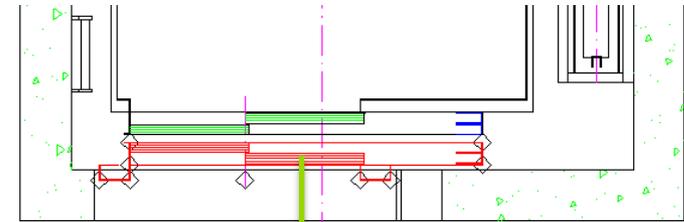
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- List components
 - Shaft door
 - Rail brackets
 - Shaft lighting
 - etc.
- Single components
 - Gearing
 - Car frame
 - Safety gear
 - etc.

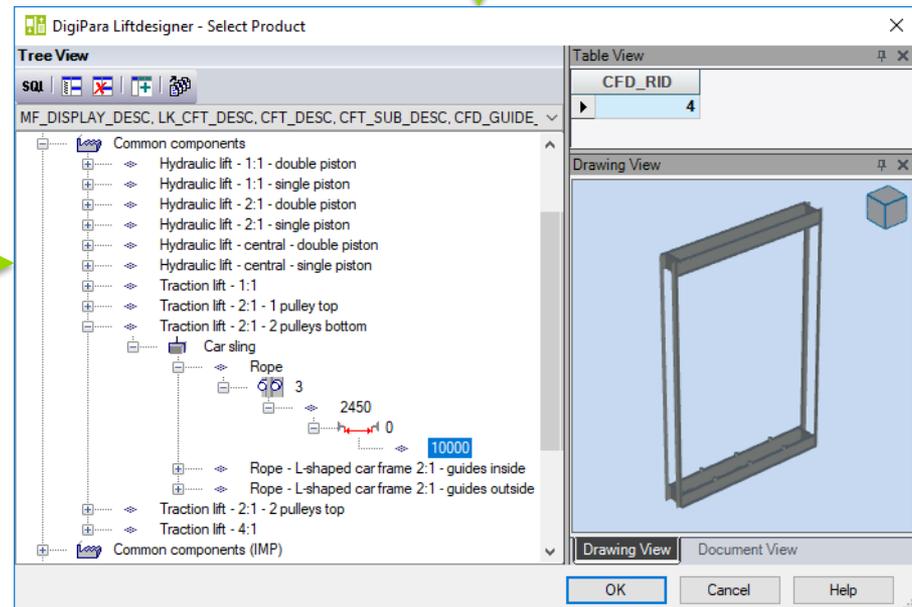
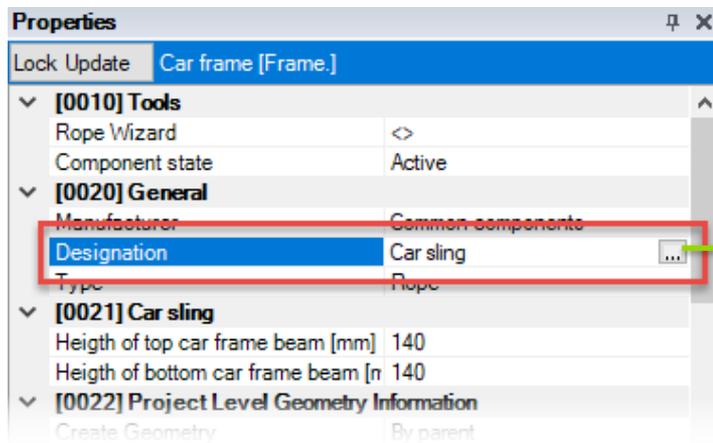
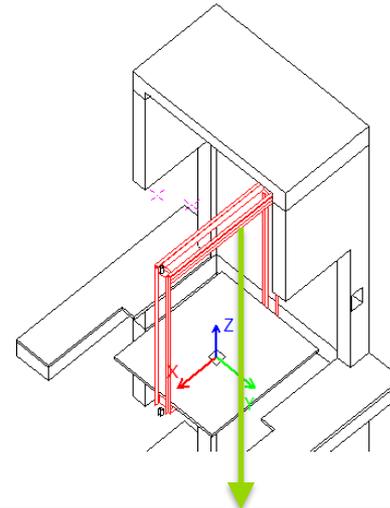
- Can be selected via the Datatree, Breadcrumb, 3D View or directly in the drawing



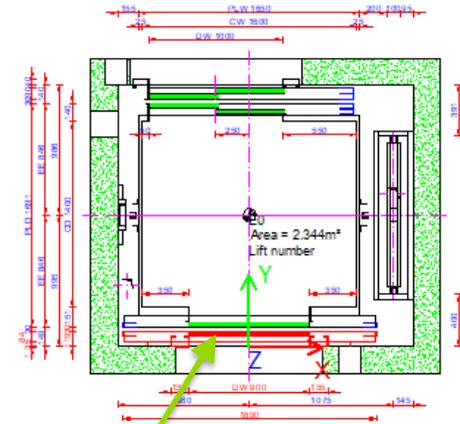
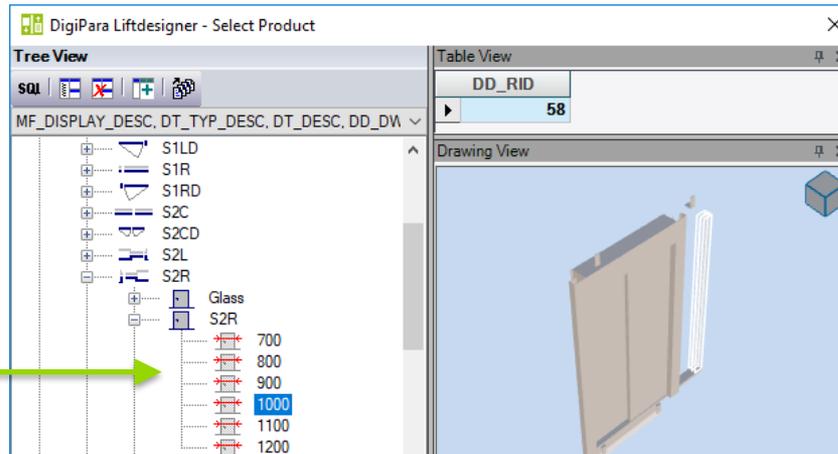
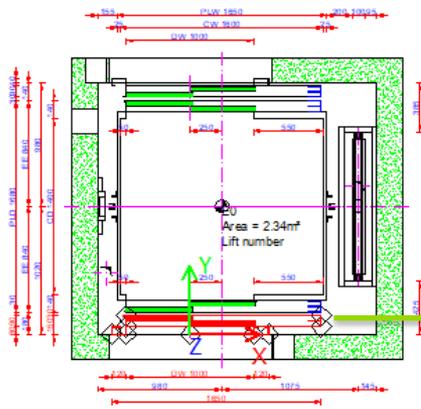
SHIFT + left mouse button

to e.g. display the landing door properties.

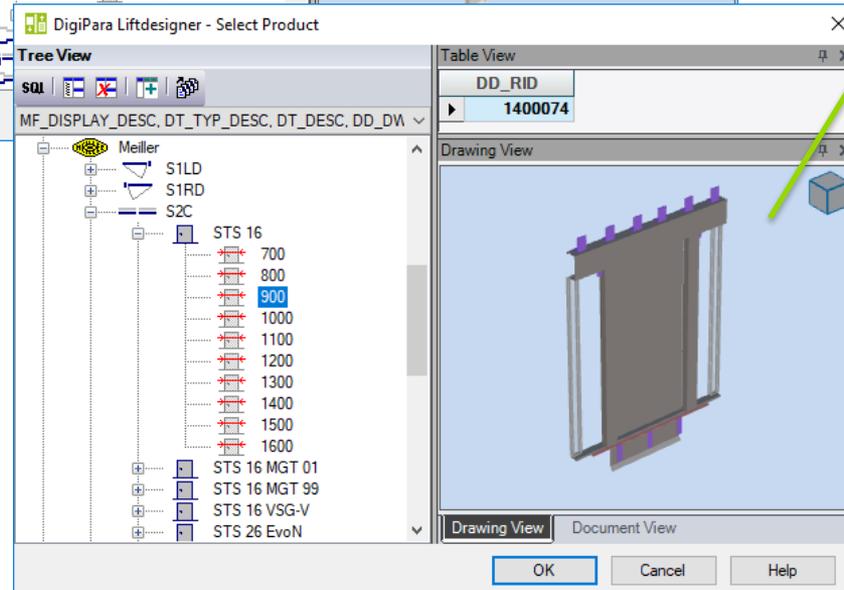
- Can be exchanged via the Component Navigator
 - By double clicking on the corresponding component
 - Via the component's category [0020] property items



- Exchanging list components e.g. a shaft door

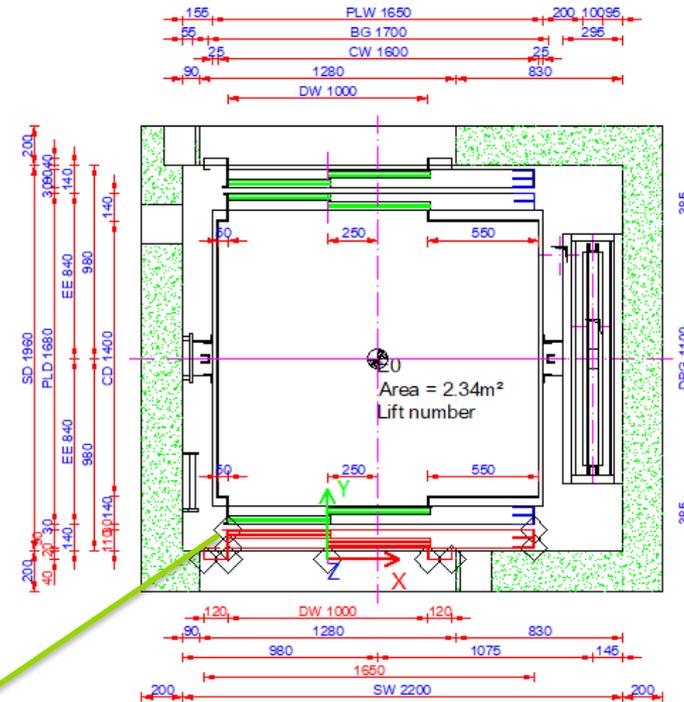
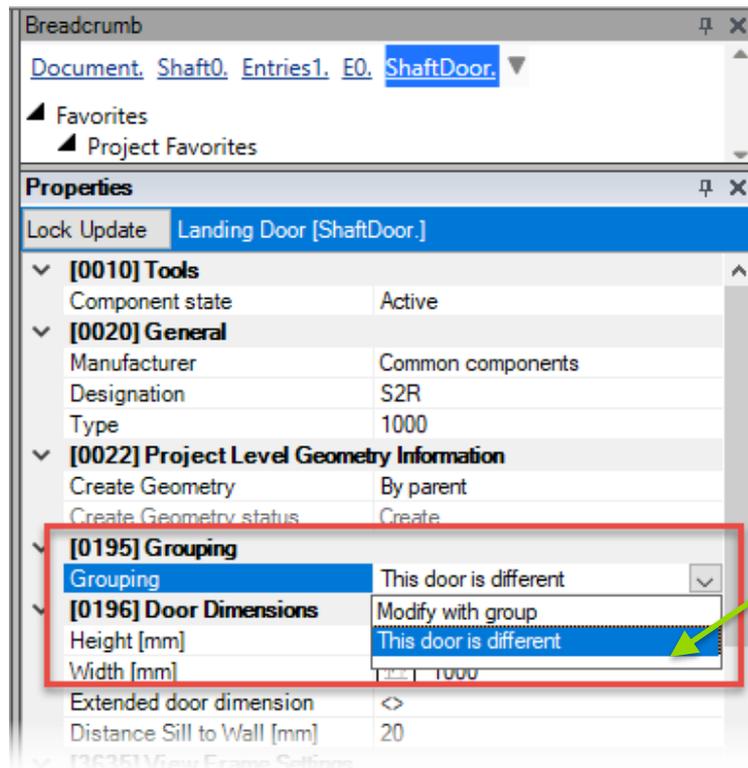


When exchanging e.g. the landing door, the program will ask you to automatically exchange the car door as well.



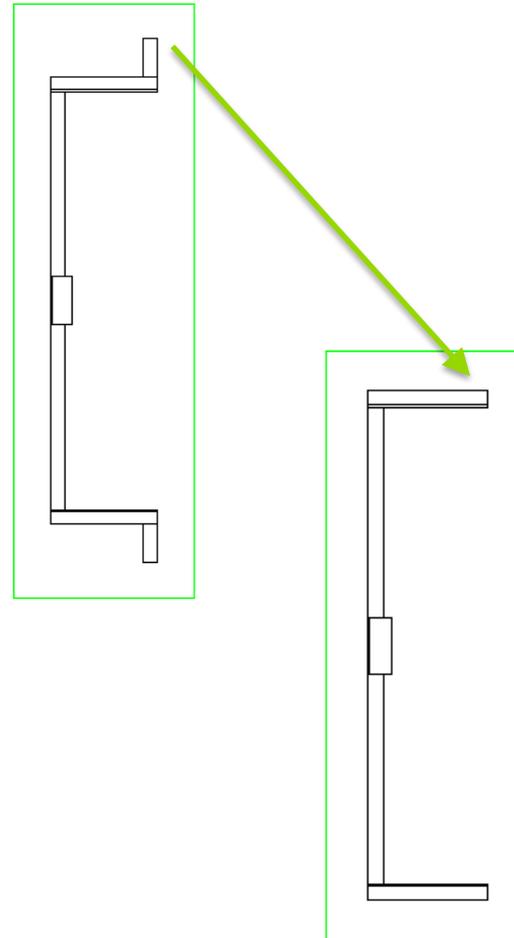
The door will be exchanged on all floors at the current wall.

- Individual exchanging (list components)
 - Via the component Grouping property
 - The selected door gets exchanged only



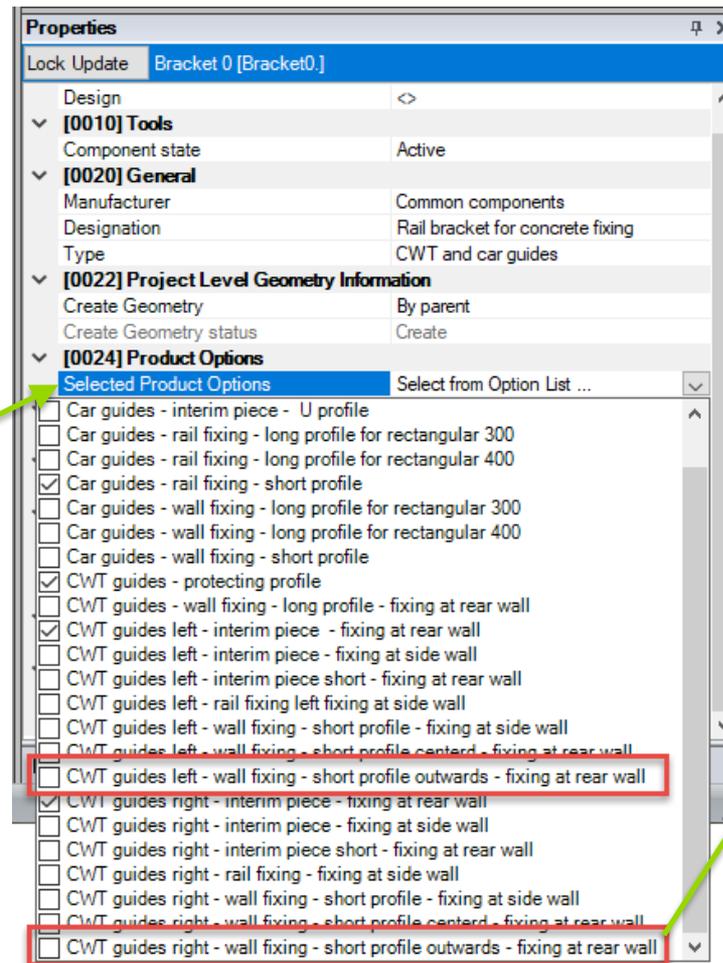
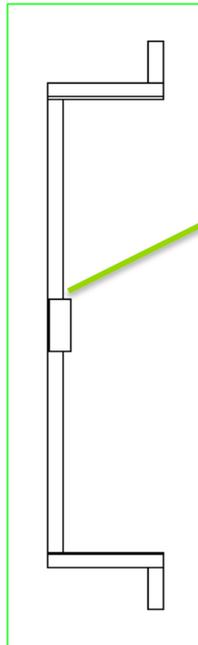
The **Grouping** property is available for most of the list object items.

- Are available by default for some of the DigiPara Liftdesigner BIM components
- E.g. for:
 - Rail brackets
 - Traction machines
 - Gear frames
 - Car frames
 - Etc.



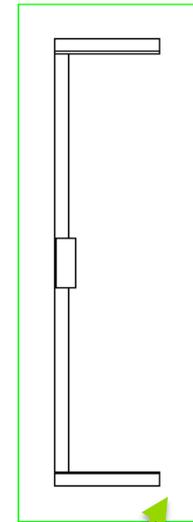
- Enabling and disabling:
 - Via property → Selected Product Options
 - Product Options can consist of one or more profiles

Switching off the rail bracket wall fixing profiles.



The screenshot shows the 'Properties' window for 'Bracket 0 [Bracket0.]'. The 'Selected Product Options' section is expanded, showing a list of options. Two options are highlighted with red boxes: 'CWT guides left - wall fixing - short profile outwards - fixing at rear wall' and 'CWT guides right - wall fixing - short profile outwards - fixing at rear wall'. A green arrow points from the 'Selected Product Options' section to the diagram on the right.

Option Name	Checked
Car guides - interim piece - U profile	<input type="checkbox"/>
Car guides - rail fixing - long profile for rectangular 300	<input type="checkbox"/>
Car guides - rail fixing - long profile for rectangular 400	<input type="checkbox"/>
Car guides - rail fixing - short profile	<input checked="" type="checkbox"/>
Car guides - wall fixing - long profile for rectangular 300	<input type="checkbox"/>
Car guides - wall fixing - long profile for rectangular 400	<input type="checkbox"/>
Car guides - wall fixing - short profile	<input type="checkbox"/>
CWT guides - protecting profile	<input checked="" type="checkbox"/>
CWT guides - wall fixing - long profile - fixing at rear wall	<input type="checkbox"/>
CWT guides left - interim piece - fixing at rear wall	<input checked="" type="checkbox"/>
CWT guides left - interim piece - fixing at side wall	<input type="checkbox"/>
CWT guides left - interim piece short - fixing at rear wall	<input type="checkbox"/>
CWT guides left - rail fixing left fixing at side wall	<input type="checkbox"/>
CWT guides left - wall fixing - short profile - fixing at side wall	<input type="checkbox"/>
CWT guides left - wall fixing - short profile centered - fixing at rear wall	<input type="checkbox"/>
CWT guides left - wall fixing - short profile outwards - fixing at rear wall	<input type="checkbox"/>
CWT guides right - interim piece - fixing at rear wall	<input checked="" type="checkbox"/>
CWT guides right - interim piece - fixing at side wall	<input type="checkbox"/>
CWT guides right - interim piece short - fixing at rear wall	<input type="checkbox"/>
CWT guides right - rail fixing - fixing at side wall	<input type="checkbox"/>
CWT guides right - wall fixing - short profile - fixing at side wall	<input type="checkbox"/>
CWT guides right - wall fixing - short profile centered - fixing at rear wall	<input type="checkbox"/>
CWT guides right - wall fixing - short profile outwards - fixing at rear wall	<input type="checkbox"/>



Program Basics

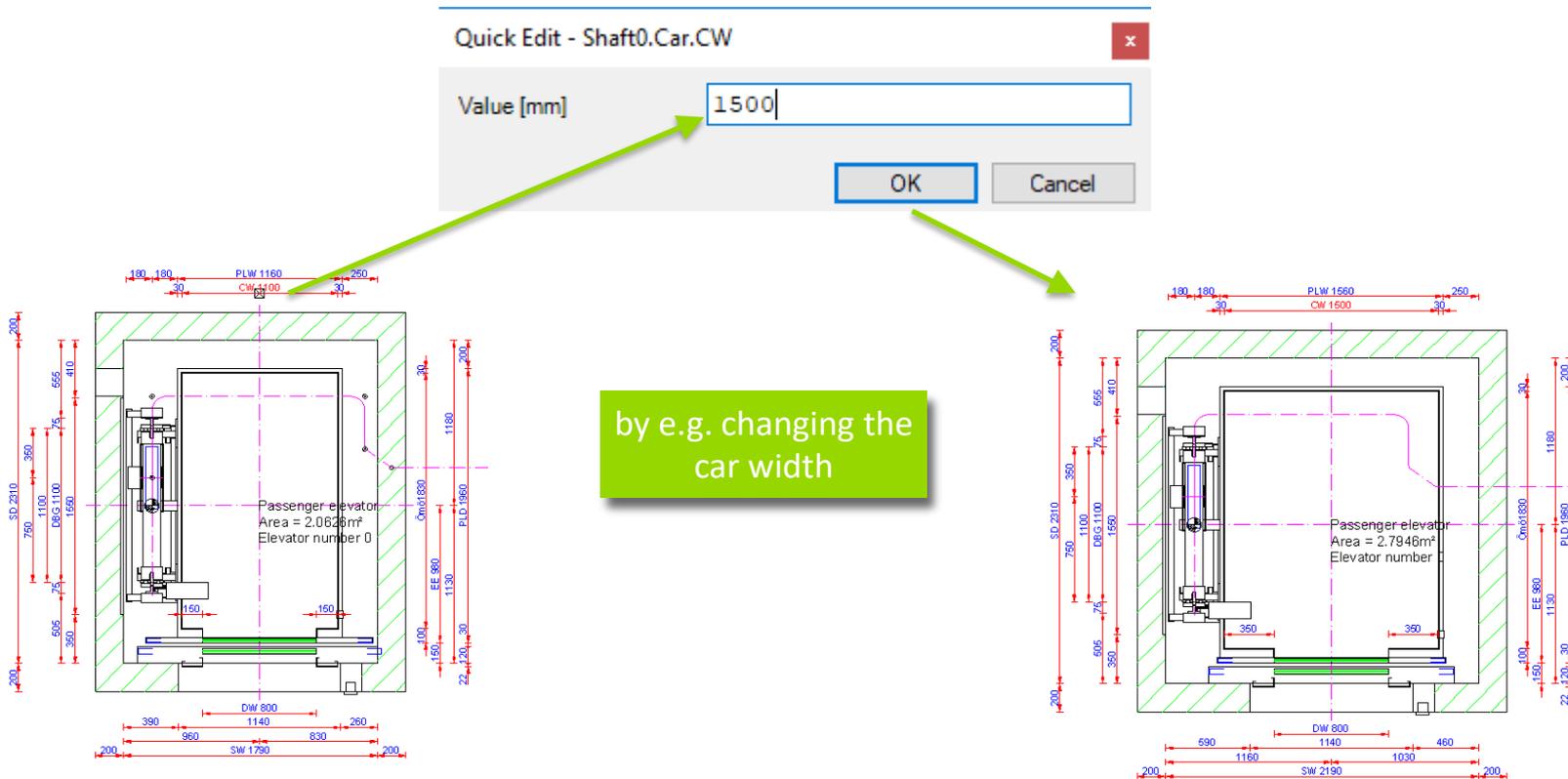
Dimensions

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- Editing a dimension value in DigiPara Liftdesigner changes the 3D BIM model



Quick Edit - Shaft0.Car.CW

Value [mm] 1500

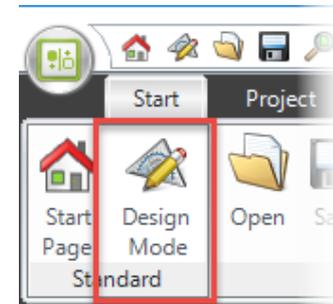
OK Cancel

by e.g. changing the car width

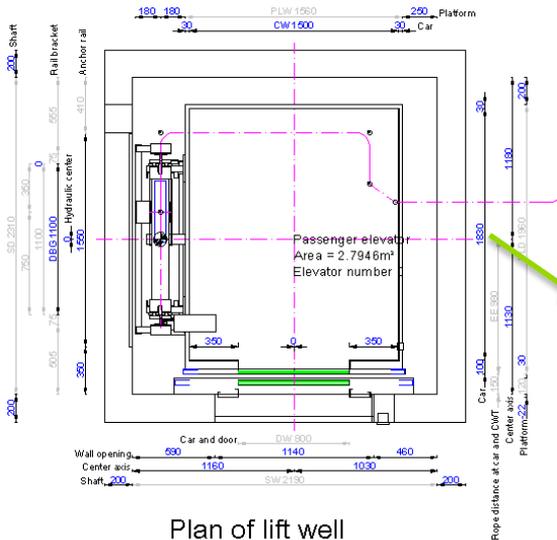
Passenger elevator
Area = 2.0838m²
Elevator number 0

Passenger elevator
Area = 2.7948m²
Elevator number

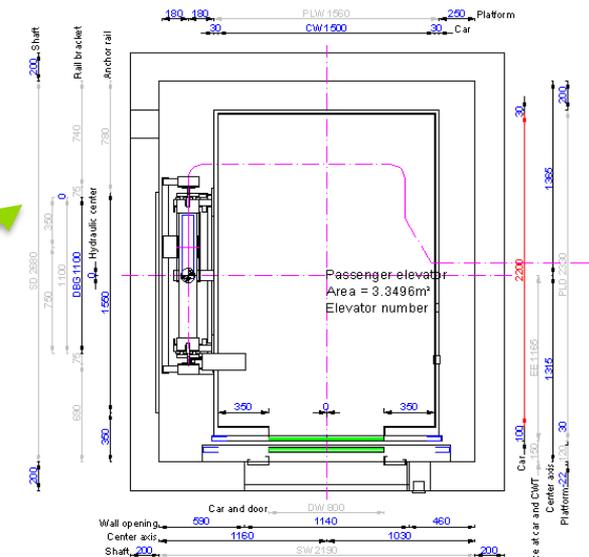
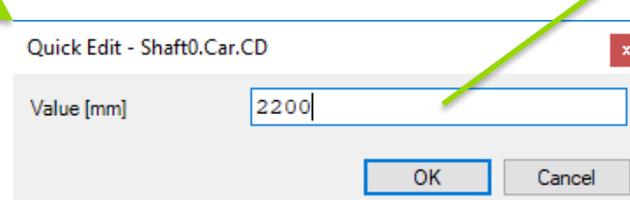
- Can be changed via the dimension properties or by double clicking on it
 - Only dimensions with a blue dimension text can be edited



Changing dimension values in Design Mode (hatches turned off)

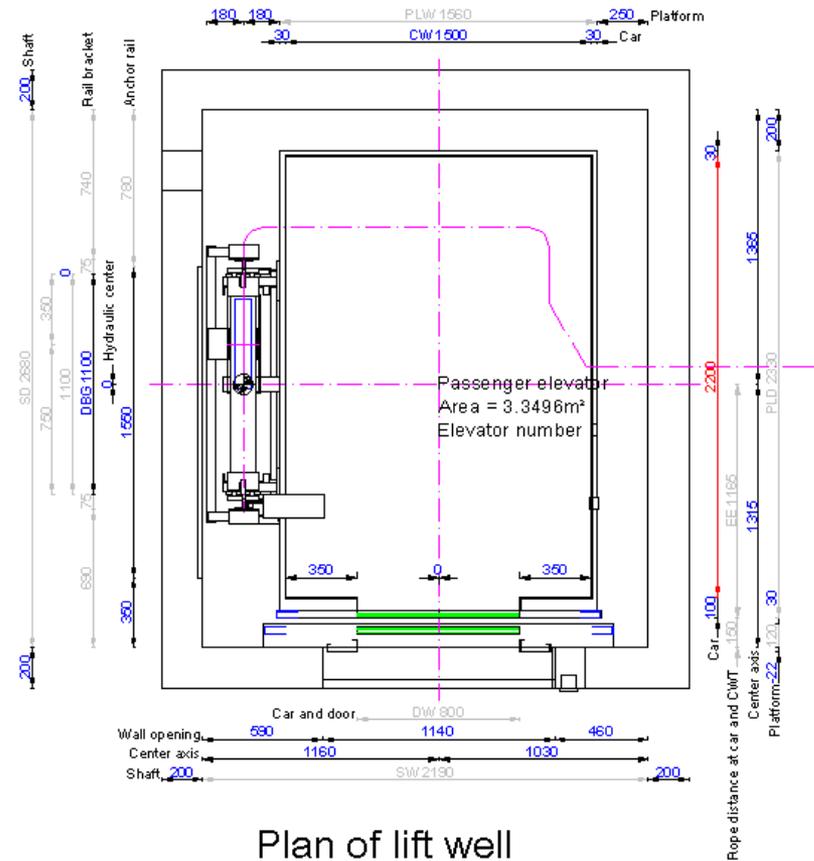


Plan of lift well
Scale: 1:20



Plan of lift well
Scale: 1:20

- Resulting or grayed out dimension can not be edited
- Only some special dimensions like e.g. the SW and the SD can be changed indirectly



- Chain dimensions
 - Like the shaft width (SW) and depth (SD) consist of a chain of dimensions
 - The values, these dimensions consist of, can be changed via the Properties docking window

The diagram illustrates the shaft width (SW) as a chain of dimensions. The top diagram shows a shaft width of 2190 mm, composed of: Wall opening (590), Car and door (1140), and Shaft (200). The bottom diagram shows a shaft width of 2040 mm, composed of: Wall opening (590), Car and door (880), and Shaft (200). The Properties window shows the following dimensions:

Property	Value [mm]
[0245] Shaft Width	
Left distance wall / car	180
Left car wall	30
Car width	1500
Right car wall	30
Right distance car / counterweight	215
Counterweight depth right	140
Right distance counterweight / wall	95
Resulting shaft width	2190
[0495] General	
Value [mm]	2190

- In the **LDTrainingSample.Id3** project file, switch to the **My Views** sheet and change the following dimension values:
 - SD: 2600 mm
 - SW: 1900 mm
 - CD: 2000 mm
 - CW: 1200 mm

- Change the following BIM Component and Product Options:
 - Counterweight Rail Brackets :
 - Change the type to Common Components -> Rail Bracket for Car and CWT - side drop -> CWT and car guides -> Railbracket for concrete fixing
 - Product Options:
 - Disable the **wall fixing - short profile outwards - fixing at rear wall** items on the left and right side of the bracket

Program Basics

Annotations

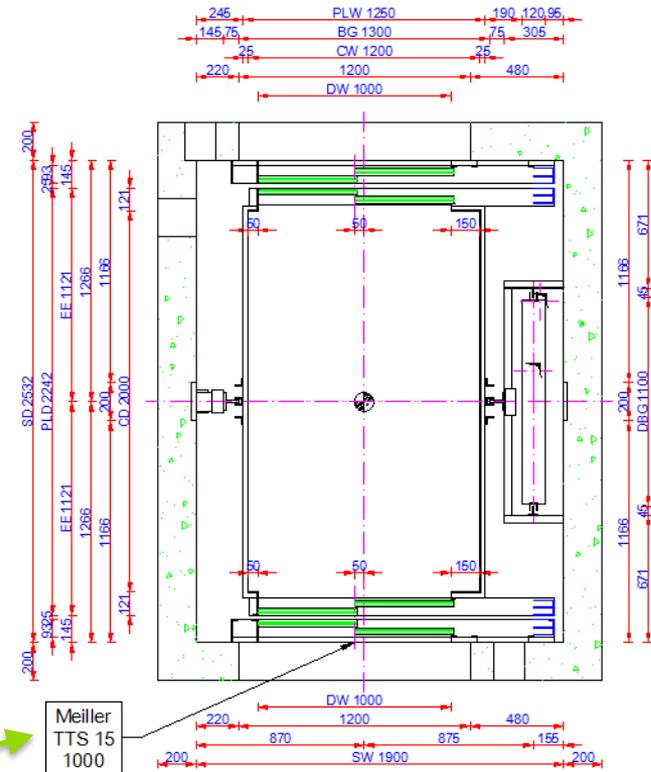
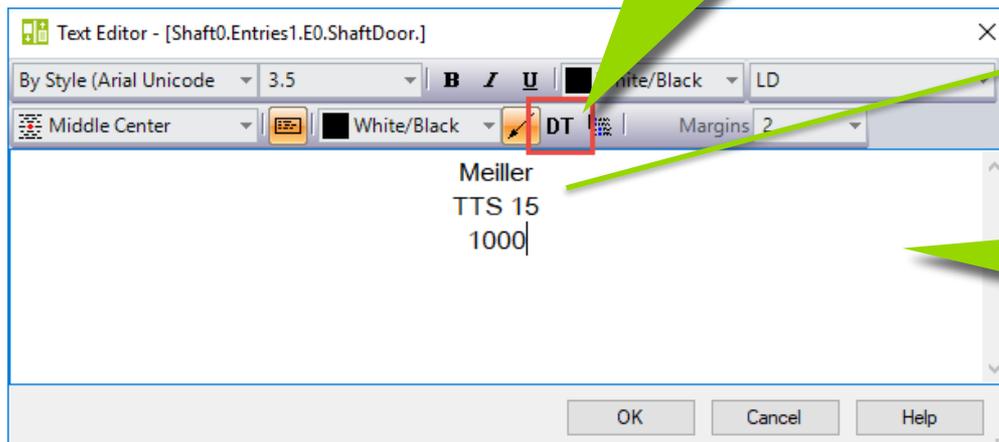
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- Can be created on a view frame or on a component basis
 - Existing annotations can be edited by simply double clicking on it

The DT button, adds the default text for the component / view frame

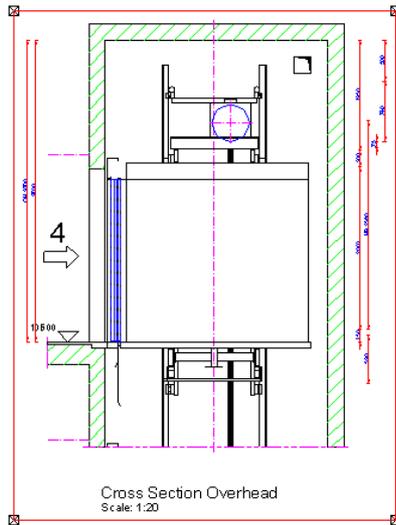


Plan
Scale: 1:20

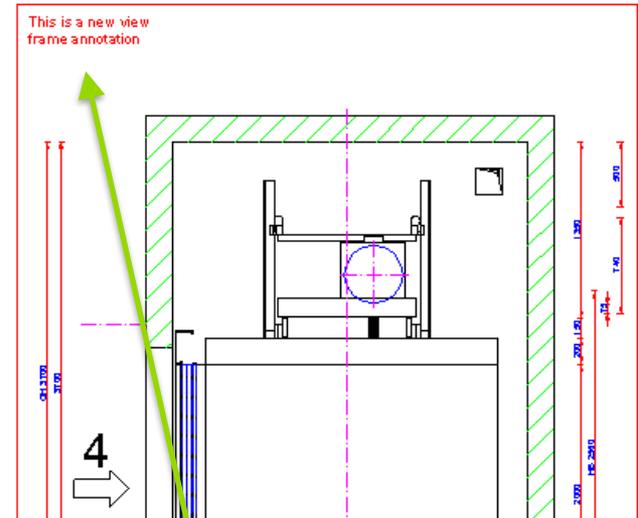
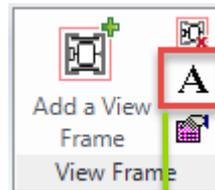
Component & view frame annotations can be added and edited via the DigiPara Lift designer text Editor dialog

- Creating a view frame related annotation

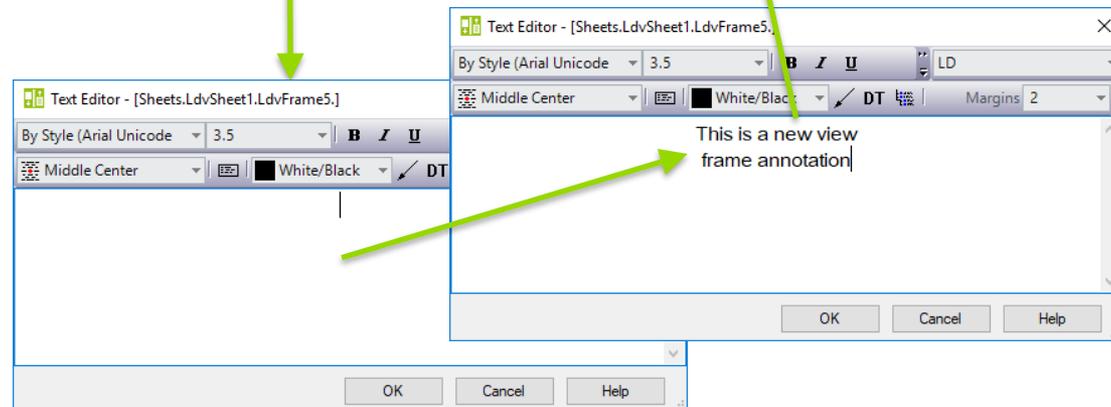
3. The annotation gets displayed in the view frame



2. Adding an annotation via the text editor dialog



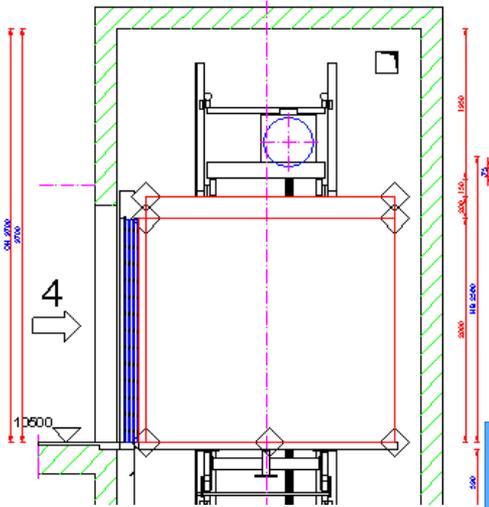
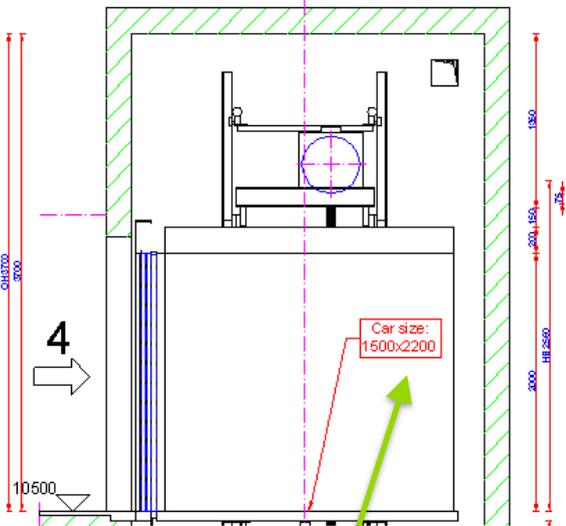
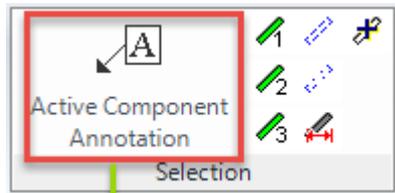
1. Selecting a view frame first



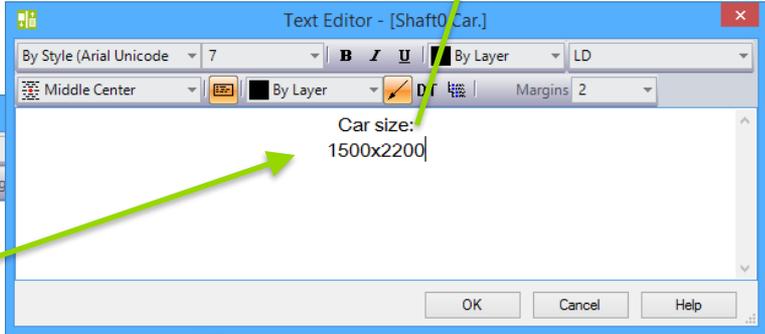
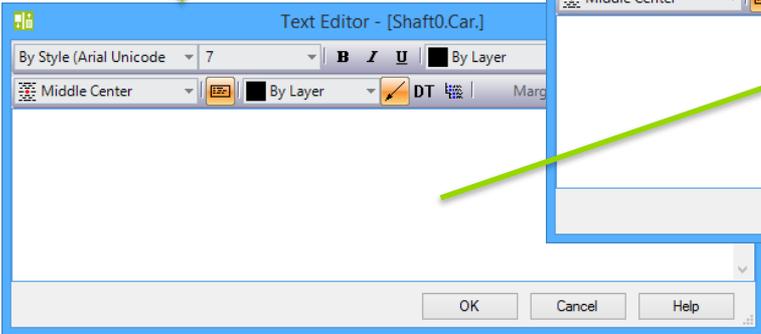
- Creating a component related annotation

3. The new component annotation gets displayed in the view frame

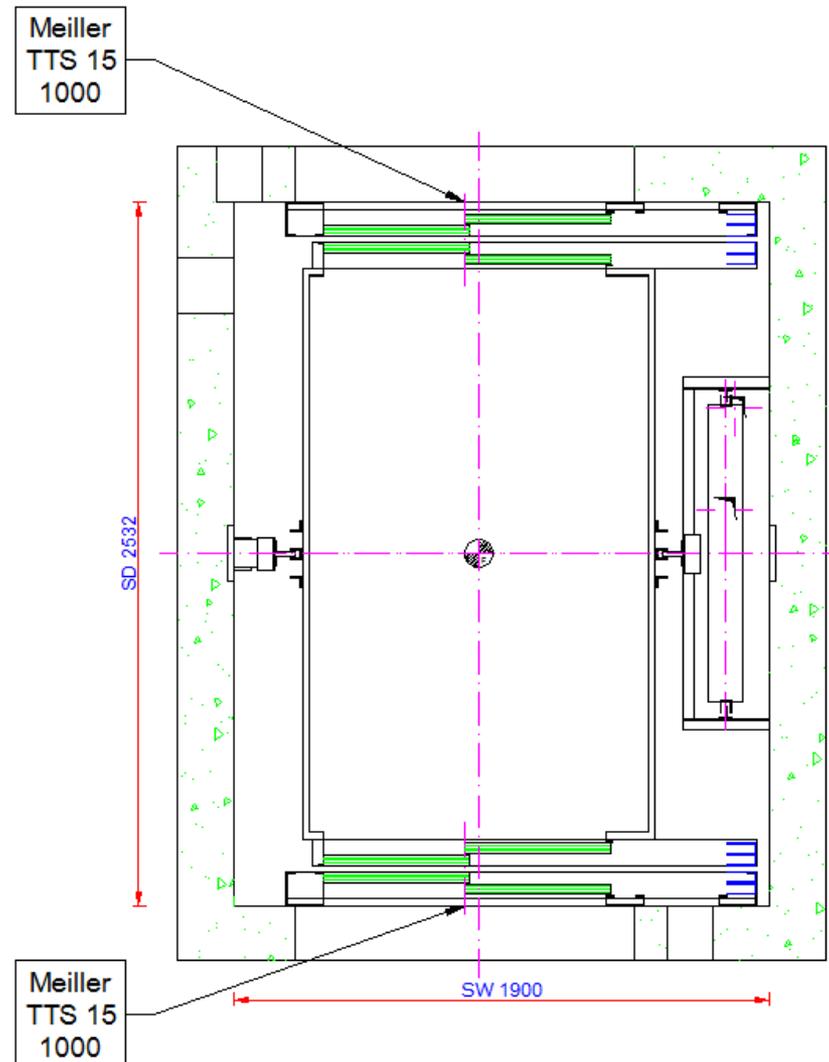
2. Adding a component annotation via the Text Editor dialog



1. Selecting the component



- Add a component annotation to the front and rear shaft door of the plan view:
 - Text height 3.5
- Save the project



Program Basics

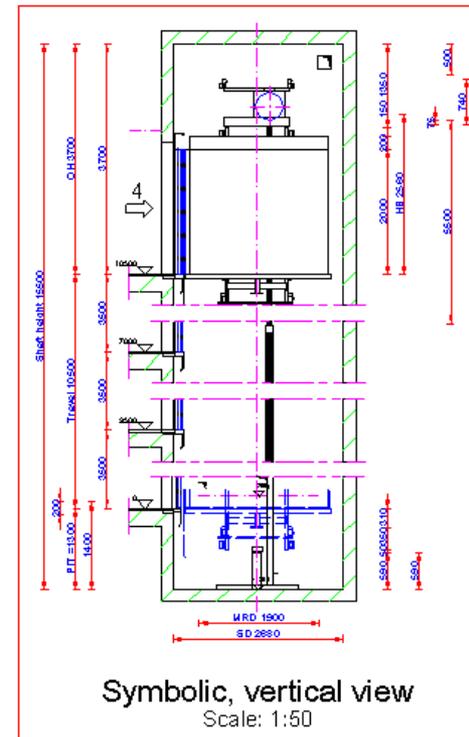
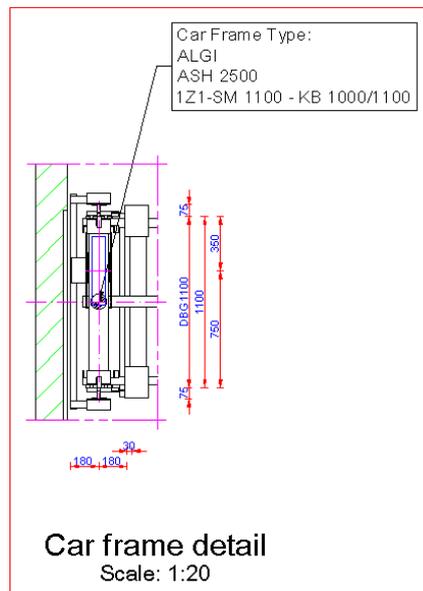
Special View Types

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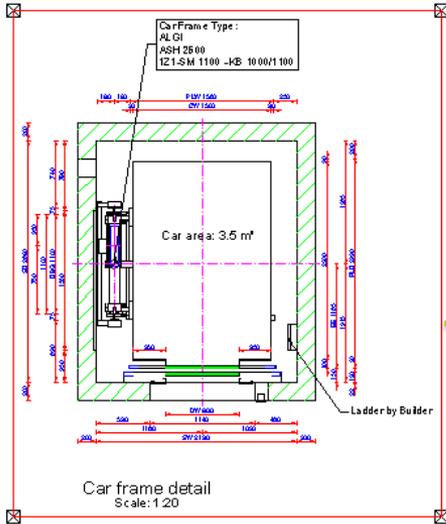
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- Detail section
- Symbolic, vertical sections

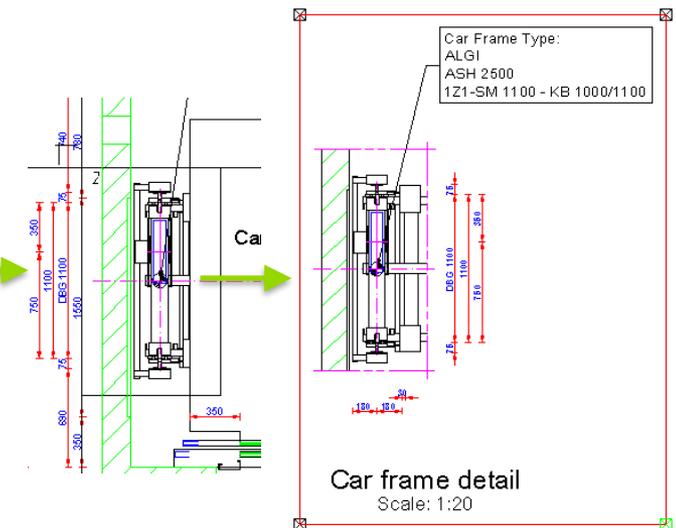
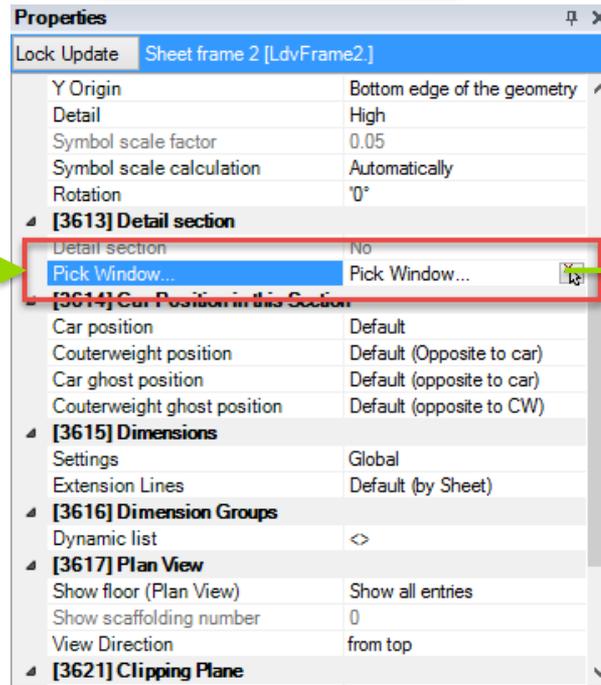


Special View Types - Detail Section

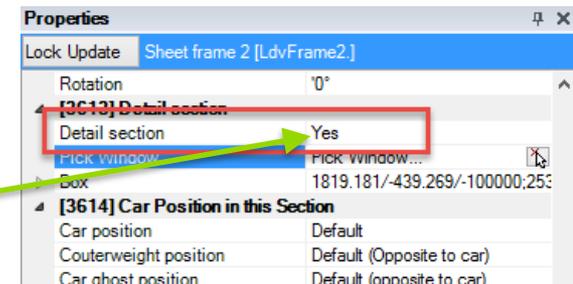
2. Specifying the section via the view frame **Pick Window** property



1. Selecting a view first

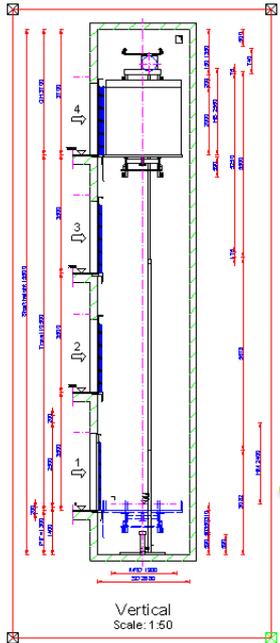


Note: The detail section mode can be reset via the view frame **Detail section** property



Special View Types - Symbolic Vertical Section

2. Changing the value of the view frame **Symbolic representation** property to Yes

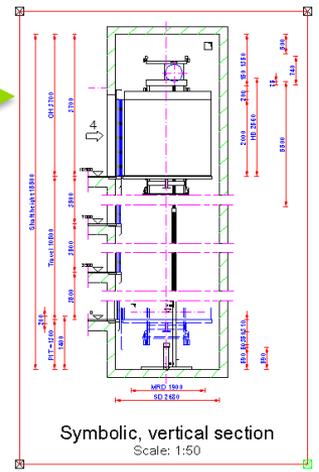


1. Selecting a vertical view first

Properties Sheet frame 3 [LdvFrame3.]

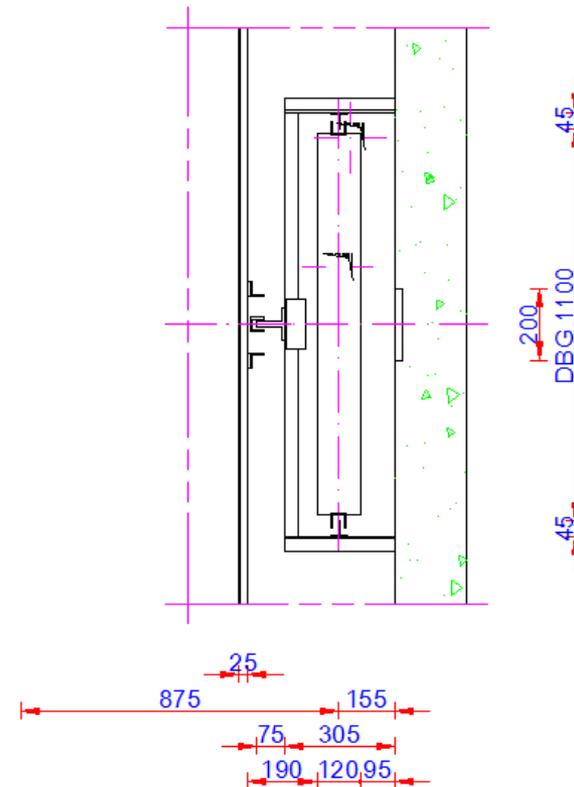
- [3614] Car Position in this Section**
 - Car position: Default
 - Couterweight position: Default (Opposite to car)
 - Car ghost position: Default (opposite to car)
 - Couterweight ghost position: Default (opposite to CW)
- [3615] Dimensions**
 - Settings: Global
 - Extension Lines: Default (by Sheet)
- [3616] Dimension Groups**
 - Dynamic list: <>
- [3618] Vertical Section**
 - Symbolic representation: **No** (dropdown arrow)
 - Upper visibility per floor [m]: 500
 - Lower visibility per floor [m]: 500
 - Distance between blocks [r]: 250
- [3621] Clipping Plane**
 - Car section clipping plane r: to the car center
 - Car section clipping plane d: 500
- [4210] Product Administration**
 - Object name: LDXSheetFrame, idSheetFra
- [4220] Developer**
 - Developer section: No
 - Developer name:

- [3615] Dimensions**
 - Settings: Global
 - Extension Lines: Default (by Sheet)
- [3616] Dimension Groups**
 - Dynamic list: <>
- [3618] Vertical Section**
 - Symbolic representation: Yes
 - Upper visibility per floor [mm]: 500
 - Lower visibility per floor [mm]: 500
 - Distance between blocks [mm]: 250
- [3621] Clipping Plane**
 - Car section clipping plane rela: to the car center
 - Car section clipping plane dist: 500
- [4210] Product Administration**
 - Object name: LDXSheetFrame, idSheet
- [4220] Developer**
 - Developer section: No
 - Developer name:



Changing the **Upper and Lower visibility per floor** and the distance btw. the vertical section blocks

- Add a rail bracket detail section to the My Views sheet
 - Copy the existing plan view
 - Create the detail section
 - Change the view description
- Save the project



Rail Bracket Detail
Scale: 1:20

Level of Development - LOD

General

5/14/2019



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LOD – Level of Development

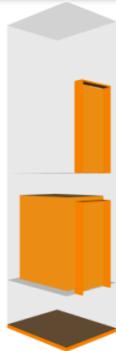
LOD 100	LOD 200	LOD 300	LOD 350	LOD 400	LOD 450	LOD 500	LOD MAX
LOD 100	LOD 200	LOD 300	LOD 350	LOD 400	LOD 450	LOD 500	LOD MAX
Level of Development (LOD)							

LOD 100



Very early stage of planning

LOD 200



Information about stops and height

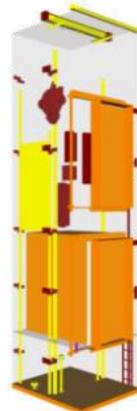
Overall dimensions of cabin and door required

LOD 300



Choose and place manufacturer products

LOD 350



Supplier specific information

Select elevator supplier

LOD 400



All connections, brackets u.a. complementary components

LOD 500

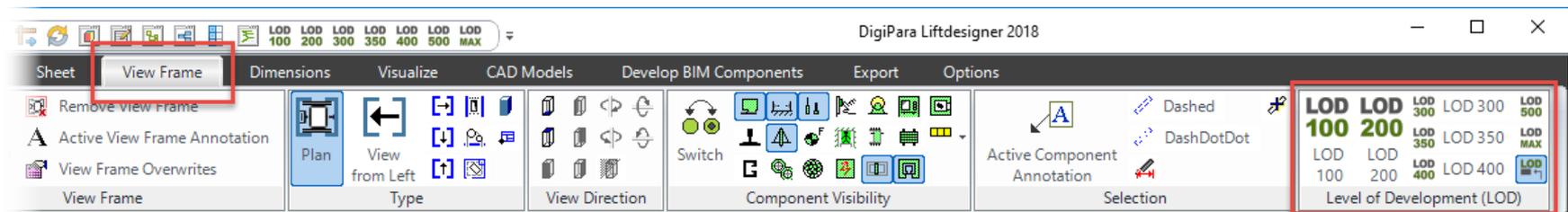
The model elements are a verified representation in terms of size, shape, location, quantity and orientation

LOD MAX

No official LOD level!

Model with maximum details for the DigiPara BIM exchange

- The LOD (Level of Development) for the entire project, including all view frames, is set under the View Frame tab:



Setting for all sheets [Sheets.]

Level of Development - LOD

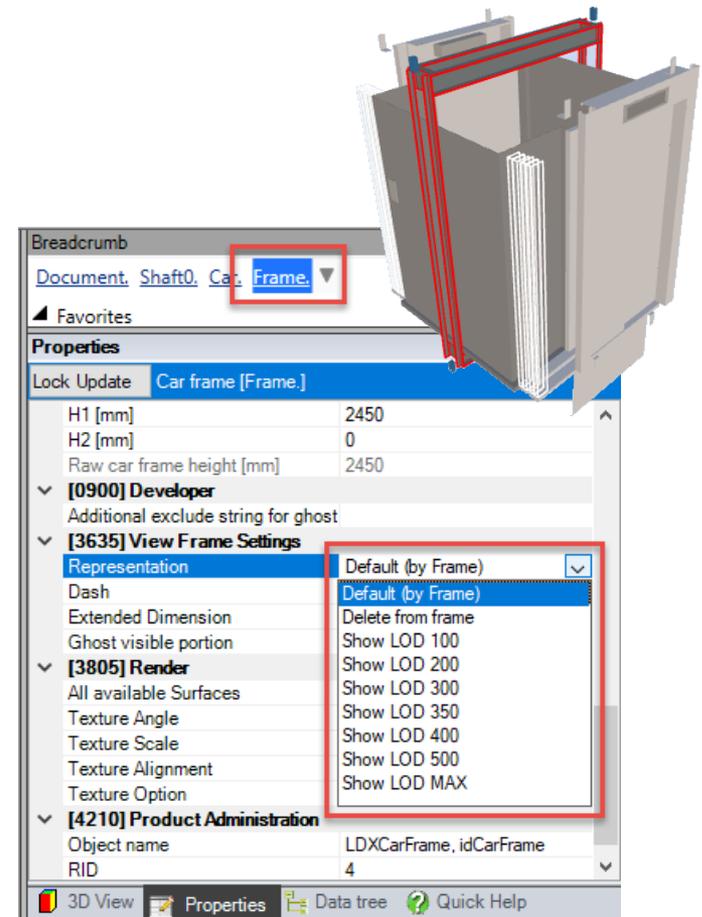
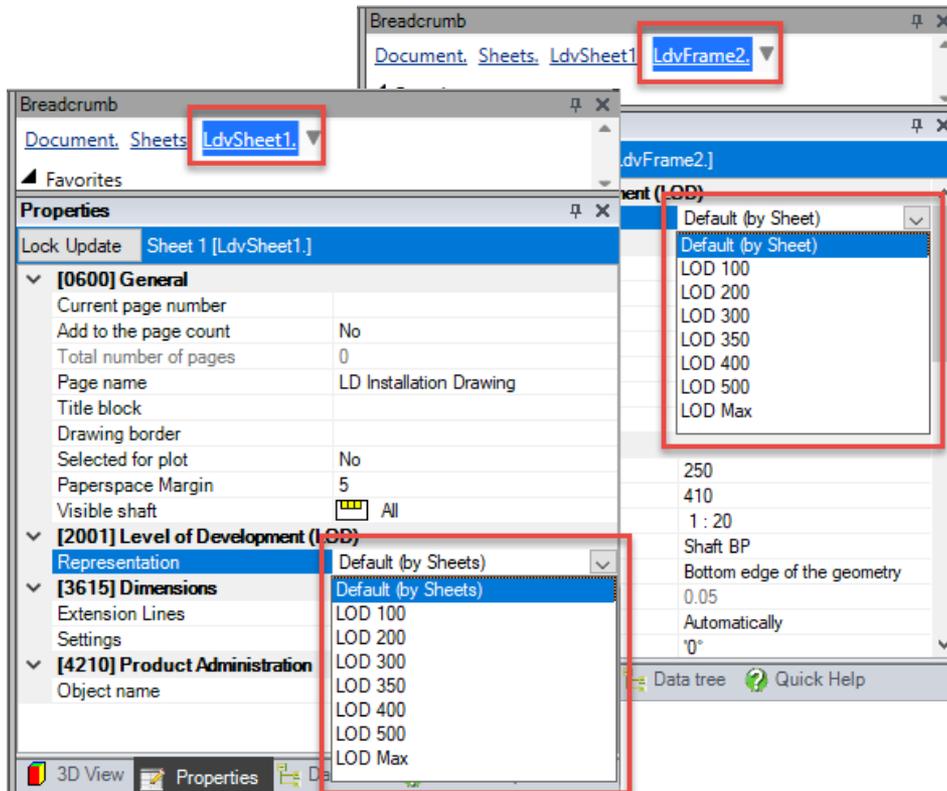
Individual Settings

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- Individual LOD settings can be defined for every:
 - single Sheet [LdvSheet*.]
 - single View Frame[LdvFrame*.]
 - single BIM Components or list objects



2D Drawing Export

General

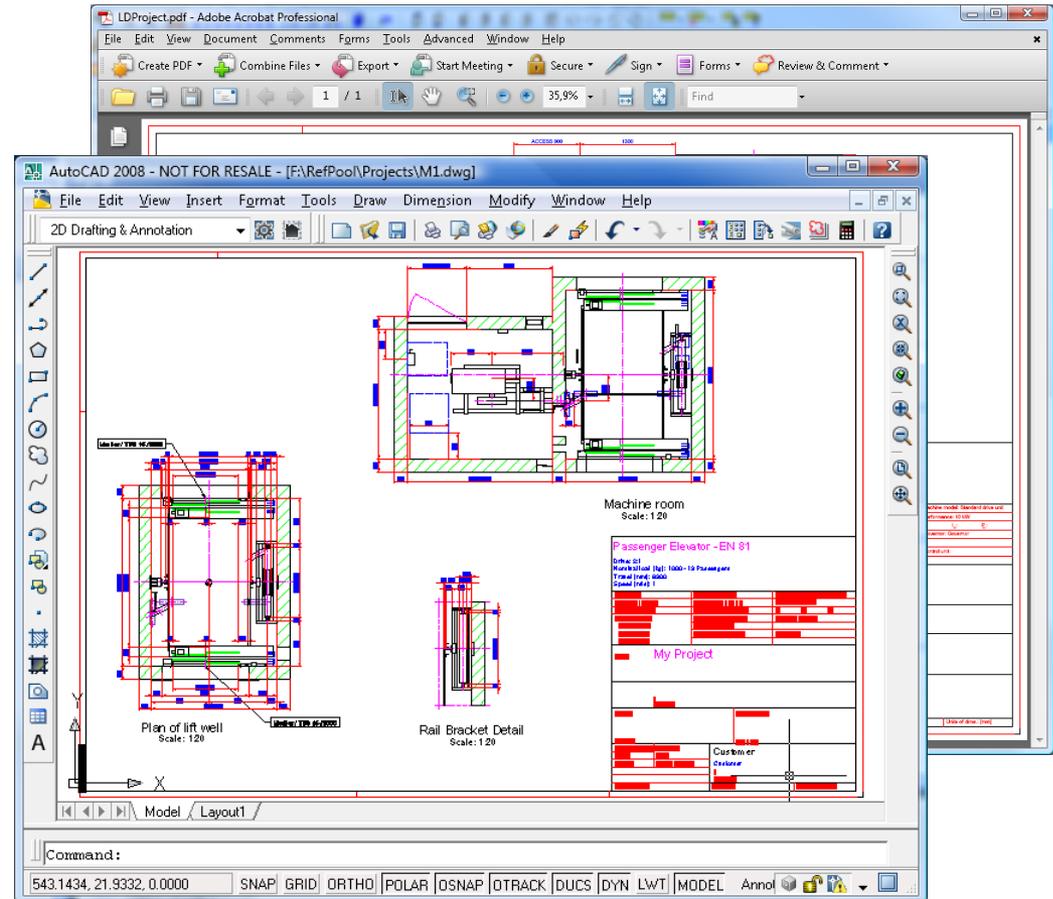
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- DigiPara Liftdesigner supports e.g. the following 2D drawing output formats:

- DWG
- PDF
- Etc.



2D Drawing Export

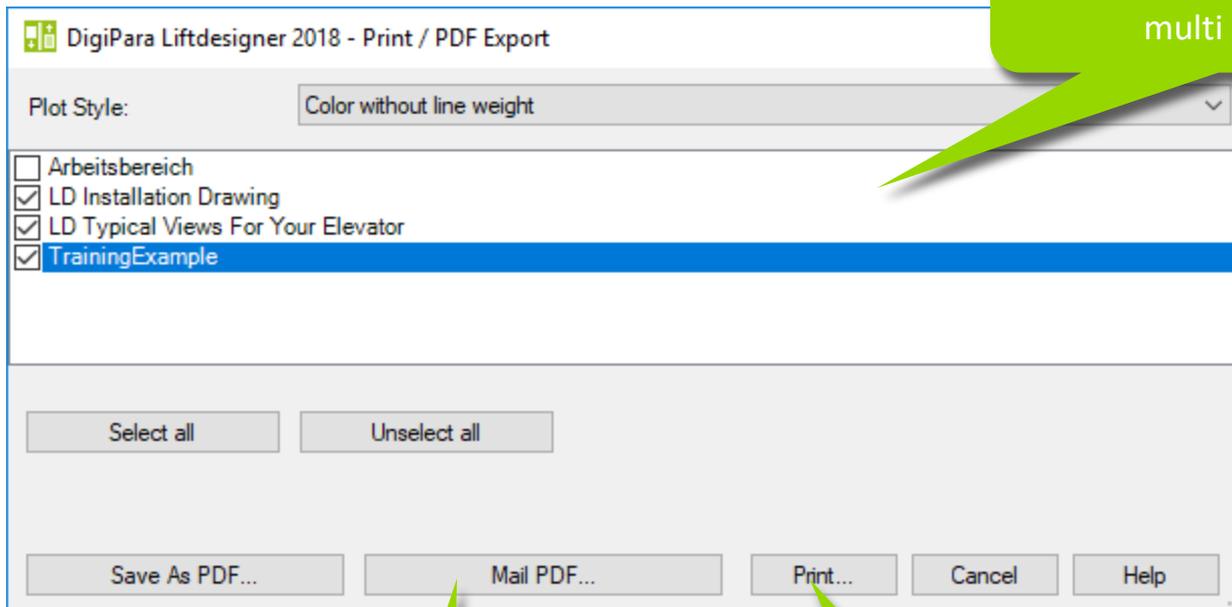
PDF & DWG

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- Via the **Export PDF** dialog

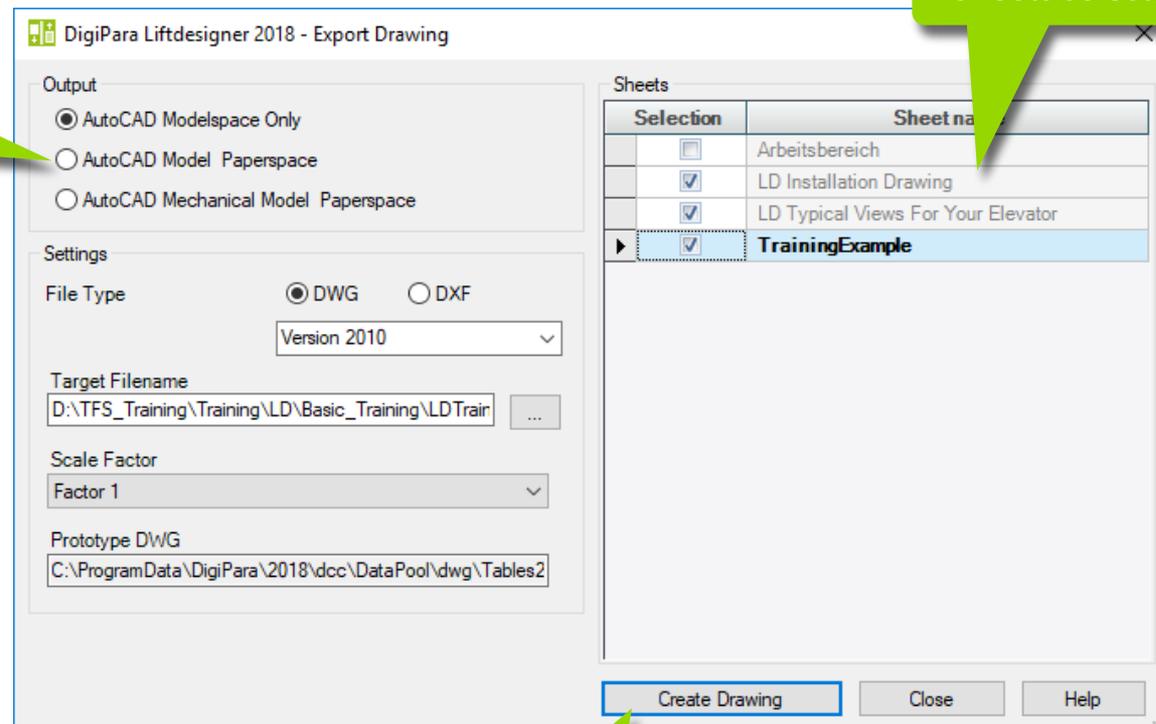


Sheets selection. Selecting more than 1 sheet autom. creates a multi sheet PDF

Additional Options

Create the PDF document

- Via the **Export Drawing** dialog



Select the output format

Sheets selection

Create the DWG file

- Export the **My Views** sheet, added to the **LDTrainingSample.Id3** project before, to Autocad, using the **Model-/ Paper space** output option.

Dimensions

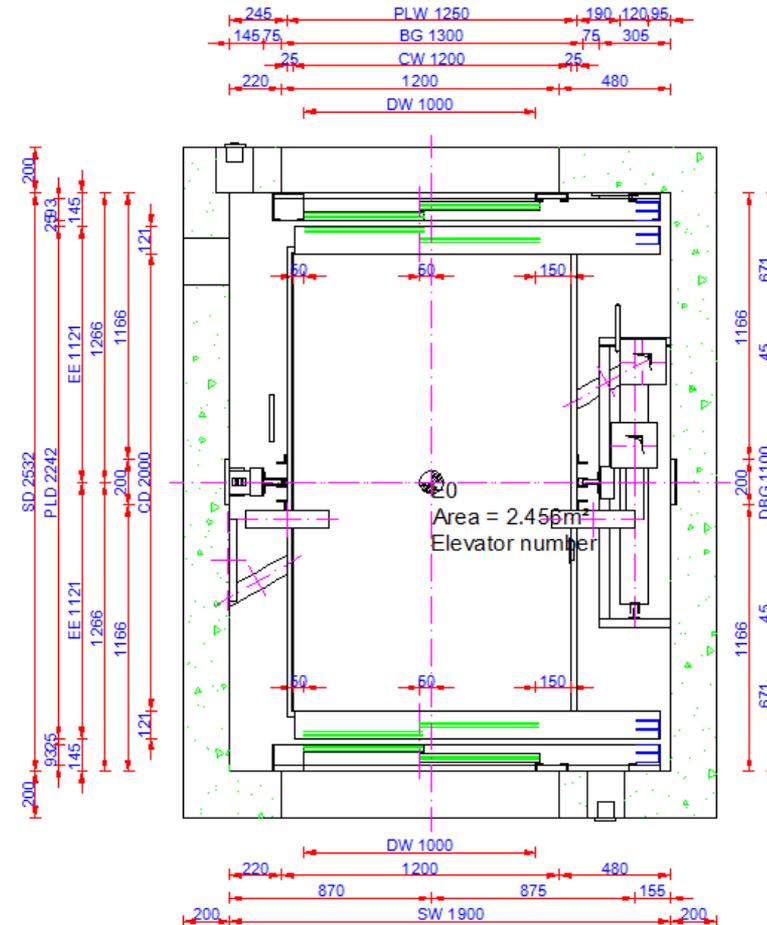
General

5/14/2019



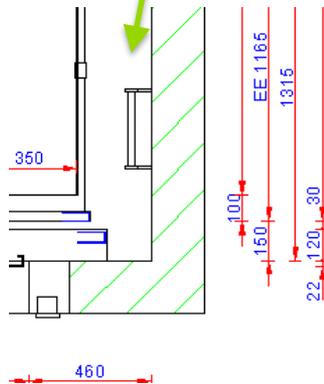
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- Standard view frame dimensions
 - Dimension which are displayed by default in a new view frame
- Extended component dimensions

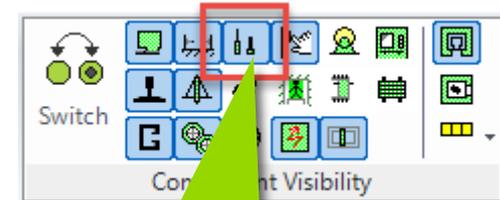
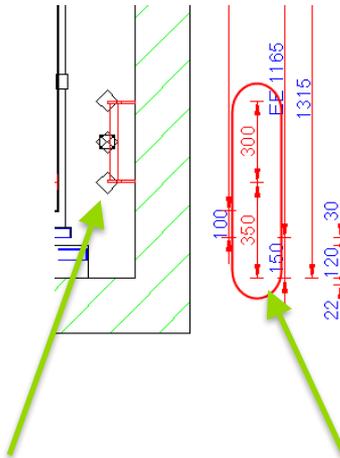


- Extended component dimensions
 - Are displayed temporarily when selecting a component
 - Can be made visible permanently via the Show Extended Component Dimensions item in the View frame tab → Selection group

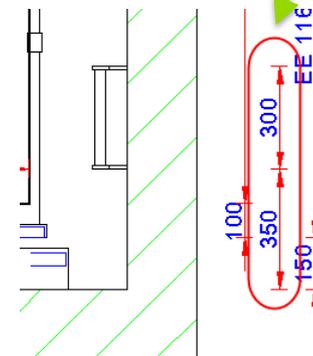
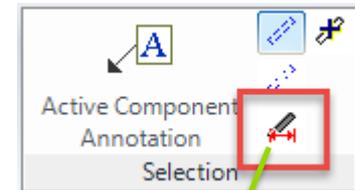
Extended pit ladder dimensions



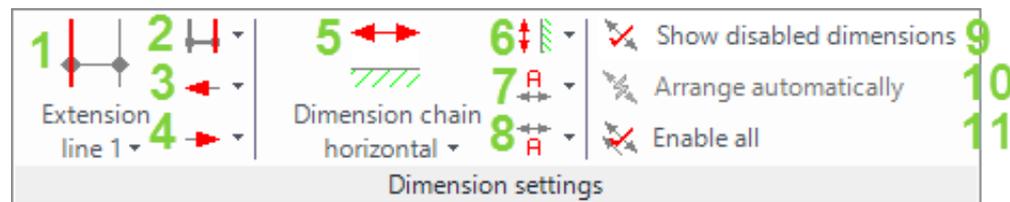
Activating extended component dimensions by clicking on the corresponding component



Dimension visibility for pit components needs to be on.

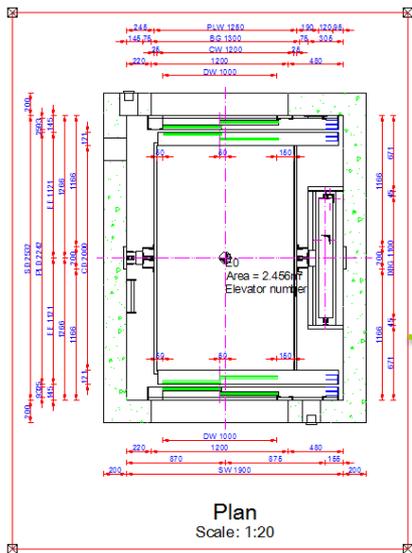


- Dimension settings
 - Provides dimension layout specific operations



1. Change the first dimension extension line
2. Change the first dimension extension line
3. Change the first arrowhead symbol
4. Change the second arrowhead symbol
5. Change the vertical position of the selected
6. Change the horizontal position of the selected dimension / dimensions
7. Change the horizontal dimension text position
8. Change the vertical dimension text position
9. Show disabled / switched off dimensions
10. Reset the selected dimension arrangement
11. Activate all dimensions

- Dimension text heights and dimension chain distances can be edited via the properties of
 - the selected view frame
 - or sheets



Breadcrumb: Document, Sheets, LdvSheet1, LdvFrame5

Properties: Sheet frame 5 [LdvFrame5]

Detail section	No
Pick Window...	Pick Window...
[3614] Vertical Positions in this Section	
Car position	Default
Car ghost position	Default (opposite to car)
Counterweight position	Default (Opposite to car)
Counterweight ghost position	Default (opposite to CW)
[3615] Dimensions	
Settings	Global
Extension Lines	Global
[3616] Dimension Groups	
Dynamic list	
[3617] Plan View	
Show floor (Plan View)	Show all entries
Show scaffolding number	0
View Direction	from top

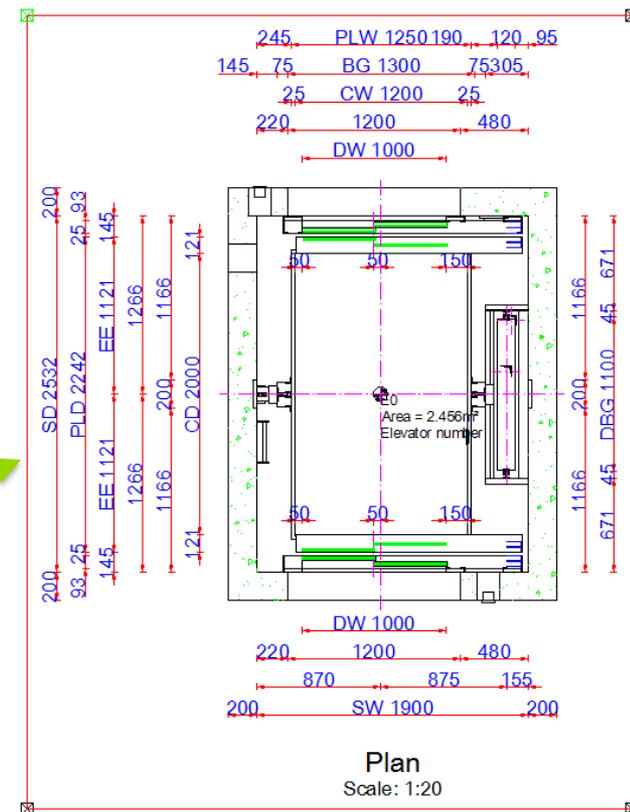
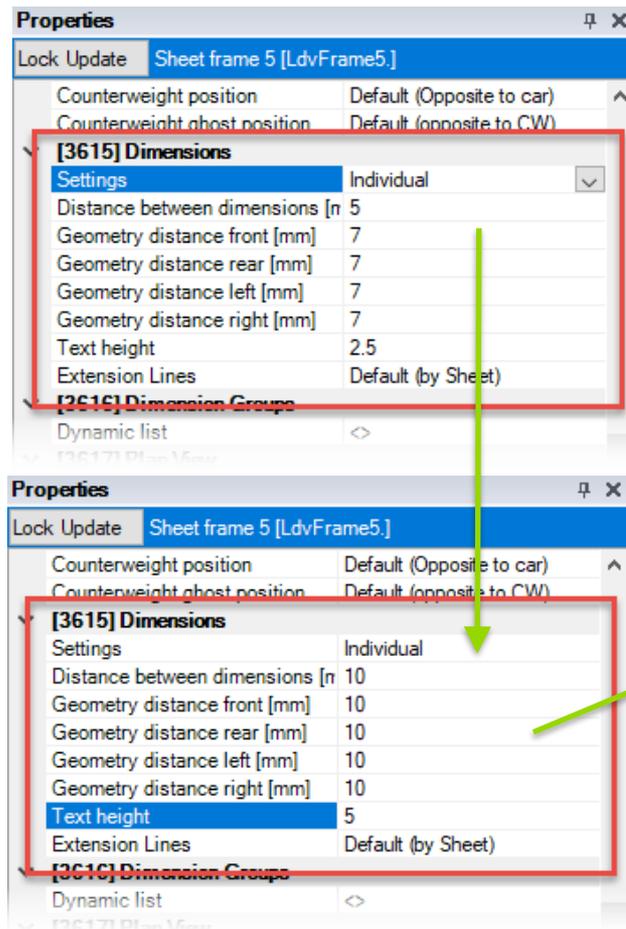
Switching the Dimensions → Settings property value into Individual first

Breadcrumb: Document, Sheets

Properties: Sheets [Sheets.]

[0000] Project Units	
Dimension Unit	Metric
Unit length	mm
Rounding	# 1 mm
Project unit	Metric
[0100] Settings	
Drawing Language	English - United States - [1033]
Secondary Drawing Language	German - Standard - [1031]
Plot style name	Color without line weight
Prototype DWG name	D:_LD_Pools\2018\Translation
Layer group name	Autocad 2000 Metric
View mode	Print Mode
[2001] Level of Development (LOD)	
Representation	LOD 400
Max. Occurrence Display Mode	Polygons
[3615] Dimensions	
Extension Lines	Port
Settings	Default (by Prototype DWG)
[4210] Product Administration	
Object name	Individual
	Default (by Prototype DWG)

- Dimension text heights and dimension chain distances
 - Adapting the values via the corresponding properties



Dimensions

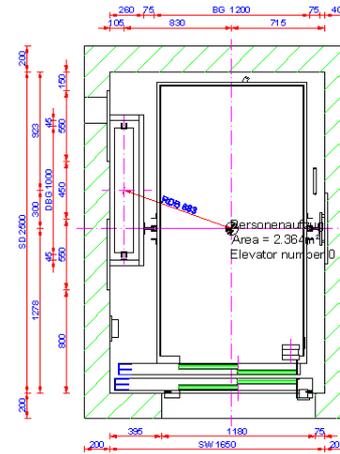
Properties

5/14/2019



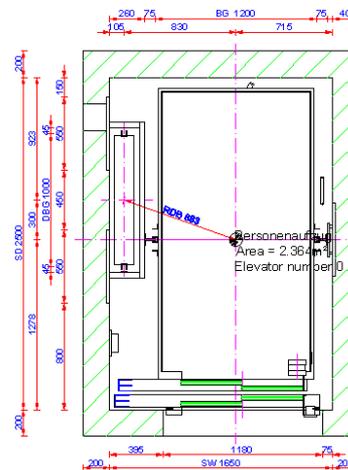
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- Are displayed by clicking on a dimension in the drawing



Properties	
Lock Update	AR_WALL_DIST = 1002.5
[0495] General	
Value [mm]	1002.5
[3635] View Frame Settings	
Dimension-ID	184
Prefix (related to frame)	
Dimension chain	Automatically
Dimension chain Left / Right	Automatically
Enabled	Yes
Dimension Text hor.	Centered
Dimension Text ver.	Default
Extension line 1st	Default (by Frame)
Extension line 2nd	Default (by Frame)
Arrowhead 1st	ByDimstyle (LIFT)
Arrowhead 2nd	ByDimstyle (LIFT)
Additional dimension display options	<input type="checkbox"/> Default
Move	0/0/0

- When selecting more than one dimensions, only layout specific properties will be displayed



Properties	
Lock Update	Multi selection (3)
Misc	
Dimension-ID	184
Dimension Group	0
Prefix	
Prefix (related to frame)	
Dimension chain description	
Dimension chain	Automatically
Dimension chain Left / Right	Automatically
Enabled	Yes
Dimension Text hor.	Centered
Dimension Text ver.	Default
Extension line 1st	Default (by Frame)
Extension line 2nd	Default (by Frame)
Arrowhead 1st	ByDimstyle (LIFT)
Arrowhead 2nd	ByDimstyle (LIFT)
Additional dimension display options	<input type="checkbox"/>
Move	

- The dimension alignment is determined by dimension ID's

Each dimension ID can be changed individually

Chain 3 dimension ID

Chain 2 dimension ID

Chain 1 dimension ID

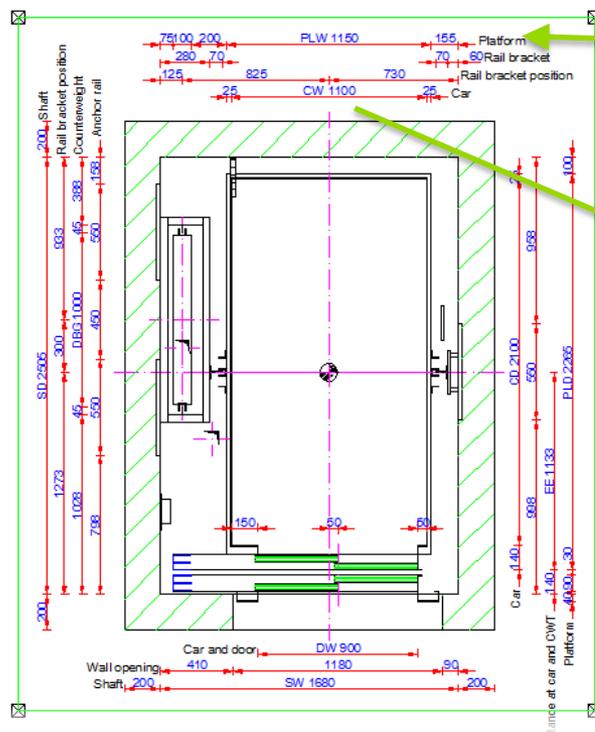
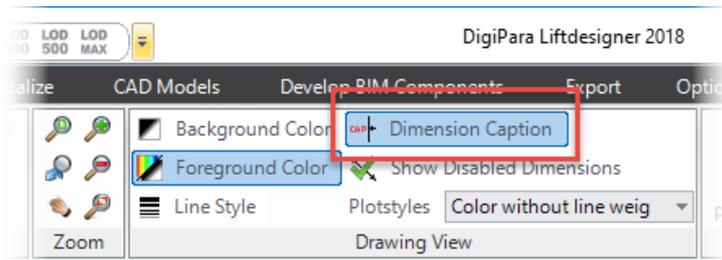
Chain 4 dimension ID

The image shows a technical drawing of an elevator shaft with four dimension lines labeled 1, 2, 3, and 4. Each dimension line is linked to a specific 'Properties' window. The 'Properties' windows show the 'View Frame Settings' section where the 'Dimension-ID' is set for each chain:

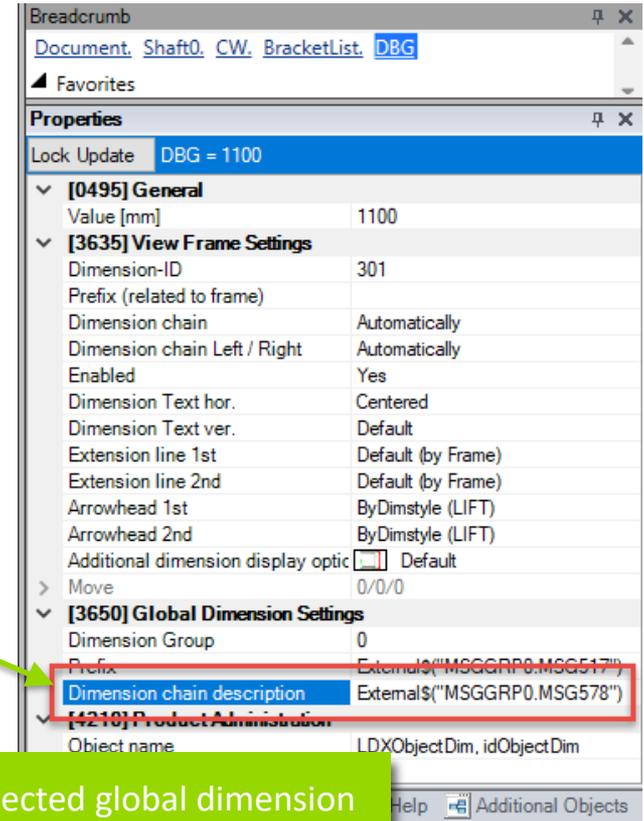
- Chain 1 (ID 184):** Dimension-ID (184) = 183
- Chain 2 (ID 301):** Dimension-ID = 301
- Chain 3 (ID 303):** Dimension-ID (304) = 303
- Chain 4 (ID 30000):** Dimension-ID = 30000

Other properties shown include 'Value [mm]' (1000, 1277.5, 200, 800) and 'Lock Update' (DBG = 1000, Y0 = 1277.5, W_2 = 200, AR_WALL_DIST = 800).

Dimension chain description

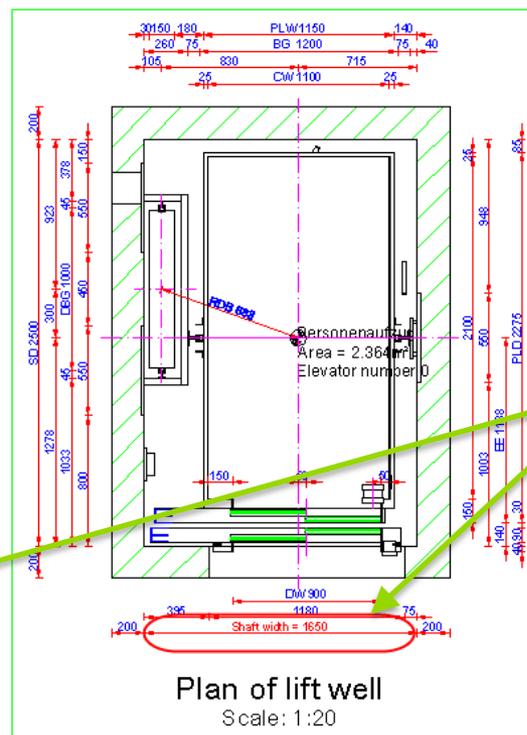
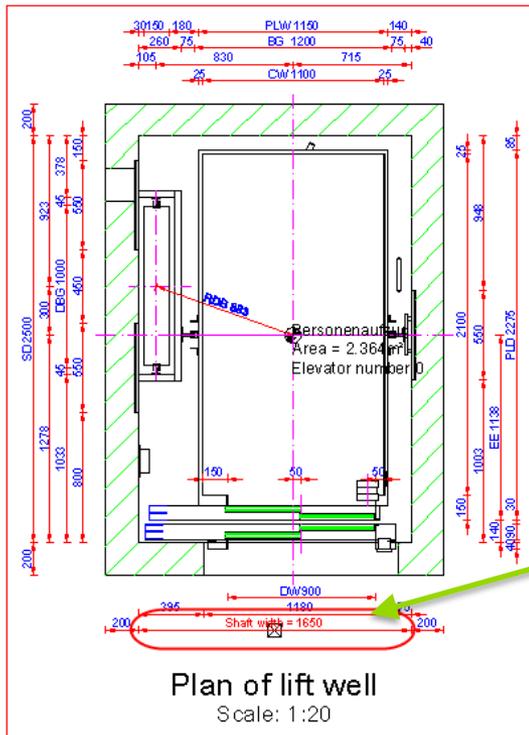


Dimension caption visible in the print mode.



The selected global dimension chain description will be changed in all views and all other projects (new as well as old projects)

- Adding or changing the global dimension prefix (not recommended)



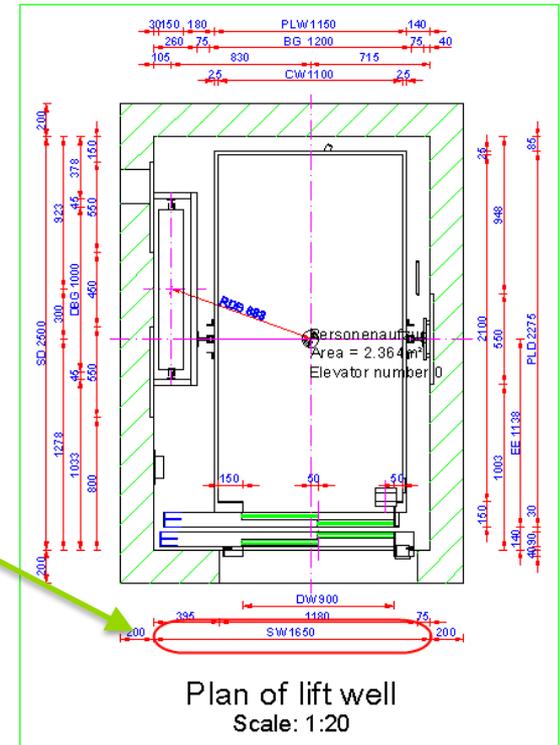
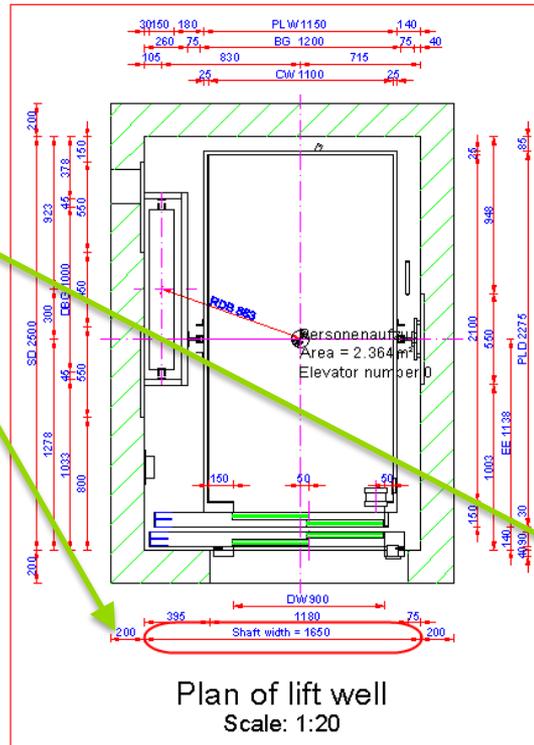
Lock Update WIDTH = 1650	
Right distance counterweight / wal	140
Resulting shaft width [mm]	1650
[0495] General	
Value [mm]	1650
[3635] View Frame Settings	
Dimension-ID	30000
Prefix (related to frame)	
Dimension chain	Automatically
Dimension chain Left / Right	Automatically
Enabled	Yes
Dimension Text hor.	Centered
Dimension Text ver.	Default
Extension line 1st	Standard
Extension line 2nd	Standard
Arrowhead 1st	ByDimstyle (LIFT)
Arrowhead 2nd	ByDimstyle (LIFT)
Additional dimension display optio	<input type="checkbox"/> Default
Move	0/0/0
[3650] Global Dimension Settings	
Dimension Group	0
Prefix	Shaft width =
Dimension chain description	External3("M3GGRP0.M3G578")
[4210] Product Administration	
Object name	LDXObjectDim_idObjectDim

The selected global dimension prefix will be changed in all views and all other projects (new as well as old projects)

- Adding or changing the local, view frame related, dimension prefix (recommended)

Frame related prefixes affect the selected dimension in the current view frame only

Lock Update	WIDTH = 1650
Right distance counterweight / wal	140
Resulting shaft width [mm]	1650
[0495] General	
Value [mm]	1650
[3635] View Frame Settings	
Dimension ID	30000
Prefix (related to frame)	Shaft width =
Dimension chain	Automatically
Dimension chain Left / Right	Automatically
Enabled	Yes
Dimension Text hor.	Centered
Dimension Text ver.	Default
Extension line 1st	Standard
Extension line 2nd	Standard
Arrowhead 1st	ByDimstyle (LIFT)
Arrowhead 2nd	ByDimstyle (LIFT)
Additional dimension display optio	<input type="checkbox"/> Default
Move	0/0/0
[3650] Global Dimension Settings	
Dimension Group	0
Prefix	External\$("MSGGRP0.MSG518")
Dimension chain description	External\$("MSGGRP0.MSG576")
[4210] Product Administration	
Object name	LDXObjectDim, idObjectDim



- Special Prefix Options

- Using a prefix and / or suffix:

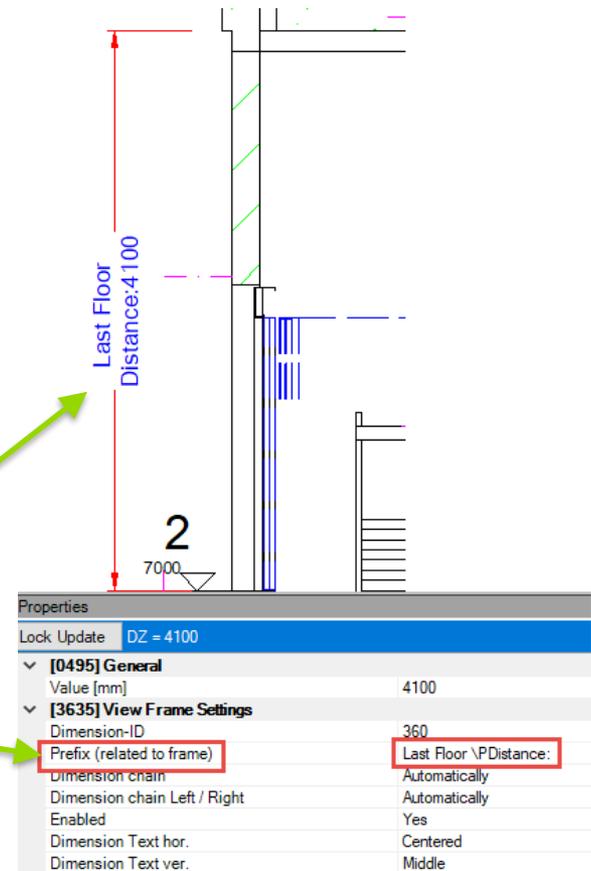
Add the following sequence : Prefix <> Suffix

- Hiding the dimension value:

Add the prefix sequence: <!>

- Add a row to the one under the other:

Add between two the texts: \P

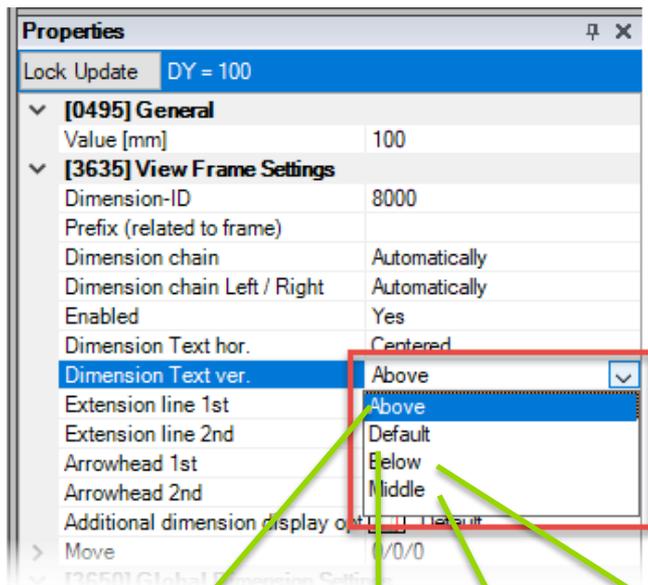


Properties	
Lock Update	DZ = 4100
▼ [0495] General	
Value [mm]	4100
▼ [3635] View Frame Settings	
Dimension-ID	360
Prefix (related to frame)	Last Floor \PDistance:
Dimension chain	Automatically
Dimension chain Left / Right	Automatically
Enabled	Yes
Dimension Text hor.	Centered
Dimension Text ver.	Middle

- Replacing the dimension value with any other expression:

Add the following sequence: <!> Any Expression

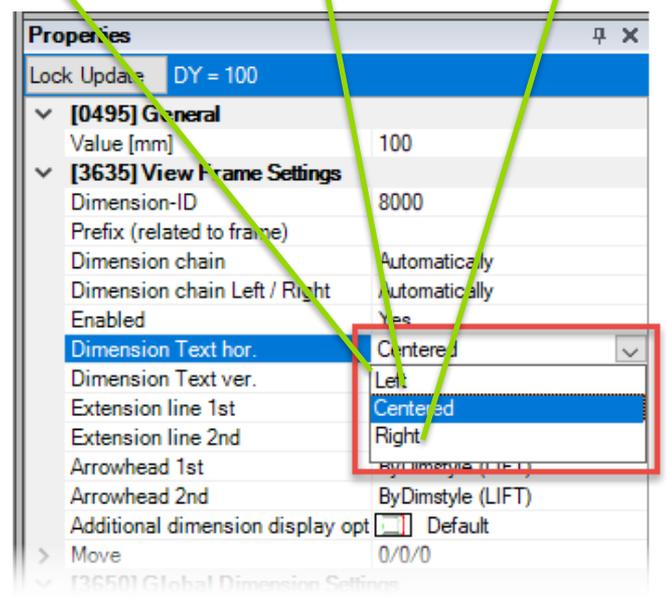
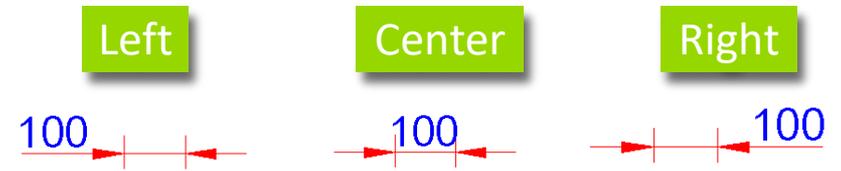
- Aligning the dimension text vertically and horizontally



Above Default Middle Below

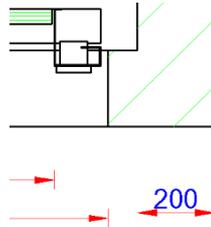


The dimension text alignment can be configured individually per dimension

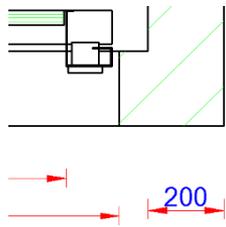


Dimension Extension Lines

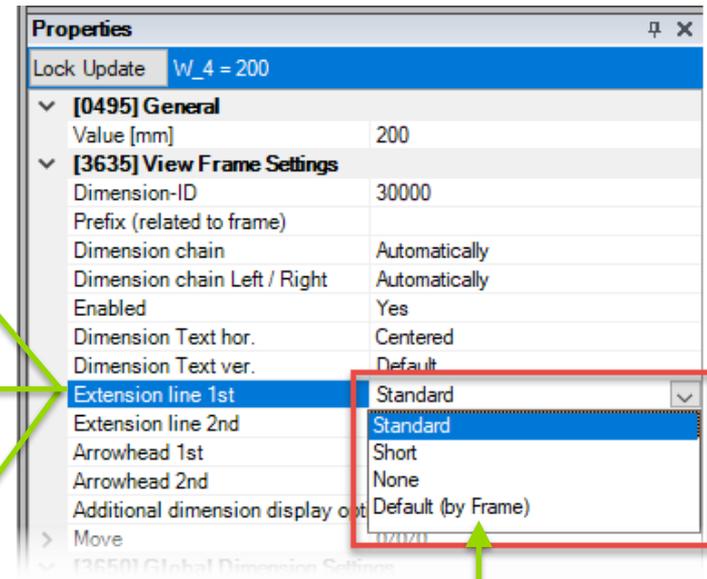
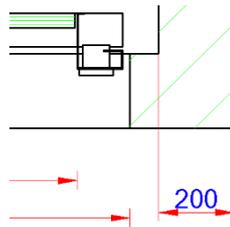
None



Short



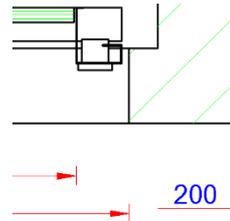
Standard



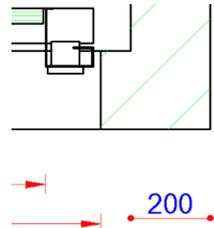
Extension lines can be set as whole via the properties of the view frame or the sheet. (Default)

■ Arrowheads

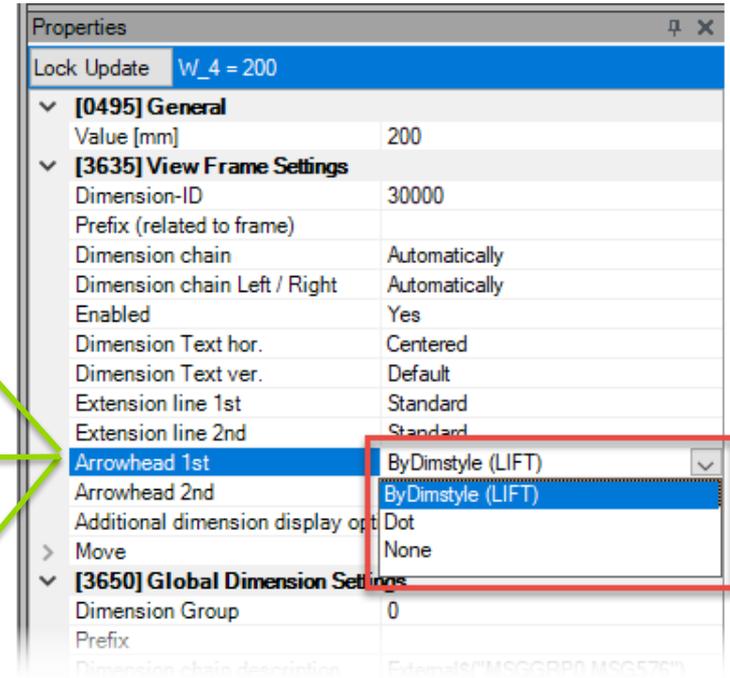
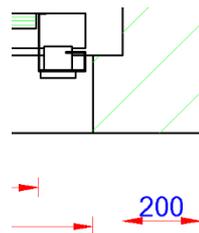
■ None



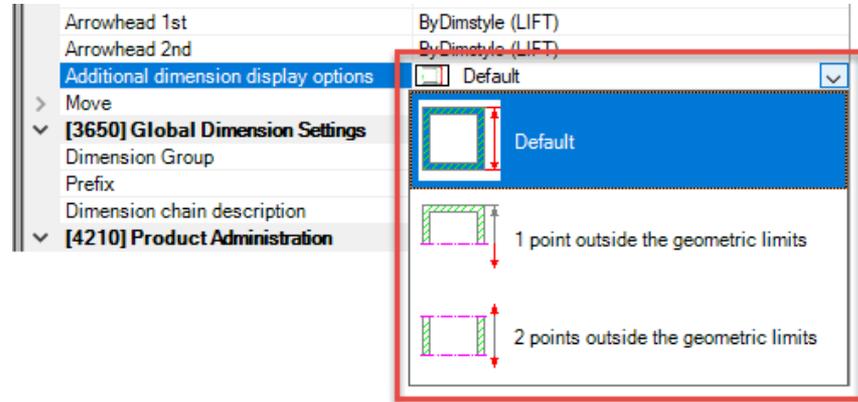
■ Dots



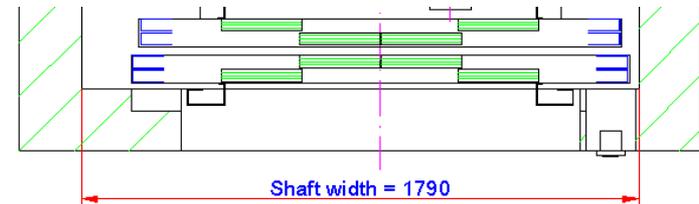
■ Standard (ByDimStyle)



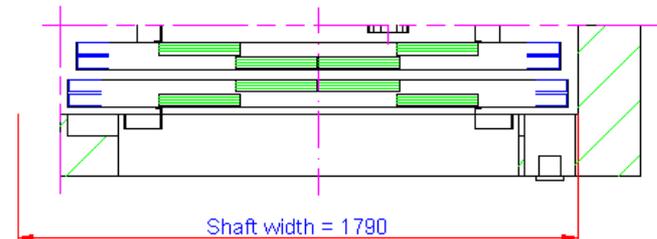
- Additional dimension display options (for detail sections)



- Default:
 - Both edges of the geometry, the dimension refers to, are visible

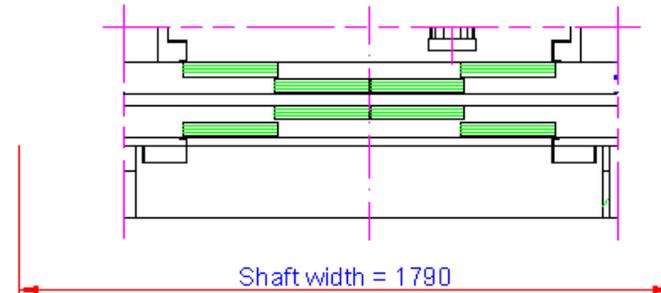


- 1 point out:
 - Only one edge of the geometry, the dimension refers to, is visible (detail section view)



- Additional dimension display options

- 2 points out:
 - Non of the geometry edges, the dimension refers to, is visible (detail section view)



- Hint:
 - The display option for the corresponding dimension must be selected, before the detail section gets created

Dimensions

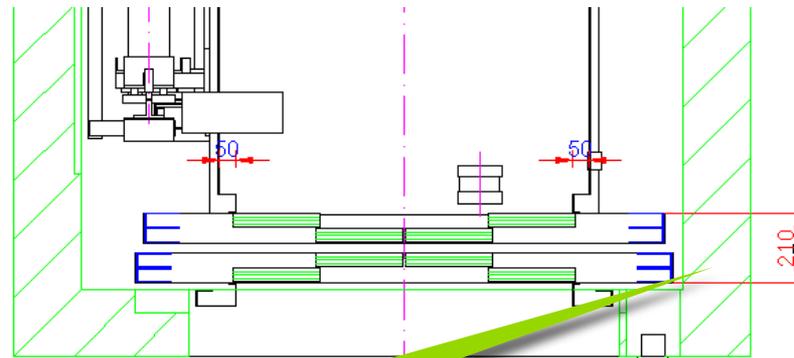
Dynamic Dimensions

5/14/2019



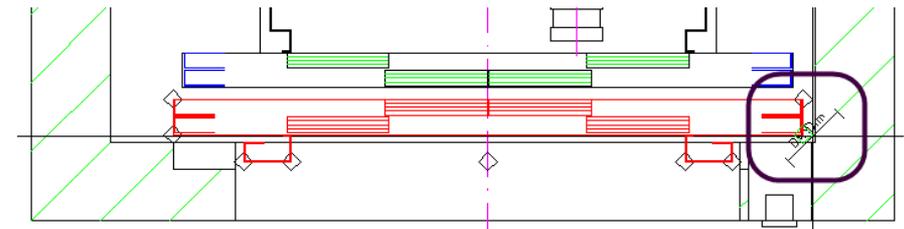
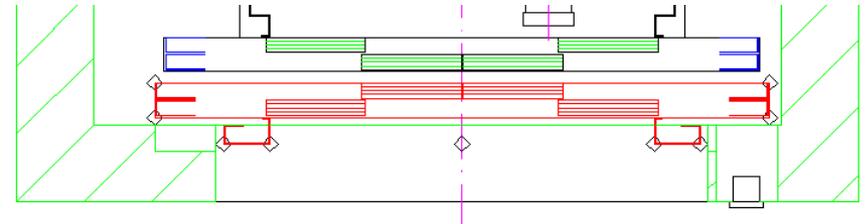
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- Can be customized individually
- Are DigiPara Lift designer non standard dimensions
- Do not influence the 3D data model

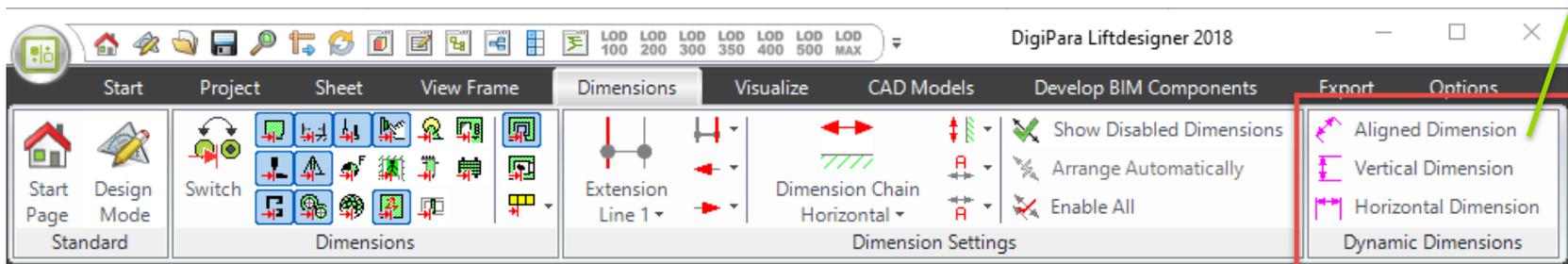
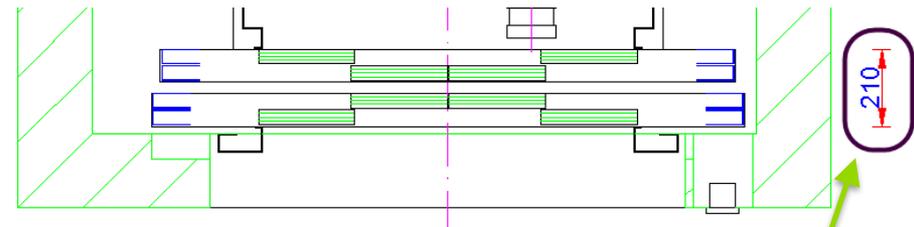
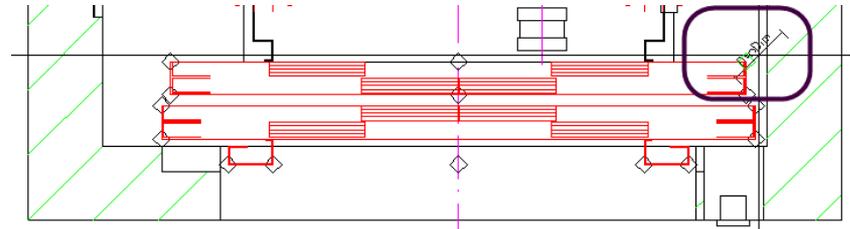


The width of the door package is not a default DigiPara Lift designer dimension

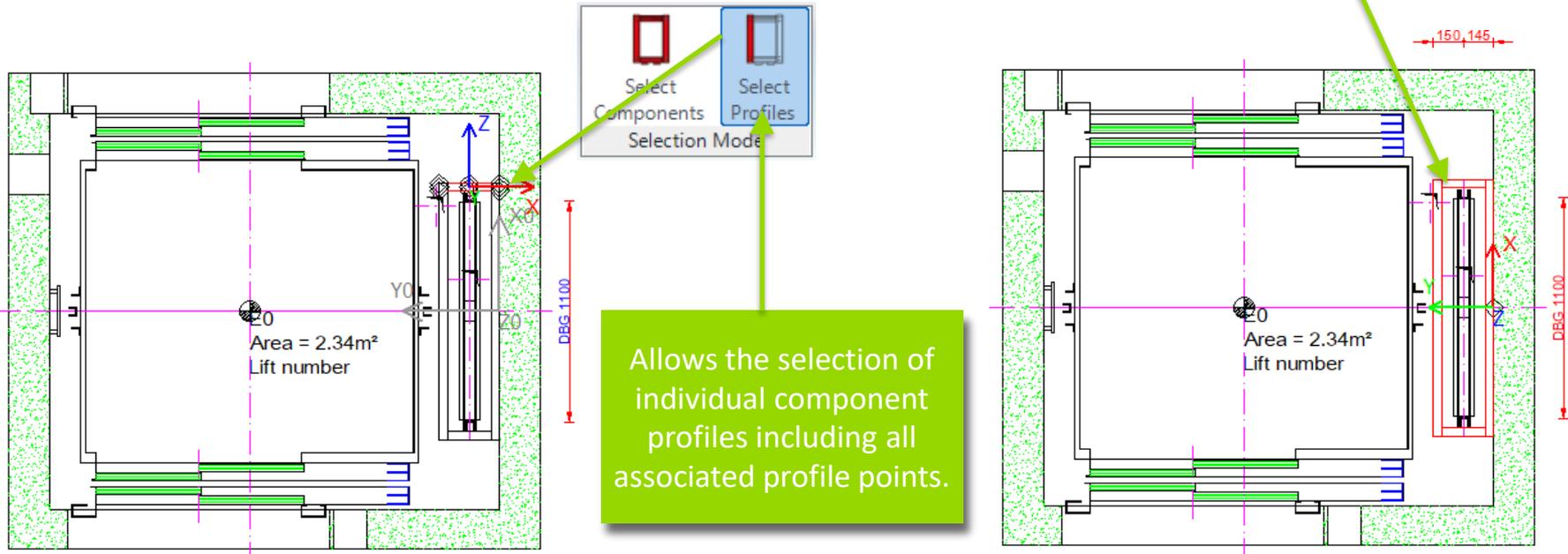
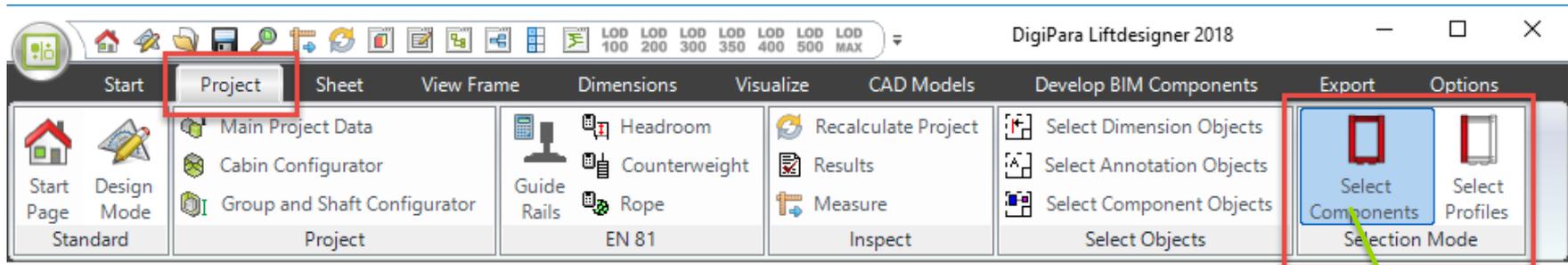
- Creating a dynamic dimension
- Select a component to specify the first dimension point.
- Move the mouse cursor over one of the dimension points until the cursor text changes to **DynDim** and click on the left mouse button to select this point.



- Click and hold the Ctrl key on the keyboard to select a second component. Afterwards release the Ctrl key. Next repeat the steps described under step 2 once again.
- The buttons in the Dynamic Dimensions group is now enabled. Click on one of the buttons to create either a horizontal, vertical or an aligned dimension.



■ Selection Mode



- Create a new sheet including a Plan View, 2 Entrance Views (1 from the front, 1 from the side) and a Machine Room View:
- Views:
 - Reorganize the dimension chains by using the dimension ID's
 - Remove unnecessary dimensions
 - Adapt dimension extension lines and dimension arrows
 - Align dimension chains horizontally and vertically
 - Change local dimension prefixes if necessary
 - Create your own dynamic dimensions

Practical Examples

General

5/14/2019

The next slides provide some typical, non specific examples



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- Rail Bracket Fixing Options
- Entrance Pocket
- Additional Sill Options
- Car Balustrade
- Assembly Platforms

Practical Examples

General – Rail Bracket Fixing Options

5/14/2019



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- Can be changed via the **Rail brackets list**

The image shows a technical drawing of a rail bracket with various dimensions. A green arrow points from the drawing to the 'BracketList' dropdown in the software's breadcrumb window. The breadcrumb window shows the path: Document: Shaft0, CW, BracketList, Bracket0. The Properties window shows the following data:

Lock	Update	Bracket 0 [Bracket0.]
[0001]	Design	<>
[0010] Tools	Component state	Active
[0020] General	Manufacturer	Common components
	Designation	Rail bracket for self-construction
	Type	CWT and car guides
[0022] Project Level Geometry Information	Create Geometry	By parent
	Create Geometry status	Create
[0195] Grouping	Grouping	Modify with group
[0420] Z - Position	Distance to pit / previous bracket	1000
[3635] View Frame Settings	Representation	Default (by Frame)
	Dash	No
	Extended Dimension	No
[3805] Render	All available Surfaces	2
[4210] Product Administration	Object name	LDXRailBracket, idRailBracket
	RID	9

The **Rail brackets** properties can be displayed by selecting a single bracket in the drawing and selecting the **Rail brackets** object via the **Breadcrumb** window afterwards.

The breadcrumb window shows the path: Document: Shaft0, CW, BracketList. The Properties window shows the following data:

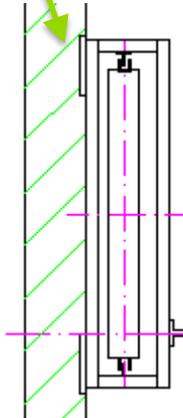
Lock	Update	Rail brackets [BracketList.]
[0020] General	Manufacturer	Common components
	Designation	Rail bracket for self-construction
	Type	CWT and car guides
[0022] Project Level Geometry Information	Create Geometry	By parent
	Create Geometry status	Create
[0415] Fixing Options	Anchor Rails	One
	Place automatically	Yes
	Determines number automatically	No
	Rail Bracket Type	Concrete
	Separator Beam	No
[0416] Number and Spacing	Set up rail brackets quantity	Automatically
	Count	12
	Maximum Guide Rail Projection [r	500
	Distance to guide rail end [mm]	400
[3635] View Frame Settings	Representation	Default (by Frame)
	Dash	No
	Extended Dimension	No

- Different Fixing Options

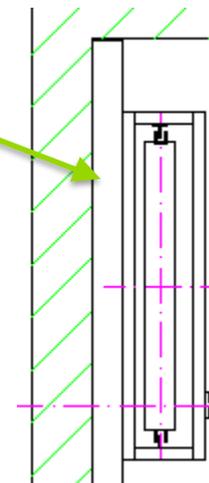
[0415] Fixing Options	
Anchor Rails	None
Place automatically	No
Determines number automa	No
Rail Bracket Type	Steel
Separator Beam	Yes



1 Anchor Rail



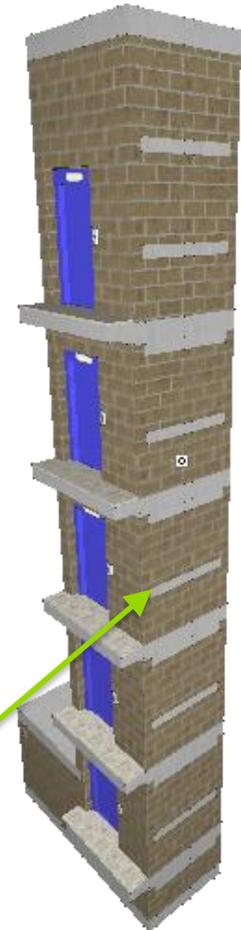
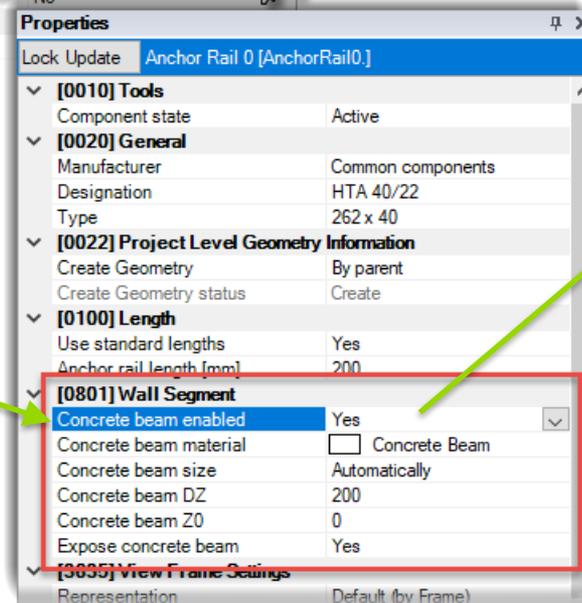
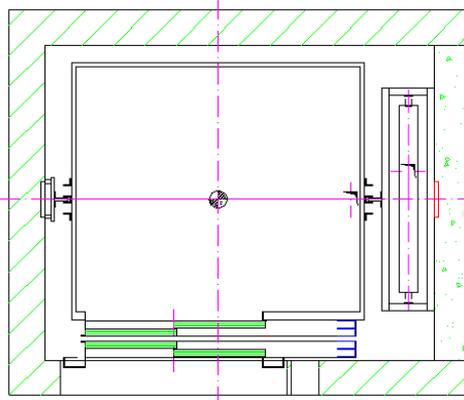
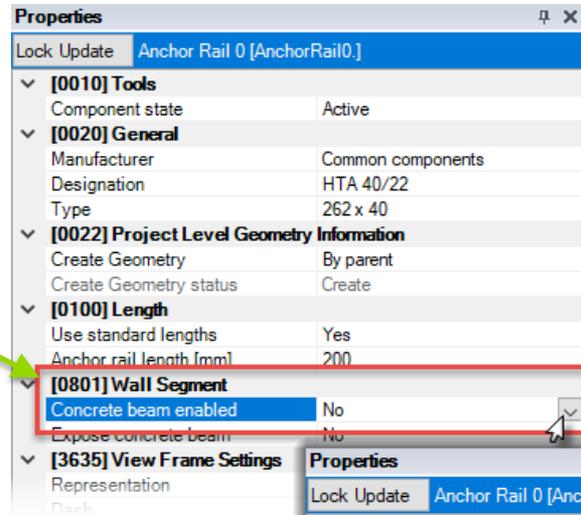
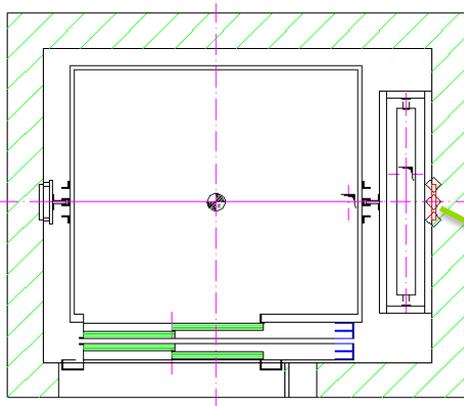
2 Anchor Rails



Separator Beam

Rail Bracket Fixing Options

Concrete Beam for Anchor Rails



Practical Examples

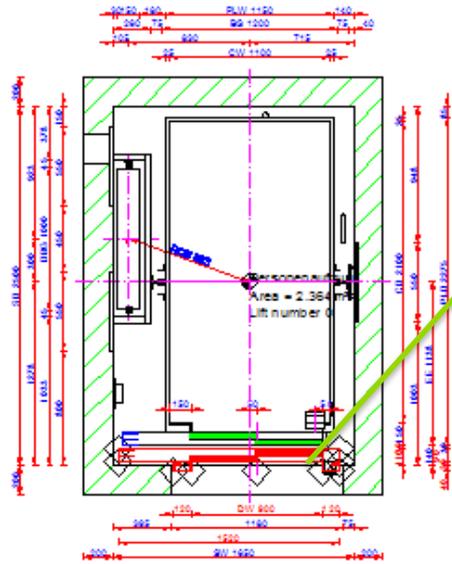
General – Entry Pocket

5/14/2019



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Display the Pocket properties



Plan
Scale: 1:20

Breadcrumb
Document, Shaft0, Entries1, E0, ShaftDoor.

Properties
Lock Update: Landing Door [ShaftDoor.]

- [0010] Tools
- [0020] General
- [0022] Project Level Geometry Information
- [0195] Grouping
- [0196] Door Dimensions
- [3635] View Frame Settings
- [138051] Render

Breadcrumb
Document, Shaft0, Entries1, E0, Entry pocket [Pocket0].

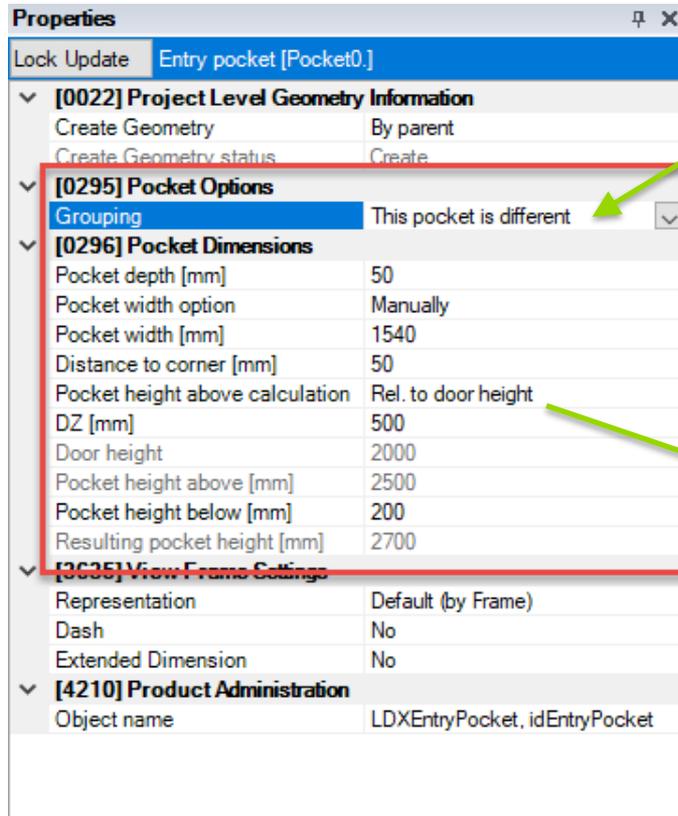
Properties
Lock Update: Entry pocket [Pocket0.]

- [0022] Project Level Geometry Information
- [0295] Pocket Options
- [0296] Pocket Dimensions
- [3635] View Frame Settings
- [4210] Product Administration

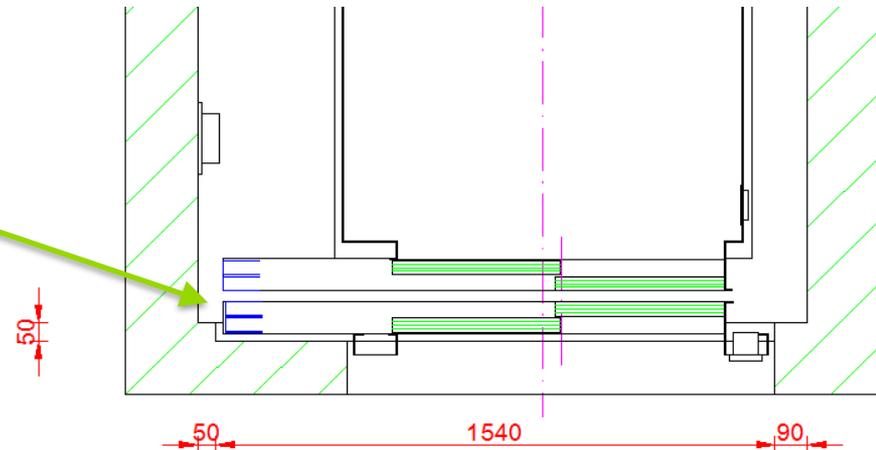
Property	Value
Pocket depth [mm]	0
Pocket width option	Automatically (full width)
Pocket width [mm]	2200
Distance to corner [mm]	0
Pocket height above calculation	Rel. to door height
DZ [mm]	500
Door height	2000
Pocket height above [mm]	2500
Pocket height below [mm]	200
Resulting pocket height [mm]	2700
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
Object name	LDXEntryPocket, idEntryPocket

The Entry Pocket properties can be displayed by selecting the landing door in the drawing first and selecting the Entry Pocket object via the Breadcrumb-Data tree window afterwards.

- Editing the entry pocket



The Entry Pocket automatically gets created for all entries on the corresponding shaft wall. It can be added to an individual entry only by changing the **Grouping** property to **This pocket is different**.



Practical Examples

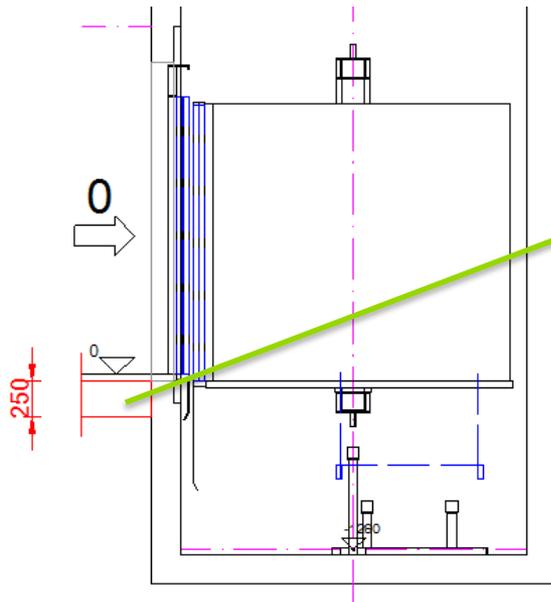
General – Additional Sill Option

5/14/2019



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- Display the **Entry** properties



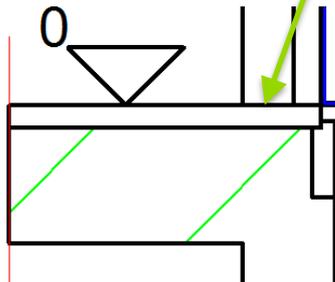
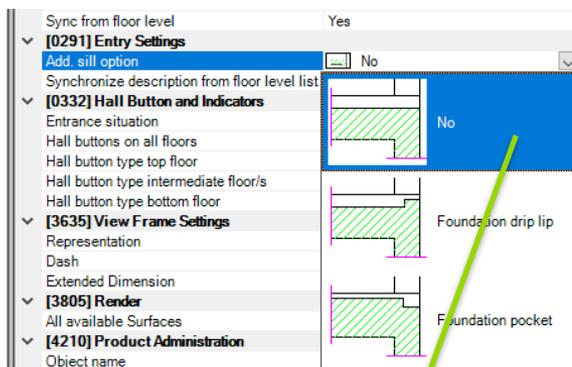
The **Entry** properties can be displayed by selecting the entry concrete in a vertical view (in **Edit mode** -> hatches turned off)

Breadcrumb: Document > Shaft0 > Entries1 > E0.

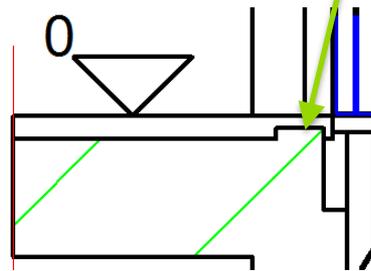
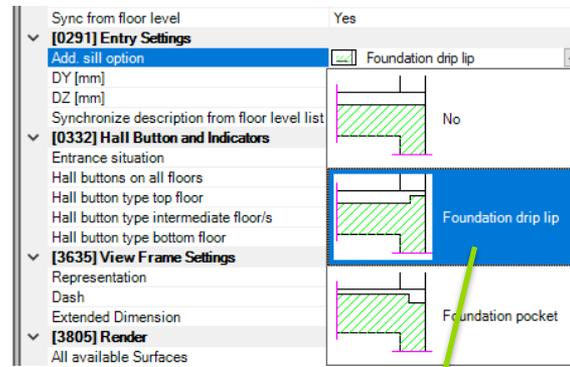
Properties: Entry 0 [E0.]

Create Geometry status	Create
[0290] Z - Dimensions	
Distance to floor above [mm]	2900
Environment potential [mm]	0
Finished floor thickness [mm]	50
Concrete thickness [mm]	250
Sync from floor level	Yes
[0291] Entry Settings	
Add. sill option	<input checked="" type="checkbox"/> No
Synchronize description from floor level	Yes
[0332] Hall Button and Indicators	
Entrance situation	Panels for max. 5 cars
Hall buttons on all floors	Yes
Hall button type top floor	Common components, Hall button (Top
Hall button type intermediate floor/s	Common components, Hall button (inter
Hall button type bottom floor	Common components, Hall button (Top
[3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
[3805] Render	
All available Surfaces	0
[4210] Product Administration	
Object name	LDXEntry, idEntry

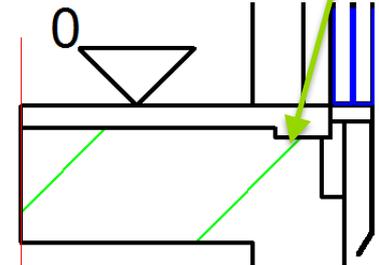
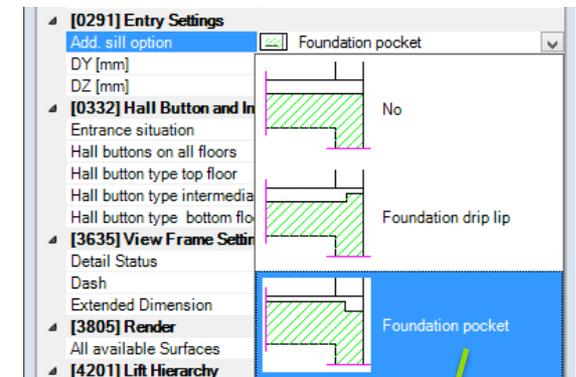
- Select from 3 different sill options
 - The **Add. sill option** will be applied to all entries on the corresponding shaft wall



No



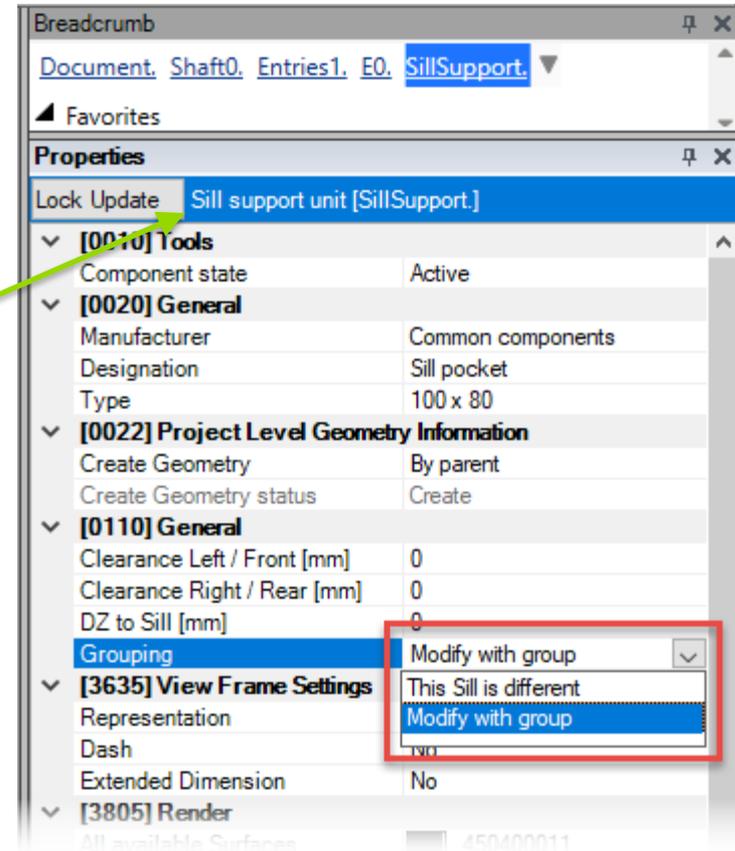
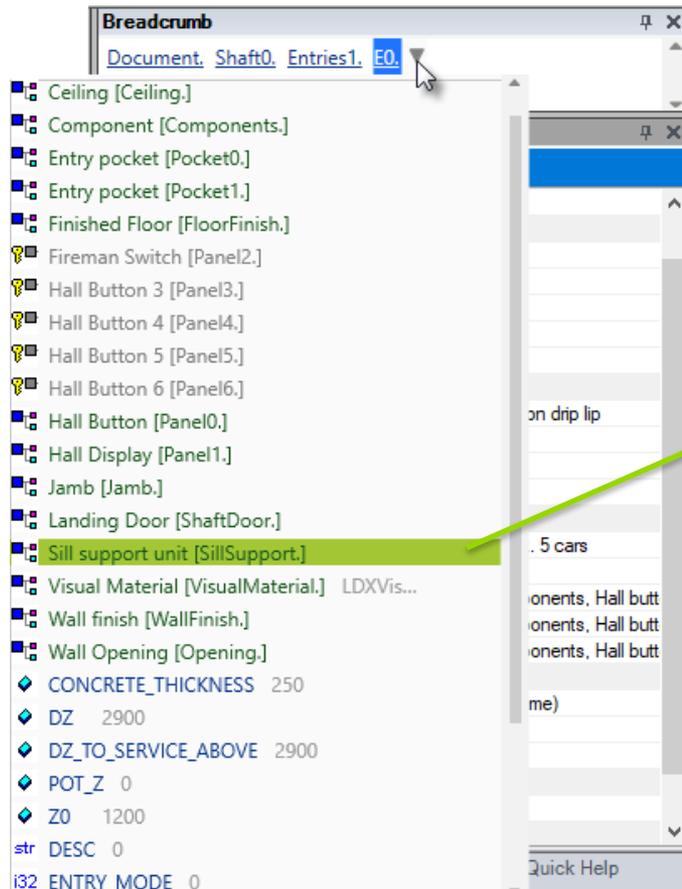
Foundation drip lip



Foundation pocket

- Set the **Add. Sill** option individually for just 1 entrance

The **Grouping** property of the **Sill support unit** is used to apply the **Add. Sill** option to a single entrance only. The property must be set before applying the **Add. Sill** option.



Practical Examples

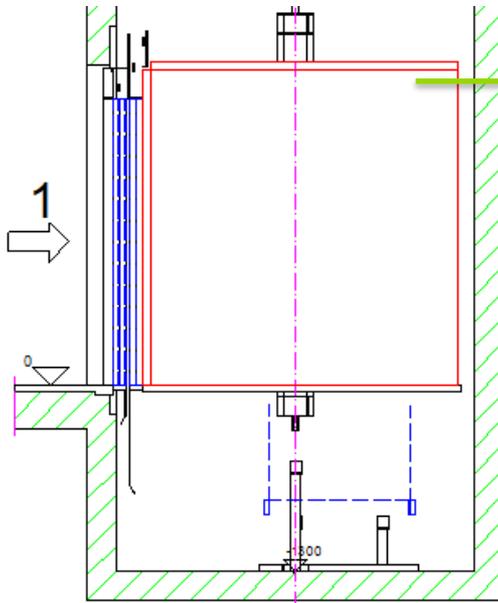
General – Car Balustrade

5/14/2019



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- Display the **Car Balustrade** properties



Breadcrumb
Document, Shaft0, Car, Balustrade

- Car balustrade [Balustrade.]
- Car door Front [Door1.]
- Car door Rear [Door2.]
- Car frame [Frame.]
- Car Operating Panel 0 [Panel0.]
- Car Operating Panel 1 [Panel1.]
- Car platform [Platform.]
- Compensating Rope [BR.]
- Component [Components.]
- Control Cable [ER.]
- Design [Design.]
- Fireman Switch [Panel2.]
- Hall Button 3 [Panel3.]
- Jamb [Jamb1.]
- Jamb [Jamb2.]
- Logic force point [PTF.]
- Logic gravity center point [PTS.]
- Refuge space 0 [RefugeSpace.]
- Refuge space 1 [RefugeSpace1.]
- Refuge space 2 [RefugeSpace2.]
- Rope suspension [RopeSusp.]
- Suspension Rope [CR.]
- Visual Material [VisualMaterial.] LDXVis...
- BOTTOM_EXTENDS 0
- BOTTOM_RUNBY 350

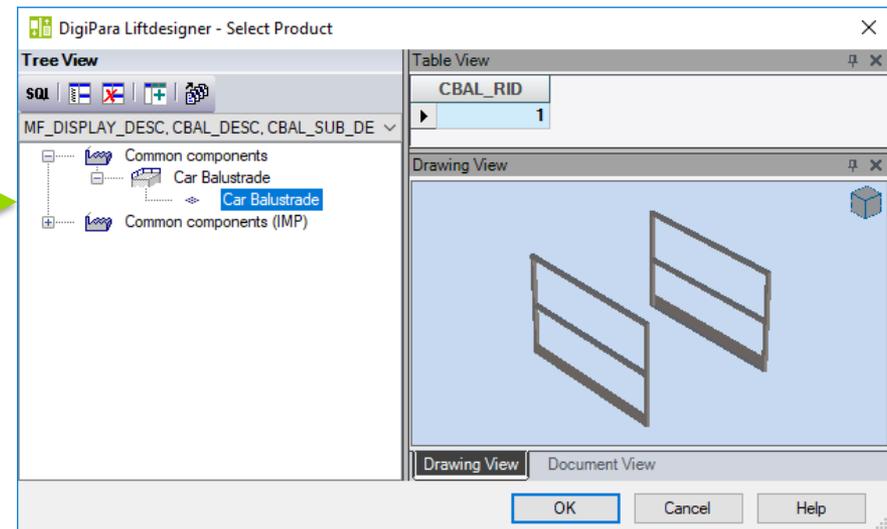
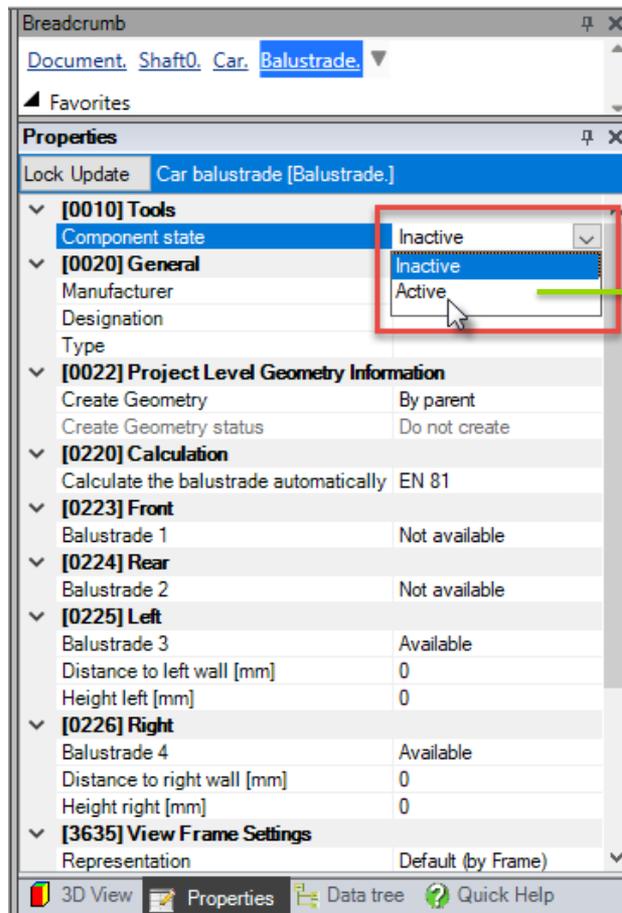
Breadcrumb
Document, Shaft0, Car, Balustrade

Properties
Lock Update Car balustrade [Balustrade.]

- [0010] Tools
 - Component state Inactive
- [0020] General
 - Manufacturer
 - Designation
 - Type
- [0022] Project Level Geometry Information
 - Create Geometry By parent
 - Create Geometry status Do not create
- [0220] Calculation
 - Calculate the balustrade automatically EN 81
- [0223] Front
 - Balustrade 1 Not available
- [0224] Rear
 - Balustrade 2 Not available
- [0225] Left
 - Balustrade 3 Available
 - Distance to left wall [mm] 0
 - Height left [mm] 0
- [0226] Right
 - Balustrade 4 Available
 - Distance to right wall [mm] 0
 - Height right [mm] 0
- [3635] View Frame Settings
 - Representation Default (by Frame)

The **Car balustrade** properties can be displayed by selecting the car in the drawing first and selecting the **Car balustrade** object via the **Breadcrumb** window afterwards.

- Activating and selecting the car balustrade

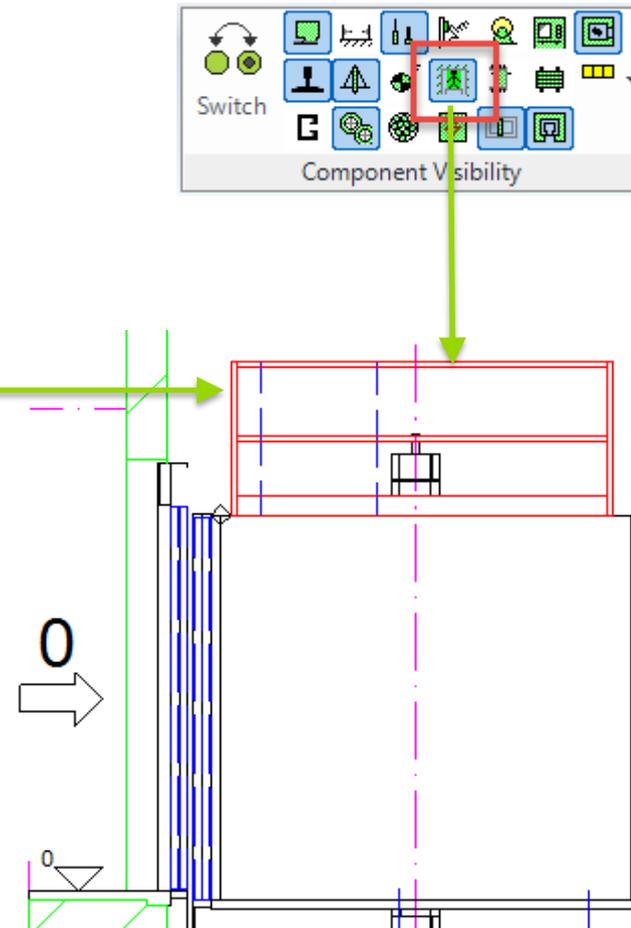


- Configuring the balustrade

Properties

Lock Update Car balustrade [Balustrade.]

✓ [0223] Front		
Balustrade 1	Available	
Distance to front wall [mm]	50	
Height front [mm]	800	
✓ [0224] Rear		
Balustrade 2	Available	
Distance to rear wall [mm]	100	
Height rear [mm]	800	
✓ [0225] Left		
Balustrade 3	Available	
Distance to left wall [mm]	200	
Height left [mm]	800	
✓ [0226] Right		
Balustrade 4	Available	
Distance to right wall [mm]	300	
Height right [mm]	800	
✓ [3635] View Frame Settings		
Representation	Default (by Frame)	
Dash	No	
Extended Dimension	No	



Practical Examples

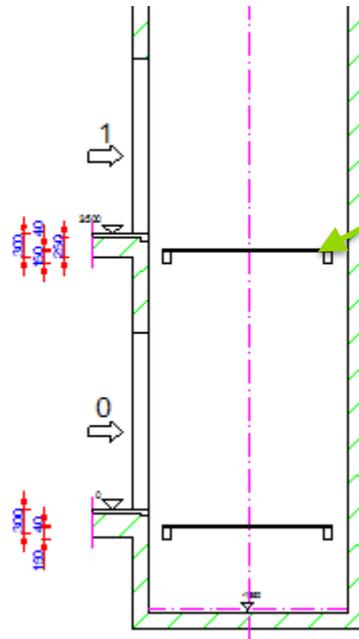
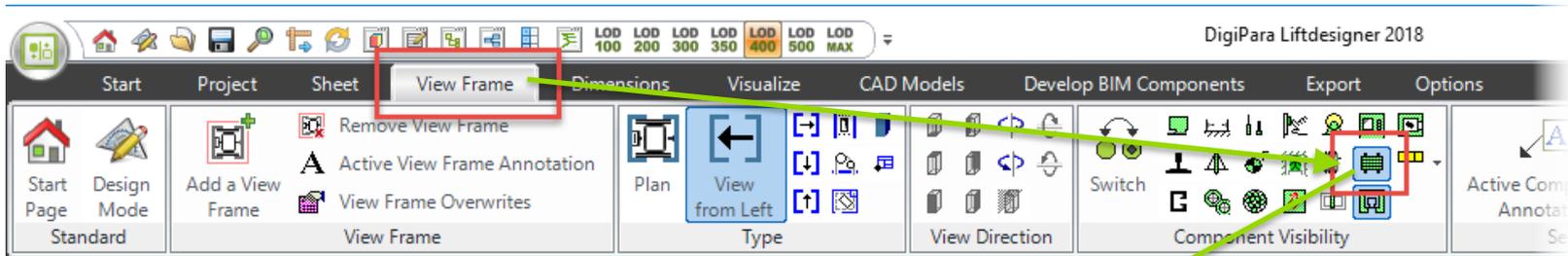
General – Assembly Platforms

5/14/2019



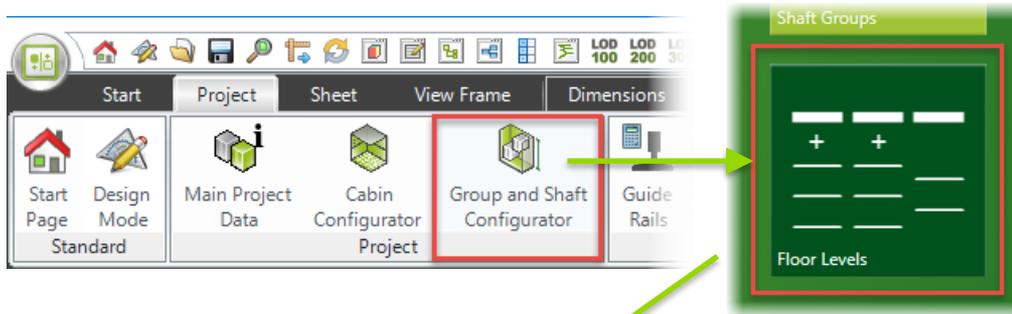
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- Display the Assembly platforms

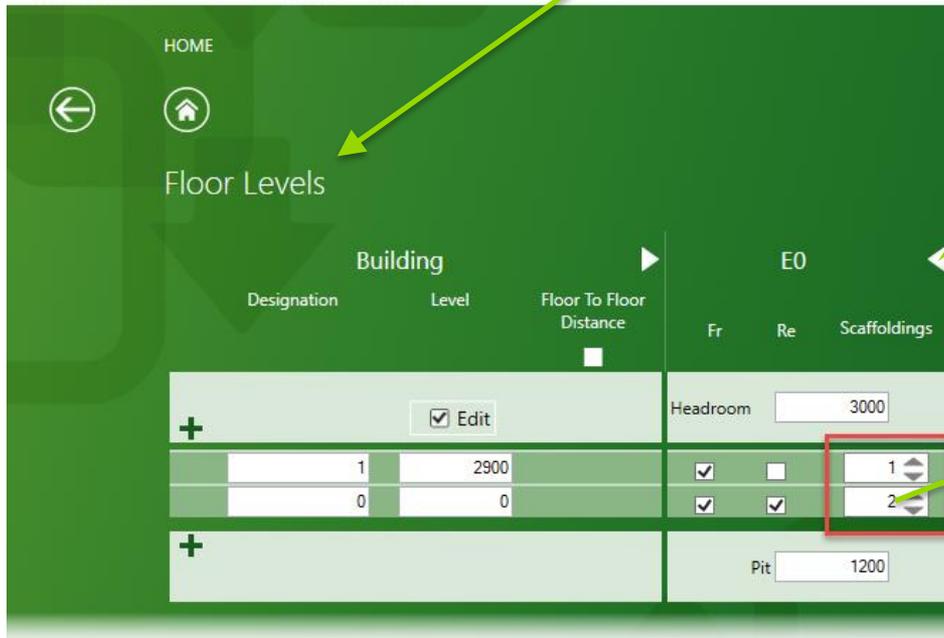


The **Assembly platforms** can be activated via the corresponding button in the **Component Visibility** ribbon group

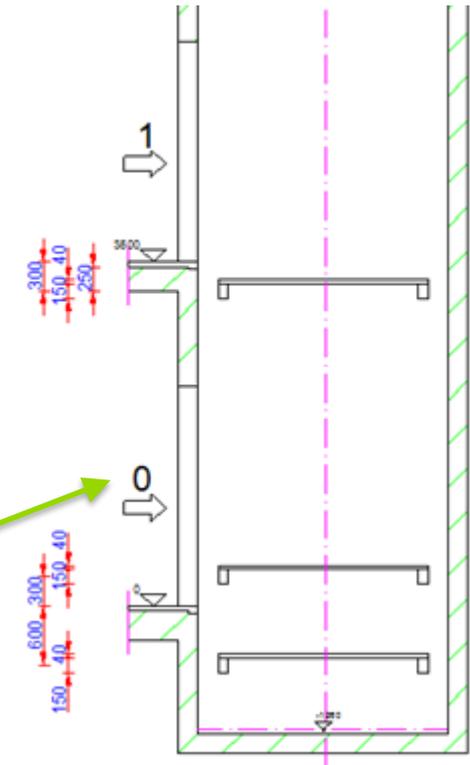
- Amount and position



DigiPara Liftdesigner 2018 - Group and Shaft Configurator



The number of **Assembly platforms** per floor can be adapted by the **Floor Level List**. The position can be changed via the corresponding dimensions in the drawing



Practical Examples

Traction Elevators

5/14/2019

The next slides provide some typical, traction elevator specific examples



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- Changing the counterweight location
- Changing the pulley beam settings
- MRL Gear Base Construction Unit
- L_Type Car Frame

Practical Examples

Traction Elevators – CWT Location

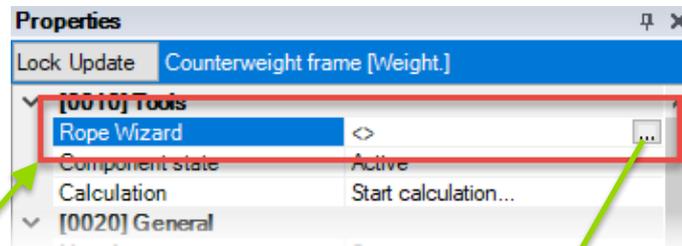
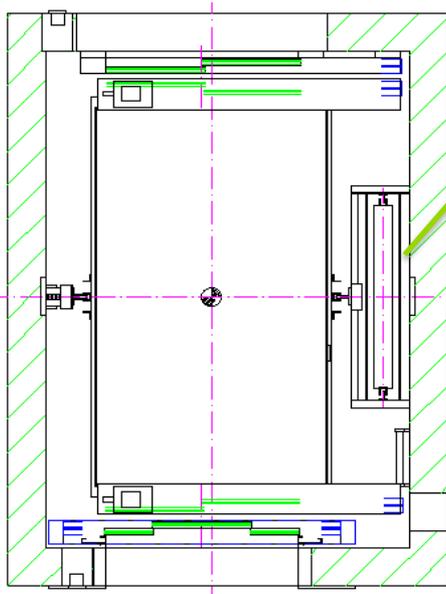
YouTube: [Changing the counterweight location](#)

5/14/2019

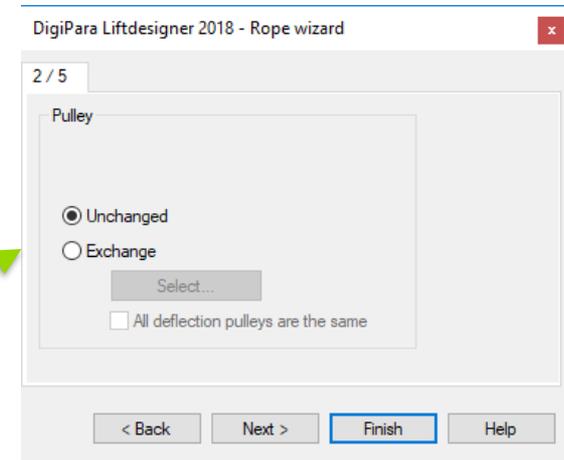
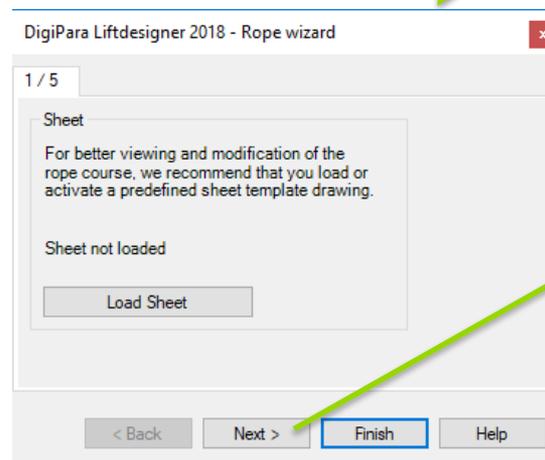


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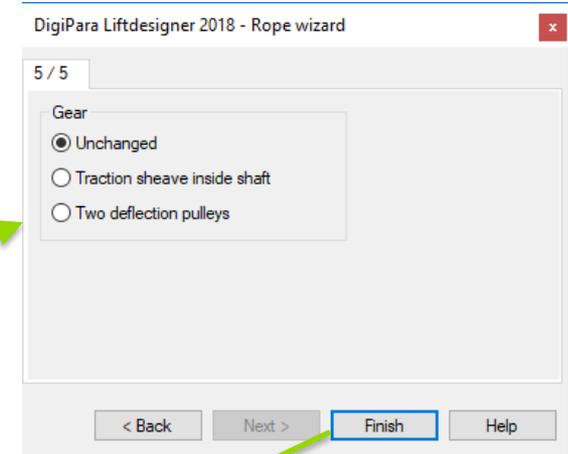
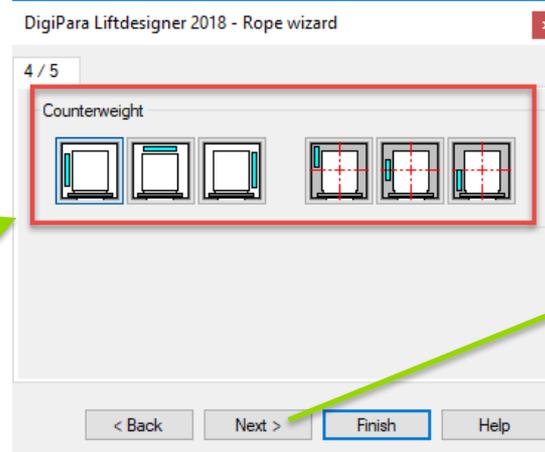
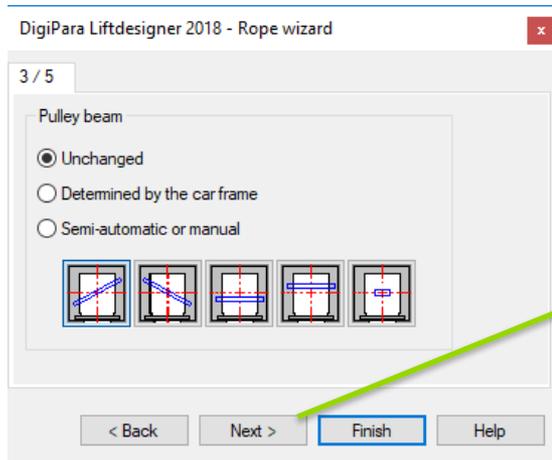
- Via the Rope Wizard
 - For existing projects



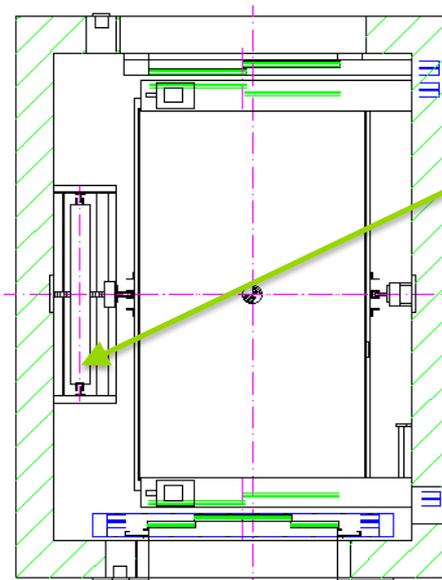
The Rope Wizard can be activated via the traction machine, the counterweight, the pulley or the pulley beam properties.



Changing the counterweight location



Change the counterweight location via the Rope Wizard dialog 4/5



Practical Examples

Traction Elevators – Pulley beam settings

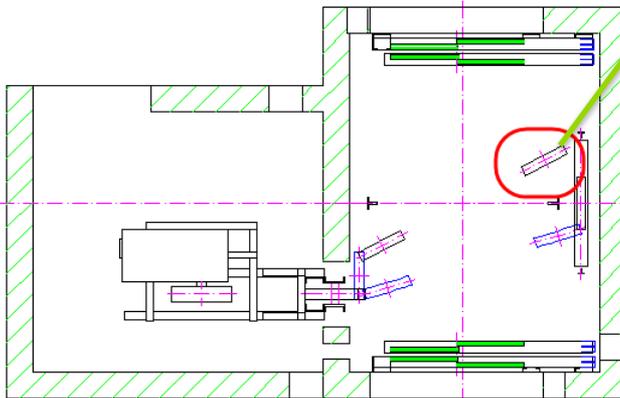
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Changing the pulley beam settings

- Of the Car-/CW frame
 - Via the pulley beam properties



The Pulley Beam properties can be activated via the Pulley Beam link in the Breadcrumb

The screenshot shows a software interface with a breadcrumb trail at the top: Document, Shaft0, Car, Frame, Support0, SH0. The 'Support0, SH0' link is highlighted with a red box. A tooltip below it reads 'Shaft0.Car.Frame.Support0.Pulley Beam 0 [Support0.]'. A green arrow points from this breadcrumb link to the 'Pulley Beam 0 [Support0.]' property panel. The property panel is divided into several sections:

- [0010] Tools**: Rope Wizard (dropdown), Belt Orientation (Default Belt Facing), Component state (dropdown).
- [0020] General**: Manufacturer (Common components), Designation (Pulley beam), Type (car sling).
- [0022] Project Level Geometry Information**: Create Geometry (By parent), Create Geometry status (Create).
- [0450] Arrangement**: Pulley beam angle (210), Align (Align).
- [0451] Pulleys on Beam**: Location pulley 1 (negative value) (-870), Location pulley 2 [mm] (870).
- [3635] View Frame Settings**: Representation (Default (by Frame)), Dash (No), Extended Dimension (No).
- [3805] Render**: All available Surfaces (440600203), Texture Angle (0), Texture Scale (1000), Texture Alignment (Local).

- Angle and location

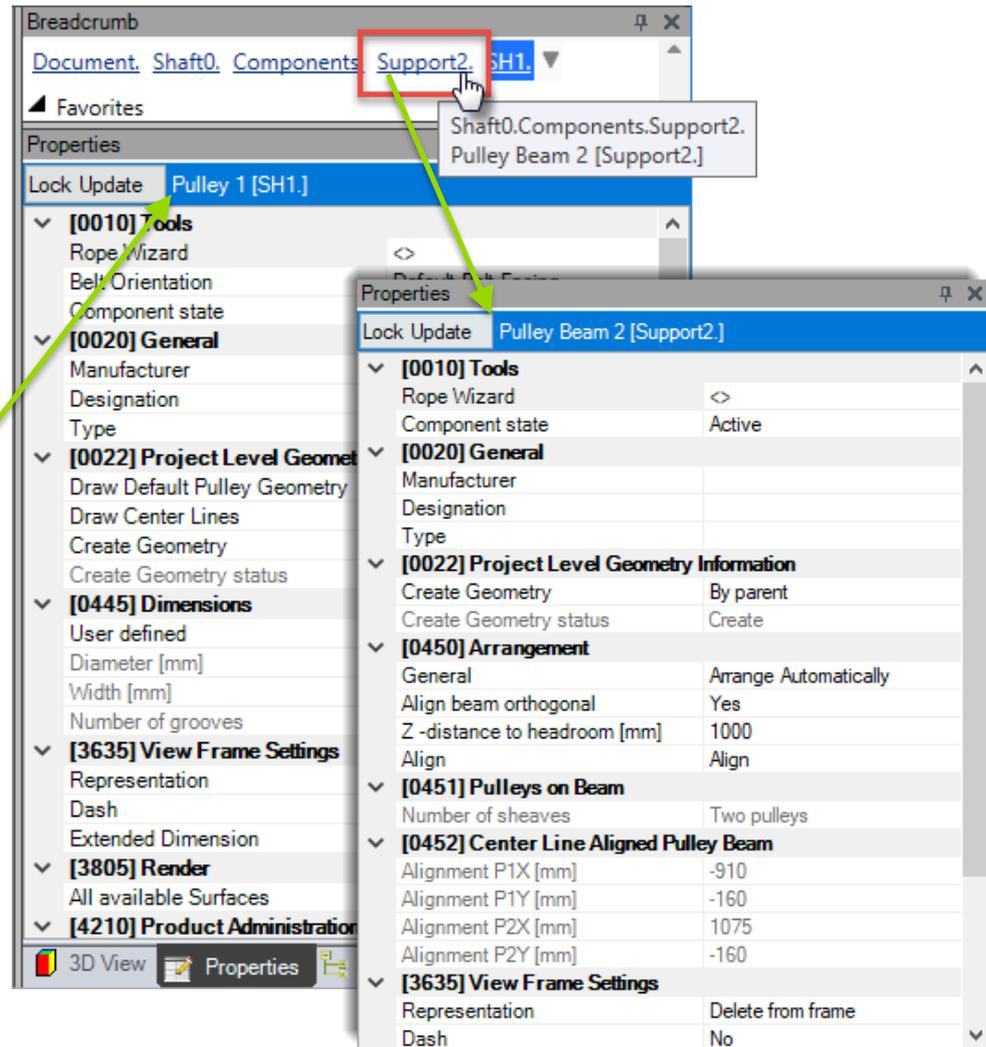
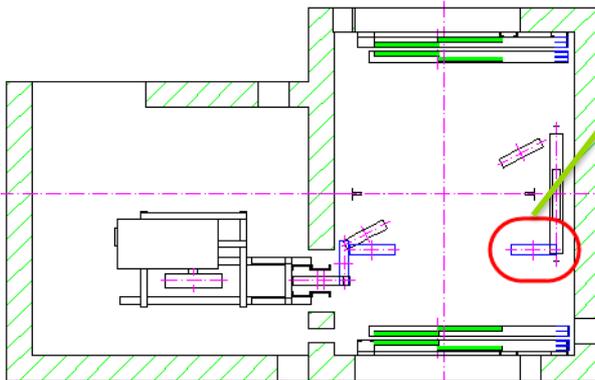
The angle and location of the car and CW pulley beams gets set via the **Angle and Pulley Location** properties

Properties	
Lock	Update
Pulley Beam 0 [Support0.]	
▼ [0010] Tools	
Rope Wizard	<>
Component state	Active
▼ [0020] General	
Manufacturer	Common components
Designation	Pulley beam
Type	car sling
▼ [0022] Project Level Geometry Information	
Create Geometry	By parent
Create Geometry status	Create
▼ [0450] Arrangement	
Pulley beam angle	210
Align	Align
▼ [0451] Pulleys on Beam	
Location pulley 1 (negative value)	-870
Location pulley 2 [mm]	870
▼ [3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
▼ [3805] Render	
All available Surfaces	440600203
Texture Angle	0
Texture Scale	1000
Texture Alignment	Local

Properties	
Lock	Update
Pulley Beam 0 [Support0.]	
▼ [0010] Tools	
Rope Wizard	<>
Component state	Active
▼ [0020] General	
Manufacturer	Common components
Designation	Pulley beam
Type	car sling
▼ [0022] Project Level Geometry Information	
Create Geometry	By parent
Create Geometry status	Create
▼ [0450] Arrangement	
Pulley beam angle	210
Align	Align
▼ [0451] Pulleys on Beam	
Location pulley 1 (negative value)	-870
Location pulley 2 [mm]	870
▼ [3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No
▼ [3805] Render	
All available Surfaces	440600203
Texture Angle	0
Texture Scale	1000
Texture Alignment	Local

Changing the pulley beam settings

- Additional pulley beams
 - Via the pulley beam properties



Breadcrumb: Document, Shaft0, Components, Support2, SH1

Properties: Lock Update Pulley 1 [SH1.]

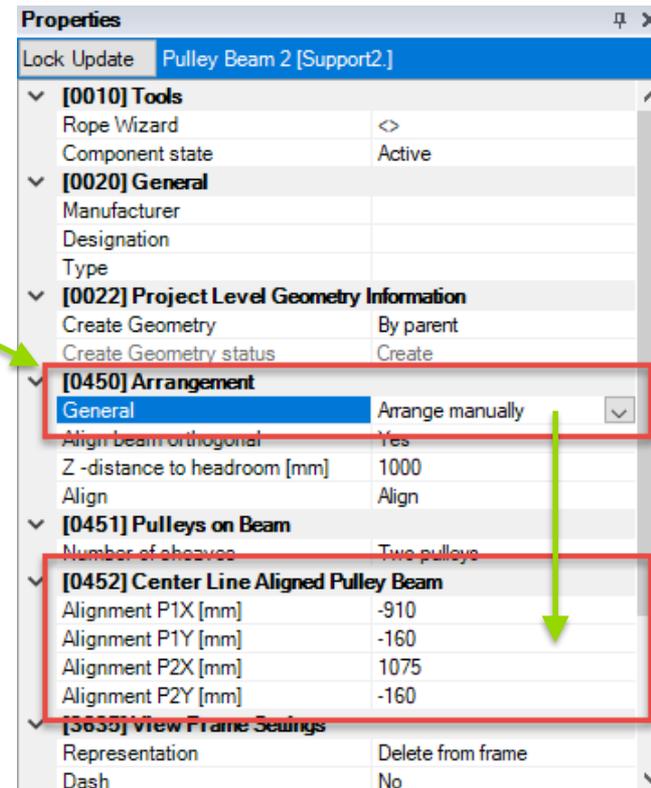
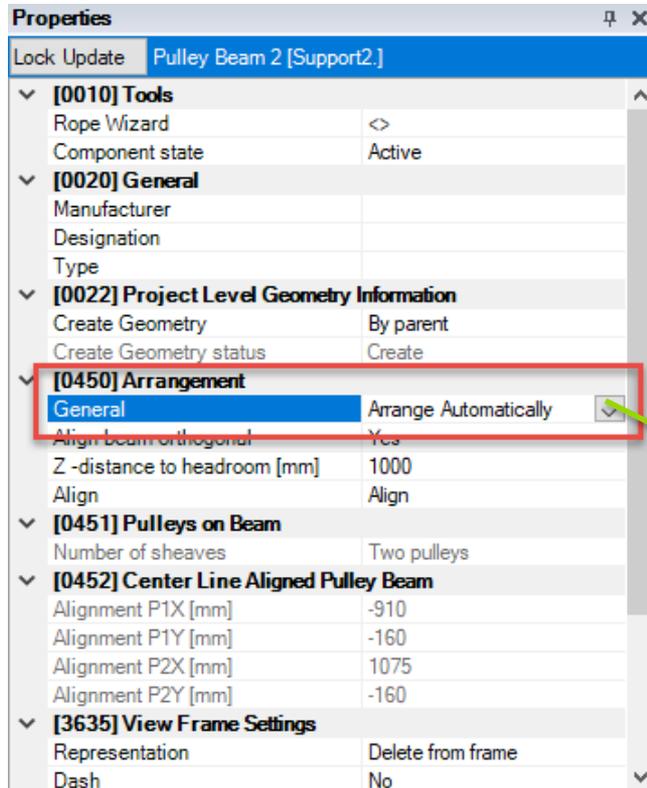
- ▼ [0010] Tools
 - Rope Wizard
 - Belt Orientation
 - Component state
- ▼ [0020] General
 - Manufacturer
 - Designation
 - Type
- ▼ [0022] Project Level Geometry
 - Draw Default Pulley Geometry
 - Draw Center Lines
 - Create Geometry
 - Create Geometry status
- ▼ [0445] Dimensions
 - User defined
 - Diameter [mm]
 - Width [mm]
 - Number of grooves
- ▼ [3635] View Frame Settings
 - Representation
 - Dash
 - Extended Dimension
- ▼ [3805] Render
 - All available Surfaces
- ▼ [4210] Product Administration

Properties: Lock Update Pulley Beam 2 [Support2.]

- ▼ [0010] Tools
 - Rope Wizard
 - Component state Active
- ▼ [0020] General
 - Manufacturer
 - Designation
 - Type
- ▼ [0022] Project Level Geometry Information
 - Create Geometry By parent
 - Create Geometry status Create
- ▼ [0450] Arrangement
 - General Arrange Automatically
 - Align beam orthogonal Yes
 - Z -distance to headroom [mm] 1000
 - Align Align
- ▼ [0451] Pulleys on Beam
 - Number of sheaves Two pulleys
- ▼ [0452] Center Line Aligned Pulley Beam
 - Alignment P1X [mm] -910
 - Alignment P1Y [mm] -160
 - Alignment P2X [mm] 1075
 - Alignment P2Y [mm] -160
- ▼ [3635] View Frame Settings
 - Representation Delete from frame
 - Dash No

- Angle and location

The angle and location of the add. pulley beams can be set via the **P*X- / P*Y-** and the **Orthogonal** properties



Practical Examples

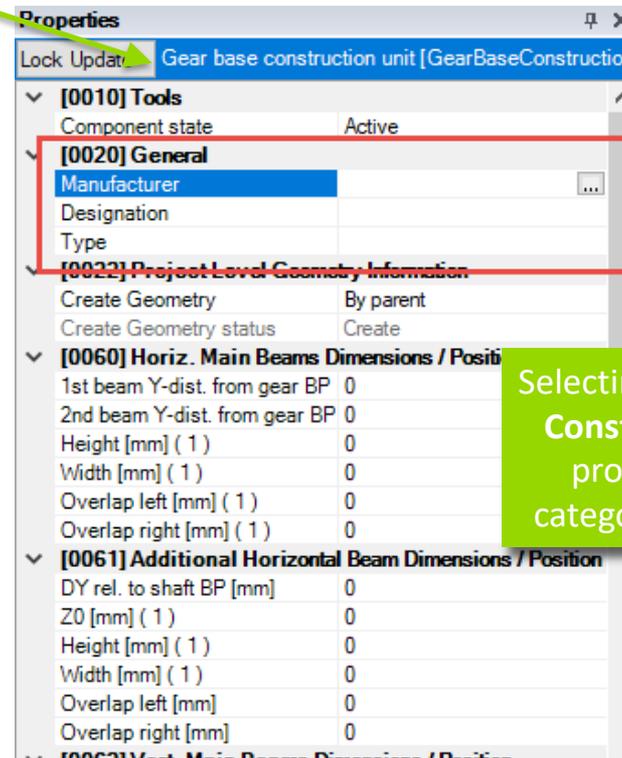
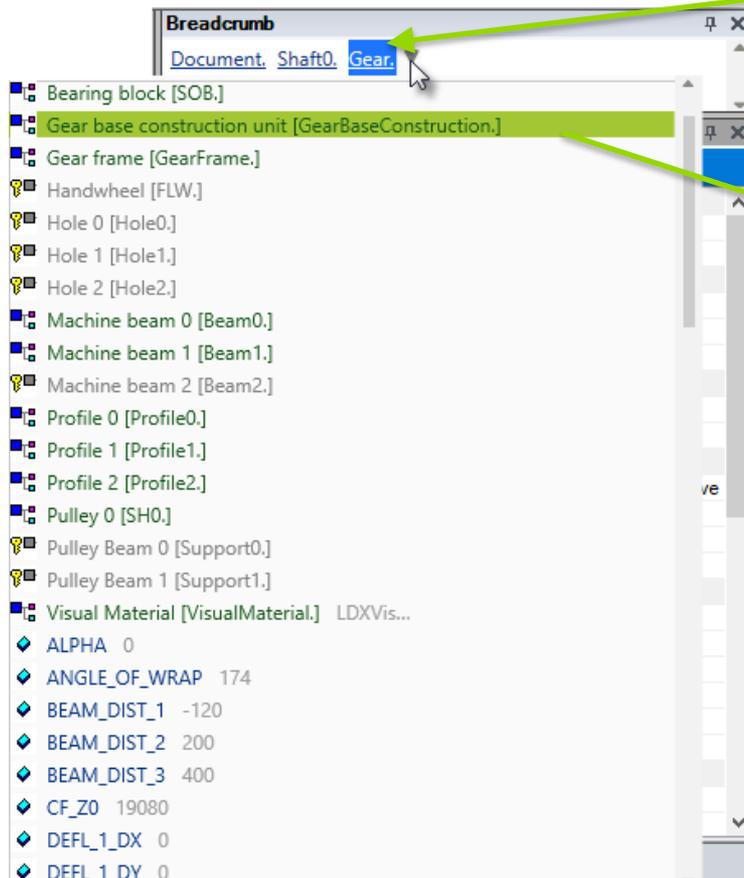
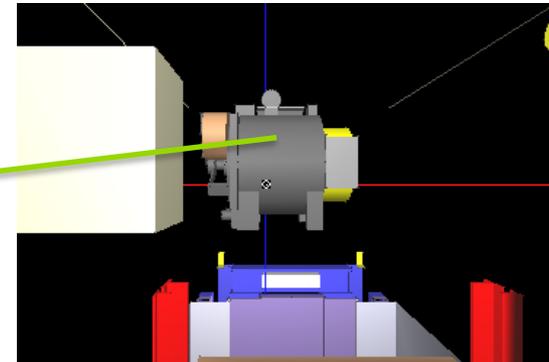
Traction Elevators – MRL Gear Base
Construction Unit

5/14/2019

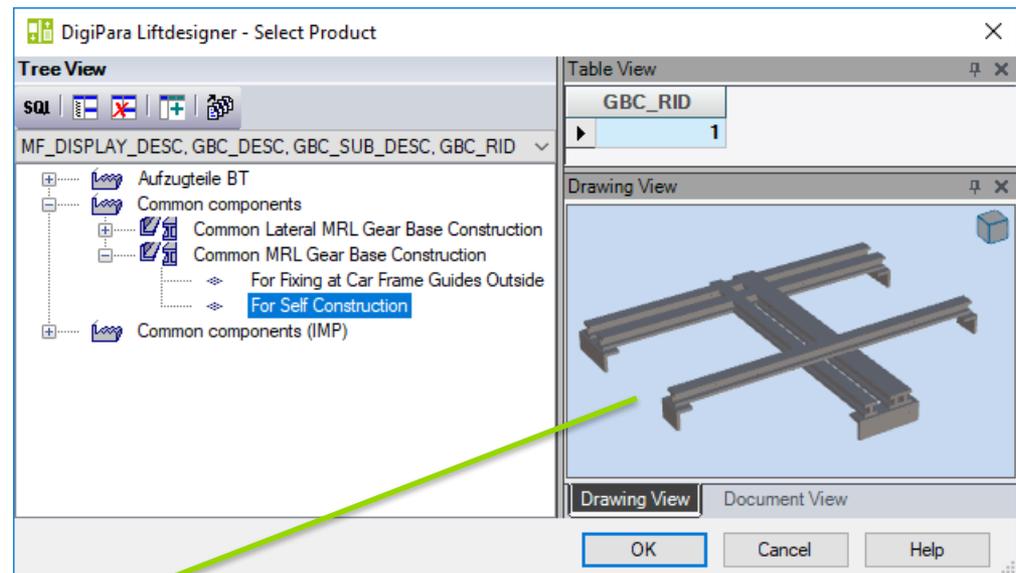
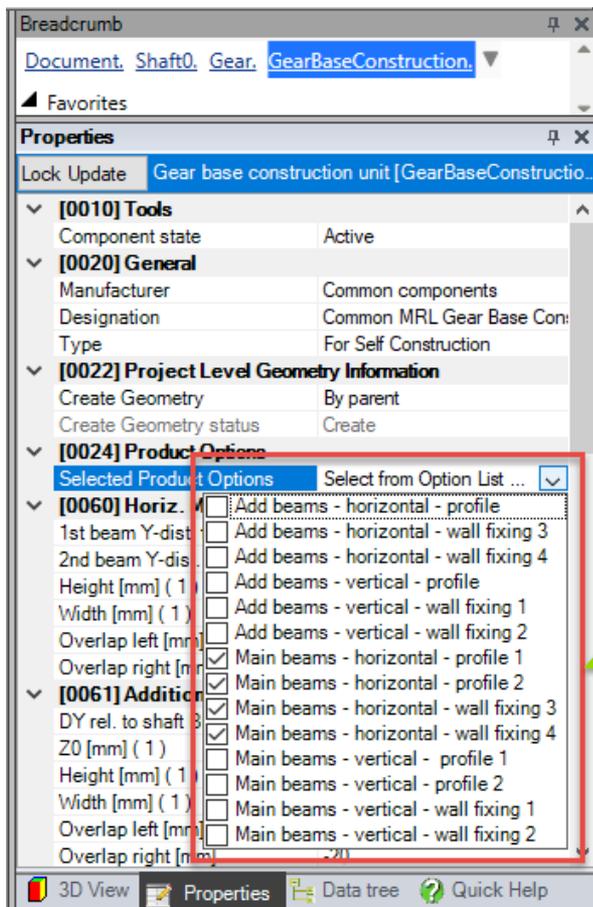


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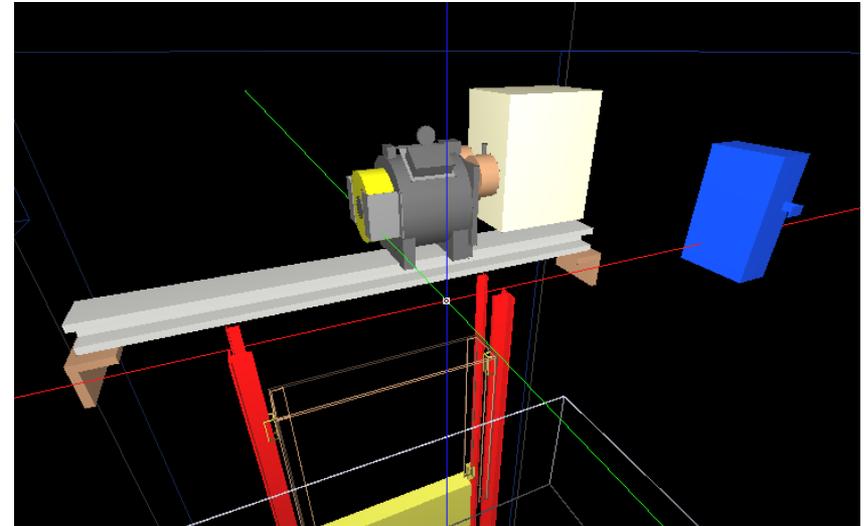
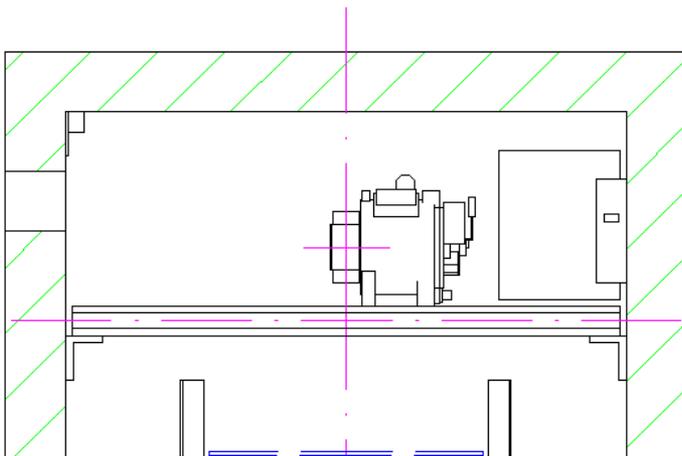
- Can be activated via the Properties docking window



- Selecting the common gear base construction
 - And enabling / disabling component profiles via the **Product Options**



- After customizing the corresponding component properties and dimensions
 - Profile position, length, height, etc.



Practical Examples

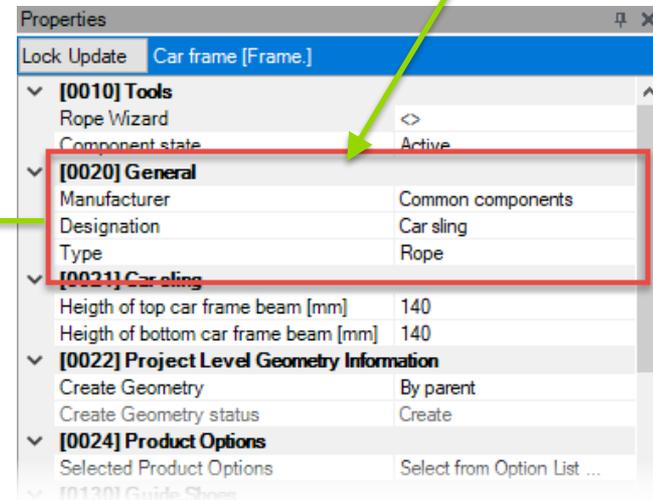
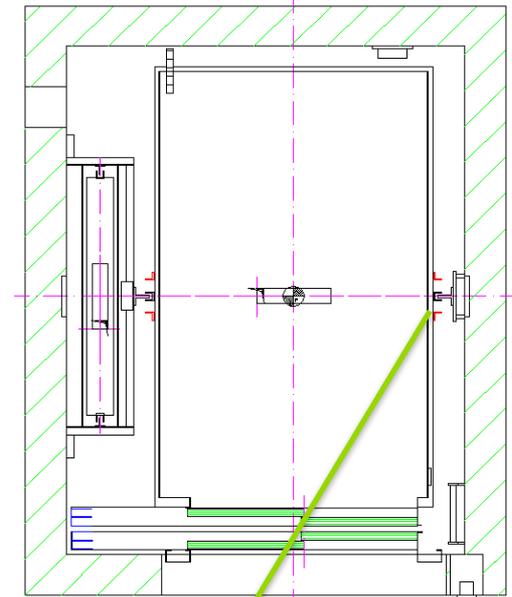
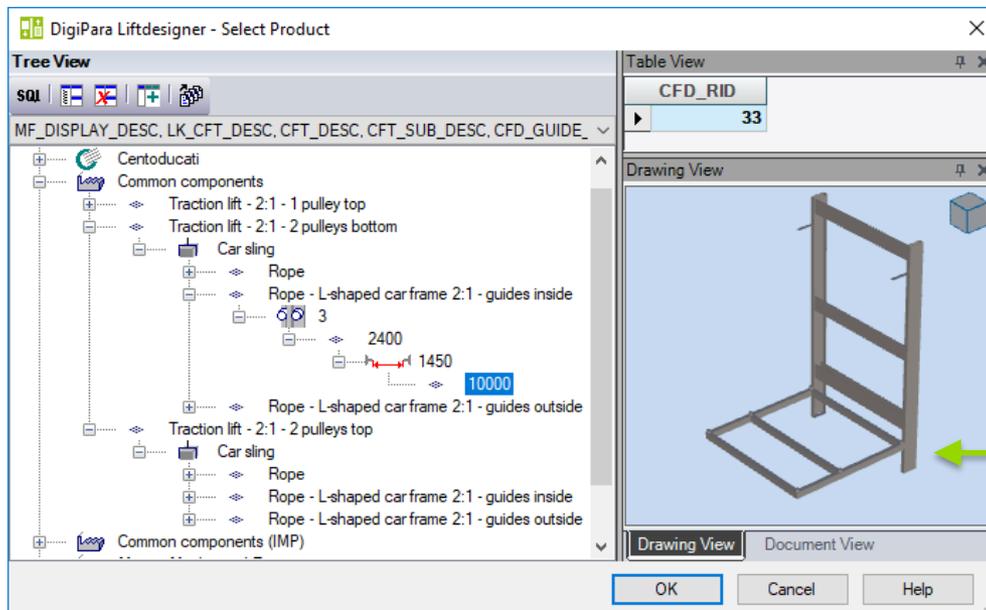
Traction Elevators – L-Type Car Frames

5/14/2019

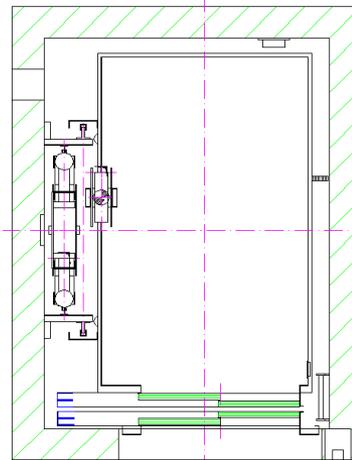
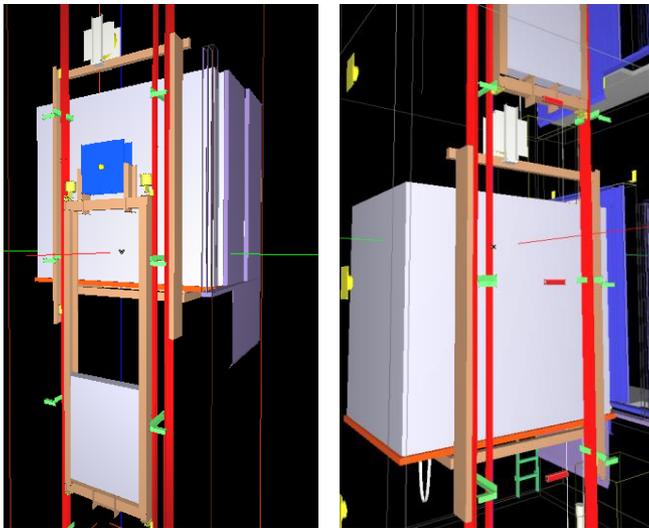


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- Must be selected manually
 - For non MRL elevators after the shaft wizard has been finished
 - Via the Component Navigator



- Possible result after exchanging the car frame and the following, additional changes
 - Changing the car frame location
 - Modifying the rail brackets
 - Defining the distance between guides



Breadcrumb: Document, Shaft0, Car, Frame

Properties

Lock Update Car frame [Frame.]

DZ to top guide shoe [mm]	2300
DZ to bottom guide shoe [mm]	-150
[0131] Buffer Impact	
DZ calculation	Automatically
DZ [mm]	400
[0132] Pulley Beam 1 Location	
Pulley beam 1 DX [mm]	0
Pulley beam 1 DY [mm]	0
Pulley beam 1 DZ [mm]	0
Suspension	<input type="checkbox"/> 2 pulleys below
[0140] DBG	
Distance between guides [mm]	1450
Car frame position	Right
[0141] Weights	
Car frame weight [kg]	
[0145] Car Frame Height	
H1 [mm]	
H2 [mm]	
Raw car frame height [mm]	
[0900] Developer	
Additional exclude string for ghost	
[3635] View Frame Settings	
Representation	Default (by Frame)
Dash	No
Extended Dimension	No

3D View Properties Data tree Quick Help

Practical Examples

Hydraulic Elevators

5/14/2019



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- Cylinder Selection
- Rail Bracket Fixing Options
- MRL

Practical Examples

Hydraulic Elevators – Cylinder Selection

5/14/2019



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- Via the Cylinder dialog
 - Which gets activated via the Cylinder Selection property

Properties Jack 0 [Cyl0]

- [0010] Tools**
 - Component state: Active
 - Calculation: Start calculation...
- [0020] General**
 - Manufacturer: Oildynamic
 - Designation: Ni 130/5
 - Type: 130 mm
- [0022] Project Level Geometry Information**
 - Create Geometry: By parent
 - Create Geometry status: Create
- [0260] Jack Dimensions**
 - Diameter [mm]: 130
 - Extended: <>
 - Jack Selection**: <>
- [0261] Travel**
 - Car travel [mm]: 7000
 - Resulting jack travel (incl. runby): 7200
- [0262] Jack Top Runby**
 - Car top run by [mm]: 150
 - Add jack top runby [mm]: 0
 - Resulting jack top runby [mm]: 150

DigiPara Liftdesigner 2018 - Jack

Jack type: BZBGL- 50/ 2-RS / Z2 (Y2)

Limits for static pressure
 Suggest automatically
 P(min): 14 bar
 P(max): 45 bar

Type	Pmin [bar]	Pmax [bar]	Weigh	Max. Loa	Comment
BZBGL	3.6	7.3	755.3	0	Values not within valid jack range
BZCGL	2.7	5.4	1106.	0	Values not within valid jack range
BZCGL	1.9	3.7	1440.	0	Values not within valid jack range
BZCGL	1.4	2.8	2115.	0	Values not within valid jack range
BZBGL	40.4	82.5	109.3	405.6	Jack buckles
BZBGL	21	42.7	175.6	1713.3	
BZBGL	14.3	29	253.4	2727.6	
BZBGL	10.5	21.2	347.8	3740.6	Minimum pressure too low
BZBGL	7.6	15.2	478	5306	Minimum pressure too low
BZBGL	5.2	10.6	518.9	7470.6	Minimum pressure too low
BZBGL	3.8	7.6	755.3	0	Values not within valid jack range
BZCGL	2.7	5.4	1106.	0	Values not within valid jack range

ALGI | Beringer | **Bucher Hydraulics** | Common components | Common components (IMP) | GMV | Hydrax
 Hydraulic Lift | Leistritz | Moris | Oildynamic | Omarlift | similar Wittur

Show all jacks

OK Cancel Apply Help

You'll need to add the correct weight to the cabin first, otherwise the min. cylinder pressure will display a wrong value!

- Selecting the Cylinder type
 - Borehole- / Cantilevered Cylinder
 - 1-, 2-, 3-stage
- Specifying the limits for static pressure
 - Filter the available cylinders according to the specified range
- Selecting manufacturer specific Cylinders
 - ALGI, Bucher, GMV, Moris, etc.

Practical Examples

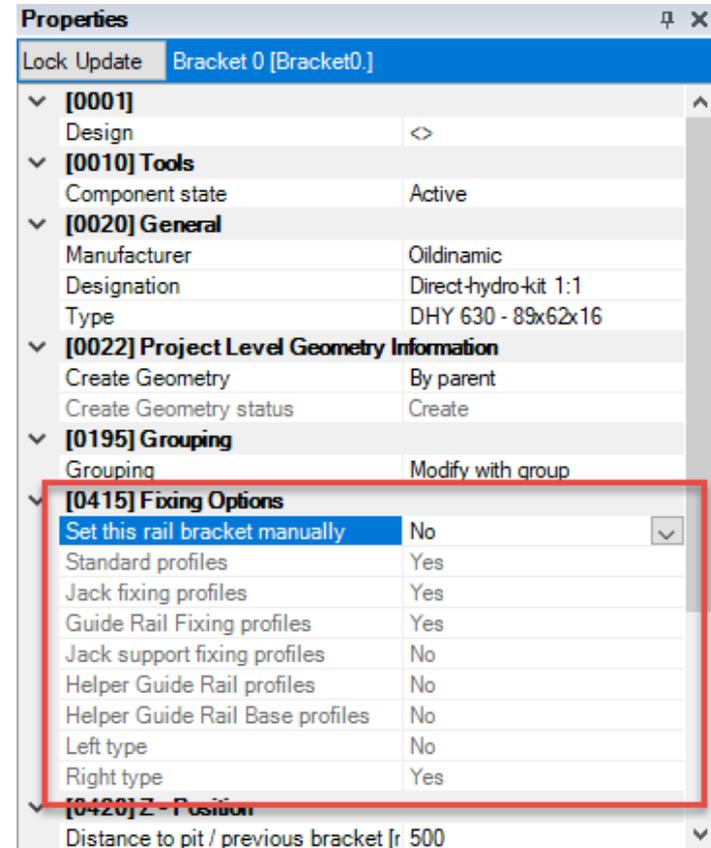
Hydraulic Elevators – Rail Bracket Fixing Options

5/14/2019



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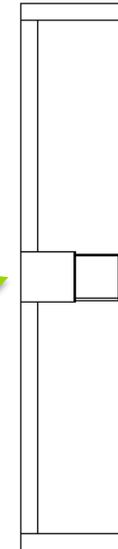
- Can be configured manually via the corresponding component properties
- A rail bracket can consist of one or more predefined fixing profile groups (similar to Product Options), e.g.
 - Standard profiles
 - Cylinder fixing profiles
 - Guide rail fixing profiles
 - etc.



- Switching off the Jack fixing profiles of the selected rail bracket

[0020] General	
Manufacturer	Oilodynamic
Designation	Direct-hydro-kit 1:1
Type	DHY 630 - 89x62x16
[0022] Project Level Geometry Information	
Create Geometry	By parent
Create Geometry status	Create
[0195] Grouping	
Grouping	Modify with group
[0415] Fixing Options	
Set this rail bracket manually	No
Standard profiles	Yes
Jack fixing profiles	Yes
Guide Rail Fixing profiles	Yes
Jack support fixing profiles	No
Helper Guide Rail profiles	No
Helper Guide Rail Base profiles	No
Left type	No
Right type	Yes
[0420] Z - Position	
Distance to pit / previous bracket [r	500

[0020] General	
Manufacturer	Oilodynamic
Designation	Direct-hydro-kit 1:1
Type	DHY 630 - 89x62x16
[0022] Project Level Geometry Information	
Create Geometry	By parent
Create Geometry status	Create
[0195] Grouping	
Grouping	Modify with group
[0415] Fixing Options	
Set this rail bracket manually	Yes
Standard profiles	Yes
Jack fixing profiles	No
Guide Rail Fixing profiles	Yes
Jack support fixing profiles	No
Helper Guide Rail profiles	No
Helper Guide Rail Base profiles	No
Left type	No
Right type	Yes
[0420] Z - Position	
Distance to pit / previous bracket [r	500



Practical Examples

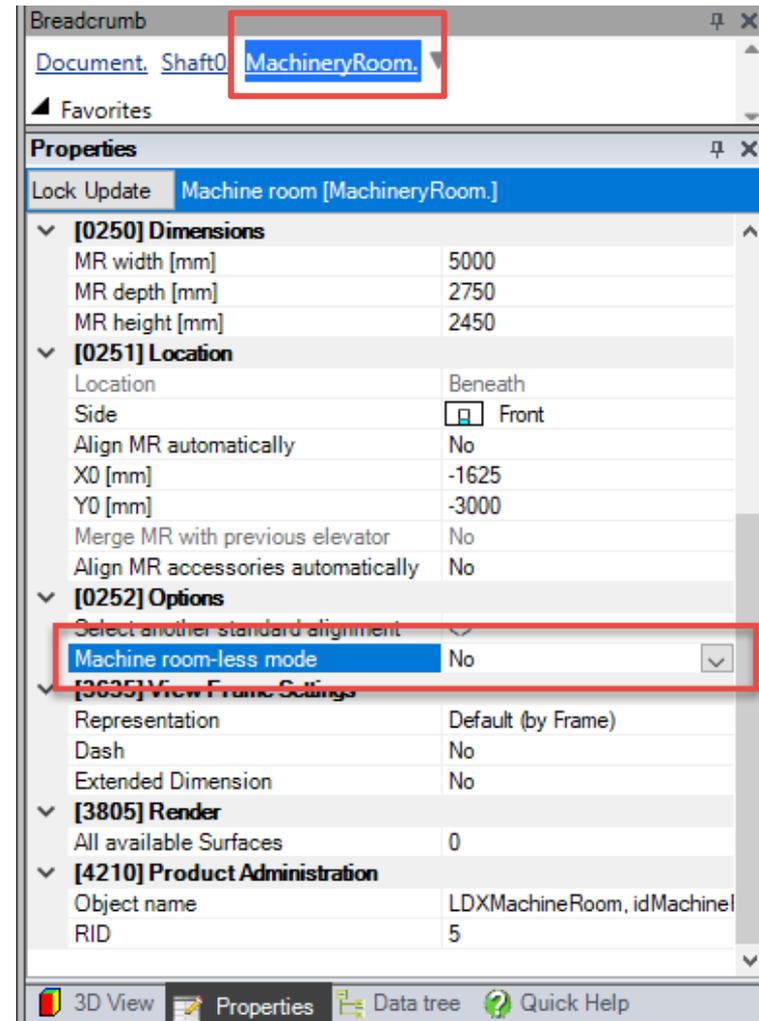
Hydraulic Elevators – MRL

5/14/2019

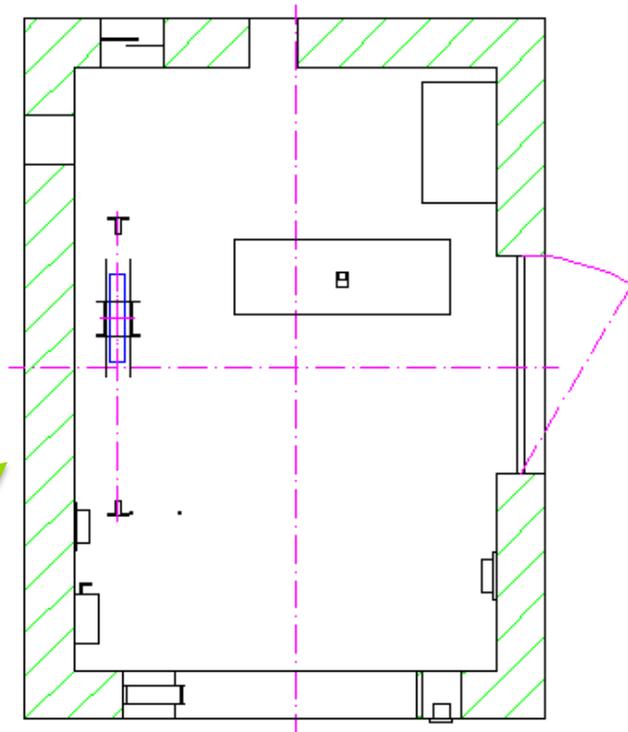
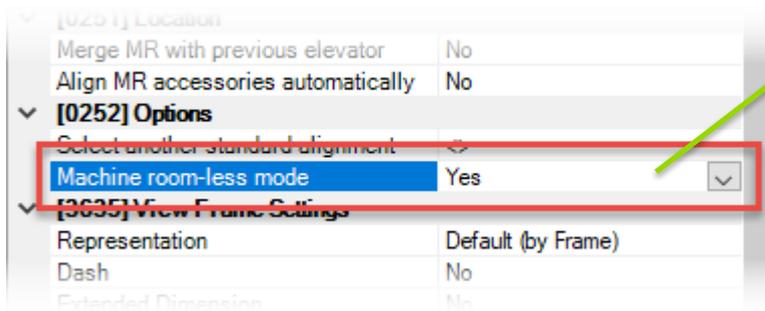


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- Hydraulic elevators can be created manually
 - Via the machine room **Machine room-less mode** property



- Machine room components are placed in the shaft pit automatically
 - They can be deleted, moved via the corresponding dimensions and component properties



Shaft Groups

YouTube: [Creating shaft groups](#)

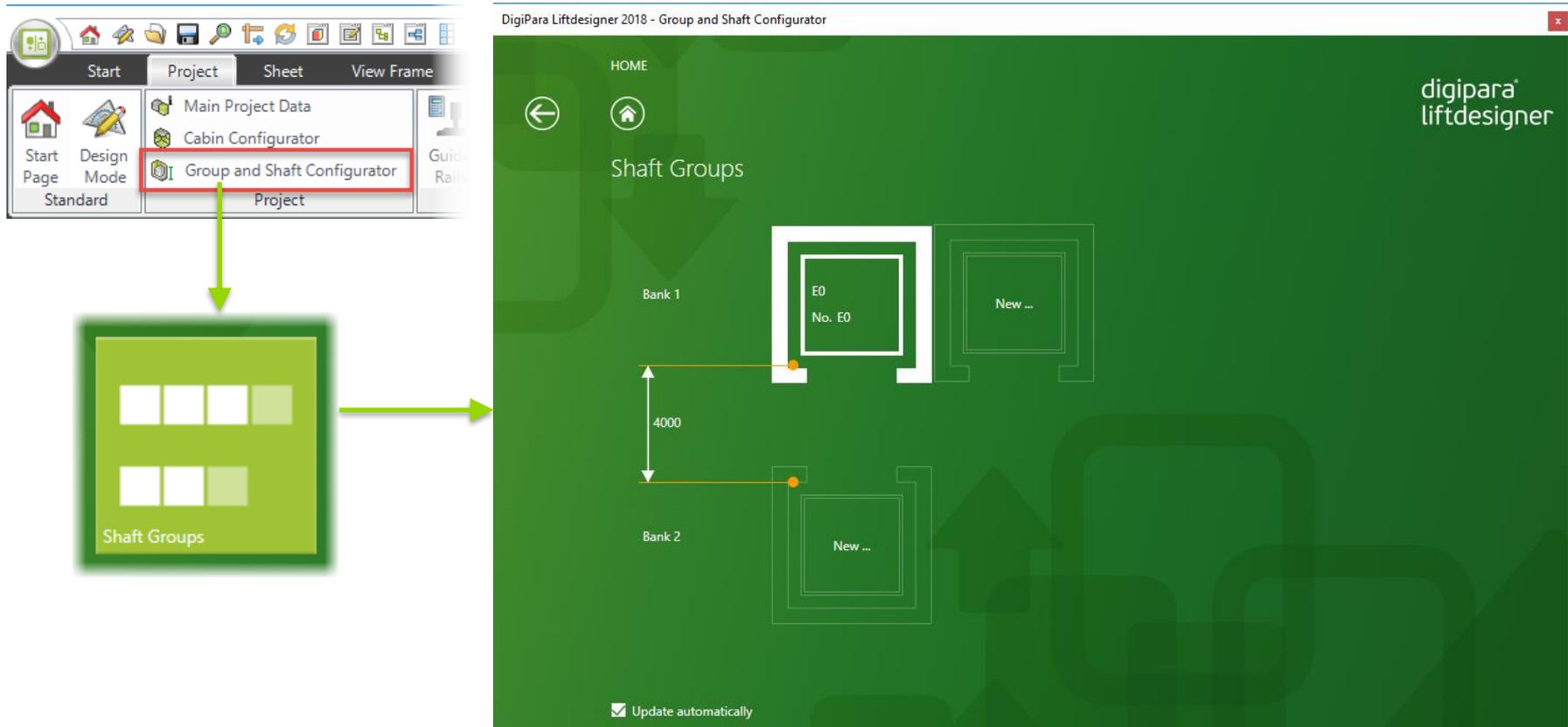
5/14/2019



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- Copy and add Shafts
- Group Shaft Wall Opening
- Machine Room

- Define Group Elevators via the Group and Shaft Configurator



Shaft Groups

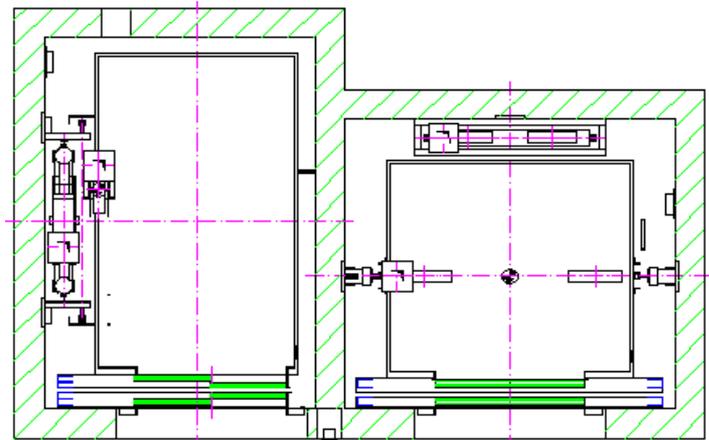
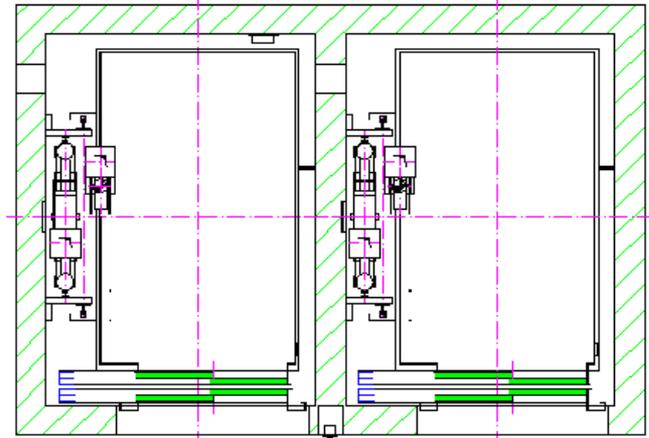
Copy and add Shafts

5/14/2019



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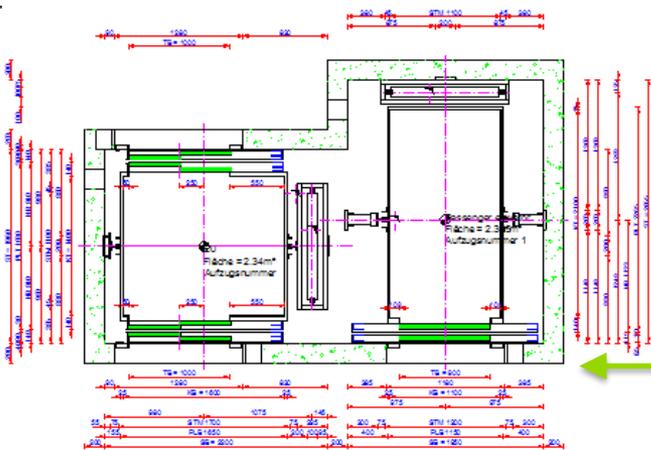
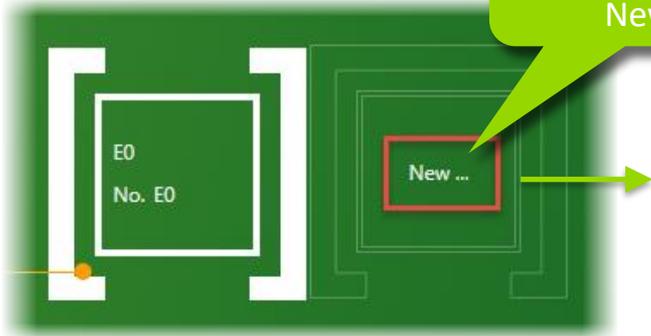
- Group elevators can be created via a shaft copying operation or via the group shaft wizard (similar to the standard shaft wizard)
 - Shaft copying operation -> for identical elevators in the group
 - Group shaft wizard -> for different elevators in the group
 - The copied/ added shaft, incl. all shaft components, is completely independent from the initial shaft



Shaft Groups - Add Shafts

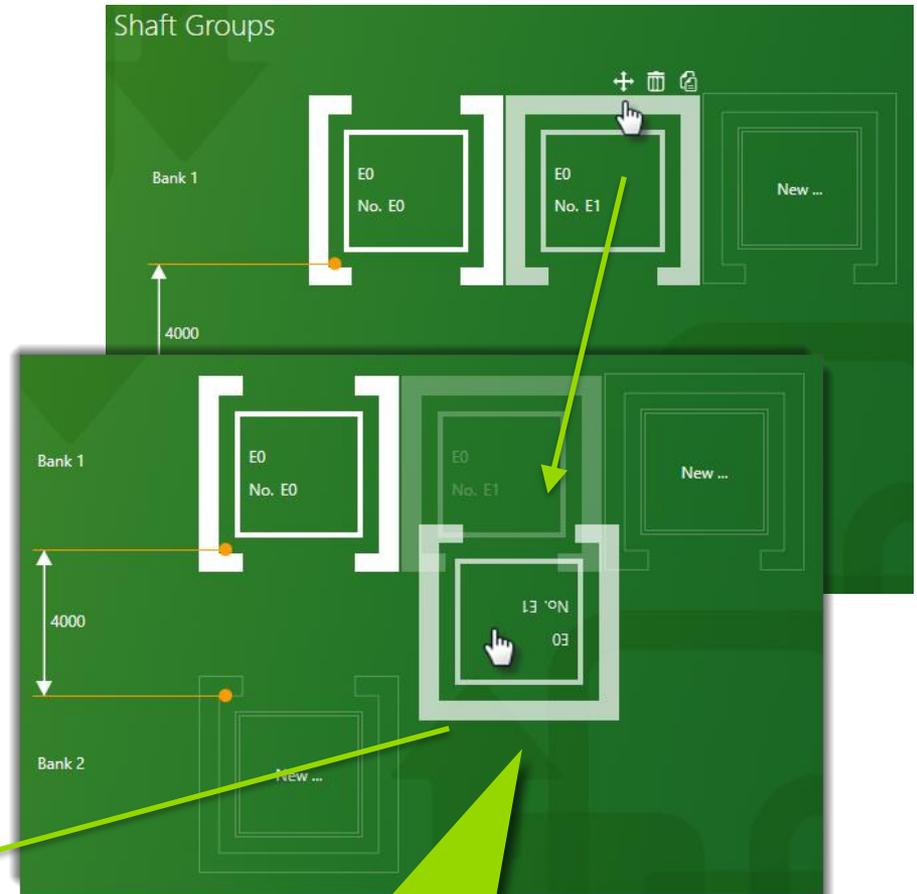
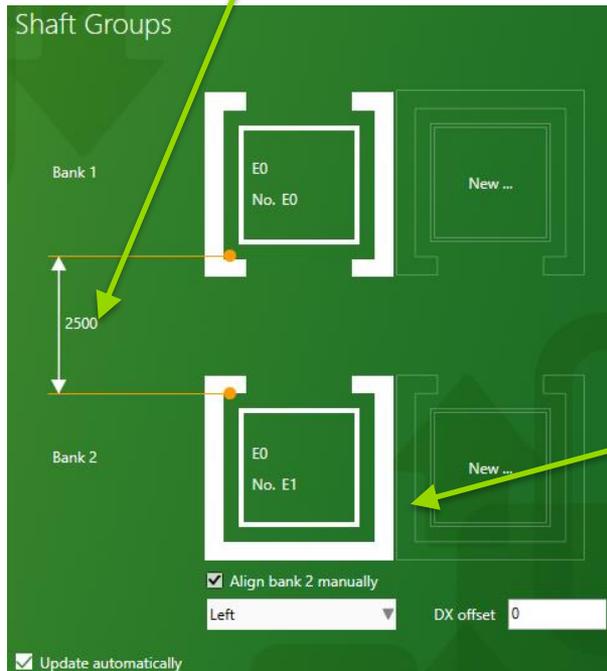
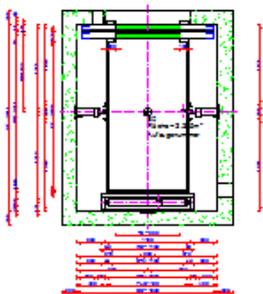
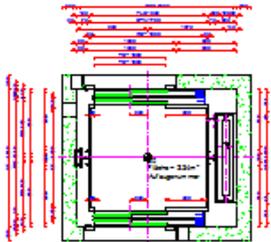
- Creating a group elevator via the group shaft wizard

Add a new shaft by using the button: New...



- Change the location of an existing group shaft

You can change the face-to-face distance between the shafts.



Hold the left mouse button and move the selected shaft to a new position.

Face-to-Face alignment options

Bank 1
E0 No. E0
E0 - Copy No. E1
New ...

2500

Bank 2
E0 No. E2
New ...

Align bank 2 manually
Left DX offset 0

Determine an own value for the DX offset

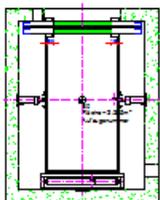
Alignment manually: Left, Center or Right

Bank 1
E0 No. E0
E0 - Copy No. E1
New ...

2500

Bank 2
E0 No. E2
New ...

Align bank 2 manually
Center DX offset 0



Example: alignment left



Example: alignment centre

Shaft Groups

Group Shaft Wall Opening

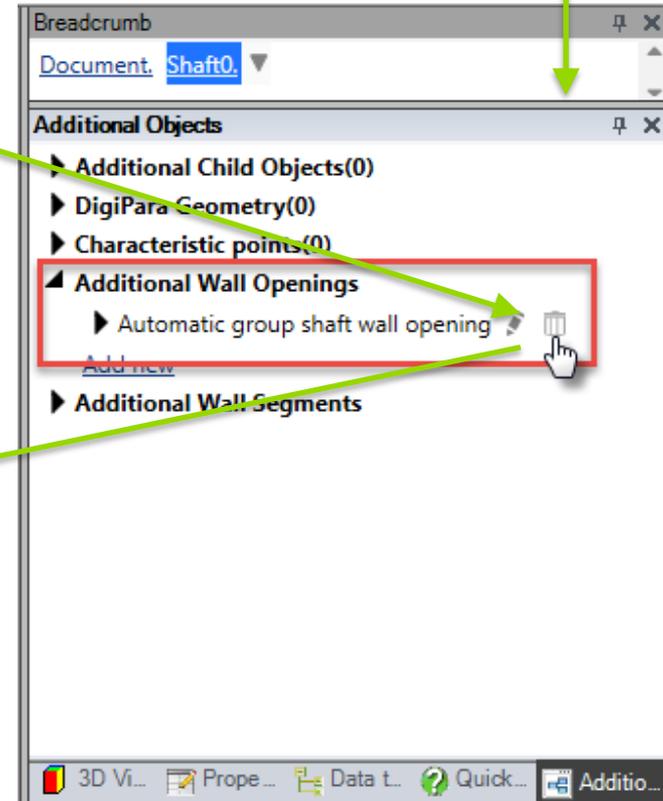
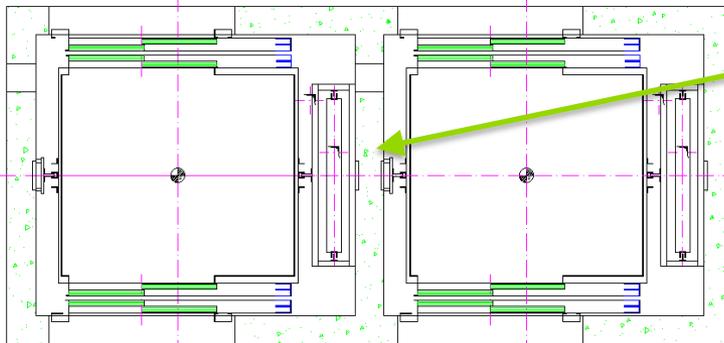
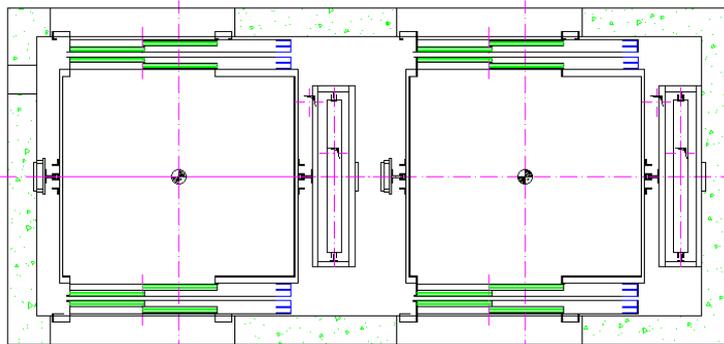
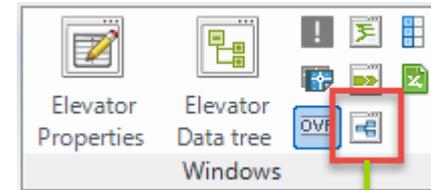
YouTube: [Removing and adding group shaft wall openings](#)

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- Automatically gets created when adding a new elevator to the group
 - Removing the wall opening via the Additional Objects Docking Window



Shaft Groups

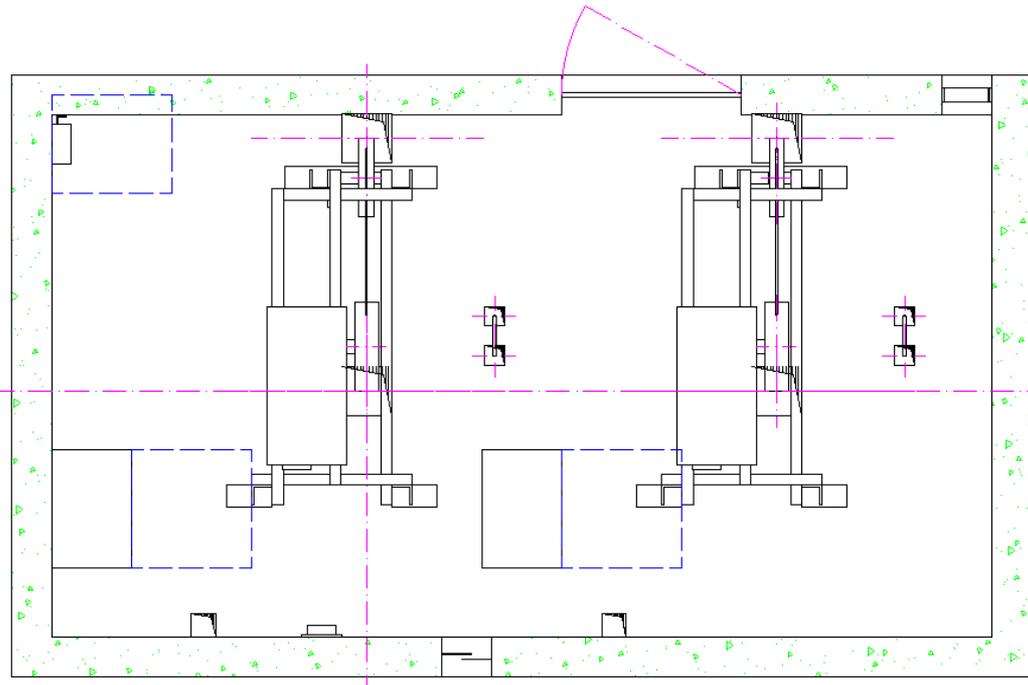
Machine Room

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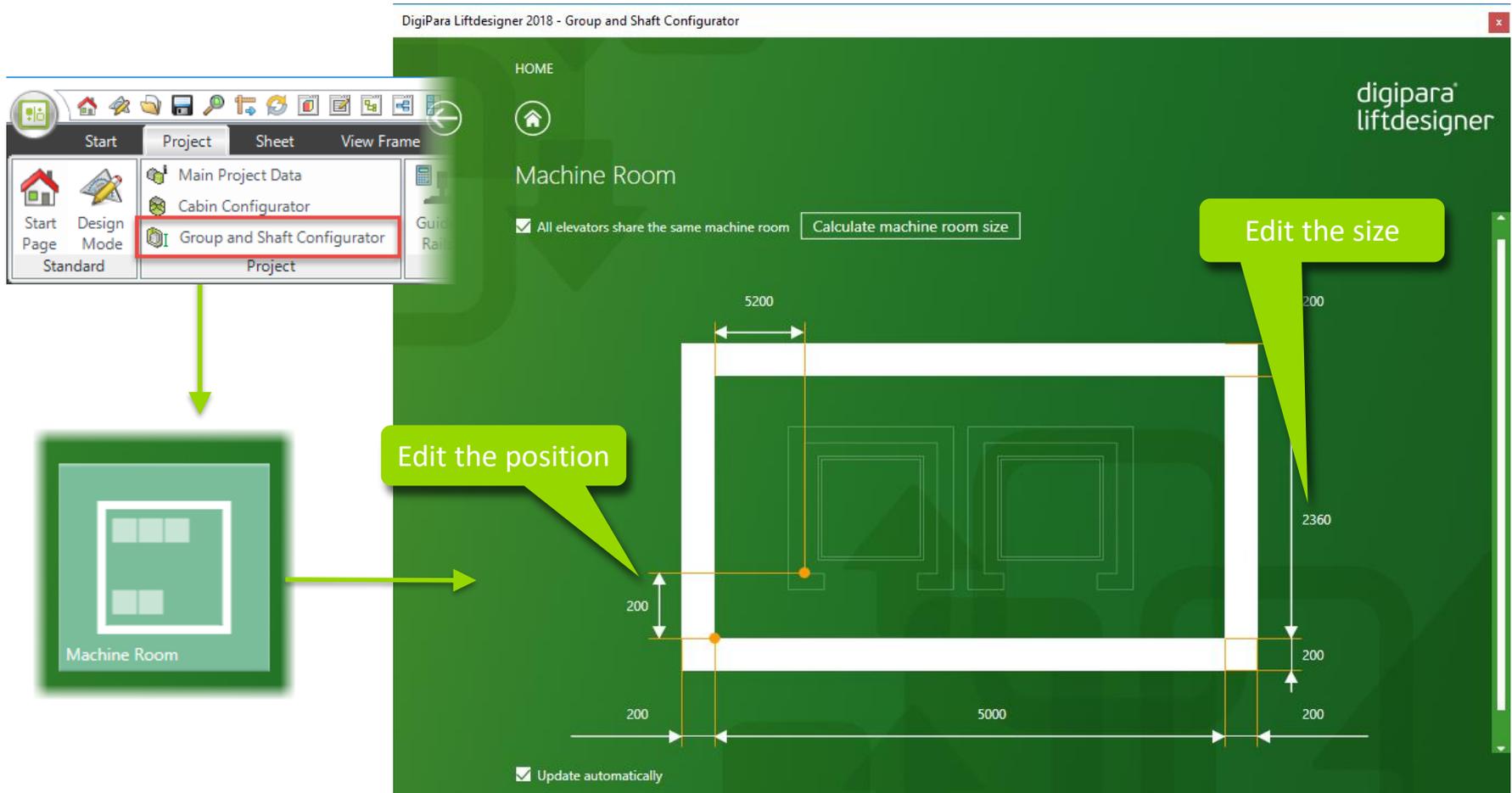


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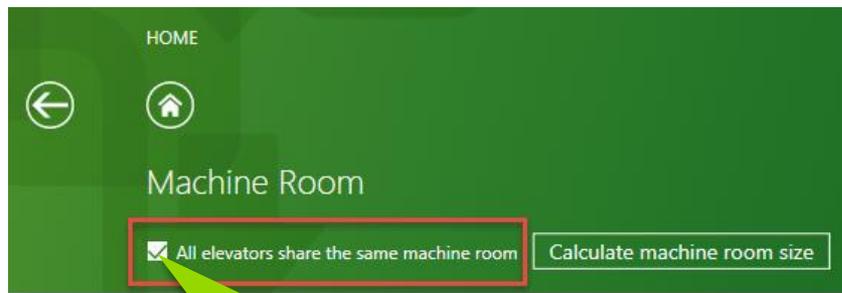
- Adding a new elevator to the group
 - Machine rooms are merged
 - Autom. removes double, unnecessary MR components like:
 - 2nd. ventilation window
 - 2nd. MR door
 - etc.



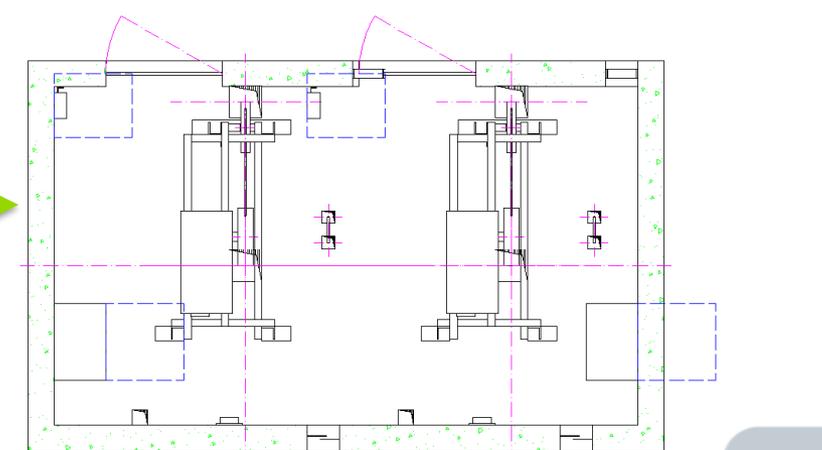
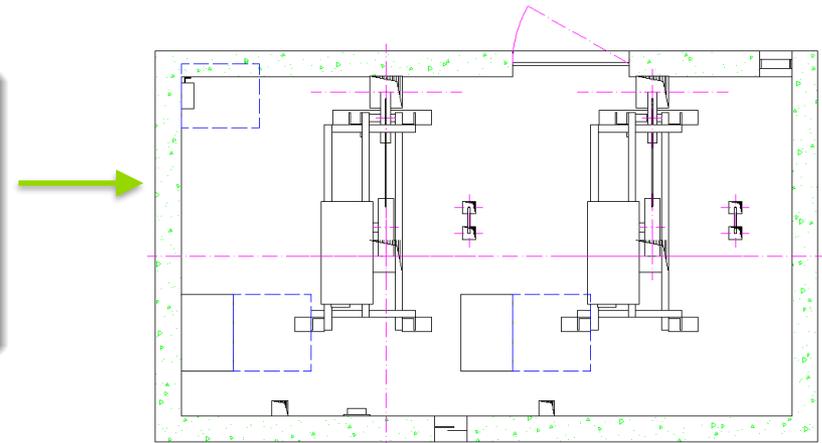
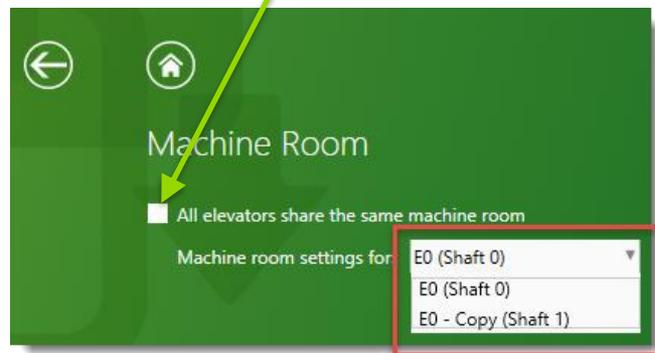
- Definition via the Group and Shaft Configurator



- Individual setting for each shaft
 - Adds all standard machine room components automatically



Remove the check mark for individual MR settings.



Overwrites

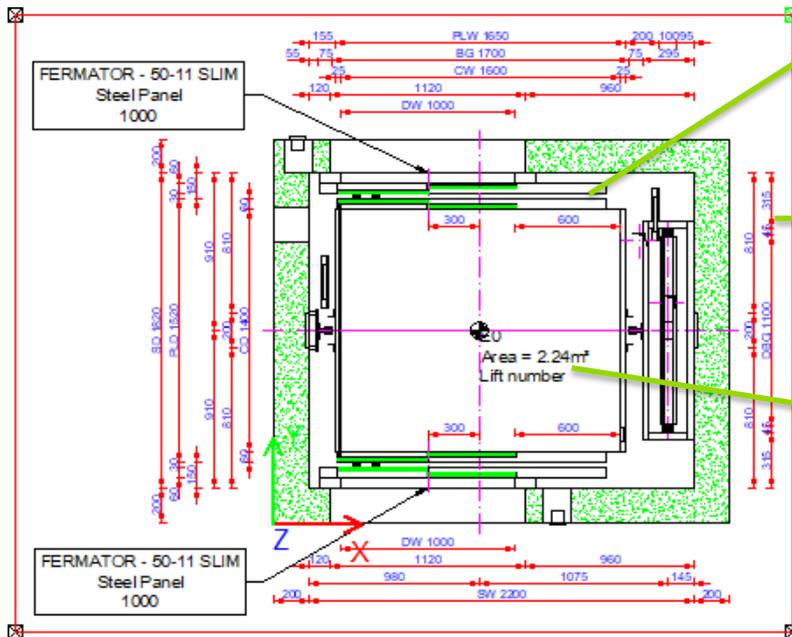
General

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- All view frame changes are stored in an overwrites list e.g.
 - Annotation changes
 - Component changes
 - Dimension changes



Breadcrumb: Document, Sheets, LdvSheet1, LdvFrame11

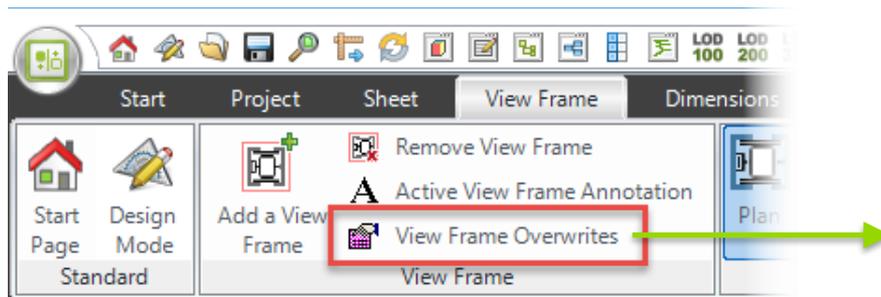
Overwrites / Annotation

Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Shaft0.Car.Door1.	LOD	LOD 100 [0x2001]
Shaft0.Car.Door2.	LOD	LOD 100 [0x2001]
Shaft0.Entries1.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft0.Entries2.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft*.Car.Frame.YokeGuide*.Supp...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]
Shaft0.Entries2.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft0.Car.Door1.DIM101	Dimension	256 [0x100]
Shaft0.Car.Door2.DIM101	Dimension	256 [0x100]
Shaft*.Car.Frame.YokeGuide*.Supp...	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	FERMATOR - 50-11...
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	FERMATOR - 50-11...
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	External\$("Me.Parent_L_...

3D View | Properti... | Data tree | Quick H... | Addition... | Overwrit...

- The Overwrites docking window can be activated via the corresponding item in the View Frame Ribbon Group



Overwrites / Annotation

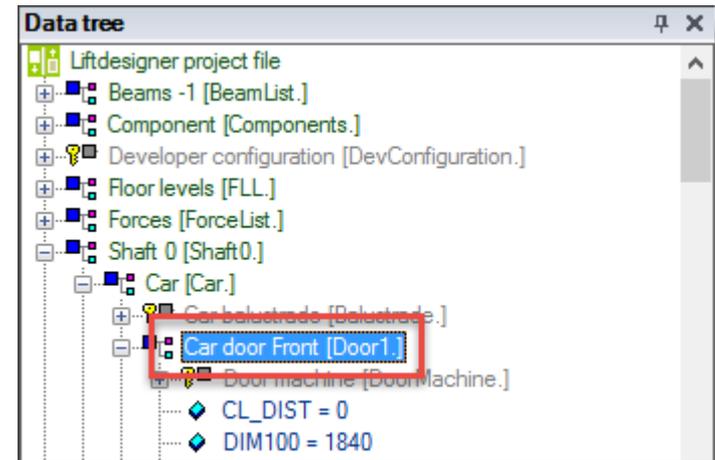
Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Shaft0.Car.Door1.	LOD	LOD 100 [0x2001]
Shaft0.Car.Door2.	LOD	LOD 100 [0x2001]
Shaft0.Entries1.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft0.Entries2.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft0.Car.Door1.DIM101	Dimension	256 [0x100]
Shaft0.Car.Door2.DIM101	Dimension	256 [0x100]
Shaft*.Car.Frame.YokeGuide*.Supp...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame11.Ma...	Annotation	External\$("Me.Pa...

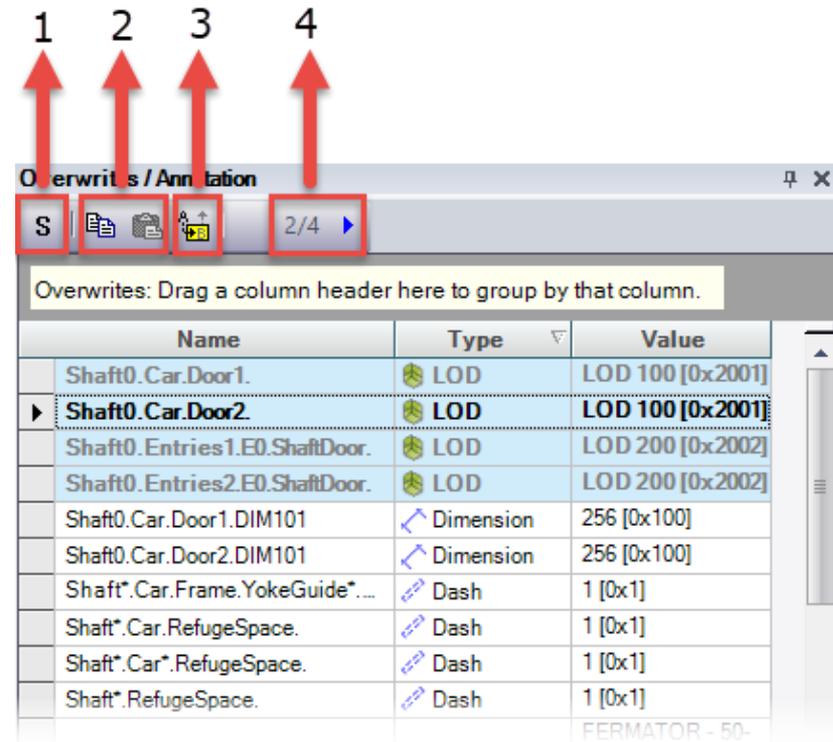
3D View | Properti... | Data tree | Quick H... | Addition... | Overwrit...

- The overwrite name is equal to the data tree name of the corresponding object
- It is build of the names of the object and its parents, e.g.

"Shaft0.Car.Door1."



- **Toolbar**
 1. Selects the object in the drawing which is concatenated to the selected overwrites entry
 2. Copy and Paste a selected overwrite entry/ entries
 3. Replace a certain term in the selected overwrite entry/ entries (no copying operation)
 4. Switch between the selected overwrite entries (highlighted yellow)



- Can be reset by deleting the corresponding item from the Overwrites window
 - Selecting the corresponding item (highlighted yellow)
 - And removing it via the delete key

Overwrites / Annotation

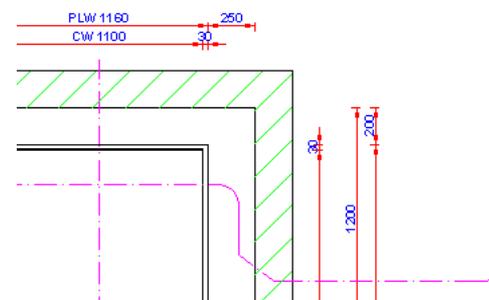
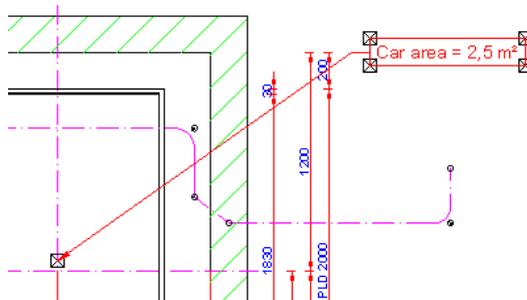
Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame1...	Annotation	Car area = 2,5m²
Shaft*.Car.Frame.YokeGuide*...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]

Overwrites / Annotation

Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Shaft*.Car.Frame.YokeGuide*...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]



Overwrites

Dimension Overwrites

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- Dimension overwrites are created when e.g.
 - Deleting a dimension from the view
 - Changing dimension settings
 - Changing the extension lines
 - Changing the dimension text settings
 - Changing the dimension position
 - etc.
 - Moving dimensions
 - Changing dimension prefixes
 - Create own dyn. dimensions
 - etc.



Overwrites / Annotation

Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Shaft*.Car.TOP_RUNBY	Dimension	1536 [0x600]
Shaft*.DEPTH	Dimension	1536 [0x600]
Shaft*.Entries*.E*.ShaftDoor.DI...	Dimension	256 [0x100]
Shaft*.Entries*.E*.ShaftDoor.HE...	Dimension	1536 [0x600]
Shaft*.LIFT_TRAVEL	Dimension	1536 [0x600]
Shaft*.MachineryRoom.DEPTH	Dimension	1536 [0x600]
Shaft*.MachineryRoom.DIM*	Dimension	1536 [0x600]
Shaft*.MachineryRoom.HEIGHT	Dimension	1536 [0x600]
Shaft*.MachineryRoom.POS_DZ	Dimension	1536 [0x600]
Shaft*.MachineryRoom.W_O	Dimension	1536 [0x600]
Shaft*.MachineryRoom.W_U	Dimension	1536 [0x600]
Shaft*.PIT	Dimension	1536 [0x600]
Shaft*.Entries*.E0.ShaftDoor.	Extended...	1 [0x1]

Overwrites

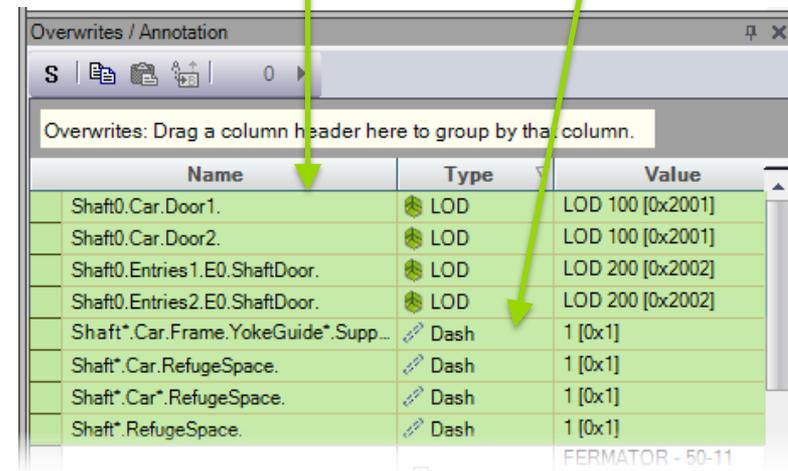
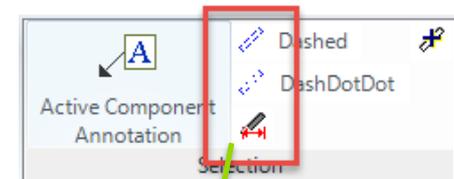
Component Overwrites

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- Component overwrites are created when e.g.
 - Deleting a component from the view
 - Changing the presentation or LOD
 - Dashed
 - DashDotDot
 - LOD 100 - 500
 - LOD MAX
 - etc.
 - Enabling extended component dimensions
 - etc.



A screenshot of the Overwrites / Annotation table. The table has three columns: Name, Type, and Value. The table contains several rows of data, including Shaft0.Car.Door1, Shaft0.Car.Door2, Shaft0.Entries1.E0.ShaftDoor, Shaft0.Entries2.E0.ShaftDoor, Shaft*.Car.Frame.YokeGuide*.Supp..., Shaft*.Car.RefugeSpace., Shaft*.Car*.RefugeSpace., and Shaft*.RefugeSpace. The table is titled "Overwrites: Drag a column header here to group by that column."

Name	Type	Value
Shaft0.Car.Door1.	LOD	LOD 100 [0x2001]
Shaft0.Car.Door2.	LOD	LOD 100 [0x2001]
Shaft0.Entries1.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft0.Entries2.E0.ShaftDoor.	LOD	LOD 200 [0x2002]
Shaft*.Car.Frame.YokeGuide*.Supp...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]

Overwrites

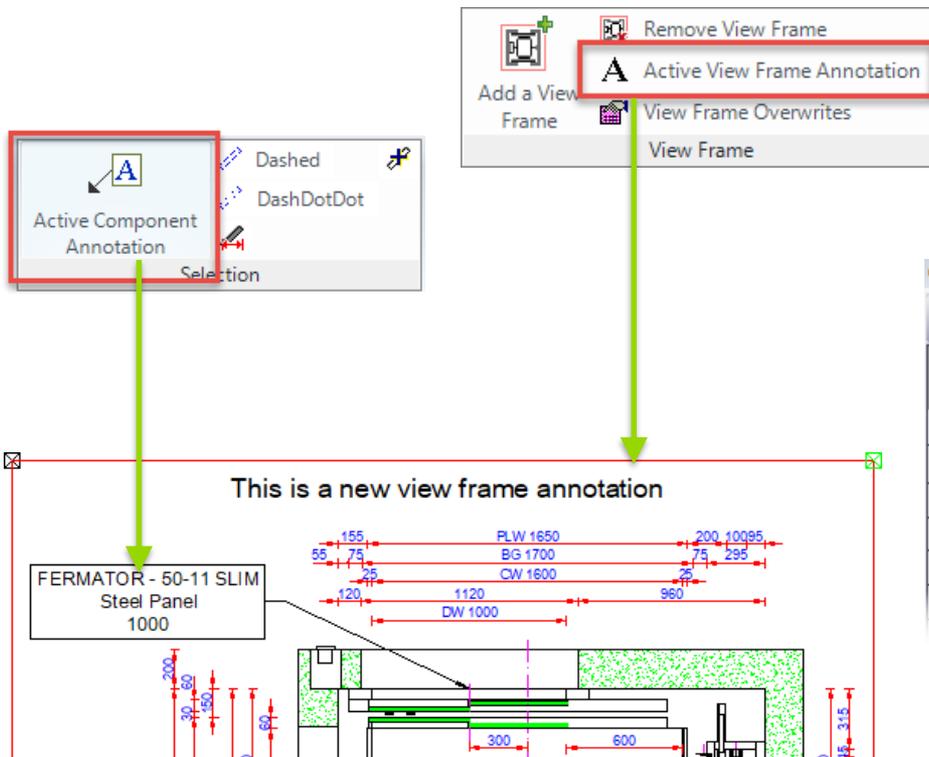
Annotation Overwrites

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- Annotation overwrites are created when
 - Adding a component annotation
 - Adding a view annotation



Hint: Each view frame has it's own overwrite list

Name	Type	Value
Sheets.LdvSheet1.LdvFrame11...	Annotation	This is a new...
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Sheets.LdvSheet1.LdvFrame11...	Annotation	FERMATOR - 50...
Shaft*.Car.Frame.YokeGuide*...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]

Overwrites

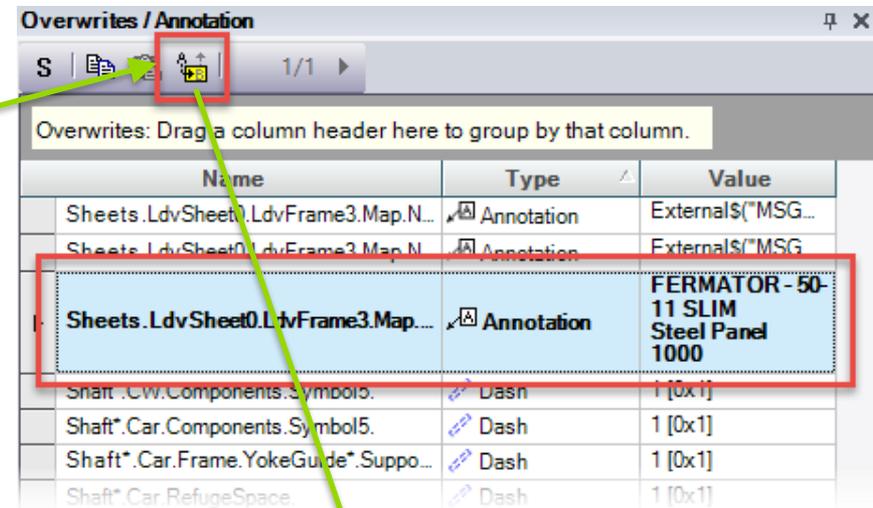
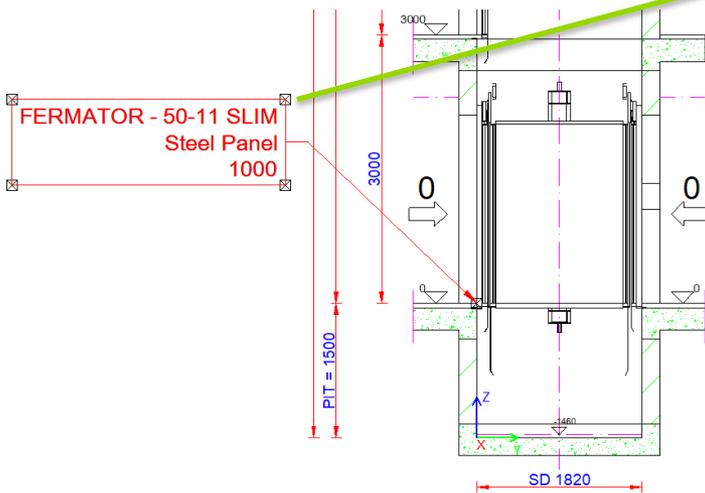
The *Operator

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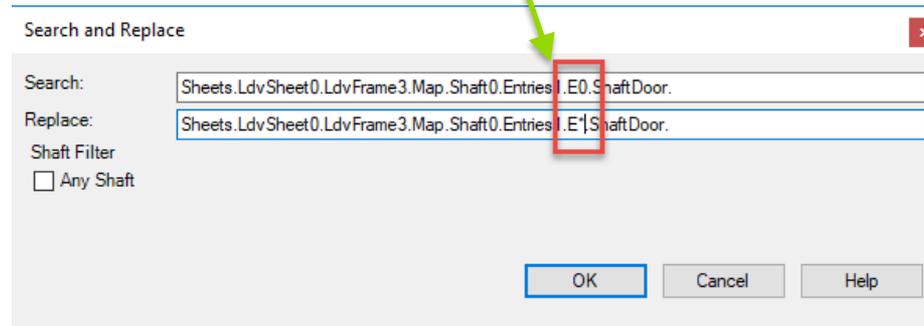
- Provides the opportunity to assign an overwrite to all childs of a tree list object.
- Works for all objects (dimensions, annotations, BIM components)



Overwrites / Annotation

Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Sheets.LdvSheet0.LdvFrame3.Map.N...	Annotation	External\$("MSG...
Sheets.LdvSheet0.LdvFrame3.Map.N...	Annotation	External\$("MSG...
Sheets.LdvSheet0.LdvFrame3.Map...	Annotation	FERMATOR - 50-11 SLIM Steel Panel 1000
Shaft*.CW.Components.Symbol5.	Dash	1 [0x1]
Shaft*.Car.Components.Symbol5.	Dash	1 [0x1]
Shaft*.Car.Frame.YokeGuide*.Suppo...	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]



Search and Replace

Search: Sheets.LdvSheet0.LdvFrame3.Map.Shaft0.Entries.E0.ShaftDoor.

Replace: Sheets.LdvSheet0.LdvFrame3.Map.Shaft0.Entries.E1.ShaftDoor.

Shaft Filter
 Any Shaft

OK Cancel Help

The *Operator

Breadcrumb: Document, Sheets, LdvSheet0, LdvFrame3, Map, Shaft0.Entries1.E*.ShaftDoor.

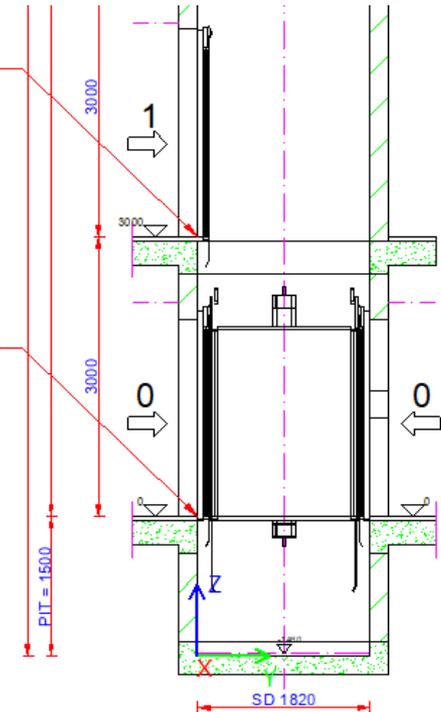
Overwrites / Annotation

Overwrites: Drag a column header here to group by that column.

Name	Type	Value
Sheets.LdvSheet0.LdvFrame3.Map.NOTE#DESC	Annotation	Externals("MSGG RP0.MSG640")
Sheets.LdvSheet0.LdvFrame3.Map.NOTE#SCALE	Annotation	Externals("MSGG RP0.MSG4"); Externals("LdvFrame.SCALETEXT")
Sheets.LdvSheet0.LdvFrame3.Map.Shaft0.Entries1.E*.S...	Annotation	FERMATOR - 50-11 SLIM Steel Panel 1000
Shaft*.CW.Components.Symbol5.	Dash	1 [0x1]
Shaft*.Car.Components.Symbol5.	Dash	1 [0x1]
Shaft*.Car.Frame.YokeGuide*.Support0.SH0.	Dash	1 [0x1]
Shaft*.Car.RefugeSpace.	Dash	1 [0x1]
Shaft*.Car*.RefugeSpace.	Dash	1 [0x1]
Shaft*.RefugeSpace.	Dash	1 [0x1]

FERMATOR - 50-11 SLIM Steel Panel 1000

FERMATOR - 50-11 SLIM Steel Panel 1000

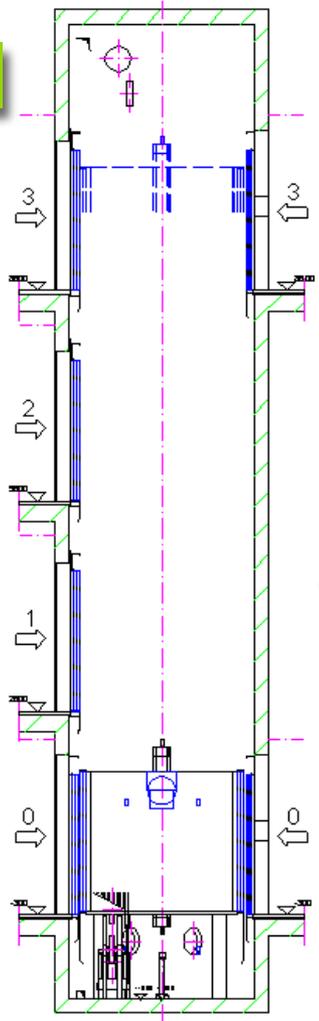


Replacing the index no. of the entry item (E0) with the * operator (E*).

- Open the Overwrites window first and create a project with entrances on the front and on the rear side of the shaft
 1. Add a vertical View to the left side
 2. Delete the bottom landing door at the front wall.
 - Look up the new entry for the door delete operation in the Overwrites window
 3. Assign the delete operation to all landing doors at the front and the rear wall
 4. Add 2 new floors to the elevator via the Floor level dialog and activate the entrances at the front and the rear wall

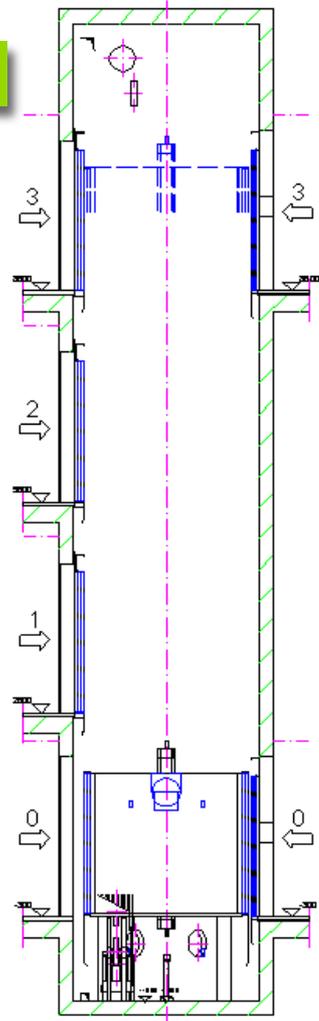
Practice - The *Operator

1.



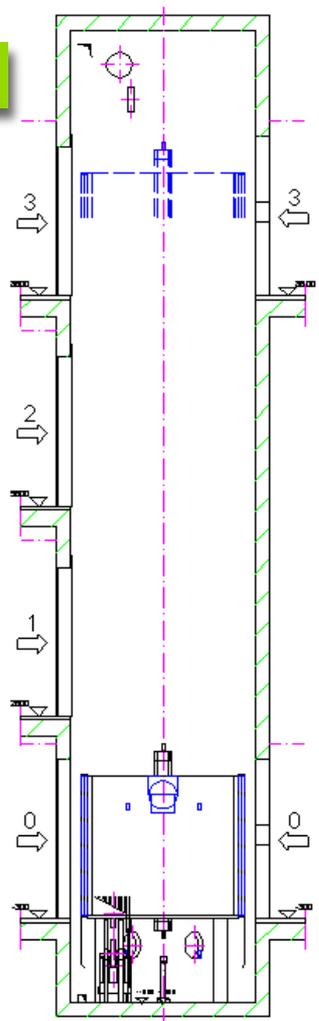
Vertical
Scale: 1:50

2.



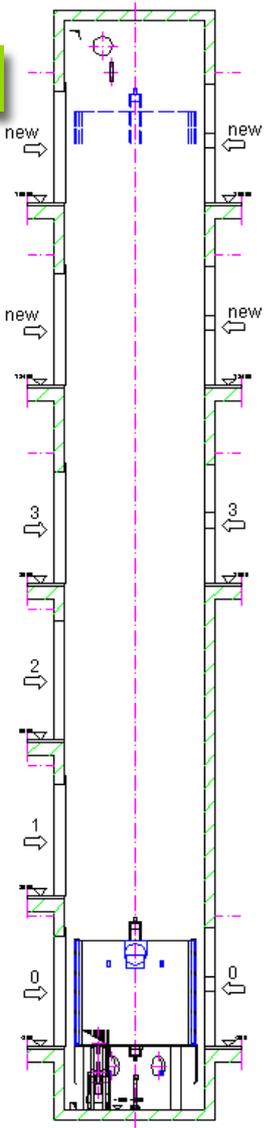
Vertical
Scale: 1:50

3.



Vertical
Scale: 1:50

4.



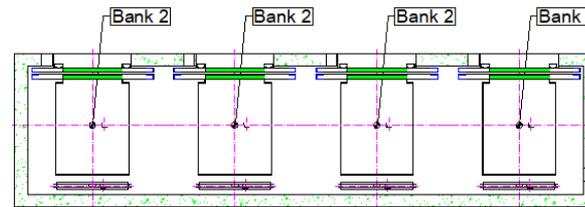
Vertical
Scale: 1:50

Extended *Operator

- Extended * Operator and possible combinations for more dynamical View Frames

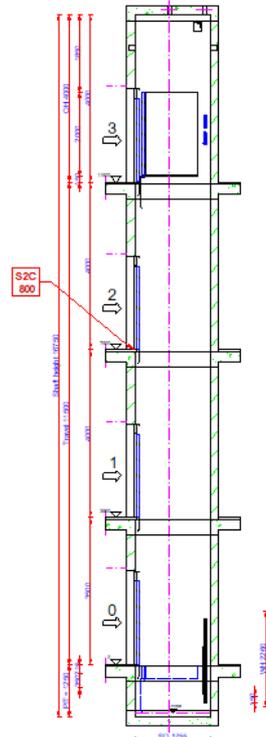
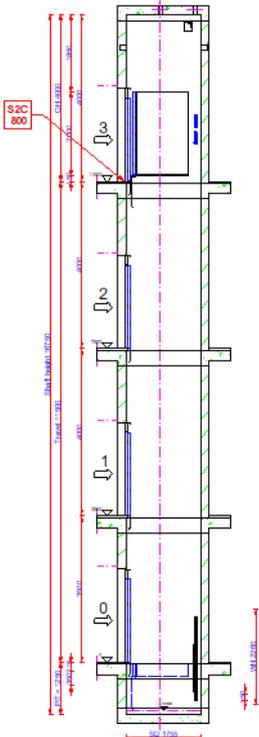


`*{Bank1} / *{Bank2}`

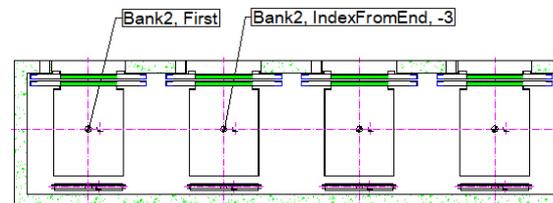
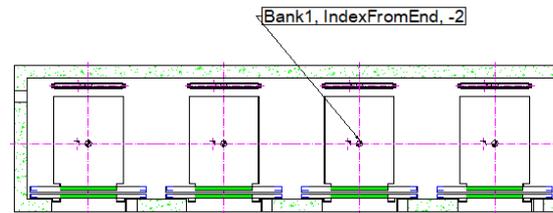


`*{Last}`

`*{IndexFromEnd, -2}`



Name	Type	Value
Sheets.LdvSheet0.LdvFrame4.Map.Shaft*{Bank2, First}.Car.	Annotation	Bank2, First
Sheets.LdvSheet0.LdvFrame4.Map.Shaft*{Bank2, IndexFromEnd, -3}.Car.	Annotation	Bank2, IndexFromEnd, -3
Sheets.LdvSheet0.LdvFrame4.Map.Shaft*{Bank1, IndexFromEnd, -2}.Car.	Annotation	Bank1, IndexFromEnd, -2



Possible combination examples

Project References

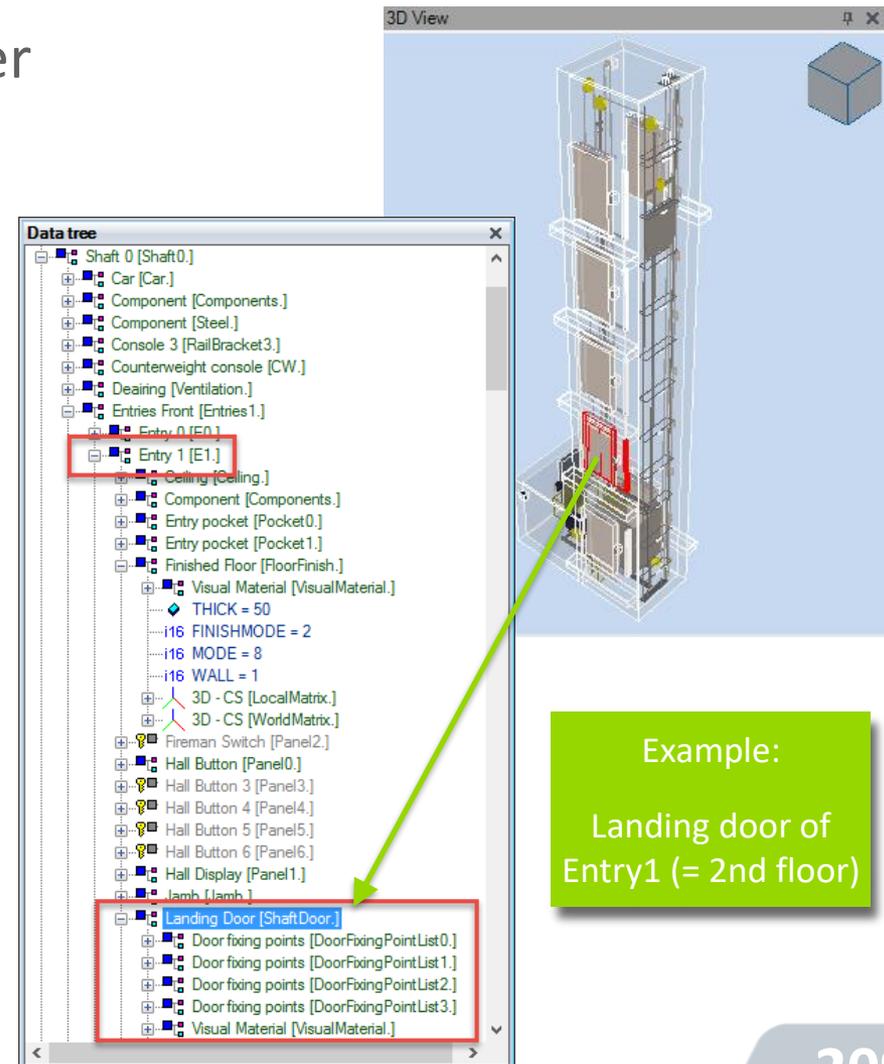
Data Tree & Project References

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- Refer to project specific values and objects
- Are created via the Liftdesigner Data tree
- The Data tree represents the project as a text structure
- There is one node for
 - Every component / object
 - Every dimension
- List objects have an individual node each, like
 - Entrances and landing doors
 - Rail brackets
 - Etc.

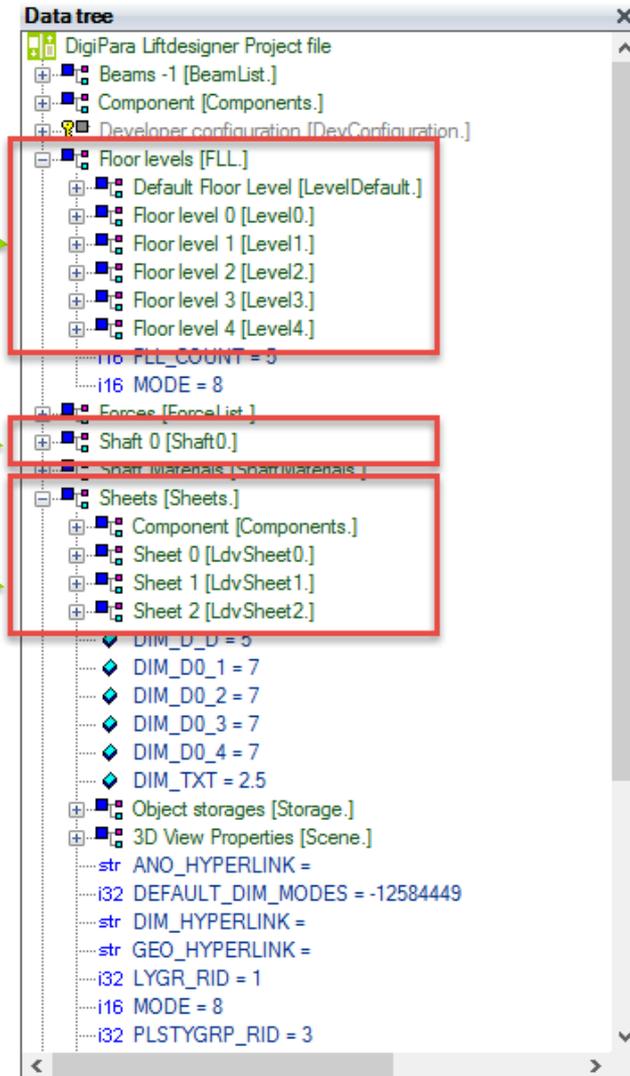


- Major objects

5 Floors

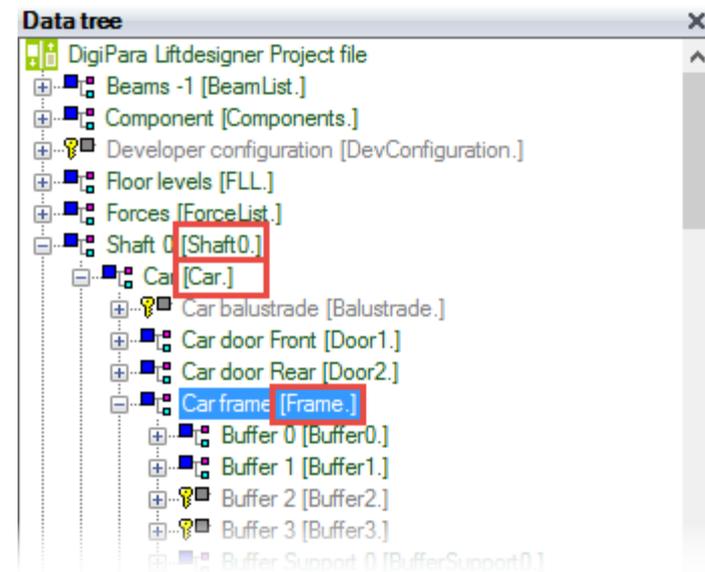
1 elevator (shaft)

3 Sheets loaded

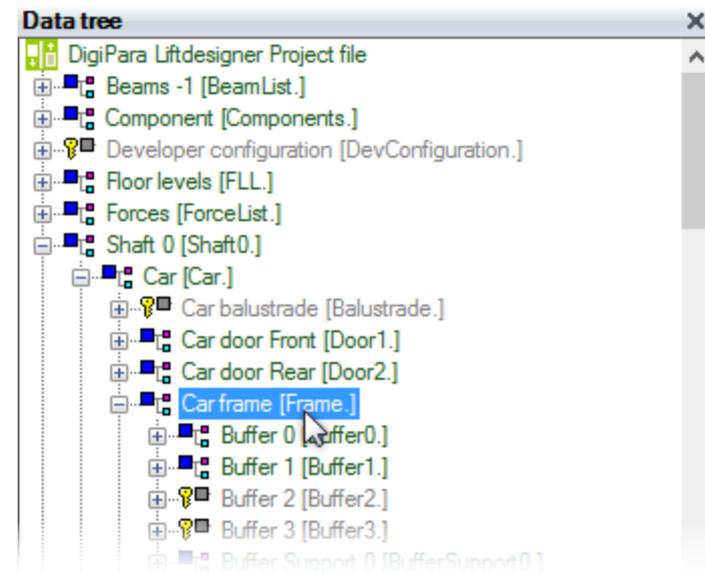
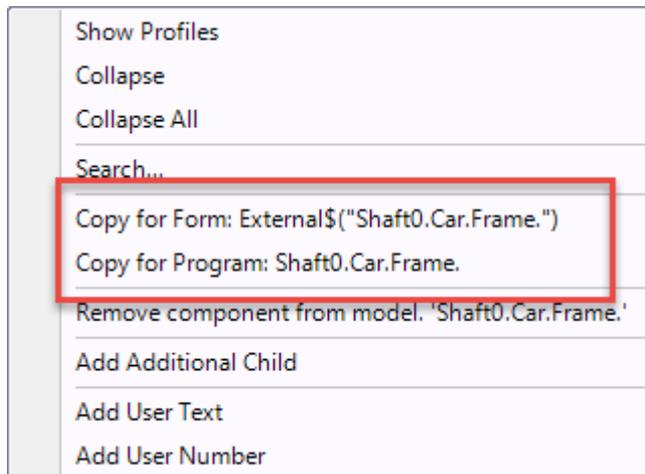


- List objects always start with the index 0

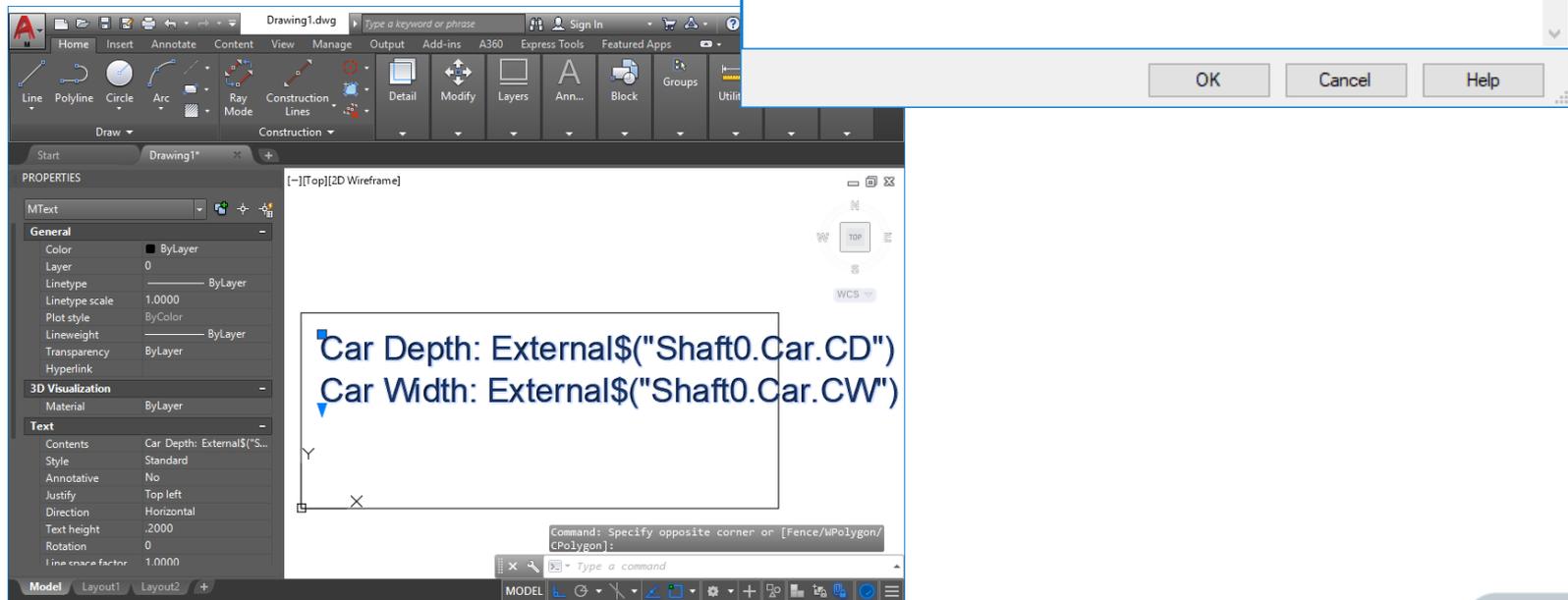
- Project References are build on the names of the selected object and its parents
 - Reference for the car frame object:
 - "Shaft0.Car.Frame."
- Object related references are typically ending on a dot



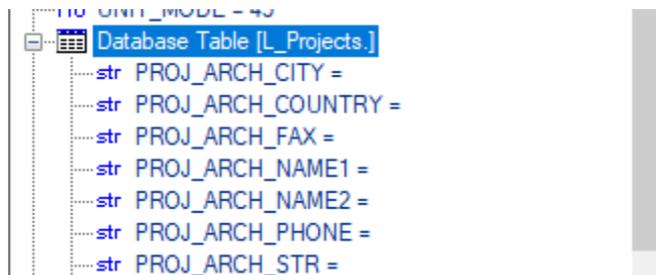
- References can be created via the right mouse button context menu



- Project references can be used
 - in Annotations **Copy for Form**
 - in DWG files
 - in Excel files **Copy for Program**
 - in .NET / VBA programs

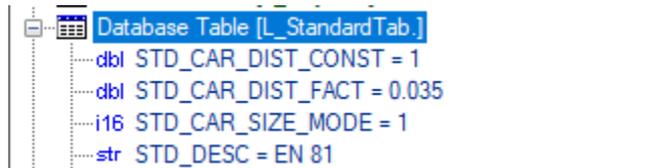


- Typically referenced project values are located under the following nodes
- The **L_Projects.** node



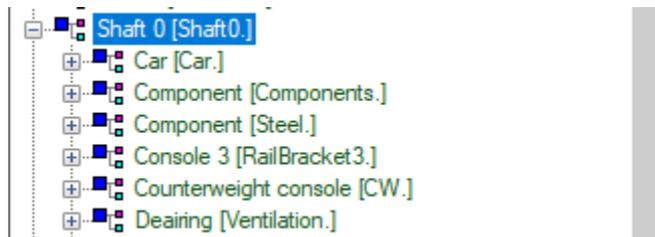
```
Database Table [L_Projects.]  
...str PROJ_ARCH_CITY =  
...str PROJ_ARCH_COUNTRY =  
...str PROJ_ARCH_FAX =  
...str PROJ_ARCH_NAME1 =  
...str PROJ_ARCH_NAME2 =  
...str PROJ_ARCH_PHONE =  
...str PROJ_ARCH_STR =
```

- The **L_StandardTab.** node

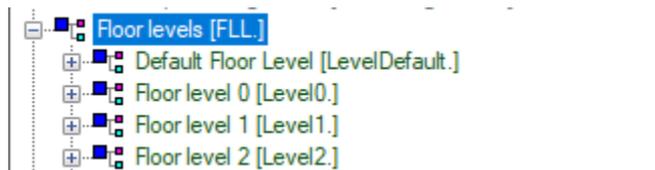


```
Database Table [L_StandardTab.]  
...dbl STD_CAR_DIST_CONST = 1  
...dbl STD_CAR_DIST_FACT = 0.035  
...i16 STD_CAR_SIZE_MODE = 1  
...str STD_DESC = EN 81
```

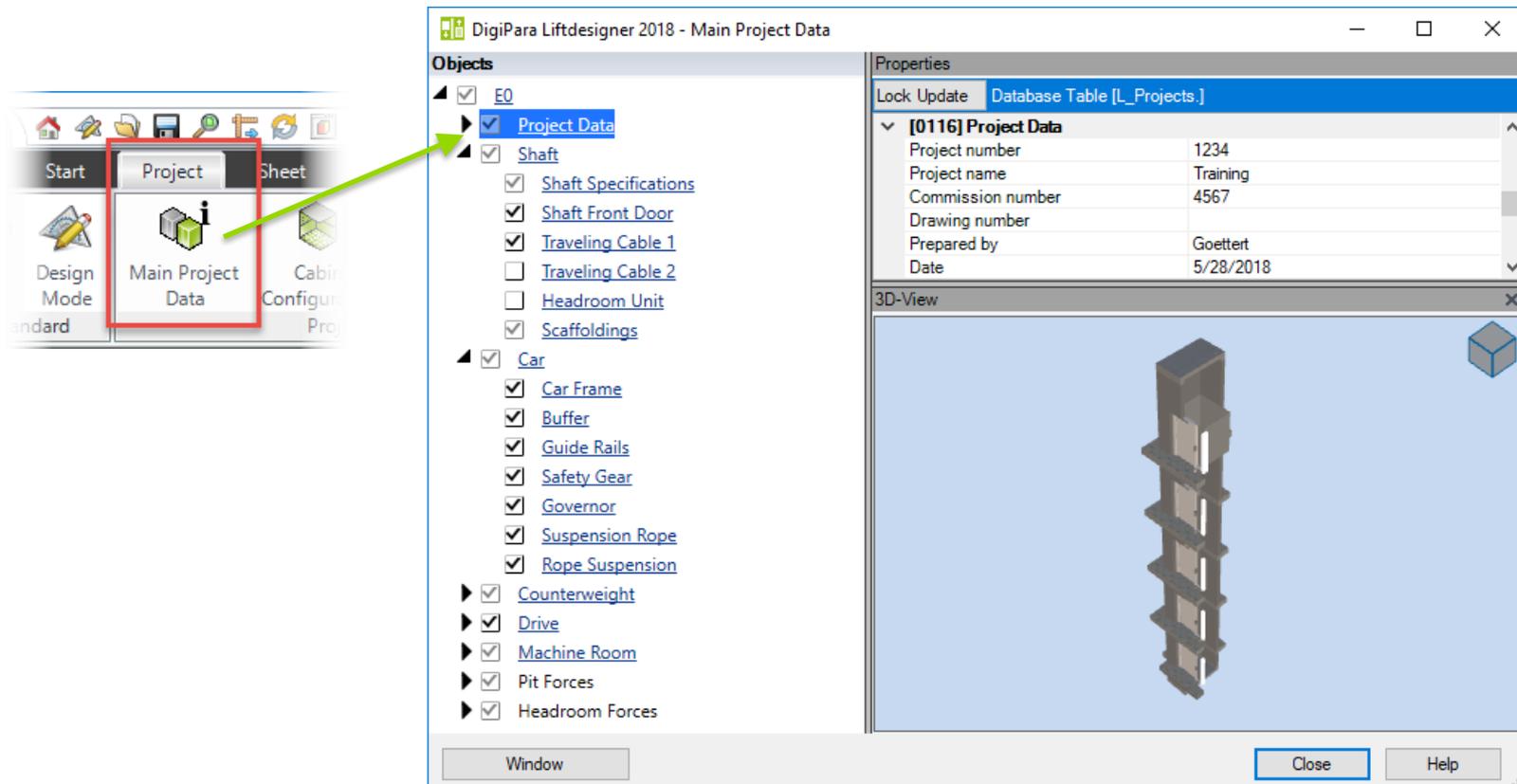
- Typically referenced project values are located under the following nodes
- The **Shaft.** node



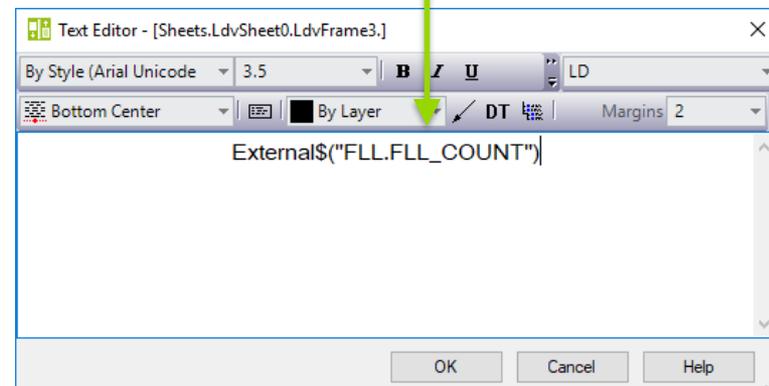
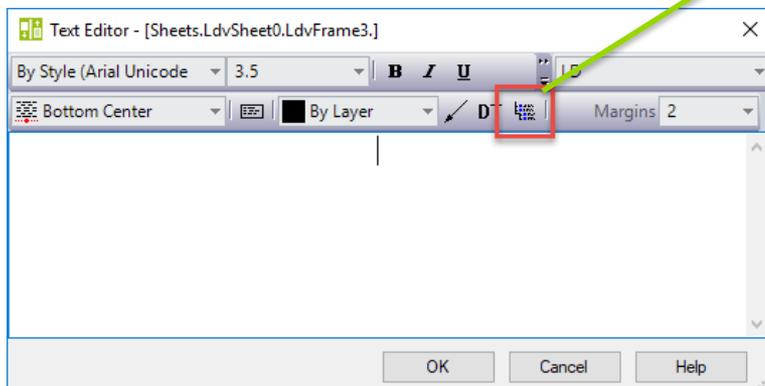
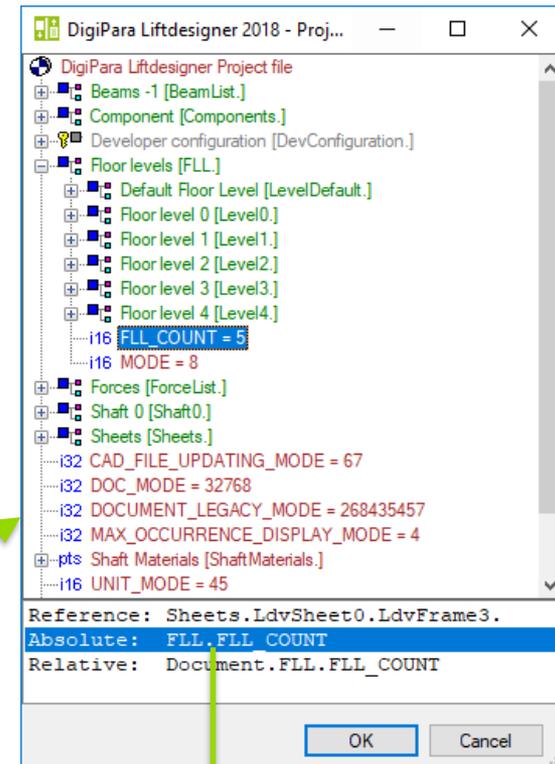
- The **FLL.** node



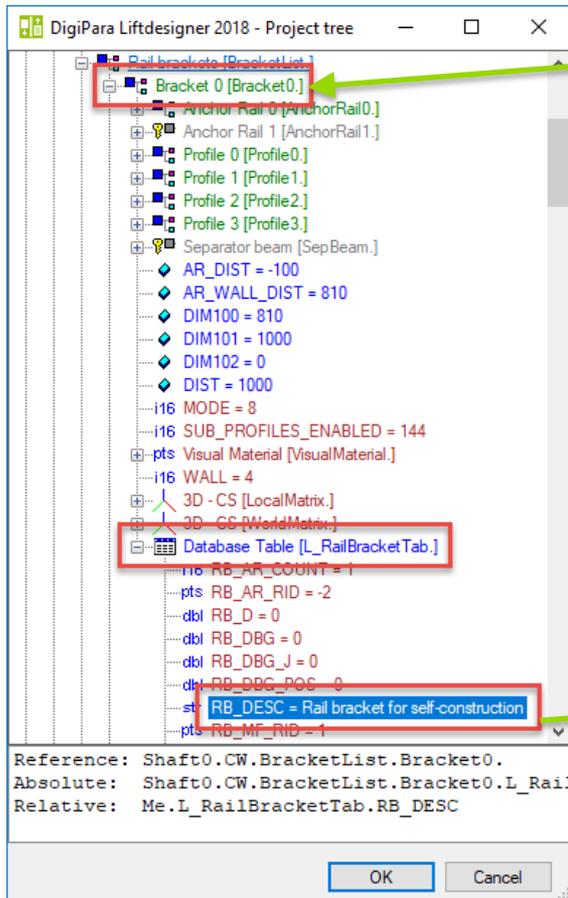
- The Project specification values located under the **L_Projects.** node (basically used in title blocks) can be edited via the Main Project Data ... dialog



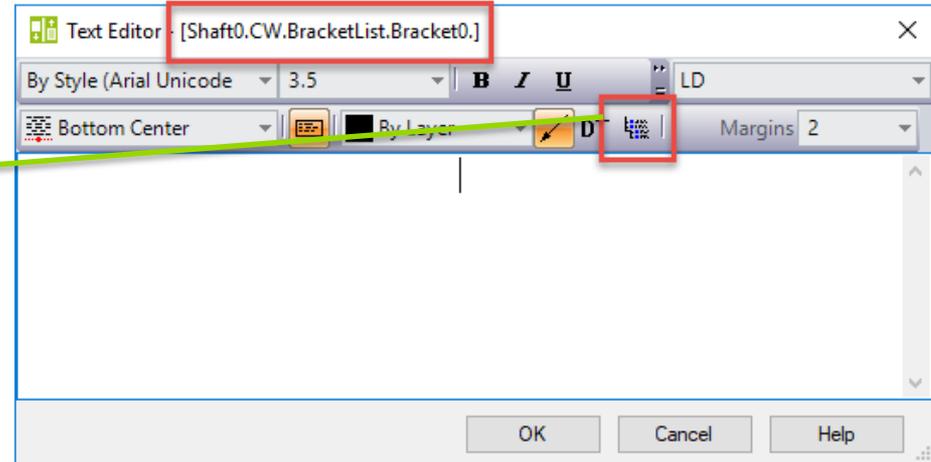
- Using data tree references in annotations
 - Via the Text Editor Project tree (similar to the **Data tree**)
 - Add the Project tree reference via a double click on the tree item or via the OK button



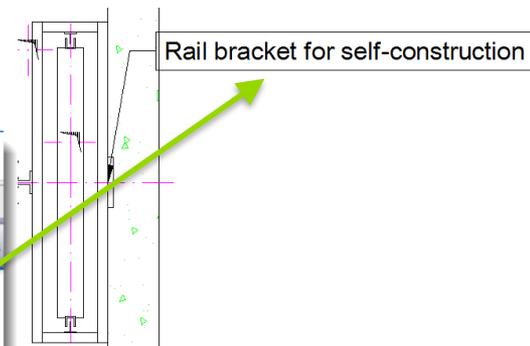
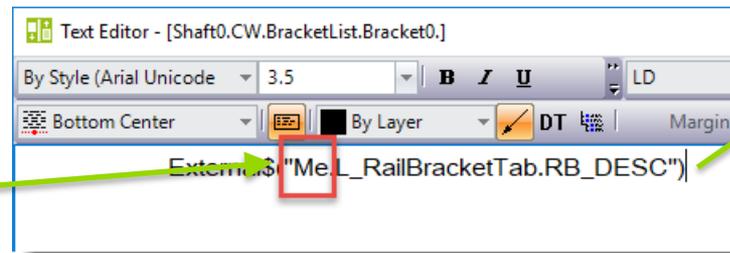
- Special Me. expression
 - Points to the currently selected component



Data tree path to the selected component

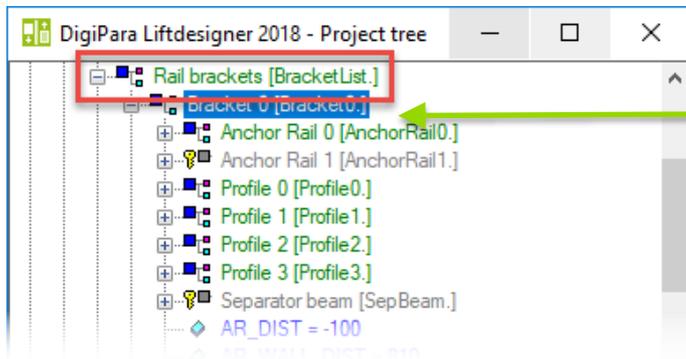


In this case Me. replaces the term:
Shaft0.CW.BracketList.Bracket0.

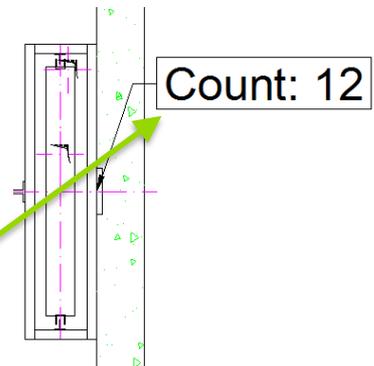
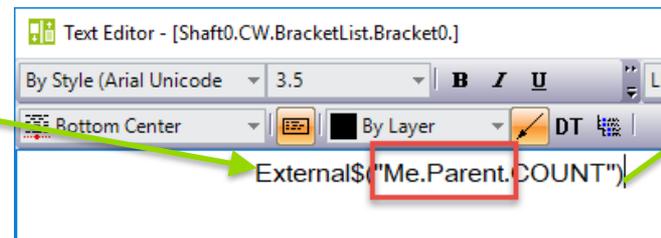
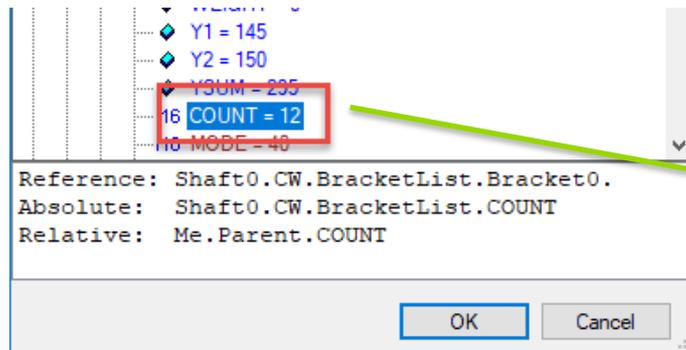
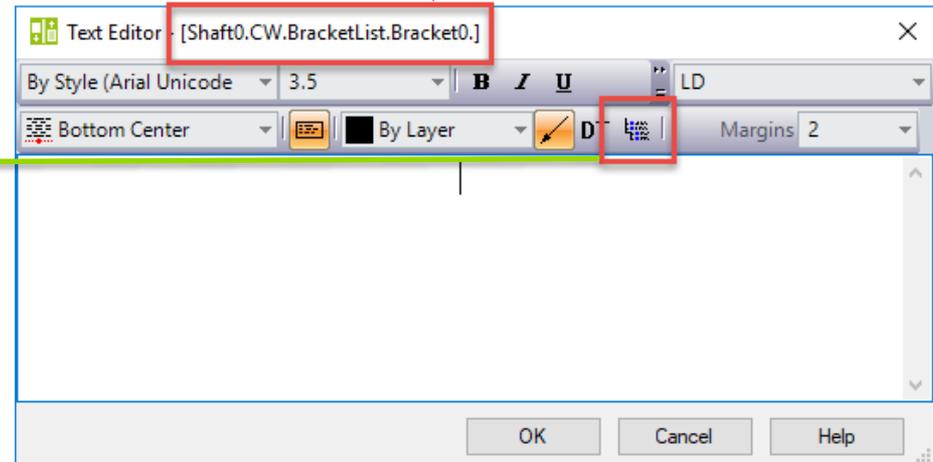


- Special **Me.Parent.** expression
 - Points to the parent object node of the selected component

Data tree path to the selected component

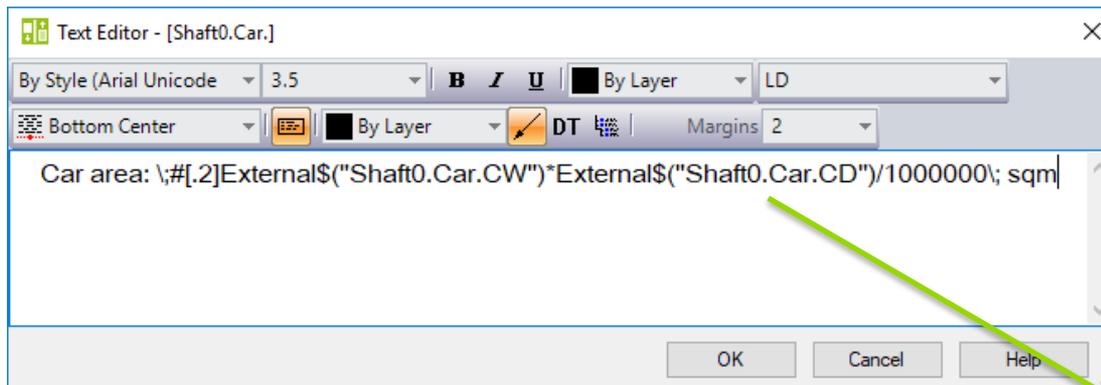


Selecting the COUNT value of the parent node item

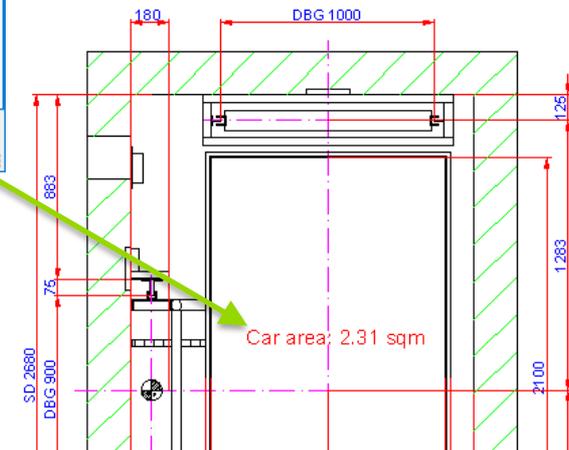


- Simple calculations using Data tree references

Car area: \;#[.2]External\$("Shaft0.Car.CW")*External\$("Shaft0.Car.CD")/1000000\; sqm



Calculations can be combined with leading or trailing text. Therefore the corresponding parts of the annotation must be separated by a backslash-semicolon character sequence (`\;`). Calculations generally start with a # symbol.



- Create a new Plan view and add a view frame annotation containing the following references:
 - Shaft depth
 - Shaft width
 - Floor count

- Create a shaft lamp component annotation containing the following references:
 - Lamp count
 - Lamp type

External Blocks

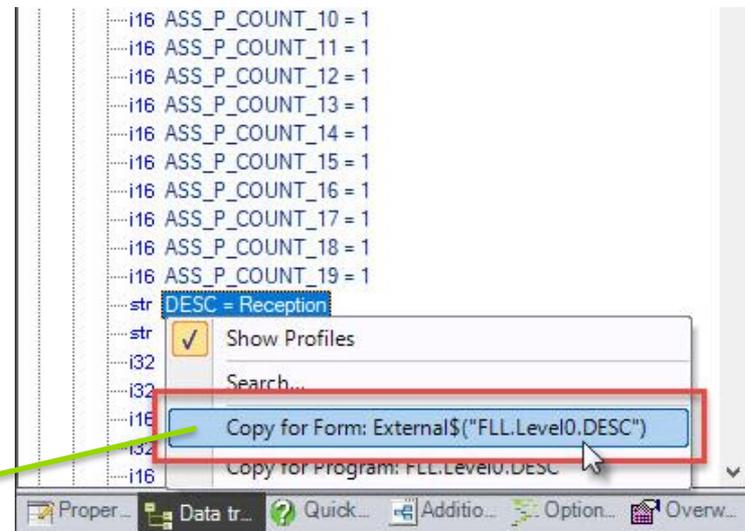
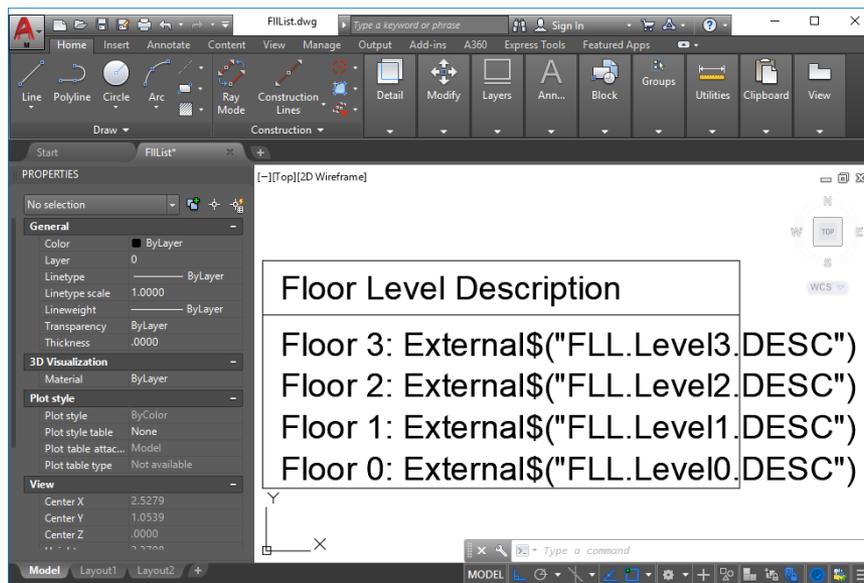
(AutoCAD DWG's)

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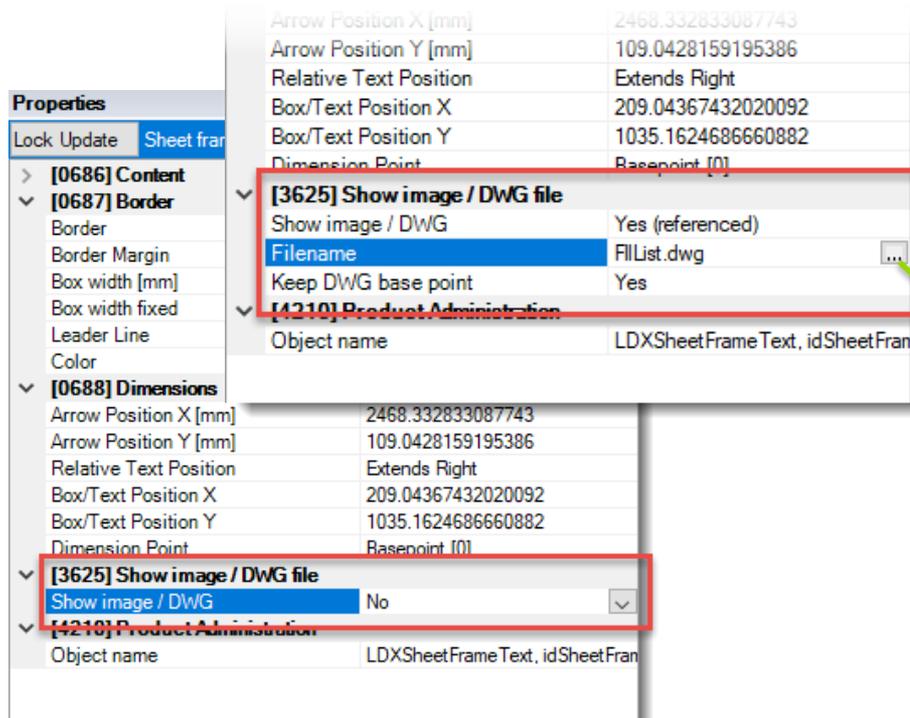
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- Can be displayed as static content in DigiPara Liftdesigner drawings (.dwg, .dxf)
- Can contain DigiPara Liftdesigner project references
- Can be used in DWG annotations and standard view frames



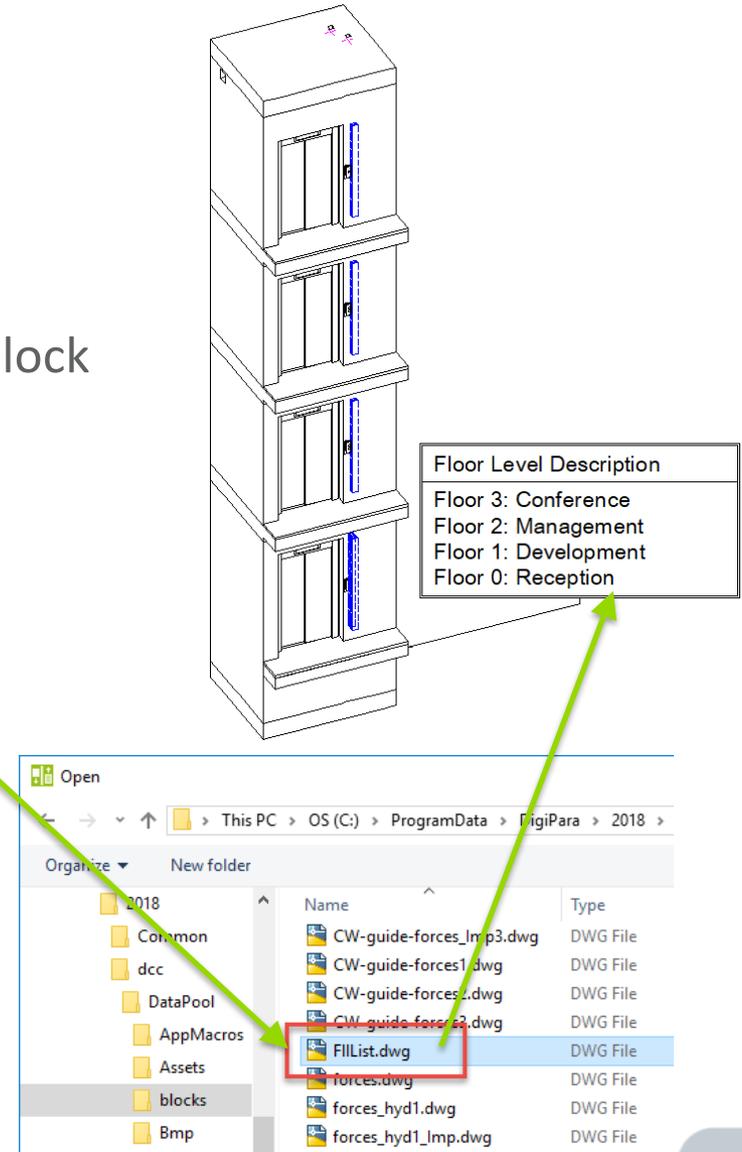
■ DWG Annotations

- Are created via the corresponding annotation property
- Replace an existing component/view frame annotation with a dwg block



The screenshot shows the Properties palette for a sheet frame annotation. The 'Content' section is expanded to show the 'Show image / DWG file' property, which is set to 'Yes (referenced)'. The 'Filename' property is set to 'FILList.dwg'. The 'Product Administration' section is also expanded, showing the 'Object name' as 'LDXSheetFrameText, idSheetFrameText'.

Property	Value
Arrow Position X [mm]	2468.332833087743
Arrow Position Y [mm]	109.0428159195386
Relative Text Position	Extends Right
Box/Text Position X	209.04367432020092
Box/Text Position Y	1035.1624686660882
Dimension Point	Basepoint [0]
[3625] Show image / DWG file	Yes (referenced)
Show image / DWG	Yes (referenced)
Filename	FILList.dwg
Keep DWG base point	Yes
[4210] Product Administration	
Object name	LDXSheetFrameText, idSheetFrameText

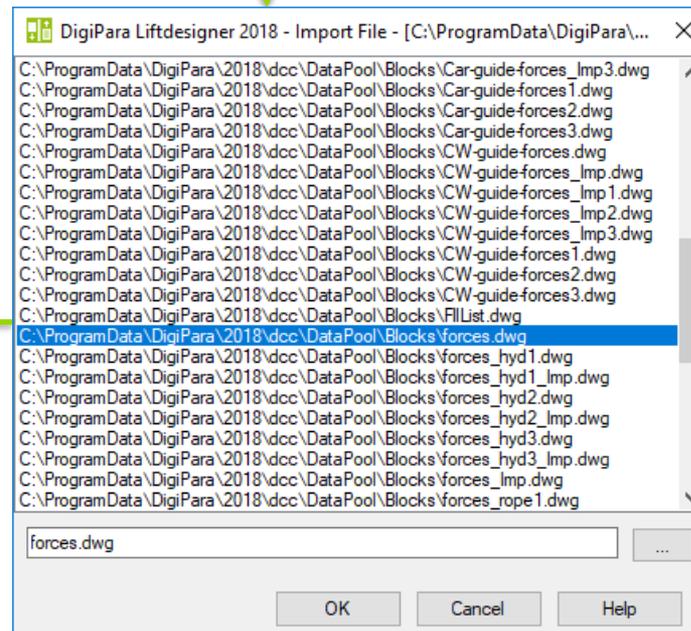
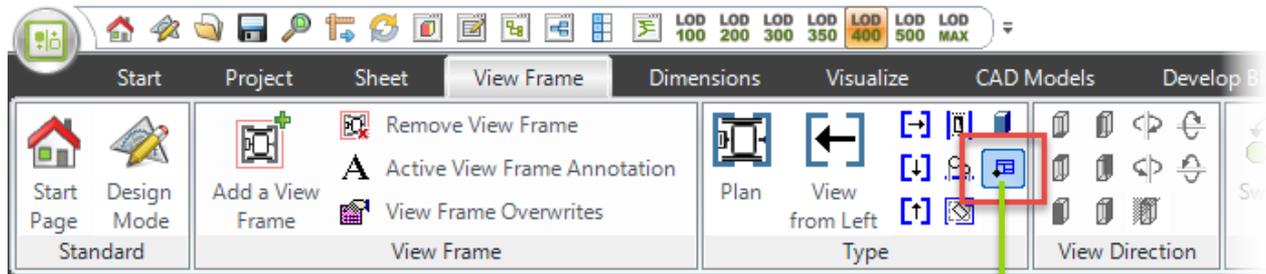


The screenshot shows a 3D model of an elevator shaft with a callout box containing the following text:

Floor Level Description
Floor 3: Conference
Floor 2: Management
Floor 1: Development
Floor 0: Reception

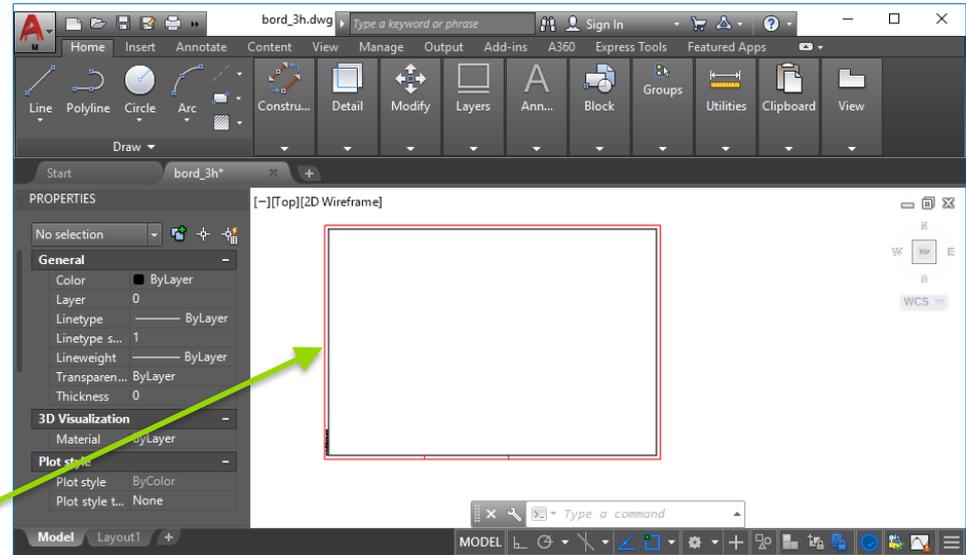
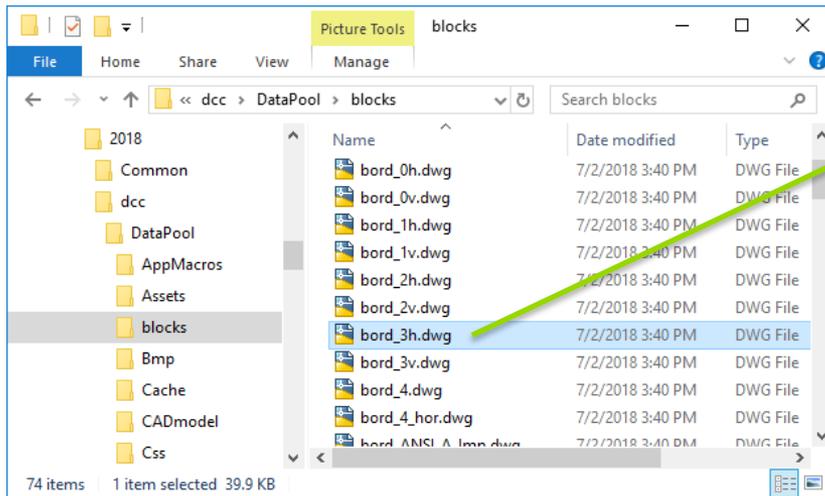
Below the model is a file explorer window showing the path: This PC > OS (C:) > ProgramData > DigiPara > 2018 > . The file 'FILList.dwg' is selected in the file list.

- Independent DWG annotations
 - Replace an existing view frame



Forces (N)		
F1 = 21109	F5 = 0	F9 = 0
F2 = 77499	F6 = 0	F10 = 0
F3 = 421	F7 = 0	F11 = 0
F4 = 58369.5	F8 = 0	F12 = 0

- Drawing borders
 - Start with the bord_ prefix



- The default directory for external blocks (.dwg, .dxf files) is the data pool's blocks directory
- e.g. C:\DigiPara\Datapool\blocks

Export Project Values

(* .rtf, * .xls, * .html)

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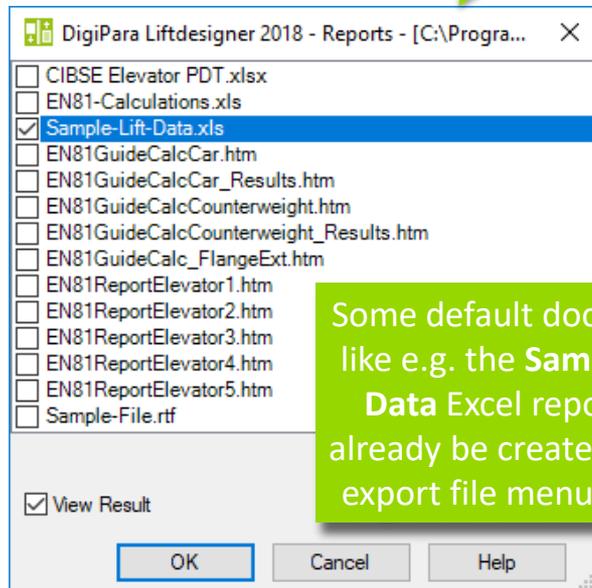
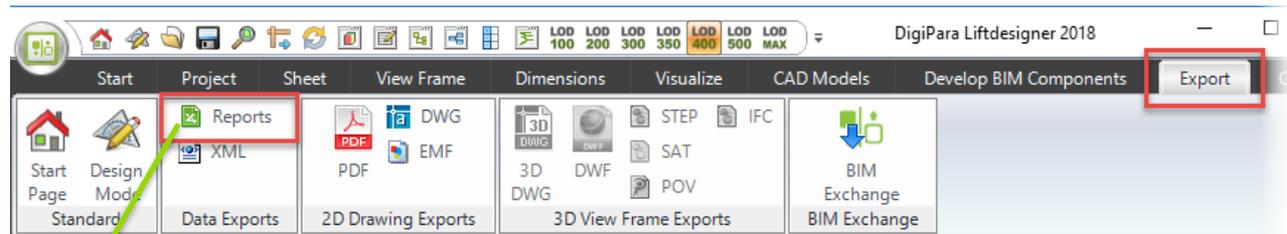


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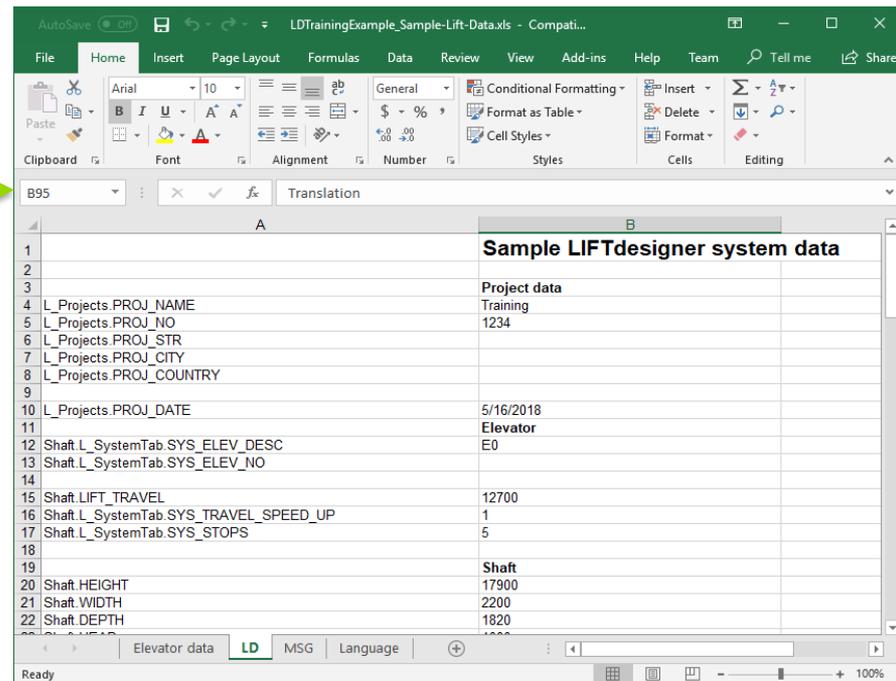
Export project values

- DigiPara Liftdesigner allows you to export project values like forces, dimensions or strings to other file formats like *.rtf, *.xls and *.html.

The Reports button remains inactive for unsaved projects.

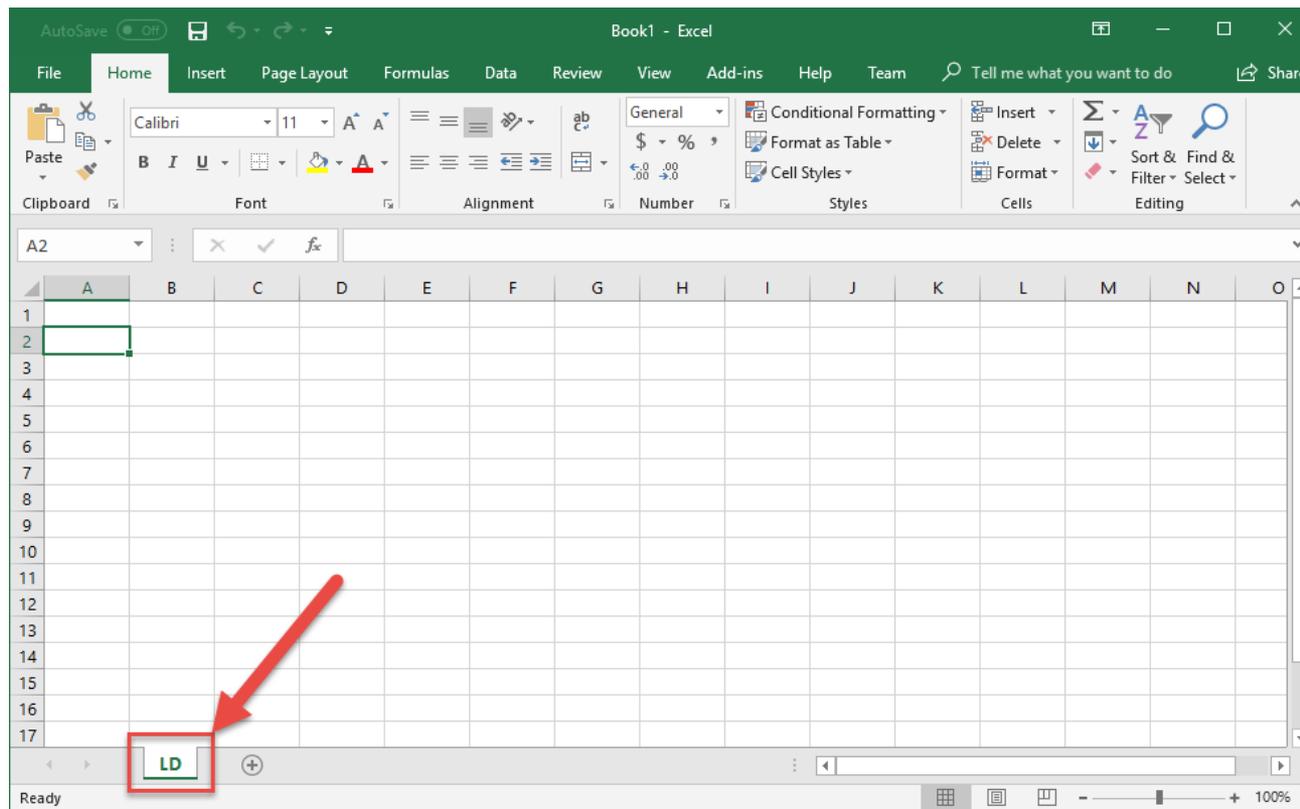


Some default documents, like e.g. the **Sample-Lift-Data** Excel report can already be created via the export file menu option.



Sample LIFTdesigner system data	
Project data	
L_Projects.PROJ_NAME	Training
L_Projects.PROJ_NO	1234
L_Projects.PROJ_STR	
L_Projects.PROJ_CITY	
L_Projects.PROJ_COUNTRY	
L_Projects.PROJ_DATE	5/16/2018
Elevator	
Shaft_L_SystemTab.SYS_ELEV_DESC	E0
Shaft_L_SystemTab.SYS_ELEV_NO	
Shaft	
Shaft.LIFT_TRAVEL	12700
Shaft_L_SystemTab.SYS_TRAVEL_SPEED_UP	1
Shaft_L_SystemTab.SYS_STOPS	5
Shaft	
Shaft.HEIGHT	17900
Shaft.WIDTH	2200
Shaft.DEPTH	1820

- Exporting project values to an Excel file:
 - First of all create a new or open an existing Excel file. Afterwards add a new worksheet to this file and give it the name **LD**. This file will become a new template file for an Excel elevator report generated via DigiPara Liftdesigner.



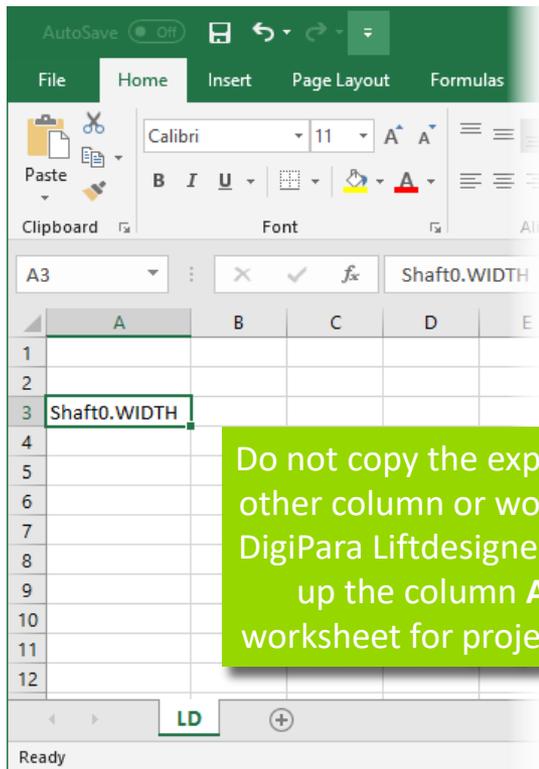
Export project values (*.xls)

- Select the project value in the DigiPara Liftdesigner Data Tree

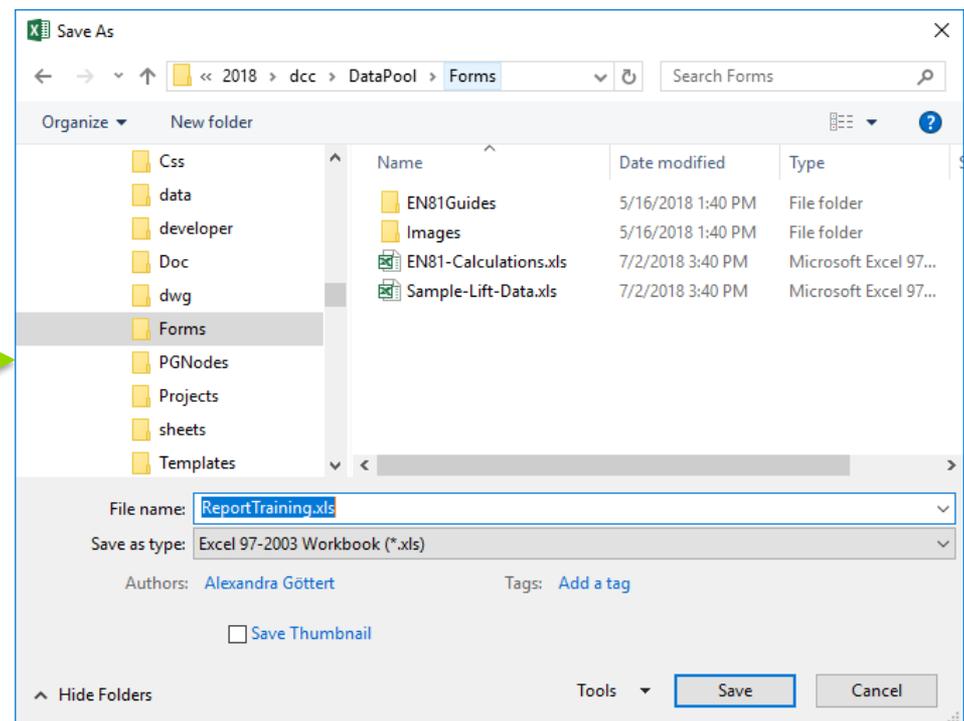
The screenshot displays the DigiPara Liftdesigner 2018 interface. The main window shows a 'Plan View' of an elevator shaft at a scale of 1:20. The drawing includes various dimensions and labels, with 'SW 2200' highlighted in a red box. A red arrow points from this label to the 'Data tree' panel on the right. In the 'Data tree', the parameter 'WIDTH = 2200' is selected and highlighted in blue. A context menu is open over this parameter, showing options such as 'Show Profiles', 'Copy for Form: External\$("Shaft0.WIDTH")', and 'Copy for Program: Shaft0.WIDTH'. The 'Copy for Program' option is highlighted in blue. The software's menu bar includes 'Start', 'Project', 'Sheet', 'View Frame', 'Dimensions', 'Visualize', 'CAD Models', 'Develop BIM Components', 'Export', and 'Options'. The 'Export' menu is currently open, showing 'Select Components' and 'Select Profiles' options.

Export project values (*.xls)

- Paste the copied expression to any cell in column **A** in the **LD** worksheet.
- Save the Excel template file in DigiPara Liftdesigner Pool
 - C:\ProgramData\DigiPara\dcc\DataPool\Forms

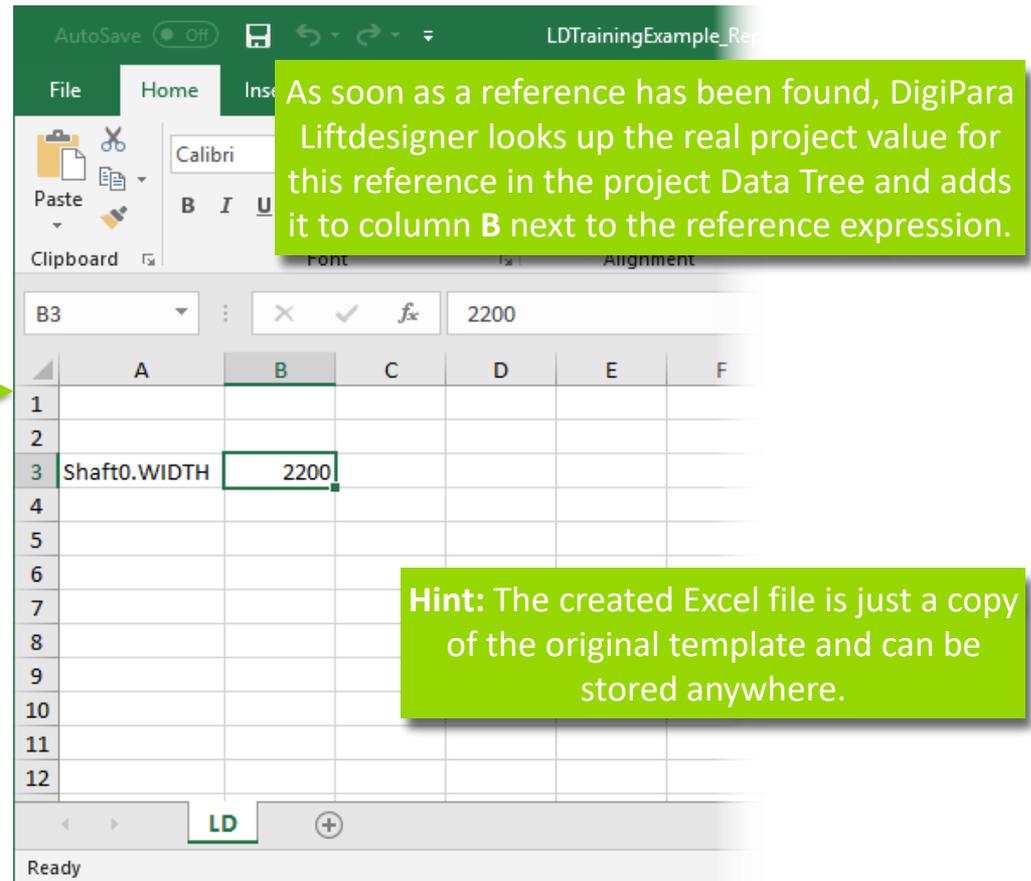
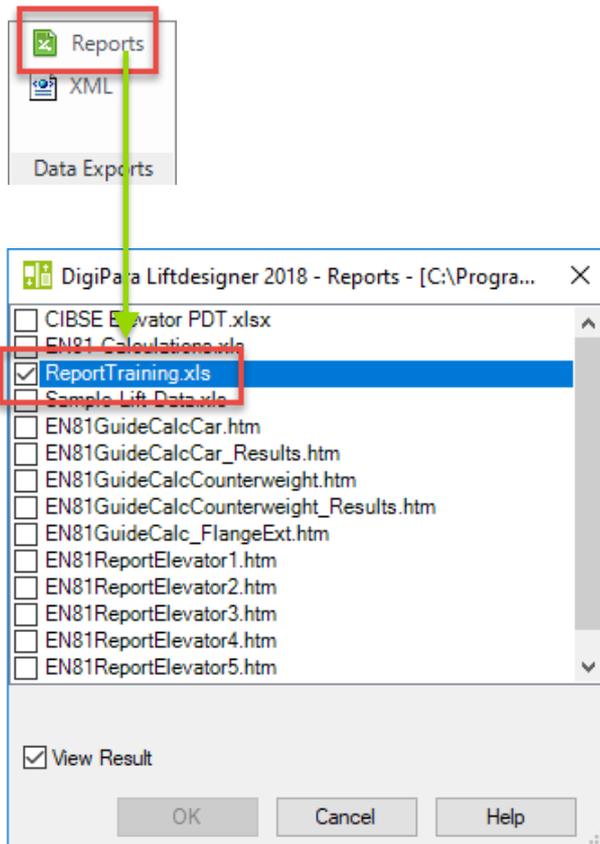


Do not copy the expression to any other column or worksheet, since DigiPara Liftdesigner will just look up the column A in the LD worksheet for project references.



Export project values (*.xls)

- Now you can see that DigiPara Liftdesigner automatically has added a new value to column **B** in the **LD** worksheet, next to the Column **A**, containing a value.



Material Configuration

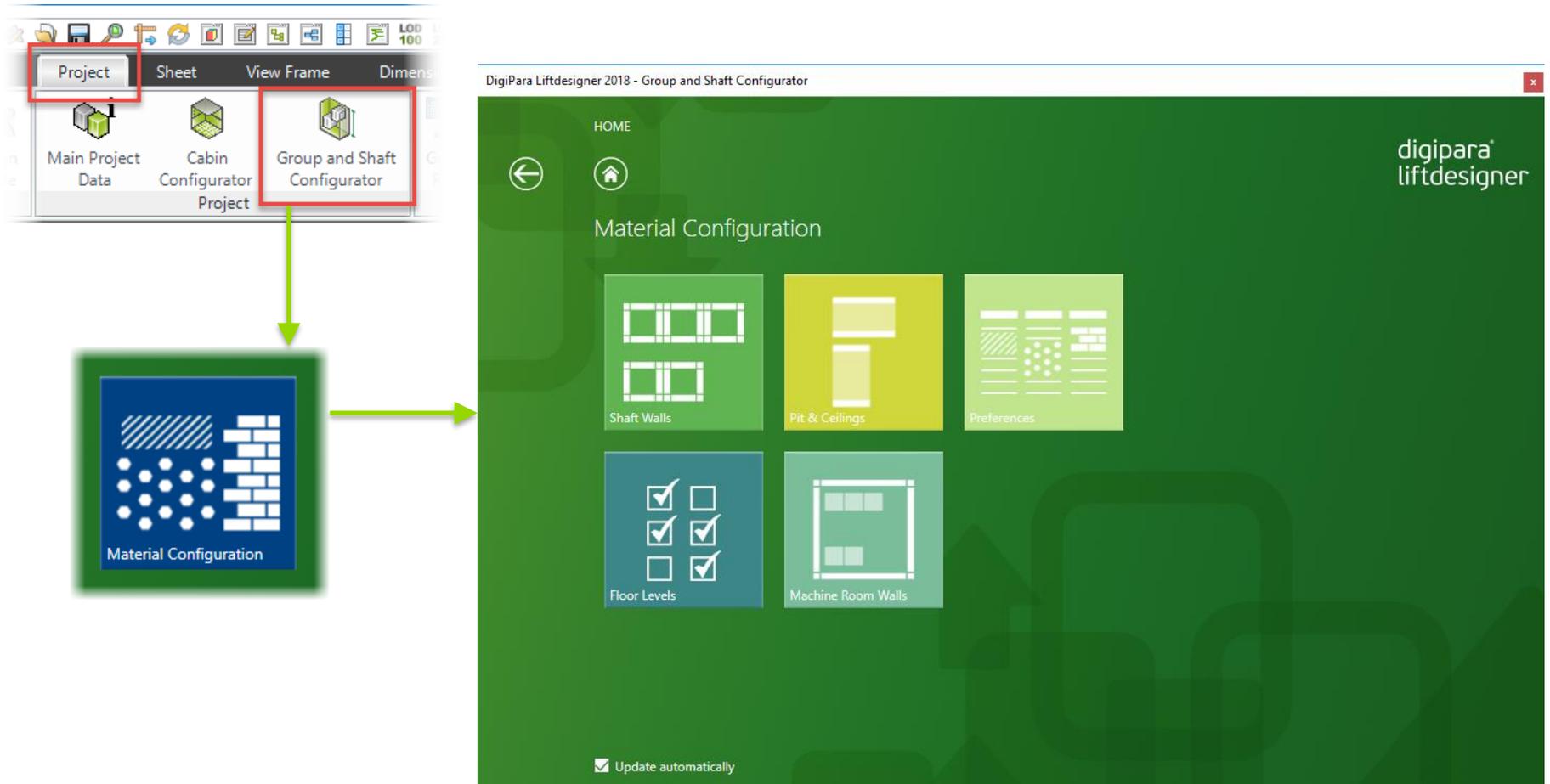
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- Shaft Walls & Machine Room Walls
- Pit & Ceilings
- Floor Levels
- Preferences

- Activation via the Group and Shaft Configurator



Material Configuration

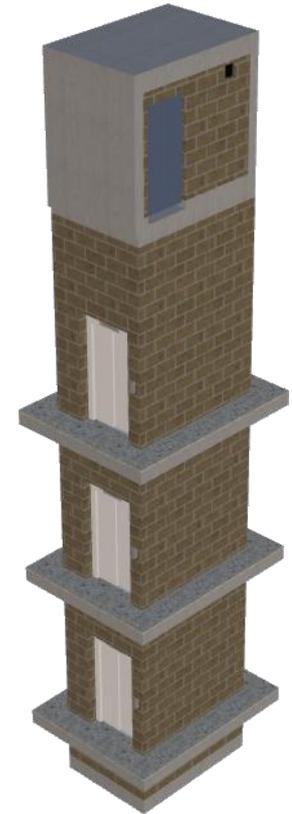
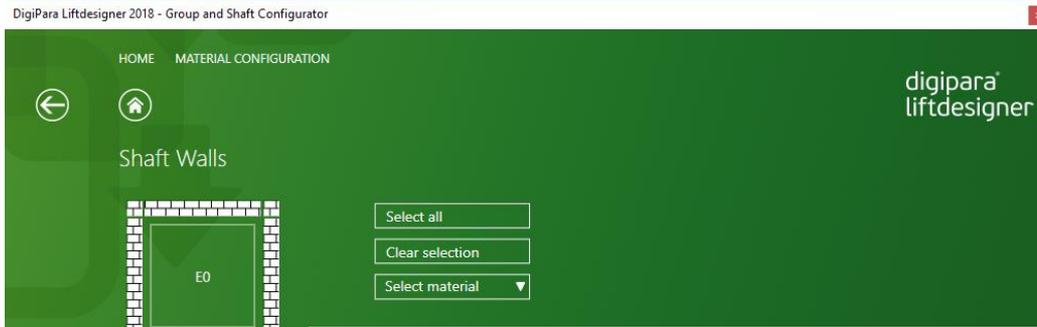
Shaft Walls & Machine Room Walls

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Shaft Walls & Machine Room Walls



Select all wall elements

Setting wall elements individually

Material Configuration

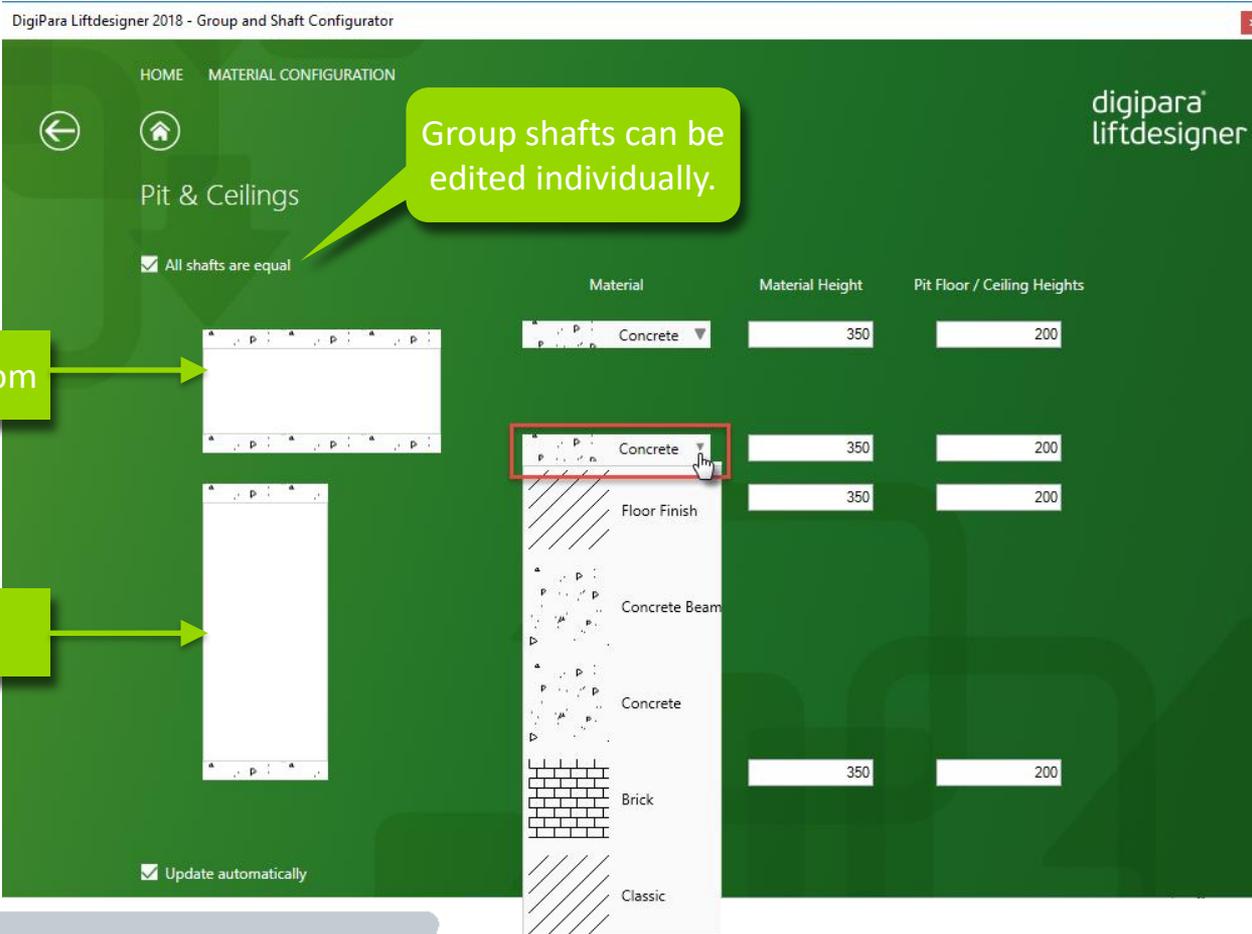
Pit & Ceilings

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- Pit & Ceilings
 - Setting different materials
 - Editing the Material Height and Pit Floor / Ceiling Heights



DigiPara Liftdesigner 2018 - Group and Shaft Configurator

HOME MATERIAL CONFIGURATION

Pit & Ceilings

All shafts are equal

Machine room

Shaft

Group shafts can be edited individually.

Material	Material Height	Pit Floor / Ceiling Heights
Concrete	350	200
Concrete	350	200
Floor Finish	350	200
Concrete Beam		
Concrete		
Brick	350	200
Classic		

Update automatically

Material Configuration

Floor Levels

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- Floor Levels
 - Setting different materials and editing the heights

DigiPara Liftdesigner 2018 - Group and Shaft Configurator

HOME MATERIAL CONFIGURATION

digipara[®] liftdesigner

Floor Levels

General			Heights			Building Floor Levels	Other	
Use Standard	Level	Material	Material Height	Raw Floor	Floor Finish	Create	Ceiling Height	Serving Height
	Standard definition	Concrete	350	250	50	<input checked="" type="checkbox"/>	2300	0
<input checked="" type="checkbox"/>	4 12700	Concrete	350	250	50	<input checked="" type="checkbox"/>	2300	0
<input checked="" type="checkbox"/>	3 8900	Concrete	350	250	50	<input checked="" type="checkbox"/>	2300	0
<input checked="" type="checkbox"/>	2 5900	Concrete	350	250	50	<input checked="" type="checkbox"/>	2300	0
<input type="checkbox"/>	1 2900	Concrete	350	250		<input checked="" type="checkbox"/>	2300	0
<input checked="" type="checkbox"/>	0 0	Concrete	350	250		<input checked="" type="checkbox"/>	2300	0

Update automatically

Remove the check mark and determine the level individually.

Remove the check and the building floor levels disappears in the project.

Material Configuration

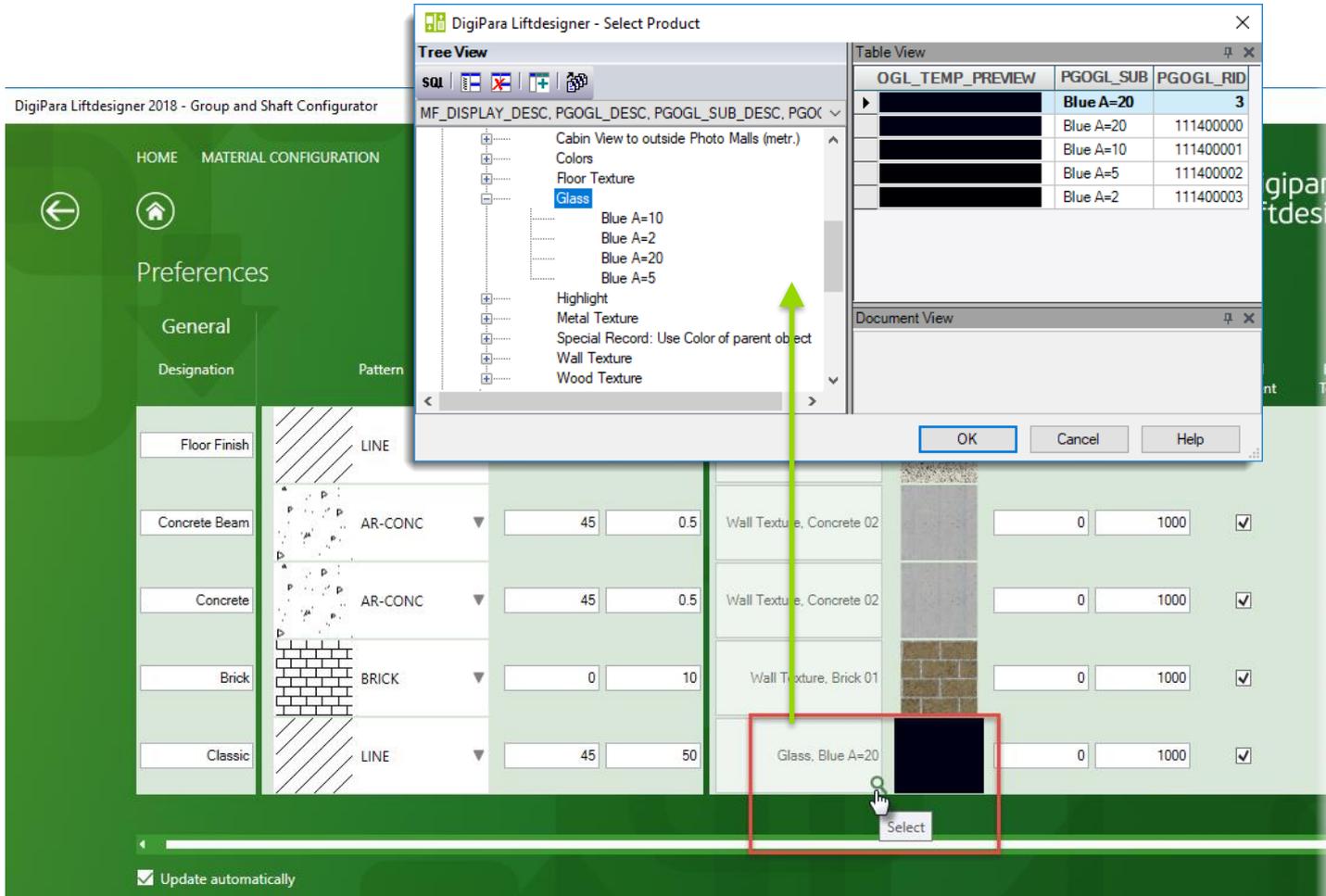
Preferences / Material Hatching

5/14/2019



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- Preferences
 - Define your own Materials for your project



DigiPara Liftdesigner 2018 - Group and Shaft Configurator

HOME MATERIAL CONFIGURATION

Preferences

General

Designation

Pattern

Floor Finish

Concrete Beam

Concrete

Brick

Classic

LINE

AR-CONC

BRICK

LINE

45

0.5

45

0.5

0

10

45

50

Wall Texture, Concrete 02

Wall Texture, Concrete 02

Wall Texture, Brick 01

Glass, Blue A=20

0

1000

1000

1000

1000

Select

Update automatically

DigiPara Liftdesigner - Select Product

Tree View

MF_DISPLAY_DESC, PGOGL_DESC, PGOGL_SUB_DESC, PGOGL...

Cabin View to outside Photo Malls (metr.)

Colors

Floor Texture

Glass

Blue A=10

Blue A=2

Blue A=20

Blue A=5

Highlight

Metal Texture

Special Record: Use Color of parent object

Wall Texture

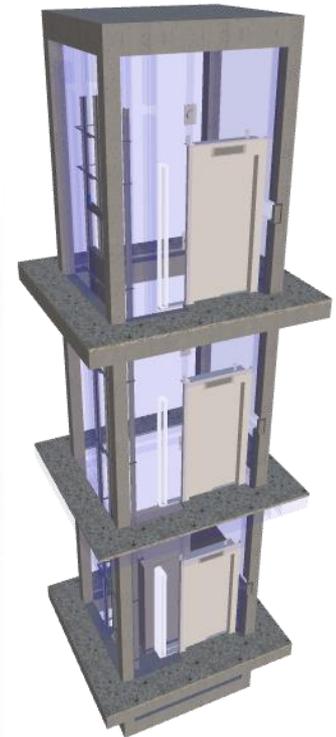
Wood Texture

Table View

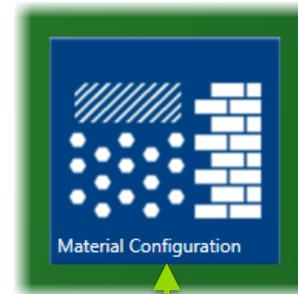
OGL_TEMP_PREVIEW	PGOGL_SUB	PGOGL_RID
	Blue A=20	111400000
	Blue A=10	111400001
	Blue A=5	111400002
	Blue A=2	111400003

Document View

OK Cancel Help



Classic material hatching: Type and scale by document



Properties

Lock Update Sheet frame 2 [LdvFrame2.]

▼ [2001] Level of Development (LOD)

Representation Default (by Sheet)

▼ [3611] Hatch

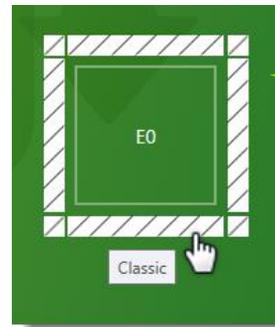
Show hatch	Yes
Show fake hatch	No
Expose hidden materials	Yes
Angle	45
Scale	50
Pattern	LINE
Classic material hatching	Type and scale by document <input checked="" type="checkbox"/>

▼ [3612] Basic Point

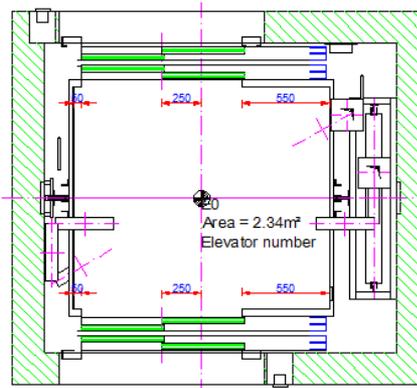
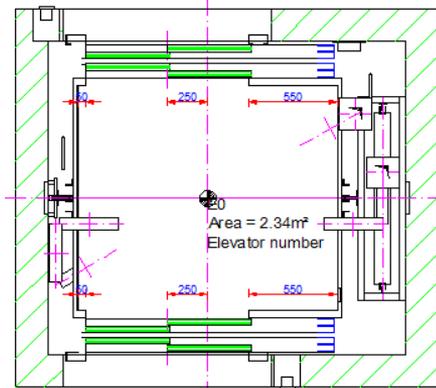
X0 [mm]	0
Y0 [mm]	0
Scale value	1 - 20

Default setting

Classic material hatching: Type and scale by sheet frame



To set up individual view frame hatches the shaft material has to be defined as **Classic**.



Set up individual view frame hatches for one material by using the properties window of the selected view frame. The elevator materials are not influenced.

Properties window for 'Sheet frame 2 [LdvFrame2.]' showing the following settings:

[2001] Level of Development (LOD)	
Representation	Default (by Sheet)
[3611] Hatch	
Show hatch	Yes
Show fake hatch	No
Expose hidden materials	Yes
Angle	45
Scale	50
Pattern	LINE
Classic material hatching	Type and scale by document
[3612] Basis Point	
X0 [mm]	0
Y0 [mm]	0

Properties window for 'Sheet frame 2 [LdvFrame2.]' showing the following settings:

[2001] Level of Development (LOD)	
Representation	Default (by Sheet)
[3611] Hatch	
Show hatch	Yes
Show fake hatch	No
Expose hidden materials	Yes
Angle	-45
Scale	20
Pattern	LINE
Classic material hatching	Type and scale by sheet frame
[3612] Basis Point	
X0 [mm]	0
Y0 [mm]	0

Additional Objects

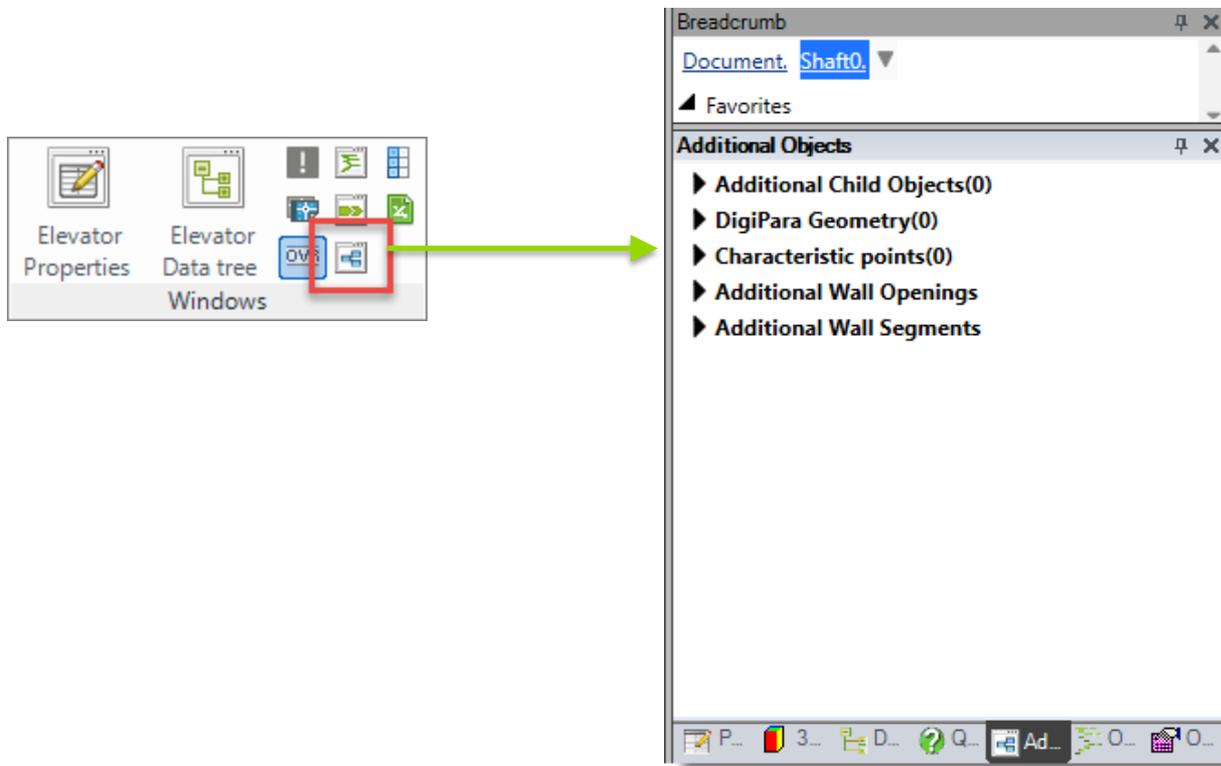
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- Additional Child Objects (User Component)
- Additional Wall Openings
- Additional Wall Segments

- Activation Docking Window
 - Start ribbon tab → Windows ribbon group



Additional Objects

Additional Child Objects – User Component

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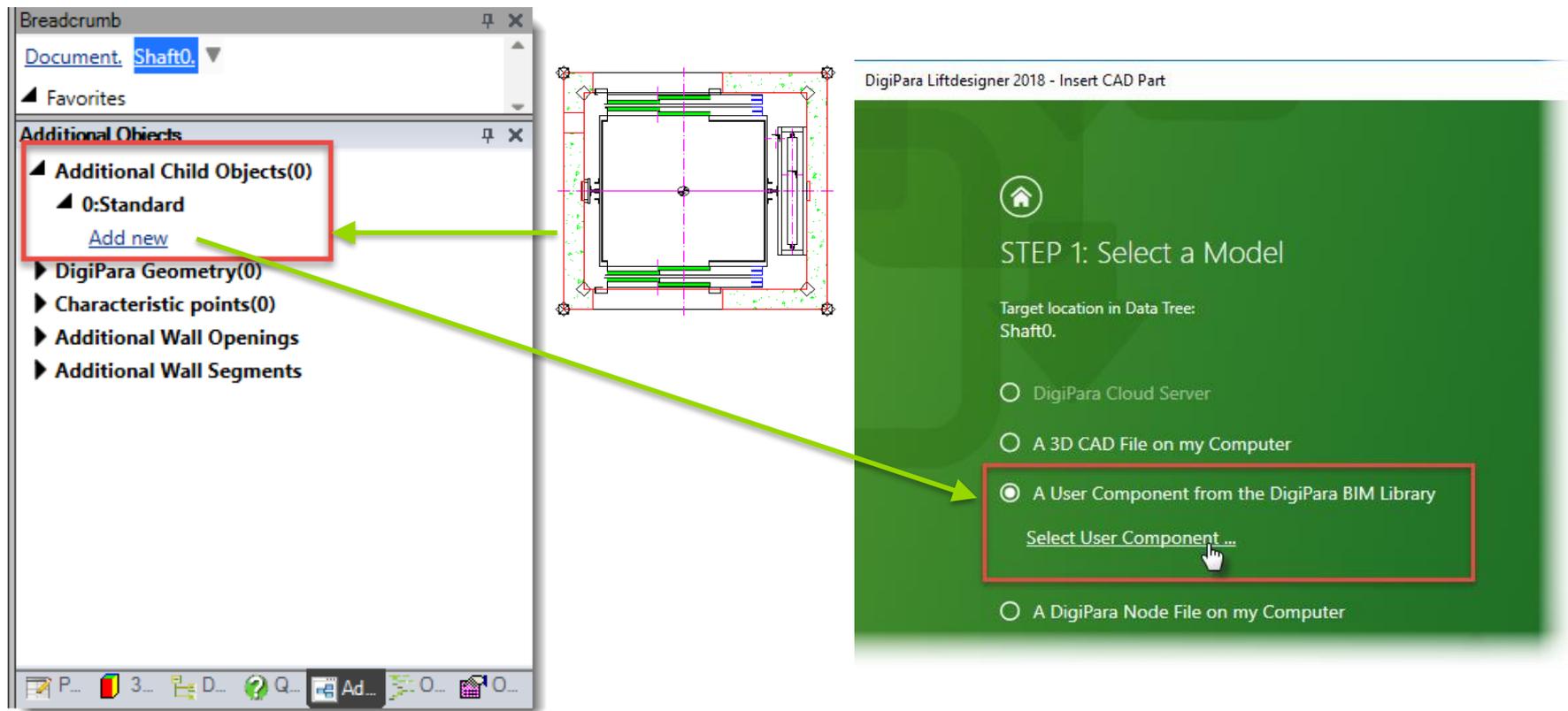


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- Can be defined by the user
- Are created on the basis of predefined profile types (I-profile, U-profile, T-profile, etc.)
- Can be used to create additional, non standard geometry in the drawing
- Get created via the corresponding property of the selected shaft component (e.g. the shaft door)

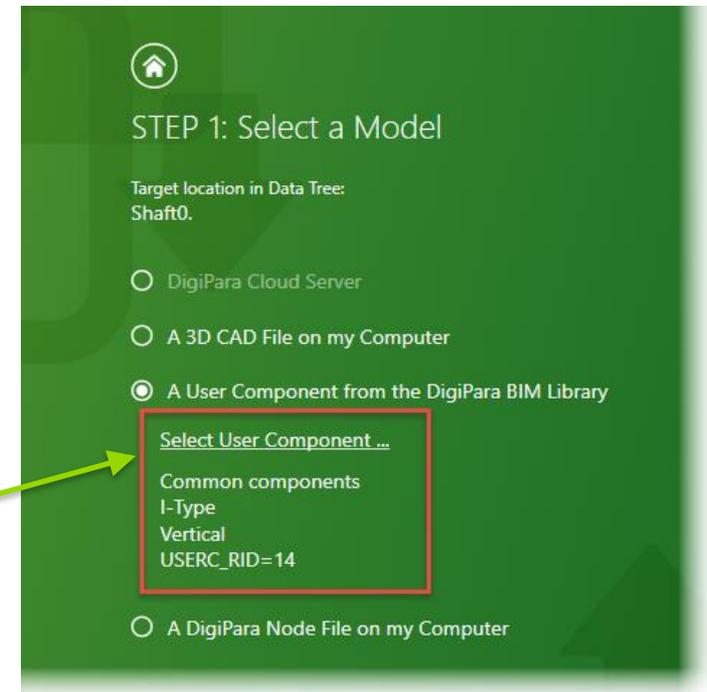
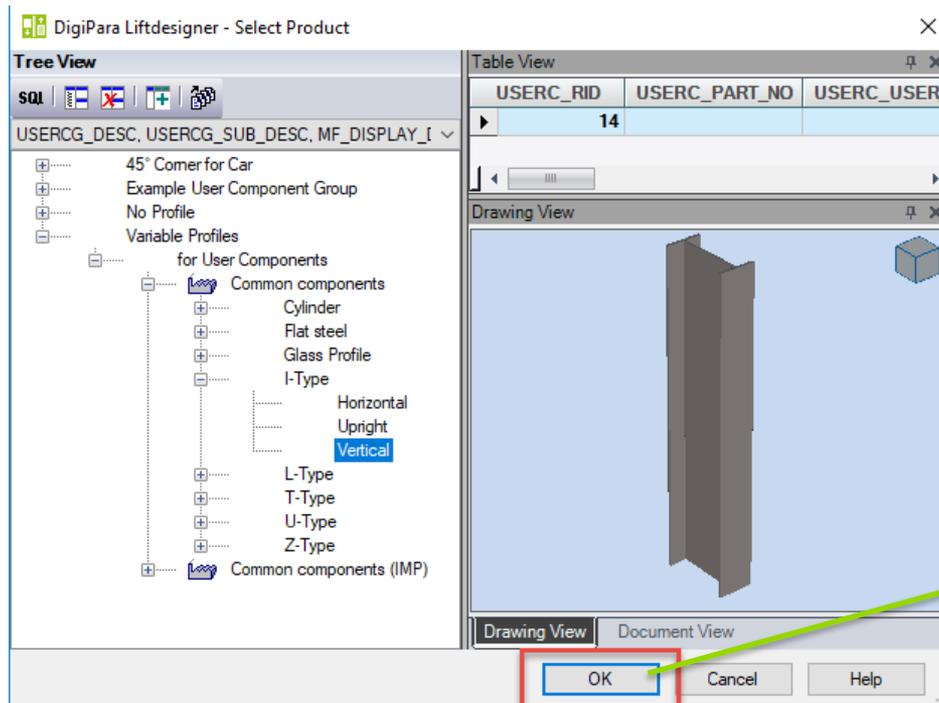
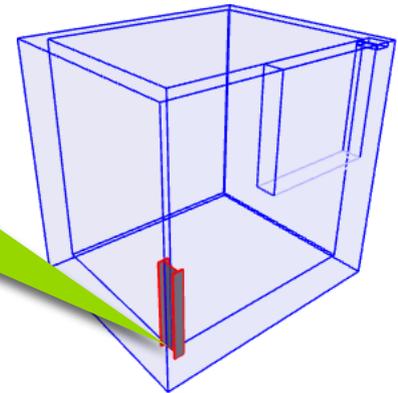
- Get inserted relatively to the basis point of the selected component.
- Can be created in an unlimited number
- Can contain additional child objects as well
- Are created on a project basis. Additional child objects do not influence the selected basis component permanently.

- Create by selecting a parent component (e.g. Shaft) → Additional Child Objects → Add new

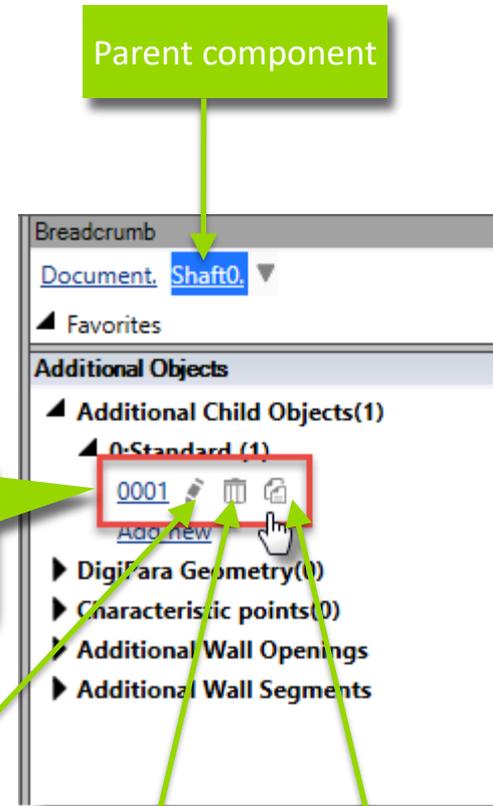
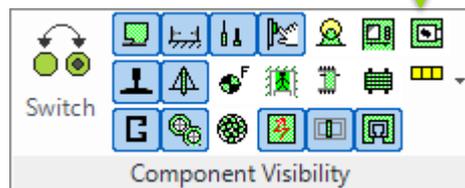


- Determine the profile type via the Navigator window

Insertion point =
Base point of the
parent component



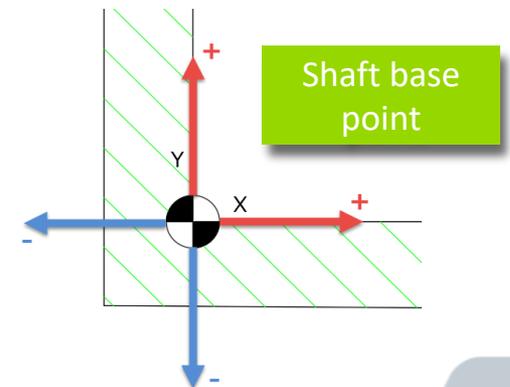
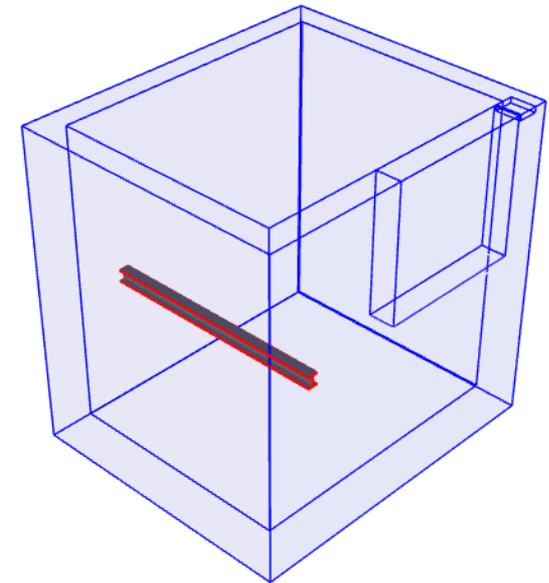
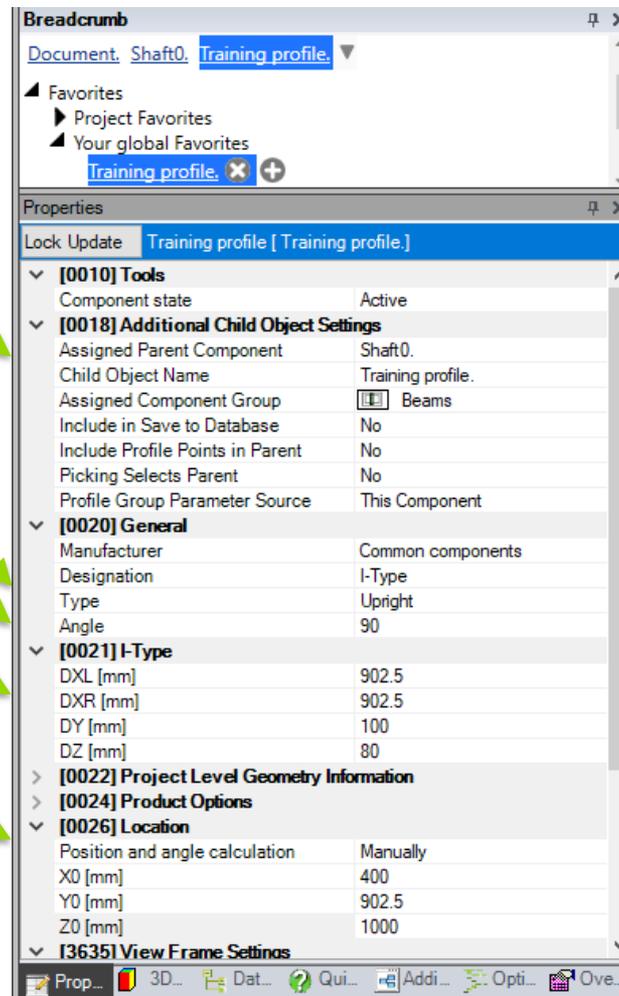
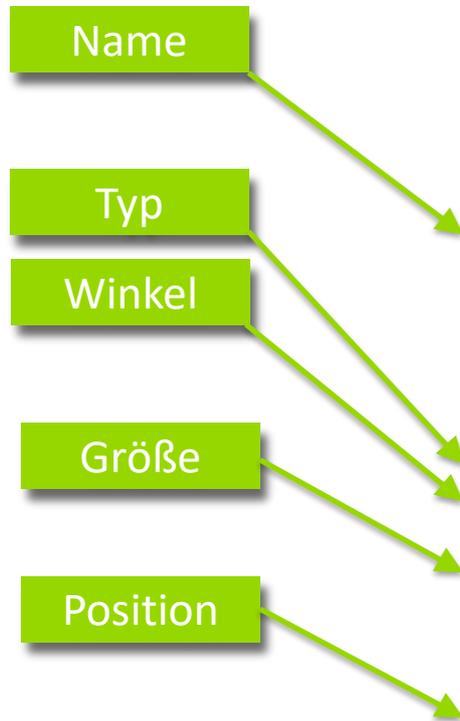
- Assign the component group to control the visibility of the new user component.



After closing the dialog, a new entry appears.

rename delete copy

- Options for customizing the properties of the existing profile



Additional Objects

Additional Wall Openings

5/14/2019



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- Add a new additional wall opening by selecting the Shaft → Additional Wall Openings → Add new

The image illustrates the process of adding a new wall opening in a software application. It consists of several key components:

- 3D Model:** A 3D perspective view of a shaft structure with a red wireframe overlay. A green arrow points from this model to the breadcrumb pane.
- Breadcrumb Pane:** Shows the navigation path: Document: Shaft0. The 'Additional Wall Openings' folder is expanded, and the 'Add new' button is highlighted with a red box. A green arrow points from this button to the dialog box.
- Additional Objects List:** A tree view showing the hierarchy of objects. The 'Additional Wall Openings' folder is expanded to show a sub-folder 'H_1' containing several 3D icons representing different opening types. A green arrow points from this folder to the dialog box.
- Dialog Box:** A configuration window for defining the opening. It features a central 3D preview of a square opening in a wall. To the right, there are dimension lines and input fields for 'Position' (0, 1320, 500) and 'Size' (0, 2200, 0). Checkmarks are present next to the 0 and 500 values. A green callout bubble points to the dialog box with the text 'A new dialog box appears'.
- Final 3D Model:** A 3D perspective view of the shaft with the new opening added, indicated by a green arrow from the dialog box.

Additional Objects

Additional Wall Segments

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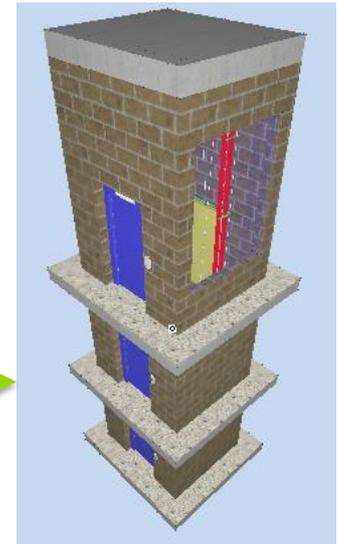
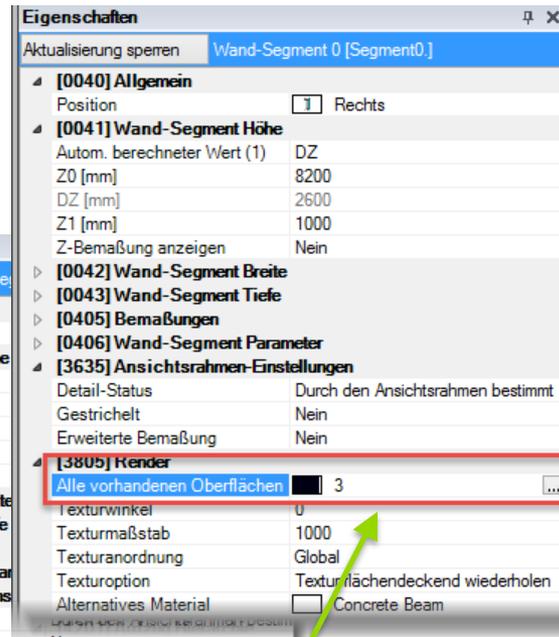
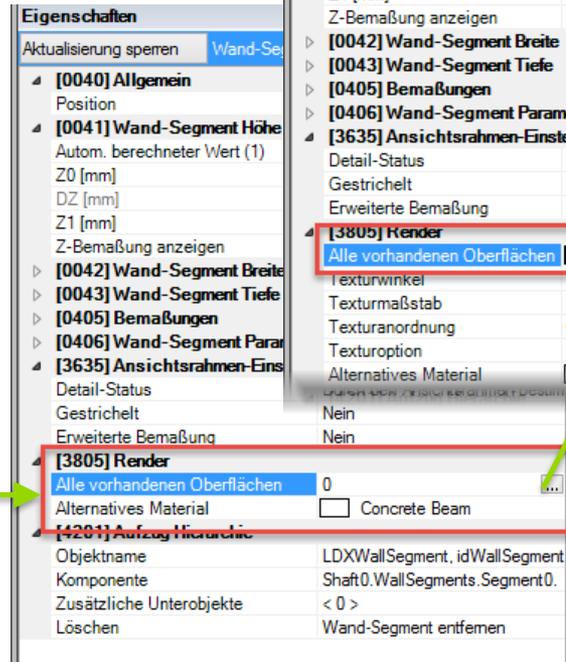
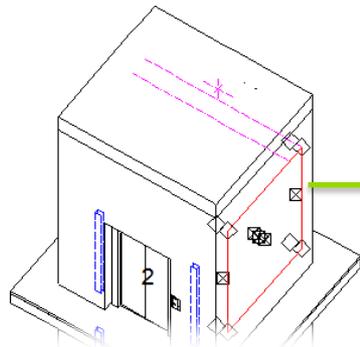
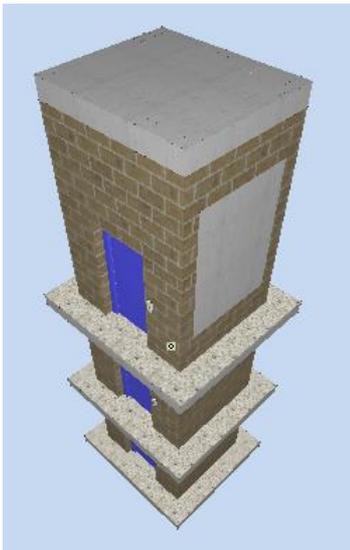


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- Add a new additional wall segment by selecting the Shaft → Additional Wall Segments → Add new

The image shows a software interface for adding a new wall segment to a shaft. On the left, a 3D model of a shaft is shown with a red wireframe box around it. A green arrow points from the shaft to the 'Additional Wall Segments' section in the 'Breadcrumbs' panel. In this panel, the 'Add new' button is highlighted with a red box and a green arrow pointing to the right. On the right, a dialog box for defining the segment's position and size is shown. The dialog box has a 'Segment_0' section with a grid of icons. Below this, a 2D diagram shows the segment's dimensions: a width of 300, 1620, and 300, and a height of 1000, 2200, and 15100. A green callout labeled 'Position' points to the top of the segment, and another green callout labeled 'Size' points to the width dimensions. A third green callout labeled 'A new dialog box appears' points to the dialog box itself. At the bottom of the dialog box, there is an 'Add new' button.

- Use the properties window of the selected additional wall segment to adjust a specific material



3D Data Exchange

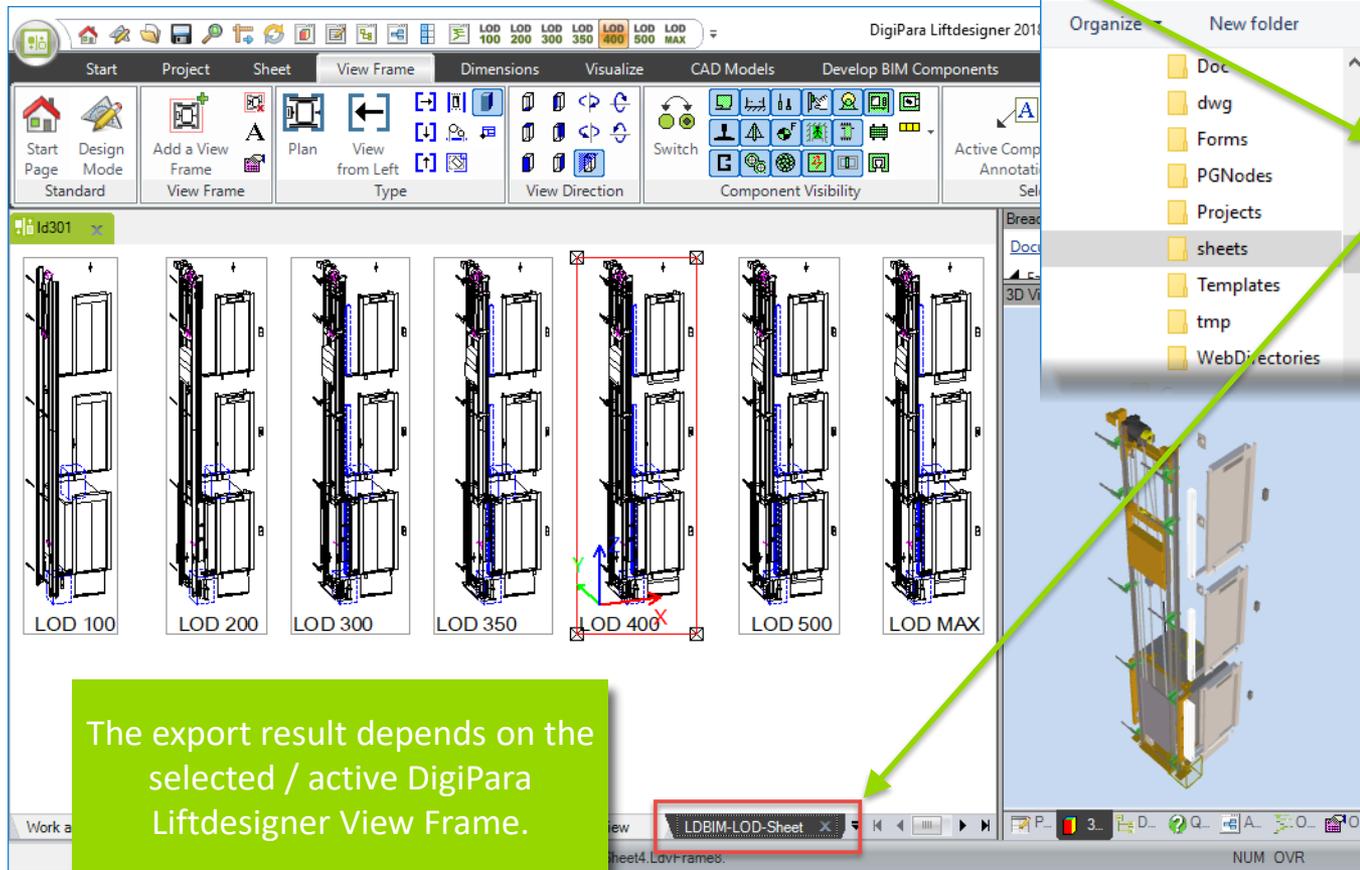
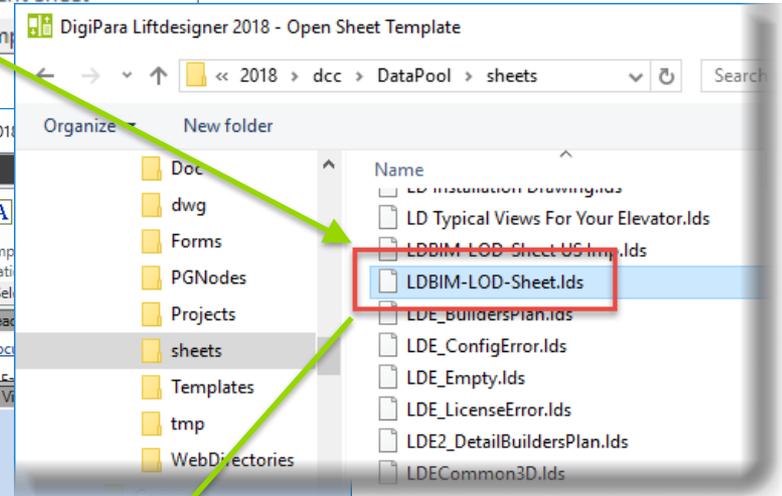
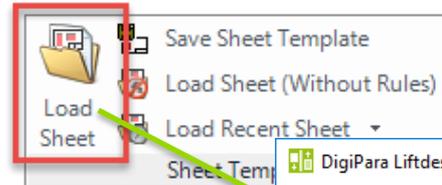
3D & 3D BIM Model - General

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- LDBIM-LOD-Sheet
 - Selection of prepared LOD View Frames



The export result depends on the selected / active DigiPara Liftdesigner View Frame.

3D Data Exchange

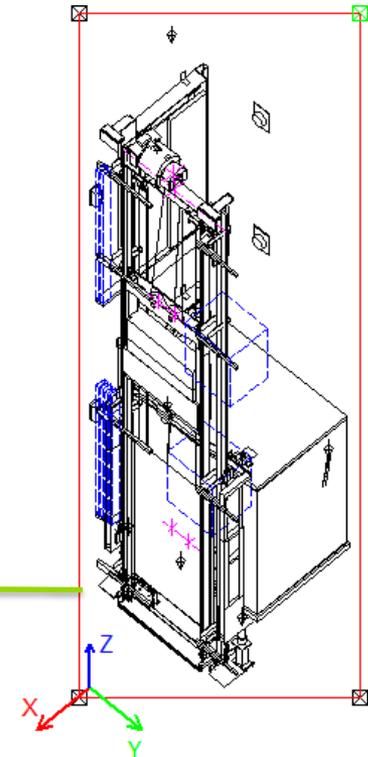
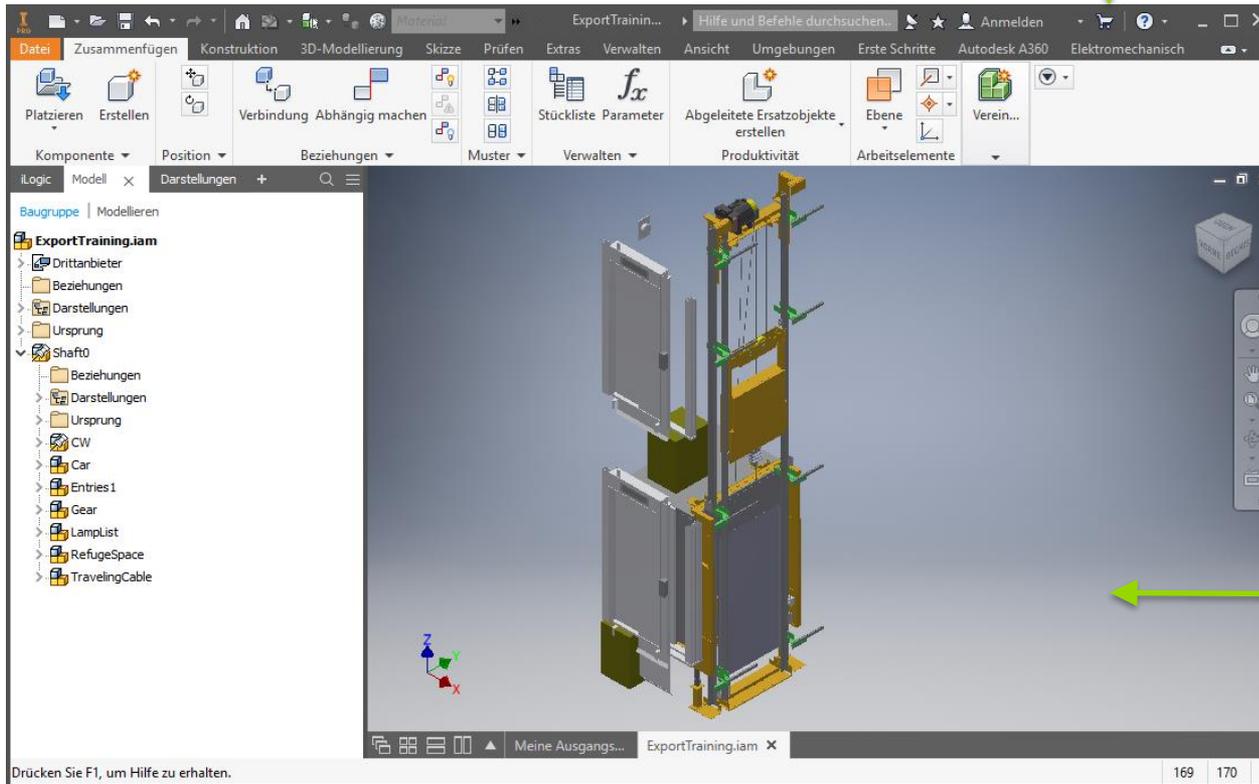
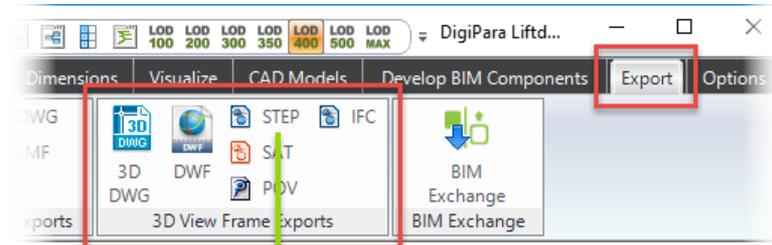
3D & 3D BIM Model – IFC & STEP

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- DigiPara Liftdesigner
 - supports e.g. the following 3D drawing outputs formats:
 - 3D DWG, STEP, IFC, Etc.



3D Data Exchange

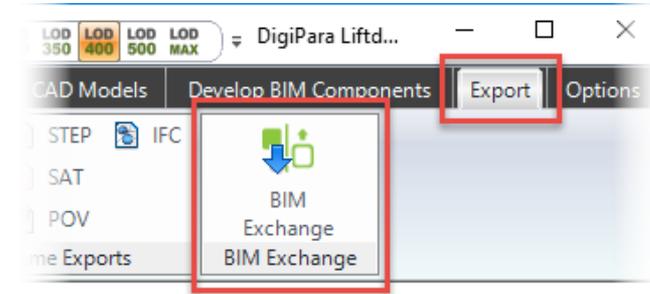
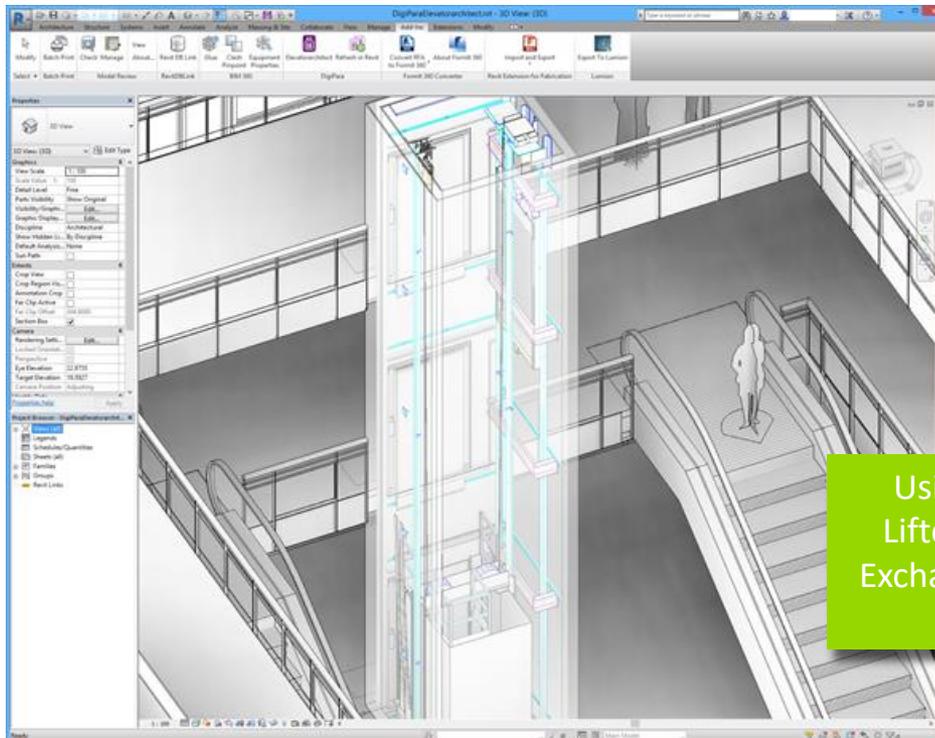
3D & 3D BIM Model – BIM Exchange

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- DigiPara Liftdesigner 3D BIM Exchange
 - Building Information Modeling
 - Method of optimized design, implementation and management of buildings. All relevant building data are digitally recorded, combined and networked.



Using the DigiPara
Liftdesigner 3D BIM
Exchanges in Autodesk
Revit

Cabin Configurator

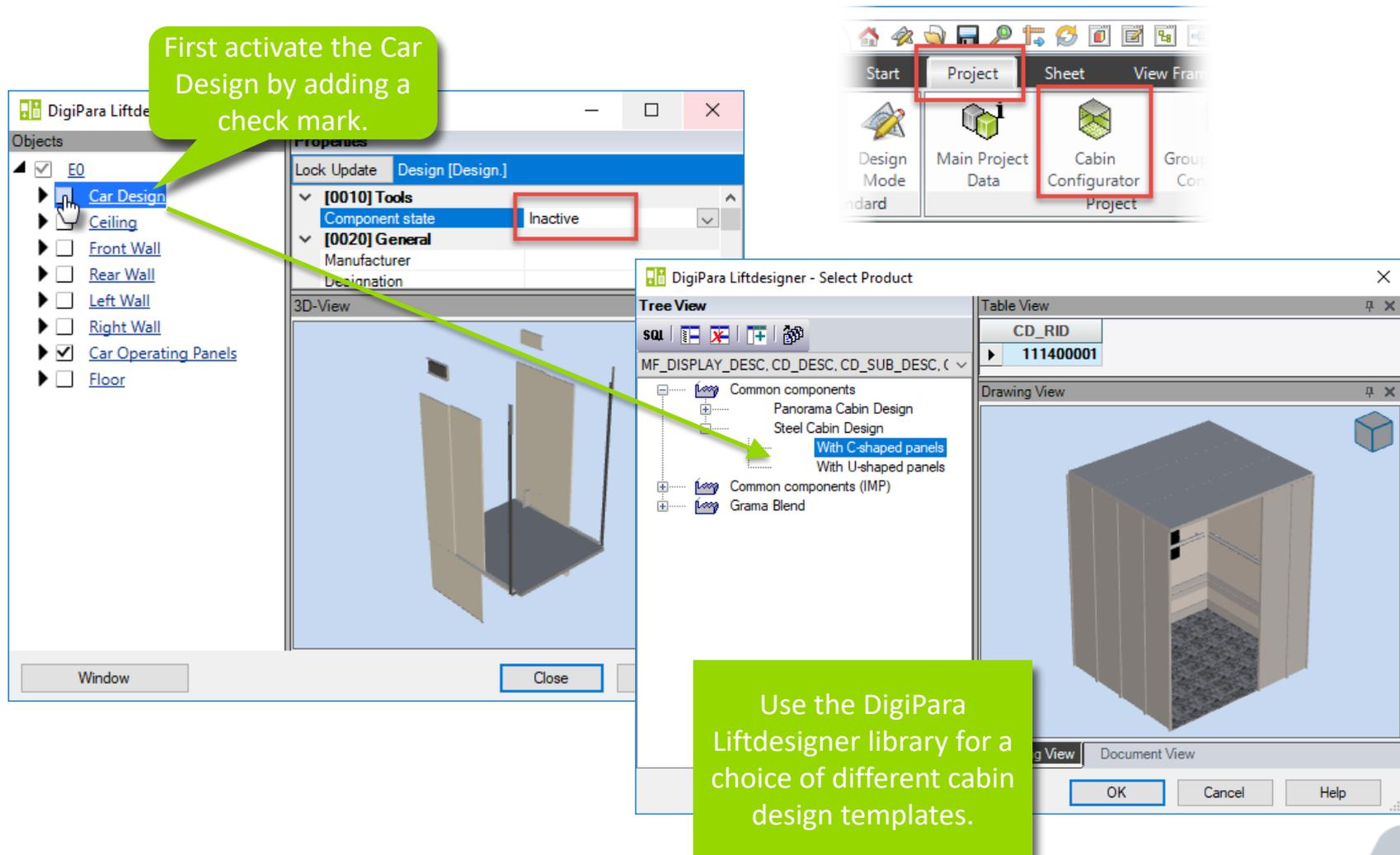
Cabin Design

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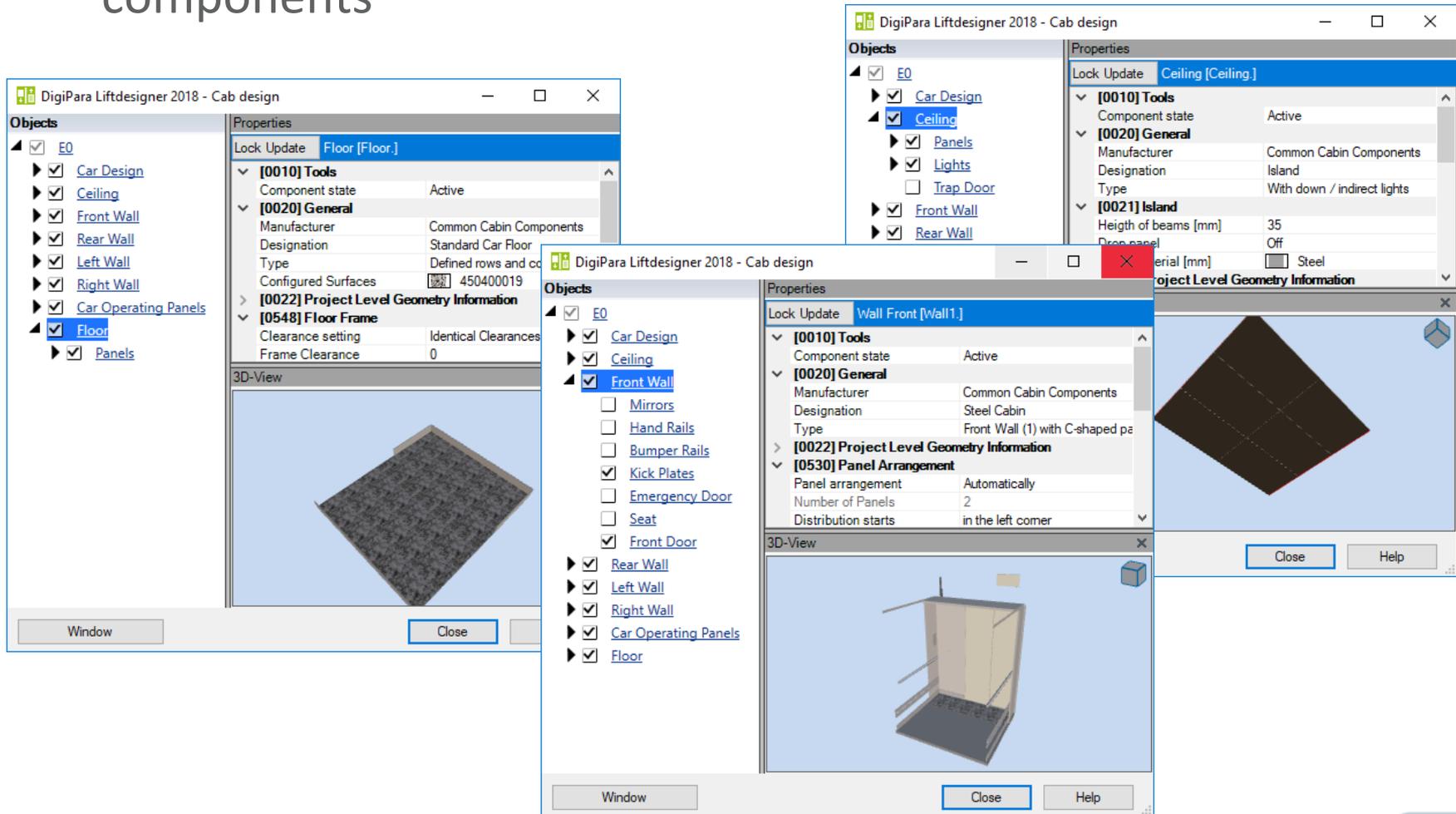
- Activation of the Cabin Design via the Cabin Configurator



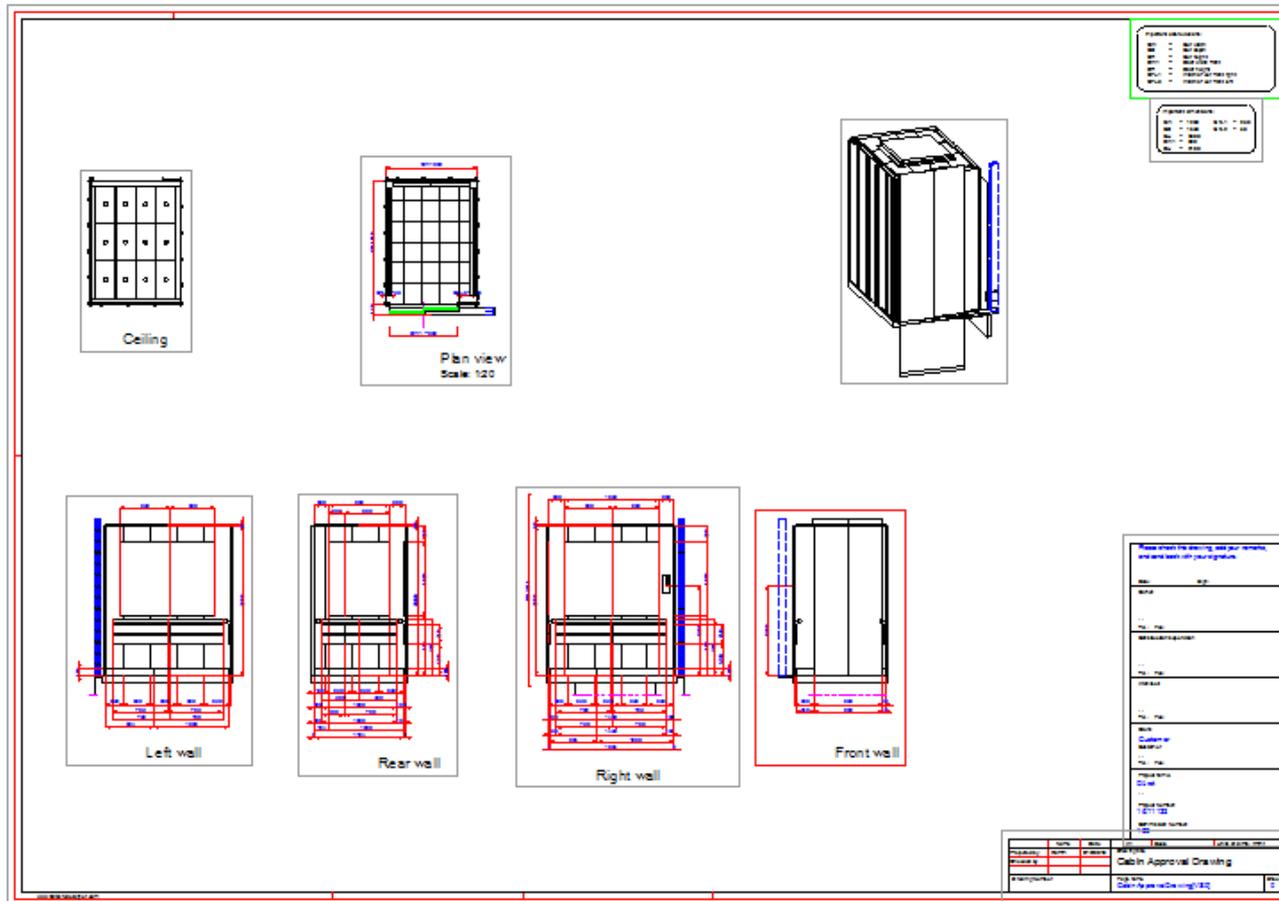
First activate the Car Design by adding a check mark.

Use the DigiPara Liftdesigner library for a choice of different cabin design templates.

- Adaptation of car parameters and car-related BIM components



- A prepared CabinApprovalDrawing will be loaded automatically when the Cabin Configurator is finished.



- Adjustment of the column and row numbers of the ceiling panels

Ceiling

Breadcrumb: Document, Shaft0, Car, Design, Ceiling, Panels, PanelRow1, Panel0.

Properties: Lock Update Ceiling Panel 0 [Panel.0]

[0010] Tools	Component state	Active
[0020] General	Manufacturer	Common Cabin Components
	Designation	Ceiling Panel
	Type	Standard Panel
[0021] Ceiling Panel	Clearance (all-around) of panel [mm]	2
[0022] Project Level Geometry Information		
[0585] Grouping	Grouping	Modify with group
[0586] Ceiling Panel Size		

Properties: Lock Update Ceiling Panels [Panels.]

[0010] Tools	Component state	Active
[0020] General	Manufacturer	Common Cabin Components
	Designation	Ceiling Panel Group
	Type	Standard Group
[0022] Project Level Geometry Information		
[0576] Arrangement Area Size	Area DX [mm]	1600
	Area DY [mm]	1400
	DZ [mm]	1
[0577] Ceiling Panel Columns	Panel arrangement	Automatically
	Number of Ceiling Panel Columns	1
	Mode of Width Calculation	Calculate width by count
	Default width [mm]	1600
	Column Count [mm]	1
[0578] Ceiling Panel Rows	Mode of Depth Calculation	Calculate depth by count
	Default depth [mm]	1400
	Rows Count [mm]	1
[3639] View Frame Settings	Representation	Default (by Frame)
	Dash	No
	Extended Dimension	No

Ceiling

Practice

Custom Sheet Template

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- **Title Block & Drawing Border** (C:\ProgramData\DigiPara\dcc\DataPool\blocks)
 - Develop your own individual title block, using your original pattern, including necessary DigiPara Liftdesigner references and a corresponding drawing border.
- **View Frames** (C:\ProgramData\DigiPara\dcc\DataPool\sheets\MyViews)
 - Define view frames according to your own requirements.
- **Sheet Templates** (C:\ProgramData\DigiPara\dcc\DataPool\sheets)
 - Put title block, drawing border and view frames together. Save the sheet template in the required directory.

Thank you for your attention!

If you have any problems or questions, please don't hesitate to contact us.



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