



 digipara® liftdesigner

Shaft Groups & High
Rise

EL2

Recommendation

ONLINE TRAINING



Are you an attendee in a DigiPara LiftDesigner online training module?

We recommend to print these out in advance so that you have a handout for your own editing and for your notes during your training.

EL2.1 Shaft Groups

- General information
 - Associated functions and hints
- Create simple shaft groups
 - Copy existing and create new shafts within a group
- Extended floor levels list
 - Setting different entrances, shaft head and pit situations
- Group shaft wall opening & shaft positions
 - Removing the automatically create wall opening for shaft groups and move the shaft position
- Separator beam
 - Insertion and adjustment of separator beam directly on the rail bracket

EL2.2 Performance optimization

- General information
 - Ways to optimize performance when working on DigiPara Liftdesigner projects
- Sloppy Mode
 - Hide unneeded geometry during the project process and simultaneously specify the drawing elements to be updated
- Performance Profiler
 - Detailed overview of time-intensive processes during project processing

Agenda

HIGH RISE ELEVATOR

EL2.3 Double Deck

- Recommended workflow
 - General information and tips when creating large elevator groups in the High Rise design area

EL2.4 Face to Face

- Shaft group positioning & alignment
 - Automatic or individual positioning of shaft group elevators
- Machine room settings
 - Configuration of the machine room size and position
- Building floor level settings
 - Removing or setting building floors and sizes

Agenda

VIEW FRAMES & SHEET TEMPLATES

EL2.5 Sheet templates for shaft groups

- General information
 - Recommended structure of drawing sheet templates for shaft groups
- View frame configuration options
 - View frame examples for shaft groups and associated settings
- Shaft Group Dimensions & Annotations
 - Dimension & annotation examples for shaft groups and associated settings via view frame overwrites

EL2.6 Summary

- Custom Q&A's

EL2.1

Shaft Groups

SHAFT
GROUPS

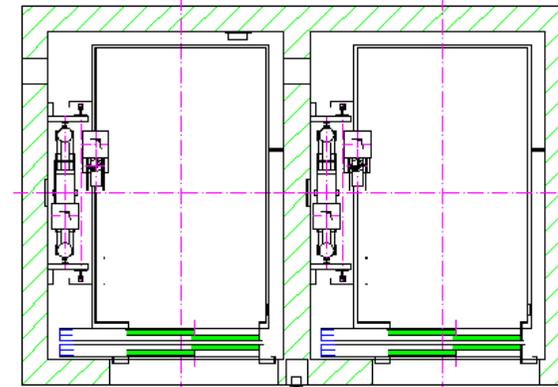


General information

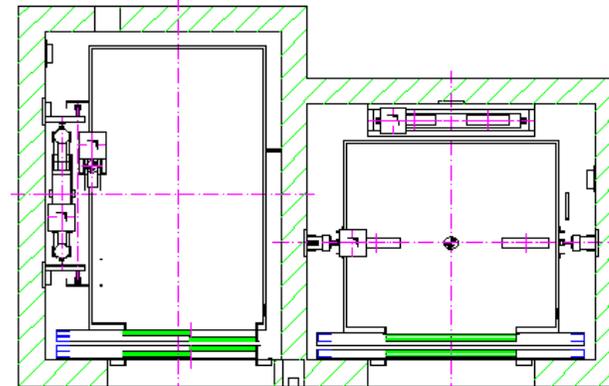
EL2.1 SHAFT GROUPS

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



- **Group shaft wizard**
for different elevators

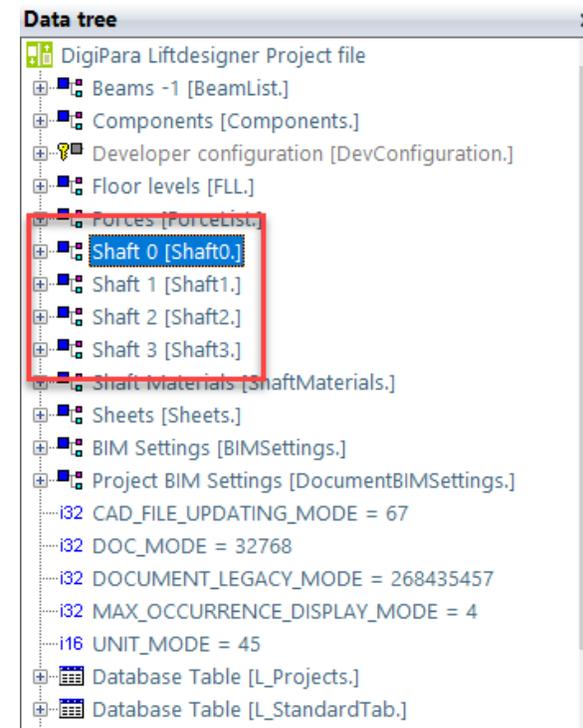


General information

EL2.1 SHAFT GROUPS

The copied/added shaft, including all shaft components, is completely independent of the source shaft object

- There are no links or references between each other



General information

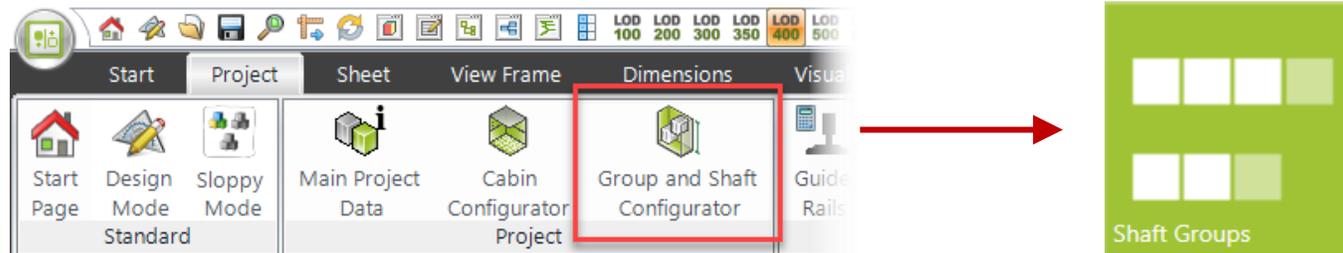
EL2.1 SHAFT GROUPS

Create shaft groups via:

- Ctrl. C / Ctrl. V on keyboard after selecting the shaft geometry
 - for a quick copy operation

cross-project
possible

- via Group and Shaft Configurator
 - copy and create different elevators



✓ Create Simple Shaft Groups

Practical example

EL2.1 SHAFT GROUPS

Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
 - Consider travel – no
 - Create building floor levels - no
- Traction elevator 1:1
- 13 persons / 1000 kg, 1 m/s
- Machine room
 - top
- Car roping
 - 2 pulleys below
 - without CW safety gear
- Counterweight roping, right
 - 1 pulley top
- Sheet templates
 - Not necessary

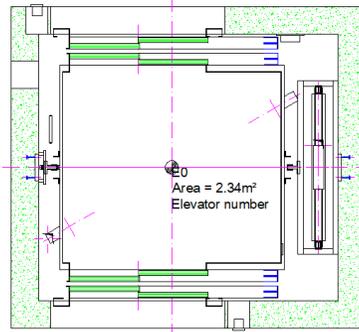
Further specifications

- Car size
 - Car width: 1600 mm
 - Car depth: 1400 mm
- 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:
LDTrainingSampleGroups.ld3

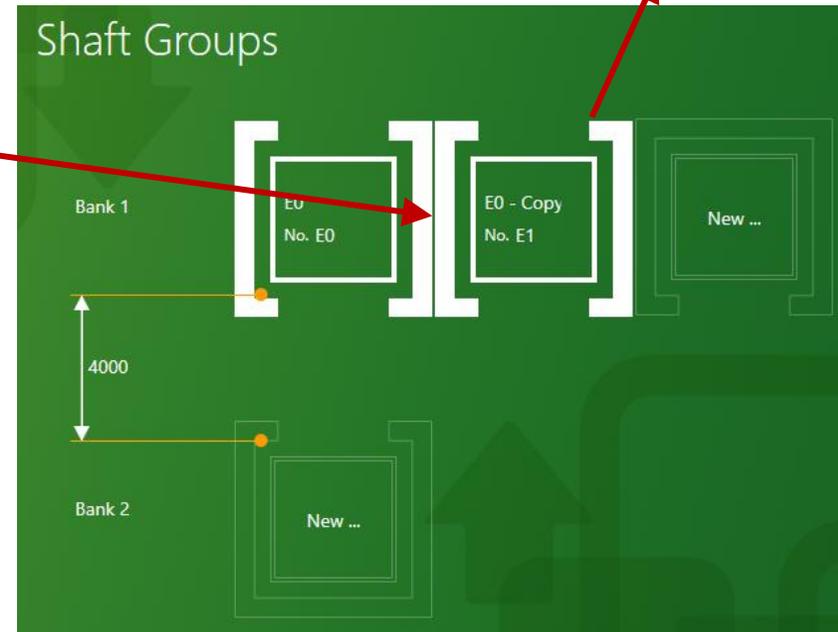
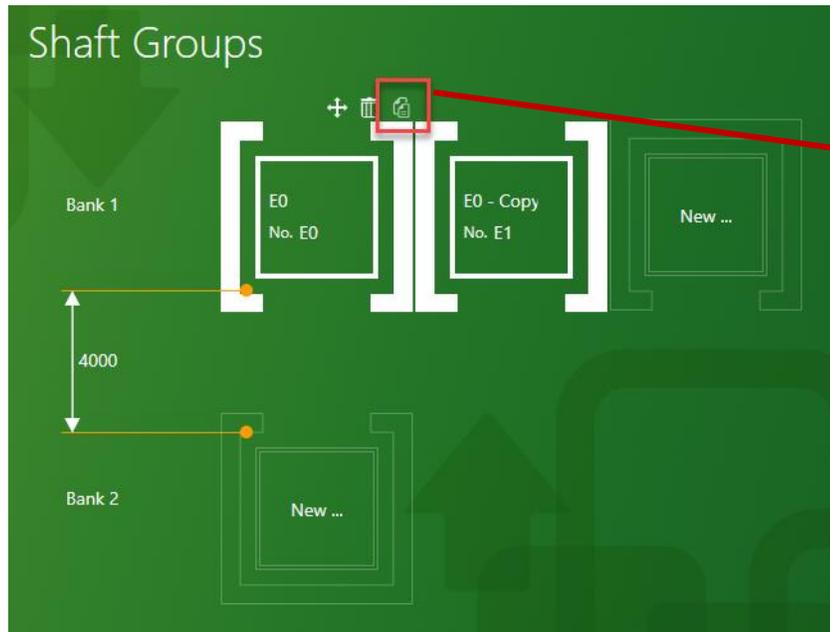
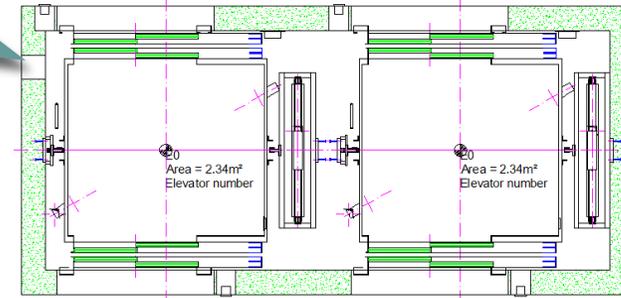
Create simple shaft groups

EL2.1 SHAFT GROUPS

Create identical elevators via a shaft copy operation



Shaft groups can be edited separately

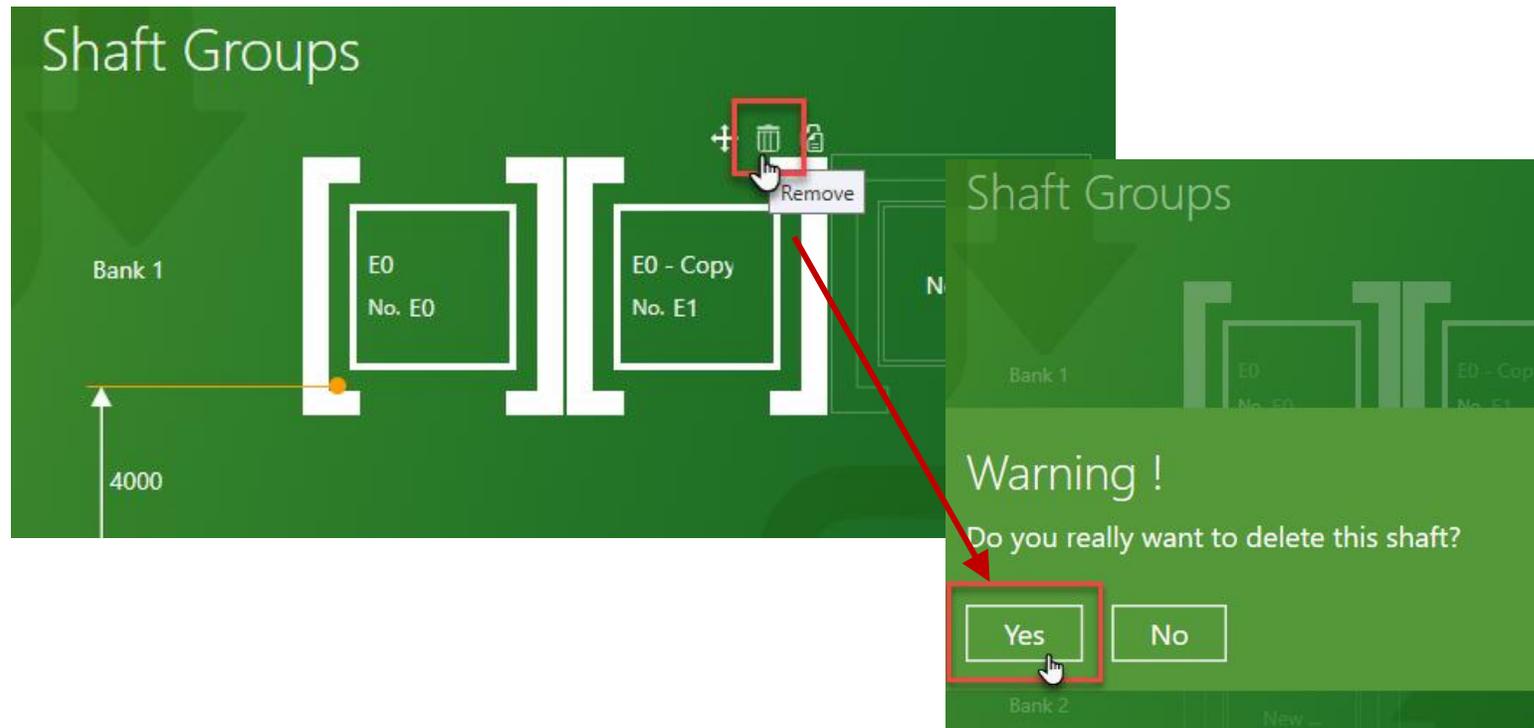


Remove elevators from group

EL2.1 SHAFT GROUPS

Removing elevators from a shaft group via the delete icon

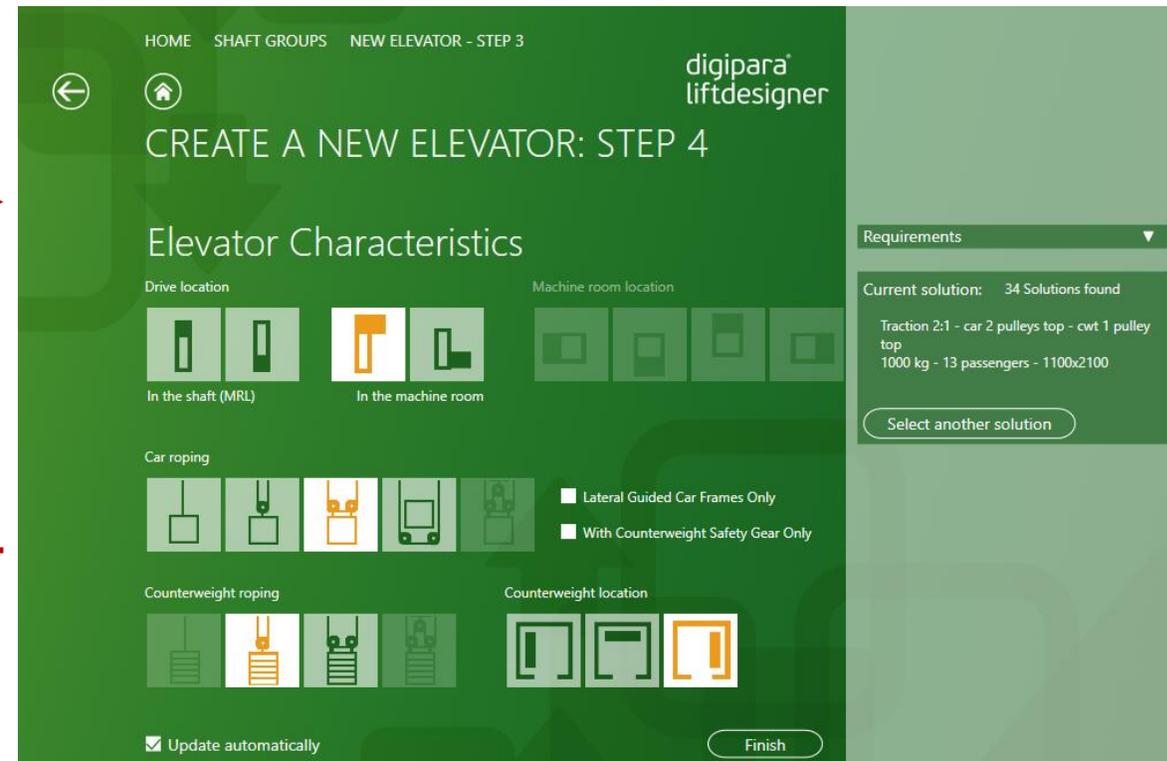
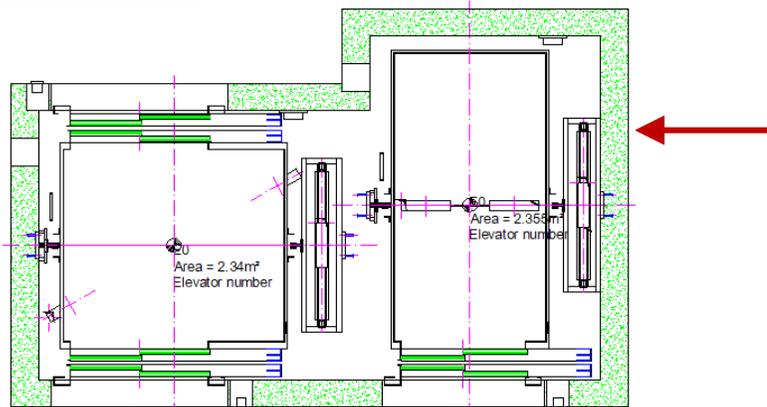
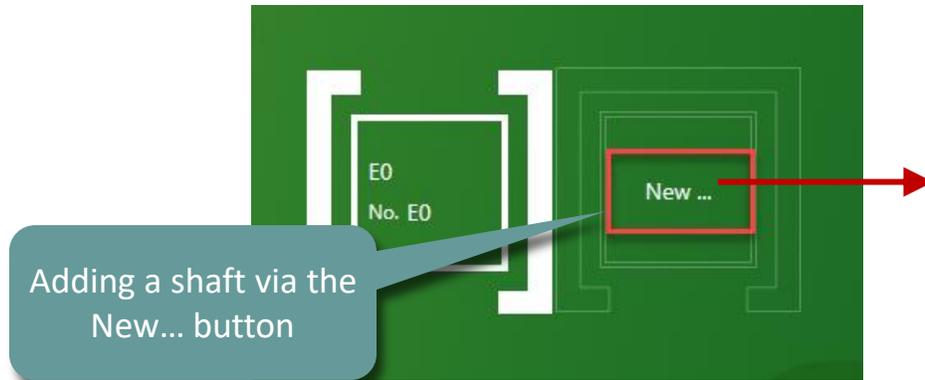
- in the Group and Shaft Configurator



Create simple shaft groups

EL2.1 SHAFT GROUPS

Create individual elevators via the group Shaft Wizard

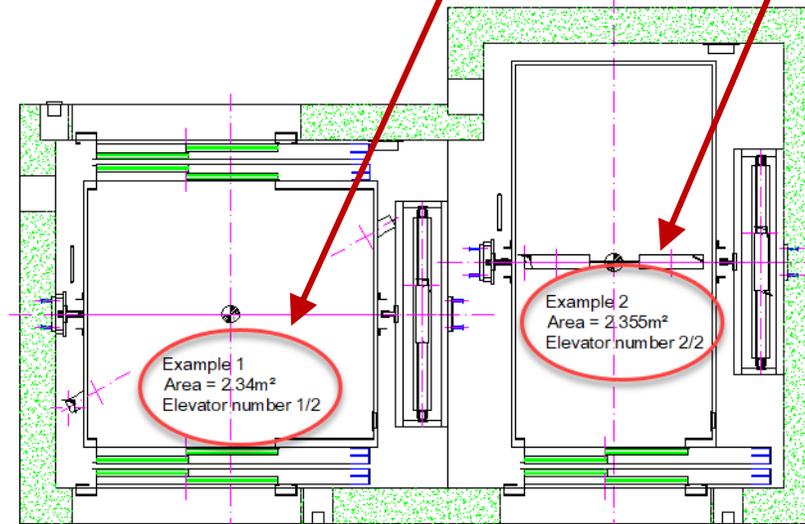
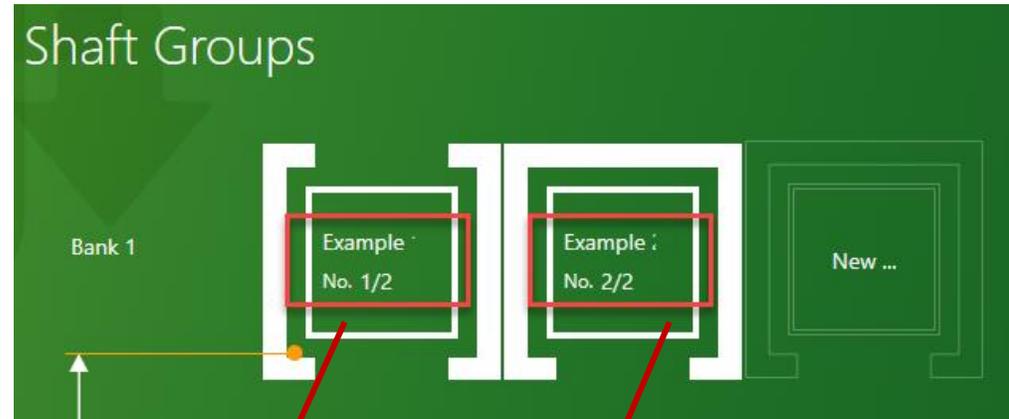


Create simple shaft groups

EL2.1 SHAFT GROUPS

Customize the existing elevator descriptions on the drawing

- via referenced descriptions in the Group and Shaft Configurator



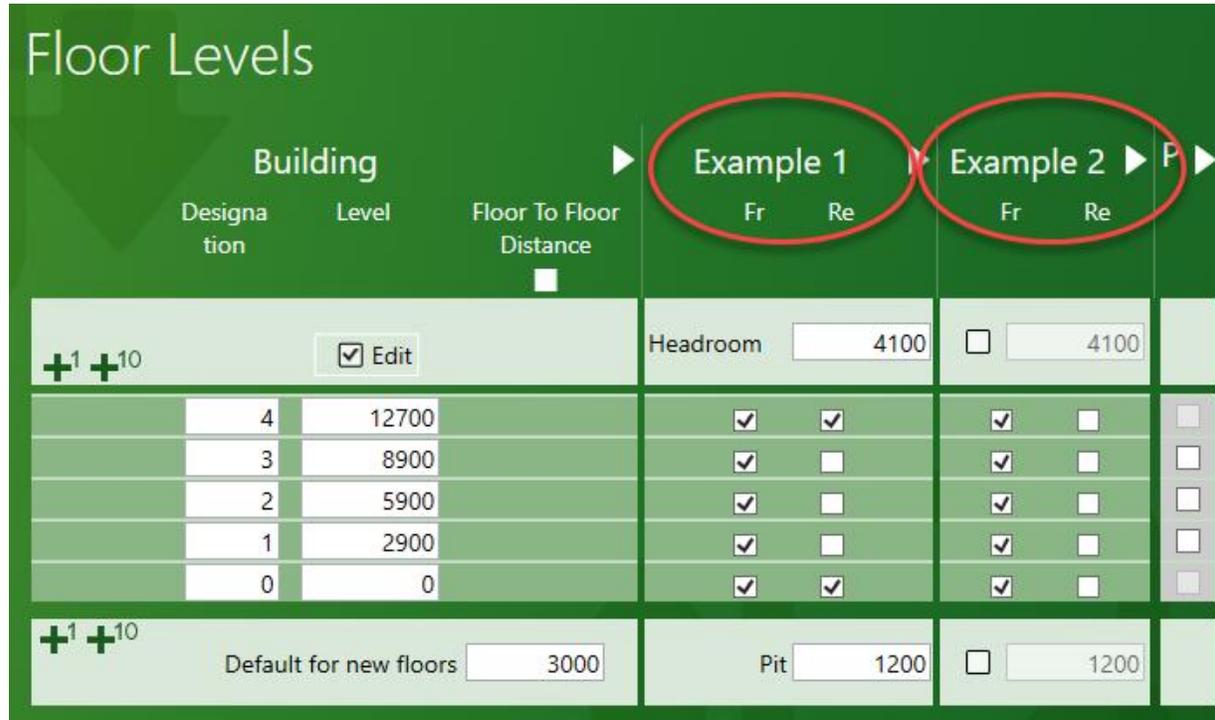
✓ Extended Floor Levels List

Extended floor levels list

EL2.1 SHAFT GROUPS

The Floor Levels list expands automatically with each new added elevator to the group

- Shaft head and pit as well as floor distances are taken over from the initial shaft by default



Floor Levels

Building ▶ Example 1 ▶ Example 2 ▶ P ▶

Designation	Level	Floor To Floor Distance	Fr	Re	Fr	Re	P
+1 +10		<input checked="" type="checkbox"/> Edit	Headroom	<input type="text" value="4100"/>	<input type="checkbox"/>	<input type="text" value="4100"/>	
	4	12700	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3	8900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2	5900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
+1 +10	Default for new floors <input type="text" value="3000"/>		Pit	<input type="text" value="1200"/>	<input type="checkbox"/>	<input type="text" value="1200"/>	

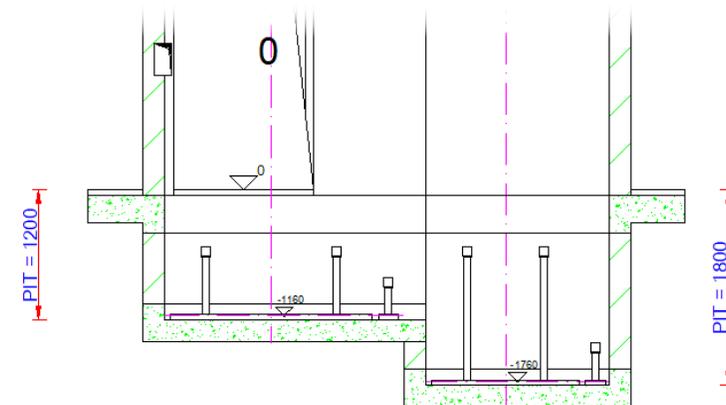
Extended floor levels list

EL2.1 SHAFT GROUPS

Each shaft is separately editable

- e.g. shaft pit
 - For individual modification, the corresponding check mark must be set for activation

Building			Example 1		Example 2		
Designation	Level	Floor To Floor Distance	Fr	Re	Fr	Re	Scaffoldings
<input checked="" type="checkbox"/> Edit			Headroom	4100	<input type="checkbox"/> This headroom is different	4100	
+1	+10						
	4	12700	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	3	8900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	2	5900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	1	2900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
Default for new floors 3000			Pit 1200	<input checked="" type="checkbox"/> This pit is different	1800		



Extended floor levels list

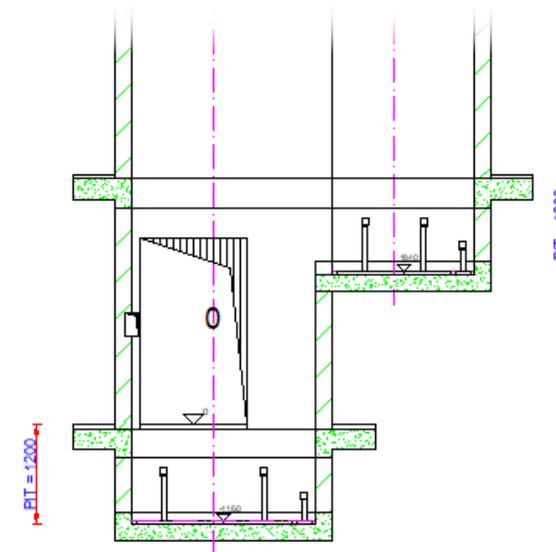
EL2.1 SHAFT GROUPS

Each shaft is separately editable

- e.g. floor level count
 - by deactivating the entrances

Floor Levels

Building			Example 1		Example 2		
Designation	Level	Floor To Floor Distance	Fr	Re	Fr	Re	Scaffoldings
+1 +10 <input checked="" type="checkbox"/> Edit			Headroom	4100	<input type="checkbox"/> This headroom is different	4100	
	4	12700	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	3	8900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	2	5900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	1	2900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
+1 +10 Default for new floors 3000			Pit	1200	<input type="checkbox"/> This pit is different	1200	



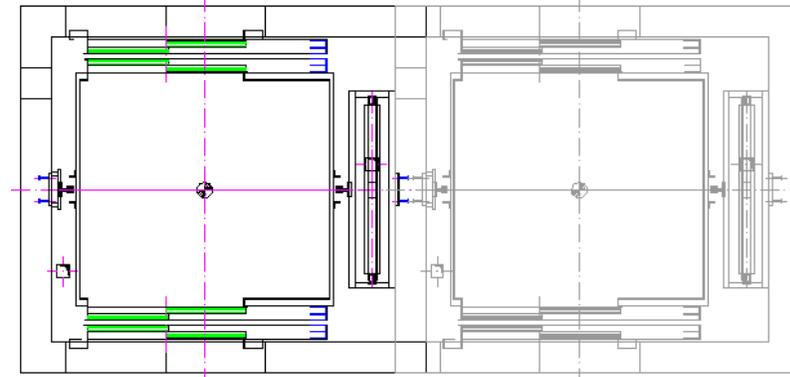
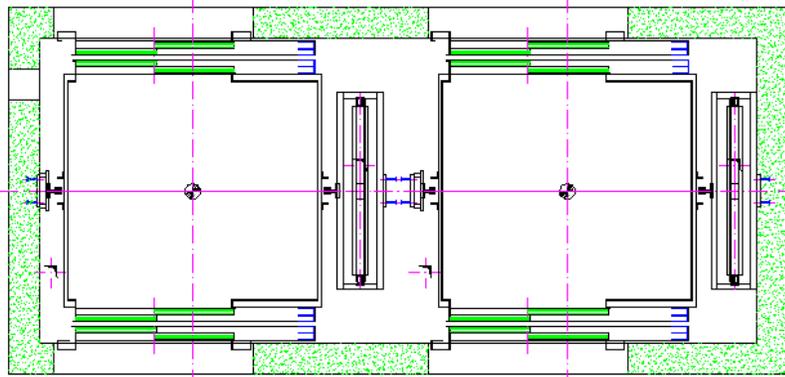
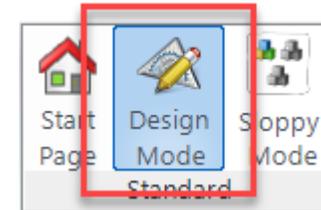
✓ Group Shaft Wall Opening 

Group shaft wall opening

EL2.1 SHAFT GROUPS

Automatically gets created when adding a new elevator to the group

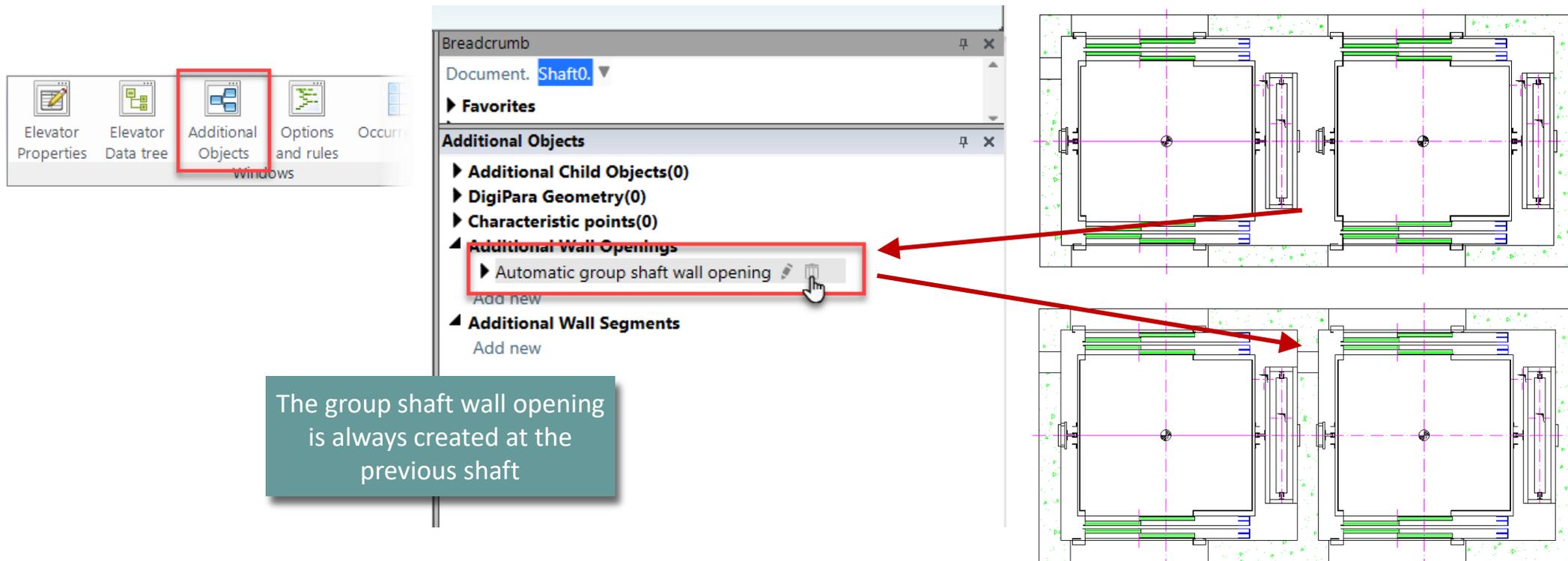
- visible in Design Mode



Group shaft wall opening

EL2.1 SHAFT GROUPS

Removing the wall opening via the Additional Objects docking window



The screenshot shows the software interface with the 'Additional Objects' docking window. The 'Additional Wall Openings' section is highlighted with a red box, and a red arrow points from it to the shaft diagrams. A text box explains that the group shaft wall opening is always created at the previous shaft.

Additional Objects

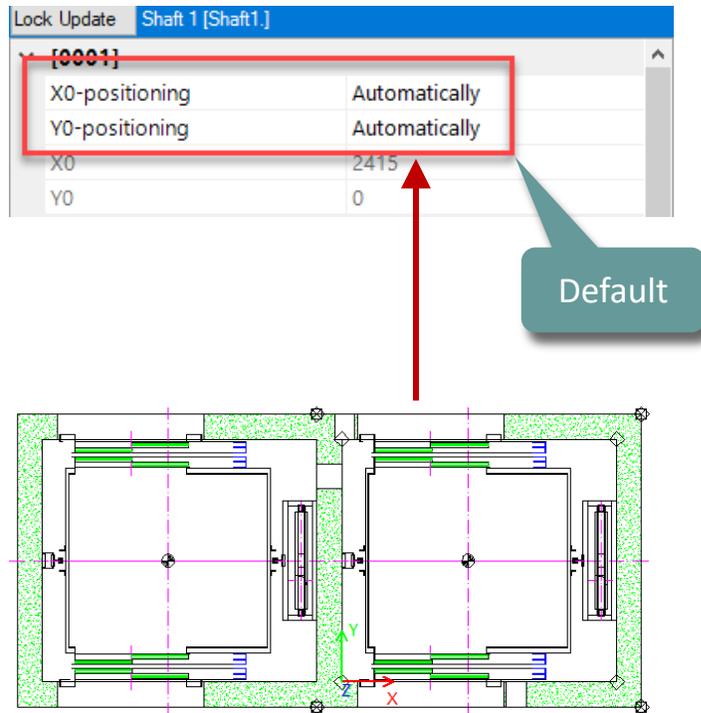
- ▶ Additional Child Objects(0)
- ▶ DigiPara Geometry(0)
- ▶ Characteristic points(0)
- ▶ **Additional Wall Openings**
 - ▶ Automatic group shaft wall opening
- ▶ Additional Wall Segments
 - Add new

The group shaft wall opening is always created at the previous shaft

Group shaft wall opening & shaft positions

EL2.1 SHAFT GROUPS

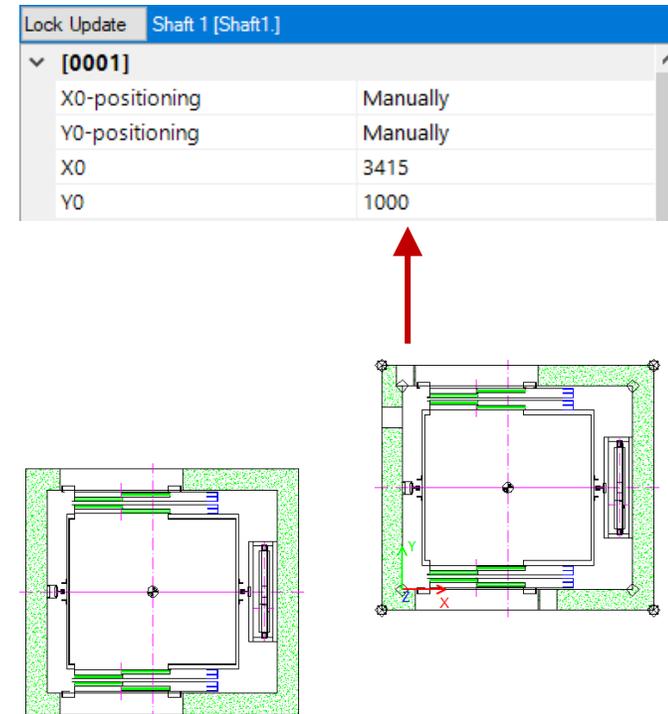
Moving the shafts through the coordinate system in the corresponding Properties



Lock Update Shaft 1 [Shaft1.]

[0001]	
X0-positioning	Automatically
Y0-positioning	Automatically
X0	2415
Y0	0

Default



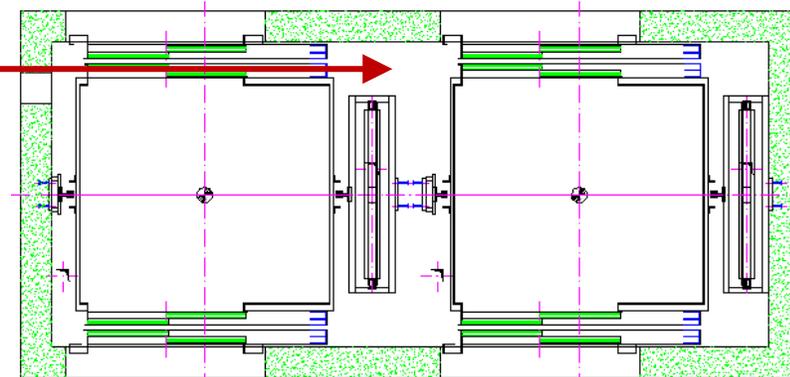
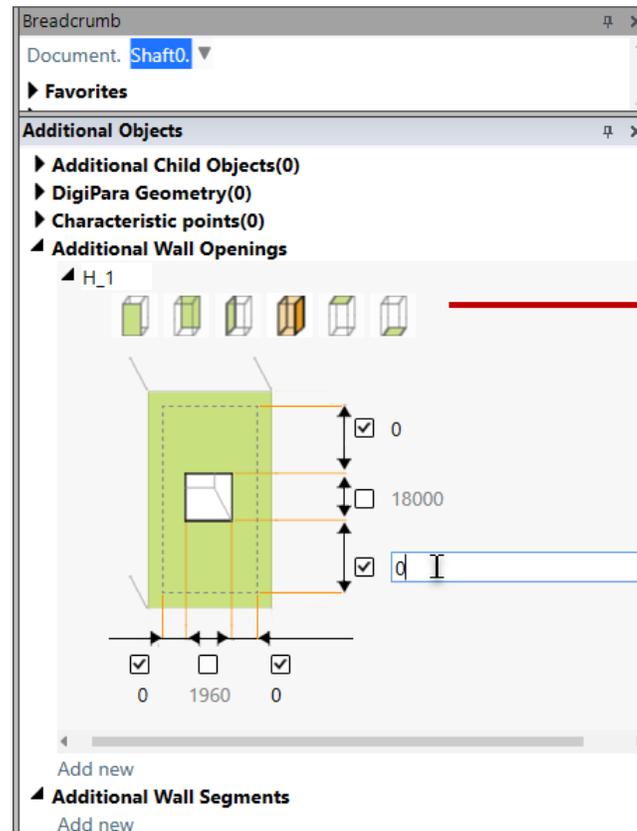
Lock Update Shaft 1 [Shaft1.]

[0001]	
X0-positioning	Manually
Y0-positioning	Manually
X0	3415
Y0	1000

Group shaft wall opening

EL2.1 SHAFT GROUPS

Adding a wall opening via the Additional Objects docking window



✓ Separator Beam

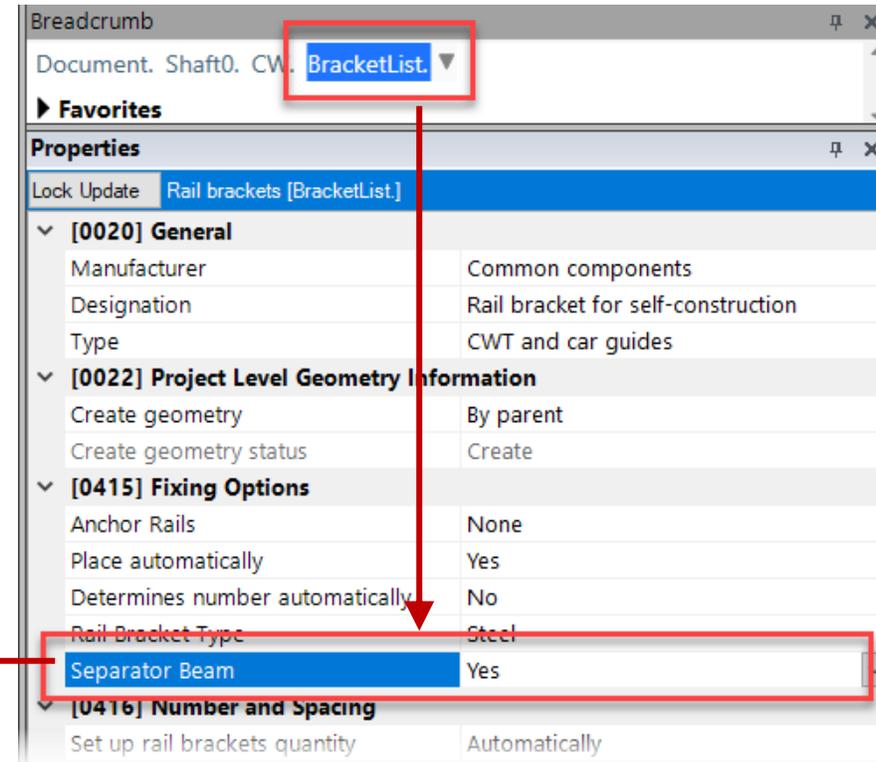
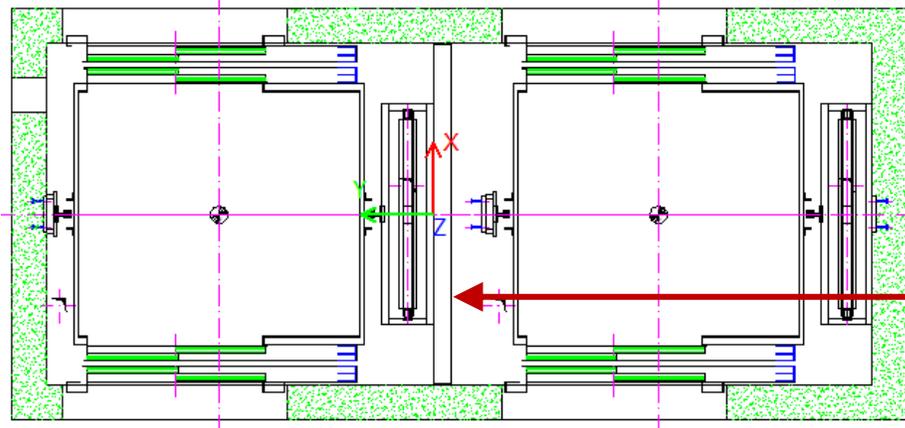


Separator beam

EL2.1 SHAFT GROUPS

Activating via the BracketList. Fixing Options

- Separator Beam: Yes

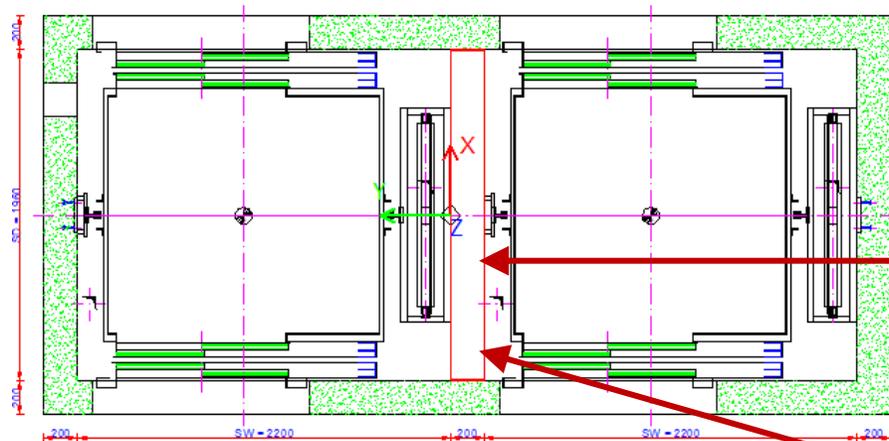


Separator beam

EL2.1 SHAFT GROUPS

Adapting the position

- via Distance to Wall



Pay attention to the wall thickness of the shaft!

Breadcrumb: Document, Shaft0, CW, BracketList, Bracket0, SepBeam

Properties

Lock Update Separator beam [SepBeam.]

- [0010] Tools**
 - Component state: Active
- [0020] General**
 - Manufacturer: Common components
 - Designation: Separator Beam
 - Type: I Type - vertical
- [0021] Separator Beam**
 - Beam width [mm]: 200
 - Beam Height [mm]: 150
- [0022] Project Level Geometry Information**
 - Create geometry: By parent
 - Create geometry status: Create
- [0024] Product Options**
 - Selected Product Options: Select from Option List ...
- [0430] Dimensions**
 - Distance to Wall [mm]: -200
 - Beam width [mm]: 200
- [3635] View Frame Settings**
 - Representation: Default (by Frame)

EL2.2

Performance
optimization

PERFORMANCE
OPTIMIZATION

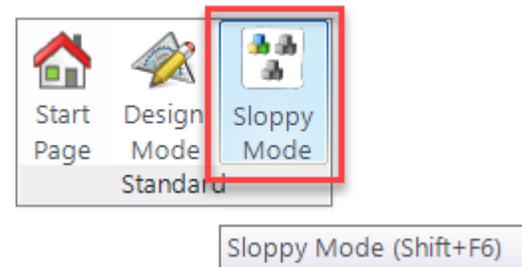


General information

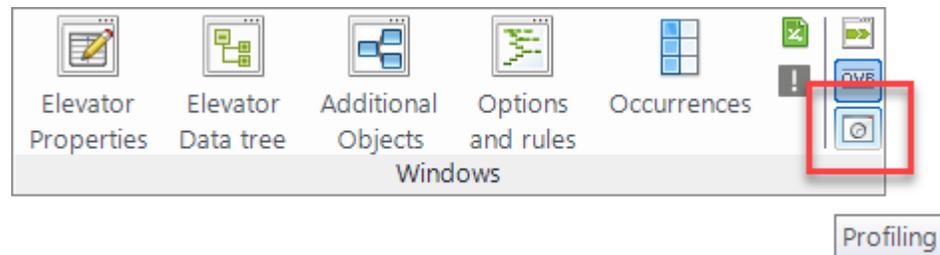
EL2.2 PERFORMANCE OPTIMIZATION

DigiPara Liftdesigner functions for optimizing and monitoring performance

- Recommended for frequent project adjustments within large elevators/elevator groups
 - To speed up the workflow in the DigiPara Liftdesigner project
- Sloppy Mode (User)



- Performance Profiler (Developer)



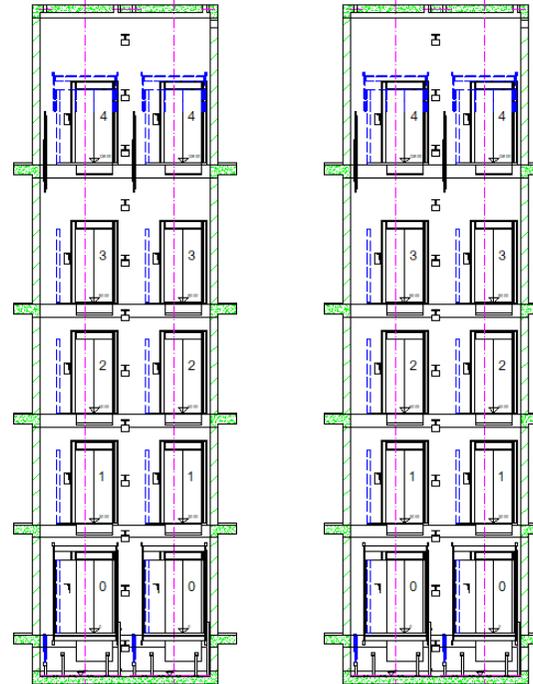
✓ Sloppy Mode

Sloppy Mode

EL2.2 PERFORMANCE OPTIMIZATION

Practical example: Preparation steps

- Create two identical sections: View from Front
 - Hiding unneeded Component Visibility

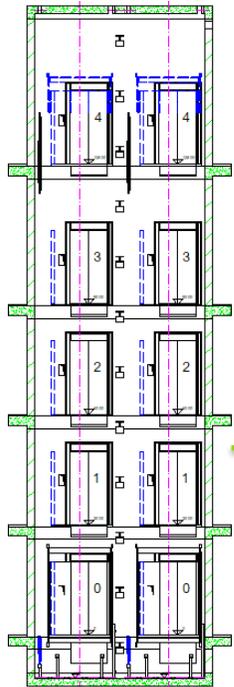


Sloppy Mode

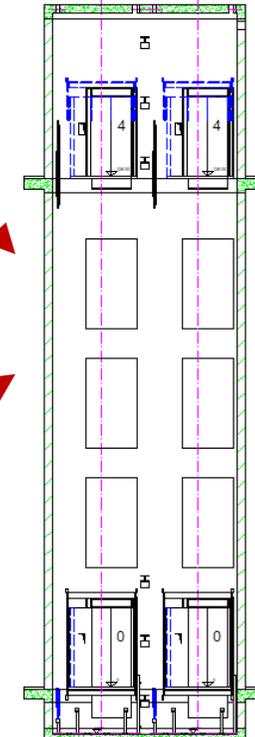
EL2.2 PERFORMANCE OPTIMIZATION

Hide unneeded geometries on selected floors

- via the Floor Levels list
 - Adjustments are updated in the project after the Sloppy Mode is switched on



Building			Beispiel 1		Beispiel 2		Performance
Designation	Level	Floor To Floor Distance	Fr	Re	Fr	Re	Do not draw in Sloppy Mode
+1 +10 <input type="checkbox"/> Edit			Headroom	4100	<input type="checkbox"/>	4100	Select all <input checked="" type="checkbox"/>
4	12800		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	9000		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	6000		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	3000		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
0	0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
+1 +10 Default for new floors <input type="text" value="3000"/>			Pit	1200	<input type="checkbox"/>	1200	

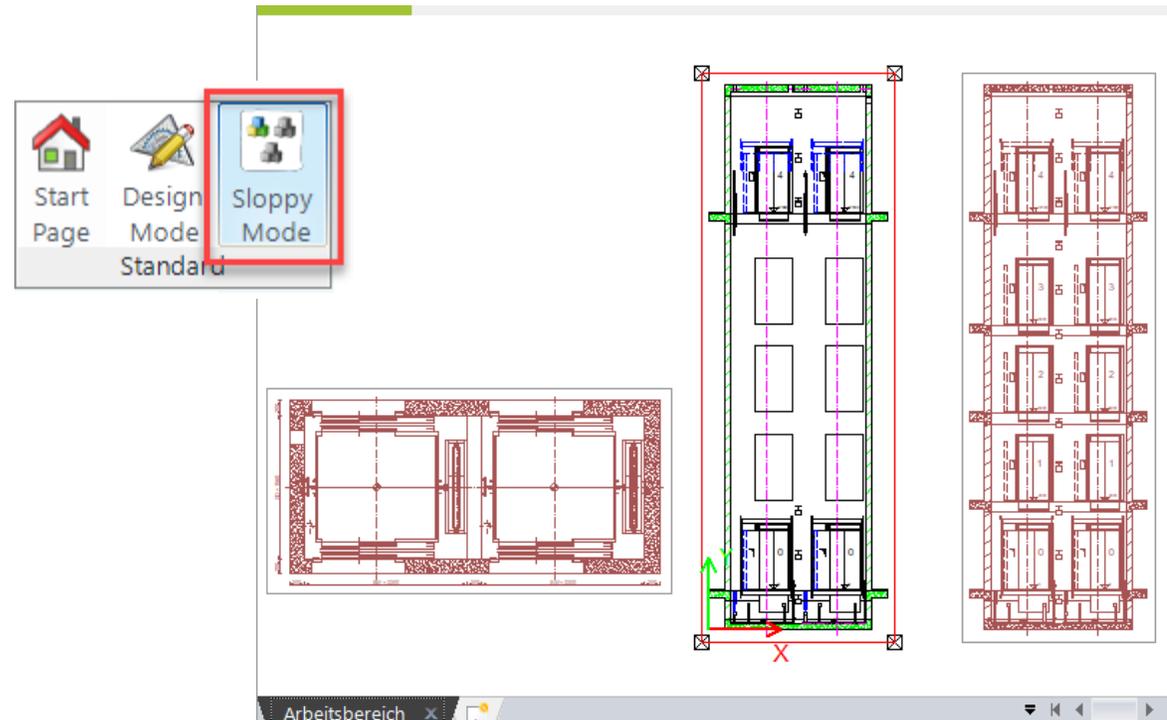


Sloppy Mode

EL2.2 PERFORMANCE OPTIMIZATION

Adjustments are immediately visible only in the active view frame

- The time of updating additional view frames can be set individually by simply selecting them on the drawing

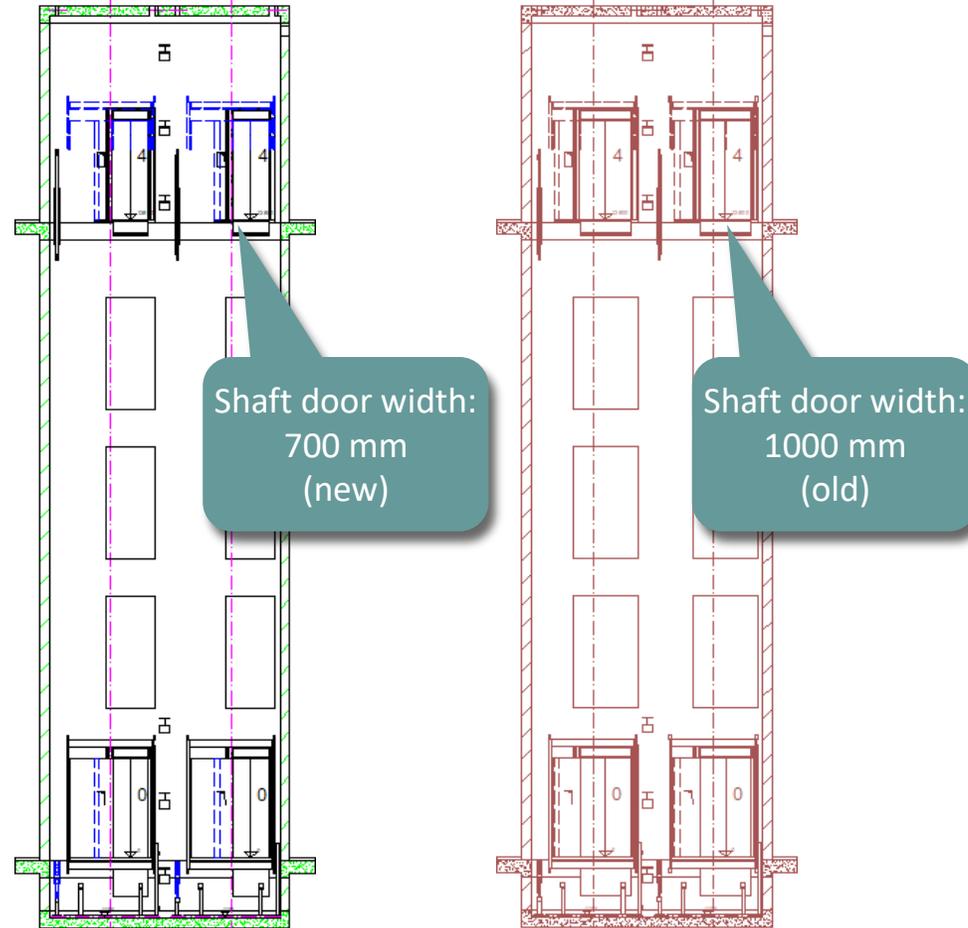


Sloppy Mode

EL2.2 PERFORMANCE OPTIMIZATION

Working in Sloppy Mode

- Red highlighted view frames on the drawing are not updated at the same time after project changes
- Adjustments to list objects, e.g. new landing door widths, are automatically synchronized on each floor even in Sloppy Mode

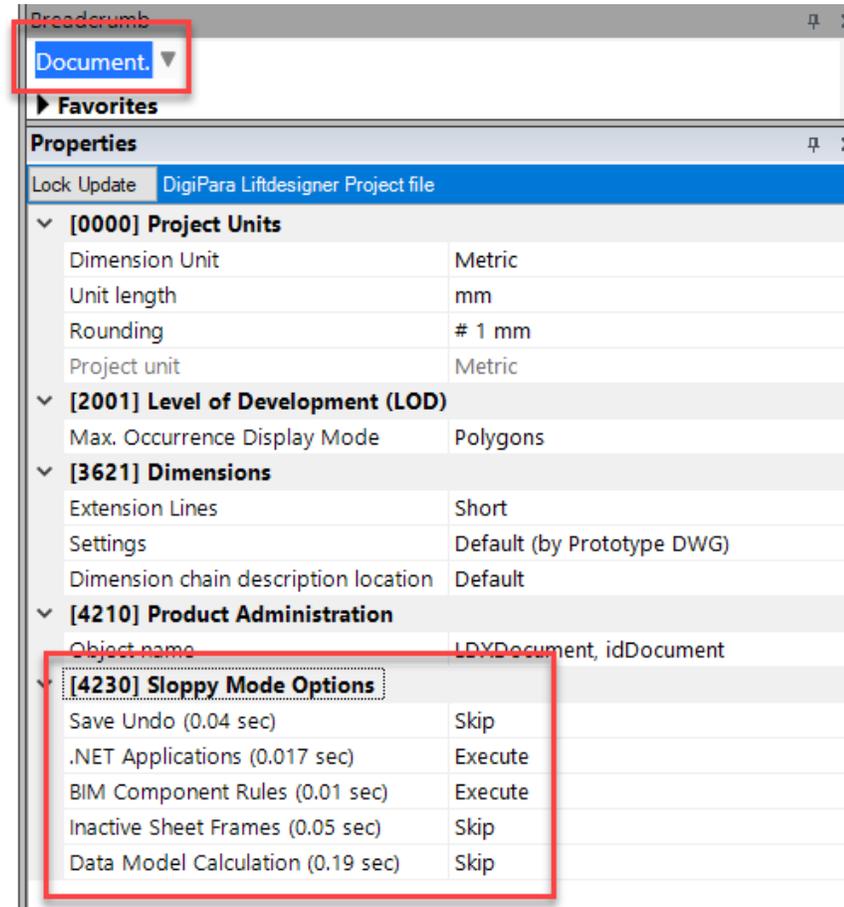


Sloppy Mode

EL2.2 PERFORMANCE OPTIMIZATION

Sloppy Mode Options

- Specifying the functions to be executed in Sloppy Mode
 - by the Properties on the Document



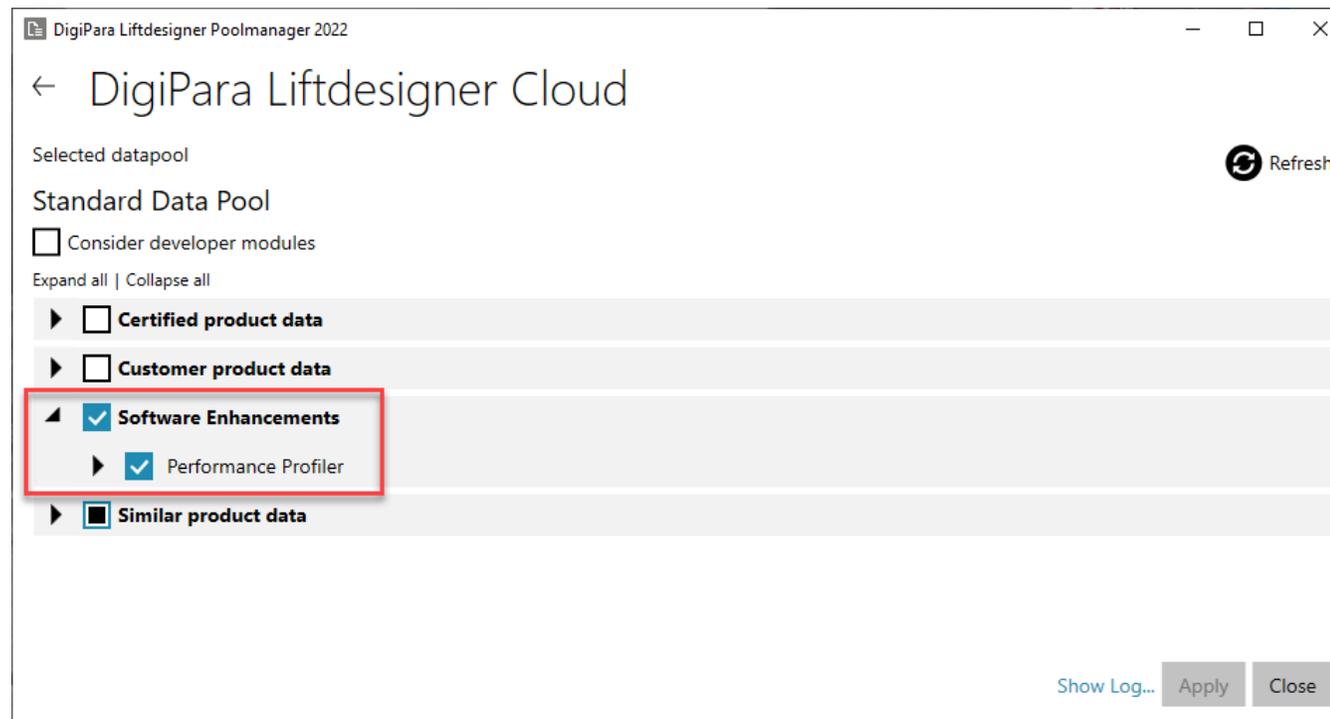
✓ Performance Profiler

Performance Profiler

EL2.2 PERFORMANCE OPTIMIZATION

Software extensions must be installed via the DigiPara LiftDesigner Cloud first

- DigiPara LiftDesigner applications must be closed in advance



Performance Profiler

EL2.2 PERFORMANCE OPTIMIZATION

Overview of runtimes of various operations & processes

- in DigiPara Liftdesigner
 - Recommended for developers

Performance Profiler

View Settings: Last Run Timings Total Run Timings Refresh Reset Totals

Operation	Last Run	Last Run %	Total Calls	Total Run	Total Run %
All	0.17 sec	100%	74	4.74 sec	99%

▲ Calculate Model Operations

Operation	Last Run	Last Run %	Total Calls	Total Run	Total Run %
Save Undo	0 sec	0%	4	0.04 sec	1%
BIM Component Rules	0 sec	0%	24	0.04 sec	1%
Calculate Model	0 sec	0%	3	0.78 sec	16%
.NET Create Model	0 sec	0%	0	0 sec	0%
.NET Model Calculating	0 sec	0%	6	0 sec	0%
Change Part RID	0 sec	0%	6	0.05 sec	1%

▲ Drawing Operations

Operation	Last Run	Last Run %	Total Calls	Total Run	Total Run %
Active View Frame	0.07 sec	41%			
Other visible View Frames	0 sec	0%			
All View Frames			15	0.91 sec	19%

▲ Docking Windows

Operation	Last Run	Last Run %	Total Calls	Total Run	Total Run %
3D View	0.1 sec	59%	11	0.91 sec	19%
Data tree	0 sec	0%	1	0.15 sec	3%
Property Grid	0 sec	0%	10	1.91 sec	40%
CAD Occurrences	0 sec	0%	0	0 sec	0%

▲ Memory Statistic

	Existing	Created	Deleted
LDXObjects	682717	718144	35427
LDXComps	11610	11855	245
LDXProfiles	1625	1638	13
LDXProfilePoints	3305	3305	0
LDXCADFileOccurrence	0	0	0

 digipara® liftdesigner

Let's have a break!



EL2.3

Double Deck

DOUBLE
DECK



Recommended workflow

EL2.3 DOUBLE DECK

General information and tips when creating large and complex elevator groups

- Step 1: Create a project with few floors
- Step 2: Exchange basic components
- Step 3: Modify necessary parameters
- Step 4: Adapt car and counterweight position
- Step 5: Add shaft groups
- Step 6: Separator beam / Shaft wall
- Step 7: Adapt and position related components
- Step 8: Use Sloppy-Mode
- Step 9: Increase the number of floors

Practical example

EL2.3 DOUBLE DECK

Shaft Wizard

- 5 floors
- Typical floor to floor distance 3000 mm
 - Consider travel – no
- Traction elevator 1:1
- 24 persons / 1800 kg
- Maschine room
 - top
- Car roping
 - top (w/o pulley)
 - with CW safety gear
- Counterweight roping, rear
 - top (w/o pulley)
- Sheet templates
 - Not necessary

Further specifications

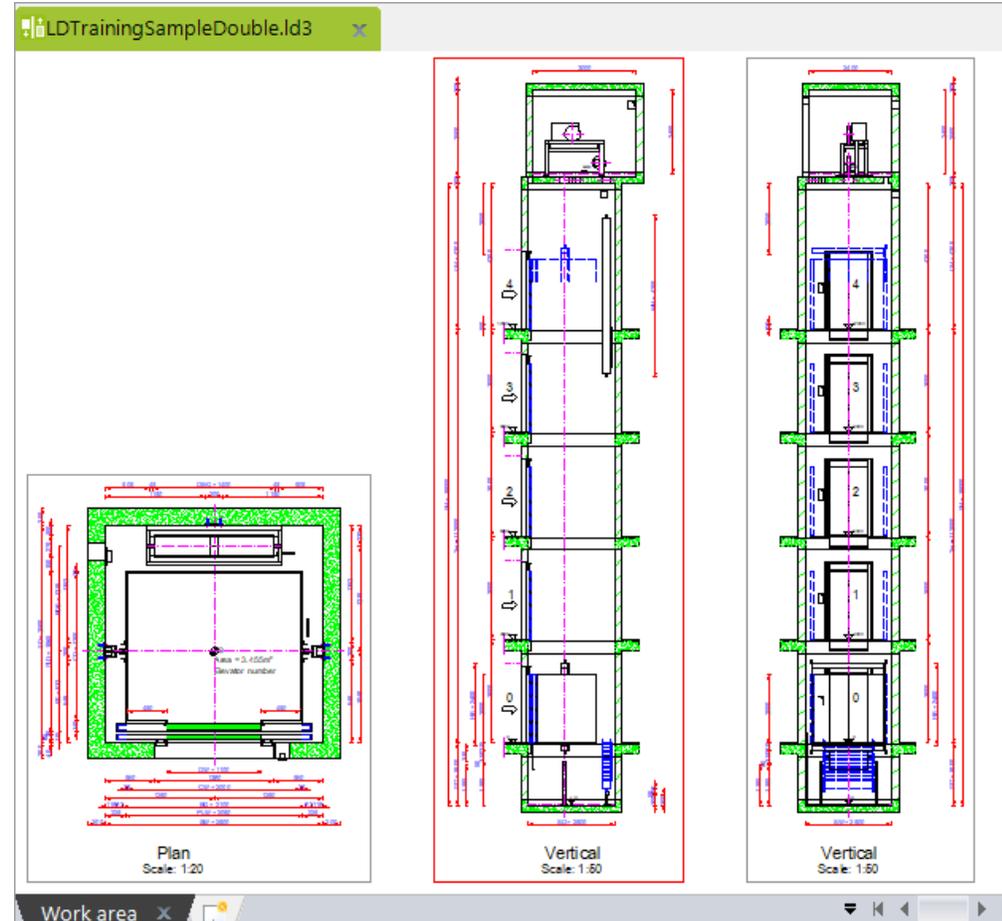
- Car size
 - Car width: 2000 mm / Car depth: 1700 mm
- Counterweight size
 - Thickness: 270 mm / Height: 4500 mm
 - Distance between guides: 1450 mm
- Shaft size
 - Shaft width: 2500 mm / Shaft depth: 2500 mm
- Entrances
 - Front: all floors
- Speed
 - 6 m/s
- Adjust the rail bracket geometry
- Save the project under the following file name:
LDTrainingSampleDouble.Id3

Recommended workflow: Step 1

EL2.3 DOUBLE DECK

Create a project with few floors

- Preparation steps:
 - Plan view
 - Section view from Left
 - Section view from Front

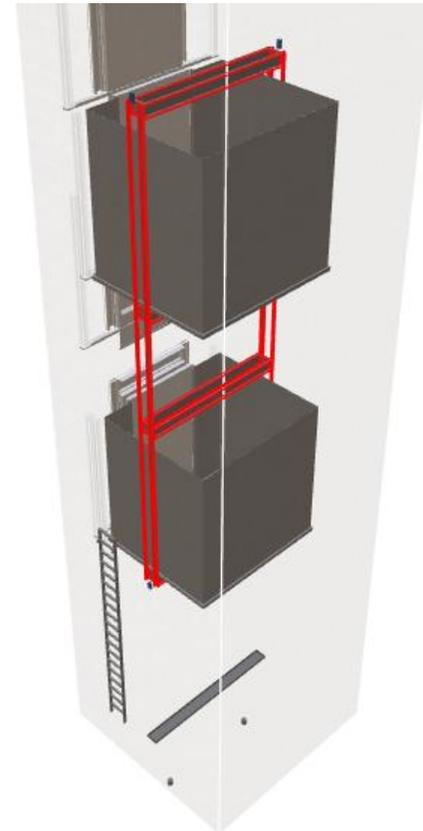
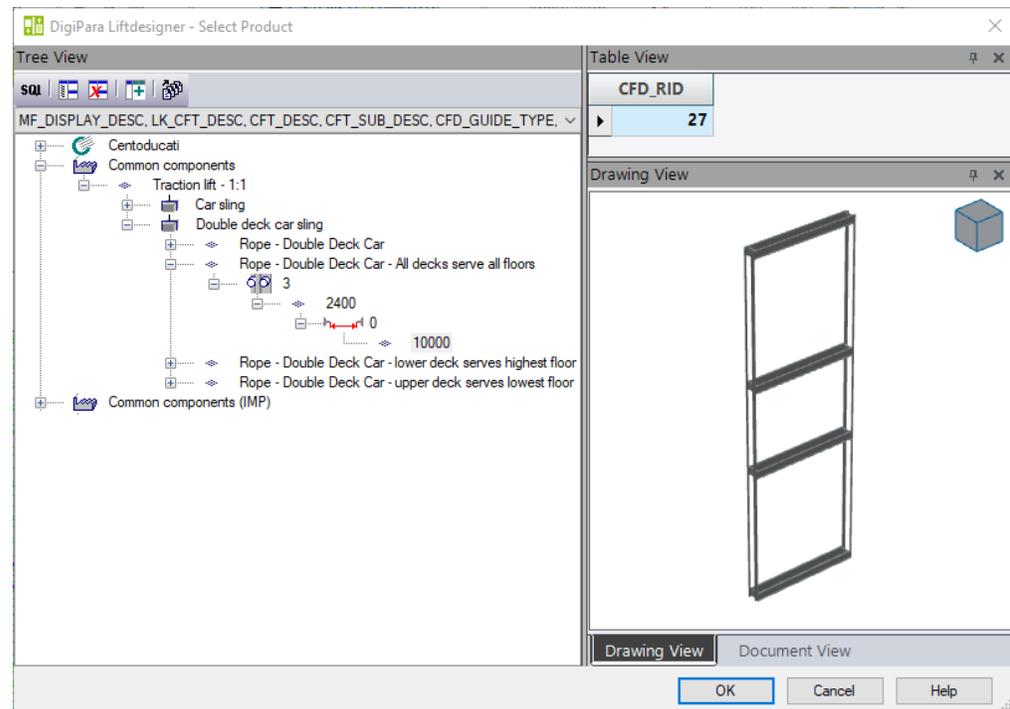


Recommended workflow: Step 2

EL2.3 DOUBLE DECK

Exchange basic components

- Car frame
 - Double deck car sling – All decks serve all floors

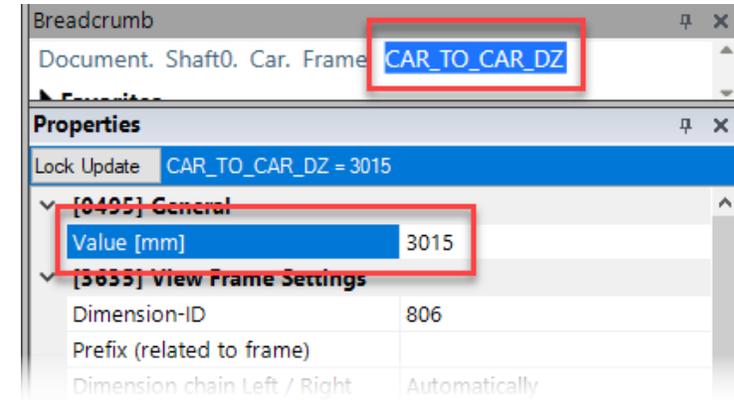
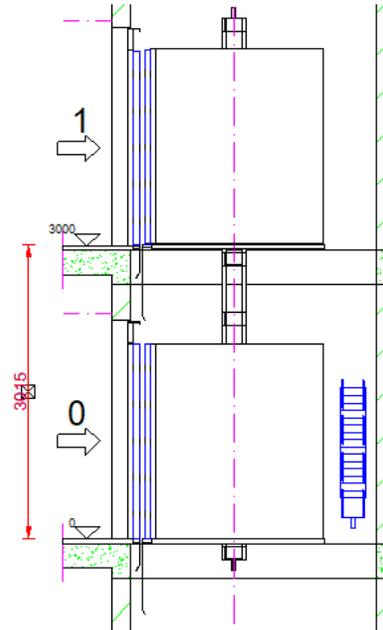
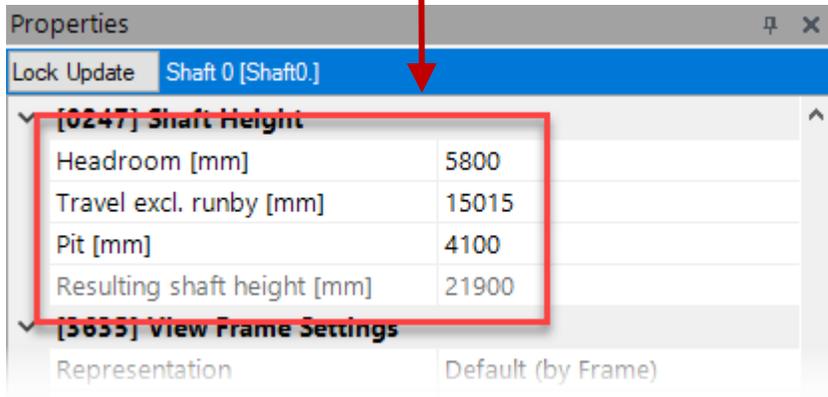


Recommended workflow: Step 3

EL2.3 DOUBLE DECK

Modify necessary parameters

- Distance between cars: 3015 mm
- Shaft head: 5800 mm / shaft pit: 4100 mm

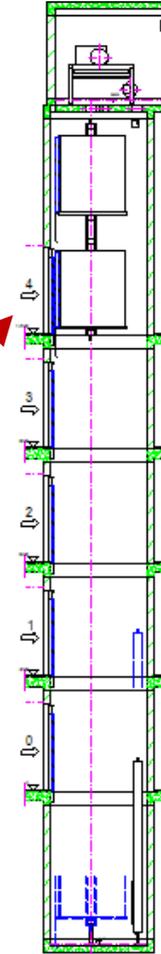
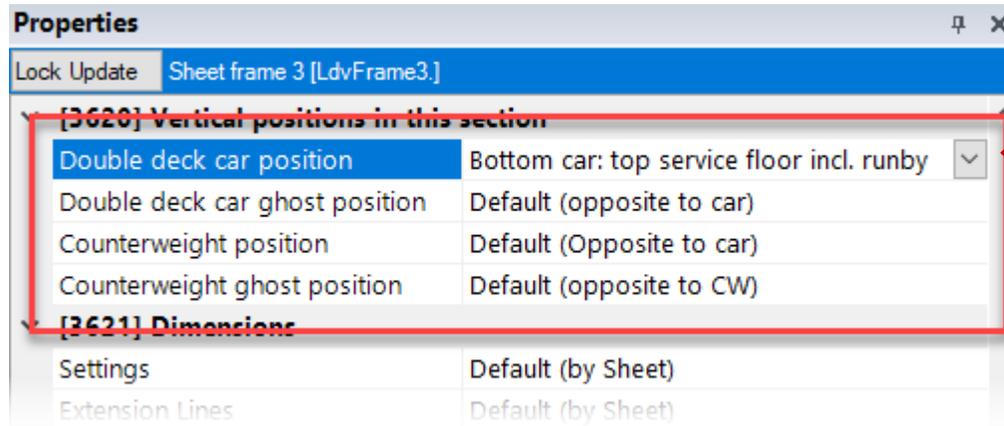


Recommended workflow: Step 4

EL2.3 DOUBLE DECK

Adapt car and counterweight position

- in the view frame Properties
 - The positioning of car and counterweight on the drawing is recommended before increasing the number of floors and creating group shafts, in order to keep the calculation power as low as possible when updating

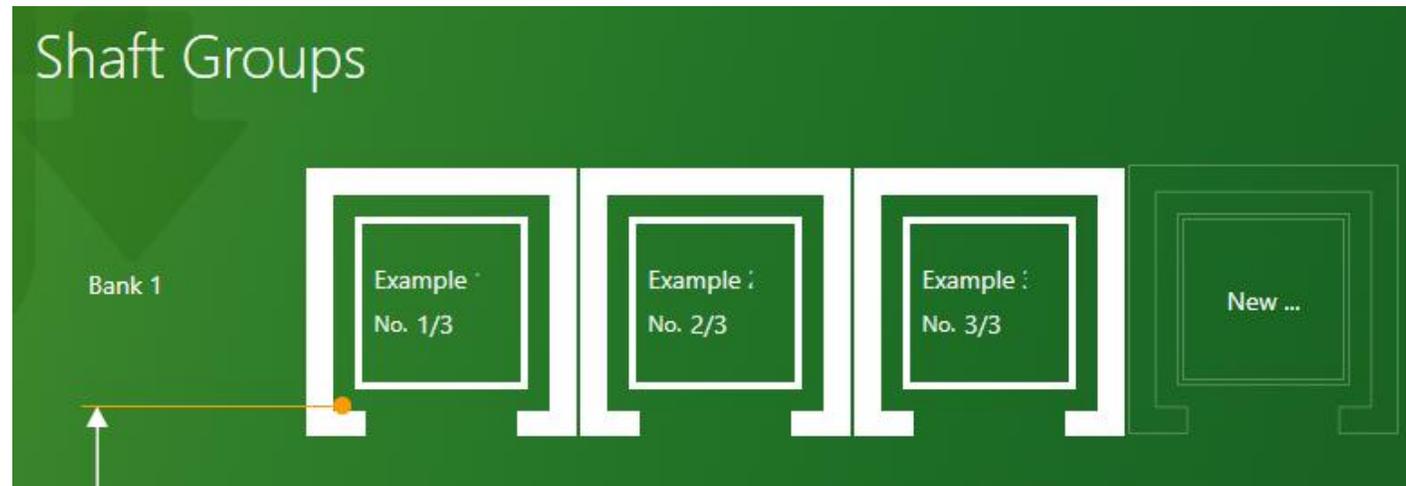


Recommended workflow: Step 5

EL2.3 DOUBLE DECK

Add shaft groups

- by copy operation

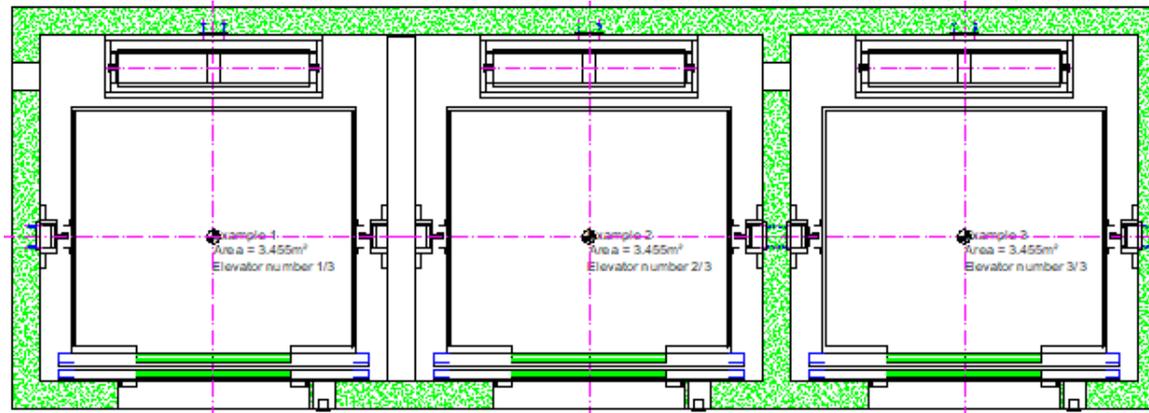


Recommended workflow: Step 6

EL2.3 DOUBLE DECK

Separator beam / Shaft wall

- Add separator beams for the first shaft
- Remove the group shaft wall opening from the second shaft

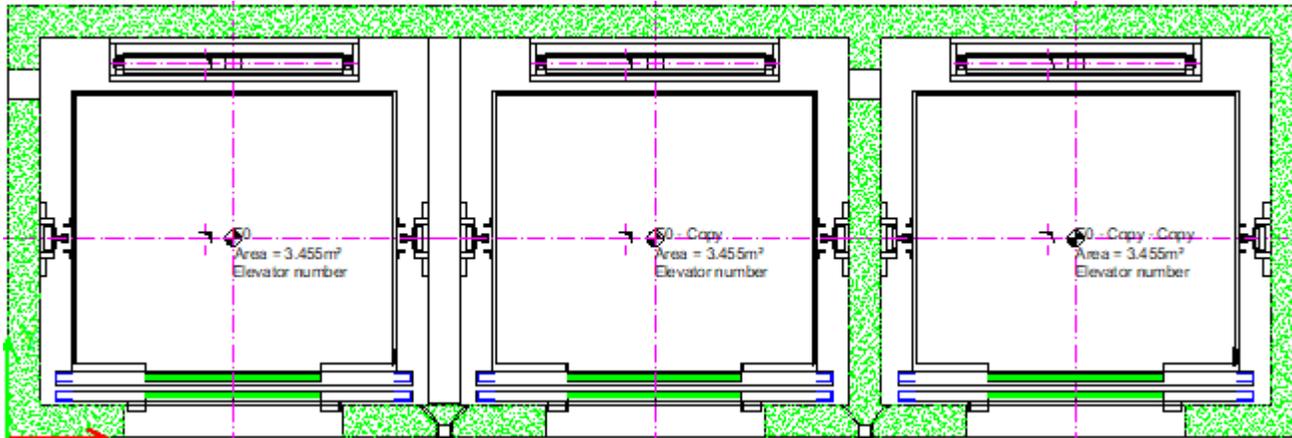


Recommended workflow: Step 7

EL2.3 DOUBLE DECK

Centered Hall Buttons

- One panel for two doors
 - Set Centered between two door to Yes



Breadcrumb
Document. Shaft0. Entries1. E0. Panel0. ▾

► Favorites
► Options

Properties
Lock Update Hall Button [Panel0.]

- > [0010] Tools
- > [0020] General
- > [0022] Project Level Geometry Information
- > [0330] Type
- ▼ [0331] Position

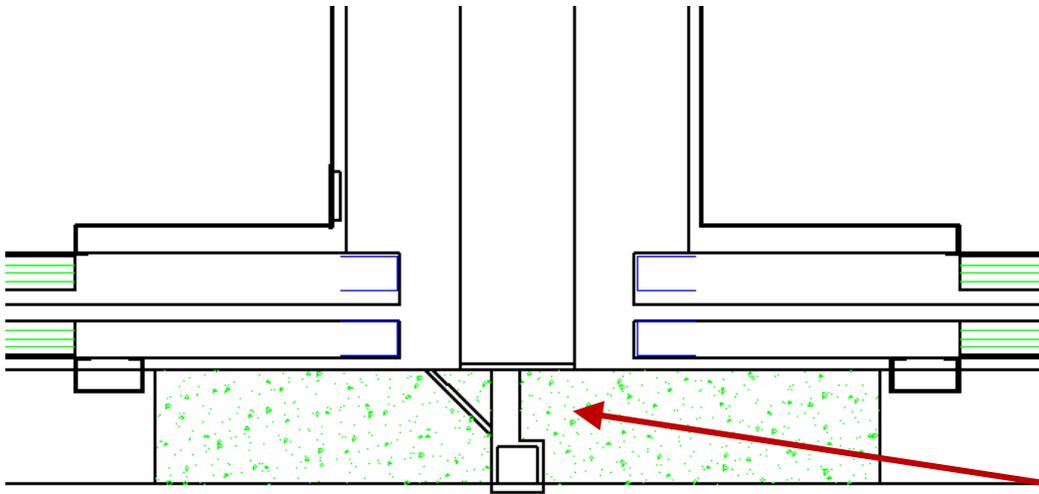
Grouping (Hall Button position)	Modify with group
General position	<input type="text" value="In the right wall"/>
Centered between two doors	<input checked="" type="checkbox"/> Yes
Relative X-Distance [mm]	240
Relative Y-Distance [mm]	0

Recommended workflow: Step 7

EL2.3 DOUBLE DECK

Inclined through holes in shaft groups

- By adding a second through hole



Breadcrumb: Document. Shaft0. Entries1. E0. Panel0. Hole0. ▾

► Favorites
► Options

Properties: Lock Update Hole 0 [Hole0.]

- > [0002] Hole Height
- > [0003] Hole Width
- > [0004] Hole Depth
- ▼ [0022] Project Level Geometry Information

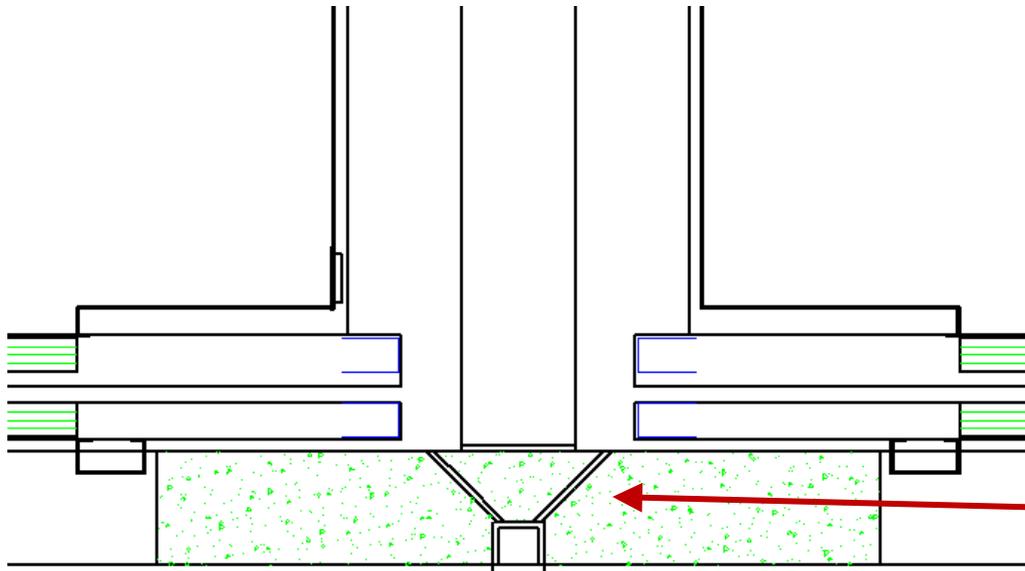
Create geometry	By parent
Create geometry status	Create
Custom through holes	Yes
Number of through holes	2
Basis point of through holes	Rel. to panel box lower left corner

Recommended workflow: Step 7

EL2.3 DOUBLE DECK

Inclined through holes in shaft groups

- Customize size, position and angle of each through hole separately



Breadcrumb: Document. Shaft0. Entries1. E0. Panel0. Hole0. ▾

► Favorites
► Options

Properties: Lock Update Hole 0 [Hole0.]

- > [0002] Hole Height
- > [0003] Hole Width
- > [0004] Hole Depth
- > [0022] Project Level Geometry Information

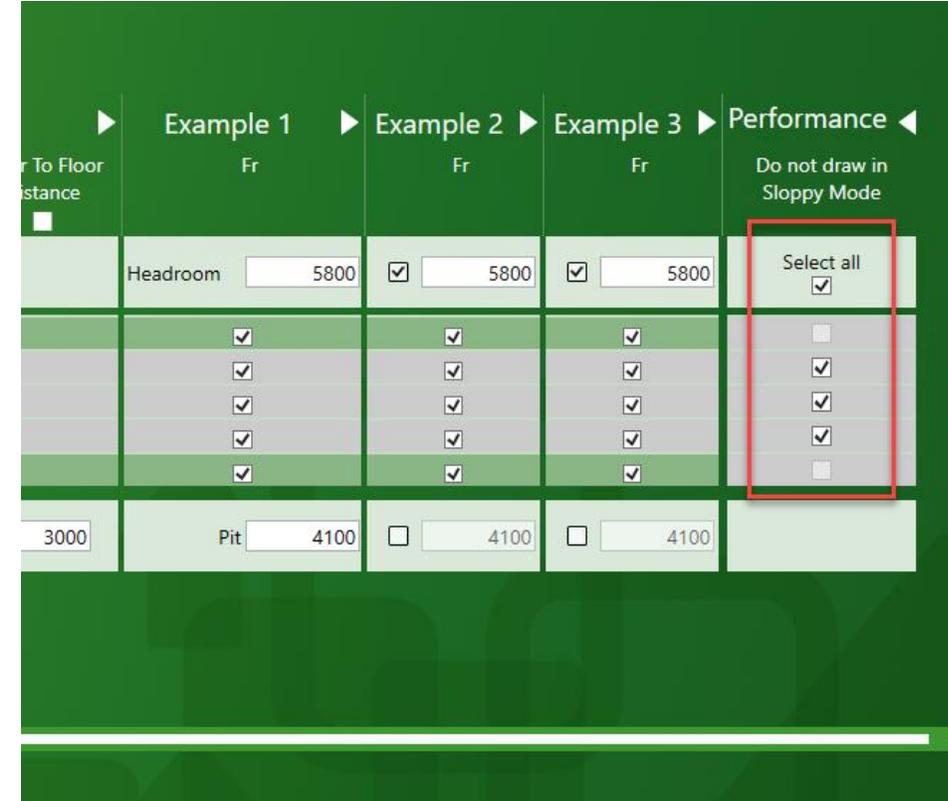
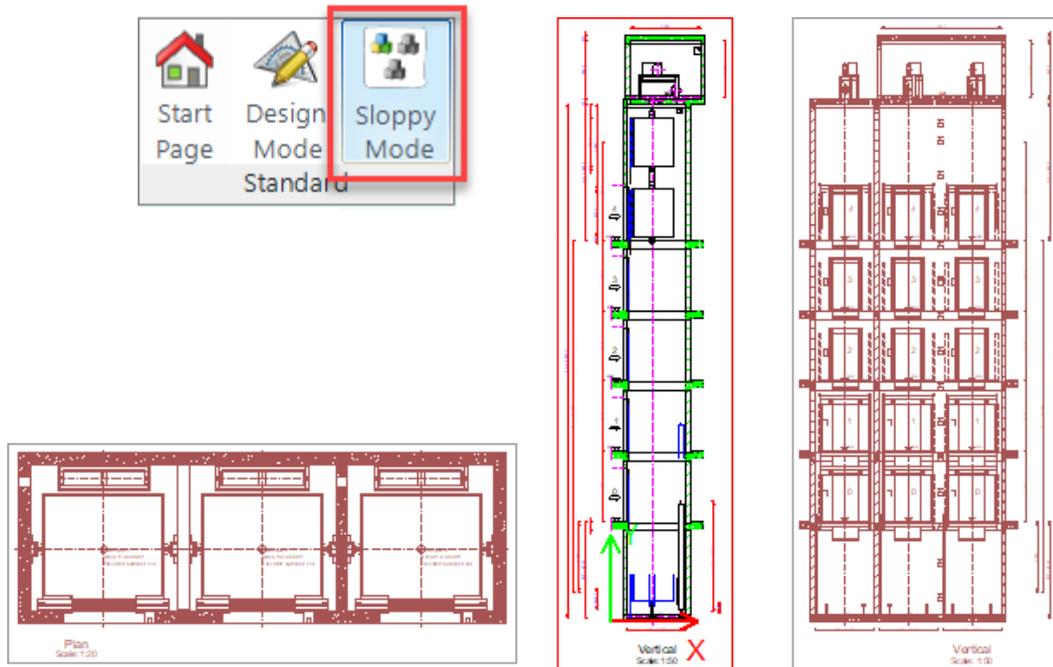
▼ [0070] Through Hole 1 Position		
X0 [mm] (1)		10
Z0 [mm] (1)		0
Angle (1)		-40
▼ [0071] Through Hole 1 Size		
DX [mm] (1)		10
DZ [mm] (1)		50
Shape (1)		Cylindrical
▼ [0072] Through Hole 2 Position		
X0 [mm]		70
Z0 [mm]		10
Angle		40
▼ [0073] Through Hole 2 Size		
DX [mm]		10
DZ [mm]		10
Shape		Cylindrical

Recommended workflow: Step 8

EL2.3 DOUBLE DECK

Use Sloppy-Mode

- for faster project processing



The screenshot shows a settings table with columns for 'Example 1', 'Example 2', 'Example 3', and 'Performance'. The 'Performance' column has a 'Do not draw in Sloppy Mode' section with a 'Select all' checkbox checked (highlighted with a red box). The table also includes input fields for 'Headroom' (5800) and 'Pit' (4100).

	Example 1	Example 2	Example 3	Performance
Fr	Fr	Fr	Fr	Do not draw in Sloppy Mode
Headroom	5800 <input checked="" type="checkbox"/>	5800 <input checked="" type="checkbox"/>	5800 <input checked="" type="checkbox"/>	Select all <input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pit	4100 <input type="checkbox"/>	4100 <input type="checkbox"/>	4100 <input type="checkbox"/>	

Recommended workflow: Step 9

EL2.3 DOUBLE DECK

Increase the number of floors

- +10 for a faster creation of several floors for all shafts

Floor Levels

Building			Example 1	Example 2	Example 3	P
Designation	Level	Floor To Floor Distance	Fr	Fr	Fr	
<input type="checkbox"/> +1 <input checked="" type="checkbox"/> +10 <input checked="" type="checkbox"/> Edit			Headroom <input type="text" value="5800"/>	<input checked="" type="checkbox"/> <input type="text" value="5800"/>	<input checked="" type="checkbox"/> <input type="text" value="5800"/>	
	14	42000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	13	39000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	12	36000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	11	33000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	10	30000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9	27000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	8	24000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	7	21000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	6	18000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	5	15000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	4	12000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	3	9000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2	6000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1	3000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> +1 <input checked="" type="checkbox"/> +10	Default for new floors <input type="text" value="3000"/>		Pit <input type="text" value="4100"/>	<input type="checkbox"/> <input type="text" value="4100"/>	<input type="checkbox"/> <input type="text" value="4100"/>	

EL2.4

Face to Face

FACE TO
FACE TO



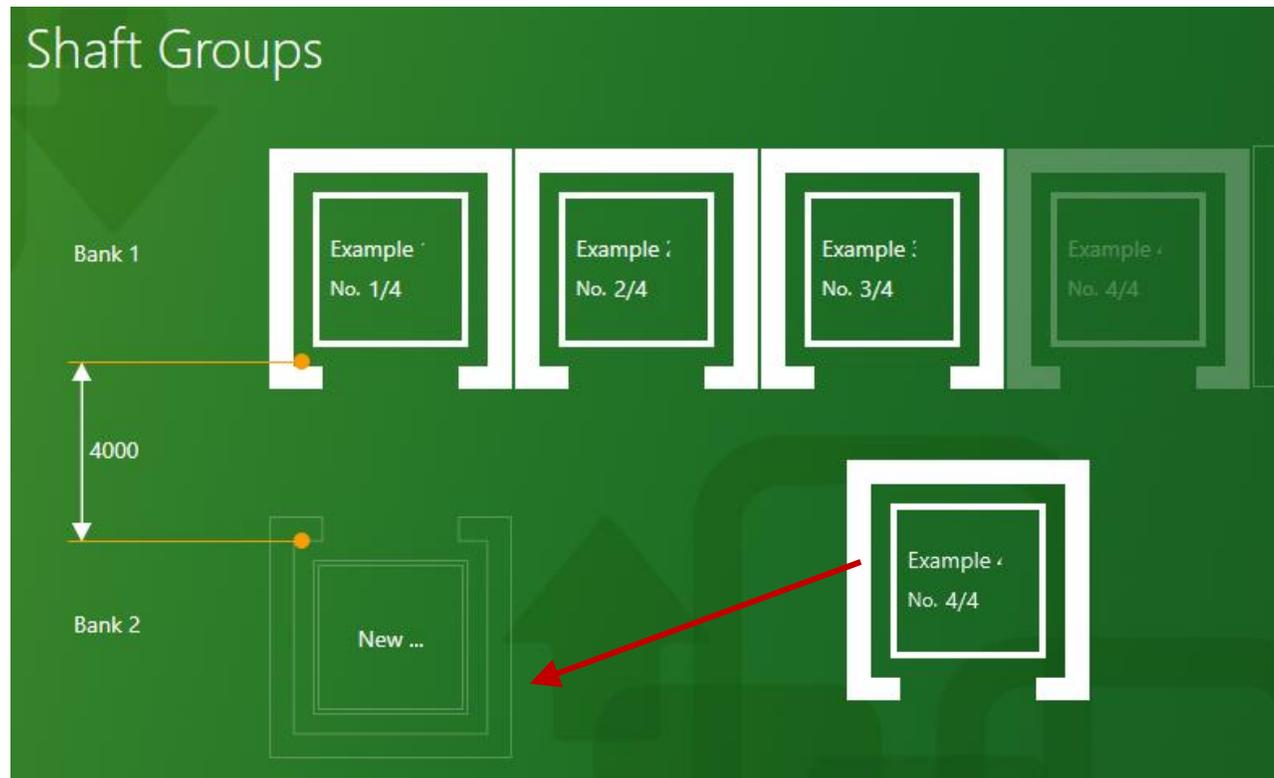
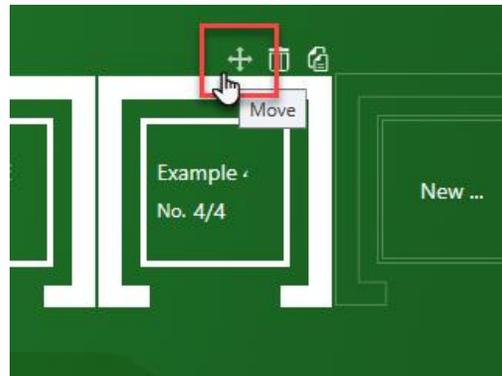
✓ Shaft Group Positioning & Alignment

Shaft positioning

EL2.4 FACE TO FACE

Changing the position of an existing shaft

- hold the left mouse button and drag the new shaft to the new position



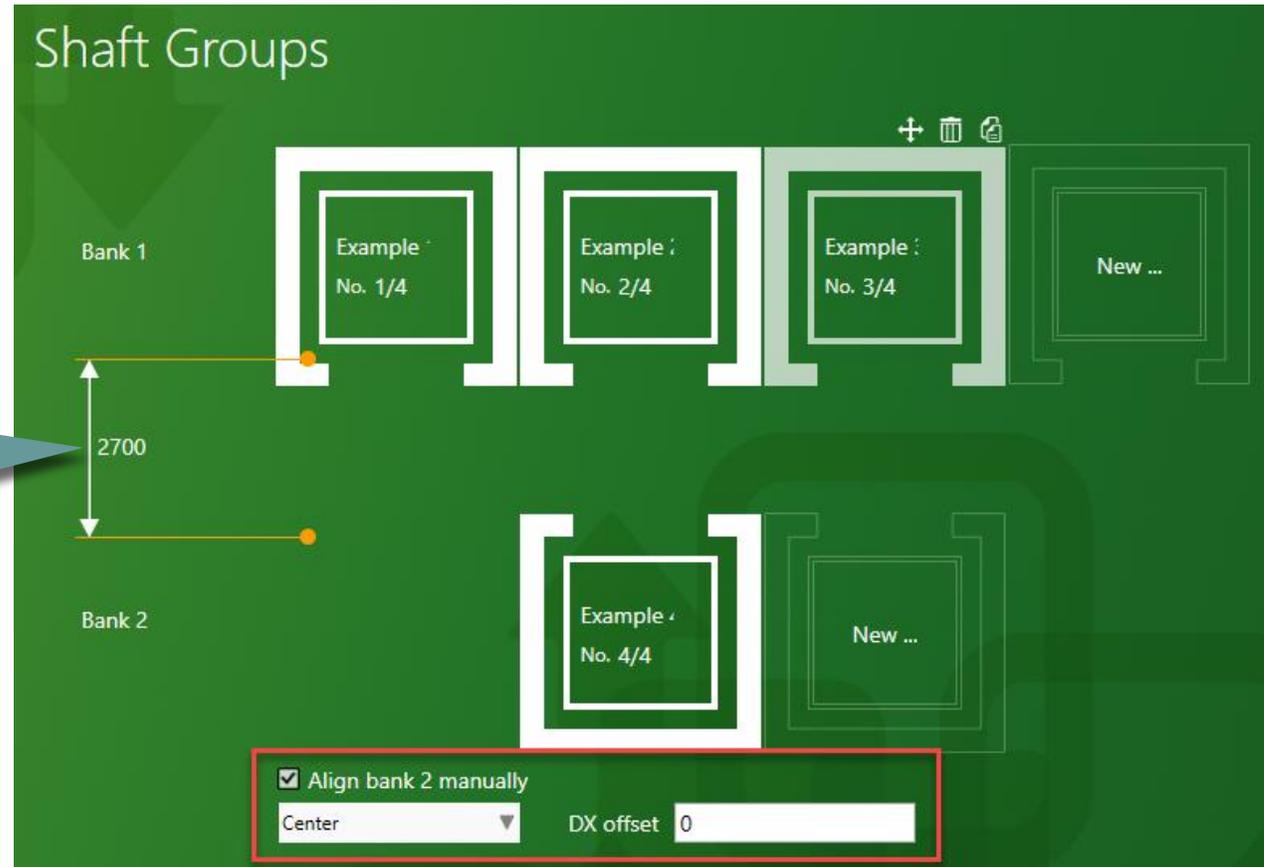
Shaft group alignment

EL2.4 FACE TO FACE

Adjusting the alignment to each other

- Alignment options
 - Left
 - Center
 - Right
 - Offset

The distance between the shaft groups can be edited at any time



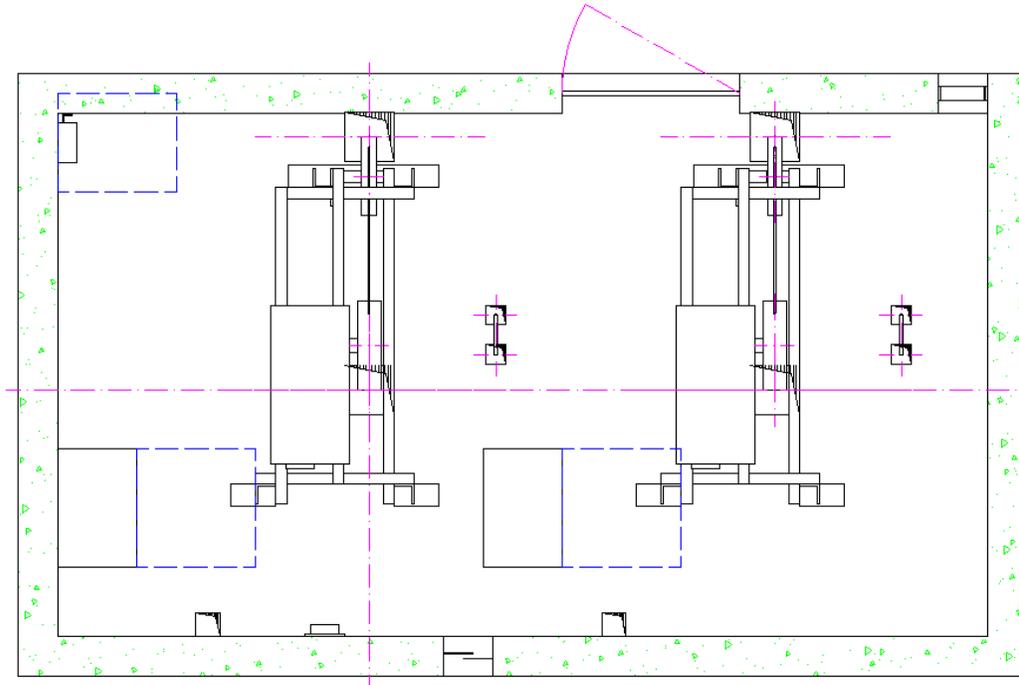
✓ Machine Room Settings

General information

EL2.4 FACE TO FACE

When adding another elevator to the group

- the machine rooms are automatically combined
- duplicate or unneeded components are automatically removed:
 - Second machine room door
 - Second ventilation window
 - etc.

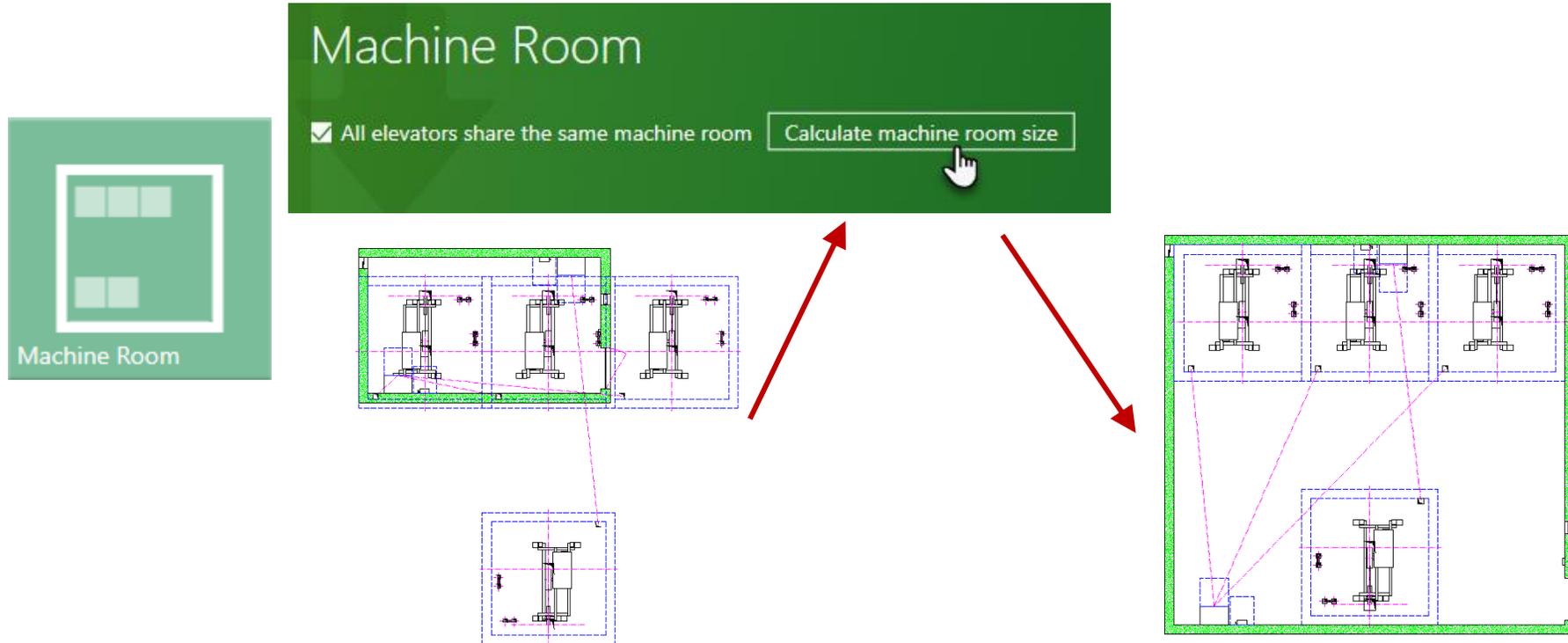


Machine room settings

EL2.4 FACE TO FACE

Configuring the machine room(s) via the Group and Shaft Configurator

- Recommendation: Calculate the machine room size after adding elevators to the group

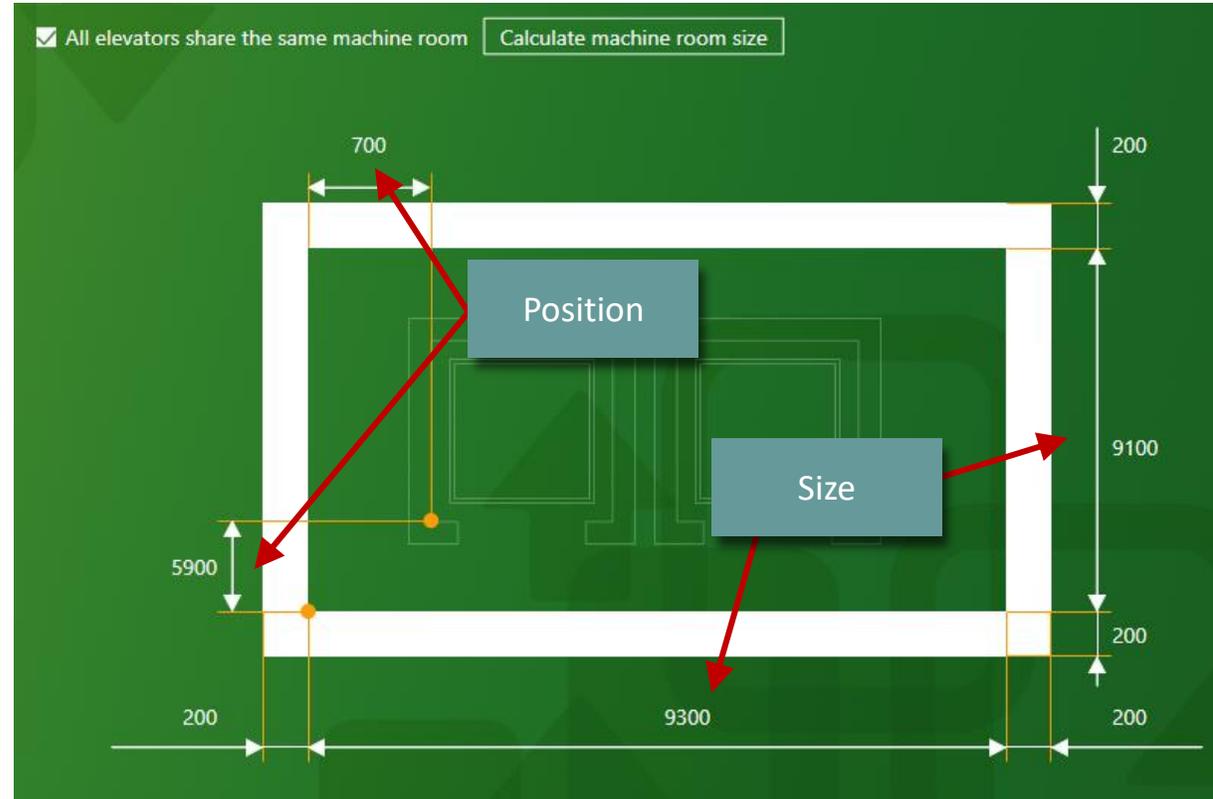
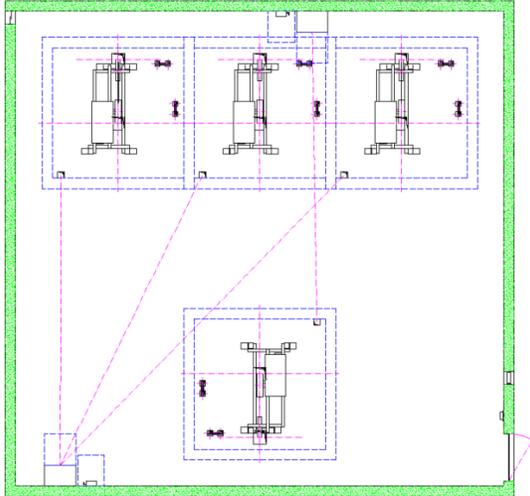


Machine room settings

EL2.4 FACE TO FACE

Adjust size and position by editing displayed values

- Reference point = Shaft base point Shaft0.

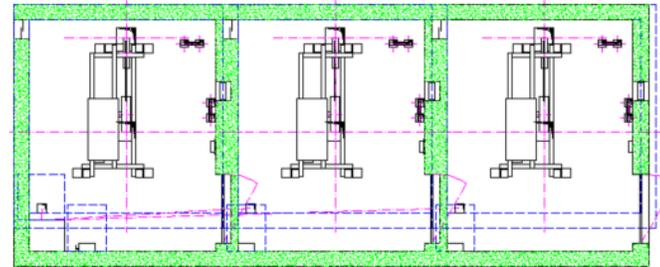
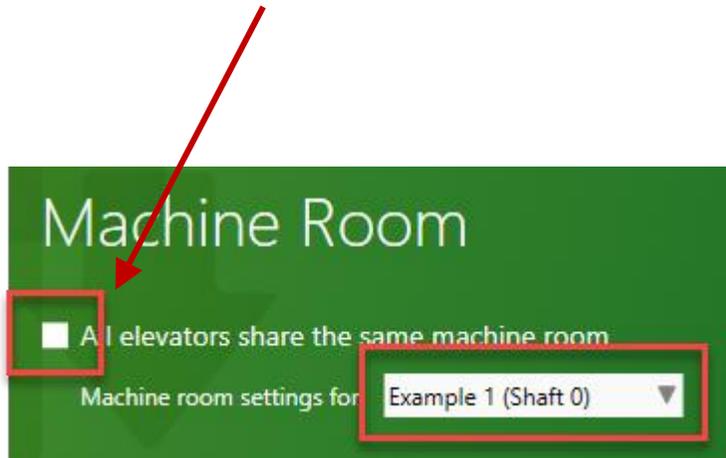


Machine room settings

EL2.4 FACE TO FACE

Separate machine rooms for each shaft

- By removing the check mark, individual machine room settings are possible for each shaft

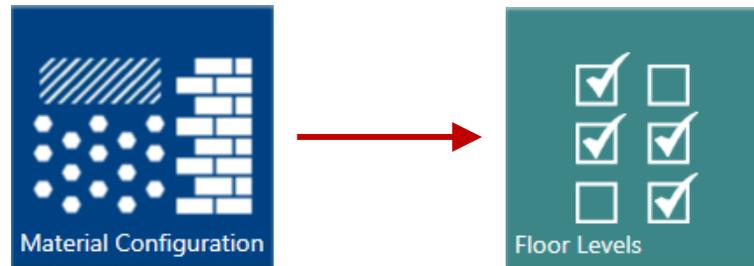


✓ Building Floor Level Settings

Building floor level settings

EL2.4 FACE TO FACE

Remove or define building floors and their size via the Group and Shaft Configurator

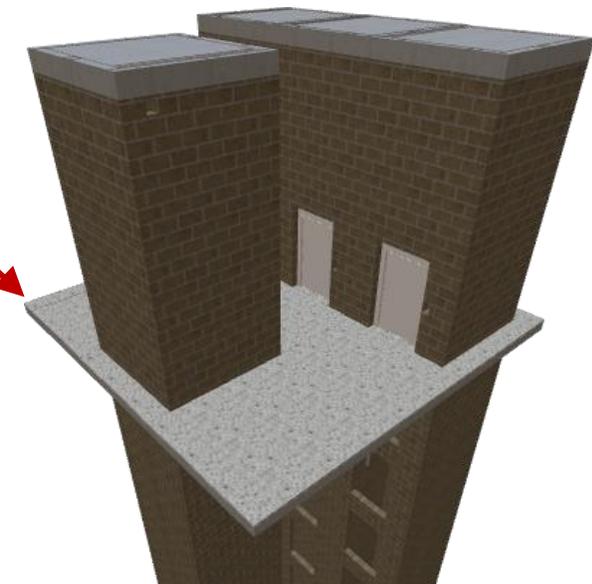


Building floor level settings

EL2.4 FACE TO FACE

Defining the floor dimensions on created building floors

General			Heights			Building Floor Levels				
Use Standard	Level	Material	Material Height	Raw Floor	Floor Finish	Create	Floor Width Left	Floor Width Right	Floor Depth Front	Floor Depth Rear
	Standard definition	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	14 42000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	13 39000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	12 36000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	11 33000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	10 30000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	9 27000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	8 24000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	7 21000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	6 18000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	5 15000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500
<input checked="" type="checkbox"/>	4 12000	Concrete	350	250	50	<input checked="" type="checkbox"/>	500	500	500	500



EL2.5

Sheet templates
for shaft groups

SHEET
TEMPLAT
SHAFT GR



General information

EL2.5 SHEET TEMPLATES

Recommendation:

- Separate view frames for each shaft
 - Benefit:
 - Easy maintenance and management of the views as well as clear representations of the individual elevators
 - faster sheet loading times

- Use of rule based detail sections
 - Creation of flexible detail sections that adapt to the project changes at the elevator by corresponding rules, e.g. for shaft head and shaft pit representations
 - Basic knowledge: [A3 – Drawing Creation Fundamentals](#)
 - Specific use cases: [B2 – Dynamic Sheet Templates \(DST\)](#)



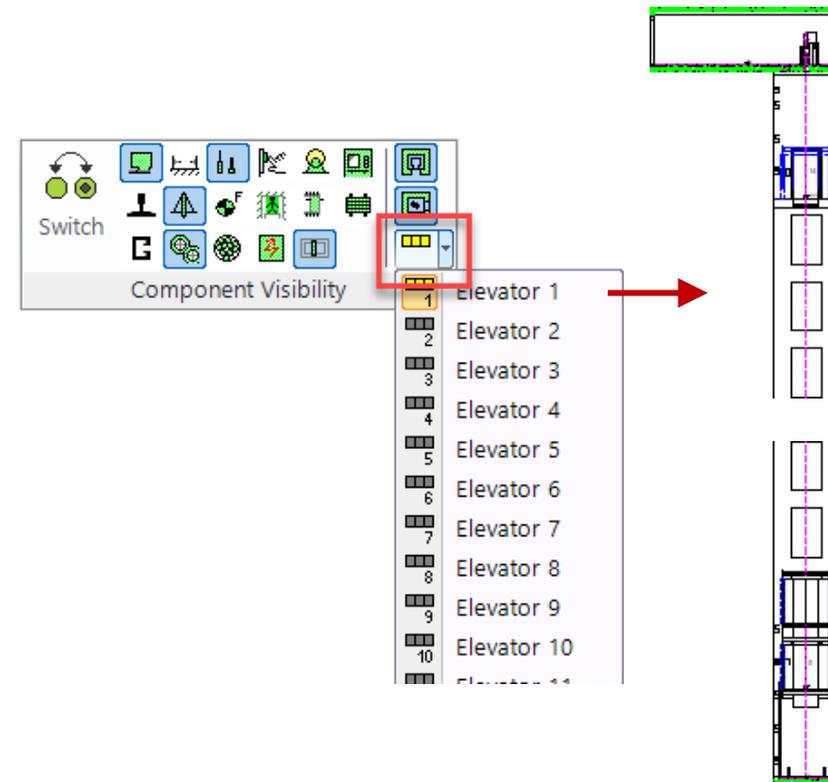
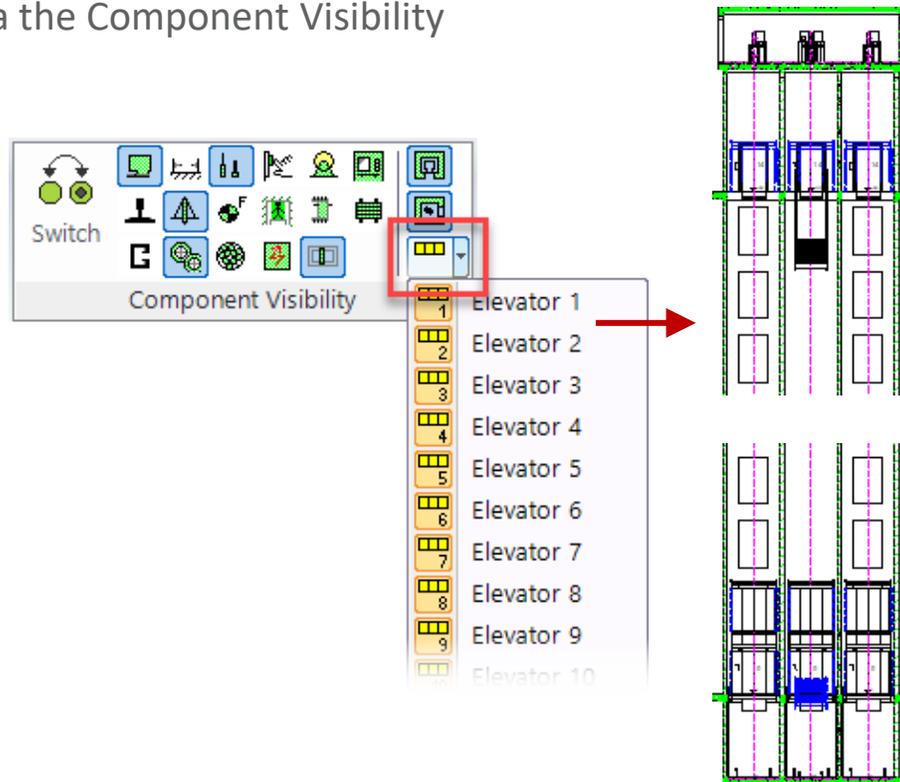
View Frame Configuration Options
for Shaft Groups

View frame configuration options

EL2.5 SHEET TEMPLATES

Functions for defining the displayed shaft

- for every single view frame
 - via the Component Visibility

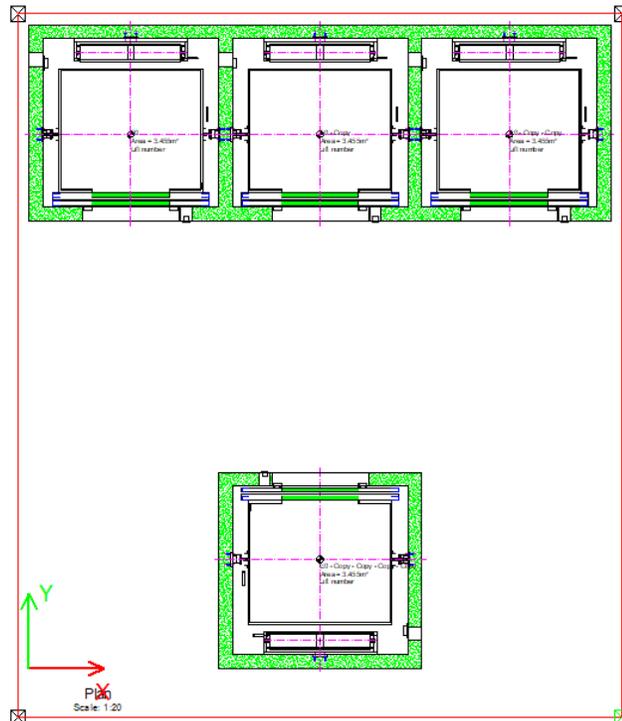


View frame configuration options

EL2.5 SHEET TEMPLATES

Switching on/off shaft groups

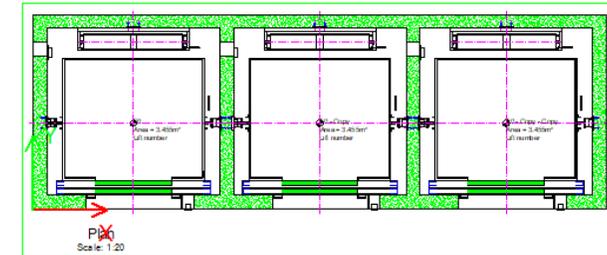
- for every single view frame
 - via the Visibility



Bank 1



Bank 2

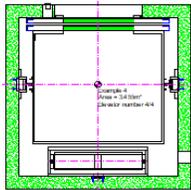
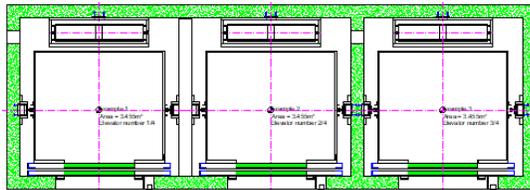


View frame configuration options

EL2.5 SHEET TEMPLATES

Functions for defining the displayed shaft

- on the entire drawing sheet
 - via the drawing sheet Properties



Breadcrumb: Document. Sheets. LdvSheet1

▲ Favorites

Properties: Sheet 1 [LdvSheet1]

Lock Update

▼ [0600] General

Current page number	
Add to the page count	No
Total number of pages	0
Page name	My new sheet
Title block	titl_sm_int.dwg
Drawing border	bord_4.dwg
Selected for plot	No
Paperspace Margin	5
Visible shaft	<input checked="" type="checkbox"/> 1

▼ [2001] Level of Development (LOD)

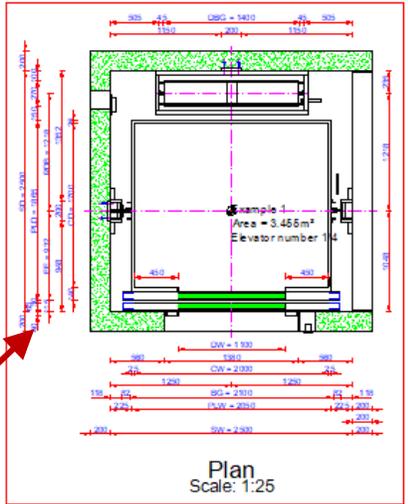
Representation: Default (by Sheets)

▼ [2500] Drawing Style

Render Mode: Default (by Sheets)

LDTrainingSampleDouble.Id3

ALL views refer to the determined elevator



Example 1
Area = 3.465 m²
Elevator number 104

Plan
Scale: 1:25

Normalisation (kg): 10000	Speed (mm/s): 0	Stops (m/s): 0
Frame (mm): 450 To	Clear (mm): 2000 x 1700	Stops (m/s): 0
Customer: Customer	Customer: Customer	
Project No.:	Client No.:	
Author:	Client No.:	
Approved:	Client No.:	
Scale: 0/12/01/21	My new sheet	Circle of stairs (mm)

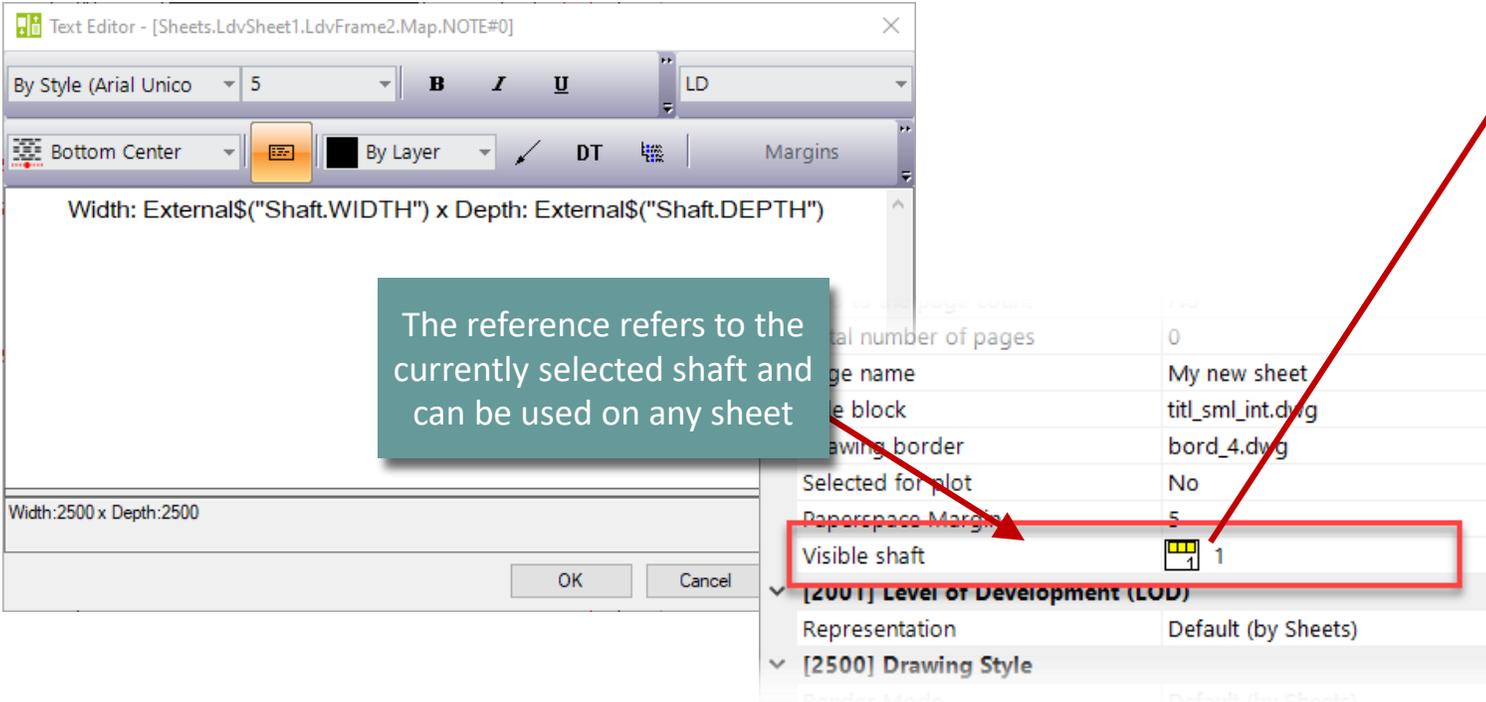
Work area: My new sheet

View frame configuration options

EL2.5 SHEET TEMPLATES

Deleting the shaft index from the annotations

- Practical example: **shaft size**
 - Width: External\$("Shaft0.WIDTH") x Depth: External\$("Shaft0.DEPTH")



Text Editor - [Sheets.LdvSheet1.LdvFrame2.Map.NOTE#0]

By Style (Arial Unico) 5 **B** *I* U LD

Bottom Center By Layer DT Margins

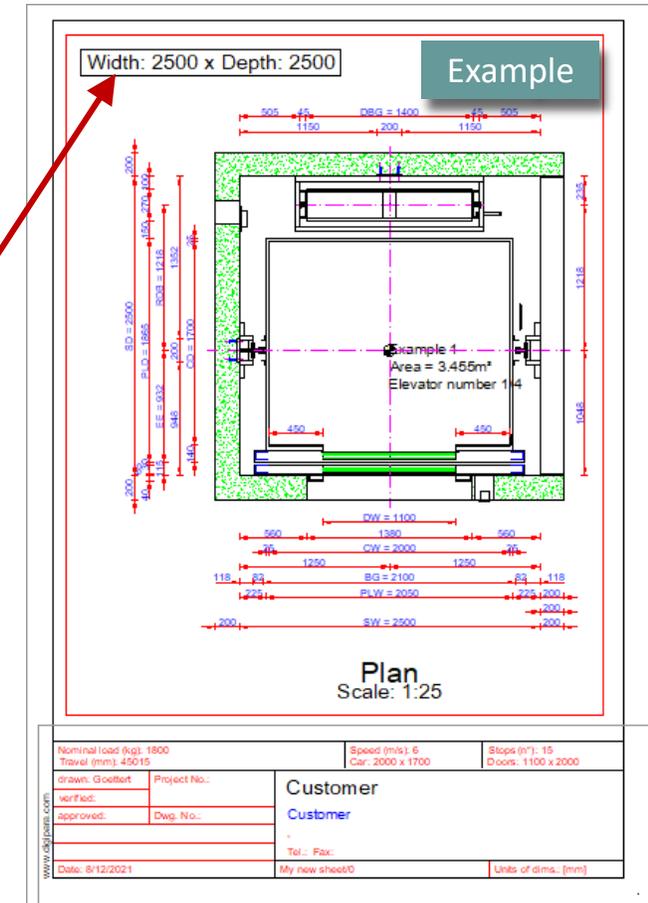
Width: External\$("Shaft.WIDTH") x Depth: External\$("Shaft.DEPTH")

Width:2500 x Depth:2500

OK Cancel

Total number of pages	0
Page name	My new sheet
File block	tit_sml_int.dwg
Drawing border	bord_4.dwg
Selected for plot	No
Paperspace Margins	5
Visible shaft	<input checked="" type="checkbox"/> 1
[200] Level of Development (LOD)	
Representation	Default (by Sheets)
[2500] Drawing Style	
Render Mode	Default (by Sheets)

The reference refers to the currently selected shaft and can be used on any sheet



✓ Shaft Group Dimensions

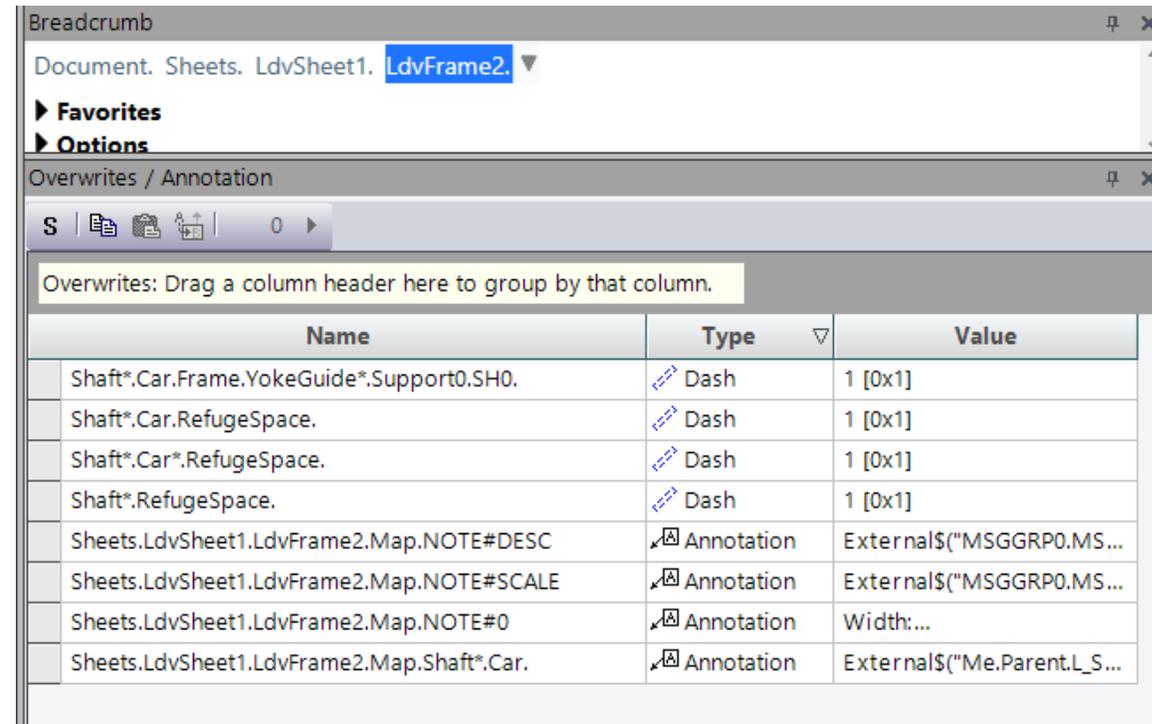
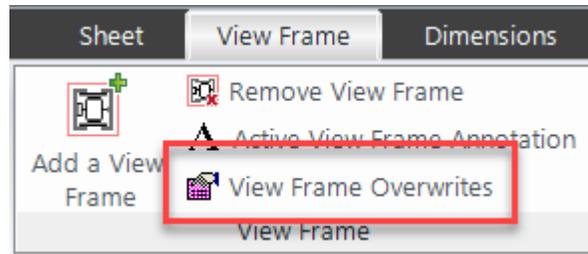
Practical Examples: Dimension Overwrites

Shaft Group Dimensions

EL2.5 SHEET TEMPLATES

Preparation Step

- Extended *operations to use view frame overwrites for more dynamic view frames
 - Basic knowledge: [B1 – Sheet Templates](#)



The image shows a screenshot of the 'Overwrites / Annotation' table in the software interface. The breadcrumb path is 'Document. Sheets. LdvSheet1. LdvFrame2.'. The table has three columns: 'Name', 'Type', and 'Value'. The table contains several rows of data, including shaft dimensions and annotations.

Name	Type	Value
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]
Sheets.LdvSheet1.LdvFrame2.Map.NOTE#DESC	Annotation	External\$("MSGGRP0.MS...
Sheets.LdvSheet1.LdvFrame2.Map.NOTE#SCALE	Annotation	External\$("MSGGRP0.MS...
Sheets.LdvSheet1.LdvFrame2.Map.NOTE#0	Annotation	Width:...
Sheets.LdvSheet1.LdvFrame2.Map.Shaft*.Car.	Annotation	External\$("Me.Parent.L_S...

Shaft Group Dimensions

EL2.5 SHEET TEMPLATES

Overwrites Docking Window

- provides a clear, organized overview of all edits made within the current view frame.
- *Operations in the overwrites make it easy to apply changes to multiple elements at once
 - be it every shaft, each entry, or even a specific one like the second-to-last.
- Goal for this practice:
 - Deleting dimensions using overwrites

Shaft Group Dimensions

EL2.5 SHEET TEMPLATES

Practical example: Wall thicknesses

- Delete all unnecessary dimensions using View Frame Overwrites

The screenshot illustrates the process of deleting unnecessary dimensions using View Frame Overwrites. It features three diagrams of shaft groups: a large one on the left with dimensions (SW=2600, SD=2600), a smaller one on the right, and a single shaft on the bottom right. A central 'Overwrites / Annotation' table lists various dimension types. A 'Search and Replace' dialog is open, showing 'Shaft2.W_4' in the search field and 'Shaft*.W_*' in the replace field, with 'Any Index' checked. Red arrows indicate the flow of information from the diagrams to the table and then to the dialog.

Name	Type	Value
Shaft*.CW.C*_Y_CL	Dimension	256 [0x1]
Shaft*.CW.C*_Y_WALL	Dimension	256 [0x1]
Shaft*.Entries*.E*.Opening.T_AUSBR_B	Dimension	256 [0x1]
Shaft*.Entries*.E*.Opening.XLEFT	Dimension	256 [0x1]
Shaft*.Entries*.E*.Opening.XRIGHT	Dimension	256 [0x1]
Shaft*.PTM.*	Dimension	256 [0x1]
Shaft*.PTM.*	Dimension	256 [0x1]
Shaft2.W_4	Dimension	256 [0x1]

Search and Replace

Search: Shaft2.W_4

Replace: Shaft*.W_*

Any Shaft Index

Any Index

Special Shaft Selectors

Bank 1 only

Bank 2 only

First Shaft in Bank

Last Shaft in Bank

OK Cancel Help

Shaft Group Dimensions

EL2.5 SHEET TEMPLATES

Practical example: Result

- Creating a new sheet for a schematic plan view representation
- Switch of unnecessary component and dimension groups

Properties Sheet 2 [LdvSheet2.]

Lock Update

▼ **[0600] General**

Current page number	
Add to the page count	No
Total number of pages	0
Page name	scheme
Title block	titl_sml_int.dwg
Drawing border	bord_4.dwg
Selected for plot	No
Paperspace Margin	5
Visible shaft	<input checked="" type="checkbox"/> All

▼ **[2001] Level of Development (LOD)**

Representation	Default (by Sheets)
----------------	---------------------

LDTrainingSampleDouble.Id3

Result

Plan
Scale: 1:50

Normal lead (kg): 1000	Speed (mm): 8	Slope (°): 10
Travel (mm): 450 IS	Car: 2000 x 1000	Shafts: 1100 x 2000
Shafts: Gearless	Travel No.:	Customer
verified:	Customer	
approved:	Comp. No.:	
Date: 19/12/2021	achievement:	Units of shafts: (mm)

Work area My new sheet scheme



Shaft Group Annotations

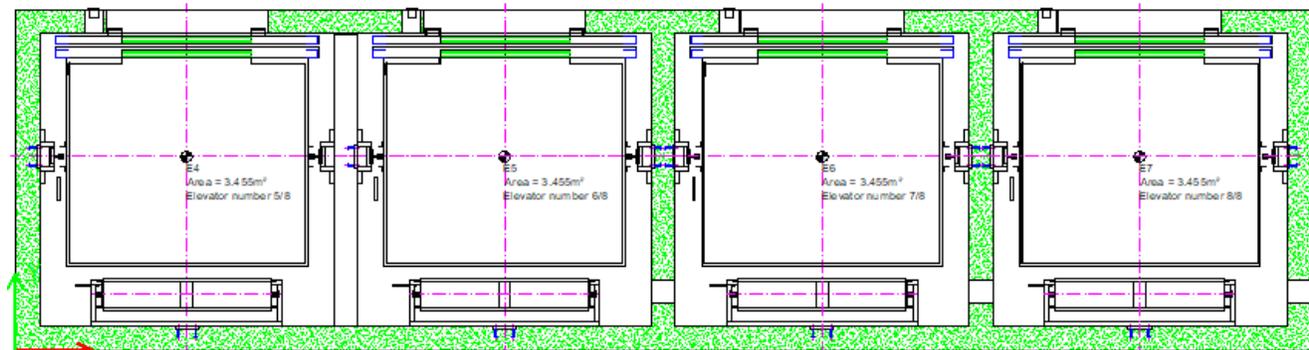
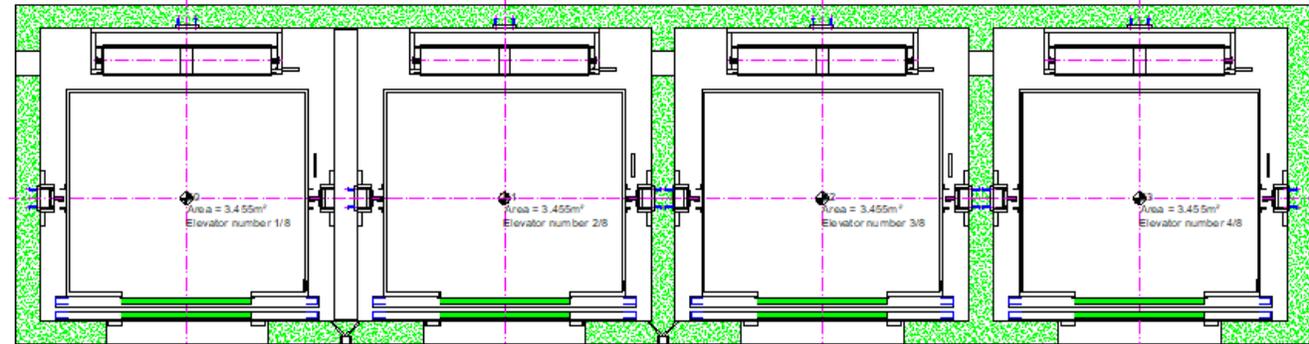
Practical Examples: Annotation Overwrites

Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Preparation Step: Shaft Group 4x4

- Copy shafts and align them accordingly
- Rename the descriptions
- Add shaft walls and separator beams
- Decrease the number of floors to improve the performance (for this example)

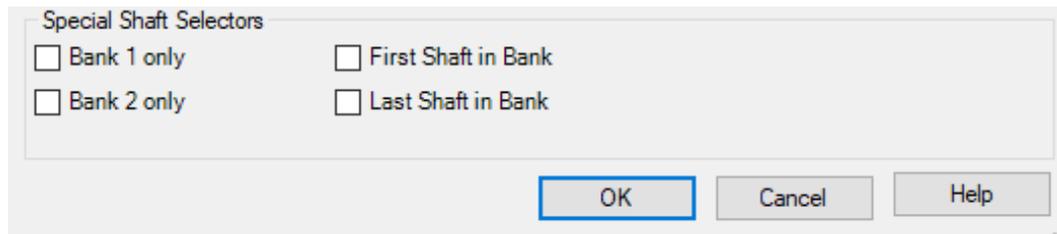


Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Annotation Overwrites in Plan Views

- Using overwrites for annotations for more dynamic view frames
- Extended *operations for plan views
- Use of the special shaft selector options now available

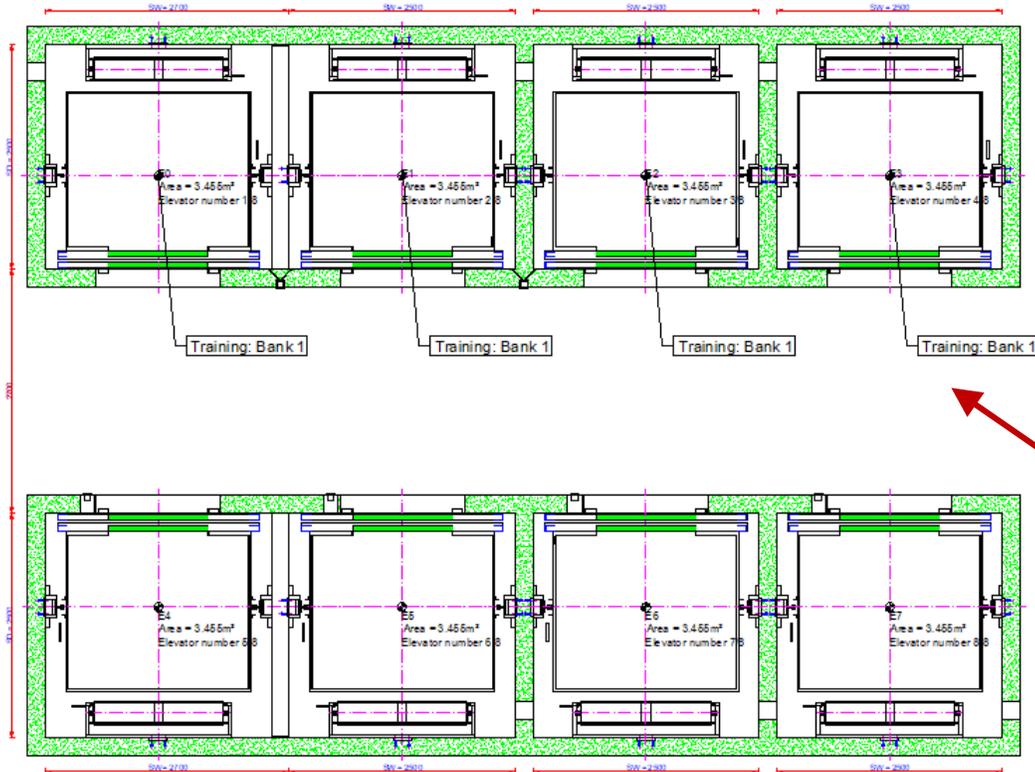


Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Practical Example 1: *{Bank1}

- All shafts in Bank 1 with annotation



Overwrites / Annotation

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

Name	Type	Value
Sheets.LdvSheet0.LdvFrame7.Map.Shaft*{Bank1}.Car.	Annotation	Training: Bank 1
		External\$("Me.Parent.L_Systeme")

Search and Replace

Search: Sheets.LdvSheet0.LdvFrame7.Map.Shaft0.Car.

Replace: Sheets.LdvSheet0.LdvFrame7.Map.Shaft*{Bank1}.Car.

Any Shaft Index Any Index

Special Shaft Selectors

Bank 1 only First Shaft in Bank

Bank 2 only Last Shaft in Bank

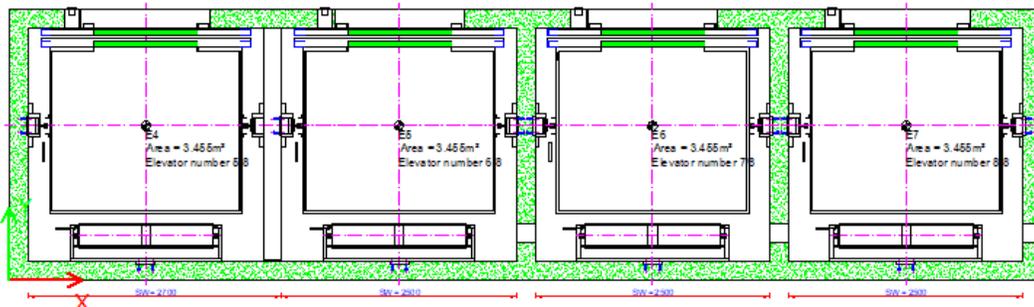
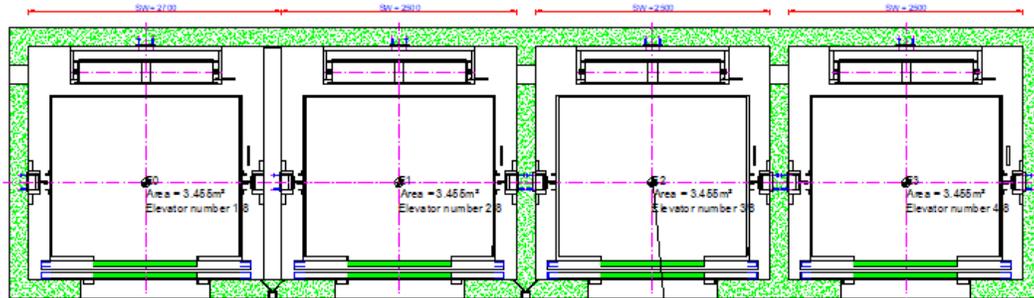
OK Cancel Help

Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Practical Example 2: `*{Bank1, IndexFromEnd, -2}`

- Always placed at the second last shaft of Bank 1



Overwrites / Annotation

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

Name	Type	Value
Sheets.LdvSheet0.LdvFrame7.Map.Shaft*{Bank1, IndexFromEnd, -2}.Car.	Annotation	Training: Bank 1 External\$("Me.Parent.L_SystemTab.SYS_ELEV_DESC") External\$("MSGGRP0.MSG5")

Search and Replace

Search: Sheets.LdvSheet0.LdvFrame7.Map.Shaft*{Bank 1, IndexFromEnd, -2}.Car.

Replace: Sheets.LdvSheet0.LdvFrame7.Map.Shaft*{Bank 1, IndexFromEnd, -2}.Car.

Any Shaft Index Any Index

Special Shaft Selectors

Bank 1 only First Shaft in Bank

Bank 2 only Last Shaft in Bank

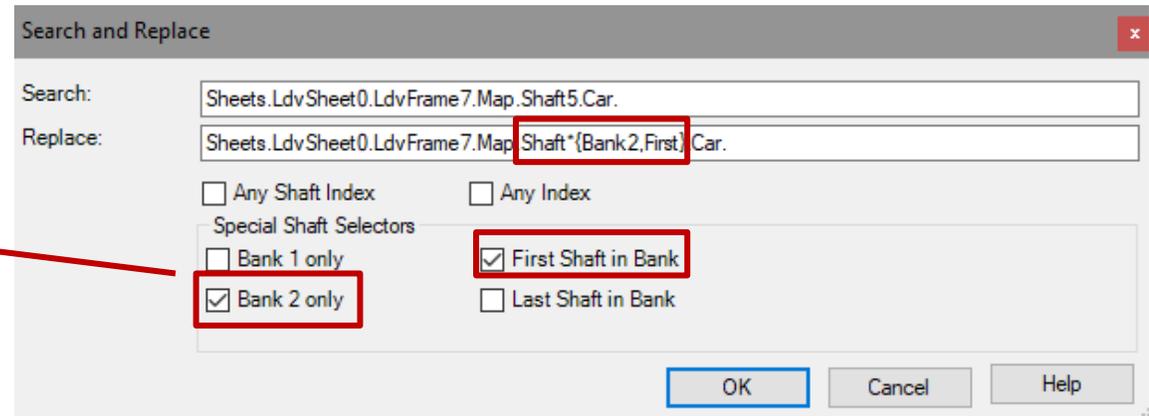
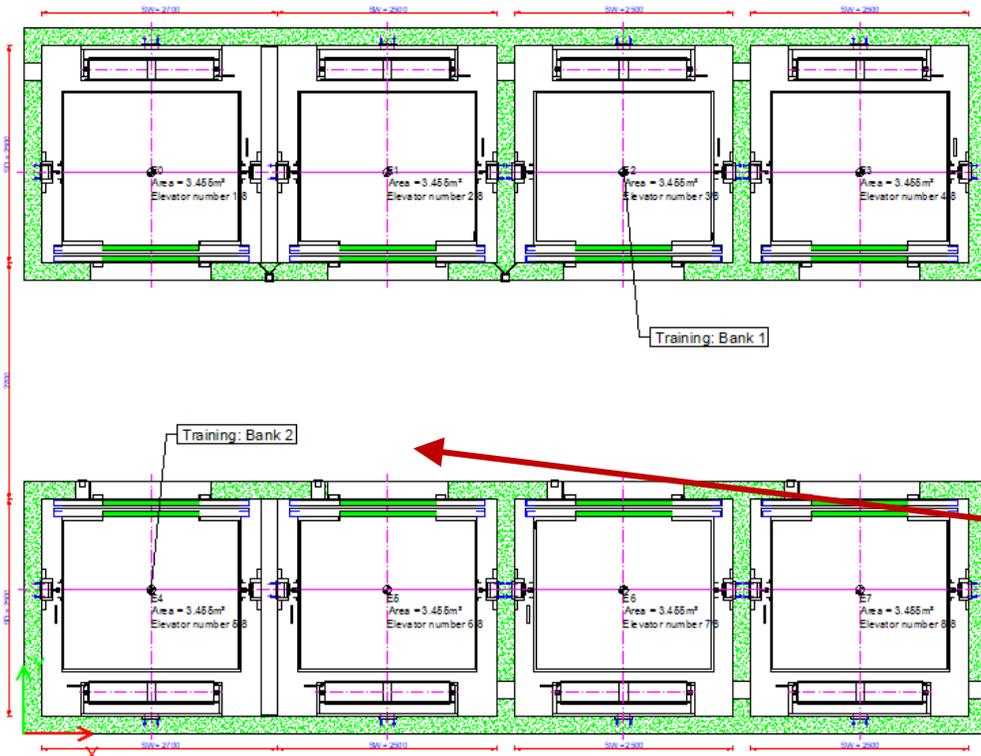
OK Cancel Help

Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Practical Example 3: *{Bank2, First}

- second Annotation is always placed at the first shaft of Bank 2



Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Annotation Overwrites in Vertical Views

- Using overwrites for comments for more dynamic view frames

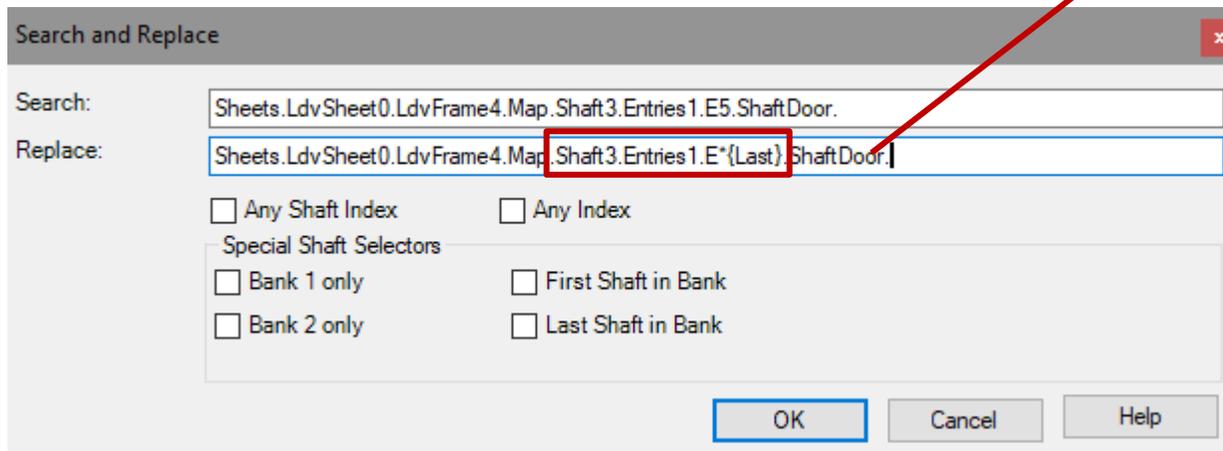
With Index	With *
Shaft0: first shaft	Shaft*: all shafts
Entries1: entrances on the front	Entries*: all entrances on all sides
E0: first floor	E*: all floors

Shaft Group Annotations

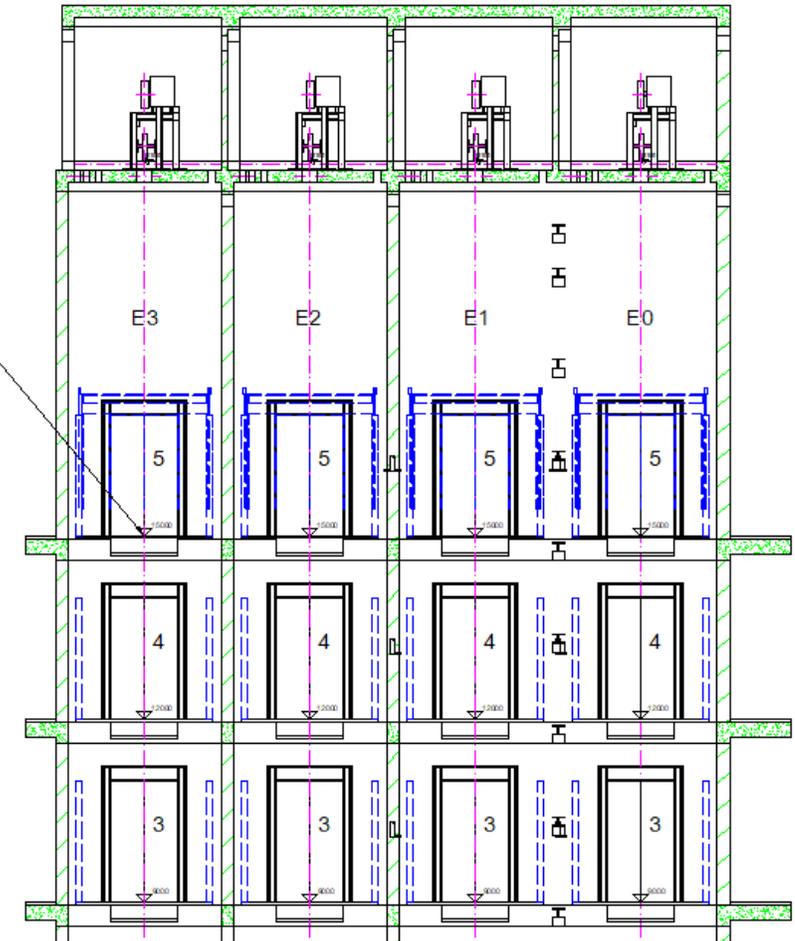
EL2.5 SHEET TEMPLATES

Practical Example 1: Shaft3.Entries1.E*{Last}

- Annotation only on 4th shaft, front, top floor



Attention
this door type is different

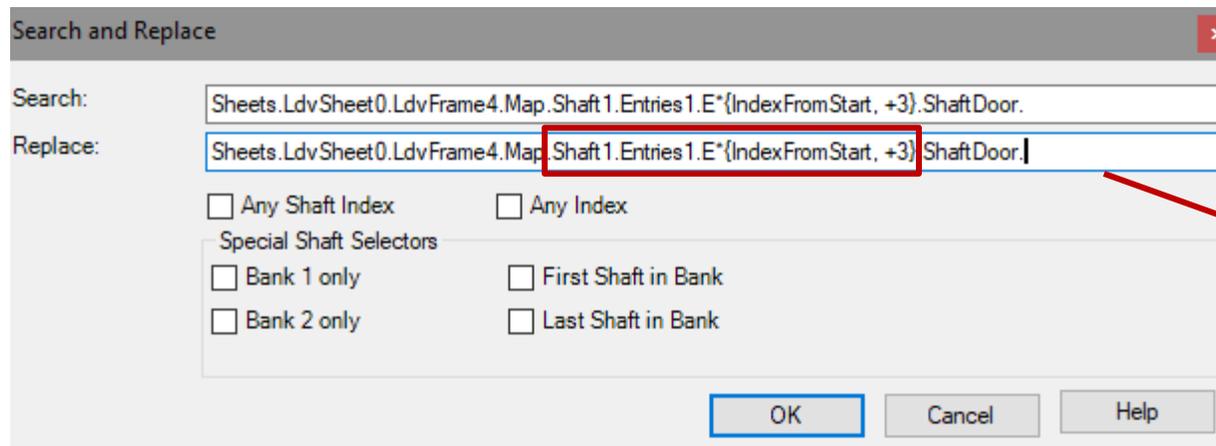


Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Practical Example 2: Shaft1.Entries1.E*{IndexFromStart, +3}

- Annotation only on second shaft, front, 3rd floor from start
- Index of the shaft can also be edited manually
 - e.g. Shaft3 -> Shaft1



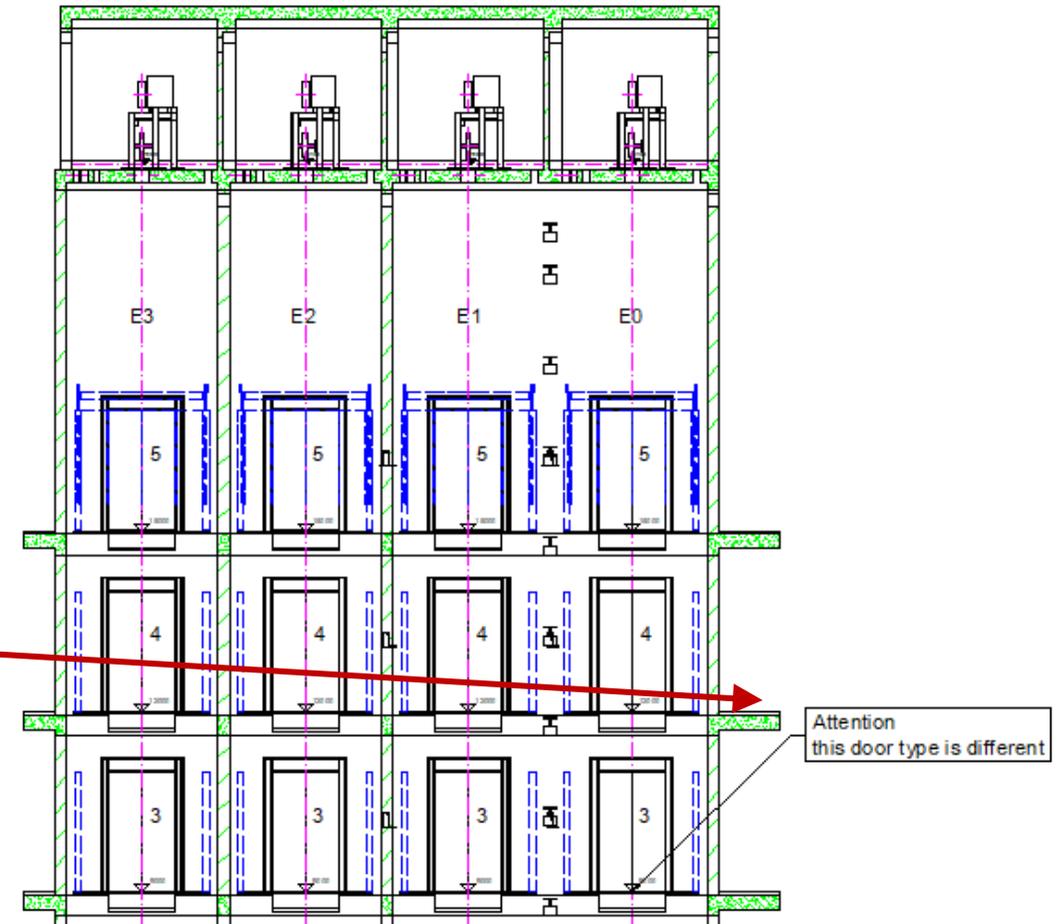
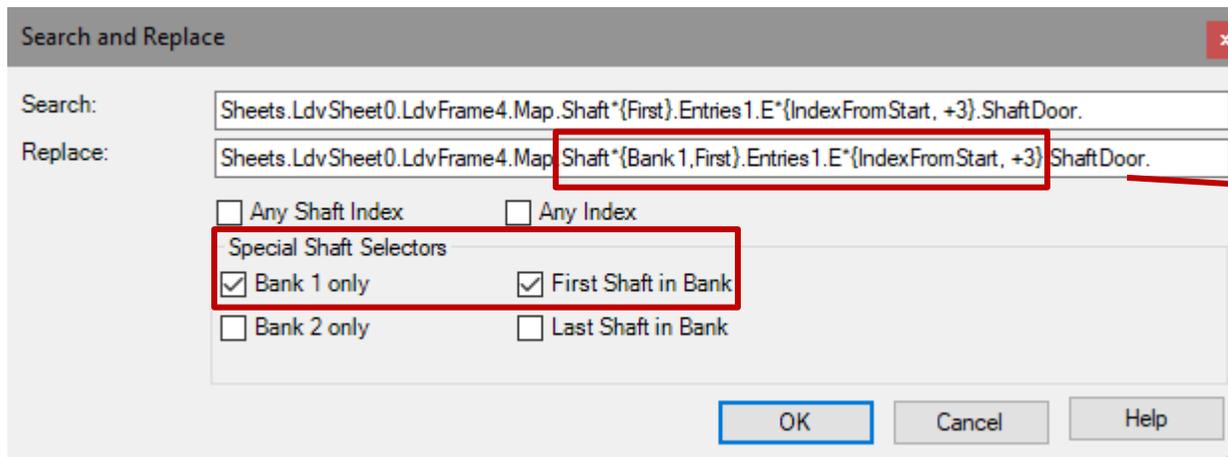
Shaft Group Annotations

EL2.5 SHEET TEMPLATES

Practical Example 3:

Shaft*{First, Bank 1}.Entries1.E*{IndexFromStart, +3}

- Annotation only on Bank 1, first shaft, front, 3rd floor from start
- Attention: In which bank do I need the annotation?
 - Imagine a colleague rotates the view frame and the second bank is visible



EL2.6

Summary & custom
Q&A's

SUMMARY
CUSTOM
Q&A'S



Congratulations

You reached the next level



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Your instructor will be available for individual questions after the module training.

training@digipara.com





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