digipara® liftdesigner

Prototype & Layer Configuration

B3

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.

AutoCAD software knowledge

This Training requires you to know the following basic/advanced knowledge of AutoCAD

Dimensions Style Manager, Layer Proportions, Text Style Manager

Agenda

B3.1 Layer Group Configuration & Prototype DWG

- General information
  - Which conditions must be met for custom layer configuration in DigiPara Liftdesigner projects?
- Layer & text-/dimension styles
  - Where are the different styles configurated?
- Layer & text-/dimension styles mapping
  - How are layer settings and related style objects linked to my DigiPara Liftdesigner project?
- Layer & style configuration
  - What basic configuration settings should be considered?

Agenda

B3.2 Own prototype DWG file

- The prototype DWG file
  - Prepare and customize an own prototype DWG in AutoCAD according to you own needs.
  - Setting up the layers, dimension styles and text styles

- The Mechanical prototype DWG file
  - Differences between the standard prototype and Mechanical prototype DWG file.

- File save conditions
  - Choose the correct directory and file format.

Agenda

B3.3 Own Layer Group Configurations - Globally

- General information
  - Related data table in DigiPara Liftdesigner Datamanager.
- Copy existing Layer Configurations
  - Use existing data sets for later adjustments.
- Edit the Meta Data
  - Individualized your metadata according to your own company standards.
- Determine related prototype DWG file
  - Link your customized prototype DWG to all specified layout settings.
- Testing the new configurations
  - Test your own layout and related settings in your DigiPara Liftdesigner elevator project.

Agenda

B3.4 Own Layer Group Configurations – Component specific

- General information
  - What are LDX components?
- Determine your specific component
  - Determine elevator components for individual layer settings: LDXCar, LDXBuffer & LDXCarCeiling
- Enter the AutoCAD destination layers
  - Link to pre-selected AutoCAD source layers for the representation in DigiPara Liftdesigner and for output.
- Testing the new configurations
  - Test your adapted layout and related settings in your DigiPara Liftdesigner elevator project.

Agenda

B3.5 AutoCAD Mechanical Layer Groups

- General information
  - Using a prototype DWG with predefined layer groups.

- Integrate existing layer groups
  - What to consider in general, when connecting the layer configurations.

Agenda

B3.6 Distribution the Configuration

- Register module files in database
  - Register external files (e.g. DWG) in the DigiPara BIM library for a completed export.

- Share your data
  - Export and share the new layer configurations.

B3.7 Summary

- Custom Q&A’s

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B3.1

Layer Group Configuration & Prototype DWG

General information

B3.1 LAYER GROUP CONFIGURATION & PROTOTYPE DWG

To provide customized layouts in DigiPara Liftdesigner drawings according to your own company standard, the following data must be provided and linked in the DigiPara Liftdesigner database:

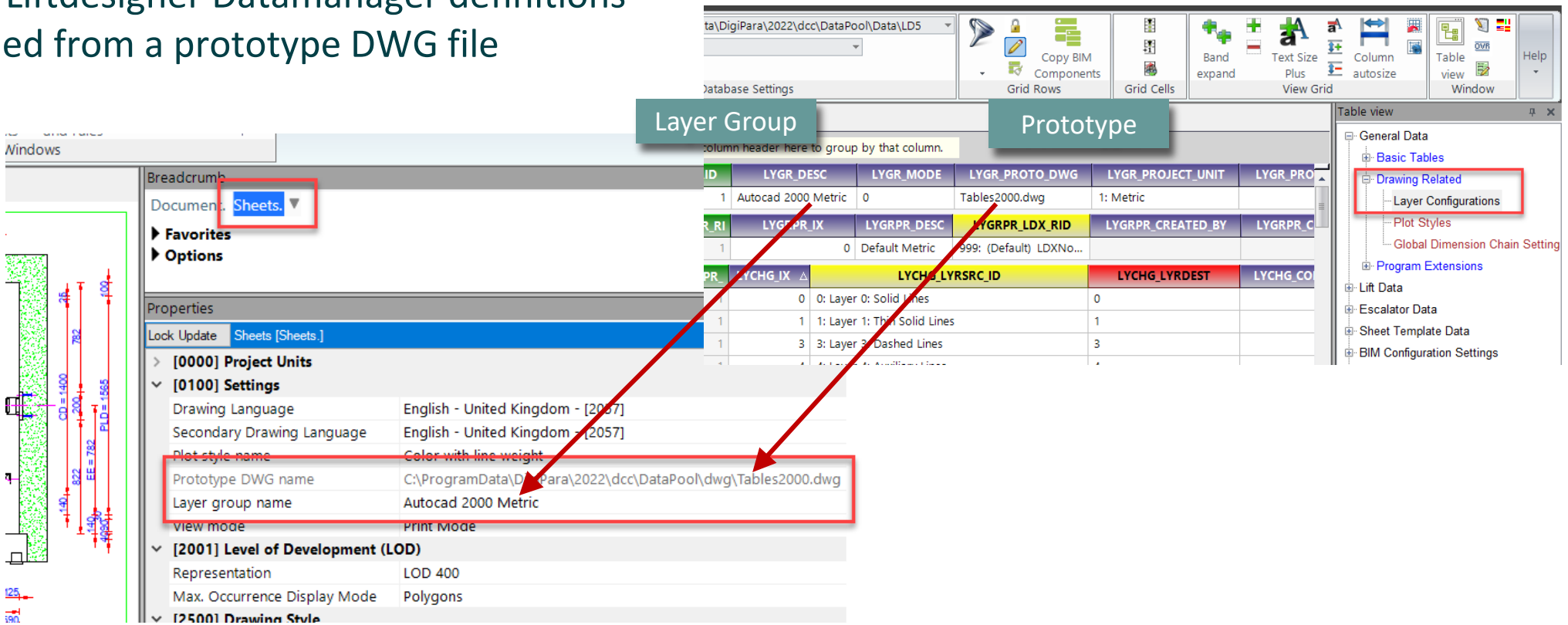
- Prototype DWG file
  - Includes all layout settings like: layers, dimension and text styles

- Layer configuration tables
  - Determine global object layers and styles or configurations for each DigiPara Liftdesigner component (LDX-object).

Layer & text-/dimension styles – General information

B3.1 LAYER GROUP CONFIGURATION & PROTOTYPE DWG

Layer & text-/dimension styles are configured via DigiPara Liftdesigner Datamanager definitions and loaded from a prototype DWG file



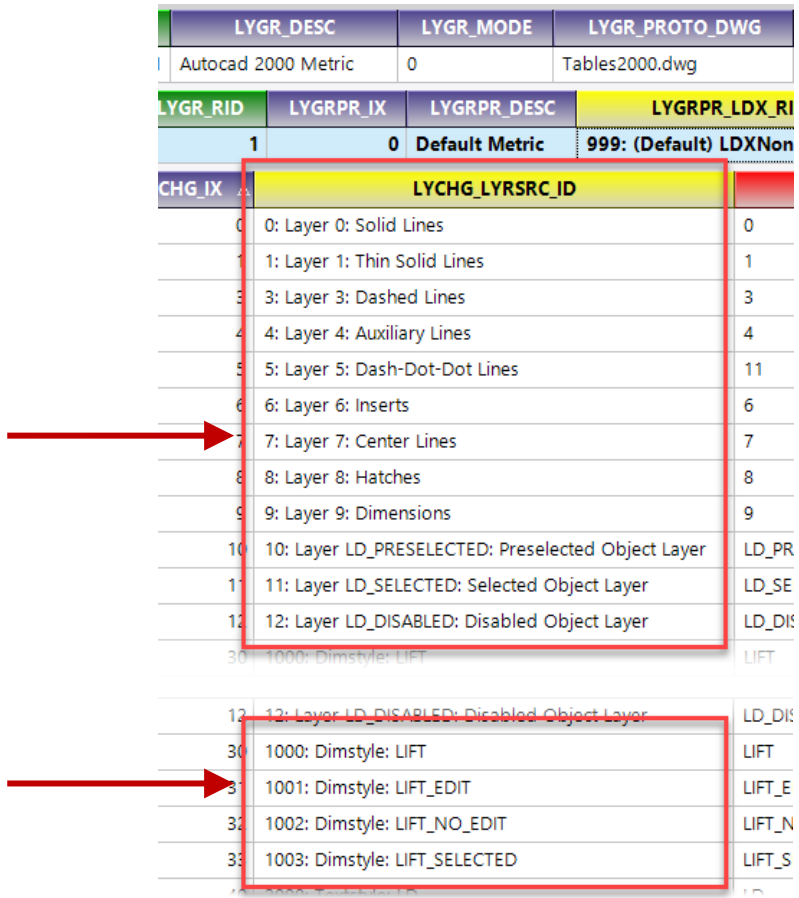
Layer & text-/dimension styles – General information

B3.1 LAYER GROUP CONFIGURATION & PROTOTYPE DWG

There are 4 different types of DigiPara Liftdesigner objects that can be mapped to the different target objects in the AutoCAD prototype DWG file

- Layer x
  - The layer objects refer to the DigiPara Liftdesigner components e.g. the shaft, car, car door, etc. The object layers can either be configured globally (only for the LDXNone object) or for each single LDX object.

- Dimstyle
  - Each internal dimension style can be mapped to any target dimension style in the corresponding prototype DWG file. The mapping can be configured globally or component wise for each single component (LDX object).

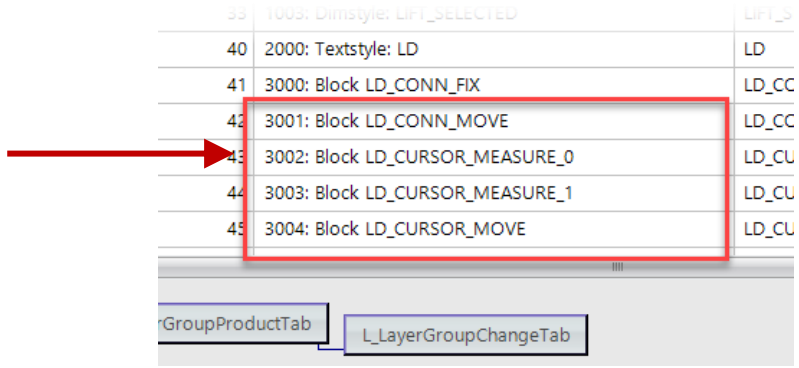


Layer & text-/dimension styles – General information

B3.1 LAYER GROUP CONFIGURATION & PROTOTYPE DWG

- Textstyle
  - The internal text style can be mapped to any target text style in the corresponding prototype DWG file.

- Block
  - Each internal static drawing block (e.g. the floor level symbol, mouse cursors, etc.) can be mapped to a predefined drawing block (insert) and defined in the corresponding prototype DWG file.
  - For the configuration of the destination blocks in the prototype DWG file, the cursor symbols (Block_LD_CURSOR_*) must be scaled 1:1, the scale factor for all other blocks can be adjusted individually.

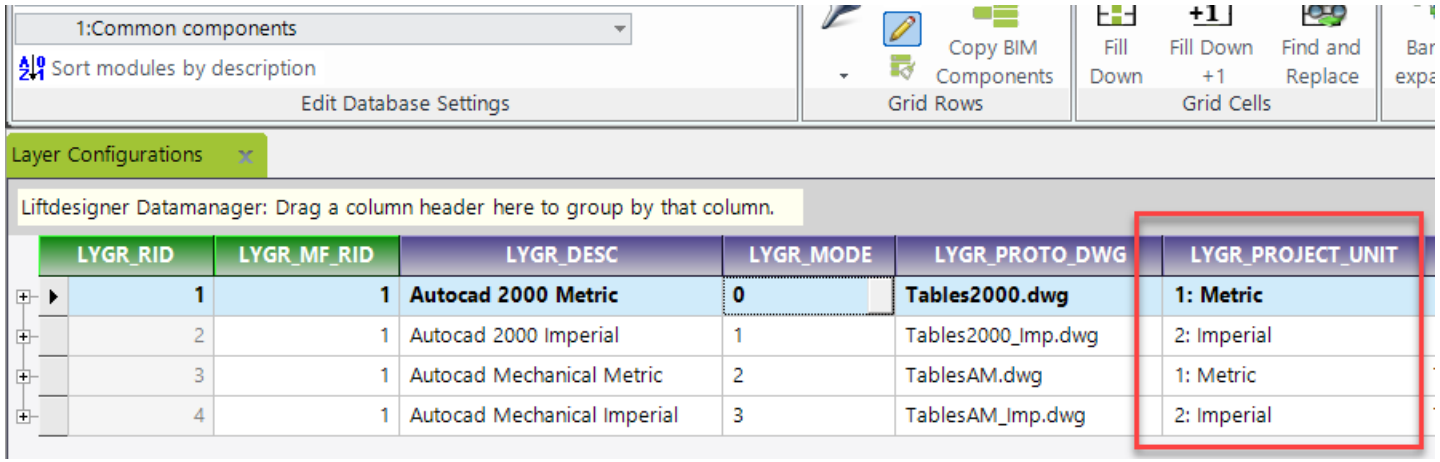


Layer & text-/dimension styles – General information

B3.1 LAYER GROUP CONFIGURATION & PROTOTYPE DWG

Layer & style configuration can be created for different unit systems

- metric or imperial



LYGR_RID	LYGR_MF_RID	LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG	LYGR_PROJECT_UNIT
1	**1**	**Autocad 2000 Metric**	**0**	**Tables2000.dwg**	**1: Metric**
2	1	Autocad 2000 Imperial	1	Tables2000_Imp.dwg	2: Imperial
3	1	Autocad Mechanical Metric	2	TablesAM.dwg	1: Metric
4	1	Autocad Mechanical Imperial	3	TablesAM_Imp.dwg	2: Imperial

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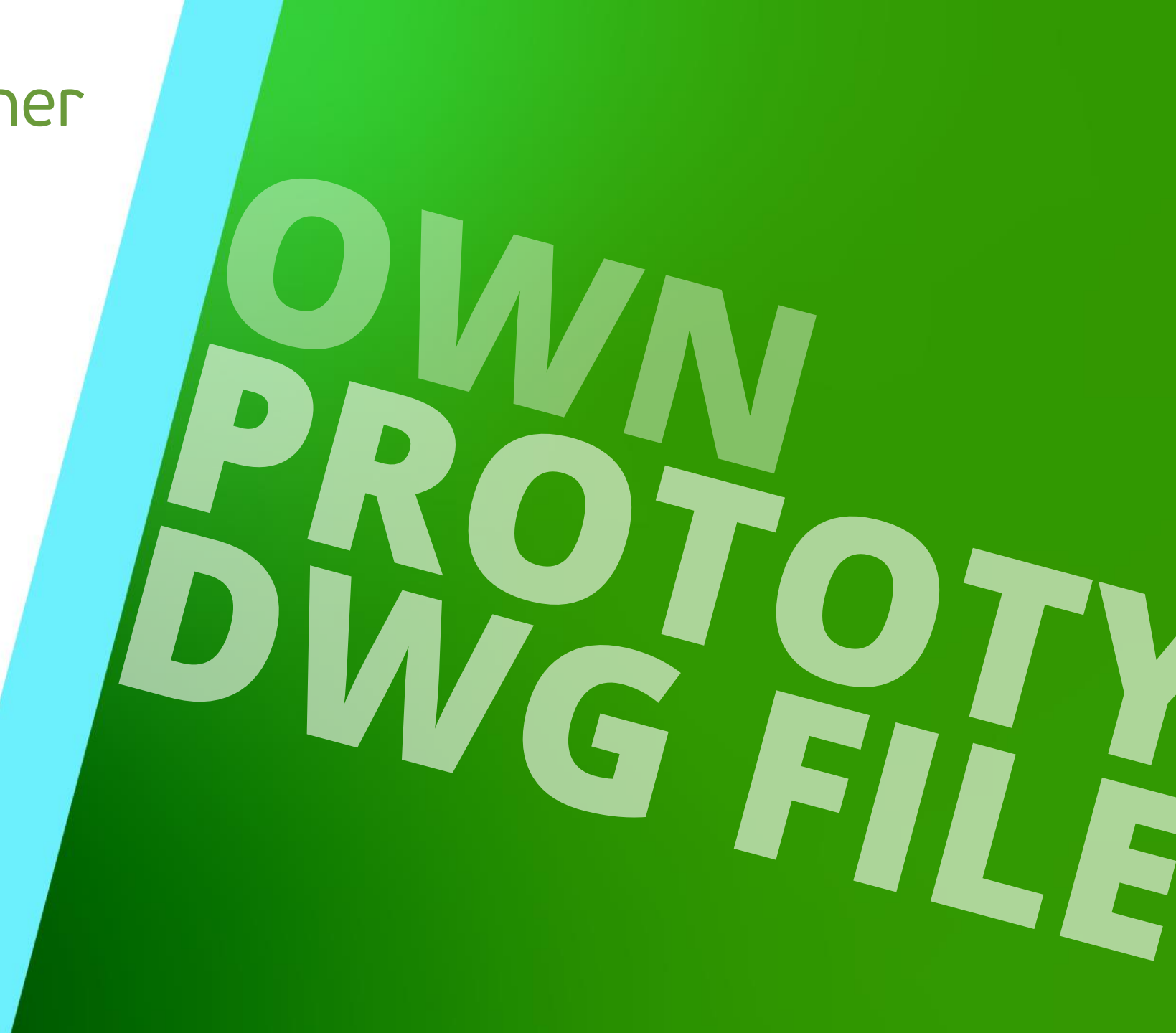
B3.2

Own prototype DWG file

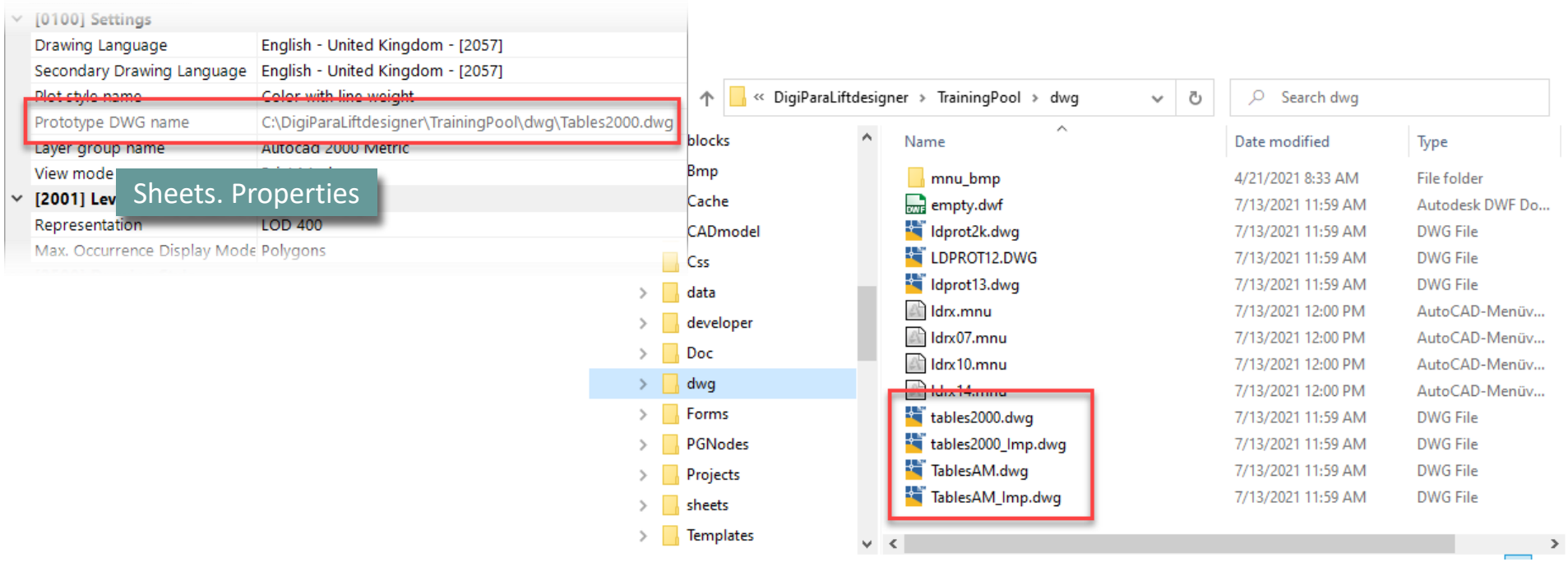


The prototype DWG file – General Information

B3.2 OWN PROTOTYPE DWG FILE

Default DigiPara Liftdesigner prototype files

- located in the DigiPara Liftdesigner pool dwg directory
  - The prototype DWG files for imperial DWG output have the same names as the metric files plus the extension _Imp.

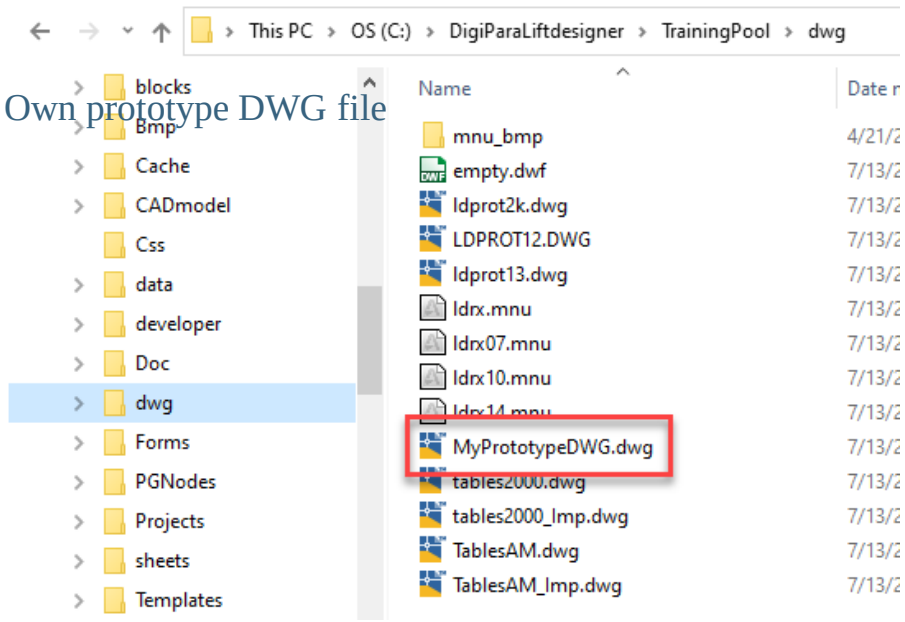


The prototype DWG file

B3.2 OWN PROTOTYPE DWG FILE

Modify the DWG prototype drawing according to your needs

- use a default DigiPara Liftdesigner prototype file: **Tables2000.dwg**
  - contain predefined dimension style and text style configurations as well as the default layers



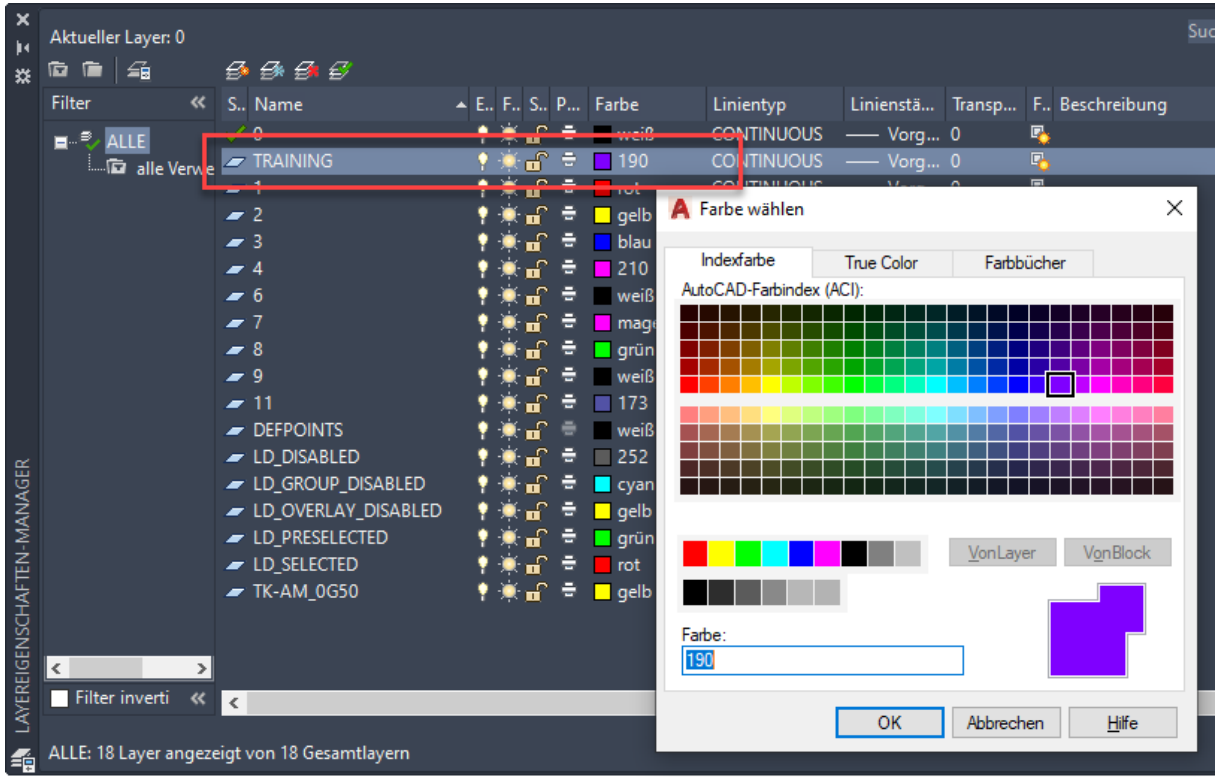
B3.2 Own prototype DWG file

Setting up the 'Layers'

Setting up the 'Layers'

B3.2 OWN PROTOTYPE DWG FILE

Add a new or modify the existing layers



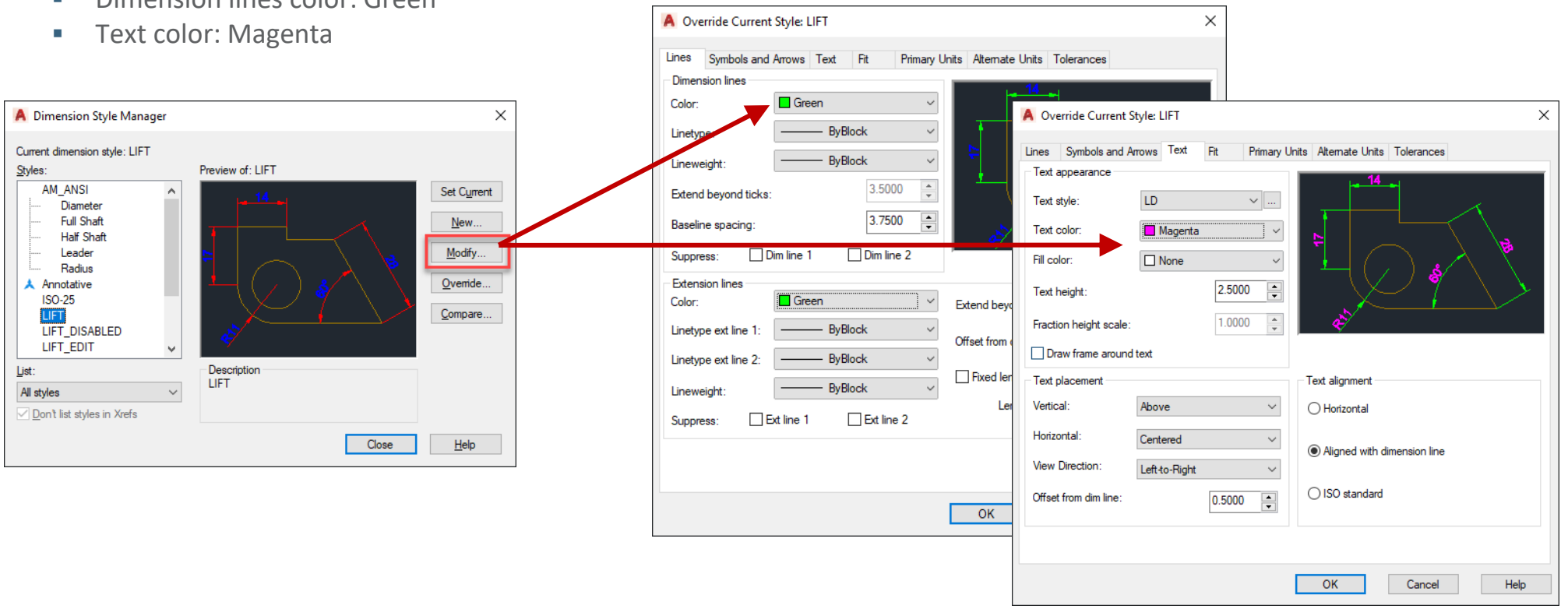
Setting up the 'Dimension Styles'

Setting up the 'Dimension Styles'

B3.2 OWN PROTOTYPE DWG FILE

Adapting the dimension style

- Edit the existing DigiPara Liftdesigner dimension styles (starting with **LIFT_**) or add a new dimension style
  - Dimension lines color: Green
  - Text color: Magenta

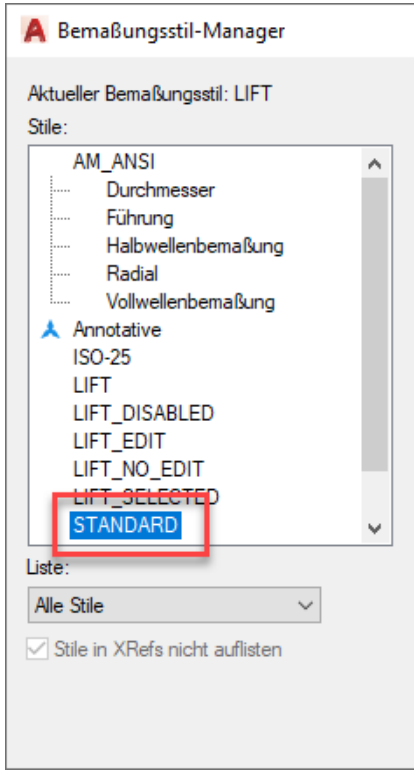


Setting up the 'Dimension Styles'

B3.2 OWN PROTOTYPE DWG FILE

Recommendation:

- always make sure your prototype DWG file includes a STANDARD dimension style.
  - In the case of incorrect mapping in your layer mapping tables, the STANDARD dimension style is used instead of the incorrect/non-existing mapped DigiPara Liftdesigner dimension style.

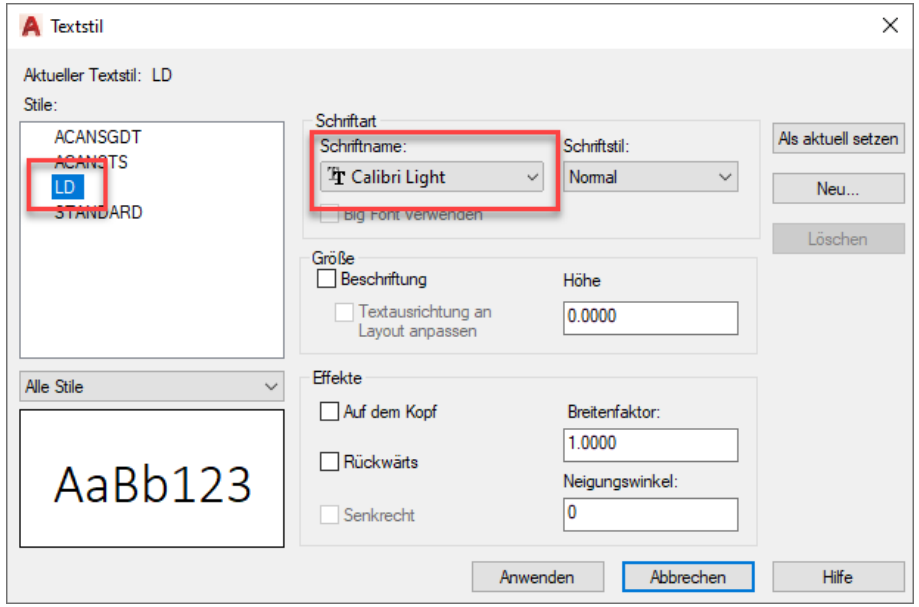


Setting up the ‘Text Styles'

Setting up the ‘Text Styles'

B3.2 OWN PROTOTYPE DWG FILE

Modify or add a text style

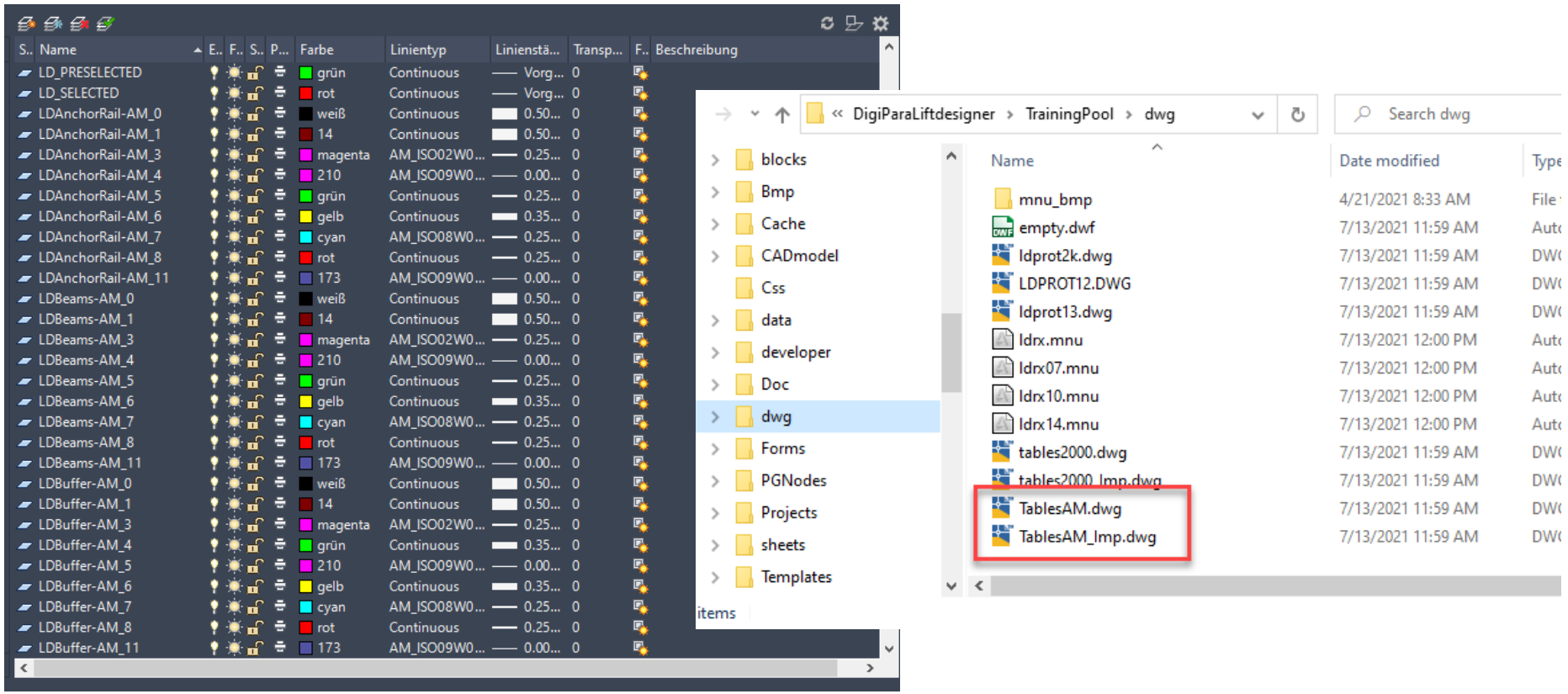


The Mechanical prototype DWG file

The Mechanical prototype DWG file

B3.2 OWN PROTOTYPE DWG FILE

The AutoCAD Mechanical prototype file (TablesAM.dwg) contains a default set of DigiPara Liftdesigner specific component based layer groups.



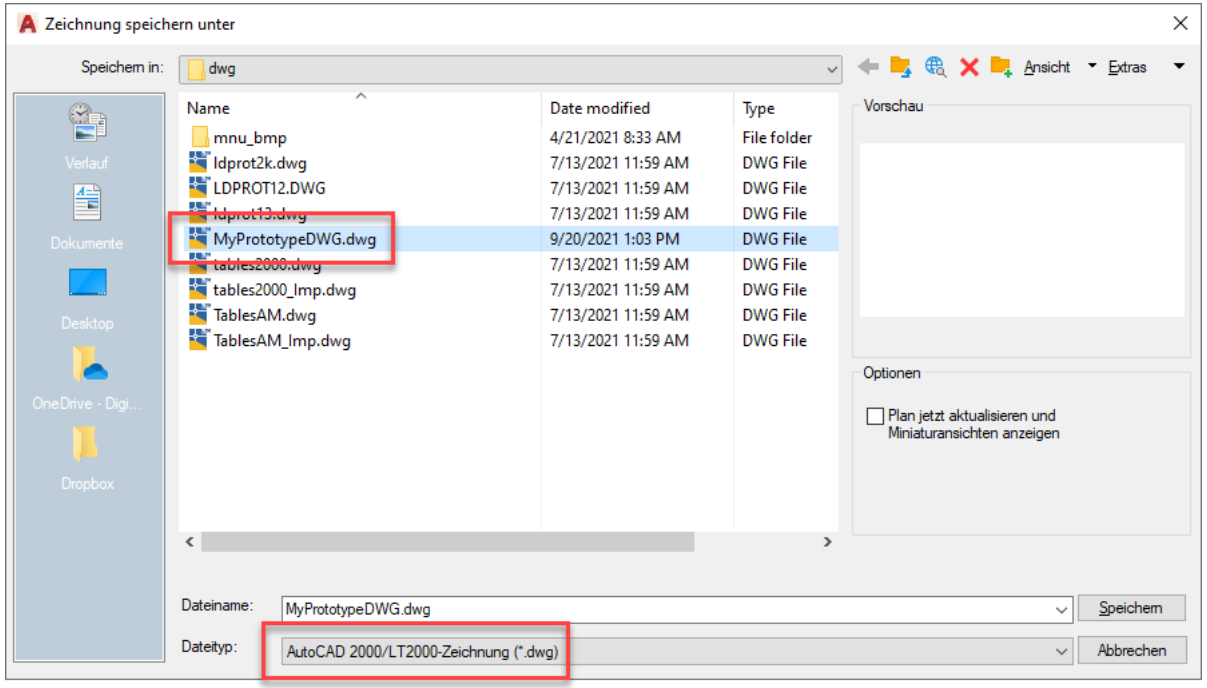
File save conditions

File save conditions

B3.2 OWN PROTOTYPE DWG FILE

The customized prototype DWG file must also be stored in the datapool DWG directory.

- Standard AutoCAD prototype file format:
  - AutoCAD 2000/LT 2000 Drawing (*.dwg)
- AutoCad Mechanical prototype file format:
  - AutoCAD Mechanical 2004 Drawing (.*dwg)



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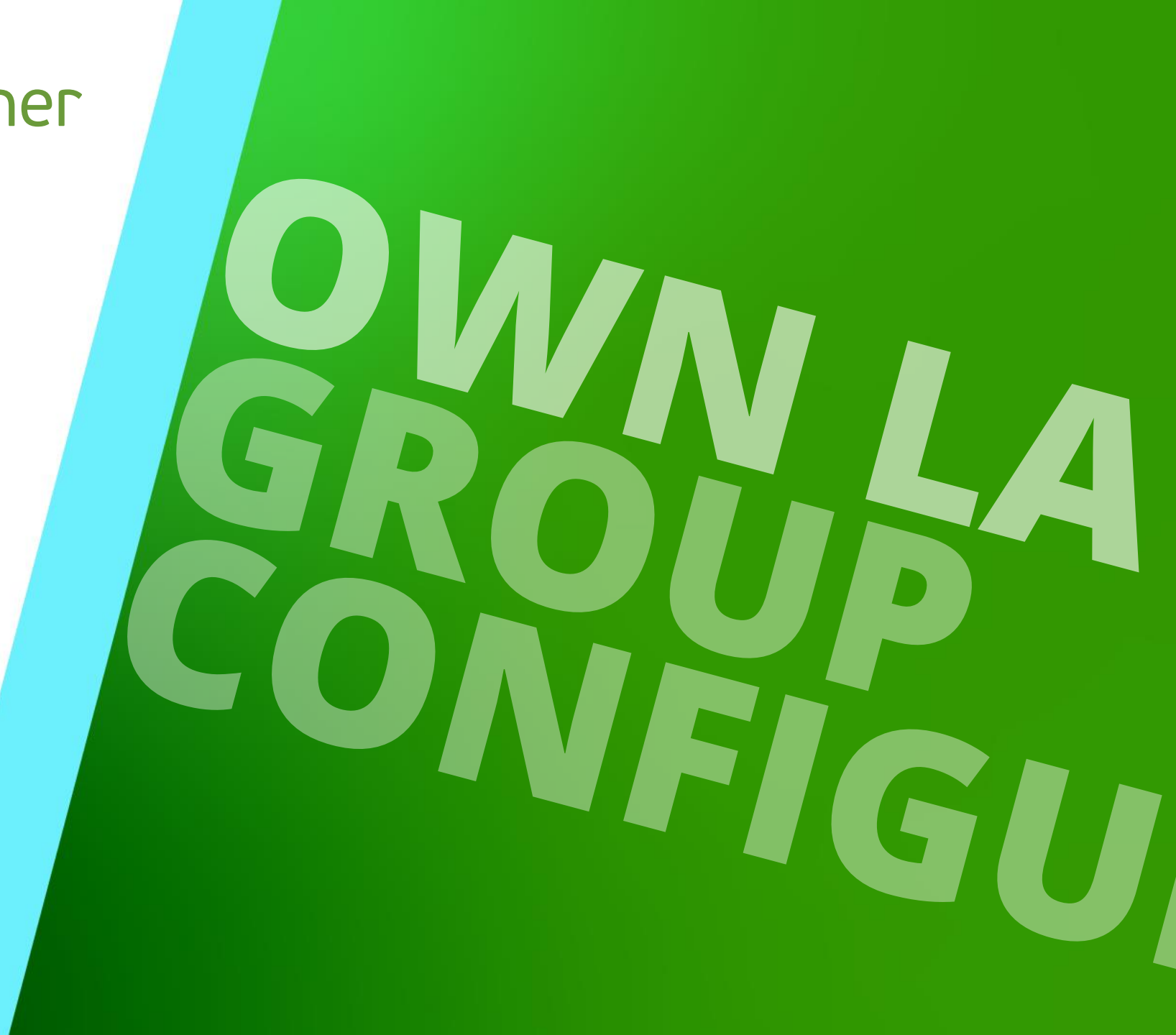
B3.3

Own Layer Group Configurations - Globally

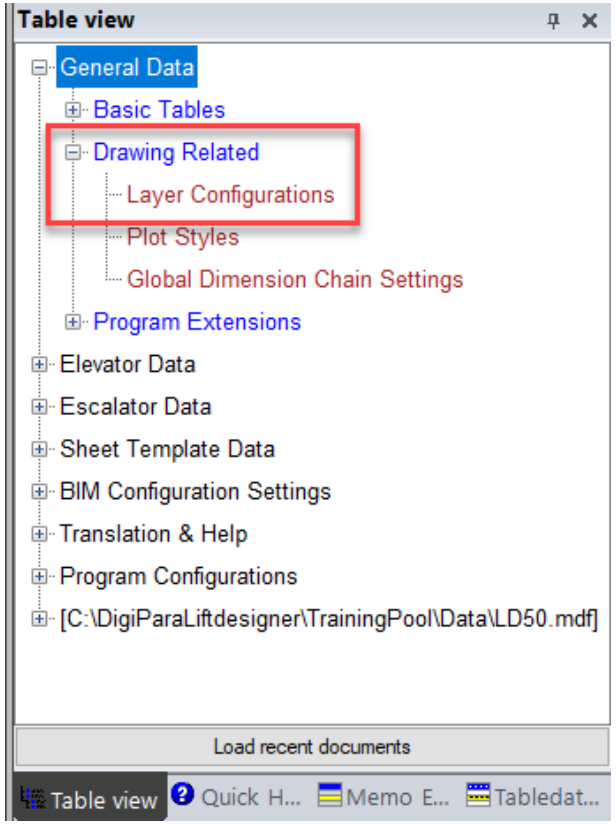


General information

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Layer Configurations data table

- in DigiPara Liftdesigner Datamanager under **Drawing Related**

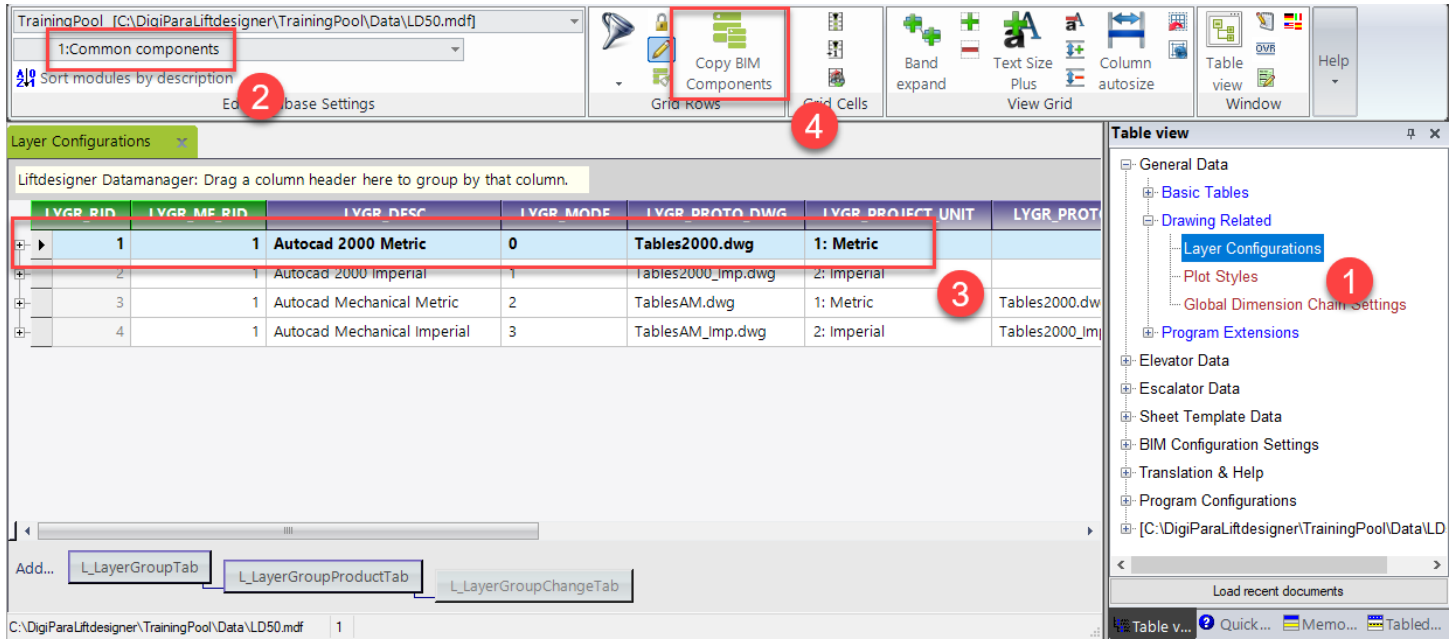


Copy existing Layer Configurations

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Typical processes

- 1. Open the data table
- 2. Use Common components
- 3. Select the data row
- 4. Start the copy process

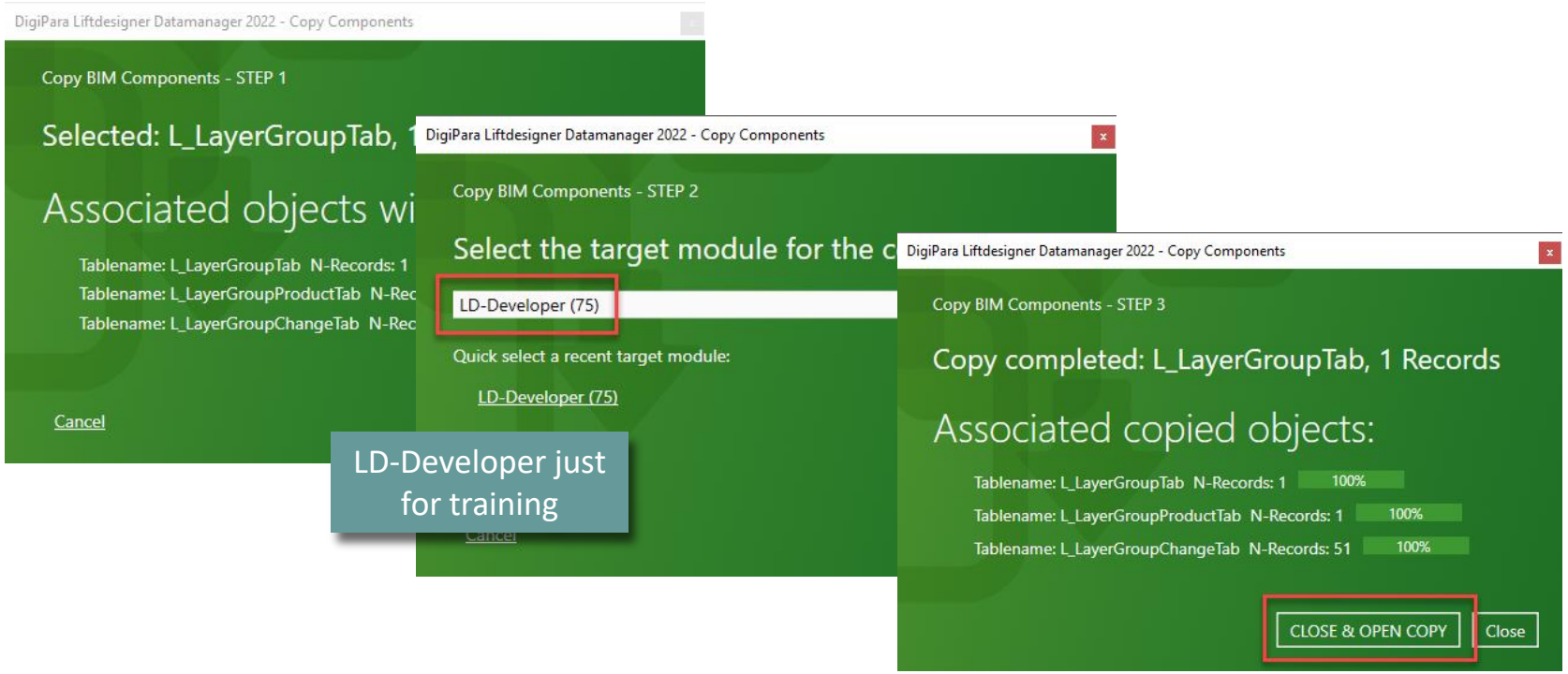


Copy existing Layer Configurations

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Copy the existing data into your own DigiPara BIM Library

- Step 2: Select the proper manufacturer module (*.ldm12)

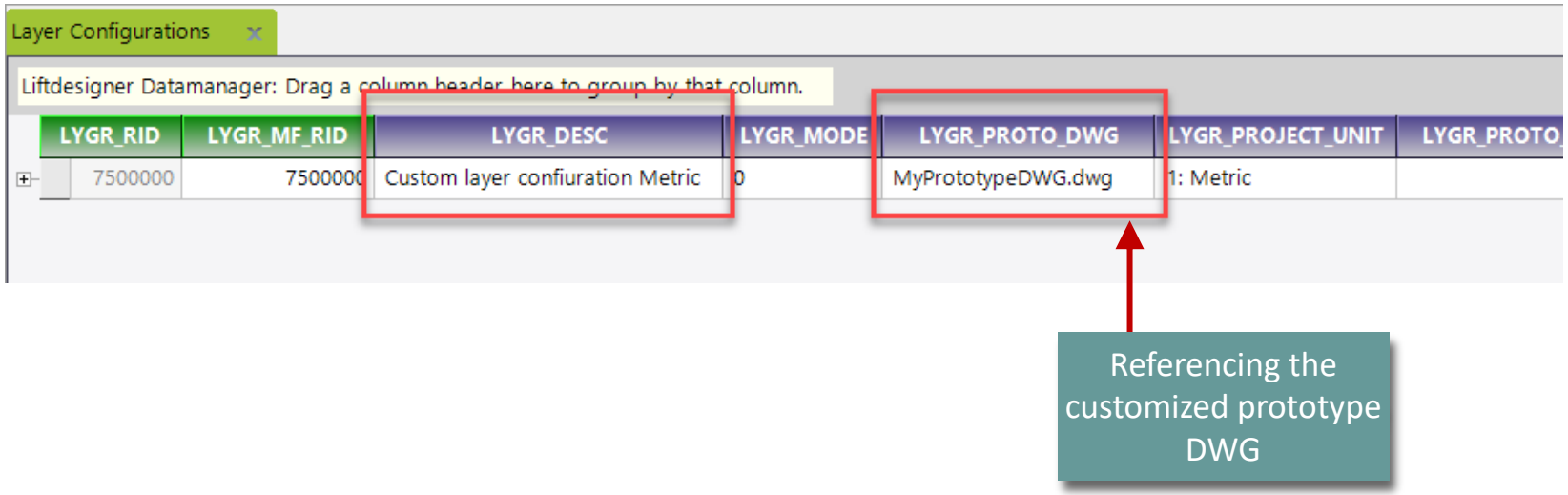


Meta Data & determine related prototype DWG file

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Edit the global description of the layer configuration and enter the name of the corresponding prototype DWG file.

- The file must be located in the datapool DWG folder e.g. C:\MyDatapool\dwg\MyPrototypeDWG.dwg

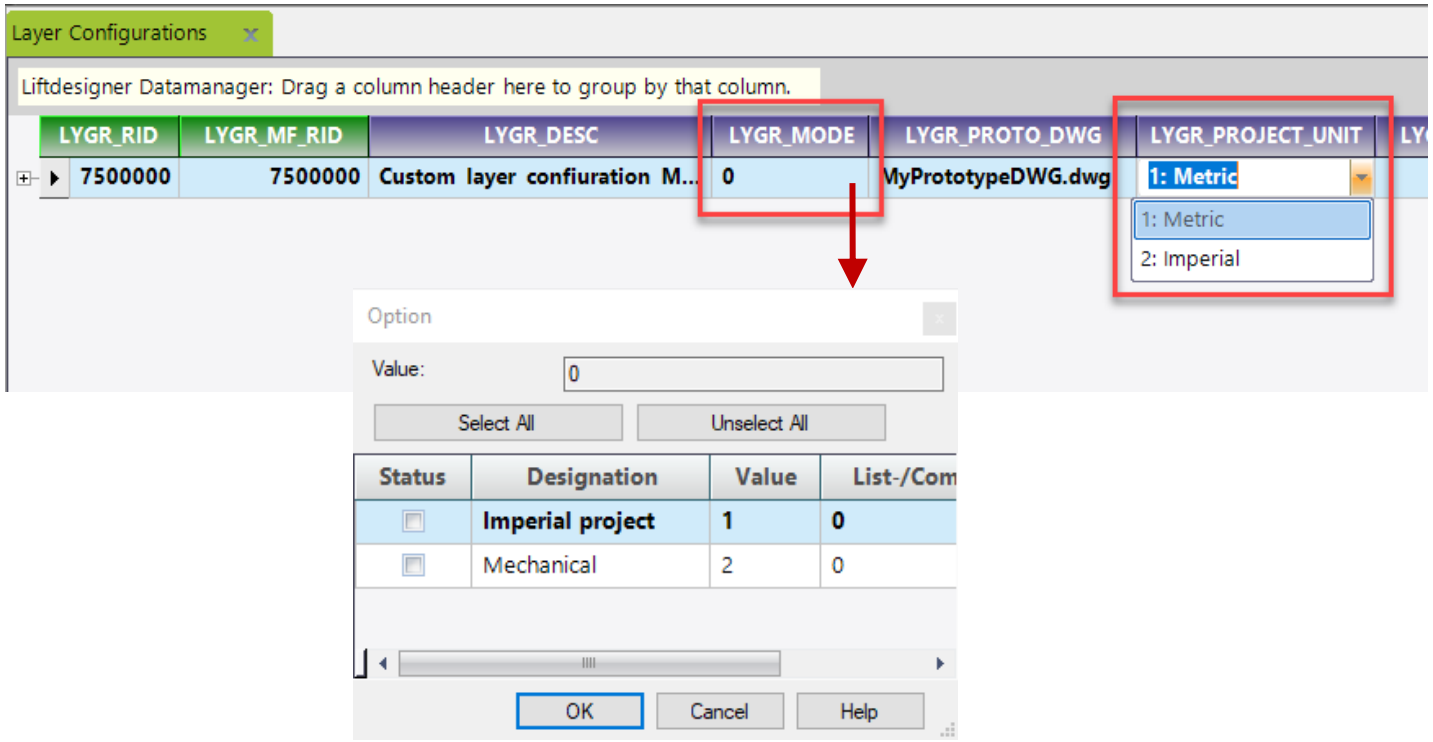


Edit the Meta Data

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Choose the appropriate AutoCAD output format for the new layer configuration und unit system.

- LYGR_MODE:
  - 0 – Metric project
  - 1 – Imperial project
  - 2 – AutoCAD Mechanical



General Information

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

A default global layer configuration set is already prepared

- To configure the global DigiPara Liftdesigner layer settings use the 999 (Default) LDXNone

Layer Configurations

Liftdesigner Datamanager: Drag a column header here to group by that column.

LYGR_RID	LYGR_MF_RID	LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG	LYGR_PROJECT_UNIT	LYGR_PROTO_SYSTEM_DWG
7500000	7500000	Custom layer confiuration Metric	0	MyPrototypeDWG.dwg	1: Metric	

LYGRPR_RID	LYGRPR_LYGR_RID	LYGRPR_IX	LYGRPR_DESC	LYGRPR_LDX_RID	LYGRPR_CREATED_BY	LYGRPR_CREATED_DA
7500000	7500000	0	Default Metric	999: (Default) LDXNone	Goettert	09/20/2021 04:14 PM

LYCHG_RID	LYCHG_LYGRPR_RID	LYCHG_IX	LYCHG_LYRSRC_ID	LYCHG_LYRDEST	LYCHG_COLOR	LYC
7500014	7500000	0	0: Layer 0: Solid Lines	0	256	-1
7500001	7500000	1	1: Layer 1: Thin Solid Lines	1	256	-1
7500002	7500000	3	3: Layer 3: Dashed Lines	3	256	-1
7500041	7500000	4	4: Layer 4: Auxiliary Lines	4	256	-1
7500042	7500000	5	5: Layer 5: Dash-Dot-Dot Lines	11	256	-1
7500003	7500000	6	6: Layer 6: Inserts	6	256	-1
7500004	7500000	7	7: Layer 7: Center Lines	7	256	-1
7500005	7500000	8	8: Layer 8: Hatches	8	256	-1
7500006	7500000	9	9: Layer 9: Dimensions	9	256	-1
7500043	7500000	10	10: Layer LD_PRESELECTED: Preselected Object Layer	LD_PRESELECTED	256	-1
7500044	7500000	11	11: Layer LD_SELECTED: Selected Object Layer	LD_SELECTED	256	-1
7500045	7500000	12	12: Layer LD_DISABLED: Disabled Object Layer	LD_DISABLED	256	-1
7500097	7500000	30	1000: Dimstyle: LIFT	LIFT	256	-1

General Information

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

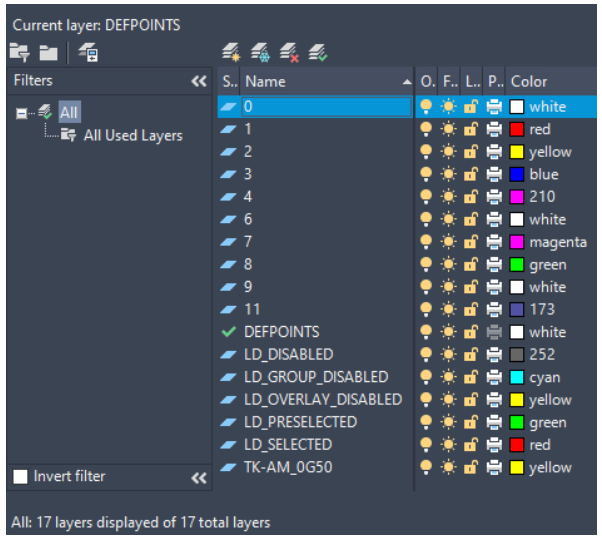
Mapping objects: Layer x

- The layer objects refer to the DigiPara Liftdesigner components e.g. the shaft, car, car door, etc. The object layers can either be configured globally (only for the LDXNone object) or for each single LDX object.

LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG
Customer Layer Configuration	0	MyPrototypeDWG.dwg

YGRPR_DESC	LYGRPR_LDX_RID
	999: (Default) LDXNone

HG_IX	LYCHG_LYRSRC_ID
0	0: Layer 0: Solid Lines
1	1: Layer 1: Thin Solid Lines
2	3: Layer 3: Dashed Lines
3	4: Layer 4: Auxiliary Lines
4	5: Layer 5: Dash-Dot-Dot Lines
5	1000: Dimstyle: LIFT
6	1001: Dimstyle: LIFT_EDIT



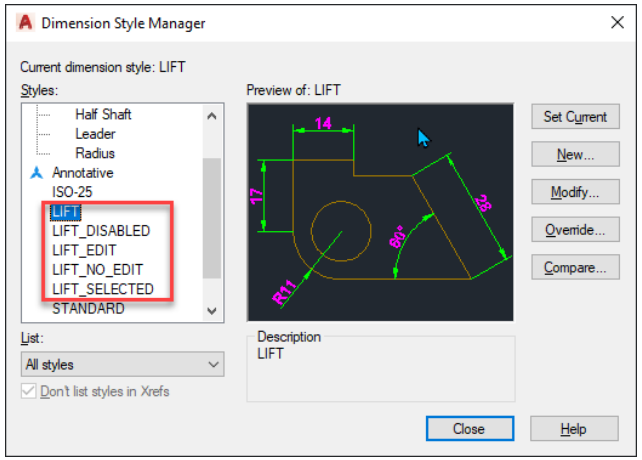
Mapping objects: Dimstyle

- Each internal dimension style can be mapped to any target dimension style in the corresponding prototype DWG file. The mapping can be configured globally (only for the LDXNone object) or component wise for each single LDX object.

LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG
Customer Layer Configuration	0	MyPrototypeDWG.dwg

YGRPR_DESC	LYGRPR_LDX_RID
	999: (Default) LDXNone

HG_IX	LYCHG_LYRSRC_ID
0	0: Layer 0: Solid Lines
1	1: Layer 1: Thin Solid Lines
2	3: Layer 3: Dashed Lines
3	4: Layer 4: Auxiliary Lines
4	5: Layer 5: Dash-Dot-Dot Lines
5	1000: Dimstyle: LIFT
6	1001: Dimstyle: LIFT_EDIT
7	1002: Dimstyle: LIFT_NO_EDIT
8	1003: Dimstyle: LIFT_SELECTED
9	2000: Textstyle: LD



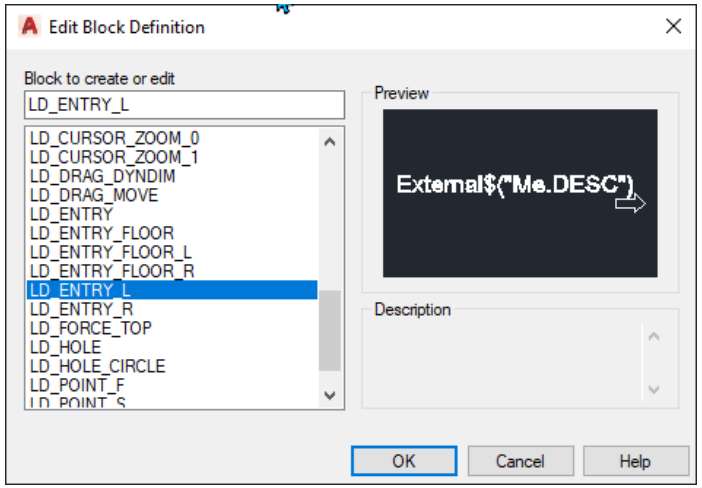
Mapping objects: Textstyle

- The internal text style can be mapped to any target text style in the corresponding prototype DWG file.

LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG
Customer Layer Configuration	0	MyPrototypeDWG.dwg

YGRPR_DESC	LYGRPR_LDX_RID
	999: (Default) LDXNone

HG_IX	LYCHG_LYRSRC_ID
0	0: Layer 0: Solid Lines
1	1: Layer 1: Thin Solid Lines
2	3: Layer 3: Dashed Lines
3	4: Layer 4: Auxiliary Lines
4	5: Layer 5: Dash-Dot-Dot Lines
5	1000: Dimstyle: LIFT
6	1001: Dimstyle: LIFT_EDIT
7	1002: Dimstyle: LIFT_NO_EDIT
8	1003: Dimstyle: LIFT_SELECTED
9	2000: Textstyle: LD
10	3022: Block LD_ENTRY_L
11	3020: Block LD_ENTRY_FLOOR_L



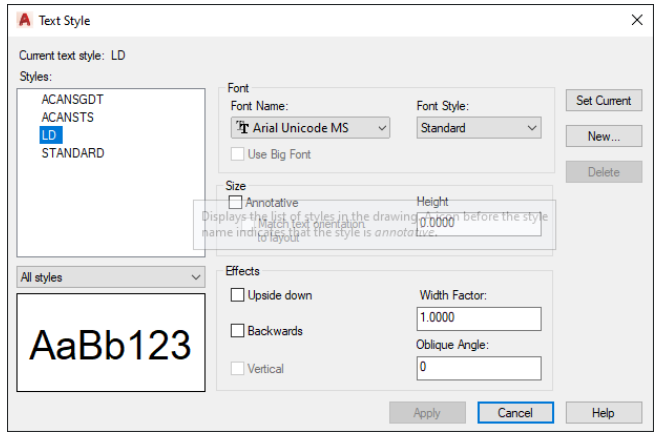
Mapping objects: Block

- Each internal static drawing block (e.g. the floor level symbol, mouse cursors, etc.) can be mapped to a predefined drawing block (insert) and defined in the corresponding prototype DWG file.

LYGR_DESC	LYGR_MODE	LYGR_PROTO_DWG
Customer Layer Configuration	0	MyPrototypeDWG.dwg

YGRPR_DESC	LYGRPR_LDX_RID
	999: (Default) LDXNone

HG_IX	LYCHG_LYRSRC_ID
0	0: Layer 0: Solid Lines
1	1: Layer 1: Thin Solid Lines
2	3: Layer 3: Dashed Lines
3	4: Layer 4: Auxiliary Lines
4	5: Layer 5: Dash-Dot-Dot Lines
5	1000: Dimstyle: LIFT
6	1001: Dimstyle: LIFT_EDIT
7	1002: Dimstyle: LIFT_NO_EDIT
8	1003: Dimstyle: LIFT_SELECTED
9	2000: Textstyle: LD
10	3022: Block LD_ENTRY_L
11	3020: Block LD_ENTRY_FLOOR_L

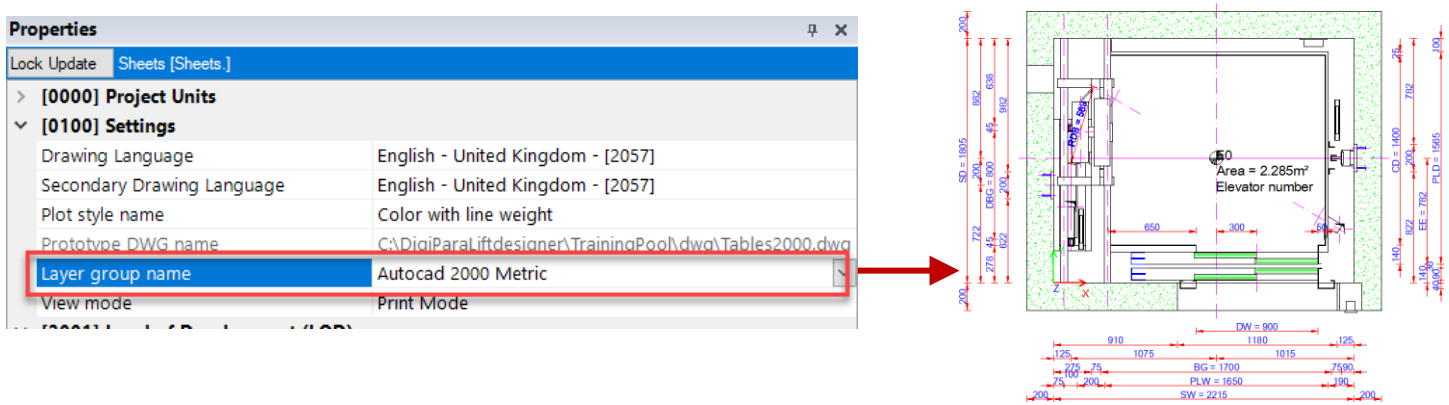


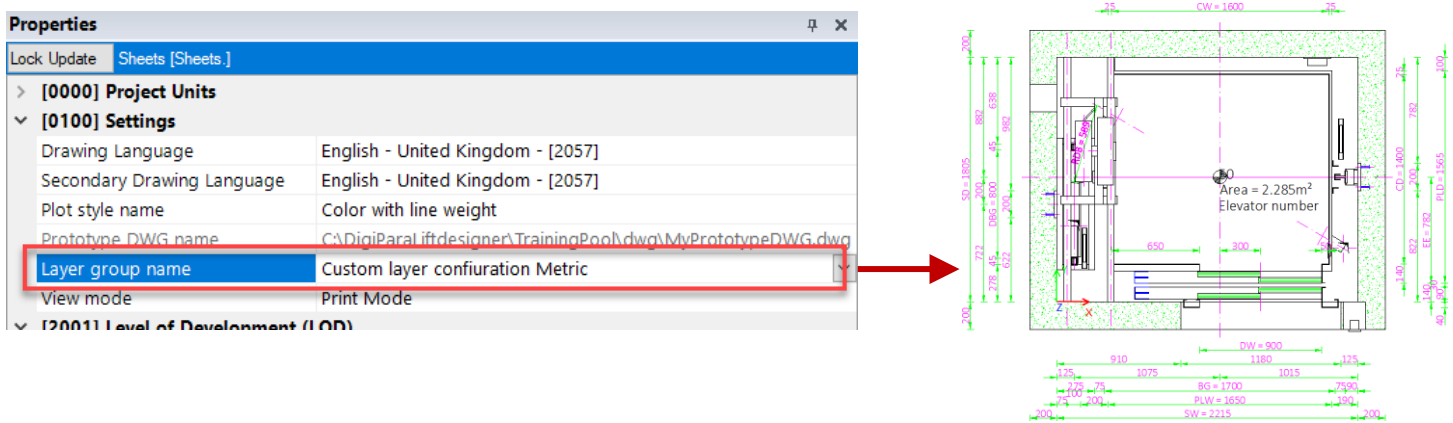
Testing the new configurations

B3.3 OWN LAYER GROUP CONFIGURATIONS - GLOBALLY

Choose your customized layer configuration

- in DigiPara Liftdesigner by loading a project
  - via Sheets Properties





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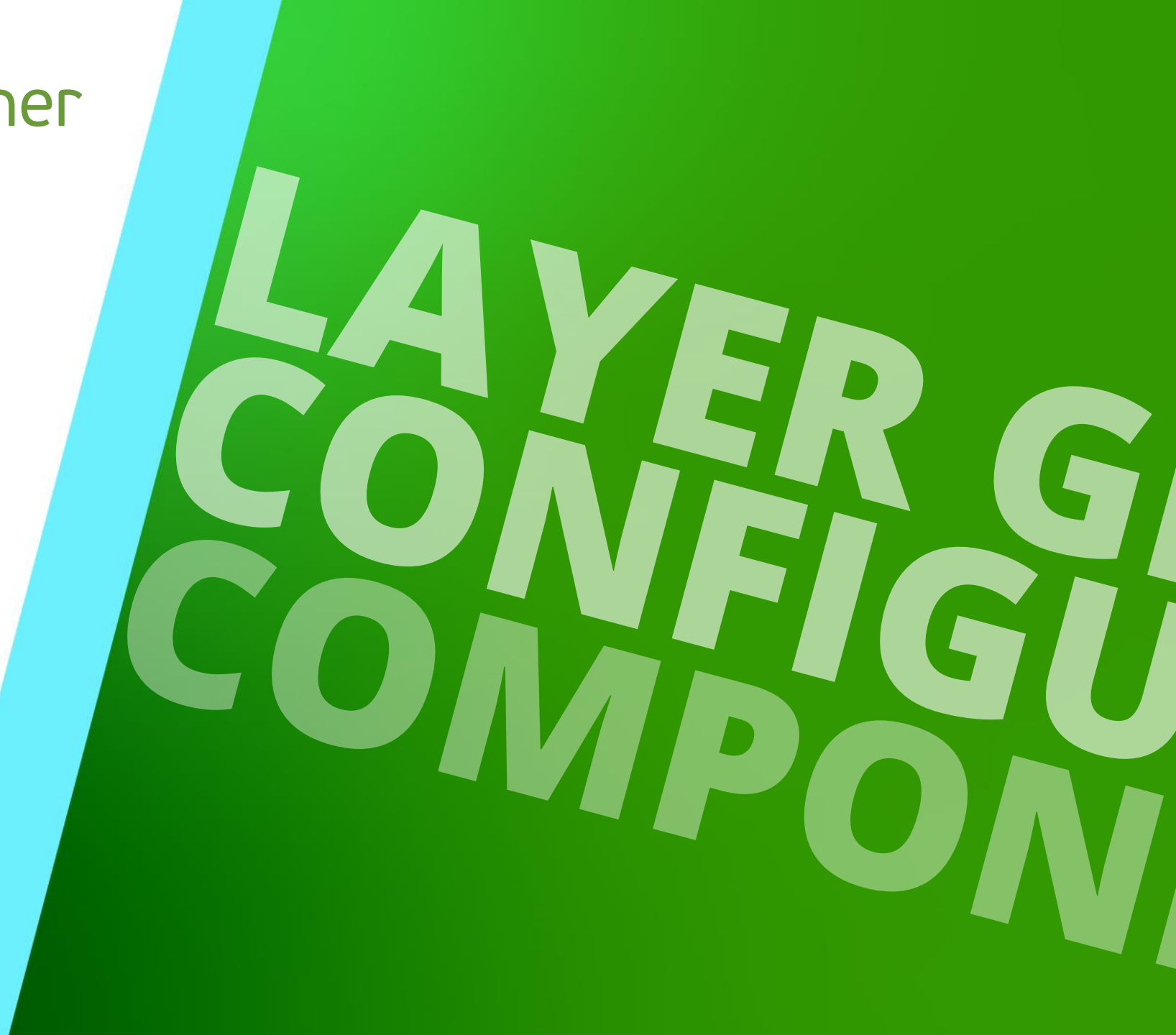
B3.4

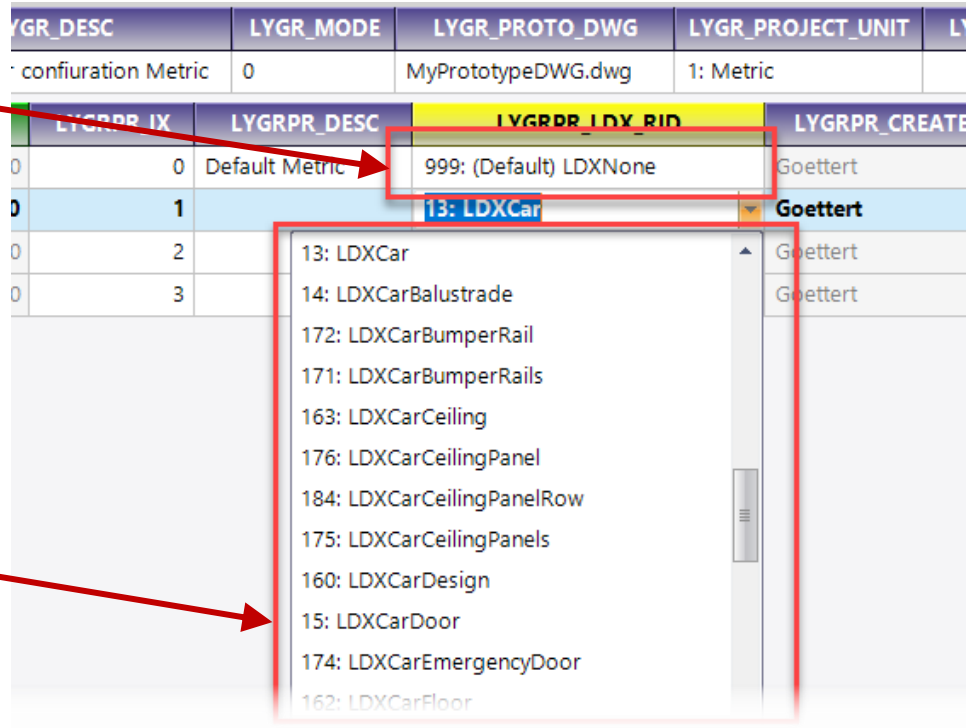
Own Layer Group Configarations – Component specific



The LDX- components

- can either be configured globally
  - Each DigiPara Liftdesigner component uses the same layer/ styles configuration
  - Represents the global object whose configuration gets used for all DigiPara Liftdesigner components e.g. car frame, doors, traction machine, etc.

- or component specific
  - Each DigiPara Liftdesigner component uses an individual layer / styles configuration
  - Configuration settings can be overwritten by adding an add. DigiPara Liftdesigner component configuration beside the LDXNone configuration

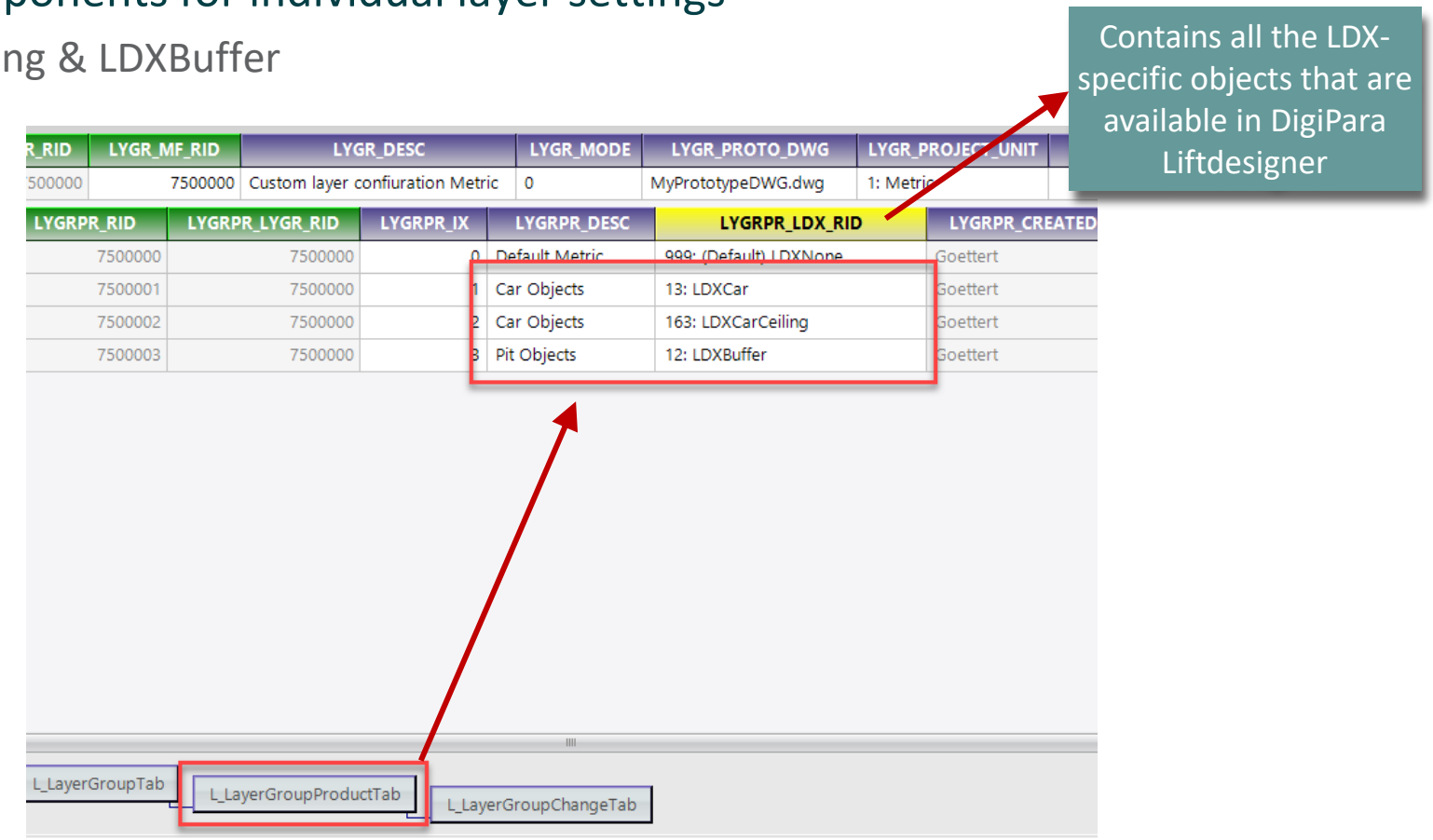


Determine your specific component

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

Determine elevator components for individual layer settings

- for LDXCar, LDXCarCeiling & LDXBuffer

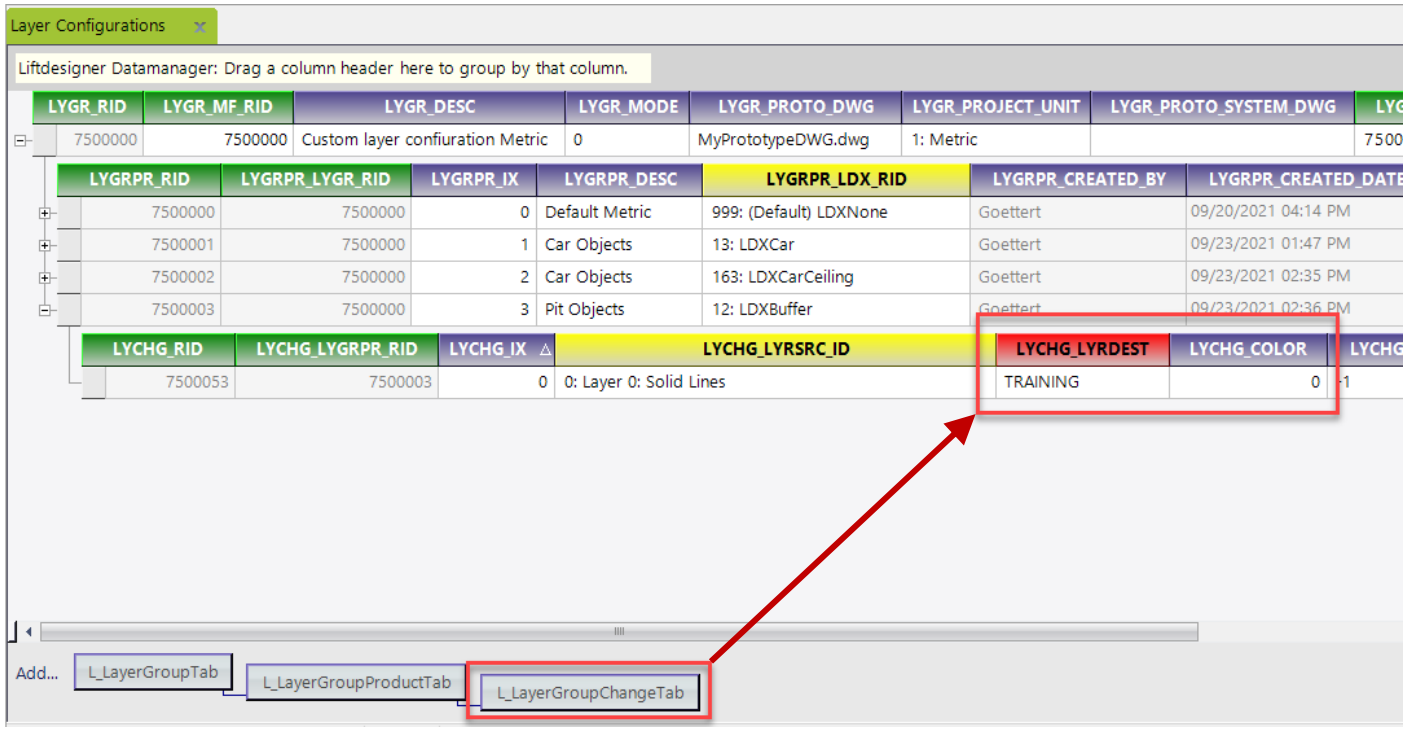


Enter the AutoCAD destination layers

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

Link the prepared AutoCAD source layers

- for the representation in DigiPara Liftdesigner (LYCHG_LYRDEST) and for output (LYCHG_COLOR)



Enter the AutoCAD destination layers

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

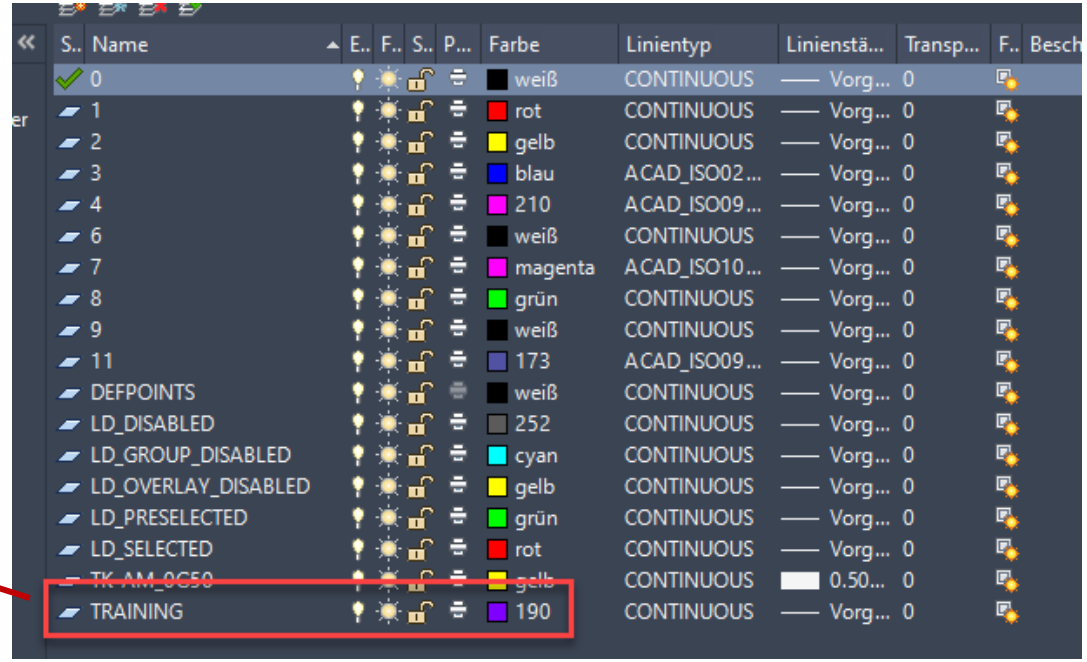
Representation in DigiPara Liftdesigner

- LYCHG_LYRDEST

	LYGR_MODE	LYGR_PROTO_DWG	LYGR_PROJECT_UNIT	LYGR_PROTO_SYSTEM_DWG	LYG
tric	0	MyPrototypeDWG.dwg	1: Metric		7500

	LYGRPR_DESC	LYGRPR_LDX_RID	LYGRPR_CREATED_BY	LYGRPR_CREATED_DATE
)	Default Metric	999: (Default) LDXNone	Goettert	09/20/2021 04:14 PM
	Car Objects	13: LDXCar	Goettert	09/23/2021 01:47 PM
2	Car Objects	163: LDXCarCeiling	Goettert	09/23/2021 02:35 PM
3	Pit Objects	12: LDXBuffer	Goettert	09/23/2021 02:36 PM

	LYCHG_LYRSRC_ID	LYCHG_LYRDEST	LYCHG_COLOR	LYCHG
0	0: Layer 0: Solid Lines	TRAINING	0	-1



Enter the AutoCAD destination layers

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

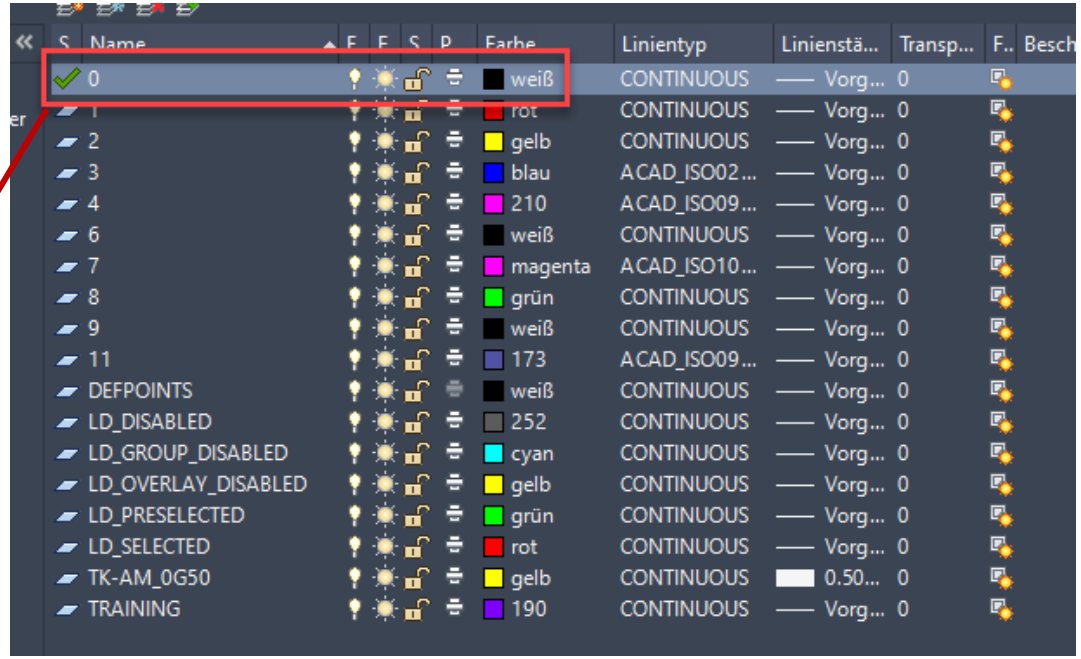
Representation in exported DWG file

- LYCHG_COLOR
  - If the value is set to a value less than 256, then the value will be used as an override color for the selected destination layer in the prototype DWG file.

	LYGR_MODE	LYGR_PROTO_DWG	LYGR_PROJECT_UNIT	LYGR_PROTO_SYSTEM_DWG	LYG
tric	0	MyPrototypeDWG.dwg	1: Metric		7500

	LYGRPR_DESC	LYGRPR_LDX_RID	LYGRPR_CREATED_BY	LYGRPR_CREATED_DATE
)	Default Metric	999: (Default) LDXNone	Goettert	09/20/2021 04:14 PM
	Car Objects	13: LDXCar	Goettert	09/23/2021 01:47 PM
2	Car Objects	163: LDXCarCeiling	Goettert	09/23/2021 02:35 PM
3	Pit Objects	12: LDXBuffer	Goettert	09/23/2021 02:36 PM

	LYCHG_LYRSRC_ID	LYCHG_LYRDEST	LYCHG_COLOR	LYCHG
0	0: Layer 0: Solid Lines	TRAINING	0	1



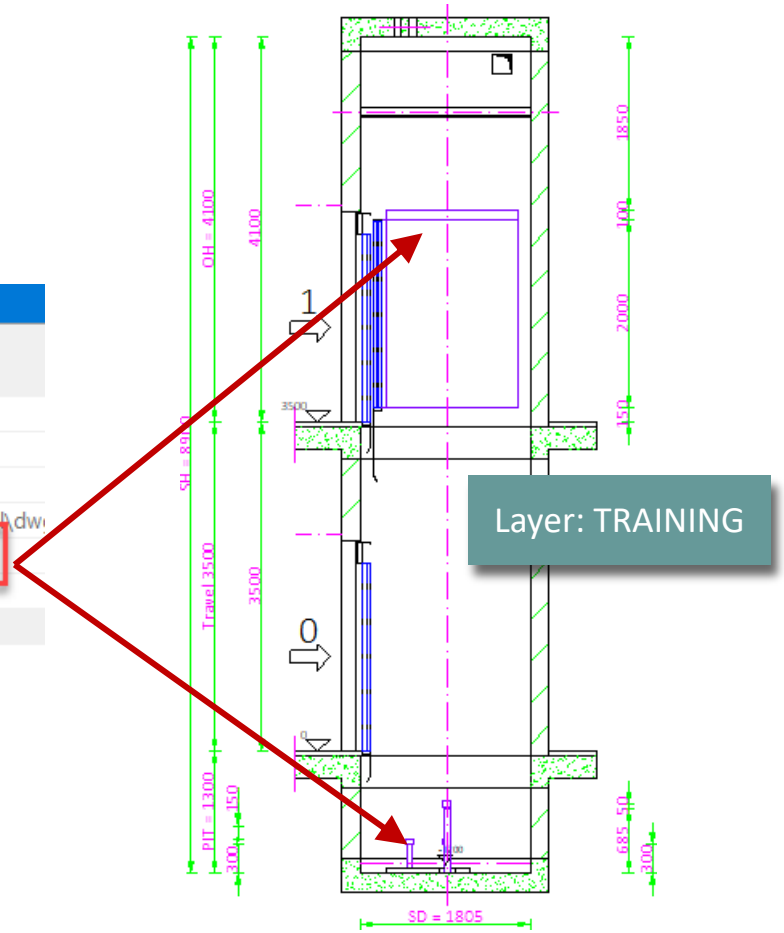
Testing the new configurations

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

Check your customized layer configuration

- in DigiPara Liftdesigner by loading a project
  - via Sheets Properties

Lock Update	Sheets [Sheets.]
[0000] Project Units	
[0100] Settings	
Drawing Language	English - United Kingdom - [2057]
Secondary Drawing Language	English - United Kingdom - [2057]
Plot style name	Colour with line weight
Prototype DWG name	C:\DigiParaLiftdesigner\TrainingPool\dw
Layer group name	Custom layer confiuration Metric
View mode	Print Mode
[2001] Level of Development (LOD)	

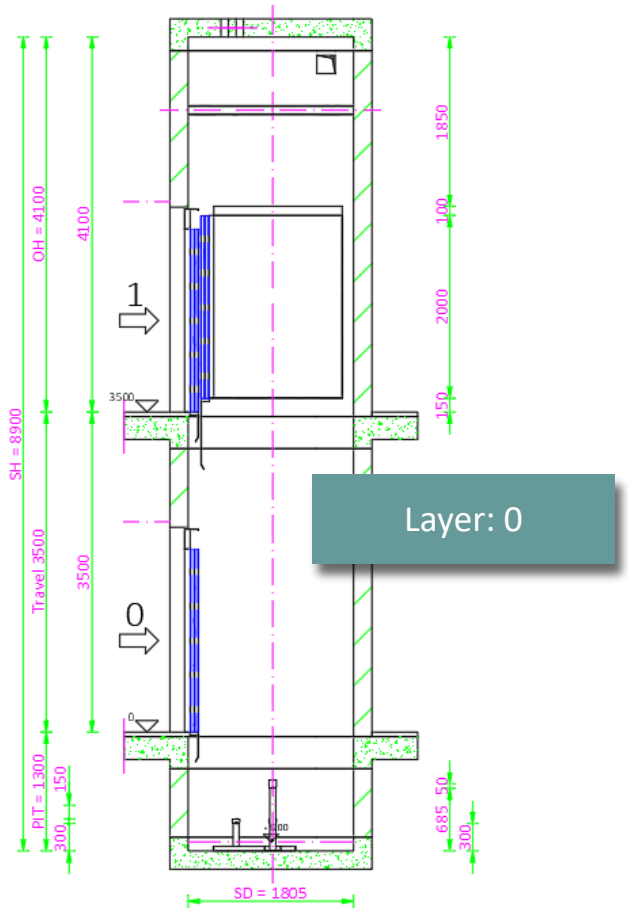


Testing the new configurations

B3.4 OWN LAYER GROUP CONFIGURATIONS – COMPONENT SPECIFIC

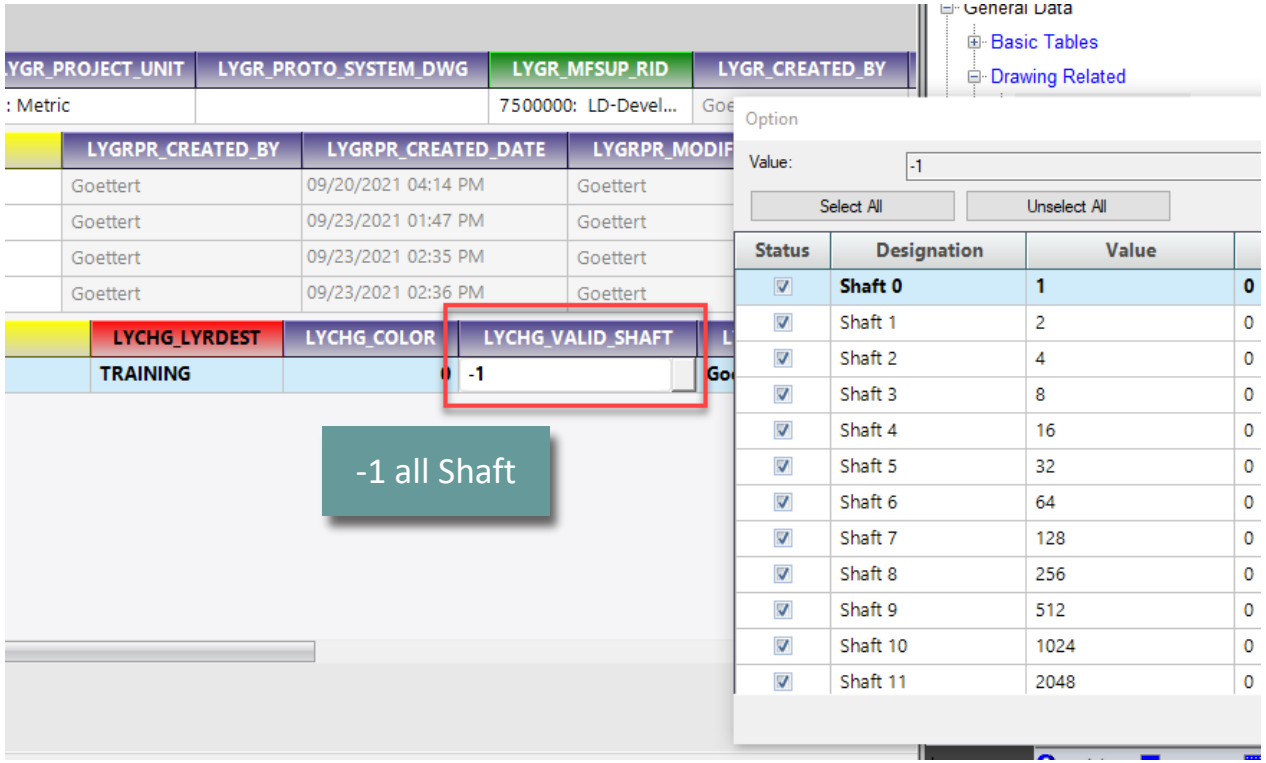
Check your customized layer configuration

- in AutoCAD by exporting a DWG file
  - under 2D Drawing Export



Shaft Groups related settings

- Define separat layer configurations for different shafts when working with shaft groups.



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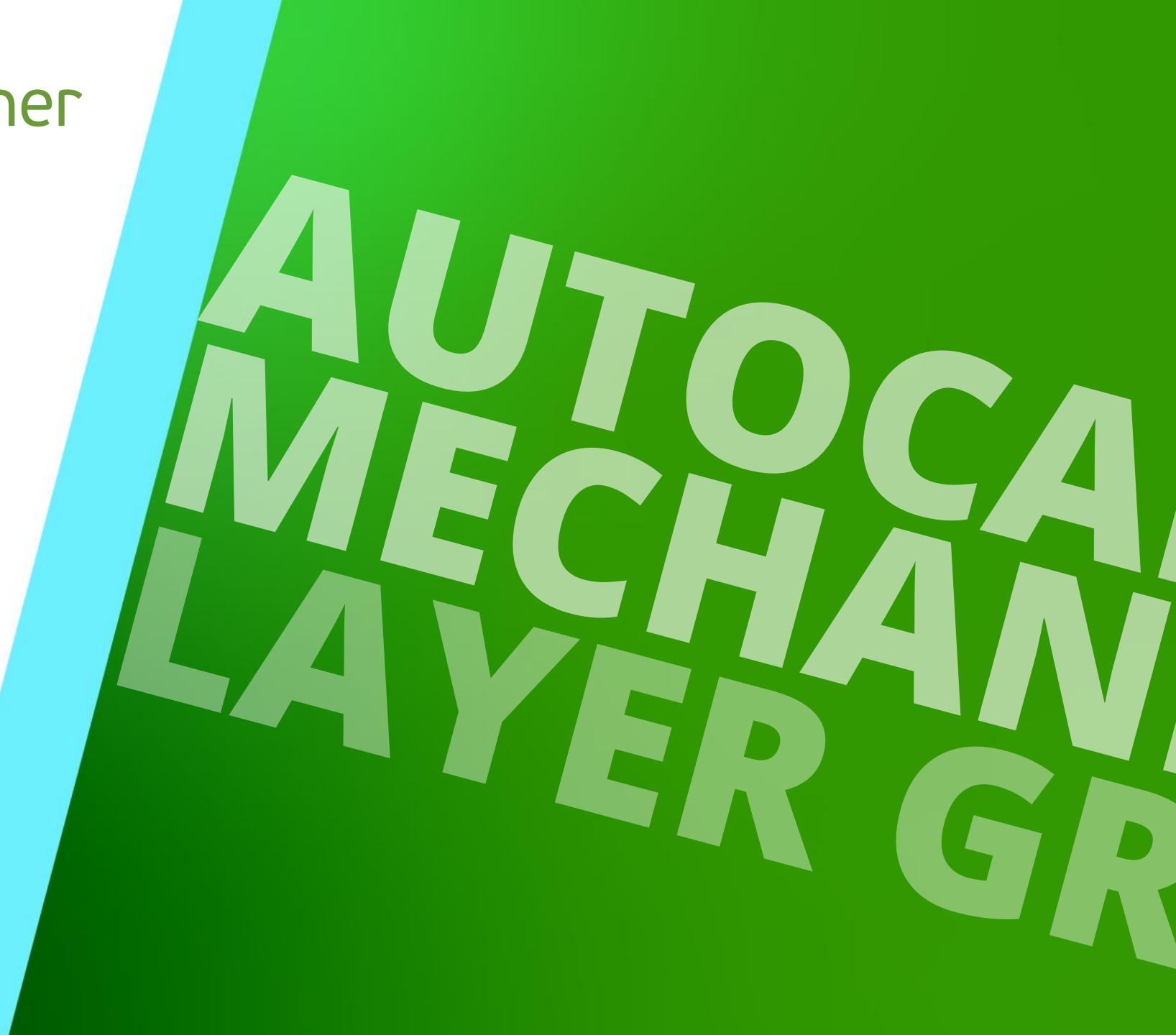
B3.5

AutoCAD Mechanical Layer Groups



General information

B3.5 AUTOCAD MECHANICAL LAYER GROUPS

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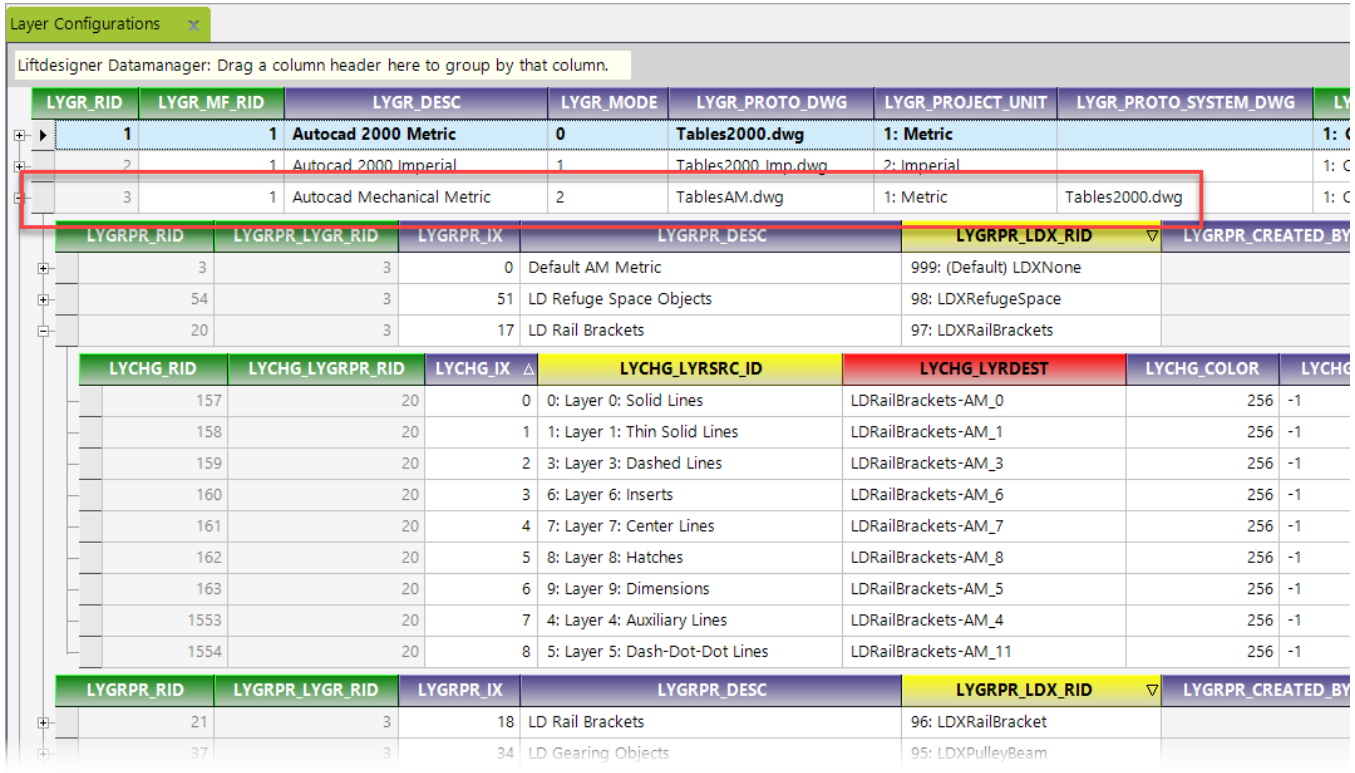
AutoCAD Mechanical provides the possibility to govern the layers in the layer groups

- AutoCAD layer groups that have already been defined can be integrated into DigiPara Liftdesigner / DigiPara Liftdesigner Datamanager



Integrate existing layer groups - General information

B3.5 AUTOCAD MECHANICAL LAYER GROUPS

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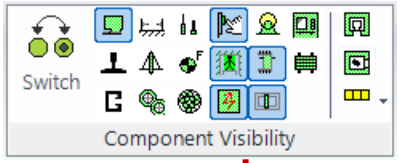
The LDXComponents are customized according to the following rules:

- LDXComponents are configured according to the Component Visibility group. This means that all the components enabled or disabled by switching on and off the appropriate button in the Component Visibility group, which represents a layer group in AutoCAD Mechanical.

- The shaft components that are switched on and off by the appropriate button in the Component Visibility group are passed on to a specified layer group.



1	Autocad 2000 Imperial	1	Tables2000Imp.dwg	2: Imperial	
1	Autocad Mechanical Metric	2	TablesAM.dwg	1: Metric	Tables

RPR_LYGR_RID	LYGRPR_IX	LYGRPR_DESC	LYGRPR_LDX_RID
3	**0**	**Default AM Metric**	**999: (Default) LDXNone**
3	16	LD Anchor Rail Objects	8: LDXAnchorRail
3	67	LD Beam Objects	68: LDXLoadHook
3	68	LD Beam Objects	111: LDXSeparatorBeam
3	69	LD Beam Objects	152: LDXBeam
3	70	LD Beam Objects	153: LDXBeams
3	19	LD Car Frame Objects	16: LDXCarFrame
3	20	LD Car Frame Objects	17: LDXCarPlatform
3	21	LD Car Frame Objects	52: LDXGuideShoe
3	22	LD Car Frame Objects	106: LDXSafetyGear
3	23	LD Car Frame Objects	133: LDXTensioningWeight
3	24	LD Car Frame Objects	138: LDXYokeGuide
3	1	LD Car Objects	13: LDXCar
3	2	LD Car Objects	11: LDXBGConsole
3	3	LD Car Objects	15: LDXCarDoor
3	4	LD Car Objects	18: LDXComp
3	5	LD Car Objects	23: LDXConsole
3	6	LD Car Objects	24: LDXCOPProtection

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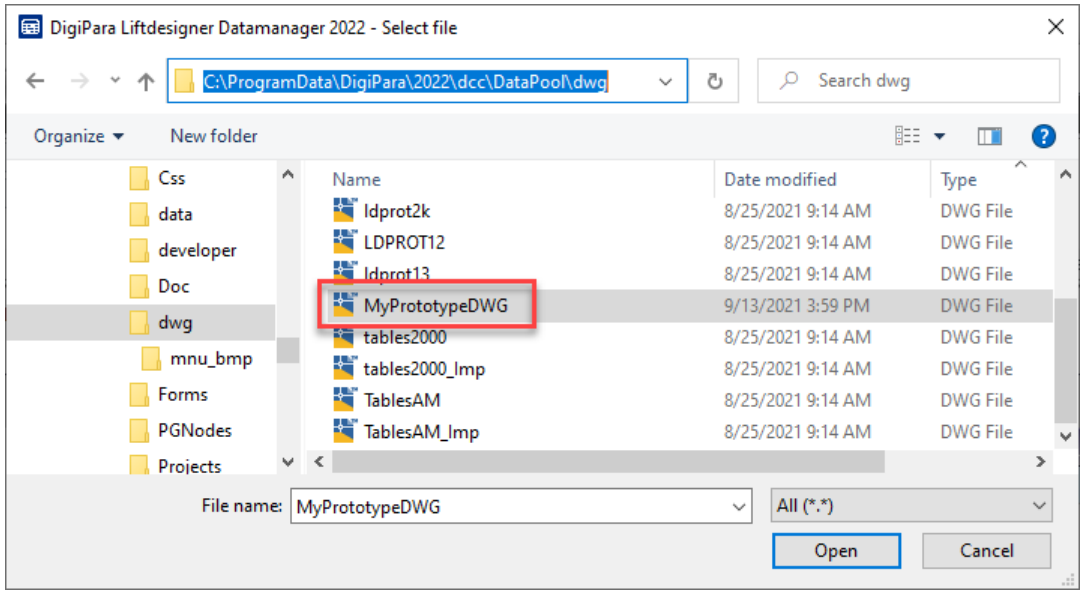
B3.6

Distribution the Configuration

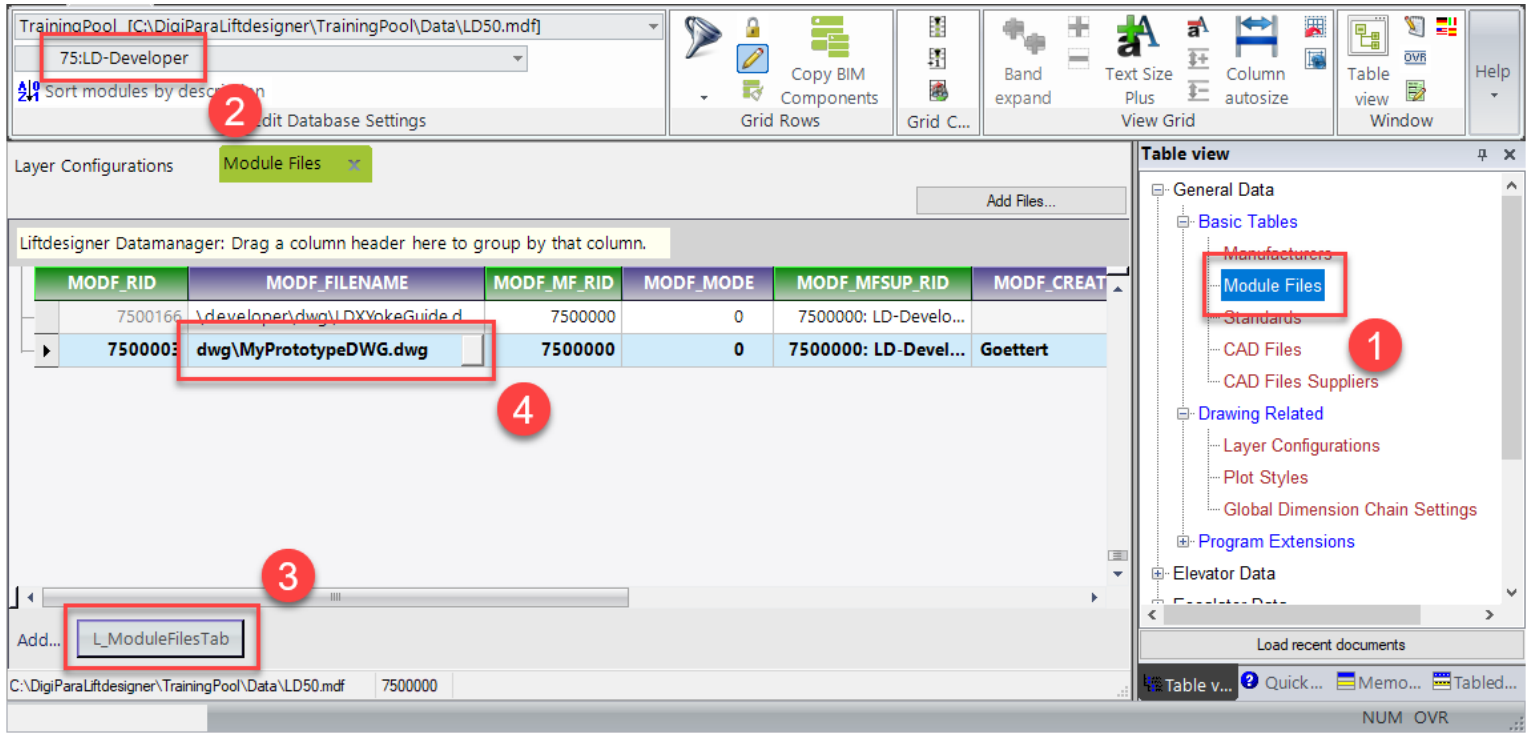
The prototype & layer configuration contents (*DWG file(s)*) **should always** be stored inside the data pool directory



Register module files in database

via the MODULE FILES table for the module export.

- The paths in the MODF_FILENAME column are always relatively to the data pool directory.

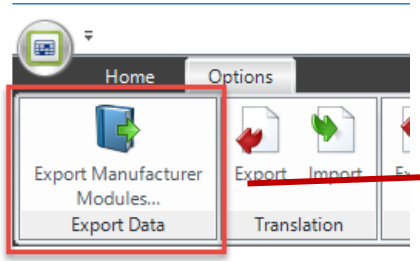


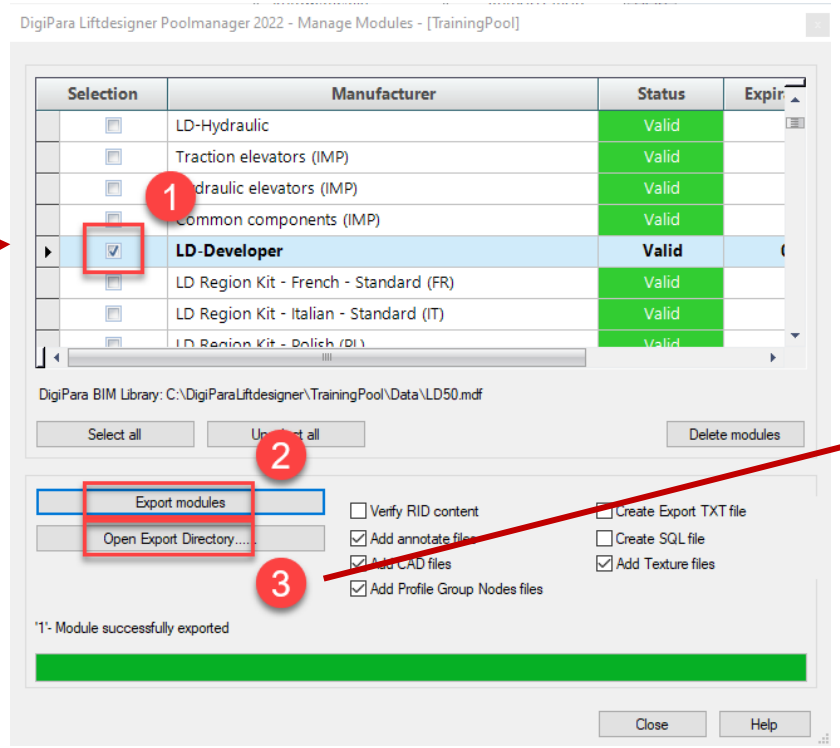
Share your data

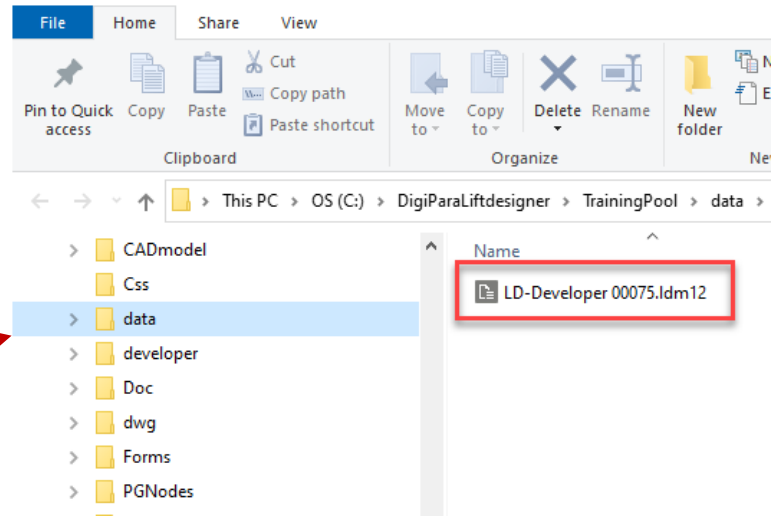
B3.6 DISTRIBUTION THE CONFIGURATION

The exported **.ldm12* file is located under Export folder in the current data pool.

- The usual local path for the Export file: *C:\MyDatapool\dcc\DataPool\data\Export*







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B3.7

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.

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