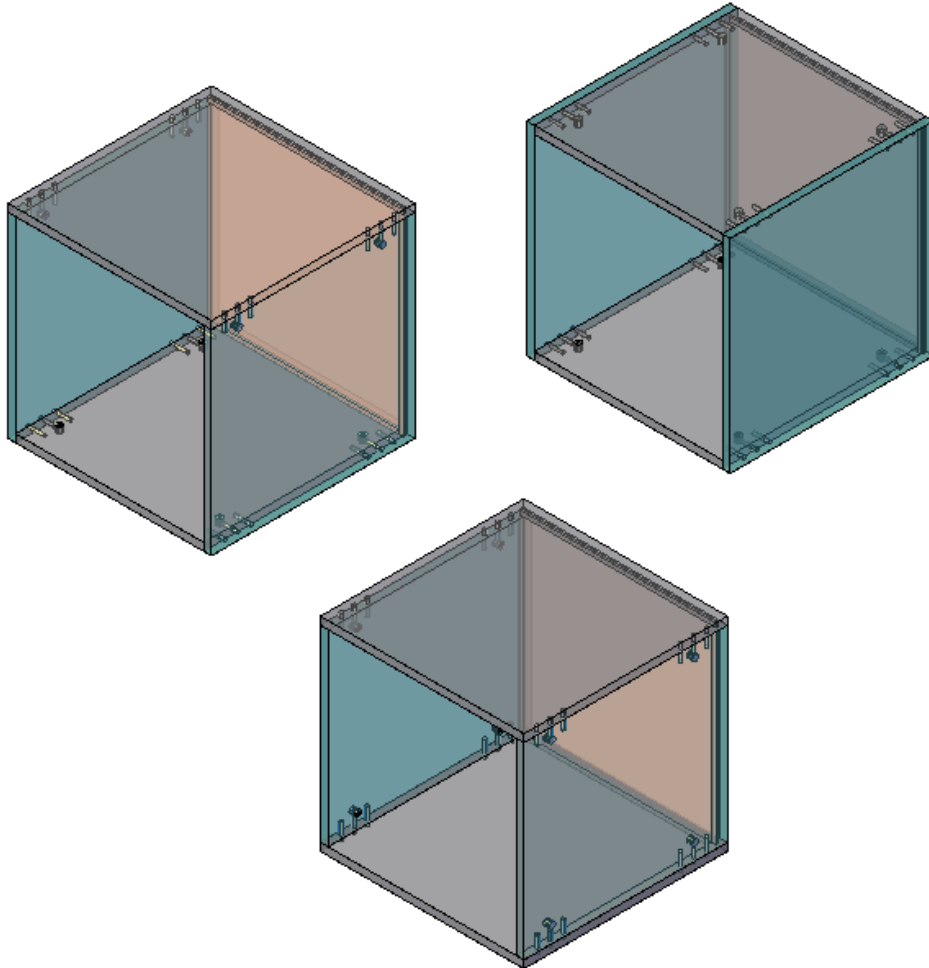


Training Article Designer: Construction Principles



We make every effort to ensure the content of our documentation is complete, accurate and up to date. However, continuous development of the described software means it is not possible to guarantee the information is accurate, complete and up to date at all times.

We shall endeavor to incorporate in subsequent versions corrections to any errors or omissions we either become aware of or which are reported to us. imos does not accept liability for direct or indirect damages caused by the use or non-use of the information provided or caused by the use of incorrect or incomplete information. The descriptions in this document are subject to change without notice. All rights reserved.

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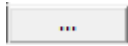
1. Introduction



Objective of this exercise

- Create and apply Construction Rules.

The abbreviations used

- **_C_** Set in the name of data objects instead of “_C_” e.g. “M_” for “Miller” to mark the data object as your own.
- **_Customer** This abbreviation is applied for naming folders in the data system. Replace this term with your firm’s name on your own system, e.g. “_Miller”
- **CP** Construction Principle
- **EM** Element Manager
- **3-Point-Button** A small, light grey rectangular button with three small black dots centered inside it.

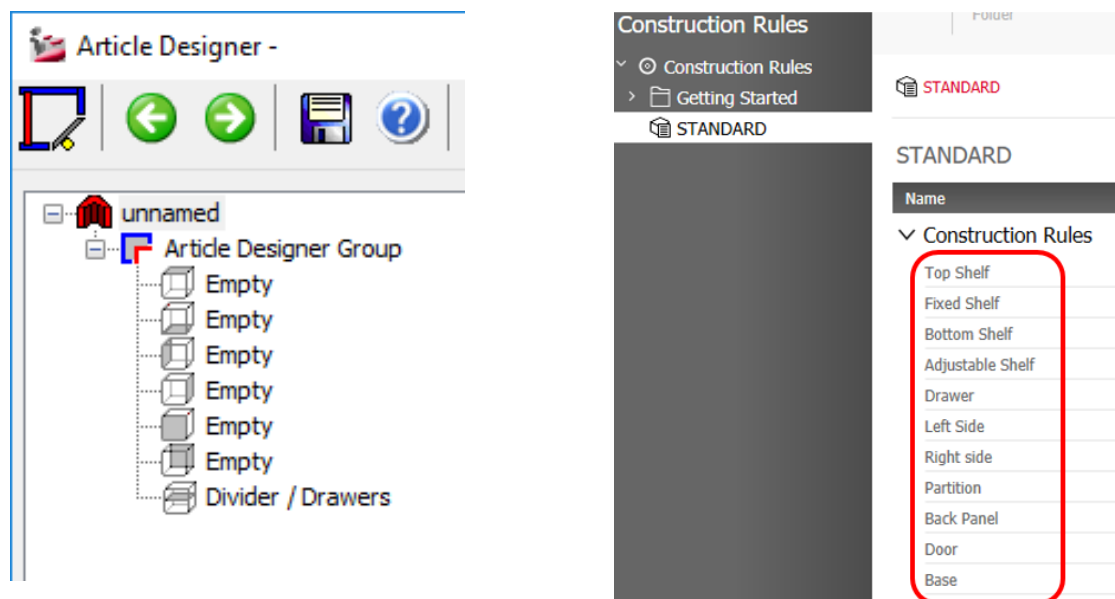
2. Construction Rules

2.1 The Effect of Construction Rules

In a Construction Rule a Construction Principle is saved for every part which are loaded in the Article Designer via double click.

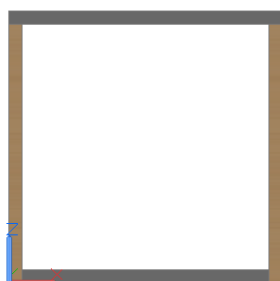
When creating Construction Rules and applying construction for your Article Designer, avoid in most cases the exchange of the automatically inserted Construction Principle. The function is useful where several CPs are compatible and are always used together.

The Construction Principles for the following part types can be combined to a Construction Rule:

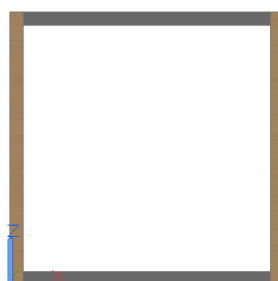


In this exercise three different Construction Rules will be created.

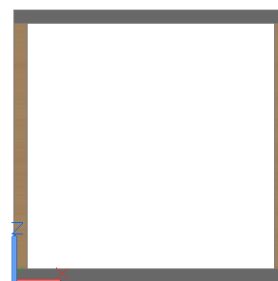
Type A



Type B



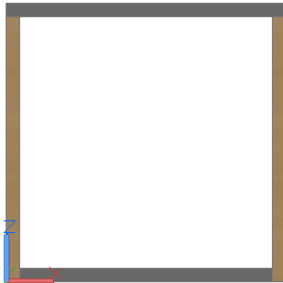
Type C



3. Construction Rule “Type_A”

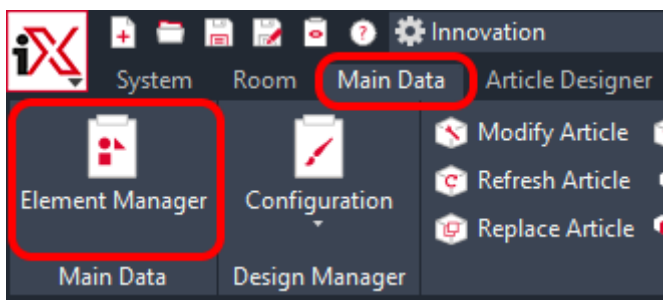
The first Construction Rule, “Type A” displays a construction with an **onset top shelf** and an **inset bottom shelf**. The connections are implemented with **dowel and cam connectors**.

The construction appears in the front view as follows:

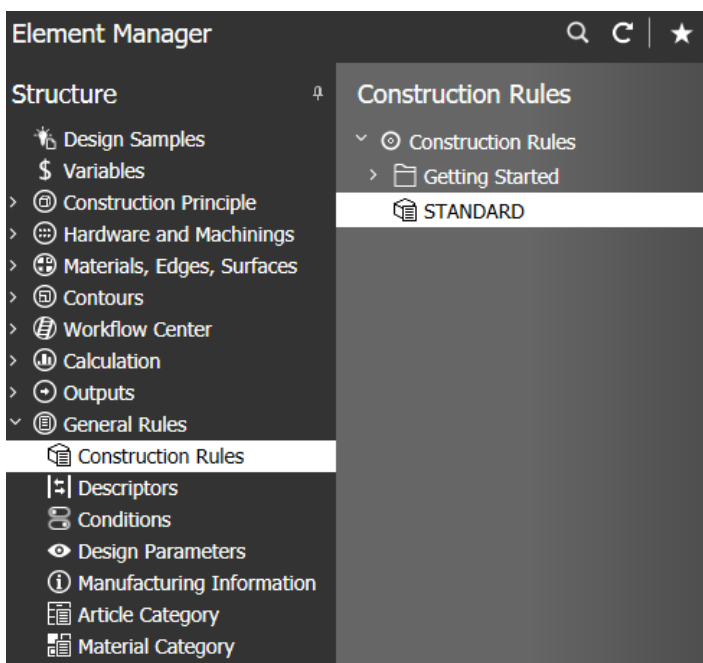


3.1 Create the Construction Rule

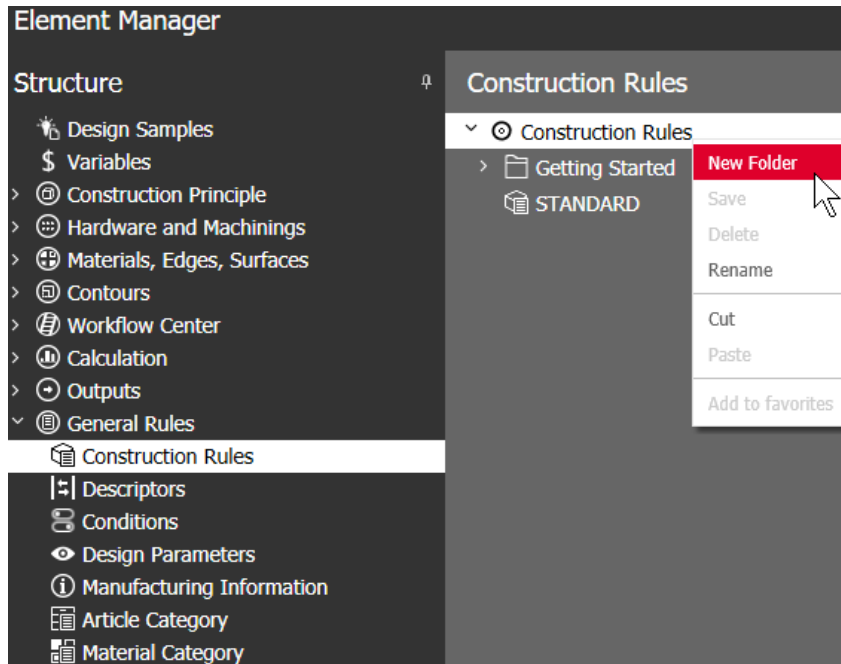
Construction rules are created in the Element Manager. To open the EM change to the Ribbon tab **Main Data** and call the function **Element Manager**.



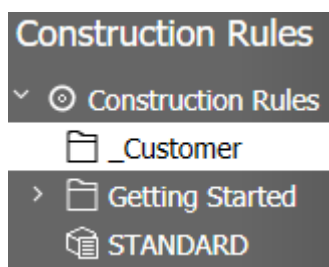
In the column Structure click on the entry **General Rules** and then on the level **Construction Rules**.



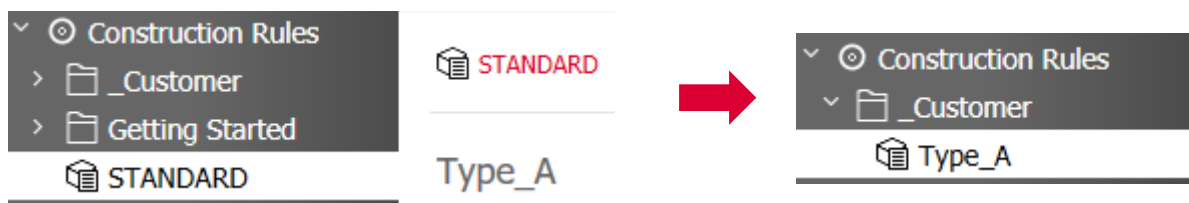
First create under **Construction Rules** your own folder with the name “**_Customer**”. Call the folder principles by right clicking and select new folder in the context menu.



Thereby, a new folder is inserted below this entry and released for editing. Then the name of the folder can be typed.



Now save the “**STANDARD**” Construction Rule under the name “**Type_A**” and move this in your folder “**_Customer**”.



In the “**Element settings**” you can select the Construction Principles for the Construction Rule “**Type_A**”.

Type_A

| Name | Value | | |
|----------------------|-----------------------|---|-----|
| ✓ Construction Rules | | | |
| Top Shelf | CP_1_TSI_1000_C1 | ▼ | ... |
| Fixed Shelf | CP_1_FS_1000_C1 | ▼ | ... |
| Bottom Shelf | CP_1_BSI_1000_C1 | ▼ | ... |
| Adjustable Shelf | CP_1_AS_1000_LR05_FI | ▼ | ... |
| Drawer | 2_Side_Frame_System_1 | ▼ | ... |
| Left Side | CP_1_LS_1111 | ▼ | ... |
| Right side | CP_1_RS_1111 | ▼ | ... |
| Partition | CP_1_PA_1000_V1 | ▼ | ... |
| Back Panel | CP_1_BPI_0000_GC_LRT | ▼ | ... |
| Door | CP_SDO_H_PM_FD | ▼ | ... |
| Base | BA_1_FIN20_F_S100 | ▼ | ... |

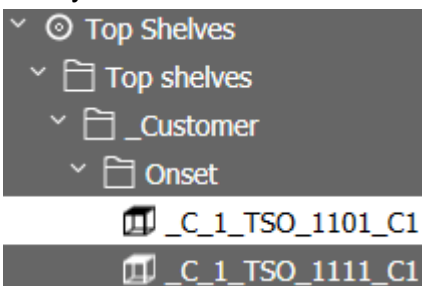
3.2 Assign Construction Principles

3.2.1 Top Shelf

Via the red 3-Point-Button of the respective row go to the Construction Principles, in this case to the top shelves.

| | | | |
|-------------|------------------|---|-----|
| Top Shelf | CP_1_TSI_1000_C1 | ▼ | ... |
| Fixed Shelf | CP_1_FS_1000_C1 | ▼ | ... |

For the Construction Rule “**Type_A**” select the CP **_C_1_TSO_1101_C1** (onset top shelf) from your folder “**_Customer**” and apply it in the Construction Rule.



Your construction rule now contains the right CP.

Type_A

| Name | Value | | |
|----------------------|------------------|---|-----|
| ✓ Construction Rules | | | |
| Top Shelf | _C_1_TSO_1101_C1 | ▼ | ... |

3.2.2 Assign the remaining Construction Principles

Set the following Construction Principles for the Construction Rule “**Type_A**” without leaving the Element Manager.

Hint

In case that certain needed CPs were not created in the previous exercises (e.g. the onset door), please create the missing CPs on your own and assign them to the construction rule.

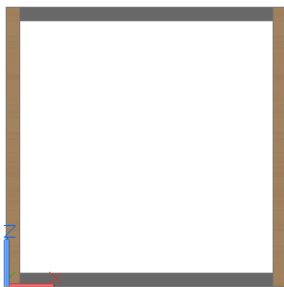
The finished Construction Rule “**Type_A**” contains the following CPs:

Type_A

| Name | Value | | |
|---------------------------|------------------------------|---|-----|
| Construction Rules | | | |
| Top Shelf | _C_1_TSO_1101_C1 | ▼ | ... |
| Fixed Shelf | _C_1_FS_1000_C1 | ▼ | ... |
| Bottom Shelf | _C_1_BSI_1000_C1 | ▼ | ... |
| Adjustable Shelf | _C_1_AS_1000_LR05_FIN20 | ▼ | ... |
| Drawer | _C_2_Side_Frame_System_1 | ▼ | ... |
| Left Side | _C_1_LS_1001 | ▼ | ... |
| Right side | _C_1_RS_1001 | ▼ | ... |
| Partition | _C_1_PA_1000_C1 | ▼ | ... |
| Back Panel | _C_1_BPI_0000_GC_LRTB10_BS20 | ▼ | ... |
| Door | _C_SDO_H_PM_FD | ▼ | ... |
| Base | _C_1_FIN20_F_S100 | ▼ | ... |
| Usage | | | |

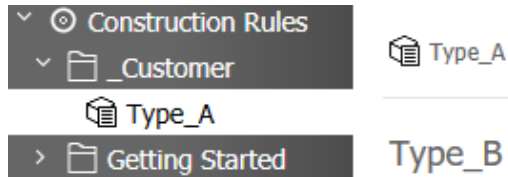
4. Construction Rule “Type_B”

The second Construction Rule, Type B, consists of an **inset top shelf** and an **inset bottom shelf**. The construction appears in the view as follows:



All CPs of the Construction Rule “**Type A**” can be applied for the Construction Rule “**Type B**”, only the onset top shelf and the CPs of the sides must be replaced due to the edging.

First save the Construction Rule “**Type_A**” under the name “**Type_B**”.



Now the CPs of the top shelf and sides can be exchanged.

Hint

In case that certain needed CPs were not created in the previous exercises (e.g. the top shelf with the edge code 1000), please create the missing CPs (and eventually also the PDs) on your own and assign them to the construction rule.

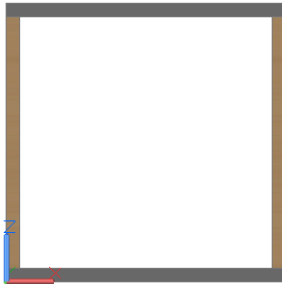
The finished Construction Rule “**Type_B**” contains the following CPs:

Type_B

| Name | Value | | |
|---------------------------|------------------------------|---|-----|
| Construction Rules | | | |
| Top Shelf | _C_1_TSI_1000_C1 | ▼ | ... |
| Fixed Shelf | _C_1_FS_1000_C1 | ▼ | ... |
| Bottom Shelf | _C_1_BSI_1000_C1 | ▼ | ... |
| Adjustable Shelf | _C_1_AS_1000_LR05_FIN20 | ▼ | ... |
| Drawer | _C_2_Side_Frame_System_1 | ▼ | ... |
| Left Side | _C_1_LS_1101 | ▼ | ... |
| Right side | _C_1_RS_1101 | ▼ | ... |
| Partition | _C_1_PA_1000_C1 | ▼ | ... |
| Back Panel | _C_1_BPI_0000_GC_LRTB10_BS20 | ▼ | ... |
| Door | _C_SDO_H_PM_FD | ▼ | ... |
| Base | _C_1_FIN20_F_S100 | ▼ | ... |
| Usage | | | |

5. Construction Rule “Type_C”

The third Construction Rule, “**Type C**”, consists of an **onset top shelf** and an **onset bottom shelf**. The construction appears in the view as follows:



All CPs of the Construction Rule “**Type A**” can be applied for the Construction Rule “**Type C**”, only the inset bottom shelf and the sides must be exchanged.

Create the construction Rule “**Type_C**” on your own.

The finished Construction Rule “**Type_C**” contains the following CPs:

Type_C

| Name | Value | | |
|---------------------------|------------------------------|---|-----|
| Construction Rules | | | |
| Top Shelf | _C_1_TSO_1101_C1 | ▼ | ... |
| Fixed Shelf | _C_1_FS_1000_C1 | ▼ | ... |
| Bottom Shelf | _C_1_BSO_1101_C1 | ▼ | ... |
| Adjustable Shelf | _C_1_AS_1000_LR05_FIN20 | ▼ | ... |
| Drawer | _C_2_Side_Frame_System_1 | ▼ | ... |
| Left Side | _C_1_LS_1000 | ▼ | ... |
| Right side | _C_1_RS_1000 | ▼ | ... |
| Partition | _C_1_PA_1000_C1 | ▼ | ... |
| Back Panel | _C_1_BPI_0000_GC_LRTB10_BS20 | ▼ | ... |
| Door | _C_SDO_H_PM_FD | ▼ | ... |
| Base | _C_1_FIN20_F_S100 | ▼ | ... |

> Usage

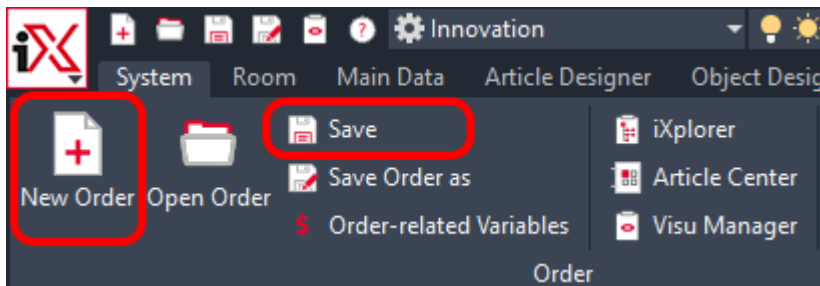
6. Use the Construction Rules

Now you have created three Construction Rules that are available for the construction in the Article Designer.

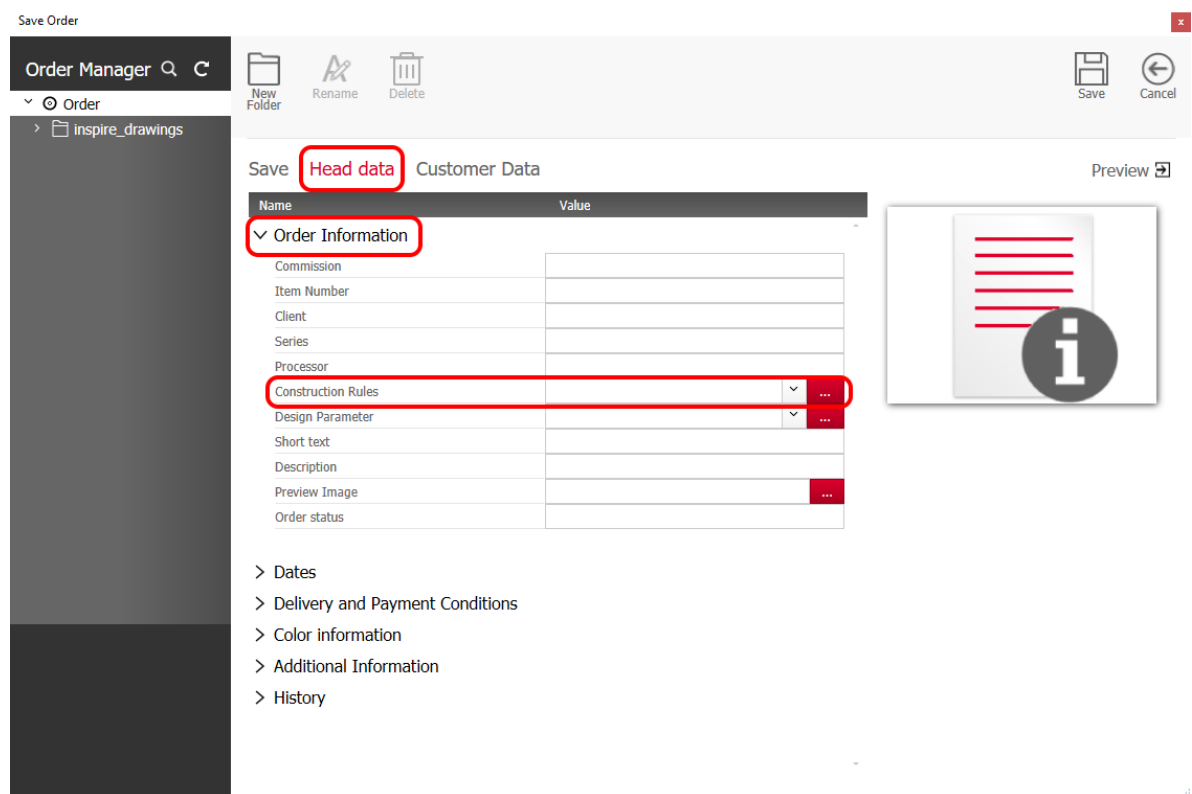
6.1 Assign in the order dialog

Normally, you save an order under an order name directly after it has been created using “New Order”.

Therefore, create a new order in the tab “System” and then click on “Save” or “Save Order as”.



Under the node “Head data” in the “Order Information” of the order you can assign a Construction Rule to this order.



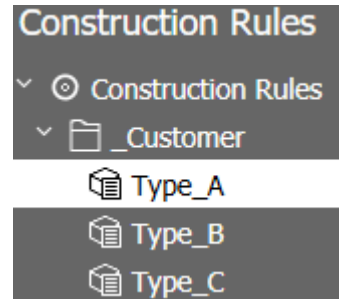


Hint

If you do not enter any of your Construction Rules in the header data of the order, then the program uses the Construction Rule **“Standard”** as default.

Via the 3-Point-Button go to the Construction Rules in the Element Manager.

For this example, select the Construction Rule **“Type_A”** and **“Apply”** this selection in the order header.



Save **Head data** Customer Data

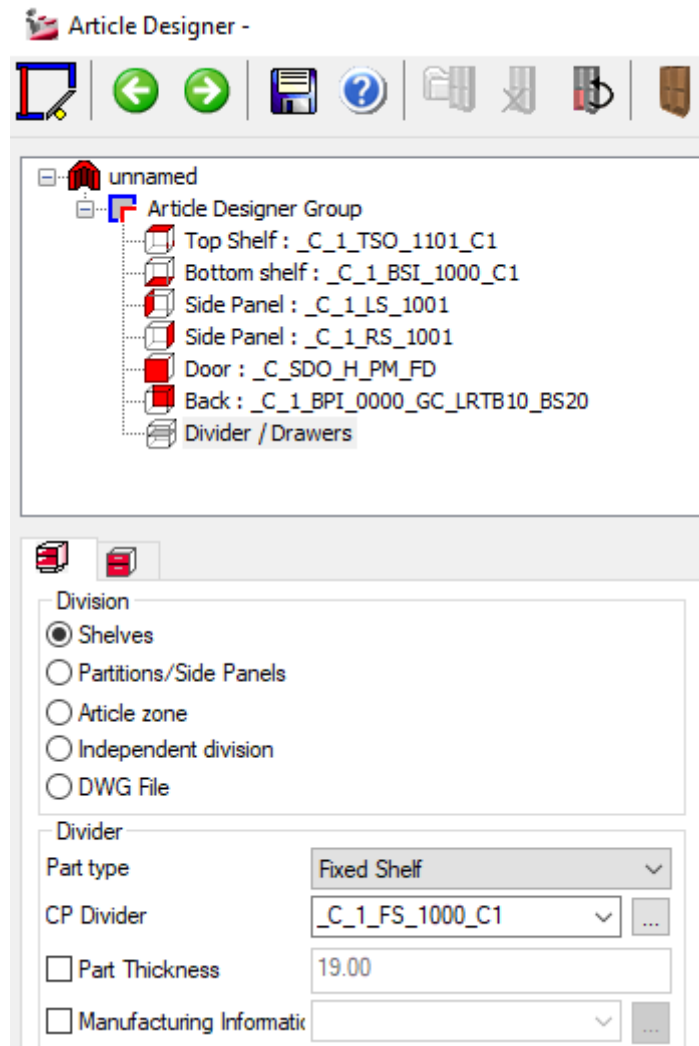
| Name | Value |
|--------------------------|--------|
| Order Information | |
| Commission | |
| Item Number | |
| Client | |
| Series | |
| Processor | |
| Construction Rules | Type_A |
| Design Parameter | |
| Short text | |
| Description | |
| Preview Image | |
| Order status | |

Now enter an order number/ order name, for example, **“Construction_Rule_A”** for your



order and save the order with

Start the Article Designer and you will notice that by double clicking on the symbols top shelf, bottom shelf, sides etc., the CPs from the Construction Rule, “**Type_A**” are applied.



6.2 Apply in the Article Designer

You can also apply construction rules directly in the Article Designer prior to the construction of an article.

Open the Article Designer and select the article layer (1).

Next, activate the checkbox in front of “**Construction Rules**” (2) and assign the desired Construction Rule (3).

