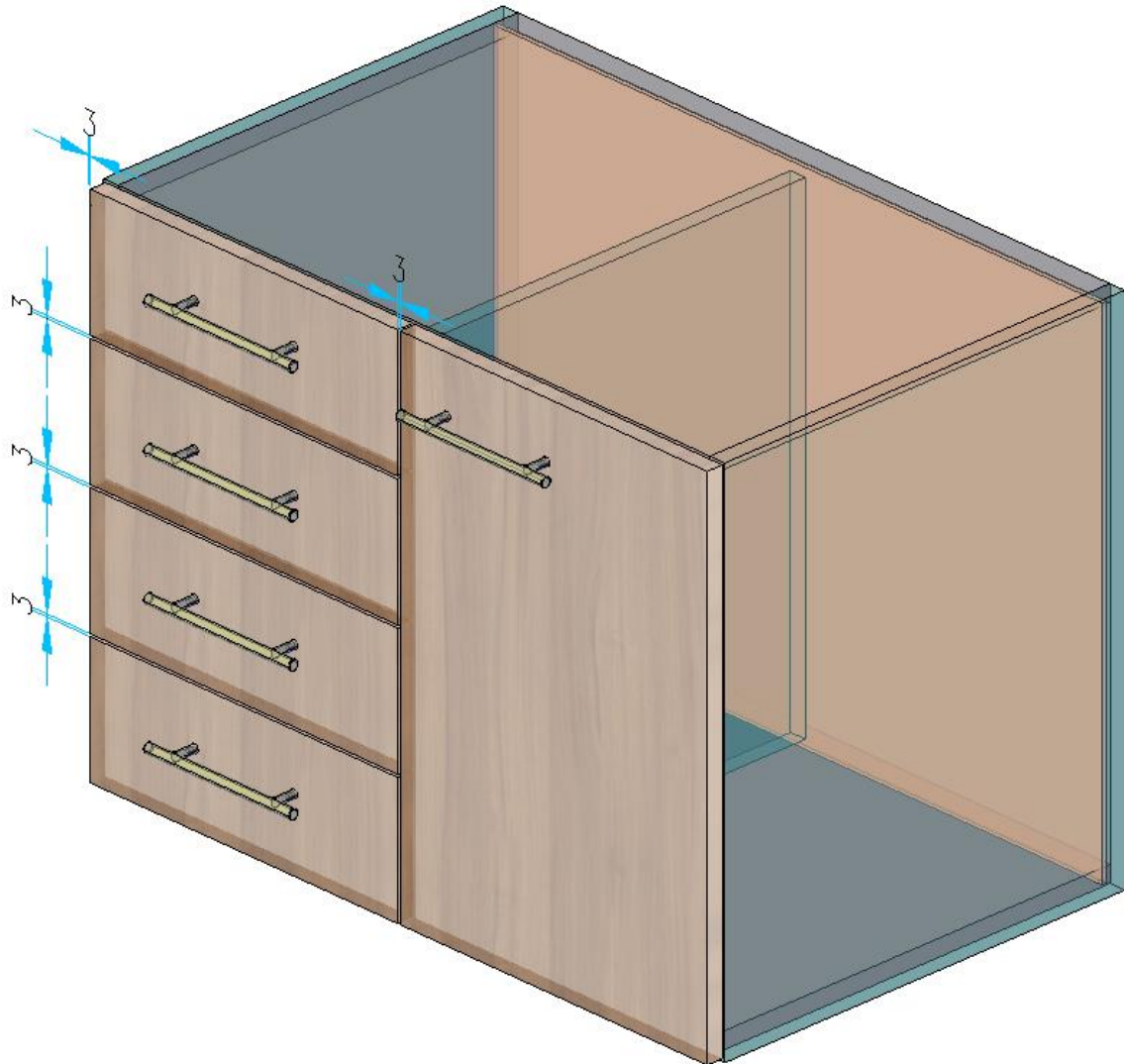# Training Article Designer:
Design Parameters

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.

Creation Date: 26.08.2019; Last change: 30.01.2020   Used Version: imos iX 2019 SR1

Content

1. Introduction

Objective of this exercise

- Creating and using Design Parameters.

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"

- **3-Point-Button**

- **CP**   Construction Principle

Preparation

Prior to this exercise, please **turn off** the **Article Mode**. You can find the button in the AutoCAD status bar

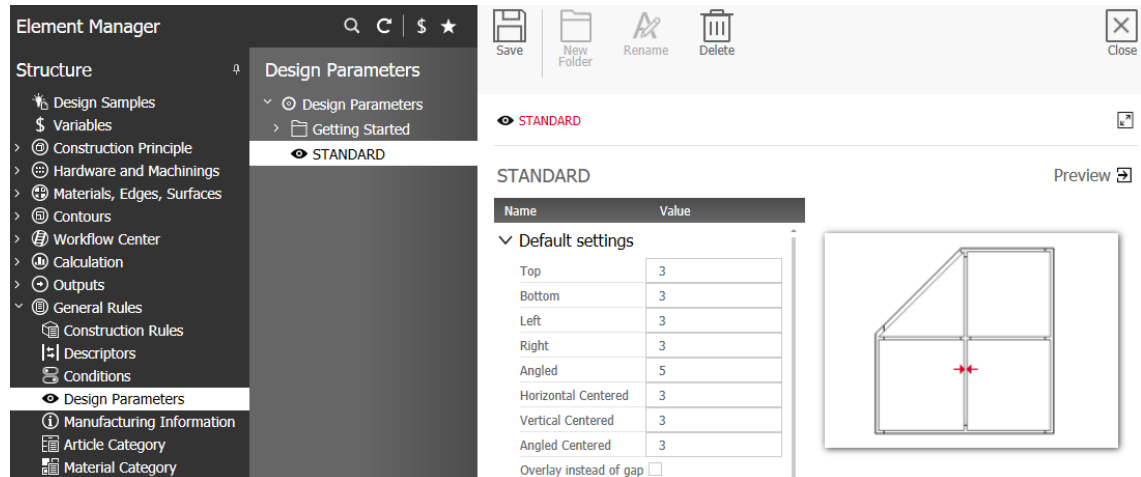Article Mode **active**:

Article Mode **inactive**:

2. Design Parameters

2.1 The Design Parameter

The Design Parameter is a data object which combines the constructive values of gap dimension. Additionally, Design Parameters differ between onset and inset front parts.

With onset fronts you can define if the gap dimension should be set or the overlay of the front on the side.
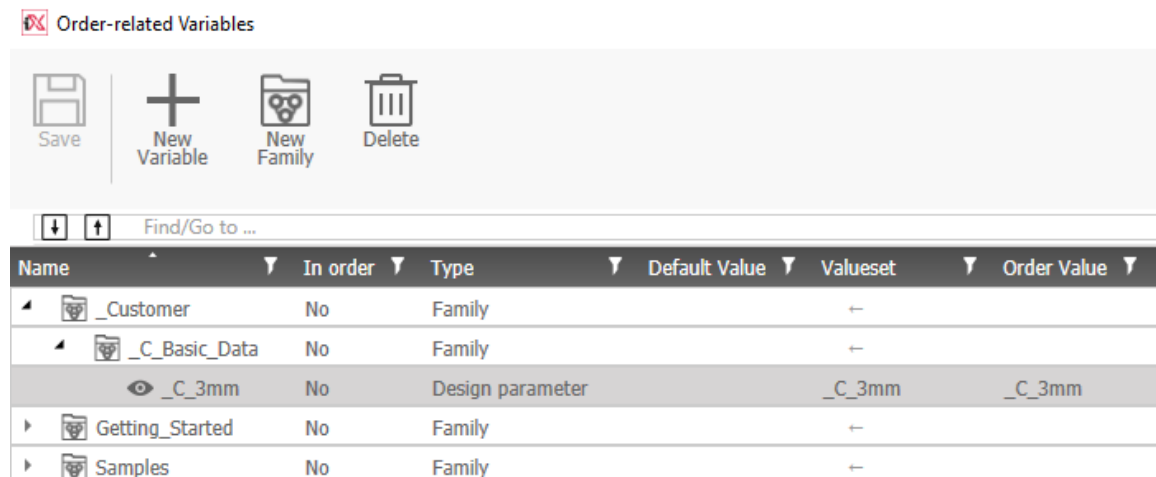
The Design Parameters can be found in the **General Rules** in the **Element Manager**.

Design Parameters can be created and assigned in a variable of the type "**Design Parameter**".

Design Parameters can be assigned to single articles or/and all articles of an order.

In contrast to e.g. construction rules, Design Parameters do not have to exist at the time of constructing an article.

2.2 Setting options of the Design Parameter

Design Parameters are maintained under **Design Parameters** in the Element Manager.
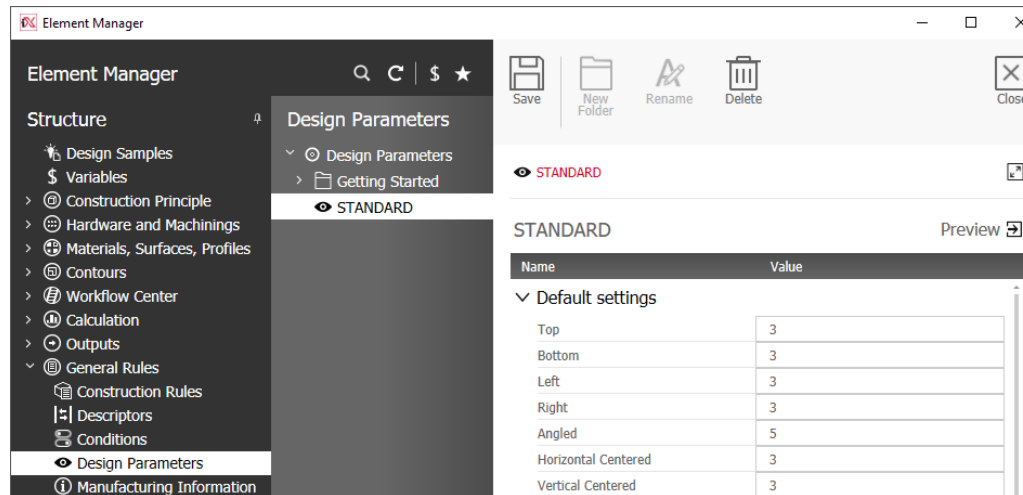
For gaps, and door inset, numbers or variables can be used, as displayed above.

Available options:

Top:	This value defines the reveal of the front top.
Bottom:	This value defines the reveal of the front bottom.
Left:	This value defines the reveal of the front left.
Right:	This value defines the reveal of the front right.
Angled:	This value defines the reveal of the front under a roof slope.
Horizontal centered:	This value defines the horizontal gap between two fronts.
Vertical centered:	This value defines the vertical gap between two fronts.
Angled centered:	This value defines the gap between two fronts which are neither horizontal nor vertical.

Overlay instead of gap:

If this function is activated, then the values mentioned above are not for the gap, but for the overlay of the front on the parts.
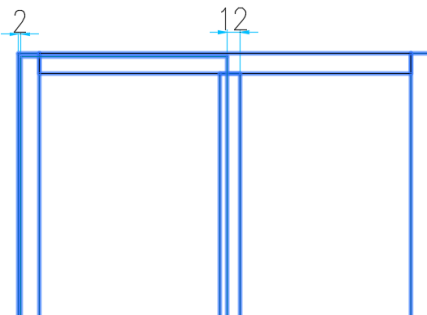
Enable outside gaps for Divider:

This function defines the fronts which are on a divider and have no reference to further fronts.

If the function is <u>not activated</u>, then the gap is calculated for a divider that means from the center of the divider.
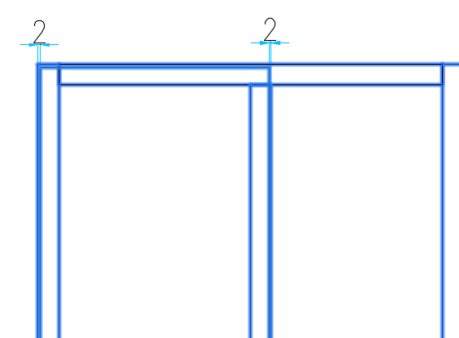

If the function is <u>activated</u>, then the gap is calculated the same as for an outside panel.

The function is applied for C-Constructions as well. If a side panel has been defined as a divider in the Article Designer, then you can define how the front should be calculated for that.


Use these values as default for inset:

If the function is <u>activated</u>, the entered values above are used for inset constructions. If the checkmark is not set next to the function, additional fields, which are for inset fronts, appear.

Use these values as default for overlay:

If the function is <u>activated</u> the entered values above are used for overlay constructions. If the checkmark is not set next to the function, additional fields, which are for overlay constructions, appear.

The checkmark for '**Overlay instead of gap'** must still be further set above so that these settings have an effect.
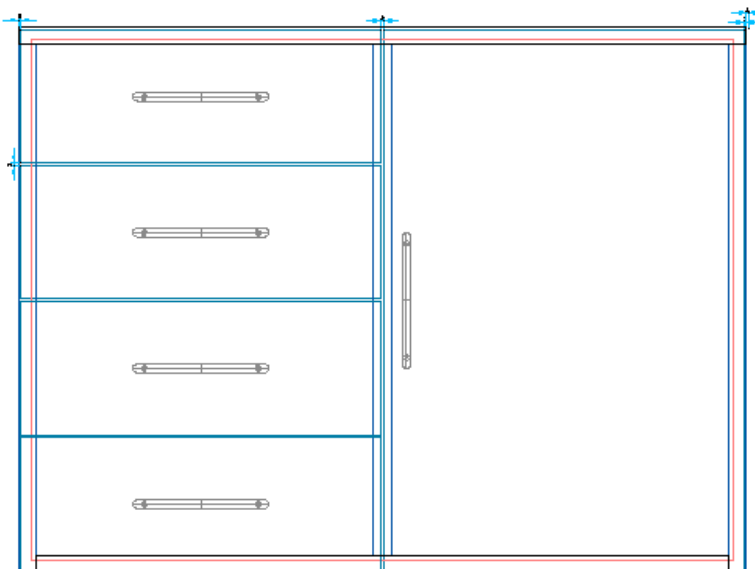
Overlay instead of gap ☑
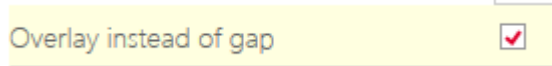
Tip

The Design Parameter offers several other interesting setting possibilities which are described in detail in the Online-Help, but are not part of this exercise.

2.3 Example for the effectiveness of Design Parameters

The cabinet pictured below has been constructed with the 'STANDARD' Design Parameter.

In the following picture the dimensions of the gaps are shown.
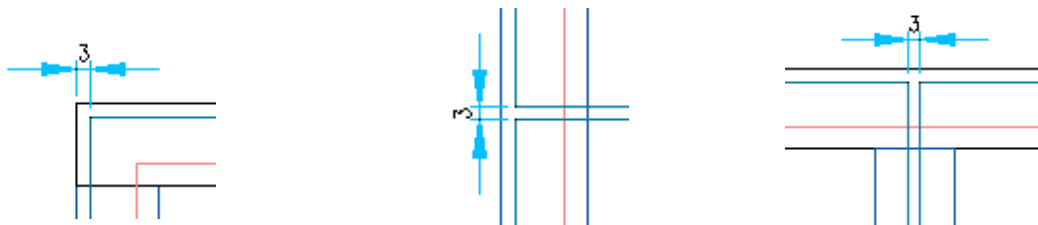
According to the Design Parameter "**STANDARD**" all gaps have a dimension of 3mm.

2.4 The Design Parameter in Front parts-CP

Design parameters are used for setting up and refreshing an article in the planning. Design parameters have an effect only on front parts where **Enable front definition** is activated in the construction principle (Screenshot below).


Hint

Part Designer parts do not apply CPs and therefore the Design Parameter has no effect in the Part Designer constructions.

Design Parameters **have only an effect on the front parts of articles**.

3. Create a Design Parameter

First create a Design Parameter to get to know the functioning of the Design Parameter in a little exercise.

Open the directory of the Design Parameters in the Element Manager.
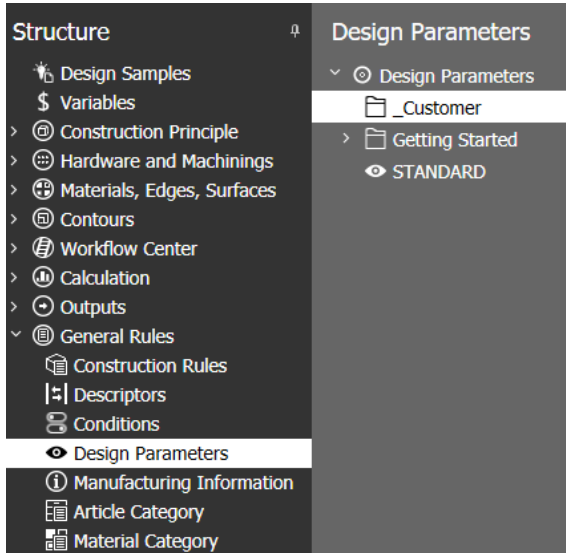
Save the Design Parameter "**STANDARD**" under the name "**_C_2mm**". Create a folder "_**Customer**" and move your Design Parameter to this folder
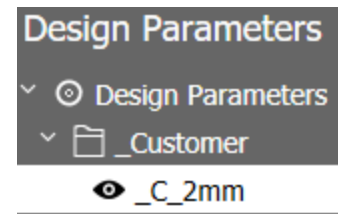
Now set the values according to the following screenshot below and save your new Design Parameter.

_C_2mm

| Name	Value
∨ Default settings	
Top	2
Bottom	2
Left	2
Right	2
Angled	5
Horizontal Centered	2
Vertical Centered	2
Angled Centered	2
Overlay instead of gap	☐
Enable outside gaps for Divider	☑
Use these values as default for inset	☐
Value top	2
Value bottom	2
Value left	2
Value right	2
Value angled	2
Use these values as default for overlay	☑
Value top	5
Value bottom	5
Value left	5
Value right	5
Value angled	5

4. The application of the Design Parameter

There are several possibilities how to apply a Design Parameter:

- Via the Order Header
- Via the Article Designer

Now create a new order and then construct a simple article with the Article Designer. Before set (if provided) the **Construction rule** "**Type_A**".
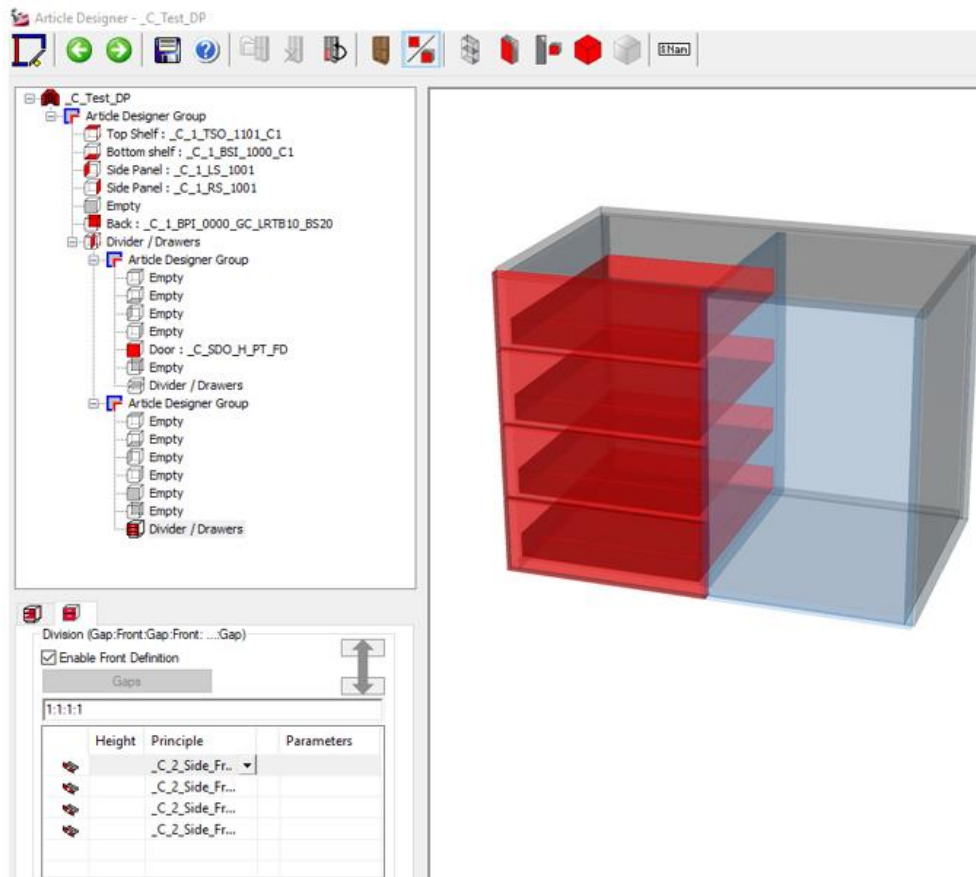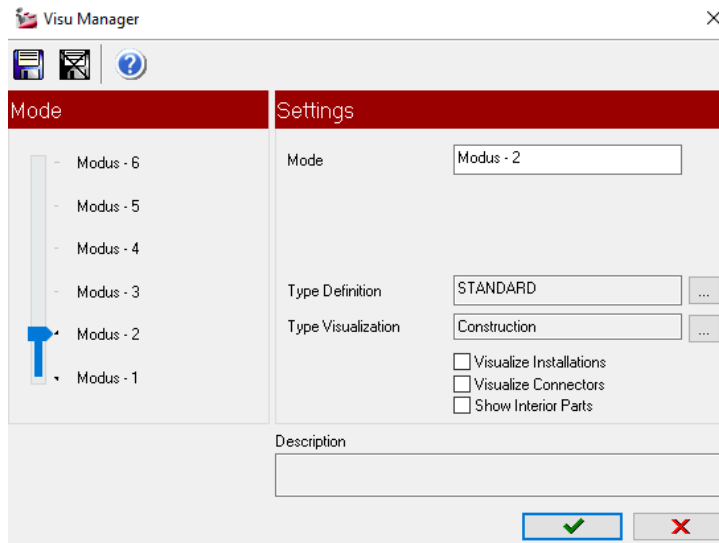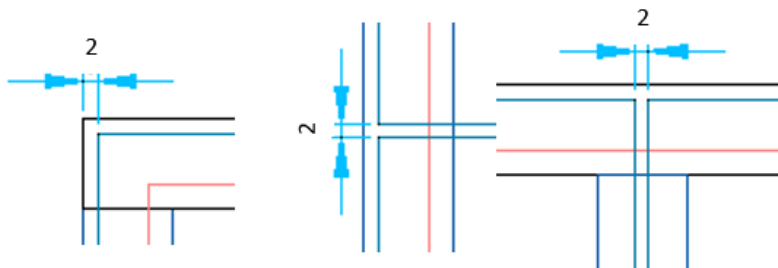

Save the article as **_C_Test_DP**.

Set up the article and check the door reveals and gaps.

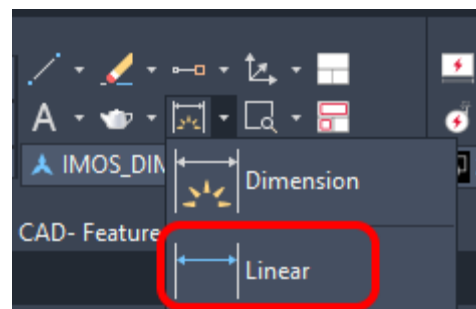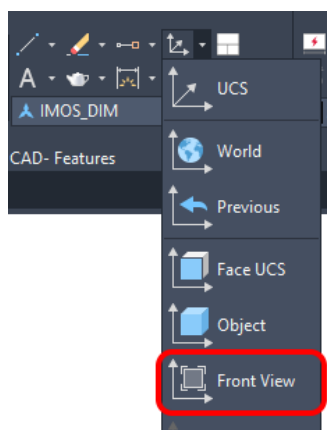You can easier determine the gap dimensions if you set the Visu Manager to **Mode 2**.

Either apply the AutoCAD-Command "**Distance**" or work with the interactive dimensioning.

Tip

When applying the interactive dimensioning in the view, remember to switch the UCS to **Front View**.

Afterwards choose "**Linear**" the dimension function.

Set the UCS after the dimensioning on "**World**" again.

4.1 Apply the Design Parameters via save order

Now save your order under the name "**_C_DP**". Open the node "**Head data**" in the order mask. Here is the entry "**Design Parameter**". The default value "**STANDARD**" is entered there.

Construction Rules	Type_A	⌄	...
Design Parameter	STANDARD	⌄	...

Click on the 3-Point-Button at the end of the row. Select the just created Design Parameter "**_C_2mm**" in the Element Manager and leave the Element Manager with **apply**.
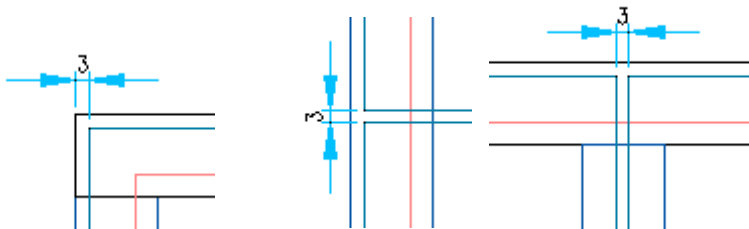
In the order header the Design Parameter "**_C_2mm**" is entered now.

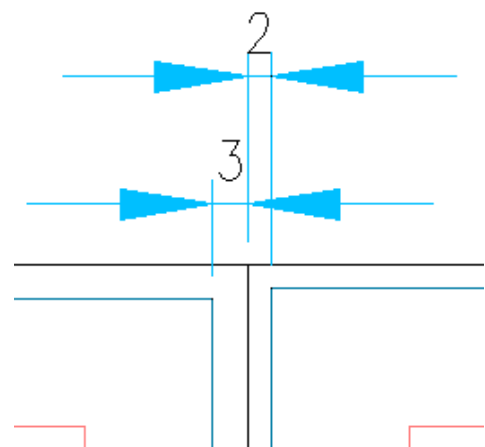| Construction Rules	Type_A	⌄	...
Design Parameter	_C_2mm	⌄	...
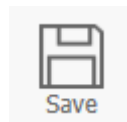
Leave the order dialog with Save .

Check the door reveals and gap dimensions of your planned article. The dimensions are still on 3mm.

Now plan a further article "**_C_Test_DP**" and set this directly next to the already planned article. The just set Design Parameter in the order header has an effect on the new planned article!
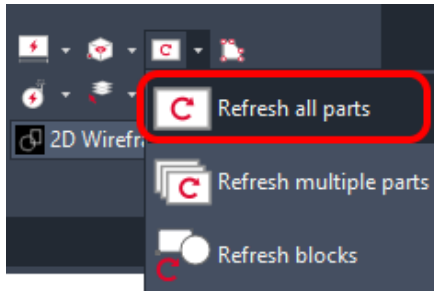
4.2 Apply the Design Parameter for a planned article

Now use the subsequently set Design Parameters in the order header on the previous planned article.
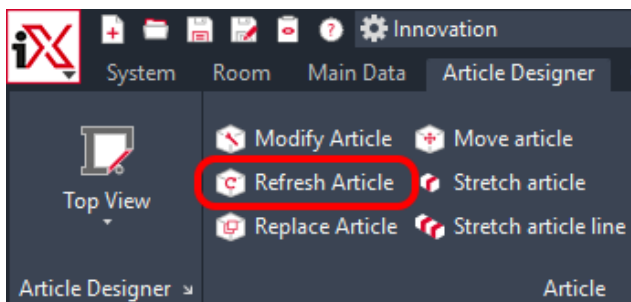
4.2.1 Refresh Parts

First try the function "**Refresh all parts**".

You will notice that the gap values have not changed. **Refresh parts** has the purpose to redraw the existing constructions. Therefore, the construction is not updated by Refresh all parts!
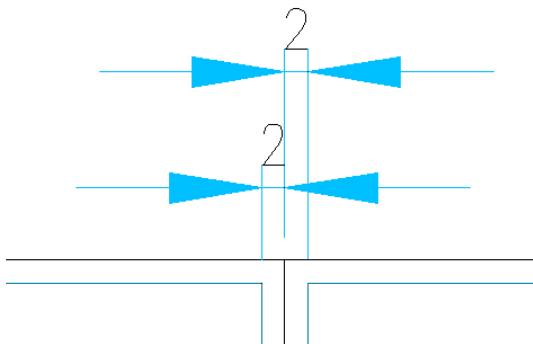
4.2.2 Refresh Article

Now use the function "**Refresh Article**".

The effect of the function Refresh Article is that the existing construction can be restructured with updated main and header data.

After constructing, you will notice that the Design Parameter from the header data has an effect on this article as well.
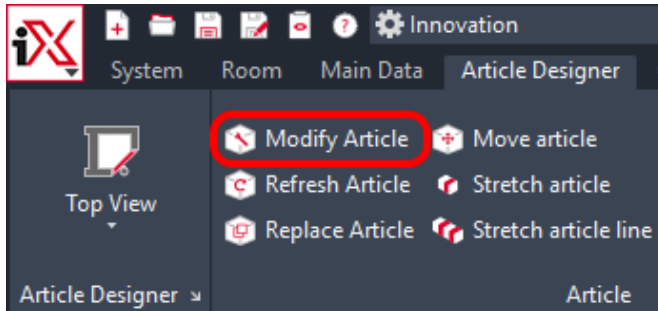
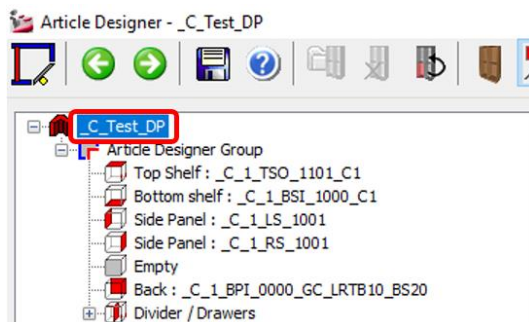### 4.2.3 Set Design Parameter in the Article Designer

Now it could be possible that you would like to refresh an article, because e.g. connector or material data, which the article uses, has been changed. However, applied Design Parameter in the planning should not be changed.

To avoid changing the Design Parameter, enter the applied Design Parameter in this article. Now set the Design Parameter for the first planned article back to **Standard** again.
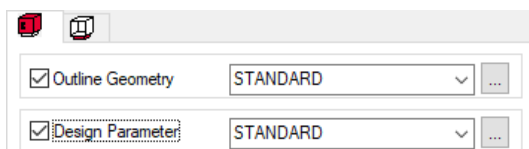
For this purpose, use the function "**Modify Article**".

First select the first planned article and select the article name in the top level of the Article Designer Group in the Article Designer.

In the setting range for the article (bottom left) is the entry Design Parameter. Set the checkmark here and select the Design Parameter "**Standard**".


Leave the Article Designer via the .

Now you can choose if you want to save your changes or not.

Yes: Save this Design Parameter for this article in the article main data, if necessary, save this article under a new name. In any case the saved article is always planned with the entered Design Parameter in future, in this case planned STANDARD.

The entered Design Parameter in the order header has no effect on this article anymore.

For assigning an article, which uses a saved Design Parameter to another Design Parameter, then this can only be done via an entry in the Article Designer.

No: You do **not** save the assigned Design Parameter in the article main data, however, you use it in this article in this planning. The article has door reveals and gap values of (from the Design Parameter "STANDARD").
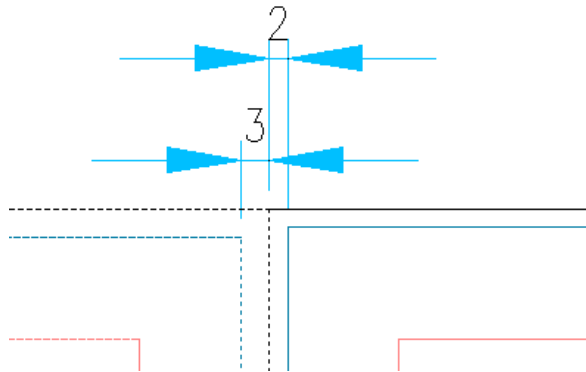
If this article or in another planning is used again out of the Article Center, then the set Design Parameters are used in the order header.

Hint

It may be advisable to provide certain articles with a special Design parameter, for example, if an article uses a certain fitting which is only allowed for certain gap dimensions.