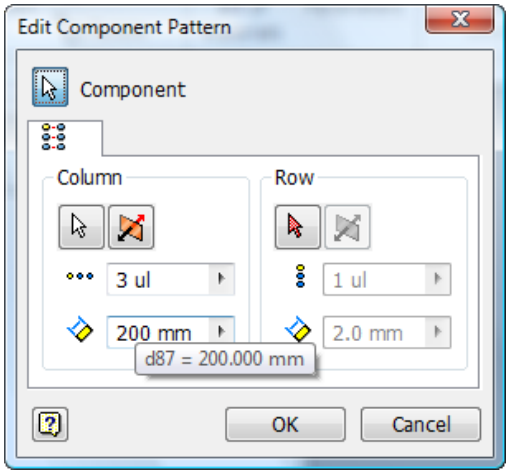
KETIVAMA
AUTODESK MANUFACTURING ACADEMY

1-C Configurable Design - Exercise 1

In this exercise we will take an example assembly and create 3 unique configurations. Each will contain a different length, one or two monitors and different bin configuration.

1. Open CW_UR_100.iam

Inspect the assembly and become comfortable with what has been built. Notice the bins are a pattern. The cross members are ipart members. There are two monitors. For this exercise we will focus on controlling these features.



2. Edit the Component Pattern Feature in the Browser. Hover over the 3 occurrences at 200 mm and note their parameter names d90 and d87.

Tip: Renaming parameters will help you find them later.

3. On the Assembly Tab>Manage Panel>select Parameters fx. Change the name of d90 to Bins and d87 Bin_Offset, enter descriptions if you like.

   Note that WS_Width is a User Parameter. This will be used later.

d85	mm	0.00 mm	0.000000		0.000000	
d86	mm	2.0 mm	2.000000		2.000000	
Bin_offset	mm	200 mm	200.000000		200.000000	Offset of Bins
d88	ul	1 ul	1.000000		1.000000	
Bins	ul	3 ul	3.000000		3.000000	Number of Bins
d92	mm	0.0 mm	0.000000		0.000000	
d94	mm	0.00 mm	0.000000		0.000000	

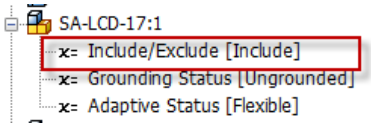
d94	mm	0.00 mm	0.000000		0.000000	
User Parameters						
WS_Width	mm	1000 mm	1000.000...		1000.000...	

4. On the Assembly Tab>iPart/Assembly Panel, select iPart/iAssembly Author.

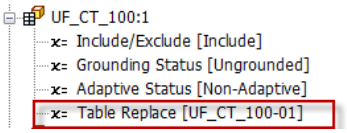
Note that the renamed parameters automatically created a column for control. WS-Width was previously renamed, it is the offset parameter for a mate between two workplanes that cause the supports to change width.

	Member	Part Number	WS_Width	Bin_offset	Bins
1	CW_UR-100-01	CW_UR-100-01	1000 mm	200 mm	3 ul

5. On the Components Tab, expand both subassemblies SA-LCD-17:1 and SA-LCD-17:2 and double click the Include/Exclude Option under each. They will appear on the right hand side of the dialog and also new columns will appear below. You will be able select Include or Exclude for each configuration



6. On the Components Tab, expand all four iPart members UF_CT100. Select the Table Replace option for all 4. Notice that they each have a column and you can drop down to select the desired member for each configuration.



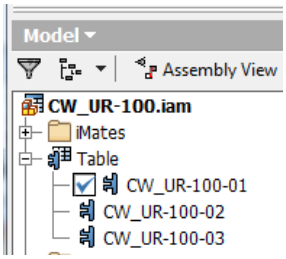
Review the parameters tab. Note that the Component Pattern parameters Bin_offset and Bins as well as Work Features MidPlane and Work plane2 use the user parameter WS_Width

7. On the Exclusion tab, Select the Component Pattern, this will add a column to Include or Exclude the whole component pattern.

Review the remaining tabs for additional options.

8. Right click the 1 to the left of the first row in the table and Add Row, repeat. You will now have 3 rows in your table.
9. Enter Values and use dropdown menus to achieve the following configuration:

	Member	Part Number	WS_Width	Bin_offset	Bins	-LCD-17 ude/Exclude/Excl	-LCD-17 ude/Excl	UF_CT_100:1: Table Replace	UF_CT_100:2: Table Replace	UF_CT_100:3: Table Replace	UF_CT_100:4: Table Replace	mponer Pattern 1: ude/Excl
1	CW_UR-100-01	CW_UR-100-01	1000 mm	200 mm	3 ul	Include	Include	UF_CT_100-01	UF_CT_100-01	UF_CT_100-01	UF_CT_100-01	Include
2	CW_UR-100-02	CW_UR-100-02	1500 mm	150 mm	5 ul	Include	Exclude	UF_CT_100-02	UF_CT_100-02	UF_CT_100-02	UF_CT_100-02	Include
3	CW_UR-100-03	CW_UR-100-03	2500 mm	200 mm	5 ul	Exclude	Include	UF_CT_100-04	UF_CT_100-04	UF_CT_100-04	UF_CT_100-04	Exclude



Select OK.

In the browser, expand the Table icon and double click to activate each member to see the results. Right click the table to Edit Table or Edit Via Spreadsheet.

The next exercise will start with a fresh file so feel free to experiment with the options. Try the Edit Factory Scope and Member Scope options.