



FreeForm Tutorial 101 – Create New Box

Tutorial Video  [Box & Display Tutorial 101](#) Learn how to create a small carton or box from scratch.

Step 1

Start by Creating a Box&Display project

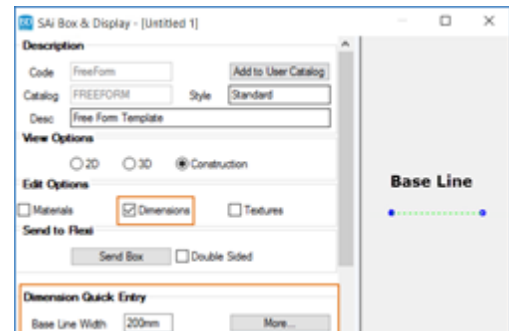
- From the Flexi tool bar, select **New** 
- It takes a moment for the project to load.



Step 2

Starting your design

- Click on the **Dimensions** check box
- Set **Dimensions**
Change the Base Line Width from 300mm (default) to **200mm**

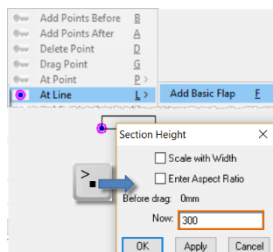


Step 3

Create Main Panel – Basic Flap

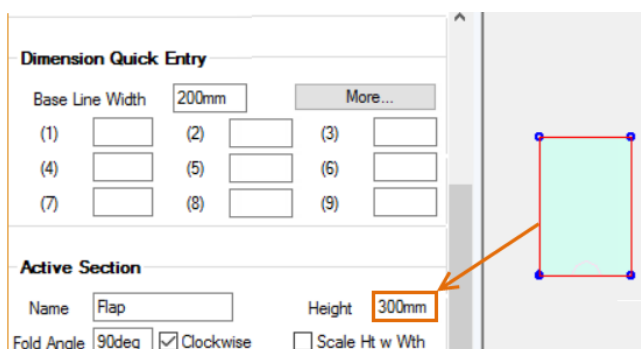
Note: Flap and Panel are synonymous terms in the construction view

- Right click** on the **Base Line** to bring up the context menu, as shown.



- Press the **L** key for Line to open the fly out menu
- Press the **F** key for Flap
- Press the **full stop** key to open the Section Height dialog
- and type in **300**

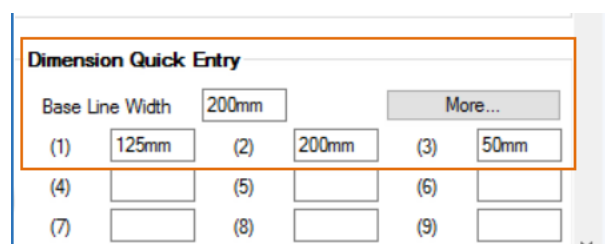
This will result in the following



Step 4

Dimension Quick Entry

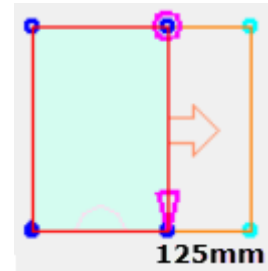
In the [Dimension Quick Entry](#) boxes enter in following dimensions for use in building our box (1) **125mm**, (2) **200mm**, (3) **50mm**



Step 5

Add a Second Panel

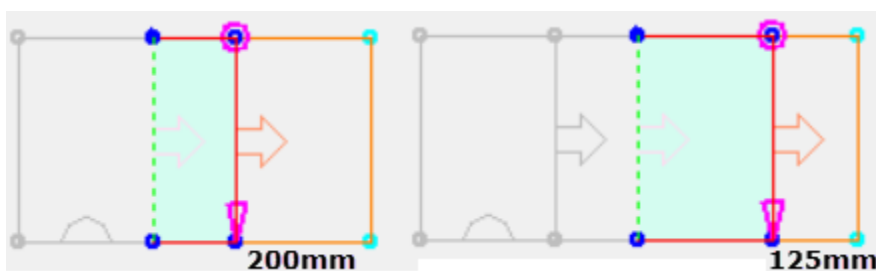
1. **Right click** on the right hand side line to bring up the [context menu](#)
2. Press the **L** key for Line to open the fly out menu
3. Press the **F** key for Flap
4. Hold down the **"1"** key and move your **mouse up** from the selected line and **Left click**.



Step 6

Adding More Panels

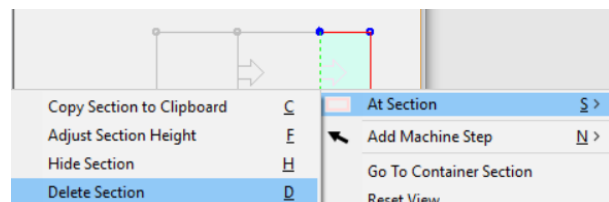
- Double left click on the newly created panel to select it. (Note the color change to light blue).
- Using the methods learned in Step 5, create two more panels to the right of the previous ones.



- Use **dimension (2)** for the next panel and **dimension (1)** for the final panel.
- These 4 panels form the sides of your box.

Note: If you make a mistake and need to **Delete a Section**, select section (highlighted blue) and from the context menu, press **S** and then **D**.

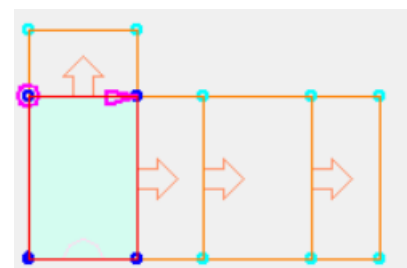
OR use **ctrl-Z** Undo and **ctrl-Y** Redo



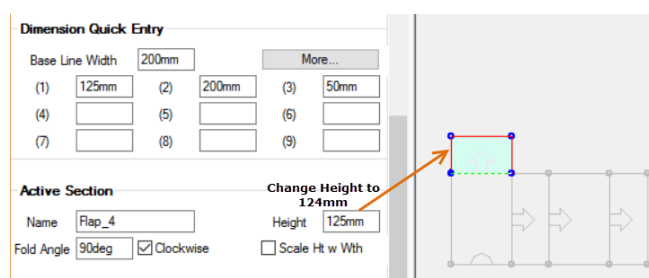
Step 7

Adding Lid Flap to Main Panel

- **Double left click** on the Main Panel
- **Right click** on the line at the **Top eBDE** of the main section to bring up the context menu
- Press the **L** key for Line to open the fly out menu
- Press the **F** key for Flap
- Hold down the **"1"** key and move your mouse above the selected line and **Left Click**.



Before proceeding with Step 8, we need to **reduce the Height** of the Lid Flap from 125mm to **124mm**.



Step 8

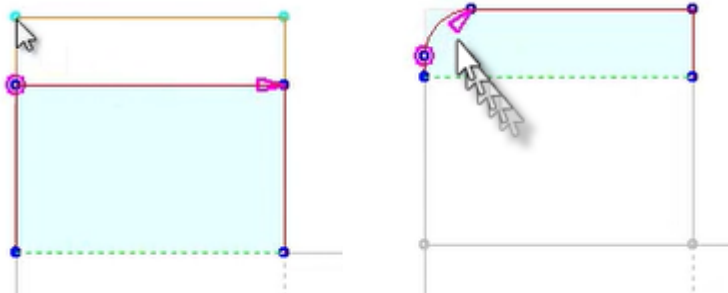
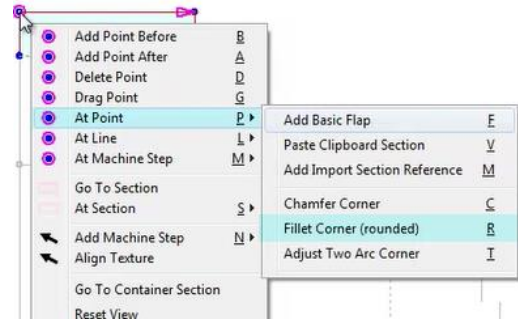
Adding Tuck Flap to Lid Flap

- **Double left** click on the Lid Flap added in Step 7
- **Right click** on the line at the Top eBDe of the flap you just added
- Press the **L** key for Line to open the fly out menu
- Press the **F** key for Flap
- Hold down the **"3"** key and move your mouse above the selected line and **Left Click**.

Step 9

Fillet Flap Corners

- Right click on the point in the top left corner of the flap you just created.
- Press the **P** key for Point to open the fly out menu.
- Press the **R** key for Round
- Hold down **left mouse** button **and drag** to set the size of the **fillet** and **let go** of the mouse button.

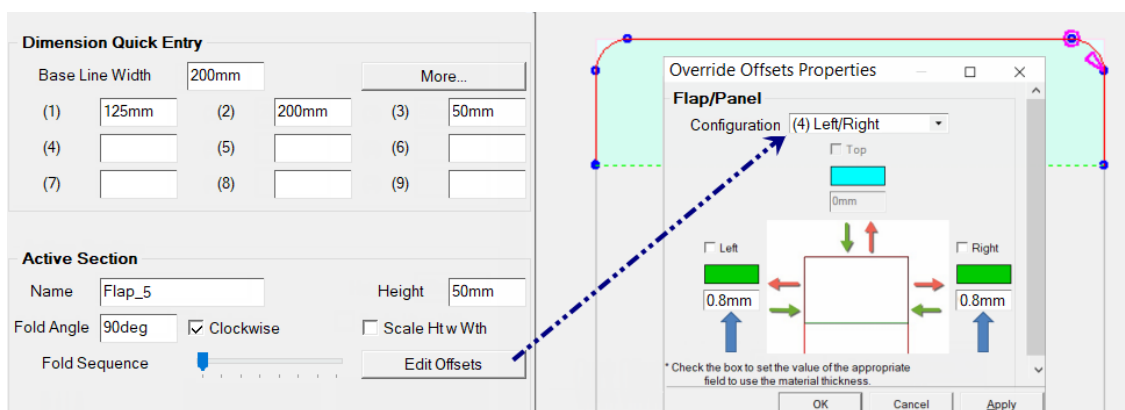


- Left click on the **right top point**
- Press **ctrl - R** to repeat the command. This will create the exact same radius on the right as previously created on the left.



To ensure that the box will close well, we need to add an 0.8mm gap on either side to.

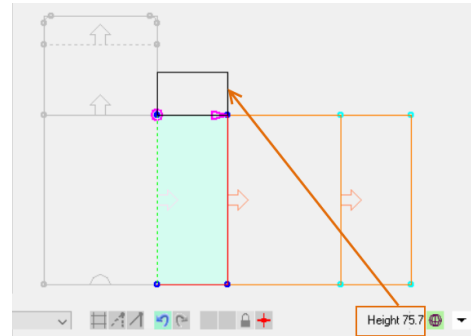
- Click on the **Edit Offsets** button to open **Override Offsets Properties** dialog
- Select **(4) Left/Right** from the Configuration dropdown
- Enter in **0.8mm** in both edit boxes as shown and click 'OK' to save and close.



Step 10

Create Dust flap

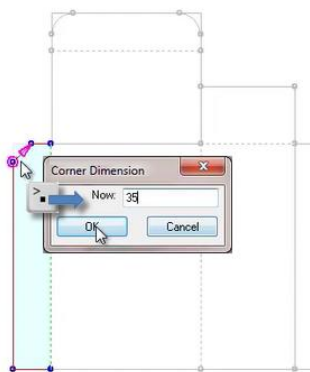
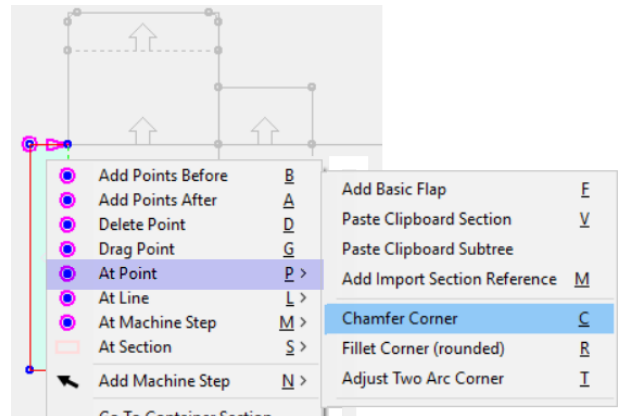
- Double left click on the panel **left of the Main Panel**
- Use shortcut keys **L > F** to add a flap.
- Drag flap to size, manually, above the panel
- Look at the task bar coordinates in the bottom right corner of the preview pane to set the length of the flap to about 75mm. It does not have to be exact, as shown here it is 75.7.



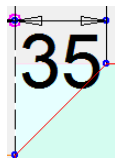
Step 11

Adding a Glue Flap and Chamfer Corner

- Select the **Main Panel** and right click on the line at the **left eBDe**
- Using one of the methods learned earlier add a flap and set its width to be 50mm
- Use the at Point **P** option to **chamfer C** the outside corners to 35mm



As in Step 9, to create Fillet, click and drag on **top point**, as shown. If you hit the “full stop” key, you will be presented with a dialog box where you can enter the Corner Dimension of 35mm. Note: Measurement is not the length of the chamfer but the distance across as shown.



Then point on the **bottom point**, left click and ctrl-R to repeat the chamfer. You will be presented with the Corner Dimension dialog and you can click 'OK' to 35mm.

Tutorial Video  [FreeForm 7 Chamfer Fillet&Adj 2Corners at Point](#)

Step 12

Copy/Paste Flaps

1. Double left click on the Lid Flap **(1)** section at the top of the main panel.

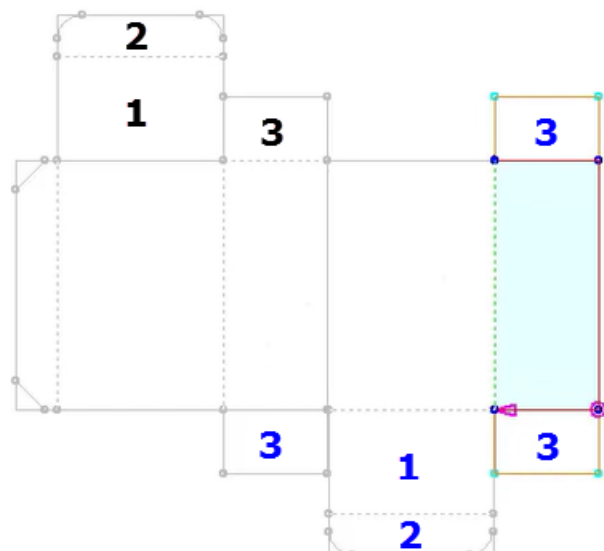
Press **ctrl -C** to copy this flap

Double click on the section that you want to add the flap to, to make Active i.e. will turn light blue.

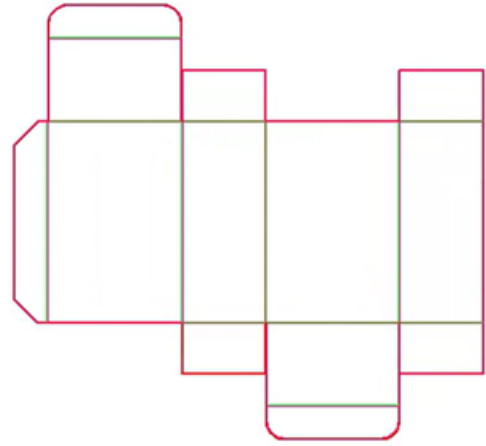
Left click on the line you want to paste the flap to and press **ctrl -V** to paste the flaps **(1)**

2. Repeat for Tuck Flap **(2)** paste as shown **(2)**

3. Repeat for Dust Flap **(3)** paste as shown **(3)** three times, as shown.



The following shows the completed box in 2D view.

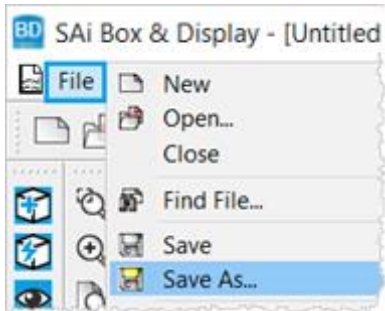


Step 13

Send to Flexi and Save File

The next tutorial will use this design, so save your file for future use.

To do this first “Send to Flexi” by using the **Send Box** button. You can now close the BD Property Inspector.



Then use the **File > Save** or **Save As...** Tutorial 101

Note that the file extension will be **fs**

END OF FREEFORM TUTORIAL 101

FOR MORE TUTORIALS REFER TO **SAI BOX & DISPLAY USER GUIDE**



Box&Display