

SIEMENS EDA



A Quick Look at Xpedition to Siemens NX MCAD Collaboration

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Objective

At the end of this Support Kit, you should be able to do the following:

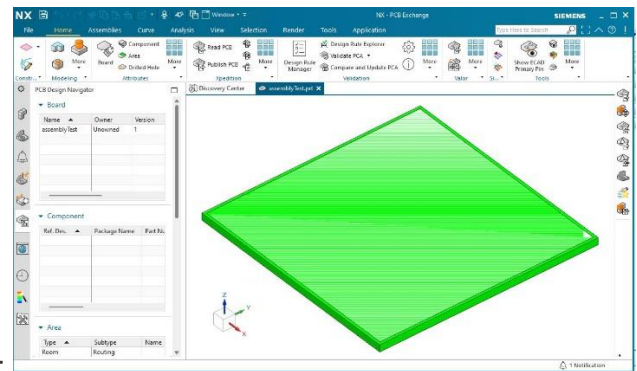
- Create a baseline in Xpedition PCB
- Bring the baseline into Siemens NX
- Make a change in Siemens NX
- Send the changes back to Xpedition PCB

Included Files

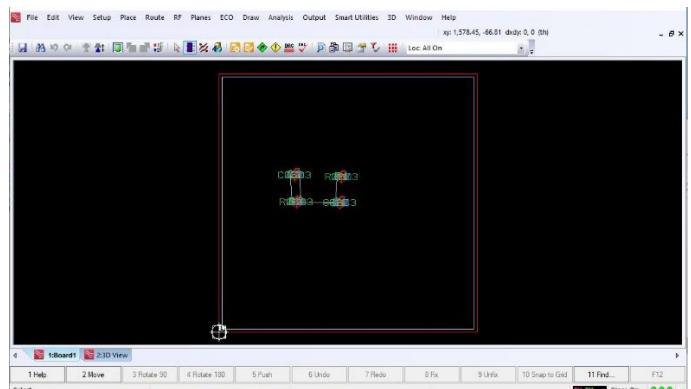
NX_StartBoard.zip

This file contains three folders: MCAD_Collab, NX_MCAD and NX_Test

Description



The Mechanical Model provided is a Siemens NX .prt file:



The Basic PCB file provided is an Xpedition .pcb file:

Getting started

- To get started with the kit you will need to download the Support Kit **KB 000122723.7z** file and extract it to a suitable location. For this example, we use **E:\NX_StartBoard**
- In **Xpedition** Navigate to **NX_Test\PCB** and open the **Board1.pcb**.

Select **Yes** if this window appears.

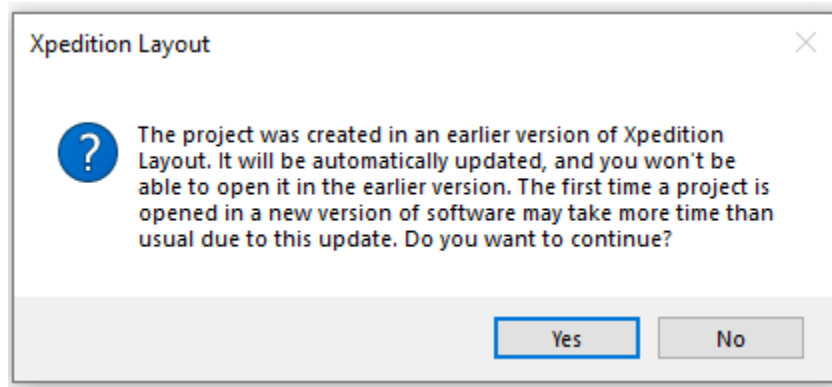


Figure 1

This view will appear.

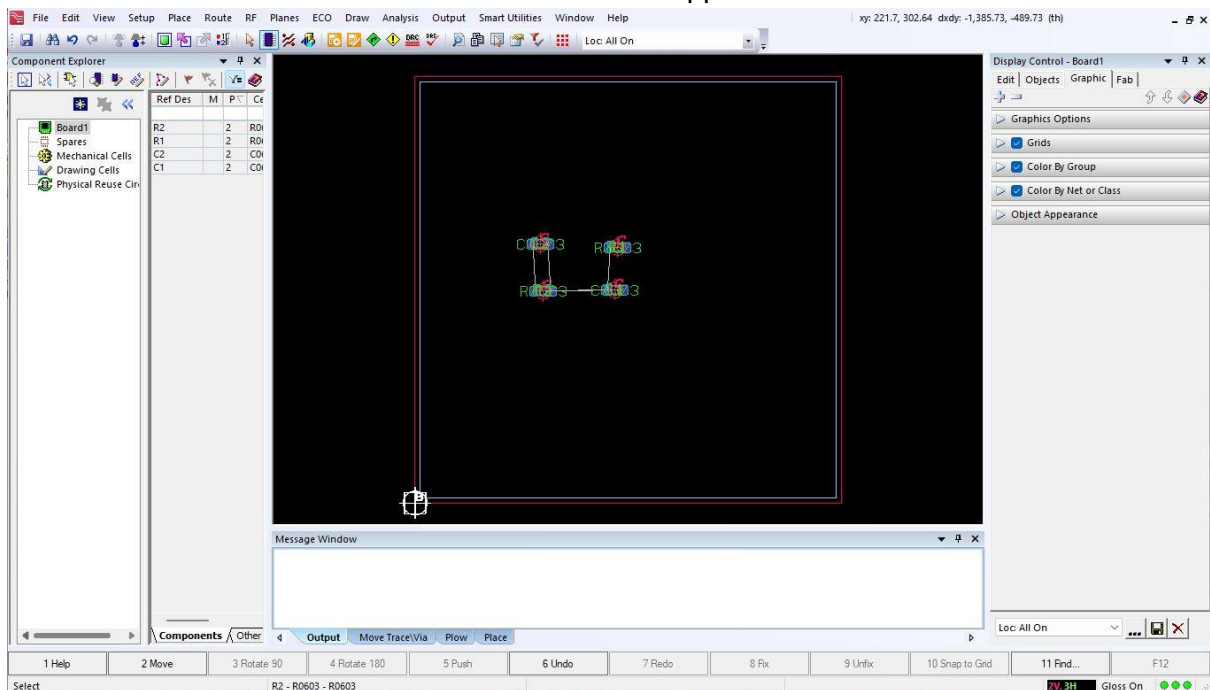


Figure 2

Exercise 1: Open the 3D View

In lower left corner. Select the 2:3D View – Or **Window > Add 3D View**

Your view should look like the image shown below.

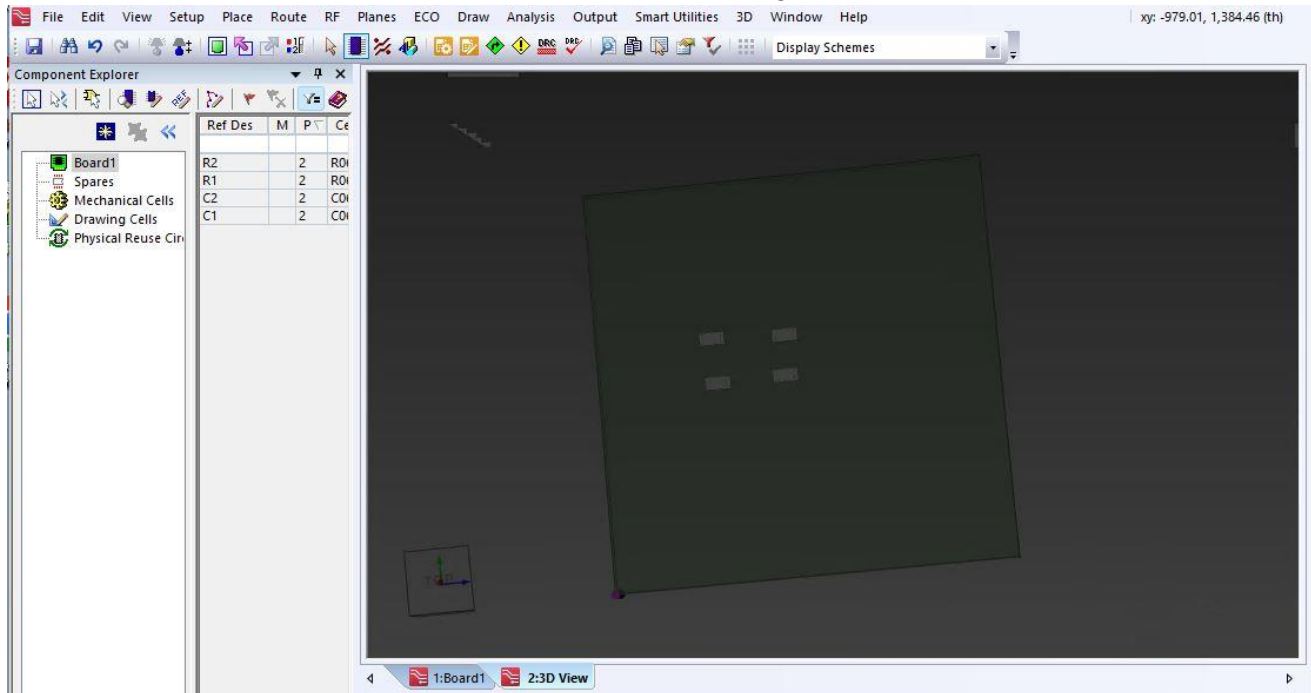


Figure 3

Exercise 2: Open the MCAD Collaborator

In this exercise you will send a baseline to Siemens NX

In **3D** tab pulldown, Select **MCAD Collaborator...**:

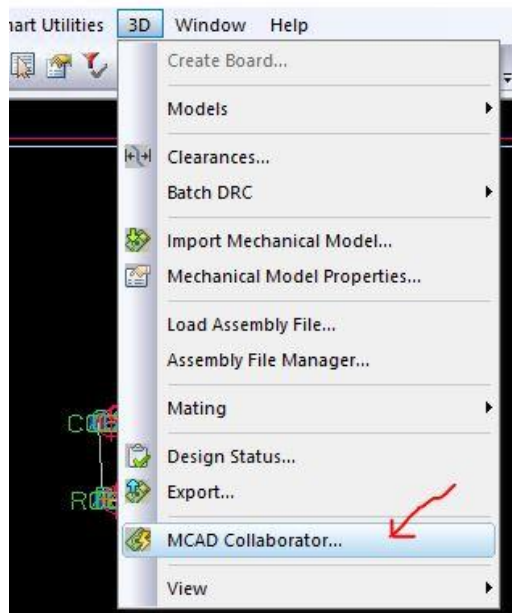


Figure 4

The following dialog window will appear:

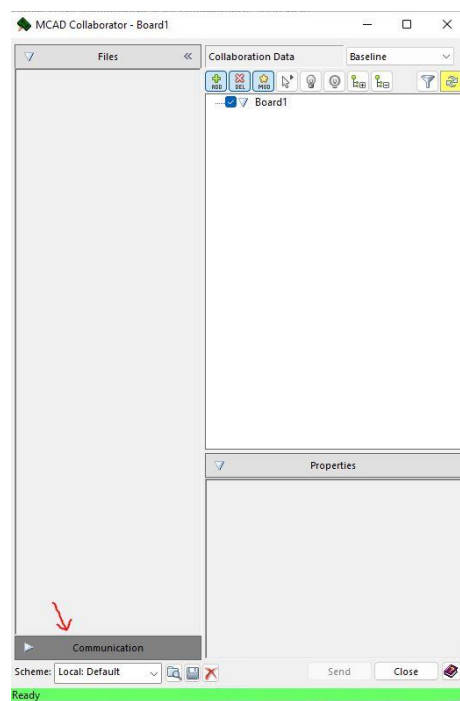


Figure 5

In the tree on the left – Expand **Communication** (indicated by the arrow in the Figure above)

Then set the Data Path: to the **MCAD_Collab** folder:

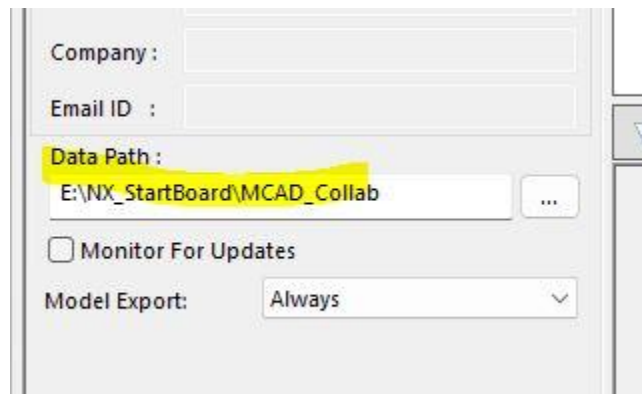


Figure 6

For this example, we'll choose **Always** for Model Export:

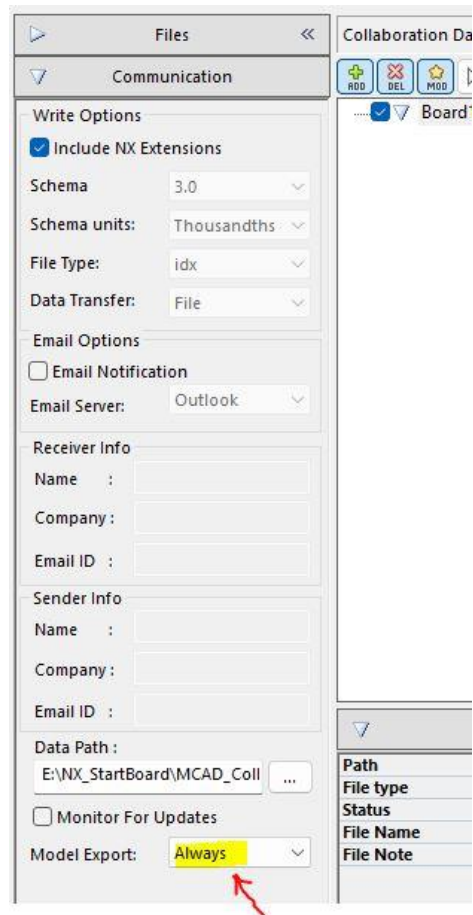


Figure 7

Make sure that **Baseline** is selected here:



Figure 8

Click on the **Refresh** button:

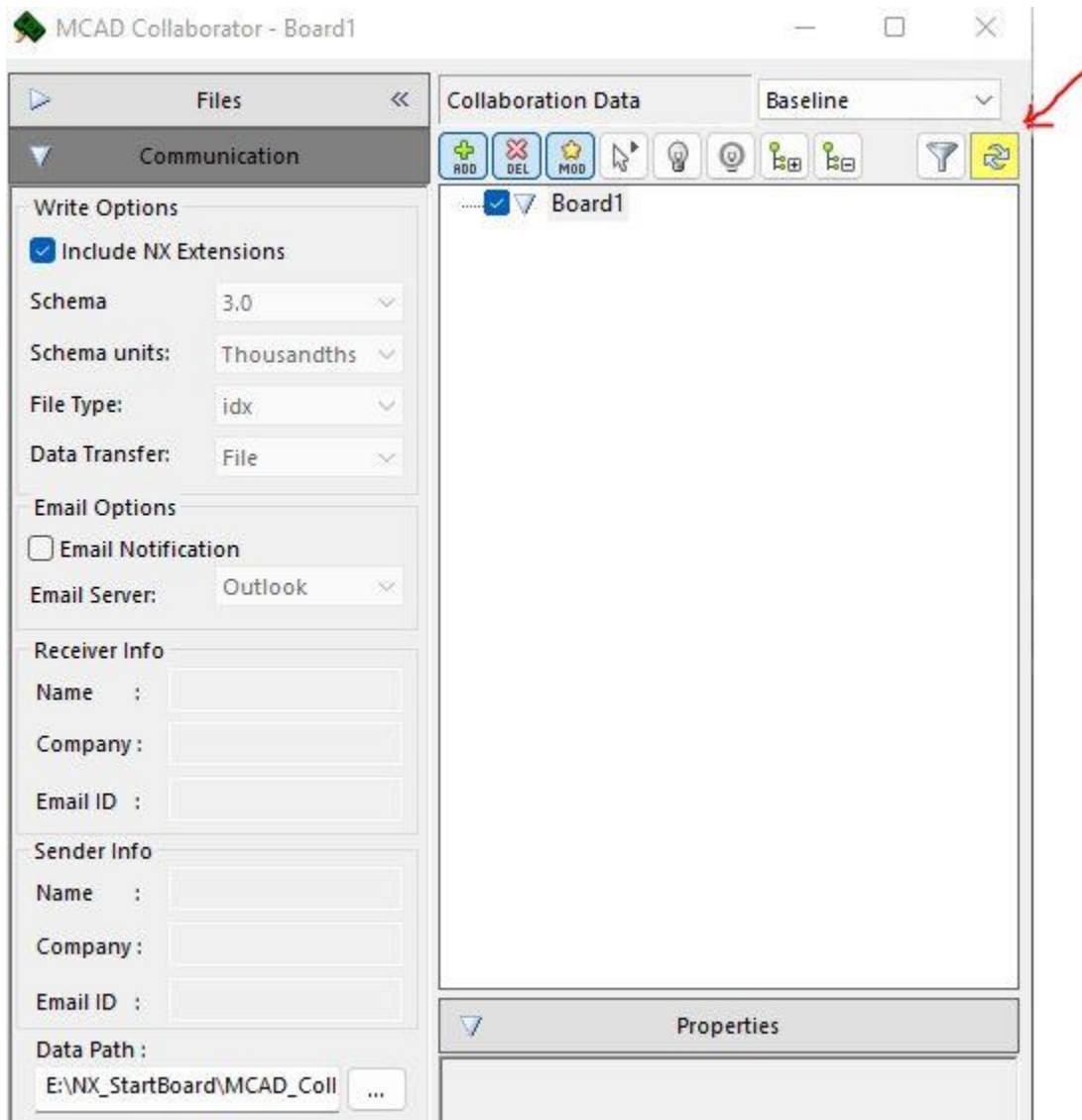


Figure 9

Click **Send Baseline**:

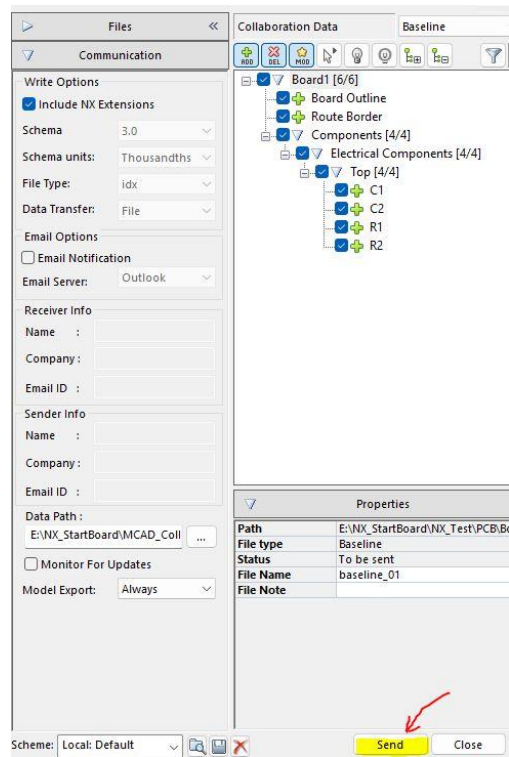


Figure 10

Click **Yes**: and the **Yes** again:

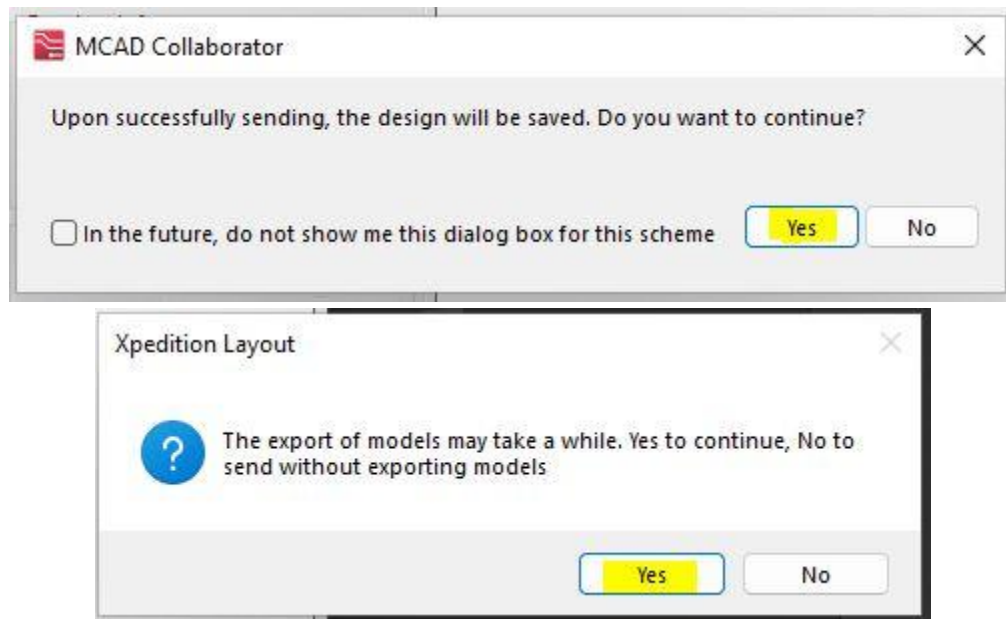


Figure 11

Exercise 3: Siemens NX

Open Siemens NX and open the **assemblyTest.prt** Model provided in the **NX_MCADMCAD_Test** folder:

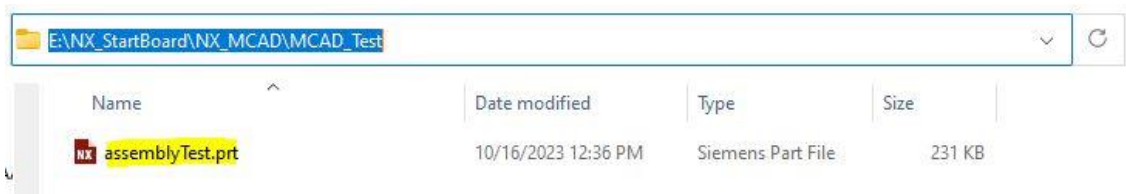


Figure 12

Go to **Application > More**

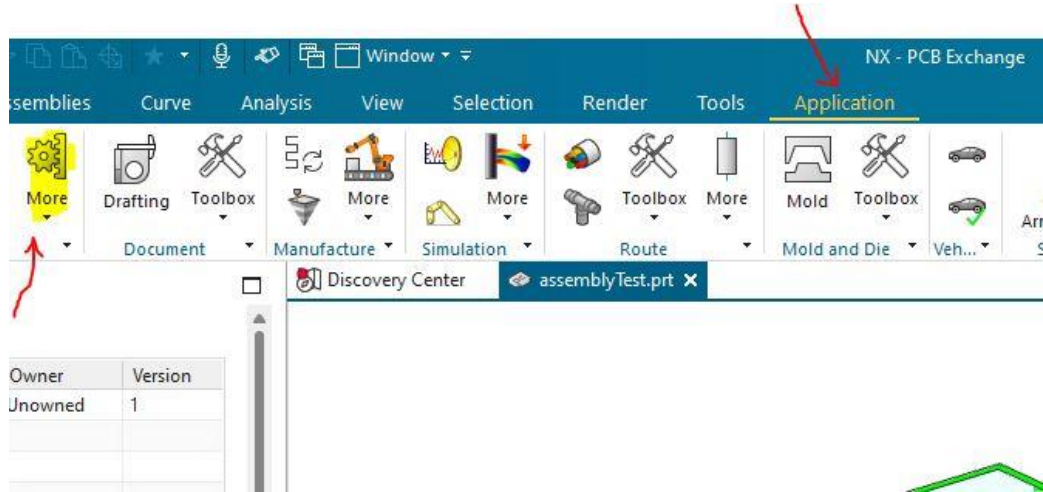


Figure 13

Choose **PCB Exchange**:

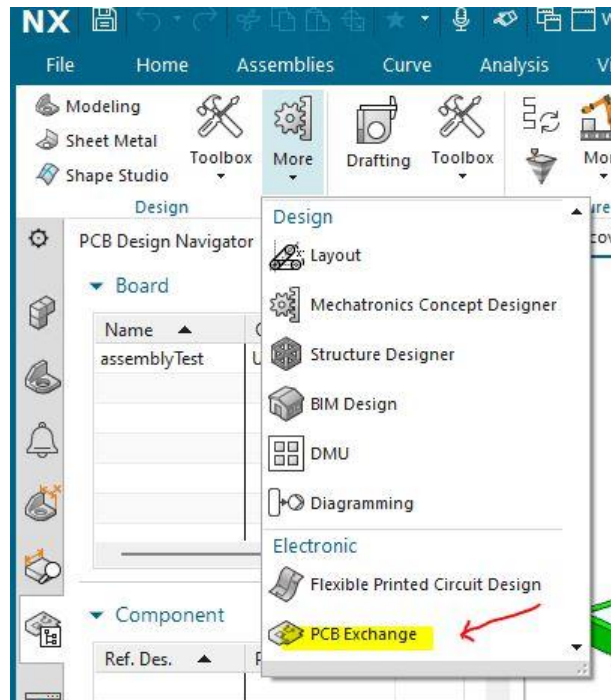


Figure 14

Click **Read PCB**:

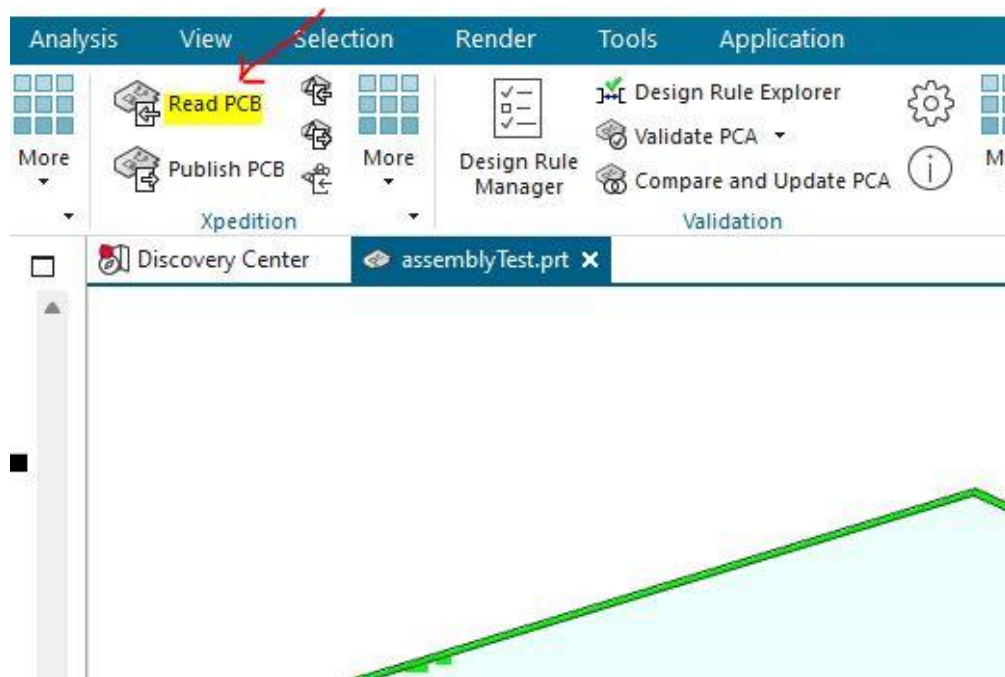


Figure 15

Navigate to and select the **baseline_00.idx** file that we created in MCAD Collaborator:

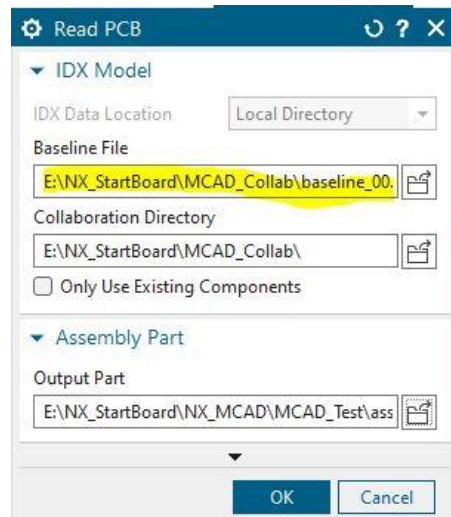


Figure 16

Set the collaboration Directory to the **MCAD_Collab** folder:

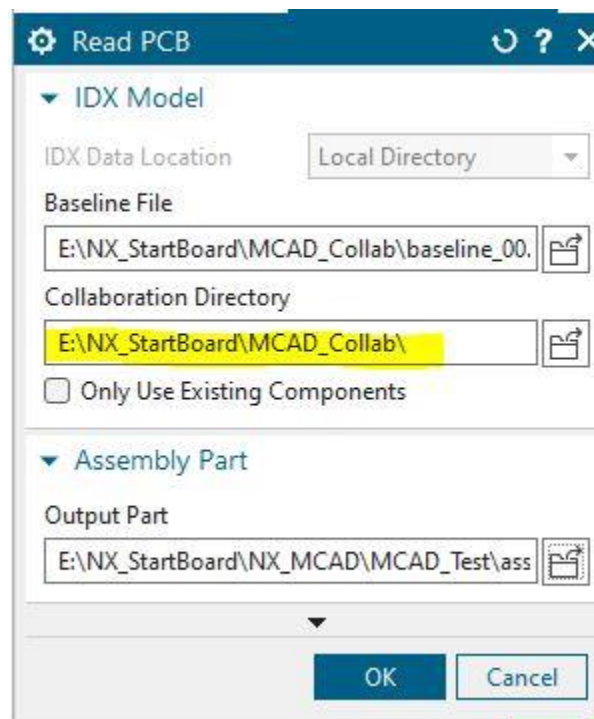


Figure 17

Click **OK** and wait for the data to read in.
Review and dismiss the information window:

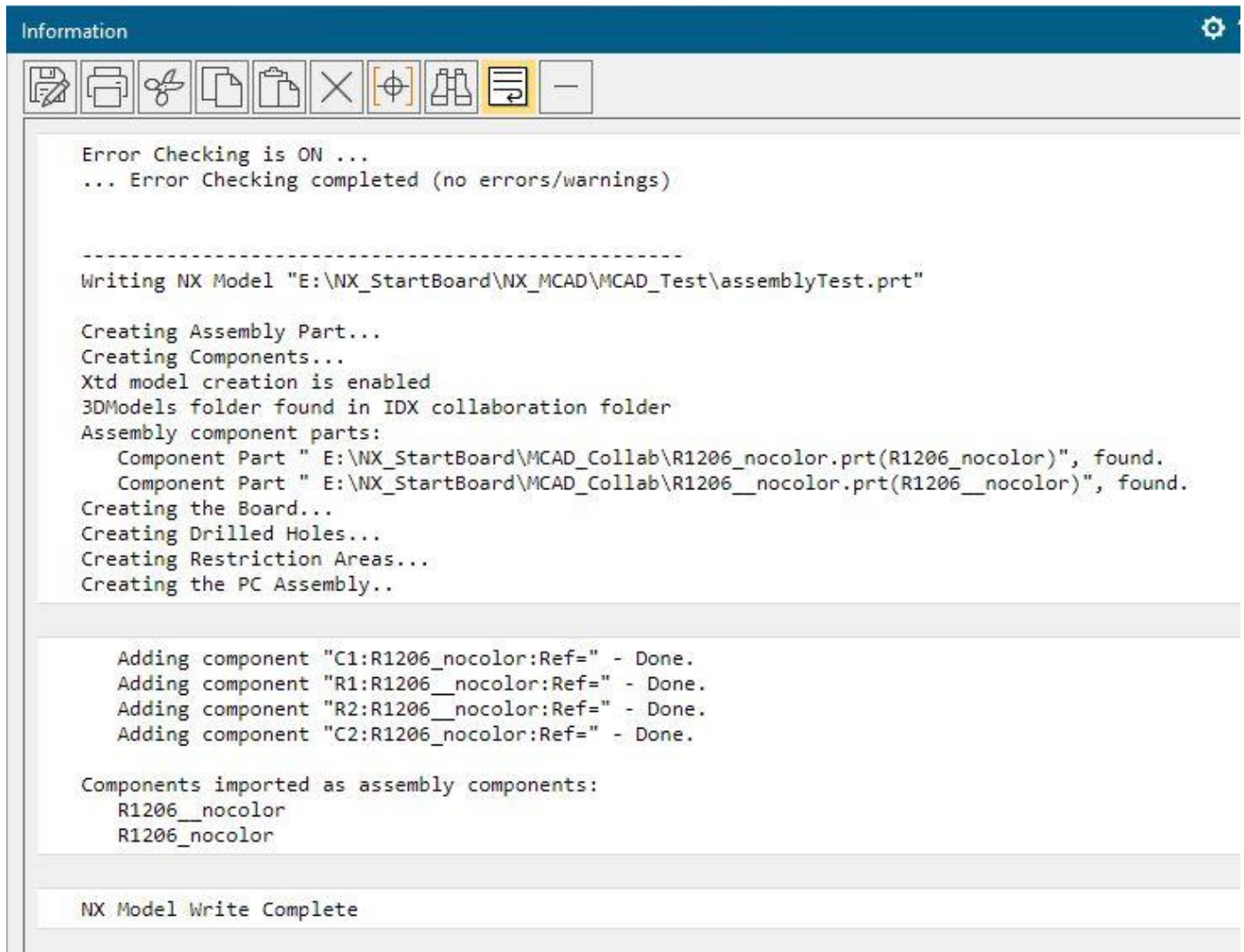


Figure 18

Notice that the parts have now been sent from Xpedition and are placed as they were in Xpedition:

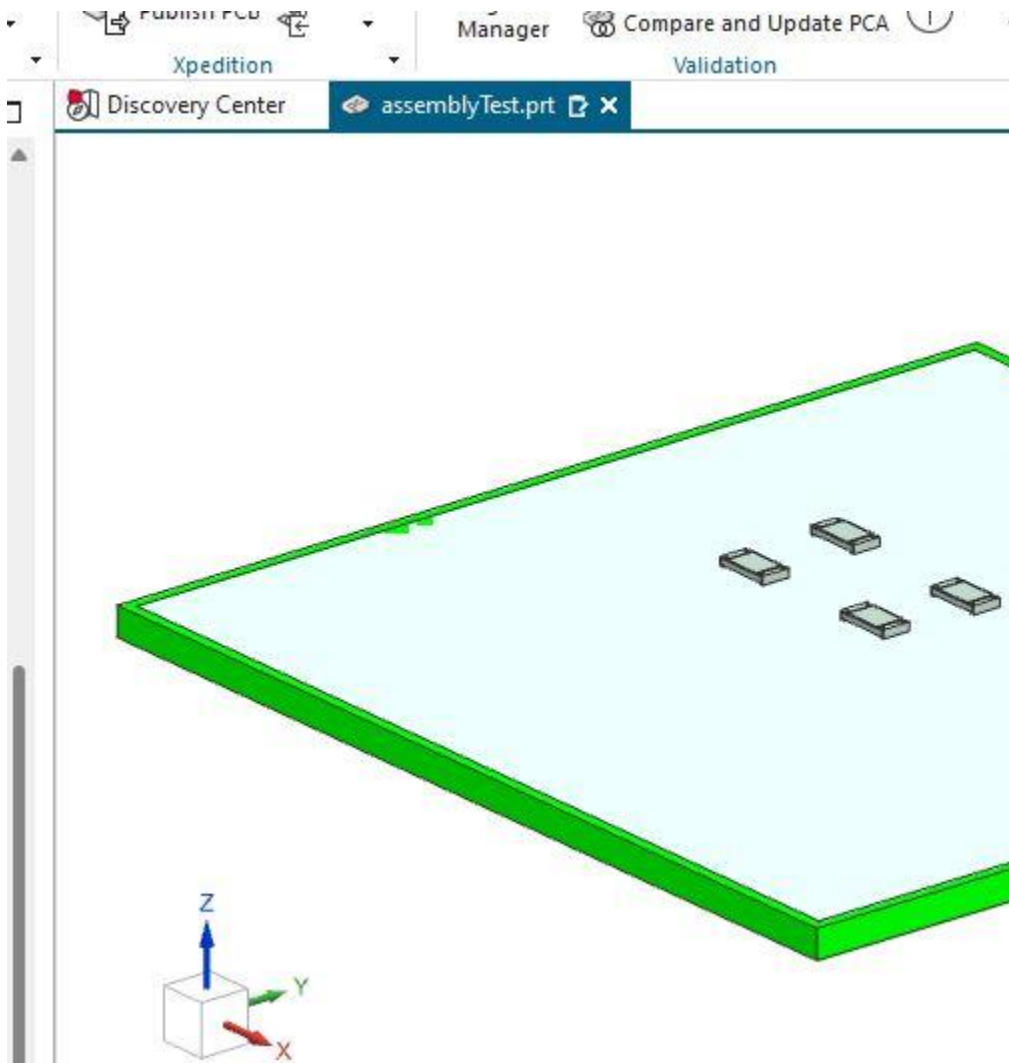


Figure 19

Exercise 4: Make a change in Siemens NX and send back to Xpedition PCB

Now we'll move one of the parts – Select the part > right click and choose **Move**:

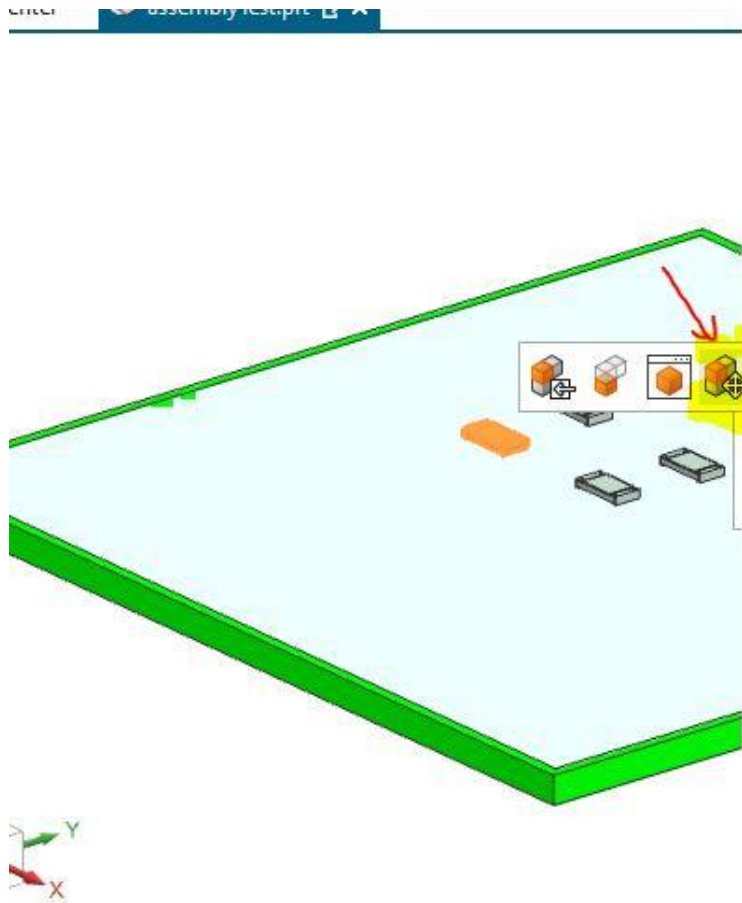


Figure 20

Enter a value of **5.239** for the **Y** direction:

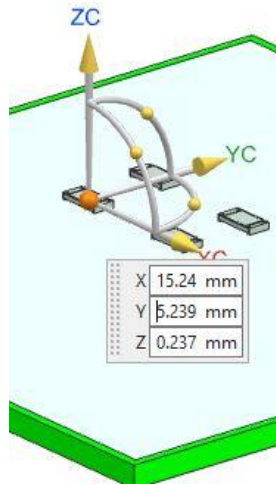


Figure 21

Click **Apply** and then close the dialog box:

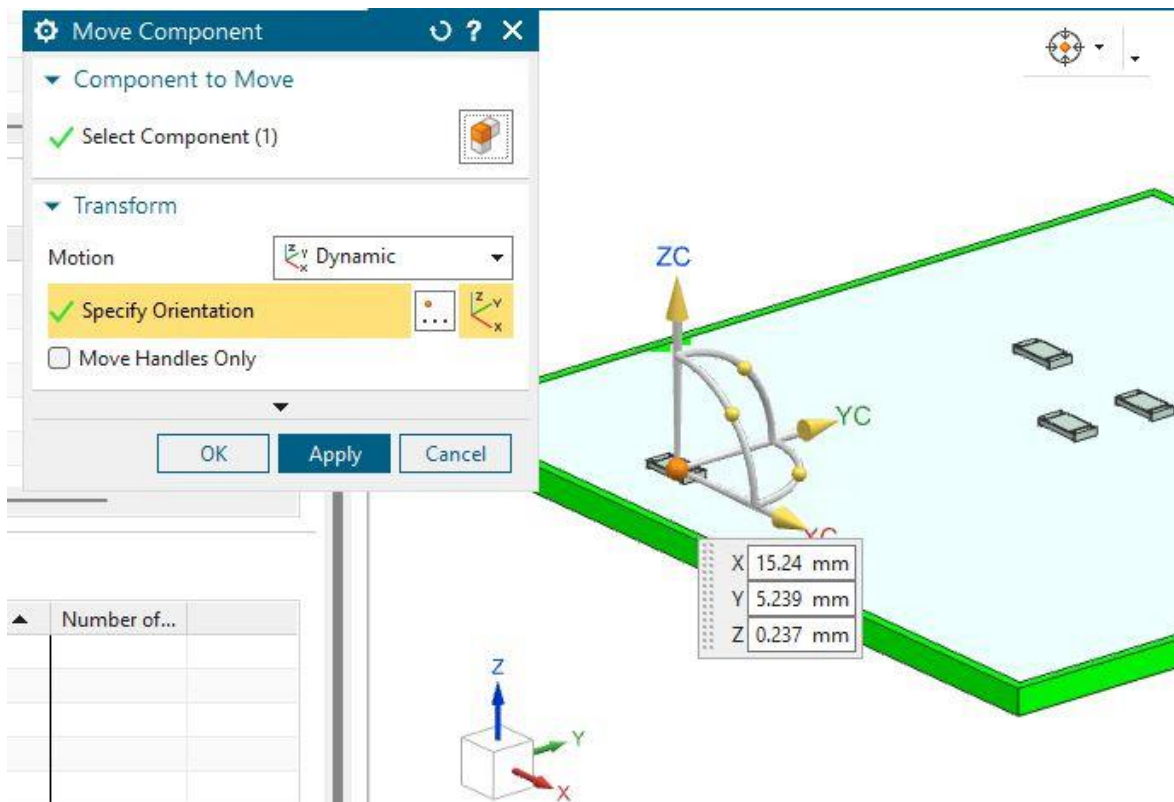


Figure 22

Now click **Publish PCB** and change the name to something like **NX_Back1** and click **OK**:

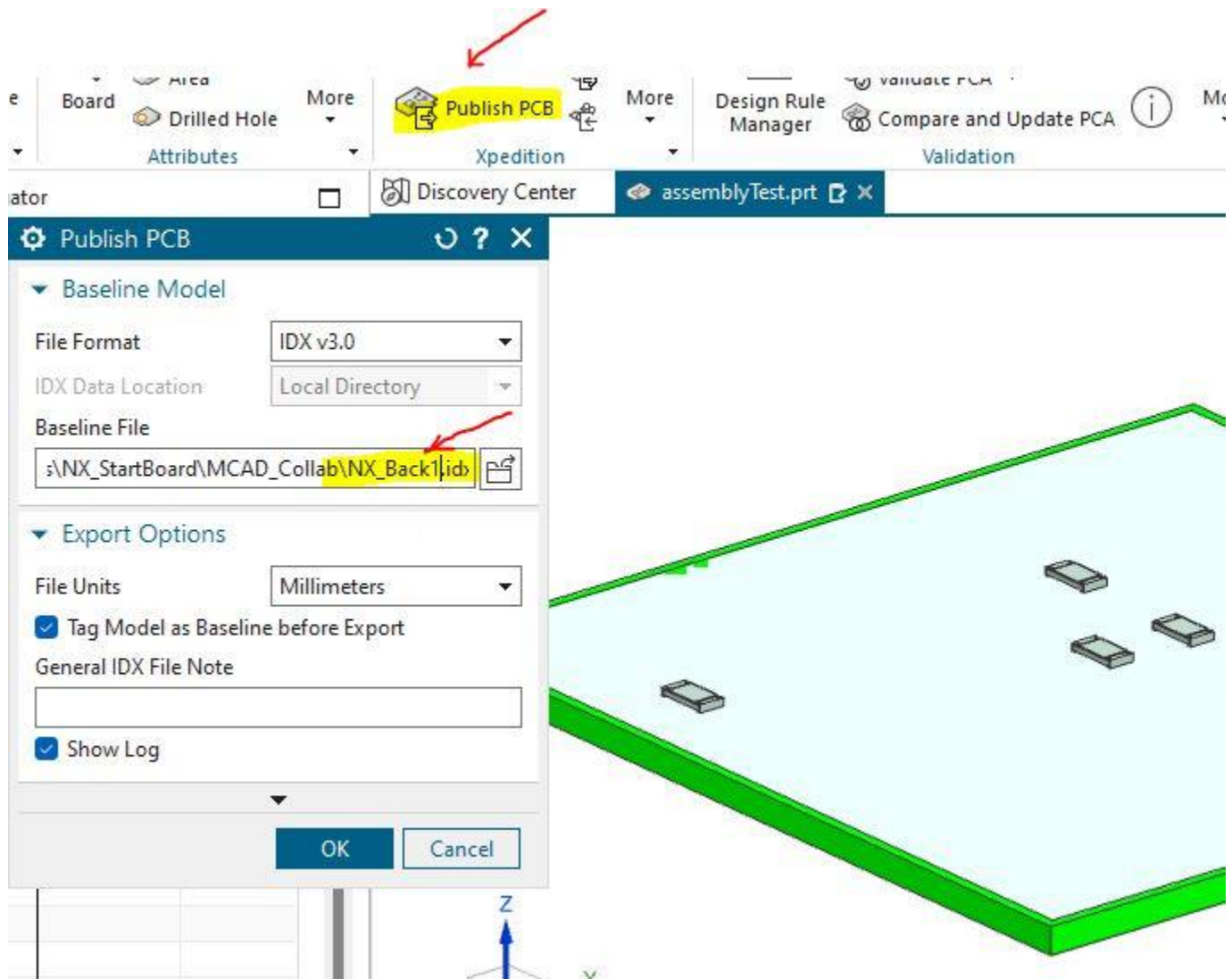


Figure 23

Click **OK** to publish New Baseline back to Xpedition PCB:

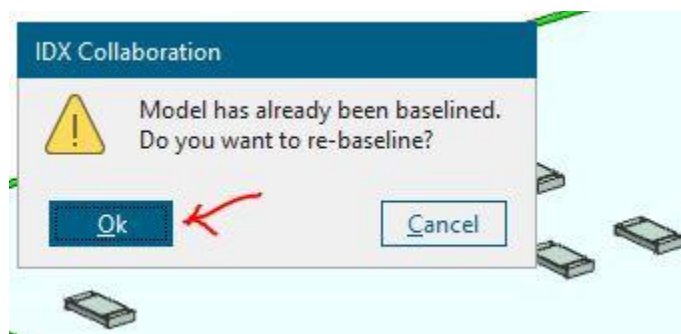


Figure 24

Review the information window and click to close:

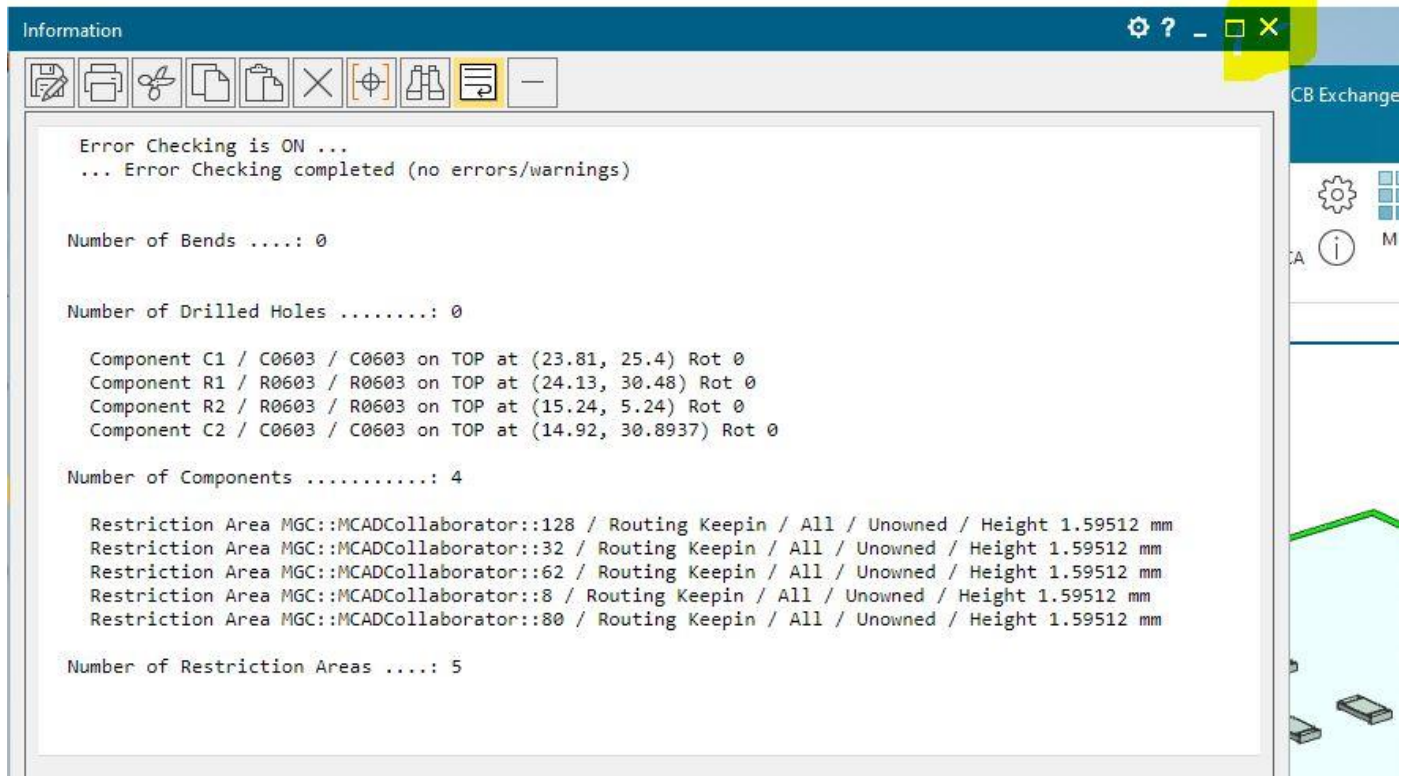


Figure 25

Exercise 5: Apply Siemens NX Changes in Xpedition PCB

Now we'll go back into Xpedition PCB and open the MCAD Collaborator again:

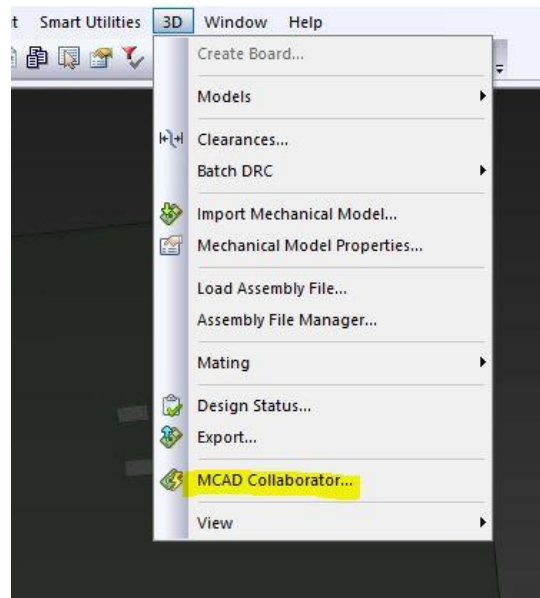


Figure 26

Click the **Refresh** button:

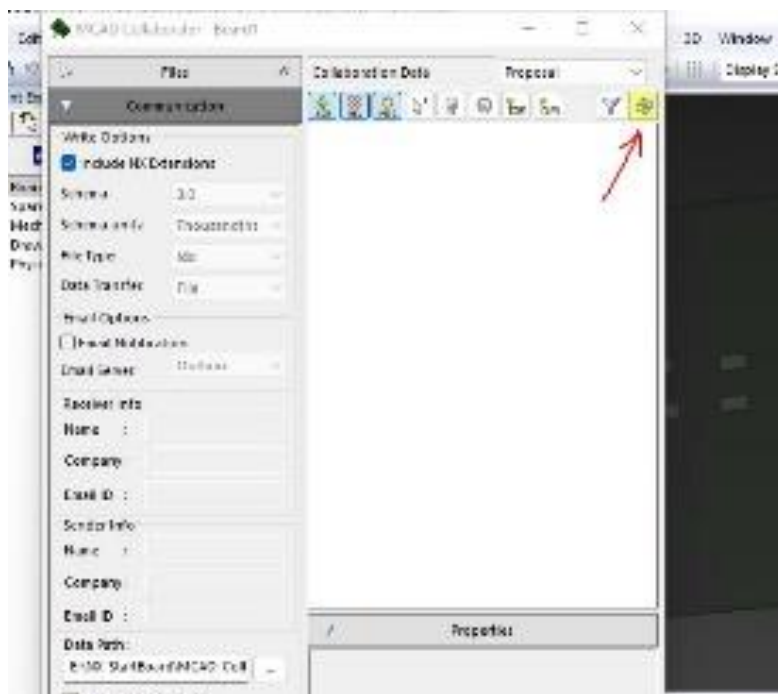


Figure 27

Expand Files and select the **NX_Back_1.idx** file created by Siemens NX:

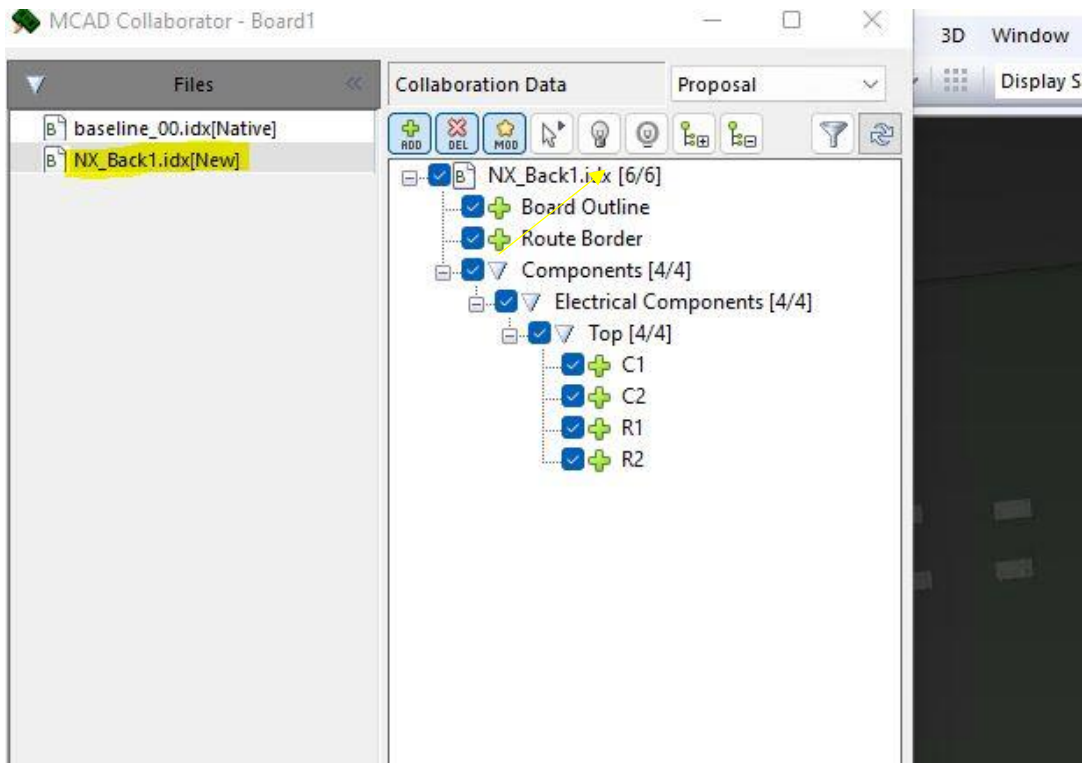


Figure 28

Click **Apply**:

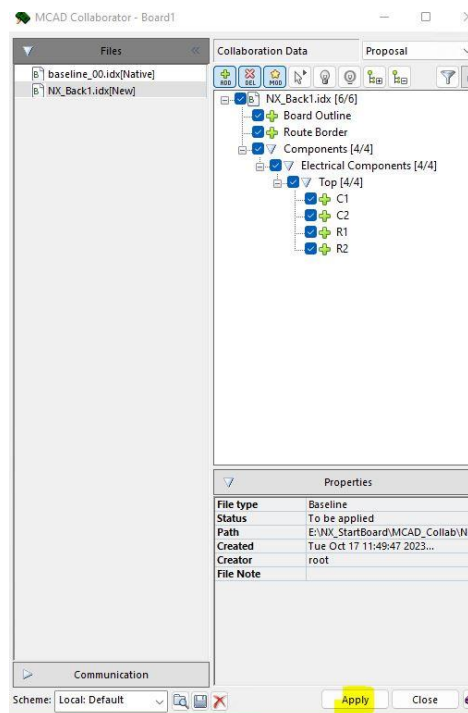


Figure 29

Click **Yes**:

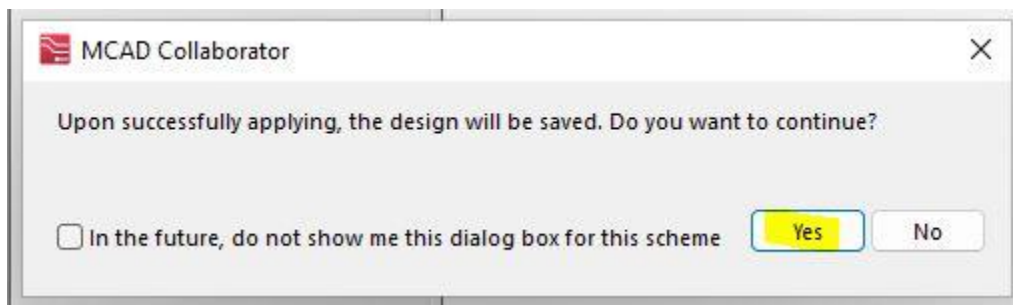


Figure 30

Notice the part is now moved in Xpediton PCB as it was in Siemens NX:

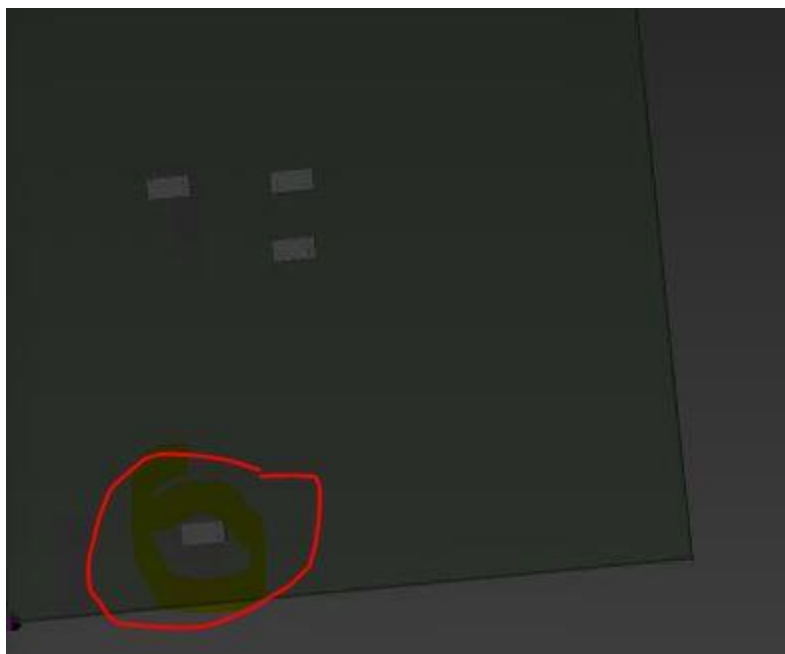


Figure 31

Feel Free to continue exploring

Conclusion

In this lab you have just completed a basic round trip MCAD Collaboration between Xpedition PCB and Siemens NX

NOTES:
