

Modifying a VI into a SubVI

Goal

Modify a subVI by changing the icon and connector pane.

Scenario

Using the VI from the previous exercise, you will create an icon for the subVI and set up the connector pane, by changing its pattern and assigning the controls and indicators to terminals.

Implementation

The files that you need to complete this exercise are here: <NI eLearning>\LV Core 1\Build Icon_Connector Pane\Exercise.

1. Open Customizing Icon and Connector Pane.vi from the <Exercise> directory.
2. Press <Ctrl-E> to switch to the block diagram.
3. Double-click the subVI to open it.

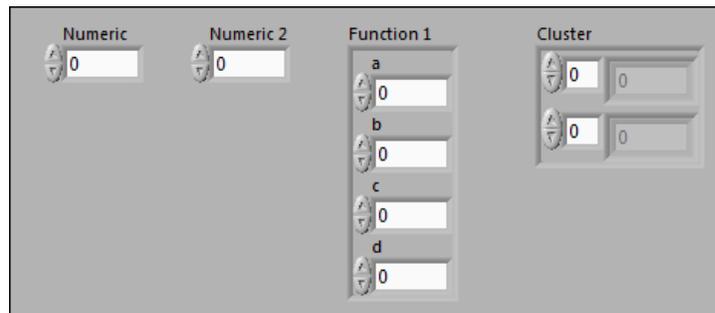


Figure 1. Graph Function Front Panel

4. Rename labels to better describe the data being passed into and out of the subVI, as shown in Figure 1.
 - Double-click the `Numeric` label and rename it `# of iterations`.
 - Double-click the `Numeric 2` label and rename it `Starting x value`.
 - Double-click the `Function 1` label and rename it `Function Parameters`.
 - Double-click the `Cluster` label and rename it `XY Data`.

5. Open Icon Editor.
 - Double-click the Icon at the top-right of the front panel.

6. Delete the default icon.
 - Press <Ctrl-A> and then the <Delete> key.

7. Make a border for the icon.



- Select the Rectangle tool.
- Change the color to black.
- Click and drag to create a border for the icon.

8. Create text for the icon.

- Go to the Icon Text tab.
- In Line 1 text type GRAPH.
- In Line 2 text type F (x).
- Uncheck the **Capitalize Text** checkbox.
- Click Line 1 color and select a red color.
- Click Line 2 color and select a red color.

9. Add a Glyph to the icon.

- Go to the Glyphs tab.
- Select Mathematics from the Category list.
- Select the Sine glyph.
- Place the glyph in the center of the icon.



10. Adjust the opacity of the glyph.

- Go to the Layers tab.
- Change the opacity of the Glyph Layer to 75.

11. Click **OK** to exit the Icon Editor.

12. Customize the Connector Pane.

- Right-click the Icon Pane and select **Show Connector**.
- Right-click the Connector Pane and select **Disconnect All Terminals**.
- Right-click the Connector Pane and select **Patterns**.
- Select the **4x2x2x4** pattern.



13. Wire the Connector Pane.

- Wire the Cluster control labeled Function Parameters to to the top-left terminal.
- Wire the numeric control labeled Starting x value to the terminal on the top, second from the left.
- Wire the numeric control labeled # of iterations to the terminal on the top, second from the right.
- Wire the cluster labeled XY Data to a terminal on the right of the Connector Pane.



Figure 2. Finished Connector Pane

14. Save the subVI and return to the block diagram of the Customizing Icon and Connector Pane.vi.

15. Press <Ctrl-B> to remove broken wires.

16. Right-click each instance of the subVI and select **Relink To SubVI**.

17. Rewire the block diagram as shown in Figure 3.

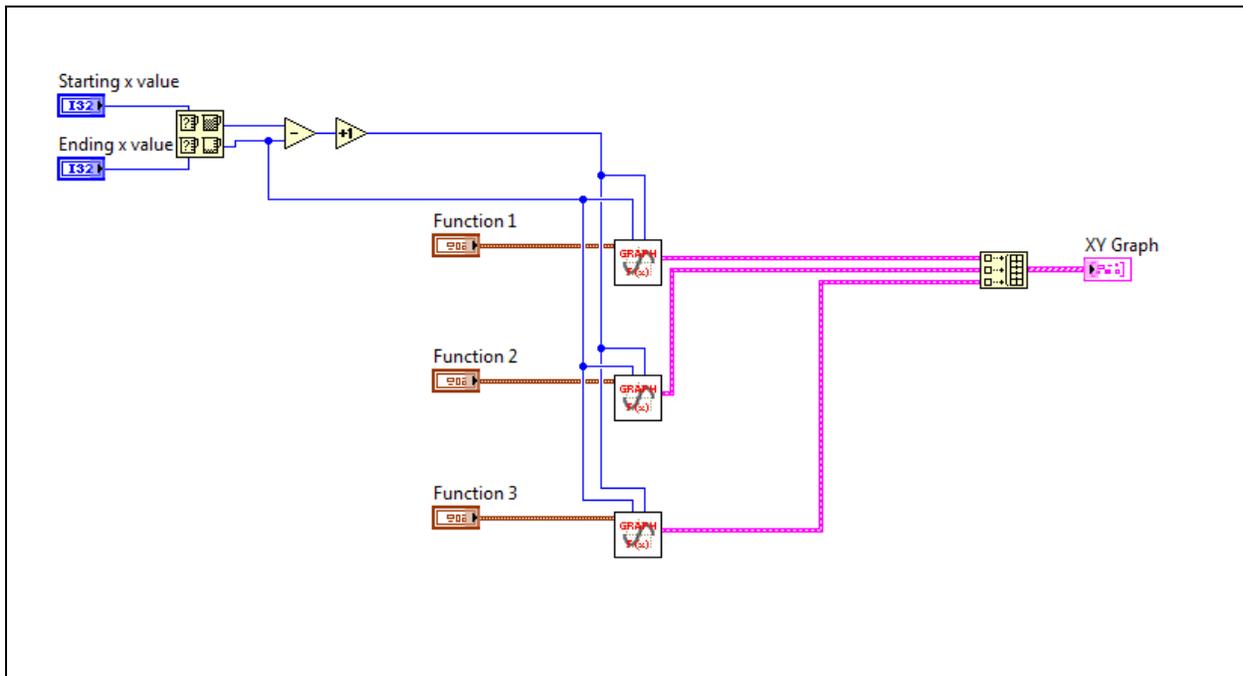


Figure 3. Completed Customizing Icon and Connector Pane Block Diagram

18. Save and close the VI.

End of Exercise

Notes

Notes
