OBTAIN How-To: Defining Patch Panels

Types of Patch Panels:

In OBTAIN there are three basic types of Patch Panels that can be defined; Fixed Adapter, Pluggable Cassettes and Mountable Trays/Shelves. These Patch Panel Types are more thoroughly explained in the Patch Panel Types document available on OBTAIN's Knowledge Base website via http://kb.obtain.com/article.php?id=27.

Navigating the Panel Types dialogue:

With the arrival of 1.25.5 the Patch Panel Types dialogue, within OBTAIN, has gone through a major overhaul. Greater panel and port label customization along with a new graphical diagram of the Panel Types are at the forefront of the changes made to aid in accurately defining Patch Panel Types in OBTAIN.

Accessing Patch Panel Types:

To open the Patch Panel Types dialogue go to Assets > Patch Panels > Rack Mounted Patch Panels, then once in the Rack Mounted Panels dialogue select Panel, Tray, Cassettes Types.

Navigating the Panel, Tray, Cassettes Types Dialogue:

The major sections of the Panel Types dialogue are defined below (also see Figure 1 on page #2).

1) **Definition Type Selection:** This area is where you swap between the Panel, Tray and Cassette definition dialogues.

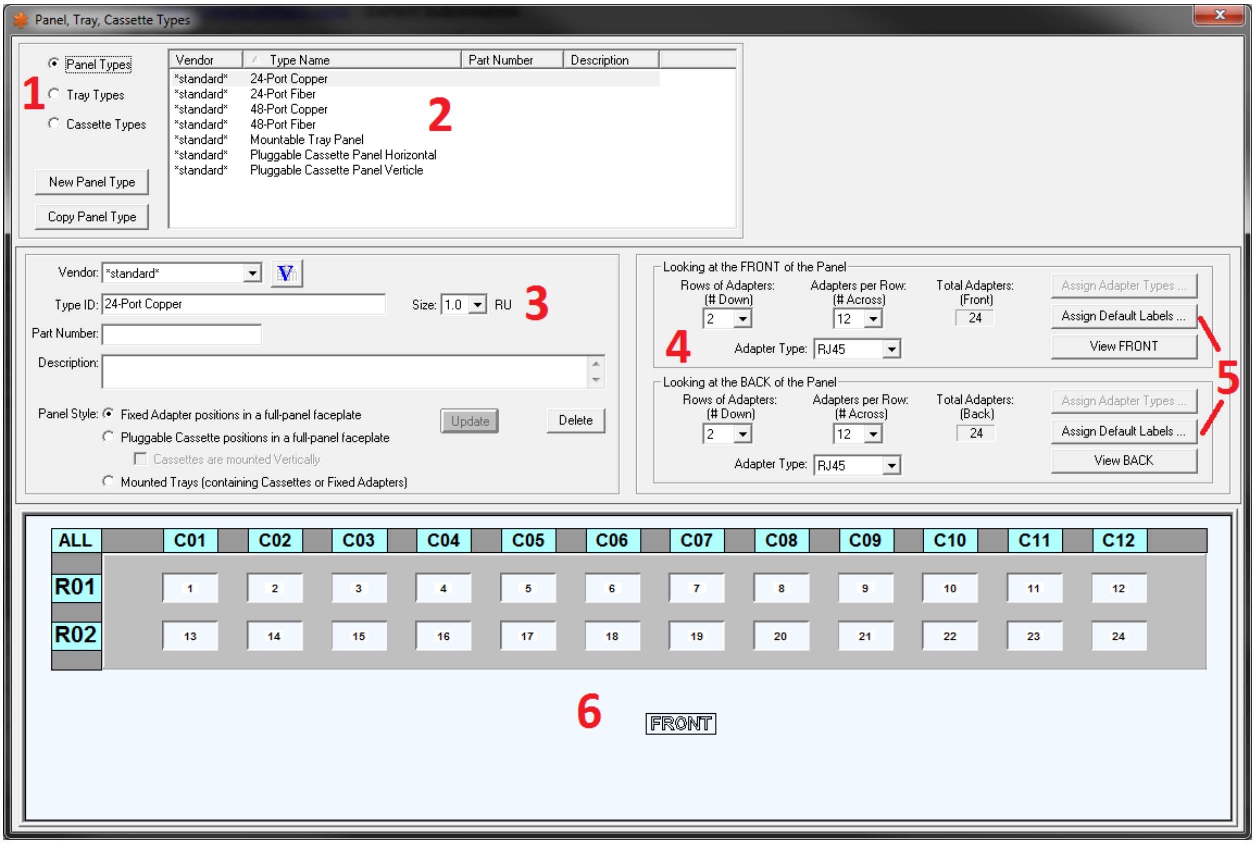
2) **Panel Definition Selection:** This area is where all of the currently defined Panel Types are defined and where you select which definition you want to view and/or modify.

3) **Panel Information:** This area is where basic information about the Panel Type is inputted. This information includes the Manufacturer, Type Name, RU Size, Style of Panel and extra fields for a Part Number or general description of the Panel Type.

4) **Port/Cassette/Tray Information:** This area is where you define the port/cassette/tray setup on the Panel. Here you can modify the numbers of ports/cassettes/trays, types of ports and swap between the Front and Back views of the Panel Type Diagram.

5) **Label Formatting:** The Assign Default Label buttons will take you into the Label Formatting area where you can fully customize how the Panel, Cassettes, Trays and Ports are labelled when an actual Patch Panel is created using a Panel Type.

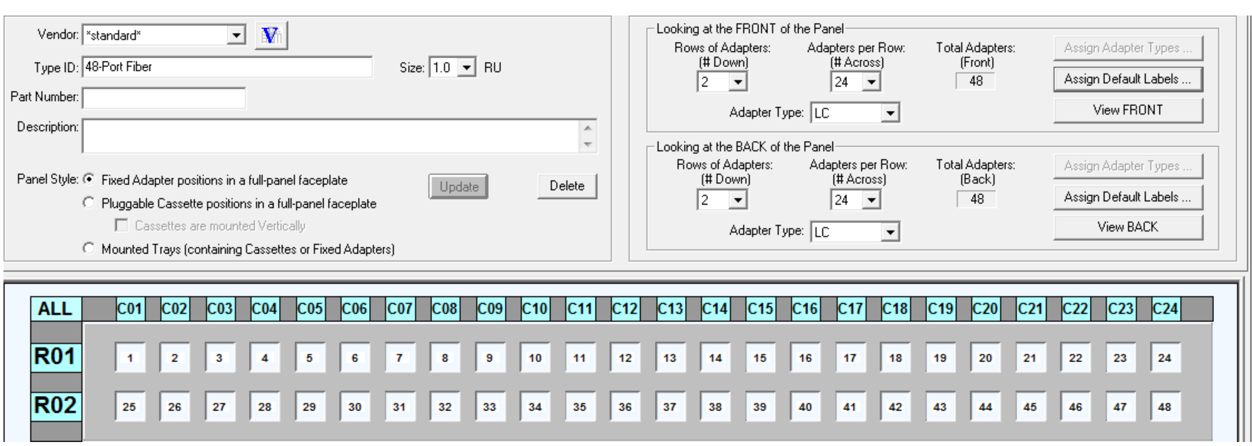
6) **Panel Graphical Diagram:** This area is where the graphical diagram of the Panel/Cassette/Tray Type is displayed. As you modify a Panel Type the diagram will automatically update giving you a real-time visual as to what a panel created using this type would look like.



(Figure 1)

Defining a Fixed Port Panel Type:

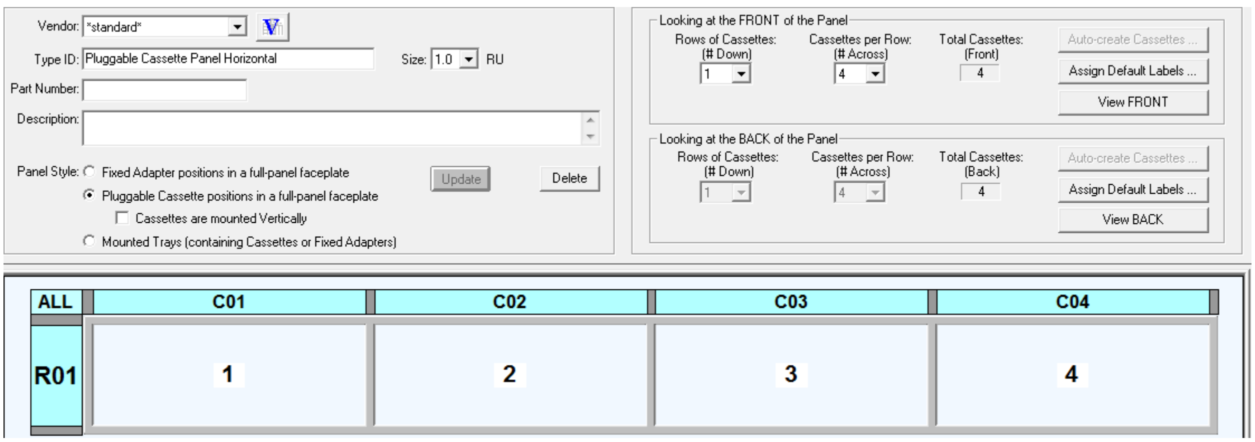
1) Select Panel Types in the top left corner of the dialogue.
2) Click the New Panel Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Panel Type.
4) Input a Type ID for the Panel Type, i.e. 24-Port Fiber Panel.
5) If desired, enter a Part Number and/or Description for the Panel Type.
6) Leave the Panel Style set as Fixed Adapter Positions in a Full-Panel Faceplate.
7) Click the Size drop-down list and select the proper RU Size for the Panel Type.
8) In the Port section of the dialogue, click the adapter drop-down lists and input the proper amount of Rows and Columns of ports, for both the Front and Back of the Panel Type.
9) Click the Adapter Type drop-down list and select the proper type, i.e. LC, RJ-45, etc.…, for both the Front and Back of the Panel Type.
10) Click the Update button (see Figure 2 for an example of a basic 48-Port Fixed Adapter Panel Type).



(Figure 2)

Defining a Pluggable Cassette Panel Type:

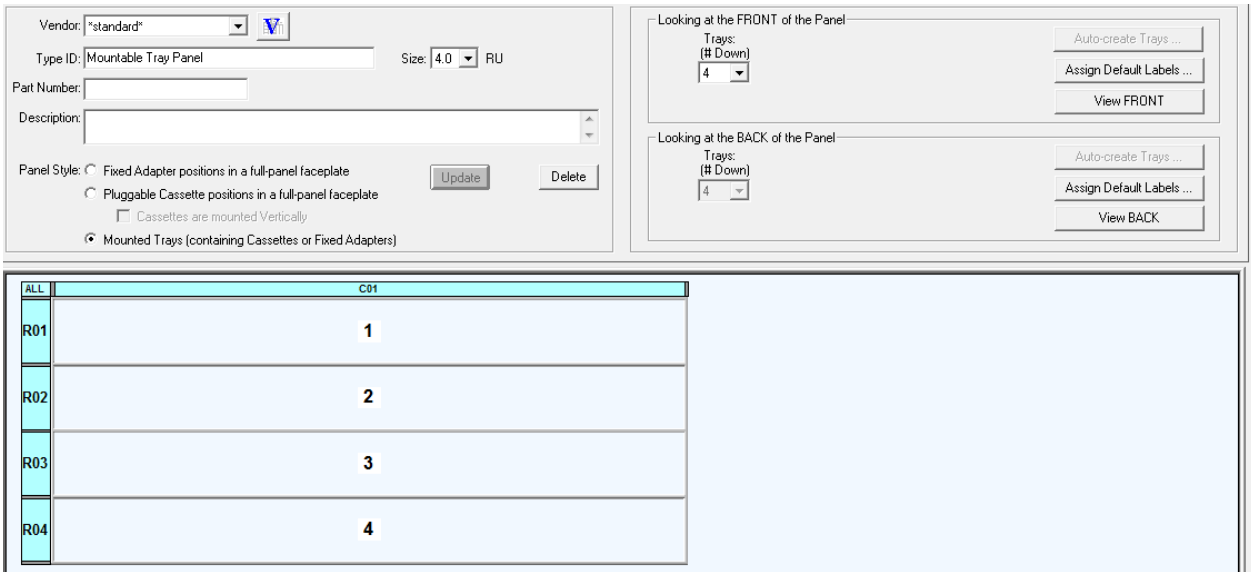
1) Select Panel Types in the top left corner of the dialogue.
2) Click the New Panel Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Panel Type.
4) Input a Type ID for the Panel Type, i.e. Pluggable Cassette Panel.
5) If desired, enter a Part Number and/or Description for the Panel Type.
6) Change the Panel Style to be Pluggable Cassette Position in a Full-Panel Faceplate.
    a. If the Cassettes in the Panel are mounted horizontally then leave the 'Cassettes are Mounted Vertically' box unchecked.
    b. If the Cassettes in the Panel are mounted vertically then check off the 'Cassettes are Mounted Vertically' box.
7) Click the Size drop-down list and select the proper RU Size for the Panel Type.
8) In the Cassette section of the dialogue, click the cassette drop-down list and input the proper amount of Rows and Columns of Cassettes for the Front of the panel.
9) Click the Update button (see Figure 3 for an example of a basic 4-Slot Pluggable Cassette Panel Type).



(Figure 3)

Defining a Mountable Tray Panel Type:

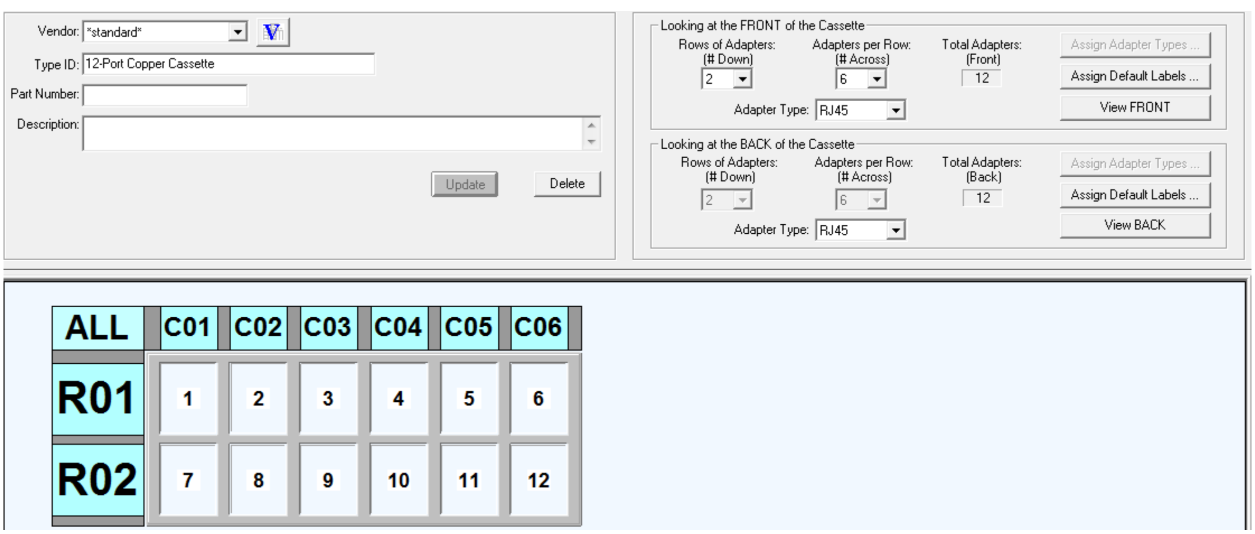
1) Select Panel Types in the top left corner of the dialogue.
2) Click the New Panel Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Panel Type.
4) Input a Type ID for the Panel Type, i.e. Mountable Tray Panel.
5) If desired, enter a Part Number and/or Description for the Panel Type.
6) Change the Panel Style to be Mounted Trays (Containing Cassettes or Fixed Adapters).
7) Click the Size drop-down list and select the proper RU Size for the Panel Type.
8) In the Tray section of the dialogue, click the trays drop-down list and input the proper amount of trays that the panel is comprised of.
9) Click the Update button (see Figure 4 for an example of a basic 4-Row Mounted Tray Panel Type).



(Figure 4)

Defining a Pluggable Cassette:

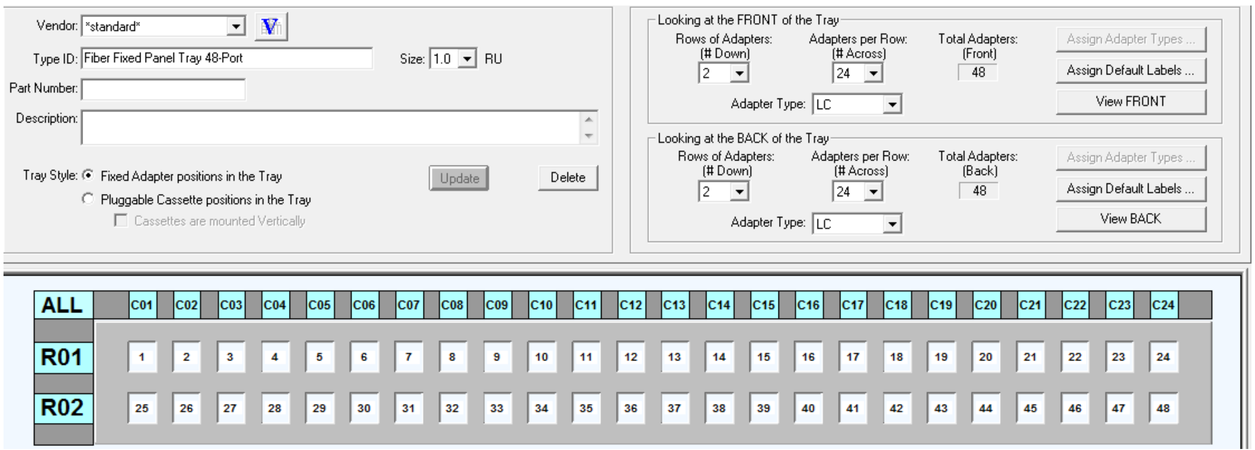
1) Select Cassette Types in the top left corner of the dialogue.
2) Click the New Cassette Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Cassette Type.
4) Input a Type ID for the Cassette Type, i.e. 12-Port Fiber Cassette.
5) If desired, enter a Part Number and/or Description for the Cassette Type.
6) In the Port section of the dialogue, click the adapter drop-down lists and input the proper amount of Rows and Columns of ports for the Front of the Cassette Type.
7) Click the Adapter Type drop-down list and select the proper type, i.e. LC, RJ-45, MTP, etc.…, for both the Front and Back of the Panel Type.
8) Click the Update button (see Figure 5 for an example of a basic 12-Port Copper Cassette).



(Figure 5)

Defining a Fixed Port Tray:

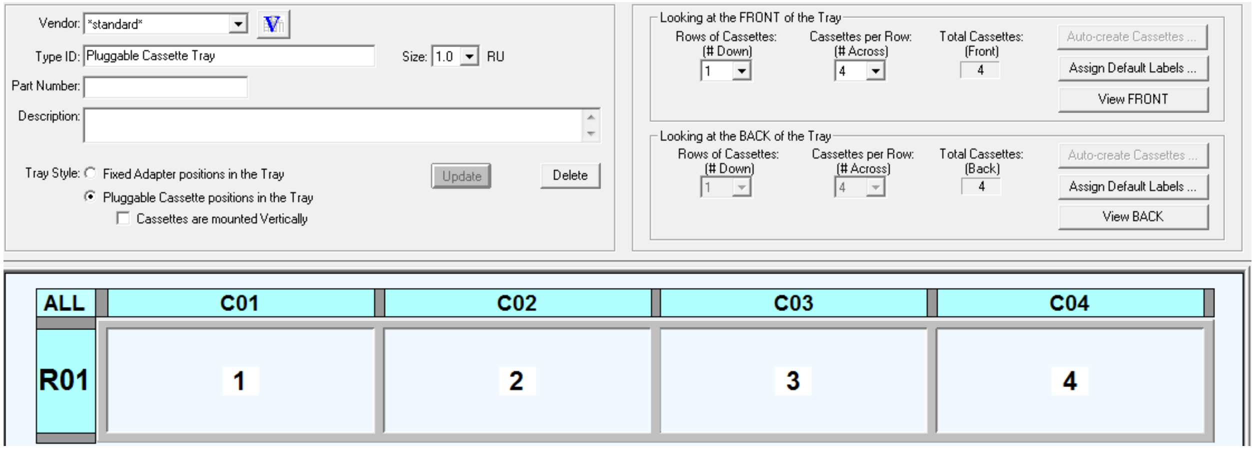
1) Select Tray Types in the top left corner of the dialogue.
2) Click the New Tray Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Tray Type.
4) Input a Type ID for the Tray Type, i.e. 48-Port Fiber Tray.
5) If desired, enter a Part Number and/or Description for the Tray Type.
6) Leave the Tray Style set as Fixed Adapter Positions in the Tray.
7) Click the Size drop-down list and select the proper RU Size for the Tray Type.
8) In the Port section of the dialogue, click the adapter drop-down lists and input the proper amount of Rows and Columns of ports, for both the Front and Back of the Tray Type.
9) Click the Adapter Type drop-down list and select the proper type, i.e. LC, RJ-45, etc.…, for both the Front and Back of the Tray Type.
10) Click the Update button (see Figure 6 for an example of a basic 48-Port Fixed Adapter Tray Type).



(Figure 6)

Defining a Pluggable Cassette Tray:

1) Select Tray Types in the top left corner of the dialogue.
2) Click the New Tray Type button.
3) Click the Vendor drop-down list and select the Manufacturer of the Tray Type.
4) Input a Type ID for the Tray Type, i.e. Pluggable Cassette Tray.
5) If desired, enter a Part Number and/or Description for the Tray Type.
6) Change the Tray Style to be Pluggable Cassette Position in the Tray.
    a. If the Cassettes in the Tray are mounted horizontally then leave the ‘Cassettes are Mounted Vertically’ box unchecked.
    b. If the Cassettes in the Tray are mounted vertically then check off the ‘Cassettes are Mounted Vertically’ box.
7) Click the Size drop-down list and select the proper RU Size for the Tray Type.
8) In the Cassette section of the dialogue, click the cassette drop-down lists and input the proper amount of Rows and Columns of Cassettes for the Front of the tray.
9) Click the Update button (see Figure 7 for an example of a basic 4-Slot Pluggable Cassette Tray Type).



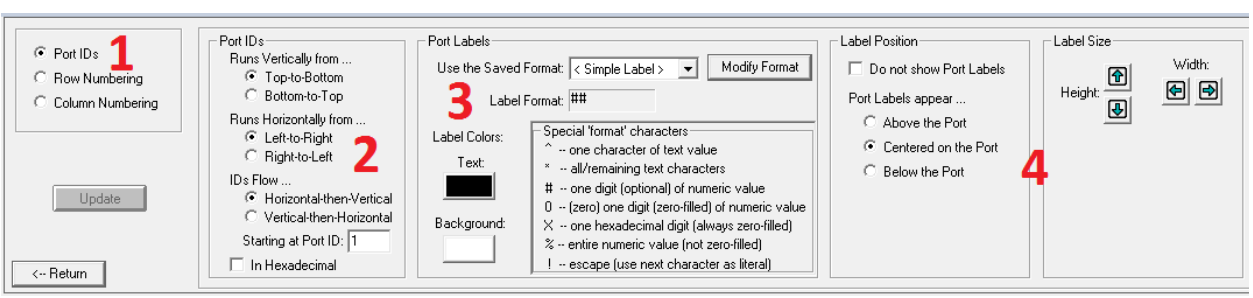
(Figure 7)

Defining Custom Port/Row/Column/Tray/Cassette Labels:

After defining the basic information for a new Patch Panel, Cassette or Tray you are then able to fully customize the numbering of the Ports, Rows and Columns. This is accomplished through defining and assigning Label Formats to Panel/Cassette/Tray Types. To access the Label Format options simply click the Assign Default Labels button on in the Port Section of a Panel/Cassette/Tray Type. The Label Format options span two sections of the dialogue and the various options are explained below (see Figure 8).

Basic Label Options:

1) **Label Type Selection:** This area is where you change between the labelling options for Port IDs, Row Numbering and Column Number.
2) **Port IDs:** This area is where you choose basic information for the Port IDs/Rows/Columns such as whether the labels are ordered top to bottom, left to right or right to left, and the starting Port/Row/Column, i.e. 0, 1, A or another value. Additionally, if you're using the default Simple Label there is a check box allowing you to convert the Port/Row/Columns IDs to hexadecimal.
3) **Port Labels:** This area is where you choose which Label Format the Panel/Cassette/Tray will use and it displays how the format is defined. Additionally, it is how you access the Label Format editor and where you can change the text and background colour on the diagram.
4) **Label Settings:** These two areas are options for the Panel/Cassette/Tray diagram. Under Label Position you can choose whether or not the labels are displayed and if they are displayed where, in relevance to the Port/Cassette/Tray they are positioned. Under Label Size you can change the height and width of the labels that appear on the diagram.

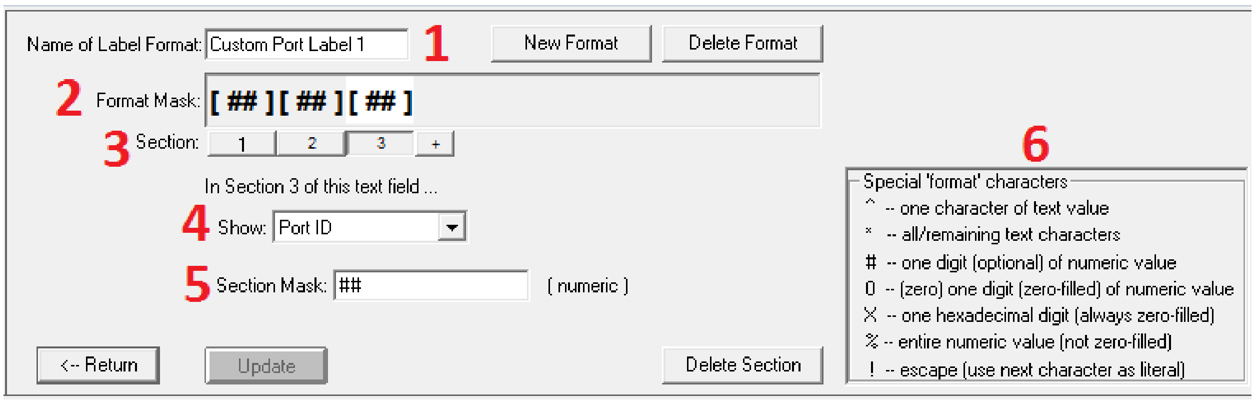


(Figure 8)

Defining a New Label Format:

To access the Label Format Editor click the Modify Format button while looking at the Labels options for a Panel/Cassette/Tray. The layout of the editor is described below (see Figure 9).

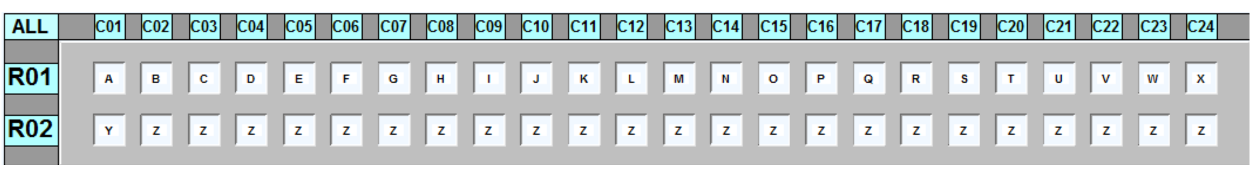
1) **Name of Label Format:** This area is where you input the name for your custom Label Format.
2) **Format Mask:** This area is where the actual formatting for the label is displayed.
3) **Section:** This area is where you add additional sections to the label format.
4) **Show:** This drop-down list is where you select which information you want displayed in the currently select Section. The options available are Fixed Text, Row ID, Column ID and Port ID.
5) **Section Mask:** This area is where you actually define the format for the label by inputting special characters based on the legend in #6.



(Figure 9)

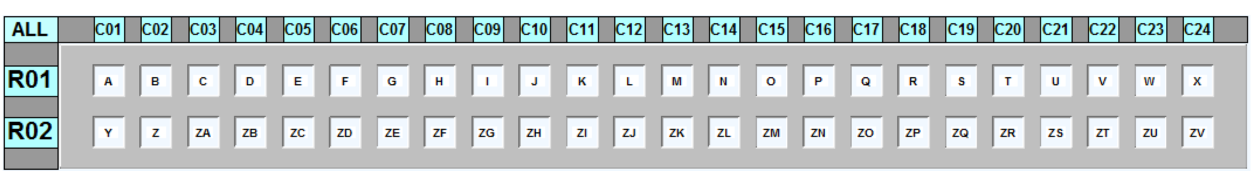
6) **Special Character Legend:** This area is where the available formatting characters are listed and described. The Label Format options are similar to the Computed Fields used in other areas of OBTAIN. By inputting specific characters your label format will change accordingly and be updated on the diagram in real-time to assist. What each special character does and how it will look on the diagram and the actual Panel Ports is described below (see Figures 10-16).

^ - This character is only useable when the starting value for your Port/Cassette/Tray is a letter and not a number. Inputting this character into the Section Mask will cause the format to display the Port IDs as one single text value, even if there are two digit values. Note in the below image that even though there are more than 26 ports everything after the first Z is forced to be a single text value.



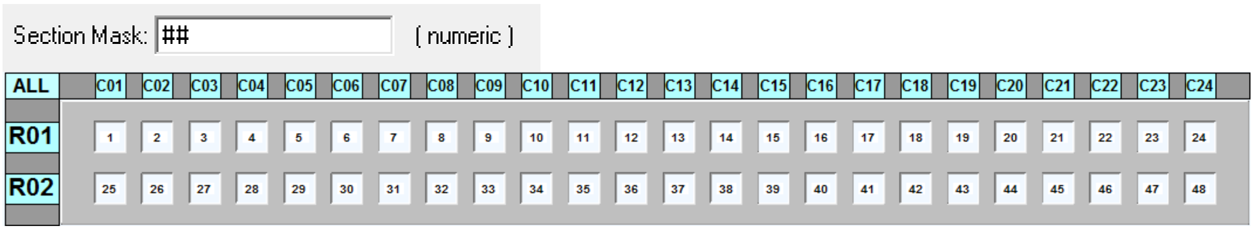
(Figure 10)

***** - This character is also only used when the starting value is a letter and not a number. Inputting this character into the Section Mask will cause the format to display the Port IDs as any amount of text values even if they are more than one digit in length. In the below image you can see that the values after the first Z are displayed with a second text value to complete the numbering properly.



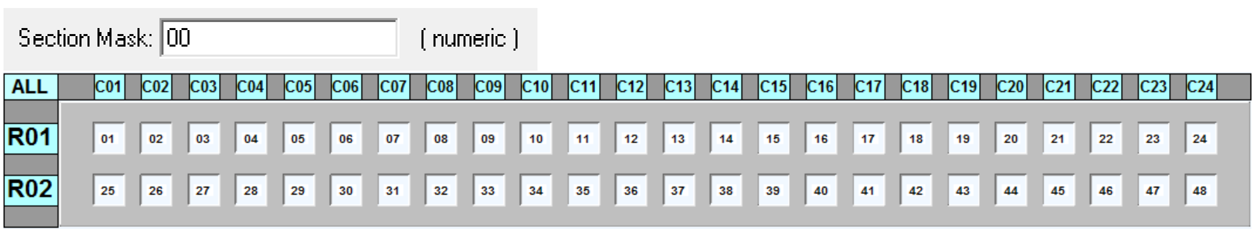
(Figure 11)

- This character is only used when the starting value of the Port IDs is a number and not a letter. Inputting this character into the Section Mask will cause the format to display the Port IDs as basic numerical values. The total number of numerical digits displayed per port is determined by how many times you input the # character into the Section Mask. If you only put the # character in once only one digit will be displayed per port even if the Port ID is supposed to be double digit. If you input the # character twice the Port IDs will then be displayed up to two digits as shown below.



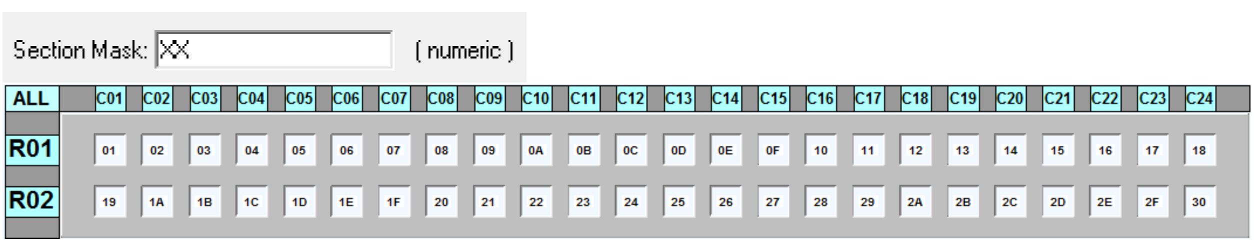
(Figure 12)

0 – This character is also only used when the starting value of the Port IDs is a number. Inputting this character into the Section Mask twice will cause the format to display any Port ID that is only single digit with a preceding zero (i.e. zero-filled), as shown below.



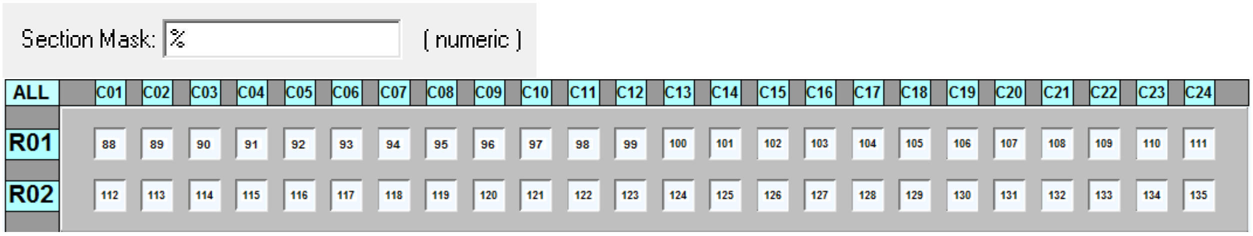
(Figure 13)

X – This character is also only used when the starting value of the Port IDs is a number. Inputting this character into the Section Mask, once or twice, will cause the format to display all Port IDs in hexadecimal values. Whether you input the X character once or twice will determine whether one or two digits are displayed as shown below. Additionally, this option always zero-fills the values of the ports.



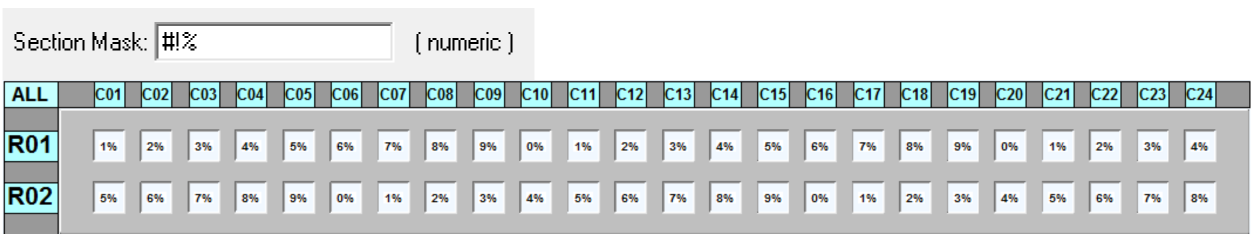
(Figure 14)

% - This character is also only used when the starting value of the Port IDs is a number. Inputting this character into the Section Mask will cause the format to display the Port IDs as any size of numerical values (not zero-filled) even if they are more than one digit in length. In the below image you can see that the values span between the two and three digit range.



(Figure 15)

! - This character is used, typically in conjunction with other formatting characters, when you want one of the special characters used in the formatting to be displayed as its literal character on the Port IDs. In the below image you can see that the percent character is being displayed as its literal character and isn't being read in as a formatting character.

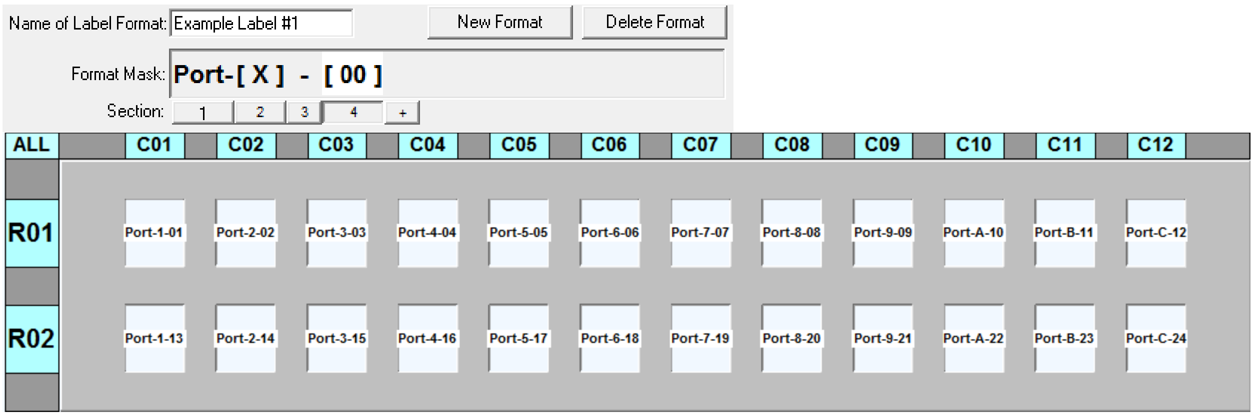


(Figure 16)

Examples of Complex Label Formatting:

Example #1:

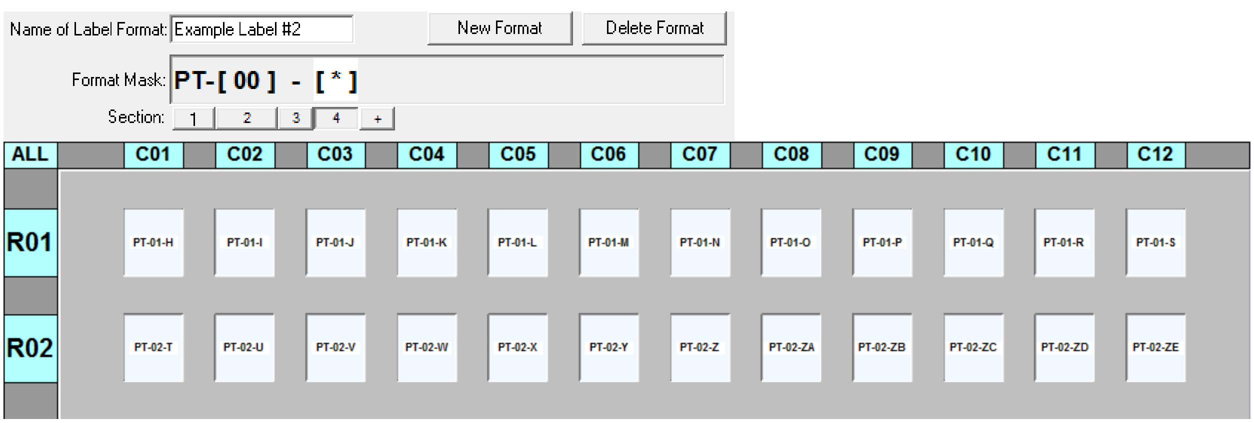
In the example below (Figure 17) the custom Label Format is using four sections to output the desired Port IDs. The first section is set to Fixed Text and has had Port- inputted as its value. The second section is set to display the Column ID in hexadecimal. The third column is also set to Fixed Text and has a dash inputted as its value to separate the second and fourth values. Finally, the fourth value is set to be the Port ID and is being displayed as a two digit zero-filled value.



(Figure 17)

Example #2:

In the below example (Figure 18) the custom Label Format is using four sections to output the desired Port IDs. The first section is set to Fixed Text and has PT- inputted as its value. The second section is set to display the Row ID numerically and zero-filled. The third column is also set to Fixed Text and has a dash inputted as its value to separate the second and fourth values. Finally, the fourth value is set to be the Port ID and is being displayed as any sized text value, since the starting Port ID is a letter.



(Figure 18)

Creating New Patch Panels:

Creating a New Fixed Port Panel:

1) Go to Assets > Patch Panels > Rack Mounted Panels.
2) If no Groups or Sub-Groups exist then define those first.
3) Select the Sub-Group you want to add a Panel to.
4) Click the Add a Panel to This Sub-Group button. Alternatively, if you are already viewing a Panel in the Sub-Group you can click the Add Panel button that is available instead.
5) Select the Fixed Port Panel Type that you want to create a new Panel from.
6) Input the name of the new Panel.
7) Click Add Panel.
8) You will see a Panel Add Completed message.
9) Once you close the Add Patch Panel dialogue the new Panel(s) you created will now appear in the Sub-Group.

Creating a New Cassette Pluggable Panel:

1) Go to Assets > Patch Panels > Rack Mounted Panels.
2) If no Groups or Sub-Groups exist then define those first.
3) Select the Sub-Group you want to add a Panel to.
4) Click the Add a Panel to This Sub-Group button. Alternatively, if you are already viewing a Panel in the Sub-Group you can click the Add Panel button that is available instead.
5) Select the Cassette Pluggable Panel Type you want to create a new Panel from.
6) Input the name of the new Panel.
7) With Cassette Pluggable Panels you have the option to install Cassettes during the Panel creation or you can do it after the Panel has already been created.
8) If you want to install Cassettes during the creation then you will notice a list of <empty> Cassette slots in the Add Patch Panel dialogue.
9) Click on an <empty> slot and a Cassette drop-down list will become visible at the bottom of the dialogue.
10) Click the drop-down list and select the Cassette Type that you wish to install into the slot.
11) Repeat this for any slot you wish to have a Cassette installed in.
12) Once all the desired Cassettes are selected click the Add Panel button.
13) You will see a Panel Add Completed message.
14) Once you close the Add Patch Panel dialogue the new Panel(s) you created will now appear in the Sub-Group.
15) After a Panel has been created you can add or remove Cassettes by following the same steps as above.

Creating a New Tray Mountable Panel:

1) Go to Assets > Patch Panels > Rack Mounted Panels.
2) If no Groups or Sub-Groups exist then define those first.
3) Select the Sub-Group you want to add a Panel to.
4) Click the Add a Panel to This Sub-Group button. Alternatively, if you are already viewing a Panel in the Sub-Group you can click the Add Panel button that is available instead.
5) Select the Tray Mountable Panel Type you want to create a new Panel from.
6) Input the name of the new Panel.
7) With Tray Mountable Panels you have the option to install Trays during the Panel creation or you can do it after the Panel has already been created.
8) If you want to install Trays during the creation then you will notice a list of <empty> Tray slots in the Add Patch Panel dialogue.
9) Click on an <empty> slot and a Tray drop-down list will become visible in the middle of the dialogue.
10) Click the drop-down list and select the Tray Type that you wish to install into the slot.
11) If the Tray Type you selected is a Fixed Port Tray then that is all that needs to be done for that Tray.
12) If the Tray Type you selected is a Cassette Pluggable Tray then you will have the same options to install Cassettes into the Tray during the Panel creation. Refer to Creating a New Cassette Pluggable Panel section above and follow the steps listed to install Cassettes into the Tray during the Panel creation.
13) Repeat this for any slot you wish to have a Tray installed in.
14) Once all the desired Trays are selected click the Add Panel button.
15) You will see a Panel Add Completed message.
16) Once you close the Add Patch Panel dialogue the new Panel(s) you created will now appear in the Sub-Group.
17) After a Panel has been created you can add or remove Trays by following the same steps as above.