



# Creating a custom full color and tonal chart to characterize full-color response

If you want to do a full-color characterization in order to [generate ICC device profile](#) or [DeviceLink profile](#), you must print and measure a ColorFlow full color and tonal chart. You can export, print, and measure the built-in **Minimum Full CMYK i1iO** chart which fits on one page of i1iO. (**Note:** This chart does not support scanning by the i1i02 for M1 and M2 measurement conditions.) You can also create a custom full color and tonal chart to fit your press.

1. In a device condition, click the Measurements icon  next to a device.
2. Click the **Add** button .
3. In the **Chart Type** list, choose **Full Color and Tonal**.
4. Configure the chart:
  - a. In the **Page** list, select the spectrophotometer that you will use to measure the pages of this chart. The measuring device type that you select determines the maximum size of measurement pages in the chart.
  - b. In the **Color Bar** list, select the device that you will use to scan the color bar at the bottom of each form. The color bar may be used to perform sheet selection from a press run.

**Note:** If your chart size is too narrow, the color bar will not appear and you will not be able to use it to perform [sheet selection](#).
  - c. In the **Width** box, enter the maximum allowable width of the form(s). In the **Height** box, type the height of the form(s) that you want to create. Usually, this is the safe printable width on your printing device, excluding marks and color bars.
  - d. In the **Form Layout** area, do the following:
    - To create a chart filled with as many patches as possible to maximize the quality of the measured characterization data, click **Fill Printable Area**.
    - To create a full-color chart that contains only the minimum number of color patches needed to characterize the printing device, click **Minimize Form Width**. The height of the chart will be set equal to the height specified for the printable area; the width of the chart will be reduced without eliminating necessary patches.
  - e. If the substrate is not completely opaque and you need to print the same color patches on both sides of the sheet, select Front and Back Forms.
  - f. Specify the fold lines and/or cut lines that will be used by the in-line folder of your web press.

Because folding or other mechanical action on paper affects color, measurement pages are not printed on fold lines and/or cut lines. To specify fold lines and/or cut lines, in the Force Page Breaks area, select the number of partitioned areas you want to have across and down the form. The default value is 1 across, 1 down—that is, one contiguous area with no fold and/or cut lines. See the example in the [Creating a custom full color and tonal chart to characterize full-color response](#) section.
  - g. To apply a uniform background tint in all areas outside the measurement pages to assist with ink takeoff on all ink channels, select the **Background Tint** check box.
  - h. Roll your mouse over the chart. If the chart extends over multiple forms, an indicator appears and displays the form number of the form that you are current viewing. Click the arrows on the indicator to view a different form.

5. Your chart is assigned a default name. To rename your chart , double-click the chart name and enter a meaningful name.
6. Click **Save**.
7. To export the chart, click **Export** and save the chart for printing.  
The color characterization chart is created as an imposition-ready PDF file. If the chart has multiple forms to accommodate a small printable area, each form is a separate page in the exported PDF file.