

# Onyx<sup>®</sup> White Paper Pantone<sup>®</sup> Color Matching in Onyx<sup>®</sup>

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*Onyx Workflow Products*

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## Overview

The Pantone<sup>®</sup> Color Matching Table (CMT) gives you the ability to accurately match Pantone colors in a PostScript workflow. When a PostScript file (EPS, PDF, PS) contains a named Pantone color that matches one found in the CMT, RIP-Queue ignores the vector input profiles and calculates the output color value using the table in combination with the default ICC output profile of the printer and media. Therefore, it's important to check that you have a valid ICC output profile associated with that media for the specific dot pattern and resolution you intend to print and that you have it set as the “default” for the media that uses the color matching table. If you don't have one applied, you get unpredictable results.

To accurately print an image that contains Pantone colors, the named colors you assign in your graphic application must exist in the table with exactly the same name. Once you've created your PostScript file, you must verify in Media Manager that you have set an ICC output profile as default. Then in Rip-Queue, you can apply the CMT either to a Quickset or in Preflight to a specific job.

## Using the Pantone<sup>®</sup> CMT

The Pantone CMT is a digital swatch book of Pantone formulated numbers and their reference types such as Coated, Uncoated and Matte. For example: the color number “PANTONE 300 C” has slightly different values than “PANTONE 300 U” because of the media type. When you create your image in your graphic application, use one of the reference types displayed in the table. If you're working with an ICC workflow, you can simply apply the table to your Quick Set and RIP-Queue will do the rest.

**Note:** The naming convention in the CMT is cAsE sEnSiTiVe. Use the same name VERBATIM in order to correctly process the named color.

Because there are different formulation reference types, you also have the ability to create an “Alias” from your System Defined Color (Pantone) and save them as a User Defined Color within the CMT. The alias function allows you to edit the Pantone names to conform to the naming conventions found in the PostScript file.

If the desired Pantone formulation guide reference you are using is not in the table, you must create an alias. Use the following steps to create an alias:

1. Within Rip-Queue, select *Setup* from the main window. Select PostScript from the menu and click *Color Matching Table*.
2. Highlight the desired Pantone color to which the alias will point and click *Add Alias*.
3. Type in the Alias Name and *Comment* and click *OK*.
4. Click on the *User Defined* tab to verify your new alias.

This will give you a second name associated with the Pantone color in the User Defined Colors tab. Exporting the table allows you to backup and/or distribute the table between remote sites and franchise locations. The table uses the extension .tab and is only for use with Rip-Queue. When you import a .tab file into RIP-Queue, the information gets “added” to the existing table, importing does not overwrite what is currently in the table.

## Verifying ICC Profile in Media Manager

The CMT is only valid for ICC workflow because it works with the gamut of the ICC output profile. If you are using a non-ICC workflow, your printer will not match Pantone values through these means. If the media does not have a default ICC output profile, you must apply one for the CMT to take effect.

**Note:** If you are generating your own profiles and you wish to use Pantone colors, we recommend that you target a SWOP output simulation. This will enable smoother gamut mapping and more predictable results for your effort.

Before you print, check your media to ensure that you have an ICC output profile for the dot pattern and resolution you intend to use and that it is set to “default”. Use the following steps to check your media profile:

1. Highlight the printer and click *Media Manager*.

2. Select the desired ink and media from the drop down menus.
3. The ICC output profile is located under the “Profile” section on the right hand side.

**Note:** The profiles distributed by Onyx are typically labeled “ICC Profile Table” as suggested by Onyx’s Profile Generator software. Users who generate their own profiles can choose a specific name for their profiles.

4. If the icon has a blue outline, the profile is already set as the default. Otherwise, highlight the file and right click to select *Set as Default*.

If there is no ICC output profile for the media you can either select a different media or import a valid ICC output profile for that media within Media Manager. Use the following steps to import a valid ICC output profile:

1. In Media Manager, select Profile from the top menu and click *Import*.
2. Browse for the output ICC File (\*.icc, \*.icm) associated with the media.
3. Highlight the file and click *Open*.
4. With the file selected, right click to select *Set as Default*.

RIP-Queue allows you to compare the expected deltaE values of your ICC output profile to the values in the CMT with the Color Matching Report from Media Manager. Use the following steps to access the Color Matching Report:

1. Highlight the ICC Profile Table.
2. Right click to select *Color Matching Report*.
3. Scroll down to view the expected deltaE values for a specific color.

Compare how closely your ICC profile matches your Pantone colors from this report. These values are based on CIEDE2000 and the data from the Media Analyzer.

It's not a complete detailed analysis of every aspect of the comparative mapping but it's an approximation given the known values.

**Note:** The trained human eye can detect deltaE differences of 2.0+ but typically deltaE values between 2.0-5.0 are considered acceptable.

## Configuring a Quick Set

Enable the CMT by editing the desired QuickSet used in opening the job. To edit the QuickSet and turn on the feature for all jobs opened with that Quickset please do the following:

1. From the RIP-Queue window, click *Edit Quicksets*.
2. Highlight the printer from the left pane for which you want to edit.
3. Highlight the QuickSet you wish to edit in the right pane and click *Edit*.
4. From the Edit Quickset dialog, click *Advanced*.
5. From the Advanced Options dialog, select the Postscript tab
6. Enable Use Color Table at the bottom left side on the PostScript tab.
7. Click *OK* and then click *OK* again until closed.

Now jobs opened using this QuickSet will implement the CMT as well as any User Defined Colors that you've created.

## Applying CMT in Preflight

Edit the Job Properties for a specific job to enable the CMT in Preflight. If your job is in the buffered queue, highlight the job and right click to select *Edit in Preflight*. To apply the CMT to jobs that have been opened in Preflight with a QuickSet that does not have this feature enabled, please do the following:

1. From the Preflight menu bar select File and choose Job Properties.

**Note:** In addition, you can open the Job Properties dialog by clicking on the “Information” icon (blue circle with “i”) from the top menu or by typing the Hot Key “Alt+Enter”.

2. Select the Postscript tab and enable Use Color Table.
3. Click *OK*.

Now that it has been turned on, you can re-render the preview and see the effect on-screen or click *Submit* on the Print tab to process the job using the CMT. Use the following steps to re-render the preview:

1. Within Preflight, select the Preview and Size tab.
2. Click *Apply*. The re-rendered preview will now display the effect of using the CMT.

**Note:** After PostScript preview, Preflight applies any color corrections to the entire page including colors in the CMT. The color correction filter supersedes the color match table values; therefore, we recommend that you not use any Color Correction tools for images using the CMT.

3. Make any additional changes to your job within Preflight, then click *Submit* on the Print tab to process your job.

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