ColorFlow Color Relationship Management section of the Loose Page Output process template

The **ColorFlow Color Relationship Management** section of the loose page output process template defines how Prinergy applies ColorFlow settings during loose page output.

When you configure the ColorFlow settings in an output process template, you may—depending on the output conditions—select the snapshot, color setup, device, device condition, output version, plate setup and plate line.

Halftone Output Mode

It is possible to select from four modes for output to halftone devices or files. These modes control the curves that are applied upon output.

Print Production

This halftone output mode reflects the standard operation of Prinergy and ColorFlow for production. When this option is selected, curves are applied to each output separation, as described next:

- The *print calibration curve* for the separation, determined by the selections from the **Snapshot**, **Color Setup**, **Device**, **Device Condition**, and **Output Version** lists, and possibly modified at run time by the settings in the Tonal Control dialog box, is applied to separation input tints.

- The *plate calibration curve*, determined by the selections from the above lists and **Plate Line** lists, is applied to the separation tints modified by the print calibration curve.
  Note: If **None** is selected from the **Plate Setup** and **Plate Line** lists, the plate calibration curve is linear (has no effect).

When this option is selected:

- The **Color Setup** list contains all color setups in the selected snapshot, plus some special selections identified below.
- The **Device** list contains all curved print devices that are ready for output in the selected color setup. If **Show all print devices** is selected, non-curved print devices also appear.
- The **Device Condition** list contains all ColorFlow device conditions in the selected color setup that use the selected device.
- The **Output Version** list contains all named versions of output conversions to the selected device condition, plus the **Default** option—the output version designated as default in ColorFlow.
- If the selected device condition uses a plate setup, the **Plate Setup** list displays this plate setup, and the **Plate Line** list contains all ColorFlow plate lines controlled by the plate setup in the selected snapshot.

This option is not available when a process template is configured for continuous-tone (non-screened) output.

Print Characterization

This halftone output mode is used to print and measure the response of a print device. When this option is selected, curves are applied to each output separation as follows:

- The *device curve* for the separation, determined by the selections from the **Snapshot**, **Device**, and **Device Condition** lists, with no modifications from the Tonal Control dialog box, is applied to separation input tints.

- The *plate calibration curve*, determined by the selections from the **Plate Setup** and **Plate Line** lists, is applied to the separation tints modified by the print calibration curve.
  Note: If **None** is selected from the **Plate Setup** and **Plate Line** lists, the plate calibration curve is linear (has no effect).

When this option is selected, the **Device** list contains all curved print devices in the selected snapshot, and the **Device Condition** list contains all ColorFlow device conditions in the selected snapshot that use the selected device. If the selected device condition uses a plate setup, the **Plate Setup** list displays this plate setup, and the **Plate Line** list contains all ColorFlow plate lines controlled by the plate setup in the selected snapshot.
When this option is selected, the **Color Setup** and **Output Version** lists are not available.
This option is not available when a process template is configured for continuous-tone (non-screened) output.

Plate Verification

This halftone output mode is used to verify the calibrated response of plates produced by a particular plate line (consisting of the computer-to-plate device, plate processor setup, and chemistry), with a selected plate type and screening system.

When this option is selected, the following results occur:

- Only the *plate calibration curve*, determined by the selections from the **Plate Setup** and **Plate Line** lists, is applied to input tints of all separations.
- No print calibration curve is applied.

When this option is selected, the **Plate Setup** list contains all ColorFlow plate setups in the selected snapshot, and the **Plate Line** list contains all ColorFlow plate lines controlled by the selected plate setup in the selected snapshot.
When this option is selected, the **Color Setup**, **Device**, **Device Condition** and **Output Version** lists are not available.
This option is not available when a process template is configured for continuous-tone (non-screened) output.

Plate Characterization

This halftone output mode supports imaging and measuring the uncalibrated (or intrinsic) response of a plating line, such that a plate calibration curve can be computed. When this option is selected, no calibration curves are applied to input tints of any separations.
When this option is selected, none of the lists in the **ColorFlow** section are available.
This option is not available when a process template is configured for continuous-tone (non-screened) output.

Allow unassigned color setup or color setup mismatch

This check box enables the job to run when the selected color setup differs from the color setup assigned by the refine process, or if a color setup has not been assigned. Note that when this feature is enabled, output could be significantly different.
To use this feature, it is recommended to select a specific color setup in the **Color Setup** list. This will ensure that the list of devices and device conditions are filtered to include only those available in the selected color setup. Then, the **Allow unassigned color setup or color setup mismatch** check box can be selected and output will succeed with a warning message.
To output refined pages with no color setup assigned to them, you can select the **Allow unassigned color setup or color setup mismatch** setting.

When **Color setup assigned by Refine** is selected, the **Allow unassigned color setup or color setup mismatch** check box is unavailable because a mismatch cannot occur

Snapshot

A ColorFlow snapshot captures the state of the entire color database, making its elements available to the workflow and providing a convenient backup. The snapshot feature enables you to isolate experimentation, adjustments, and testing in ColorFlow from Prinergy production output. At any time, you can roll back (revert) to the state of a previous snapshot in the ColorFlow software. If you revert to a previous snapshot, ColorFlow deletes all color database changes that were made after that snapshot was captured.

When you have completed your work in ColorFlow to a certain level and you are satisfied with the elements in color setups, you will mark a snapshot as *approved*. Output using the **Approved** snapshot is recommended for production jobs. The default **Snapshot** selection for new process templates is **Approved**. Only one snapshot can be in the approved state at any time.

In addition to selecting the **Approved** snapshot or a numbered snapshot, you can also select **Current State**. This option fetches color control elements from the color database currently visible in ColorFlow. These elements are subject to change by the ColorFlow operator, so this selection is not recommended for production output.

This list is not available if the **Plate Characterization** option is selected.

Color Setup

A ColorFlow color setup is a collection of device conditions and the color control elements (curves, device profiles, and DeviceLink profiles) that are required to process color data with consistency among color capture and reproduction devices.
This list displays the names of all color setups in the selected snapshot for which the **Show in Prinergy** option is selected in ColorFlow. At the top of the list is **Color setup assigned by Refine**, followed by **Job color setup**.

Notes:

- If you select a specific color setup, the Output process will fail if the color setup does not match the color setup assigned by the Refine process, unless the **Allow unassigned color setup or color setup mismatch** option is selected. If you select **Job color setup**, Prinergy will output the job using the color setup selected in the **Job Color Setup** list in the Edit Job Attributes dialog box.
- If you select **Job color setup**, and selected **None** in the **Job Color Setup** list in the Edit Job Attributes dialog box, the Output process will fail. If you select the **Color setup assigned by Refine** option, Prinergy will output the job using the color setup(s) used to refine the job pages—that is, either the color setup specified in the refine process template that was used, or the selected **Job Color Setup**. The color setup assigned in Refine is indicated for each page in the **Color Setup** column of the **Pages** pane.
- If you select the **Color setup assigned by Refine** option, and any pages have been refined without ColorFlow, the Output process will fail.

This list is available for halftone (screened) output only if the **Print Production** mode is selected.

Device

A ColorFlow device is an individual occurrence of a physical device that produces an image. It may also indicate a printing specification or intended color response. Devices have a type and usually have a custom name to reflect their model and
location in the plant. The declaration of a device does not include its operating conditions, such as, substrate, screening, and ink selection.

When a process template is configured for halftone (screened) output processes, this list displays the names of all curved devices used in PCO (primary color output) or SCO (secondary color output) device conditions in the selected color setup and snapshot. Curved print devices are those with the following device types:

- Offset press—for example, sheetfed, heatset web, coldset web
- Flexographic press
- Digital press—for example, Versamark
- Digital halftone proofer—for example, Kodak Approval, Trendsetter Spectrum

When a process template is configured for continuous-tone (non-screened) output, this list displays the names of all non-curved devices used in PCO or SCO device conditions in the selected color setup and snapshot. Non-curved devices are those with the following device types:

- Digital press—for example, Nexpress
- Inkjet proofer—for example, Matchprint Inkjet, Kodak Veris
- CMYK reference

If **Show all print devices** is selected, both curved and non-curved devices appear in the list.
If the **Color Setup** selection is **Job color setup** or **Color setup assigned by Refine**, the list of devices is unfiltered. Note that this may cause output to fail, if the selected device and device condition are not in the **Job color setup** or **Color setup assigned by Refine** and a message will be logged in the process history. To avoid this condition, it is recommended to select a specific color setup. This will filter the list of devices and device conditions to include only those available in the selected color setup. After selecting the desired device and device condition, the color setup may be changed to **Job color setup** or **Color setup assigned be Refine**, to ensure the correct color setup is used.

This list is not available if the **Plate Verification** or **Plate Characterization** option is selected.

Device Condition

A ColorFlow device condition is a combination of operating conditions with which the device produces an image. It can also indicate an industry specification or printing intent. A device condition has a known color response.

When a specific color setup is selected, this list contains all ColorFlow device conditions that use the selected device and are used in the PCO or an SCO of the selected color setup.
This list is not available if the **Plate Verification** or **Plate Characterization** option is selected.

Output Version

An output version is an instance of a print curve and/or a DeviceLink to control color output to the selected device and device condition. ColorFlow can provide various output versions to achieve different color output goals. Each output version has
a name.

When a specific color setup is selected, the **Output Version** list contains all output versions that control output to the selected device and device condition, plus **Default** at the top of the list. The default output version is determined in ColorFlow, and indicated in its name displayed in the list.

When **Job color setup** or **Color setup assigned by Refine** is selected, only the **Default** output version is available for output.

Plate Setup

If the **Print Production** or **Print Characterization** option is selected, and the selected device condition uses a plate setup in the selected snapshot, this plate setup is displayed here. Otherwise, this list displays **None** when these options are
selected.
If the **Plate Characterization** option is selected, this list displays all plate setups in the selected snapshot.

This list is not available if the **Plate Characterization** option is selected. It is also not available when a process template is configured for continuous-tone (non-screened) output.

Plate Line

A ColorFlow plate line identifies plate imaging and processing equipment used to image plates. The **Plate Line** setting defines the correct plate curve for plate calibration.

If the **Plate Setup** list displays a plate setup, the **Plate Line** list contains all ColorFlow plate lines controlled by the plate setup in the selected snapshot. If the **Plate Setup** list displays **None**, the **Plate Line** list also displays **None**.
This list is not available if the **Plate Characterization** option is selected. It is also not available when a process template is configured for continuous-tone (non-screened) output.