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2. Installing the Flexo Tools

- Open the Photoshop.mpkg package on the installation disk and follow the instructions on screen.

This will install the Flexo Tools in your Adobe Photoshop® Plug-Ins folder and the License Manager in your Applications folder.
3. Flexo Tools Setup

1. After installing the Flexo Tools, launch Photoshop and go to **File > Automate > Flexo Tools Setup**...

2. You have two licensing options for the Flexo Tools. You can either:
   - Start a 30 days trial (see **Starting a Trial** on page 7),
   - Activate your license, if you have one (see **Activating your Software** on page 12).

   **Note:** If you already have activated your license but want to modify or deactivate it, use the **License Manager**. See **Using the License Manager** on page 18.

3. Choose a DeskPack Folder. See **Choosing a DeskPack Folder** on page 19.

3.1 Starting a Trial

1. In the **Flexo Tools Setup** dialog, click the **Start Trial**... button.
   This opens the **Start Trial Assistant**.

2. Click **Continue**.

3. Choose to either:
   - **Start a trial on-line** or
   - **Start a trial off-line**.
3.1.1 Starting a Trial On-line

1. In the Start Trial Assistant, choose Start a trial on-line.
2. Activating a trial will always use a fixed Esko ID and Password.

3. Click Continue.
   This starts a 30 days trial for the Flexo Tools.
Note: You can see the number of trial days remaining in the **Flexo Tools Setup** dialog and in the **License Manager**.

### 3.1.2 Starting a Trial Off-line: Creating a Trial Request

1. In the **Start Trial Assistant**, choose **Start a trial off-line**.
2. Choose **Step 1: Create a trial request**.

![Start Trial Assistant](image)

3. Fill in your **Esko ID**.

   **Note:** If you don't have an Esko ID, go to [http://www.esko.com/licensing/createaccount](http://www.esko.com/licensing/createaccount) to create one.

4. Save the trial request file created automatically using the **Save As...** button.
5. Click **Continue** then **Done**.

6. Go to [http://www.esko.com/licensing/activation](http://www.esko.com/licensing/activation), select the **Manual Product Activation** option and click **Continue**.

7. Browse to the **Flexo Tools_ActivationRequest.xml** file you saved earlier.
8. Fill in your Esko ID and Password and click Continue.

This shows a trial product key for the Flexo Tools.

9. Click Continue to download a response.xml file.

3.1.3 Starting a Trial Off-line: Loading a Trial Response

1. In Photoshop, go back to File > Automate > Flexo Tools Setup... and click Start Trial...
2. In the Start Trial Assistant, choose Start a trial off-line.
3. Choose Step 2: Load a trial response.
4. Browse to the `response.xml` file you downloaded earlier.
5. Click **Continue** then **Close**.
   This starts a 30 days trial for the Flexo Tools.

**Note:** You can see the number of trial days remaining in the **Flexo Tools Setup** dialog and in the **License Manager**.

### 3.2 Activating your Software

You need a **permanent product key** to activate your Flexo Tools.

1. In the **Flexo Tools Setup** dialog, click the **Activate...** button.
   This opens the **Activate License Assistant**.
2. Click **Continue**.
3. Choose either:
   - **On-line activation** or
   - **Off-line activation**.
3.2.1 Activating On-line

1. In the **Activate License Assistant**, choose **On-line activation**.
2. Fill in your **Product Key**.
3. Fill in your **Esko ID** and **Password**.
3.2.2 Activating Off-line: Creating an Activation Request

1. In the **Activate License Assistant**, choose **Off-line activation**.
2. Choose **Step 1: Create an activation request**.

**Note:** If you don’t have an Esko ID, click the **Create a new Esko ID** link to create one.

4. Click **Continue**.
   You can now use the Flexo Tools.
3. Enter your **Product Key**.

![Activate License Assistant](image1)

4. Fill in your **Esko ID**.

   **Note:** If you don’t have an Esko ID, go to [http://www.esko.com/licensing/createaccount](http://www.esko.com/licensing/createaccount) to create one.

5. Save the activation request file created automatically using the **Save As...** button.

![Activate License Assistant](image2)
6. Click **Continue** then **Done**.
7. Go to [http://www.esko.com/licensing/activation](http://www.esko.com/licensing/activation), select the **Manual Product Activation** option and click **Continue**.

8. Browse to the `Flexo_Tools_ActivationRequest.xml` file you saved earlier.

   **Note:** Your browser needs to accept cookies. To set this in Safari, go to **Safari > Preferences > Security** and choose **Always** for the **Accept cookies** option.

9. Fill in your EskoArtwork **Account Name** and **Password** and click **Continue**.

   This shows your product key for the Flexo Tools.
10. Click **Continue** to download a `response.xml` file.

### 3.2.3 Activating Off-line: Loading an Activation Response

1. In Photoshop, go back to **File > Automate > Flexo Tools Setup...** and click **Activate...**
2. In the **Activate License Assistant**, choose **Off-line activation**.
3. Choose **Step 2: Load an activation response**.
4. Browse to the response.xml file you downloaded earlier.

5. Click Continue then Close.
   You can now use the Flexo Tools.

3.3 Using the License Manager

- To open the License Manager:
  - In Photoshop, go to File > Automate > Flexo Tools Setup... and click License Manager...
  - Go to your Applications folder and double-click EskoArtwork Local License Manager.app.

- With the License Manager, you can:
  - Activate your license, if you have one, using the Activate License Assistant (see Activating your Software on page 12).
  - Deactivate your license, for example if you want to transfer it to another computer.
  - Repair one or several license, if they happen to be broken.
  - Save a Licenses Report (that can be useful in case your computer crashes or is stolen).
For more information on deactivating or repairing licenses, and saving a Licenses Report, please see the Using the EskoArtwork Server License Manager user guide.

3.4 Choosing a DeskPack Folder

Before you can work with any of the Flexo Tools, you need to specify a DeskPack Folder. This folder is used internally by the Flexo Tools to store settings.

- Use the Choose... button to select an existing folder or to create a new one to use as DeskPack Folder.

Note:
If you are running several copies of the Flexo Tools on a network, we recommend that you use the same DeskPack Folder for all copies. With this setup, all Flexo Tools can use the same Press Settings.

If you also have DeskPack products on Adobe Illustrator®, we suggest that you use the DeskPack Container as DeskPack Folder.
4. Where to find the Flexo Tools

1. Open a **CMYK** image in Photoshop.
2. Go to **File > Automate**, and you will see the Flexo Tools:
Use the **Press Settings**... to store technical parameters of the output process (RIP, platemaking, press, inks and substrate). Having all Flexo Tools use the same Press Settings guarantees a consistent retouching workflow.

Use the **viewX Layers**... to visualize certain print characteristics, to help you detect possible printing problems.

Use the **Viewer** to get a very accurate separation viewer. See **Viewer** on page 34

See **Press Settings** on page 42 and **ViewX Layers** on page 22 for more information.

---

**Note:**

You can find other Flexo Tools in the **Filter > DeskPack** menu.

Use the **FlexoClean**... filter to clean up the separations and prevent scattered dots or holes on the plate.

Use the **FlexoFix**... filter to improve the printing quality of images on a flexographic press.

For more information, see **The FlexoClean Filter** on page 29 and **The FlexoFix Filter** on page 32.
5. ViewX Layers

ViewX Layers are Photoshop layer-sets, created by the Flexo Tools. You can find them under **File > Automate**. They can help you visualize certain print-characteristics. This makes it easier to detect possible printing problems.

There are three ViewX Layer sets, each serving a different purpose:

1. **Flexo Plate Preview**: shows a single separation as a processed flexo-plate. This makes it easy to see where there will be dots and where there will be no dots in the highlights. ([ViewX Flexo Plate Preview layer](#) on page 25.)
2. **Flexo Print Preview**: shows the effect of highlight dot gain on a composite image. Shows the desaturation and tonal jumps in the image due to the dot gain of the first dot. ([ViewX Flexo Print Preview layer](#) on page 26.)
3. **TAC Preview**: shows where the sum of densities exceeds the TAC limitation of the printing substrate. ([ViewX TAC Preview layer](#) on page 27.)

Please refer to **Working with viewX Layers** on page 23.

After you created one or more viewX layers, you can easily show and hide the effect by showing and hiding the viewX layer.

Caution:

- When flattening the file when one of the viewX layers is visible, the adjustment will be calculated into the separations. This is probably not the intention. Make sure to toggle the viewX layers invisible prior to flattening or saving to a flat file-format (Esko-Graphics CT, EPS, ...).
- The visible viewX layer will affect the number of the densitometer in the Info palette. To measure the real densities, hide the viewX layer.
- viewX layers are adjustment layers. Photoshop does not support adjustment layers on multi-channel images. That’s why the viewX layers are only available on composite CMYK images.
The **Viewer** is an alternative way to check printing characteristics and measure pixels, without the limitations mentioned above. The Viewer is explained here: **Viewer** on page 34. For more specific info on the Flexo Print or Flexo Plate preview in the Viewer, you can go directly to **Quality Control** on page 37.

5.1 Working with **viewX** Layers

5.1.1 Creating **viewX** Layers

To create **viewX** layers, go to **File Menu > Automate > viewX Layers ...** A dialog pops up:

![ViewX Layers dialog](image)

**Press**: shows the list of all press-configurations. See **Press Settings** on page 42 on how to edit these configurations.

**Flexo Plate Preview Layer**: toggle this on if you want a Flexo Plate Preview layer. When the selected press has no first dot setting, this checkbox is disabled. (More on **ViewX Flexo Plate Preview layer** on page 25).

**Plate Color**: pick the plate color that is to be used for the preview. This is strictly a visual setting. Just pick the one you like.

**Flexo Print Preview layer**: toggle this on if you want a Flexo Print Preview Layer. When the selected press has no highlight dot gain settings, this checkbox is disabled. (More on **ViewX Flexo Print Preview layer** on page 26).
**TAC Preview layer**: toggle this on if you want a TAC Preview layer. (More on ViewX TAC Preview layer on page 27).

**Highlight when TAC is above x %**. Areas in the image will be highlighted if the local sum of densities is higher than the value you select here. If there is a TAC-limit set for the selected press, that value will be shown by a marker on the scale. You’re free to use a different setting for the visualization. A little marker indicates the TAC limit specified in the selected press settings. See Press Settings on page 42.

Press OK to create or modify the viewX layers. The different layer sets will be created.

**Tip:**
The content of the viewX layers are controlled by Flexo Tools. So after creating the viewX layers, we strongly recommend to close them in the Layers palette.

### 5.1.2 Deleting viewX Layers

To delete one or more of the viewX layers, go to File Menu > Automation > viewX Layers... and toggle off the layers you no longer need. Another way to quickly delete all viewX layers, is by hiding
the viewX layers and using the Photoshop functions Delete Hidden Layers or Flatten Image. You can also drag the viewX layers to the trash button.

5.1.3 Using the viewX Layers

ViewX layers work much like regular Photoshop adjustment layers: when toggled visible, an adjustment layer applies an effect on all underlying visible layers. The other layers are not really changed, only the visualization and the densitometer measurements are affected.

**Caution:**

Make sure the viewX layers are not visible when you merge layers. When regular layers are merged or flattened together with adjustment layers, the adjustments are calculated into the result. This can also happen when changing the image mode or saving to an unlayered file.

**Caution:**

The color values in the Info palette are incorrect when the viewX layers are visible.

ViewX layers are not completely like Photoshop’s adjustment layers: viewX layers cannot be selected or changed since they are managed by Flexo Tools and created with the 'viewX layers...' option. You can only hide/show them. There can only be one viewX layer visible at a time.

**Note:** The Viewer is an alternative way to check printing characteristics and measure pixels, without the limitations mentioned above. The Viewer is explained here: Viewer on page 34 For more specific info on the Flexo Print or Flexo Plate preview in the Viewer, you can go directly to Quality Control on page 37.

5.2 ViewX Flexo Plate Preview layer

This viewX layer shows the selected channel as a processed flexo plate.

With the flexo plate preview, areas on the plate with dots can be easily distinguished from the areas without dots. There can only be one channel selected when this viewX layer is visible.
The Flexo Plate Preview Layer will use the first dot percentage from the *Press Settings* on page 42. Pixels with a percentage lower than the first dot percentage will be shown as areas without dots. Pixels with a percentage equal or higher than the first dot percentage will be shown as areas with dots.

5.3 ViewX Flexo Print Preview layer

This viewX layer shows the effect of highlight dot gain on the image.

This effect is equivalent with curve adjustment. To determine this curve, the Flexo Print Preview Layer will use the first dot and the highlight dot gain settings from the selected press. Going from light to dark, the Print Preview layer will display percentages below the first dot percentage as 0%. The first dot percentage will be shown darker (using the First Dot prints As value). Towards the midtones this darkening effect will fade out until the Range value. Percentage larger than Range, are displayed unchanged.

See also: *Press Settings* on page 42.
5.4 ViewX TAC Preview layer

This ViewX layer clearly highlights the areas in the image where the sum of the densities exceeds the total area coverage limit of the printing substrate.

This limit-value is chosen when Creating viewX Layers on page 23...
6. The FlexoClean Filter

The FlexoClean filter is an image filter that prevents scattered dots or holes on the plate by cleaning up the separations. You can run the filter on one or on all CMYK channels. All selected channels will be cleaned (independently from each other). Multi-channel images can also be cleaned, but then you have to filter the channels one at a time.

To open the filter, choose **Filter Menu > DeskPack > FlexoClean**.

A dialog will pop up:
On the right hand side are the filter parameters. Pressing OK (or hitting the enter key) will apply the filter on the current Photoshop selection. Pressing Cancel (or hitting the escape key) will close the dialog. On the left hand side of the dialog there is the possibility to compare the original image with a preview of the filter.

**Press:** Shows the list of all press-configurations. See Press Settings on page 42 on how to edit these configurations. The first dot percentage value from the selected press will be used by the filter to determine where there will be dots on the plate. The filter will also make sure that all highlight percentages below the first dot percentage are pulled down to 0% or pulled up to the first dot percentage.

**Cut off Highlights Below:** Normally the plate making process will cut off the highlights below the First Dot Percentage (see Making new Press Settings on page 43). With this slider however you can influence this cut-off point for this image: All pixels with a percentage below this value will be set to 0% so that they will definitely not generate dots on the plate. If you choose a value of 0%, the highlights will not be cut-off at all and the plate will have dots everywhere.

**Remove Scattered Spots:** When this toggle is on, the filter will scan the selected channels one by one, looking for groups of pixels that will end up as an isolated dot or group of dots on the plate. When such a group of pixels is found the filter will replace it by 0% pixels.

**Radius:** Spots will only be removed if they are smaller than the given radius.

**Maximum Density:** Spots will only be removed if the darkest pixel of the spot is not darker than this given value.

**Fill Holes:** When this toggle is on, the filter will scan the selected channels one by one, looking for groups of pixels that will end up as an area without dots completely surrounded by dots. When such a group of pixels is found, and it is not too big, it will be replaced by pixels that yield the smallest stable dot, filling the hole. Radius: Holes will only be filled if they are smaller than or equal to the given radius.
**Preview Area:** On the left, there is a big preview area, where a preview of the filter’s result is shown. Use the plus and minus buttons below to change the zoom. Click and drag in the preview image to pan and show a different part. Just click and hold in the preview image to see the original image. This can be used to compare the filter’s result with the original image.

**Channel:** Choose which channel(s) to view in the preview area. This only affects the visualization in the preview area, not the effect of the filter.

**Preview:** The image in the preview area can be shown with one of the viewX visualization modes:

- **Image (default):** No visualization mode, the preview (and original image) is shown with normal Photoshop visualization.
- **Flexo Plate Preview:** The image in the preview area is shown as a flexo plate. The effect is the same as with the ViewX Flexo Plate Preview layer on page 25.
- **Flexo Print Preview:** The image in the preview area is shown with extra dot gain in the highlights. The effect is the same as with the ViewX Flexo Print Preview layer on page 26.

**Color Values:** use the mouse pointer in the filter’s preview area to measure the color values. The first column are the original values, the second column are the values after the filter will be applied (see About High Precision Percentages on page 44).

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<td>C:</td>
<td>6.3 / 6.3 %</td>
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<tr>
<td>M:</td>
<td>92.9 / 92.9 %</td>
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<td>Y:</td>
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<td></td>
</tr>
<tr>
<td>K:</td>
<td>1.2 / 0.0 %</td>
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**Note:**

The selected preview mode will always affect the preview areas display. So when you click inside the preview area, the original image will also be displayed with the selected preview mode.
The FlexoFix filter is an automatic way to improve the printing quality of an image on a flexographic press.

To start the FlexoFix filter, choose FlexoFix from the DeskPack submenu of the Filter menu. This will open a dialog:

On the right hand side are the filter parameters. Press OK (or hit the Enter key) to apply the filter on the current Photoshop selection. Pressing Cancel (or hit the Escape key) to close the dialog.

**Press**: Shows the list of all press-configurations. See [Press Settings](#) on page 42 on how to edit these configurations.

**Channel Actions**: For each selected channel, there is a list of possible actions to choose from. For regular CMYK images (with a 'skeleton' Black channel), the default actions will give you the best results.

For composite selection:

- **Save Detail and Saturation**: this means that the filter will raise all percentages above the first dot percentage and will compensate for the dot gain in the highlights. This compensation is done in a context-sensitive way to ensure that the detail and contrast of the original image is maintained. In some areas the midtones will be raised to compensate for de-saturation that results from the remaining highlight dot gain in the other channels.
- **Save Saturation**: this means that the filter will raise all percentages above the first dot percentage and will compensate for the dot gain in the highlights. In some areas the midtones can be raised to compensate for de-saturation that results from the remaining highlight dot gain in the other channels.
- **Shorten**: this action will remove highlight dots from the plate, sacrificing some highlight detail.
- **None**: the filter will not change this channel.

For single channel selection, there is no such thing as 'saturation' so the list is slightly different:
• Save Detail: this means that the filter will raise all percentages above the first dot percentage and will compensate for the dot gain in the highlights. This compensation is done in a context-sensitive way to ensure that the detail and contrast of the original image is maintained.
• Shorten: this action will remove highlight dots from the plate, sacrificing some highlight detail.
• None: the filter will not change this channel.

**Shortening Range**: applies to the shorten action and specifies how far the highlights will be shortened. All highlights below this value will be reduced to 0%.

**Color Values**: use the mouse pointer in the filter’s preview area to measure the color values. The first column are the original values, the second column are the values after the filter will be applied (see *About High Precision Percentages* on page 44).

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<tr>
<td>C</td>
<td>9.8 / 7.8%</td>
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<tr>
<td>M</td>
<td>24.3 / 25.9%</td>
</tr>
<tr>
<td>Y</td>
<td>67.8 / 73.3%</td>
</tr>
<tr>
<td>K</td>
<td>0.8 / 0.0%</td>
</tr>
</tbody>
</table>

In this example (a composite orange), the Cyan is slightly lightened, as a partial compensation for the highlight dotgain. The remaining highlight dotgain of the Cyan will still desaturate the composite color, to compensate for this desaturation Magenta and Yellow especially are raised. The shorten action removed the marginal amount of Black in this pixel. For a more in depth study of the FlexoFix actions, please read the extra FlexoFix documentation on the installation CD.
8. Viewer

**Viewer** is available in Flexotools and Ink Tools version 12.0.211 and later. To upgrade from version 12.0, you can visit [https://mysoftware.esko.com](https://mysoftware.esko.com)

8.1 Welcome to Viewer

**Benefits of using Viewer**

**Viewer** is a very accurate separation viewer with a lot of extra production tools. It eliminates the need for separated proofs and will help you to avoid bad plate-making.

In this preview, you have access to advanced tools such as the Densitometer.

To open the Viewer window, choose **File > Automate > Viewer**...

8.2 Define Press Settings

Before you can start working with Viewer in a meaningful way, you should define your **Press Settings**. Without basic information on the properties of the press you are using, Viewer cannot simulate accurately.

You can open the Press Settings window by selecting **Press Settings**... in the fly-out menu of the Quality Control section, or choose **File > Automate > Press Settings**

See [Press Settings](#) on page 42

8.3 The Viewer window

To open the Viewer window, choose **File > Automate > Viewer**...

When opening a document, or changing to a different job, Viewer will (re)calculate the Preview. Viewer will only work when the active document is a CMYK or Multichannel image, at 8 bits per channels. Otherwise the Viewer will show a warning “The current document is not in the CMYK or Multichannel mode”.

When changes are made in the Photoshop document, you have to click the **Refresh** button for the changes to become visible in Viewer.

**Note:** Viewer will take the Photoshop Layer visibility into account, but will disregard Photoshop’s Channel visibility settings.
By clicking the **Minimize** button, the Viewer window is minimized, showing only the **Maximize** button. You can maximize the Viewer window by clicking the **Maximize** button. If you choose **File > Automate > Viewer...** the Viewer window will be maximized and refreshed.

### 8.3.1 Navigating in the Preview

The Viewer window shows the preview of your document in the left pane, and the list of used inks in the right pane of your Viewer palette.

At the bottom of the palette, you will find:

1. a Pan tool (see below), a Zoom tool (see below) and a Densitometer tool (see [Measure Ink Densities](#) on page 36)
2. a zoom-in and zoom-out button and a field showing the current zoom percentage.
3. the Refresh button.
4. the Minimize button.

#### Zoom in - zoom out

To zoom in the preview pane of the Viewer palette, select the zoom tool and just click, and the view will zoom in using the clicked point as center point.

To zoom out, click while holding the ALT key pressed, and the view will zoom out using the clicked point as center point.

You can also drag a rectangle to zoom in, and the new viewport will be a closest match to the rectangle you dragged.

You can also use the default Photoshop shortcuts: `cmd-0` to fit the image in the window, `cmd-1` to set the zoom factor to 100%.

To pan the view, select the Pan tool or hold down the spacebar and drag a line in the preview pane. The view will move the direction and the length of the line you drag.

### 8.3.2 Separation visibility

In the Ink list, you can:

- Click the eye icon in front of a separation/color name to show or hide it.
- Alt-click an eye button to quickly hide all other separations and go in single-separation mode. Alt-click the same eye button again to show all separations.
- You can also use the Photoshop shortcuts: `Cmd-2` to show all separations, and `Cmd-3` to show only the first separation, `Cmd-4` for the second, etc.
- Double-click an ink to open the **Display Inks** window (for CMYK inks) or **Spot Color** dialog for spot colors. See [Display Inks](#) or [Spot Colors](#)
If only one ink is selected, you can choose in the fly-out menu of the Separations section if you want to see the single separation

- in RGB, using the actual color
- in grayscale, as the image might appear on film / plate
- in grayscale but inverted

### 8.3.3 Measure Ink Densities

**Densitometer**

In the middle of the right side of the Viewer window, you can see the Densitometer section. You can show or hide the section by clicking the triangle in front of it.

- Select the **Densitometer** tool, and click on an area of your document to measure the separation densities in that area.

Every time you click, a new measuring point is set. The densities are shown to the right of each separation, and the color patch in the Densitometer section shows the measured color. The total density of all inks on the point that is being measured (the TAC value) is shown at the bottom of the separation list.

**Note:** If the TAC value exceeds the TAC limit specified in the currently selected press settings, a warning icon is shown next to the Total Area Coverage.

- Use the left and right arrow buttons to browse through the different measuring points. The according densities and color patch will be shown.

**Note:** If you are zoomed in and navigate to a measuring point not in the Viewer window, the Preview will pan to show the selected measuring point.

- Click the **Remove** button (X) or use backspace to delete the current measuring point.
- Change the **Size** of the current measuring point by clicking the up and down arrow. If the size is set to e.g. 3, the densitometer will take the average density of a 3 by 3 pixel area.

**Note:** When creating a new measuring point, the current Size will be used.

- Select **Show bubbles** to show the measured densities next to every measuring point.
When in **Flexo Print** or **Flexo Plate** preview, the bubble will show a black dot next to the density for channels with a percentage equal or higher than the first dot percentage.

When in **Breakout** preview, the bubble will show a red triangle icon next to the density for channels with a percentage below the first dot percentage.

When in **Total Area Coverage** preview, the bubble will show a black dot next to the density for channels with a percentage equal or higher than the first dot percentage, and it will show a yellow triangle icon next to the total area coverage if it exceeds the currently set TAC value.

The densities of separations that are not visible, are shown dimmed in the bubbles.

### 8.3.4 Quality Control

**Registration Error**

The Registration Error Preview is a simulation of a design printed with misregistration. It can be very helpful to see if trapping is applied sufficiently and correctly.

Use the slider to set the **Registration Error**, or enter a value in the input field.

The separations are randomly shifted. In fact, all separations are moved exactly the distance of the Registration Error, but all under a random angle.

If you want to see another random registration error simulation, click the **Simulate Again** button.
In the example above, you can see a small area of a job in regular preview (left) and with registration errors (right). In this case, you can clearly see no trapping was applied, so white lines appear at the registration shifts.

**Flexo Print**

This **Viewer** preview mode shows the effect of highlight dot gain on the image.

This effect is equivalent to a curve adjustment. To determine this curve, the Flexo Print Preview will use the **First dot** and the **Dot gain in highlights** settings from the Press Settings (see *Define Press Settings* on page 34).

Going from light to dark:

- The Flexo Print Preview will display percentages below the **First visible dot** percentage as 0%.
- The **First visible dot** percentage will be shown using the **First Dot Prints** as percentage.
- Percentages above the **First visible dot** percentage will be shown darker.
- Towards the midtones this darkening effect will fade out until the **Range** value.
- Percentages above the **Range** value are displayed unchanged.
Flexo Plate

If you change the **Viewer** Preview mode to **Flexo Plate**, a single separation (by default the first in the list) will be shown as a simulated flexo plate.

**Note:**
In this Preview mode, only one separation can be viewed at a time.

**Note:** This gives a preview similar to using ViewX layers.

**First Visible Dot**

The Flexo Plate preview will use the **First Visible Dot** percentage from the press settings (see *Define Press Settings* on page 34).

Pixels with a percentage lower than the First Visible Dot percentage will be shown as areas without dots.

Pixels with a percentage equal or higher than the First Visible Dot percentage will be shown as areas with dots.

**Plate Color**

The Flexo Plate preview predicts how clean your flexo plates will be. Especially in very light or very dark areas, you could end up with isolated dots or holes on the flexo plate, and those areas are difficult to hold on the plate or the substrate.
You can choose the plate color (Cyrel® Red, Blue, Green or Safran Yellow, or a High Contrast Blue&White) to match the type of plate you are using.

**Breakout**

A Breakout is an area where the percentage of a single separation is lower than the First Visible Dot value. This can be used to track areas that won’t show up on print because the values are too low.

Your printer should provide you with the First visible Dot value. The First visible dot is set in the Press Settings: see *Press Settings* on page 42. When switching to Breakout mode, the preview will be dimmed and all areas where a single separation has a value lower than the First Visible Dot value (but higher than 0%), will be displayed in highlight color.

You can measure the actual percentages in that specific area using the densitometer (see *Densitometer* on page 36).

**Total Area Coverage**

The Total Area Coverage (TAC) is the sum of all separation-densities at a certain point in your document.

**TAC Limit**

The TAC Limit is the maximal Total Area Coverage that your document may contain. This value depends on the press and the substrate your design will be printed on. Your printer should provide you with the TAC Limit value to use.

**Defining the TAC Limit**
The TAC limit is defined in the Press settings. See *Press Settings* on page 42. By default the TAC Limit is set to 270%.

**Viewing areas over the TAC Limit**

When you switch to the *Total Area Coverage* preview, the image in the preview pane will be dimmed and all areas where the sum of the densities is higher than the TAC limit specified in the current Press Setting will be displayed in 100% black.

![Image of a lemon and orange with the word ENERGY DRINK]

**Note:**

You can click the Densitometer button to use the Densitometer tool, and measure the actual TAC amount in that specific area. See *Densitometer* on page 36.

To quickly see the maximum TAC in your document, use the TAC Limit slider.

Move the slider to the right to use a TAC Limit value higher than that used by your current Press Setting. The more you move the slider to the right, the less pixels will typically be over the TAC Limit.
9. Press Settings

The Flexo Tools allow you to create and maintain a list of press configurations. Each configuration holds technical parameters of the output process (RIP + platemaking + press + inks + substrate). You can guarantee a consistent retouching workflow by having all Flexo Tools use the same press configuration.

There is always one press setting called 'Default' which can be edited but not removed.

**The Press Settings Dialog**

You can view and edit the press settings by selecting **Press Settings...** in the Automate submenu of the File menu. This will open the Press Settings dialog.

![Press Settings Dialog](image)

9.1 Making new Press Settings

Press **New...**, this will show the New Press dialog:
Name: Enter the name of the new press setting.

First Dot: You can specify which first percentage that yields a dot on the plate. Toggle First Dot on and enter the first percentage. As you can see, the percentage value has a decimal digit (see About High Precision Percentages on page 44).

Note:
The percentage you enter here is a job-percentage. It corresponds with the grayvalue of the pixels in the digital file that yield the first dot on plate when the RIP and platemaking are in normal operational conditions. This means after the DGC has been set up completely. The value does not correspond with any measurement that has been made prior or during DGC set up, nor does it correspond with any densitometer measurement on plate or on print. In fact, this value is (implicitly) chosen by the person who set up the DGC and plate-making. See the FlexoFix whitepaper for more details. Typical values range from 0.4% to 1.6%.

Note:
When you don't specify a first dot, you won't be able to use the following Flexo Tools using this press setting:
- The ViewX Flexo Plate Preview layer on page 25
- The ViewX Flexo Print Preview layer on page 26
- The FlexoFix Filter on page 32
- The FlexoClean Filter on page 29

Dot gain in highlights: When you specified a first dot job percentage, you can (optionally) specify how dark it actually prints. Toggle on Dot Gain In Highlights and specify the dot gain parameters.
**First dot prints as:** Here you can enter the dot gain of the first dot. Typical values range from 5% to 15% depending on the substrate. The value is a job-percentage that will print on an ideal reference press as dark as the first dot prints on this press.

The images that are supplied to you are made to look good on an offset press with typical offset dot gain. Your color management is also configured to display the image on your screen with typical offset dot gain. In that case, when you enter 10% here, you’re saying that your flexo press prints its first dot as dark as the ideal offset press is printing a 10%.

**Range:** The previous value measured the amount of dot gain in the highlights, this value expresses how far this effect penetrates into the midtones. Typically plate making is configured in such a way that the mid-tones print like an offset press.

**Note:**
When you don’t specify Dot Gain In Highlights, you won’t be able to use the following Flexo Tools:

- The ViewX Flexo Plate Preview layer on page 25
- The Flexofix Filter on page 32

**Limited Total Area Coverage:** Total Area Coverage is the sum of percentages of the different channels on the same location. A higher total area coverage means more ink on top of each other. If you want you can specify the maximum amount of ink that the substrate can take on the same spot. Toggle on Limited Total Area Coverage and specify the maximum amount.

### 9.2 Viewing, Editing and Removing Press Settings

Use the **Copy...** button to create a duplicate of the selected press settings.

Use the **Edit...** button to edit existing Press Settings. You can also double click a press.

Use the **Remove** button to delete the selected Press Settings.

**Caution:**
Removing press settings might also affect other workstations. See *Flexo Tools Setup* on page 7.

**Note:**
The default press setting cannot be removed, you can, however, edit it.

### 9.3 About High Precision Percentages

The Flexo Tools user interface often makes use of percentages with a decimal digit. Internally Photoshop has an 8-bit precision, yielding 256 different possible grey-values. A single grey value in an image may make the difference between a dot or no dot on a flexo plate. Wherever this precision is needed, the Flexo Tools will use percentages with a decimal digit.
<table>
<thead>
<tr>
<th>Grayvalue</th>
<th>Percentage</th>
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<td>...</td>
</tr>
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<td>99.6%</td>
</tr>
<tr>
<td>255</td>
<td>100.0%</td>
</tr>
</tbody>
</table>