KB263163874: Imaging Engine - Dot Clean-Up for a Printing Condition

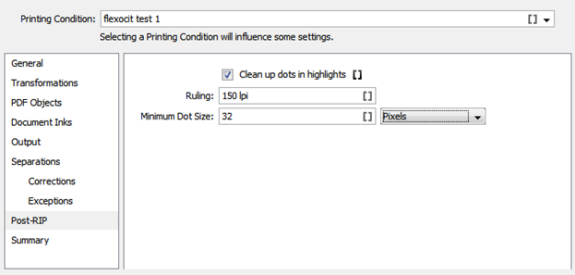
Question

Which Dot Clean-Up parameters are used when a printing condition is selected?

Answer

If you have made a printing condition in the Print Control Wizard, you can use it in the **Image to Screened Separations** ticket. A printing condition contains the optimal screen(s) and curve(s) to use for a production workflow.

When selecting a printing condition, Dot Clean-Up is activated in the **Post-RIP** tab. The values (**Ruling** and **Minimum Dot Size**) are defined by the **Printing Condition**. If the printing condition contains multiple screens, the highest ruling and lowest minimum dot size are taken.



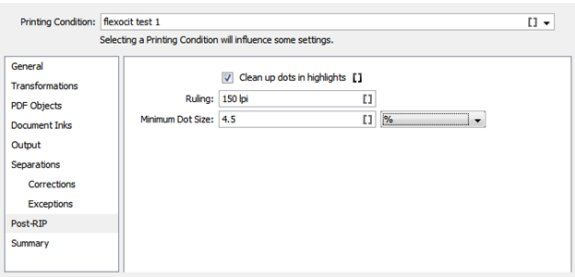
Overruling the parameter values set by the Printing Condition

When you use screens from the job that are **not** part of the **Printing Condition** (object based screening), it is possible that the Dot Clean-Up parameters are not optimal. An example is the use of AM screen (e.g. to avoid graininess). In that case, the minimum dot size should be adapted (lowered) to get a good result.

The minimum dot size defined in the printing condition is always expressed in pixels. The number is the total number of pixels that comprise the minimum dot. Screen dots smaller than the defined minimum dot size will be removed, while small dots that are used for support or as part of a screen's surface effects will be retained.

If you want to set a minimum dot size as a percentage or a value expressed in microns, you can change the units. When changing the unit, the value is automatically converted.

> ⚠ The size in microns refers to the diameter of the dot.



When you enter a value different from the ones defined in the **Printing Condition** (**Ruling** or **Minimum Dot Size**), a warning is shown:

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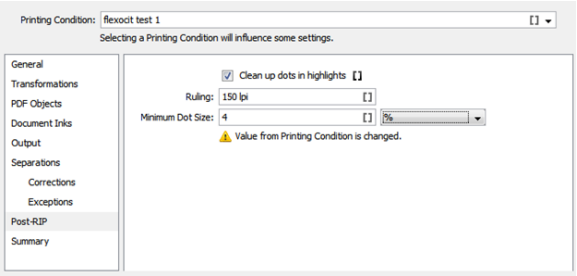
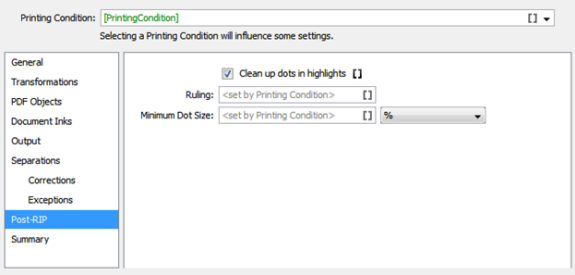
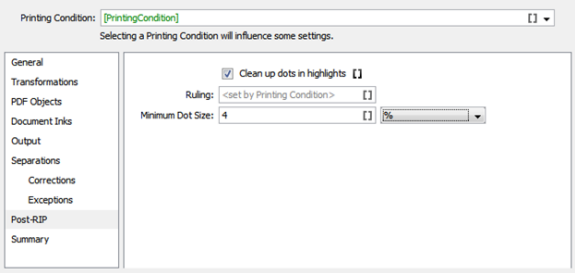


Printing condition set by a SmartName (from Imaging Engine 20.0 onwards)

When the printing condition is set via a SmartName, the values (**Ruling** and **Minimum Dot Size**) are not shown because they are only resolved when the printing condition got resolved during the execution of the task.



The value for ruling and/or minimum dot size can still be overruled.



Minimum dot size used for dot clean-up

During RIPping, all output pixels dots whose size is smaller than the specified minimum dot size are removed. In case multiple screens are used with different minimum dot sizes, the lowest minimum dot is used to clean-up. This is done automatically. If you want to know which dot clean-up parameters are really used, then check the details window of the task:

```
Dot clean-up parameter for Cyan: support dot size 5
Dot clean-up parameter for Cyan: min dot size 19
Dot clean-up parameter for Cyan: WSI Microcell screening, min WSI dot
pixels 19
Dot clean up: The requested minimum dot size (15 pixels) is different from
the value derived from the screens (19 Pixels). The smaller value will be
used.
```

The task finishes with a warning in following cases:

- A screen contains a 'transition point' which is different than the requested Minimum Dot Size.
- A screen contains a 'support dot' resulting in an isolation distance that is bigger than that support dot size and smaller than the Minimum Dot Size.
- A screen contains a 'Micro-cell' or 'Pixel+' feature.

To know more about the process of Dot Clean-Up, please read

- KB185621269: Imaging Engine - Dot Clean-Up