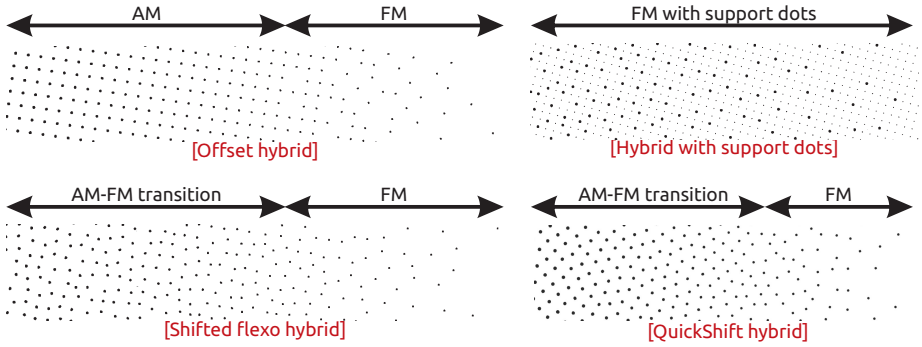
Flexographic features

StudioRIP has gained international prestige on the flexo market with its rich set of flexographic features. Almost all major flexo CTP manufacturers sell our products directly or through their dealer network, and large pre-press studios create flexographic plates with StudioRIP.

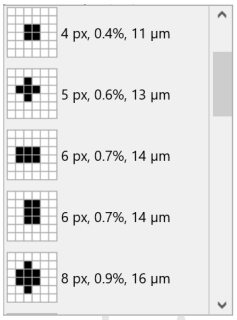
1 4 types of hybrid screenings

- The stability of the highlights is improved by removing dots instead of allowing them to fall below a certain size.
- Small dots are made more stable by being surrounded by support dots (small dots which won't print).
- The visual appearence of the FM part is made smoother by shifting dots towards an FM structure before removing the first dot.
- The AM–FM transition can be dramatically reduced: the QuickShift technology transforms a 12% AM smootly into a 5% FM screen.



2 Full control on smallest dot

- Geometrically correct positions of the dots can be reached only by different pixel structures for each dot.
- In flexo, controlling the pixel structure of the smallest dot is critical, so operators are allowed to choose it from a list.
- As the dot grows, the geometrically correct position is regained immediately.

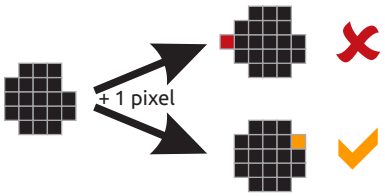


3 3 types of proofing

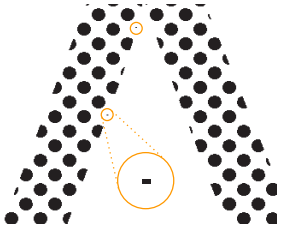
- Contone, halftone and raster proofing types available.
- Contone and halftone proofs easily pass Fogra certification with typical average ΔE < 0.7.
- Halftone proofs bring the look and feel of halftoned prints, raster proofs offer dot for dot accuracy.
- By the use of the orange, green and violet inks, StudioRIP achieves the largest gamut possible.
- Additionally, soft proofs are also possible (generated from the outgoing 1-bit data).

4 Compact dots, smooth tints

- StudioRIP halftone tints are stable and smooth due to the perfect balance between divergent requirements (compact dots and accurate center of gravity).



5 Dot chunk removal



- Dots cut on the edges of vector objects result in small chunks.
- Such a chunk is a problem in flexography (causing bending, breaking, overinking).
- StudioRIP can remove these chunks for safer printing.

6 Seamless screens

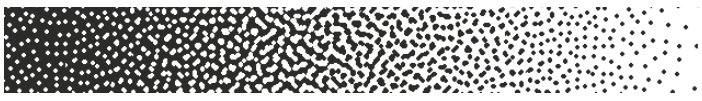
- Certain flexographic presses are able to print continuous images like wallpapers, achieved by designs which join seemlessly at their top-bottom edges.
- In order to avoid broken screens, not just the design, but the screening should also join seemlessly at the top-bottom edges, which requires a special screening technique.

7 Dispro

- The dispro (pre-distortion) tool allows for the compensation of anamorphic press distortion (typical for flexography), as well as for the automatic calculation of the distortion amount.
- Operators can apply their known distortion values (in terms of percentages), or can use industry standard formulas to compute the distortion amount based on the press geometry.

8 High quality FM screen

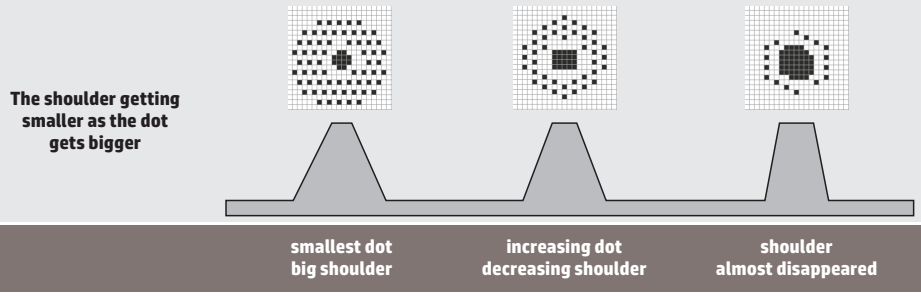
- The advantages of the FM screenings are well known: sharp details without any moiré.
- StudioRIP offers a great quality second order FM screening, successfully used in the flexo industry.

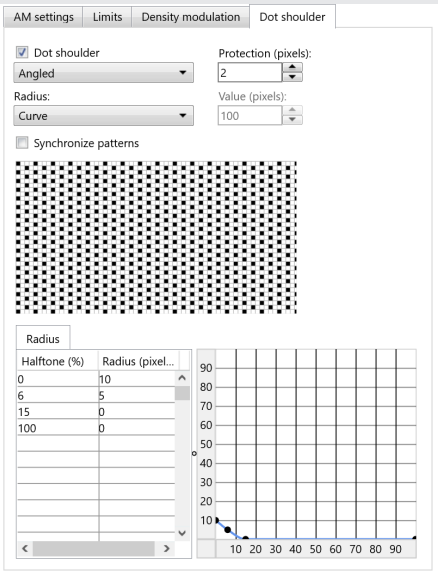


9 Multiple screen types per page

- Different screening types have various advantages and disadvantages.
- Operators may need different screen types for different objects on the page (e.g. a logo with FM, a photo with AM).
- PDF objects can be tagged with external apps (e.g. different LPI values can be assigned to the different objects).
- These tags will be detected by StudioRIP, and assigned to different screening types (e.g. the 50 lpi tag assigned to the 150 lpi shifted hybrid, 60 lpi to 150 lpi offset hybrid).

Dot shoulders 10

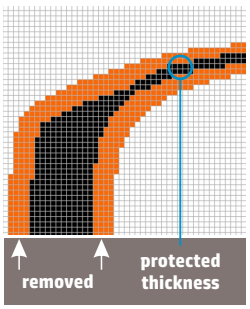




- Beside the techniques focusing on the 2D geometry of the highlight screen dots (flexo optimized hybrid screenings, uniform shape for the smallest screen dot), there are techniques for changing the 3D shape of a small dot.
- The CTP laser power reaching the polymer can be controlled even through 1-bit TIFF files by changing the ON and OFF states quickly enough.
- The area around a small dot can be exposed by a reduced laser power in order to create a "shoulder" around the dot – an area with increased height which supports the dot, preventing it from breaking or bending.
- StudioRIP offers a variety of tools to create the right shoulder for each dot size.

Ink spread compensation 11

- The ink spread can affect the geometry of objects, particularly thin white-on-black texts.
- StudioRIP compensates this by making objects thinner by 1–3 pixels, this way the actual result will have the desired thickness.
- Very thin lines are protected from being removed by the Ink Spread Compensation algorithm.

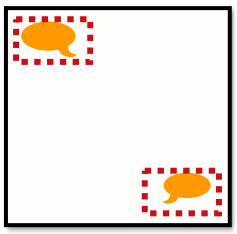


12 Full tint texture

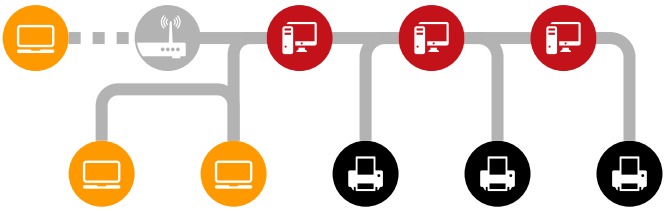
- Flexo technologies have inking problems in solid areas due to the perfectly flat surface of the plate.
- Applying a fine pattern on full tints will not result in any white-on-black dots being printed; instead, it greatly improves ink the adherence properties of the plate.
- StudioRIP's algorithm protects the sharpness of the edges by applying the pattern in inner areas only.

Auto cropping & ganging 13

- The cost of the flexo plate can be a major concern, especially in cases like printing on corrugated cardboard.
- In such cases creating plates for the image areas only, and then mounting them on a foil saves money.
- StudioRIP can detect and crop these areas automatically.
- The ganging module then collects and arranges the cropped areas on the plate.
- For easier mounting, marks with positioning labels are added.



14 Optimized for large studios



- The client-server architecture allows dozens of operators of large pre-press studios to use StudioRIP simultaneously.
- Home office possible by mapping a single TCP port.
- The high speed rendering processes jobs in seconds.
- Several servers can share the workload.

...and many other useful features 15

- Friendly, easy-to-use interface.
- Native client application for PC and Mac.
- Single user interface for all workflow tasks.
- Support for high resolution monitors.
- Imposition, trapping, ink duct control etc.
- Color-managed, accurate preview with continuous zoom, down to pixel level.
- Before-after comparison tool for checking the effects of PDF changes.
- Color picker, retouch, plate merge tools.
- Flexible and rich calibration features (including dot gain compensation).
- User management with password protection and various rights.