

SOFTWARE RIP HIGH PRECISION SCREENING

XERIO RIP V.4

**CTS - CTP
EXPORTS FILE FOR
THE PRINT WITH
IMAGESETTER
COMPUTER TO SCREEN**

XerioRIP is renowned for its exceptional screening quality, easy interface, high speed and a wide function range. Key point is its flexibility. It can be set up to meet several requirements, with the optional addition of all the available functions.

ADVANCED SCREENING TECHNOLOGIES

Different kinds of screening in the same separation to take advantage of the screening technologies of XerioRIP.

You can use several tools to ensure the best printing quality in every situation.

For instance, **it's possible to use the hybrid screening AM-FM**

STOCHASTIC SCREENING FM

Second grade Smooth FM – the typical noise of the FM screening techniques is removed by a special algorithm filter.

The single plates or films are not grainy like the AM screening. Optimised for offset, flexo and screen printing. The round dots, freely positioned are suitable for the reproduction technologies (offset, flexo, screen printing etc.).

There is NO MOIRE' caused by slight movements or rotations.

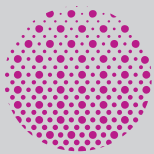
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HIGH PRECISION
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**INK JET
FILM
OUTPUT**

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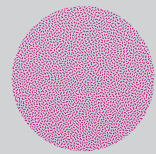
It can be configured in a way to meet several requirements with the optional addition of all the functions.



**OVER 30 DOT SHAPE
PRECISION SCREENING**



**CALIBRATION
CONTROL**



**2ND ORDER
STOCHASTIC**

Xerio RIP is one of the few rips on the market that can make high quality films with inkjet printers. Xerio RIP has own solutions for specific problems of the inkjet-printing.

The print on film or with the inkjet printer is a cheap way to make high quality, large format, positive films for screen printing, flexo or textile printing.

Xerio RIP is one of the few rips on the market to produce high quality films with inkjet printers with own solutions for the specific problems of the inkjet-printing.

- The inaccurate feeding of the paper and the imperfect geometry of the nozzles can create banding. It can be cancelled by a good microweaving technology and an accurate control of the position of the dot.

Xerio Rip has own solutions for an easy solution of these problems.

- The inkjet films must have a high density (Dmax). To get that density, higher quantity of ink must be printed on the film than on the paper. However, high quantity of ink increases the dot gain, which of course will distort the dot shape of the halftone.

XerioRIP has special techniques that can protect the precision of the dots without losing the covering density, so that they can be checked and calibrated in any printing situation.

- The inkjet film of the **JETBLACK** series developed by Grafco grants density and precision never before achieved with this technology

With Xerio RIP you can check the ink quantity and you can enable and disable the channels used for printing. This means that you can check the output and decide what settings work best for the combination of film and ink.

You can access the settings for the void, linearization, dot shape, angle and much more.

Users can create several settings according to the film type or inks used in their own Epson printer.

With Xerio RIP you can print the finest details avoiding the problems that may occur upon printing at highest resolution.



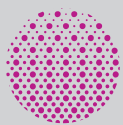
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**ADVANCED
SCREENING
TECHNOLOGIES**

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**OVER 30 DOT SHAPE
PRECISION SCREENING**



**MINIMUM DOT
CONTROL**



**HIGH QUALITY
PREVIEW**

Several screening forms in the same separation to get the best out of Xerio RIP screening technologies. You can use various tools to ensure the best print quality in any situation.
For instance, you can use the Hybrid screening AM-FM.

The AM screening (amplitude modulation) is the traditional technique of the shadow halftone which uses a fixed grid of dots and modifies their dimensions to get the desired shade.

Right from the start, our goal was to make the Xerio RIP AM screening technique completely overcome the most common screening and moiré problems. Upon creating Xerio RIP screening technique we set the following goals:

- **High quality rosette also on big dimension files and high linearization**
- **User can choose angles and frequency**
- **Imperceptible pattern to the human eye, even with low quality printing engine**
- **4096 grey shades for any LPI**
- **Good stability of the colors with light and shadow, even with low quality printing engine**
- **Perfectly smooth shade**
- **High rendering speed**

BIG DETAILS OF LIGHTS AND SHADOWS

Xerio RIP has developed a special screening system which calculates the consistency of the rosette for the high LPI.

Using this formula and leaving the approximation for every angle, it is possible to find dozens of screening with perfectly coherent rosette for every frequency

Xerio RIP got more light and shadow details using a **hybrid technique**. For the High shades Xerio Rip **combines FM technology with the AM screening**. The lowest dot dimension that the RIP can create can be set in the control panel.

If the percentage of the required dots goes under the set limit, the dots are stochastically removed instead of being reduced in size.

The hybrid screening of Xerio RIP is probably the best technique available because it is stochastic and produces a pleasant and smooth effect.

The models used by other RIP solutions offer a less pleasant final effect.



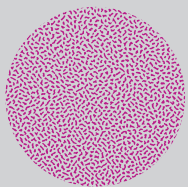
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**FM
STOCHASTIC
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**2ND ORDER
STOCHASTIC**



**NO
MOIRE'**



**SCREENING FOR
SCREEN PRINTING**

XerioRip uses a second order stochastic screening technique (FM).

This technique is optimized for the printing industry. Its power is based on **shapes of round or rounded dots** that are generated by high resolution digital devices like CTP and CTS and are easily printable by analogic technologies like offset, flexo and screen printing.

The technology XerioRIP uses for FM screening is the same as for AM screening, it can therefore offer high processing speed.

The stochastic halftone of XerioRIP overcomes every possible moiré effect like:

- **Moiré between the elements in the image and the screen**
- **Moiré among different inks**
- **Moiré among the edges of the dots**

A special filtering technique allows XerioRIP to produce even tints with the FM screening, killing the typical noise of the stochastic techniques.

ROUND AND ROUNDED DOTS

Unlike many other stochastic screening technologies that usually use the squares, XerioRIP stochastic screening makes real round dots and optimizes too the positioning of the dots to form, whenever possible, rounded shapes without sharp angles or thin lines.

SEVERAL DOT DIMENSIONS

A unique characteristic of the stochastic technique of XerioRip is the possibility to use several dimensions of dots in the lights and in the shadows.

This is useful because the dot gain of the CTP or CTS, photosetter or of the printing usually increases the dimension of the dots by high lights and reduces it by shadow.

The use of bigger dots in the shadow than in the high lights allows XerioRIP to get the same dimension of dots in black and white on the final print.

Another unique characteristic is that XerioRIP allow the user to optimize the stochastic dot according to the specific requests of the output technology.

