Variable Mainscan Resolution (VMR) Option

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What is VMR?

VMR stands for:

VARIABLE

MAINSCAN

RESOLUTION

It enables the device to image from 1200dpi to 4800dpi (9600dpi with the VMR96 option) in the mainscan (around the drum) direction.

It also allows fine adjustment (+/- 3.2%) on the image resolution by stretching or shrinking the pixel size to match the frequency of the lens used in lenticular printing.

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What is VMR?

VMR is an option available on most Kodak CTP devices equipped with a Quantum imaging head.

The package includes:

- VMR License key
- VMR Software

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What is VMR?

VMR is not……

The magic solution to solve lenticular printing challenges. Plate making in only one small part of the process. There are a lot of factors that can affect the quality of the final printed product.

Currently, Kodak is not a full lenticular solution provider. Customers who are getting started to print lenticular are encouraged to seek consultation with professionals in this area.

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VMR & Lenticular Printing

How does VMR help the lenticular process?
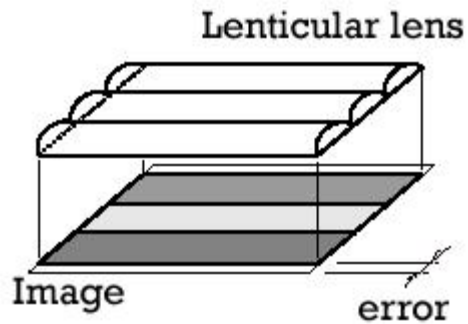
Aliasing artifacts may be seen as the interlaced image strips do not match up with the boundaries of the lens.

VMR option allows users to align the pixel boundaries with the lens boundaries by allowing mainscan resolutions of up to 4800dpi and fine adjustments to match lens frequency by stretching or shrinking the pixel size.

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Other Benefits of VMR

VMR offers customers:

- Easy to use interface to enable option and enter user settings

- Automatic conversion of specified resolution to scaling factor

- Combined with the accurate registration capabilities and SQUAREspot® thermal imaging, VMR enables lenticular printers to produce high quality products.

SQUAREspot™

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Limitations

- The interlaced image strips (or lenticular lens) have to run across the drum
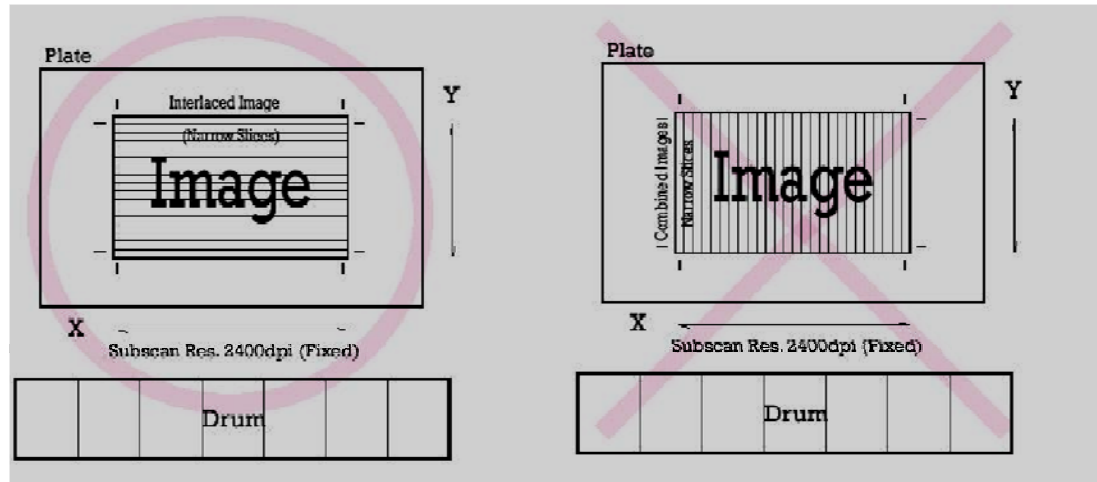
- Due to the image direction restriction above, the maximum plate size that can be imaged may also be limited. For example, an 8u-up CTP cannot handle the largest plate size in the portrait direction.

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Limitations

- Depending on the image resolution, the imaging speed on jobs using theVMR option might be reduced down to the standard imaging speed of the device, regardless of the speed option.

- For Staccato FM screening, VMR is limited to 2400 dpi ± 3.2% because Staccato does not support asymmetric resolution

- For Spectrum halftone proofing, VMR is limited to 2400 dpi ± 3.2% due to media limitation.

- If the printing press requires mounting the plate 90 degrees rotated compared to the output device orientation:

    1. The online punching option on some of the output devices may not be useable.

    2. The unexposed clamp margin on a positive plate media will get printed on the press sheet.

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User Interface

- The option is enabled by a license key.

- Settings are entered in the Variable Mainscan Resolution tab in the Print Console Print Setup or workflow process template.

- Customer can choose from 2 settings:

  » Image at rendered resolution (integer only)

  » Image at specified resolution (up to 3 decimal)

Upgrade Requirements

Qualified Kodak Output device

Latest Controlled Release for the respective device

Workflow system that is capable of screening files at asymmetric resolutions. (eg. Kodak Prinergy, Prinergy EVO and Brisque)

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