

filmXXI

output Solutions

output Solutions

FM Substrate Marking & Design Group

halftone Solutions

screenXXI

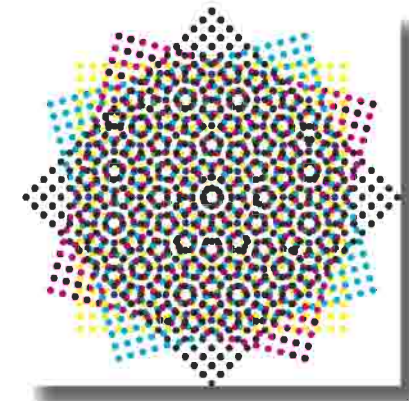
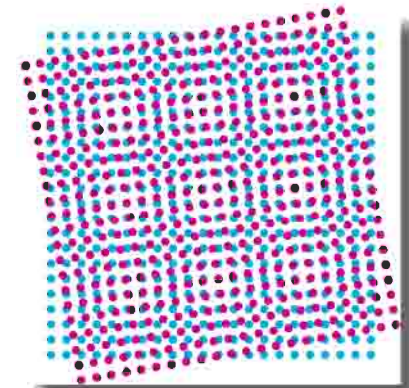
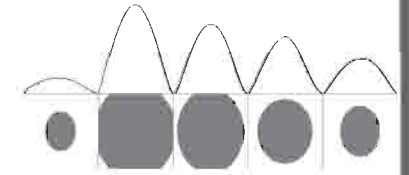
a move to digital screen printing
future possibilities for screen printing

AM Halftoning

changing amplitude with the same frequency

tends to moiré

halftone rosette patterns interfere the observer



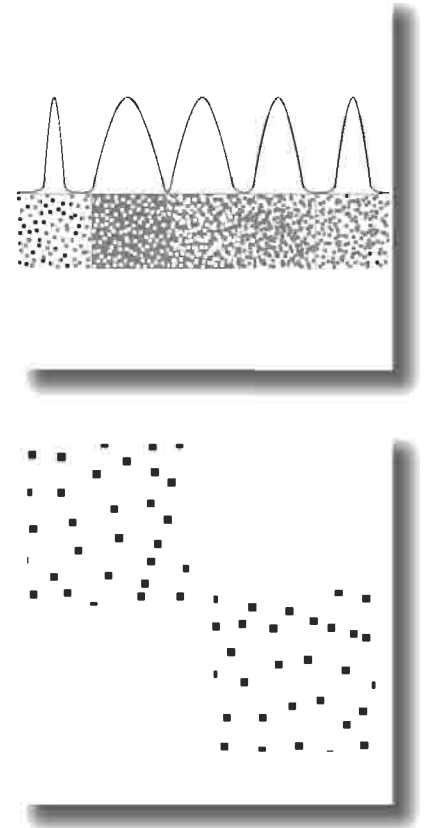
FM Halftoning

changing frequency with the same amplitude

small dots are difficult to reproduce

tends to change the impression of the halftone picture

every ripping process creates a new formation of the dots



Existing FM technologies

Agfa CristalRaster



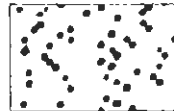
Heidelberg
Prepress Diamond Screen



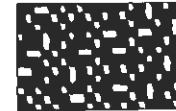
UGRA/FOGRA Velvet Screen



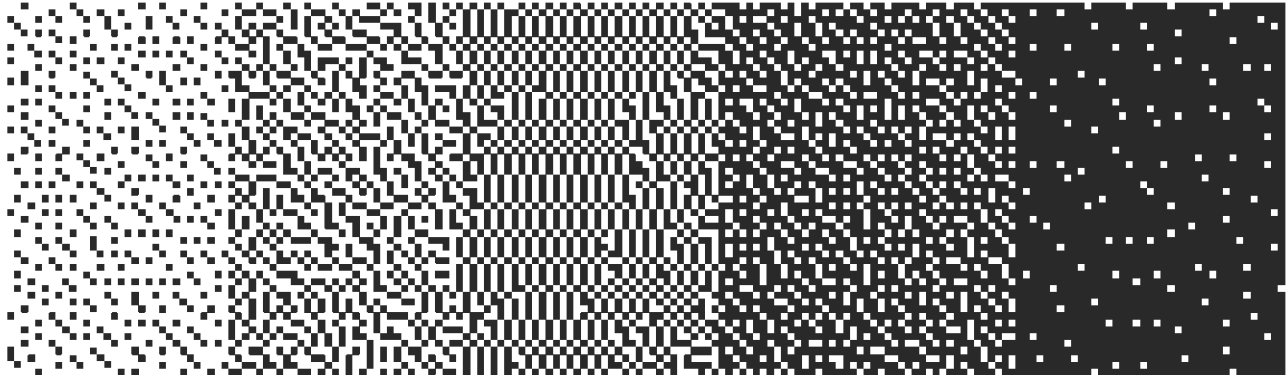
Scitex Fulltone



Crosfield



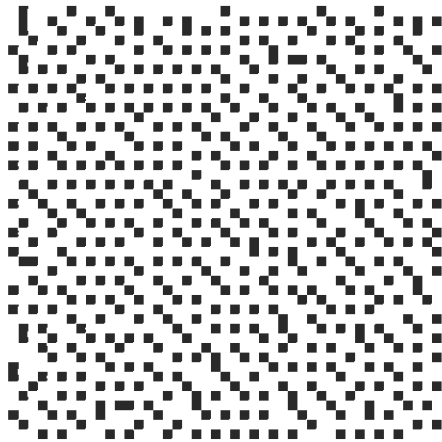
Basic FM structures ... and their problems



Comparison of two equally ripped greylevel areas

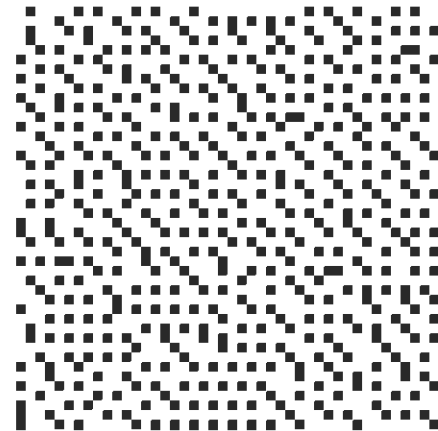
Basic FM halftoning:

...ripped twice will result in "2 versions"



"Version 1"

...and ...

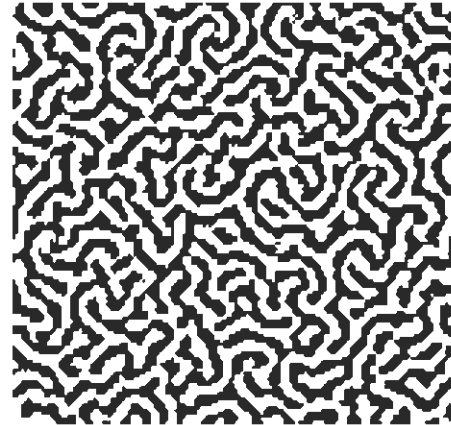
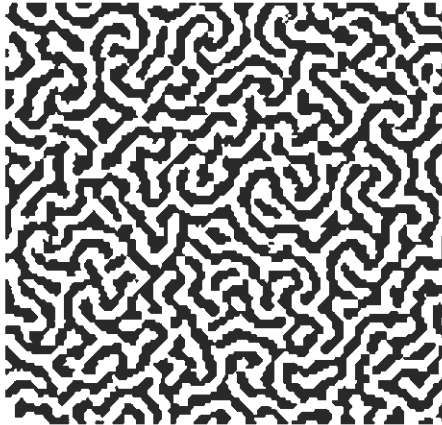


"Version 2"

Comparison of two equally ripped greylevel areas

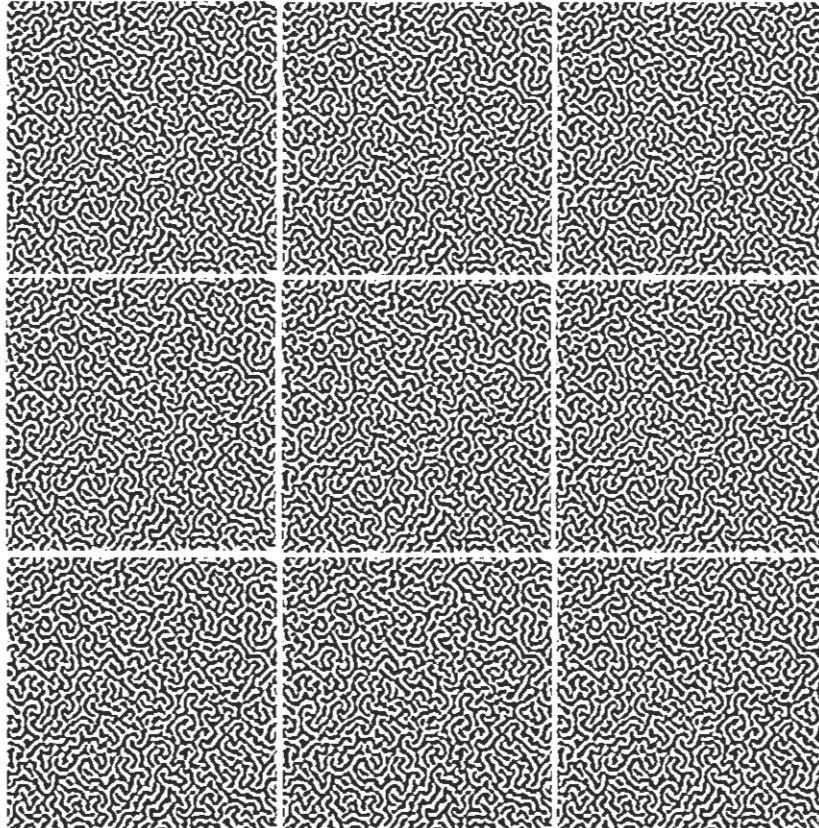
Screen**X!** halftoning:

...ripped twice with absolutely identical results!

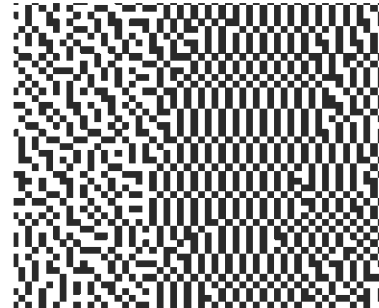
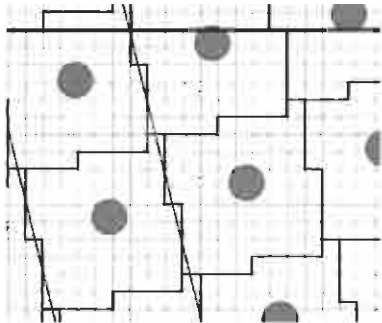
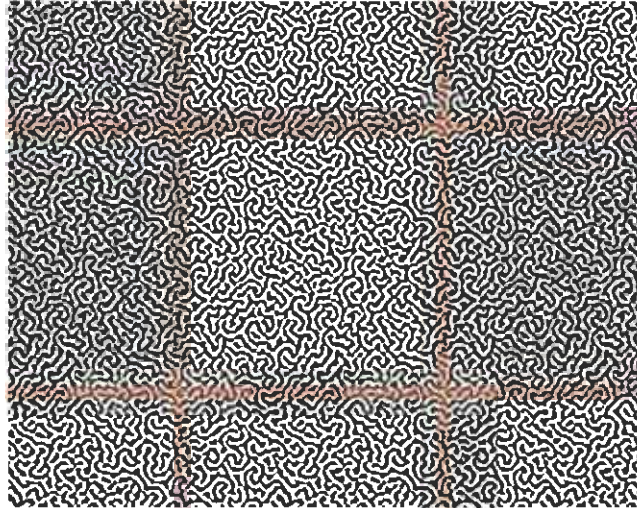


No difference!

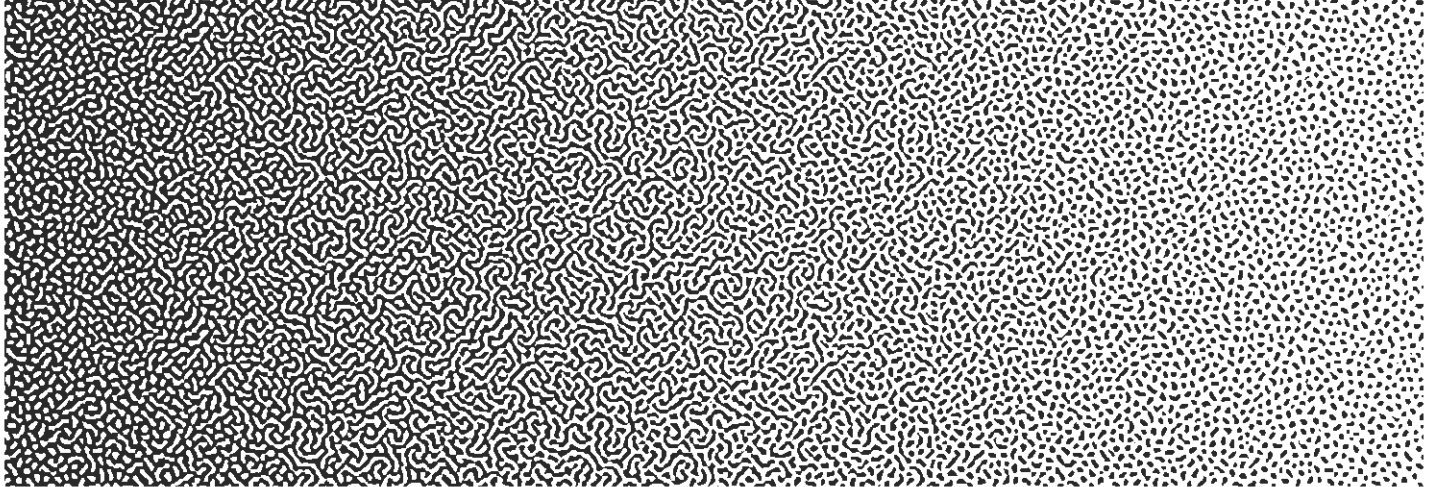
ScreenX! = hybrid halftoning?



ScreenX! = hybrid halftoning? ...YES!



A ScreenX! gradient



screenX! Hybrid halftoning technology

combination of AM and FM

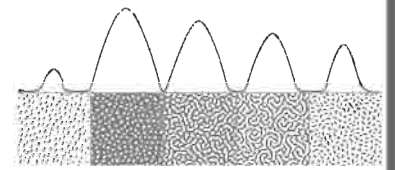
smallest parts are editable

Moiré nearly eliminated

every ripping process creates the same dot formation

doesn't form any halftone rosette patterns

prevents ink dry-up



screenX! Hybridhalftoning technology

screenX! – at home on every output device

screenX! – can be integrated on to an existing workflow

halftoning **Solutions**

screenX!

CtS or CtF – what quality level can be reached with inkjet-based films?

When is it necessary to buy a CtS system when having the option to make high quality films with a large format printer? Come and see our samples!

film_{XXI} can offer you such a solution on a very high standard.

Many solutions on the market offer such a promise... But does it fulfill?

Normally it doesn't and that is why so many screen printers don't want to make films on a large format printer.

output Solutions

film_{XXI}

What is the difference between filmX! and other solutions?

filmX! is not just software, it's screen printing know-how brought to a digital workflow

filmX! is a Harlequin RIP based system solution

filmX! uses the benefits of Harlequin and a very precise way to output film on LFP

filmX! makes it easy to move on another system, because the RIP core stays the same

filmX! is a 1bit-tif workflow – that means rasterized data stays the same until it reaches its destination

output Solutions

filmX!

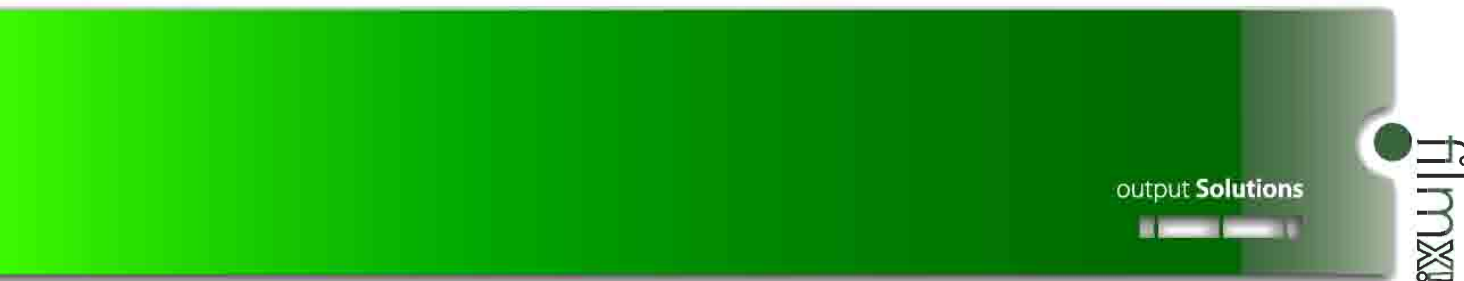
What is the difference between filmX! and other solutions?

filmX! can be installed on to every existing workflow

filmX! user-friendly user interface

filmX! produces films in an optimum quality, e.g. without pixelated borders or ink overflow on the film substrate

filmX! is a system solution from screen printers for screen printers!



Screen printing in the digital age – What's coming up next?

need of quality standard in screen printing

mix of digital and screen printing – for small production runs use screen~~ing~~ digital and for large runs use screen~~ing~~ in screen printing

Any questions?

Thank you for your attention!