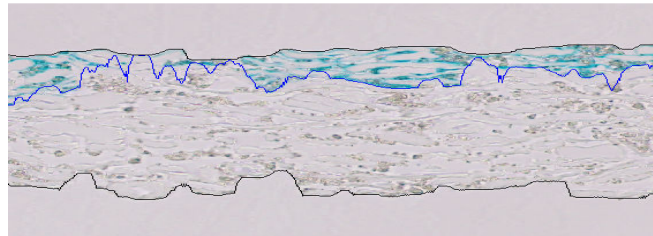


Print-through and paper structure

Quantification and visualization using scanner

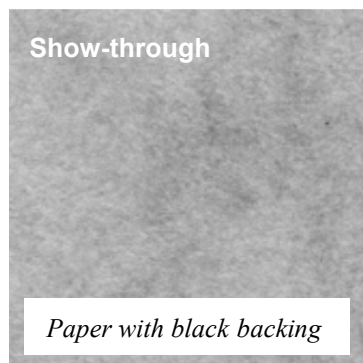
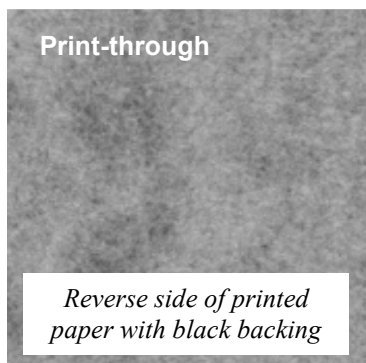
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Print-through is an often encountered print quality problem mainly caused by ink penetration and insufficient opacity of the paper.



*Cross section image of ink penetration.
Note: Not needed in the evaluation.*

Non uniformity in substrate structure relates closely to print-through. Therefore, spatial variations of print-through provide a probe to the substrate's structure.

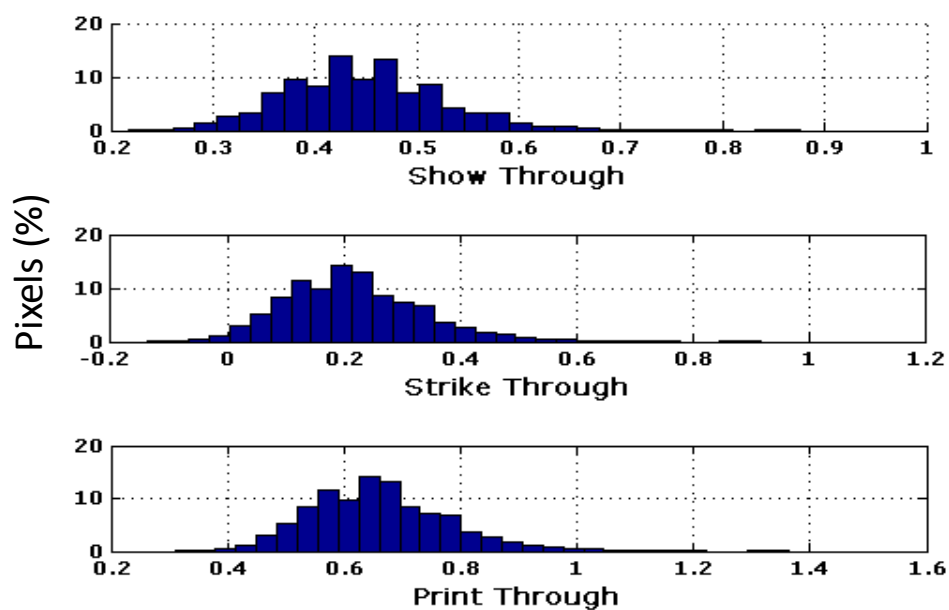


Print-through (=what you see) is a combination of the show-through (=effect from opacity) and the strike-through (=effect from ink penetration), both properties are closely related to the paper structure.

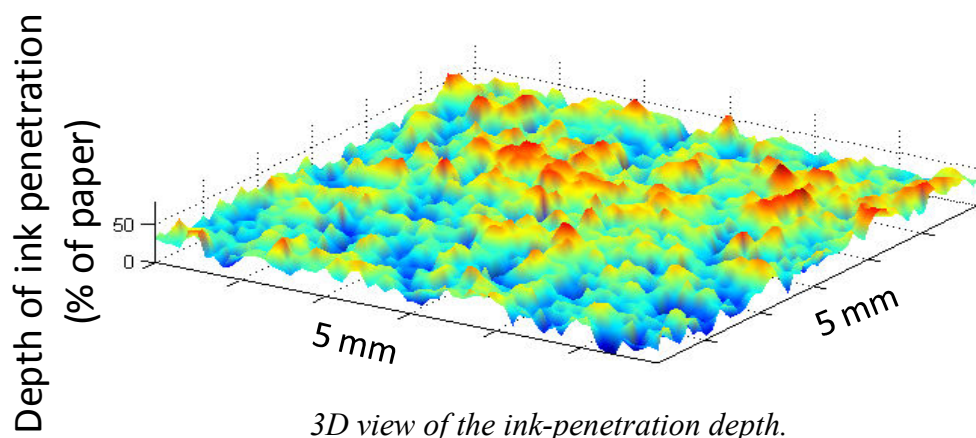
What's new with this tool?

- This tool provides an assessment of the print quality and its relationship with paper's structure in an effective, reliable, fast and intuitive way, using an affordable standard flatbed scanner.
- Quantitative characteristics of print-through over a big area, both in average and in detail.
- Quantitative evaluations of print-through and its components: show-through, strike-through, the relationships between the print-through phenomenon and the underlying physical properties and quantities.

Example



Distributions of show-through, strike-through and print-through.



3D view of the ink-penetration depth.

Histograms of reflectance, light absorption, light scattering and depth of ink penetration can also be obtained. The calculated numbers are saved as ASCII-files for import to Excel or other spread sheet software. The needed equipment is: A flatbed scanner, the Print-through software and a calibration set.

Contact

For more information about the method, prices etc. contact:



Li Yang

Phone: +46-8-676 71 34

li.yang@innventia.com



Hans Christiansson

Phone: +46-8-676 73 81

hans.christiansson@innventia.com