Do you know the whole story?
Automated Color Quality Suite

xerox

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Xerox-unique Tools

All Xerox Production Color Presses have Automated Color Quality Suite of tools:
- Xerox 770 Digital Color Press
- DocuColor 8080
- Color 800/1000 Press
- iGen 4

Tech Time

Get Smart about Inline Spectrophotometer and Full Width Array

Sales Success

Articulate the value of ACQS to your prospects and leave the competition behind.

Early Customer Experience Feedback

Calibration Features

Profiling Features

Calibration's job is to keep the press STABLE

Profiling's job is to keep the press ACCURATE

Color 800/1000 Press has ACQS

Xerox brings the Automated Color Quality Suite to Xerox® Color 800/1000 Press now.

This makes the suite (ACQS) available in **all production color** presses in your **Xerox Production Color Portfolio** and makes this a key differentiator from all our competitors.

ACQS brings automation to an operator's color calibration, advanced custom profiling, and in some cases spot color calibration.

Automated Calibration
- Operators can initiate an automated calibration function
- The Color 800/1000 Press will print the patches on the selected media with the selected halftone line screen
- The Full Width Array will read the patches post-fuse
- The Press will modify and update lookup tables for stable color

Value: speed and automation of calibration add up to time savings, consistent color quality, and reduced waste.

Automated Destination Profiling
Automated Advanced Profiling allows an operator to create custom destination profiles for the most accurate color. This ensures accurate color to match a specific standard or match colors across various media.

Value: Fastest way to obtain most accurate color, turnaround high-value jobs faster.

Advanced Image Quality Adjustments

Full Width Array also delivers additional **Image Quality Controls** that previously required a service call which could disrupt print production, extend service times.

- **Image on Media Alignment** delivers fast and precise modifications for front-to-back registration, skew, perpendicularity and magnification. Ensuring less waste, faster job turnaround and increased customer satisfaction.

- **Auto Press Tone Correction** allows an operator to "centerline" the press for best performance. Operators can do this at the start of a shift to ensure consistent color and quality through their shift.

- **Automated Inbourd/Outboard Density** Correction can be used when an operator notices density varience within a page and wants to leverage the Full Width Array to correct the condition. Previously this feature required a service technician. With Full Width Array an operator can finish the job or shift without losing productivity to a service call.

Value: deliver high-value output, turnaround jobs faster, deliver tools to an operator that allow them to improve their quality without interrupting production runs in their shift/day.

Technology Time—Full Width Array

Full Width Array technology delivers the *Xerox-unique* **Automated Color Quality Suite** of tools and an additional set of **Advanced Image Quality Adjustments** for the Color 800/1000 Press.

The Full Width Array is a series of RGB sensors that spans the entire width of the paper path that scan color. The DocuColor 8080 Digital Color Press and the Xerox 770 Digital Color Press use an Inline Spectrophotometer—a single sensor to read color and density.
An Inline Spectrophotometer is more precise in reading density and color—but does not bring the image quality adjustments that the Full Width Array offers.

FWA consists of three major components:
- **FWA Assembly**—The FWA CCD Assembly receives reflected light from the two lamps. The CCD has filters that enable it to read red, green, and blue light separately. The CCD converts the light sensed into analog voltage signals that it sends to the FWA DC PWB.

- **Lamp Assembly**—The Xenon lamps illuminate the test patterns or calibration tiles.

- **White Reference (WR) Roll Assembly**—The WR Roll is a polygon. Each side of the roll is used for a different purpose. Some sides contain reference tiles. Other sides are used to position and/or transport paper.

AUTOMATED COLOR QUALITY SUITE (ACQS)

Automated Calibration—FreeFlow Print Server, EFI and Creo all have selection for the Full Width Array as source for calibration.

Automated Profile Creation—FreeFlow Print Server and Creo have selection for the Full Width Array for destination profile creation.
EFI customers can use the hand-held spectrophotometer that still ships with the EX Print Server—to create their destination profile(s).

> the COLOR 800/1000 PRESS color print servers (FFPS, EFI & Creo) EACH come with a hand-held spectrophotometer so that your customers that want/need to do spot color calibration CAN DO SO.

ADVANCED IMAGE QUALITY ADJUSTMENTS:

Image on Media—With the FWA option, the printer can now automatically align image-on-page for media/tray configurations. Correcting front-to-back registration, skew, and magnification. A new automatic registration function is added to the Administrator / TKO applications.

Automatic TRC (Tone Reproduction Curve) Adjustment—The Auto TRC routine performs the same adjustment that operators had to call in service to run previously (dC971). FWA CTRACS Adjustment and updates the IOT LUT to calibrate the IOT.

Automatic Density Uniformity Adjustment—The Automatic Density Uniformity routine performs the same adjustment that operators had to call in service to run previously (dC972) to improve/correct "smile" or inboard/outboard uniformity issues and update the ROS profile.

Note: the features and functions of the Full Width Array do NOT improve the specifications of the press. They do, however, allow customers to get to consistent and accurate color and best image quality faster through automation.
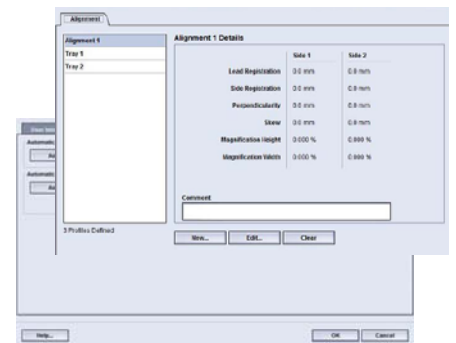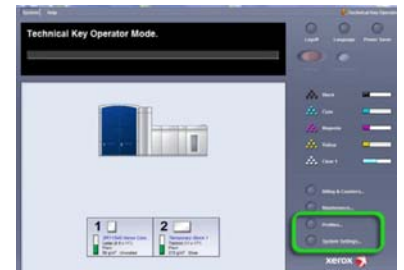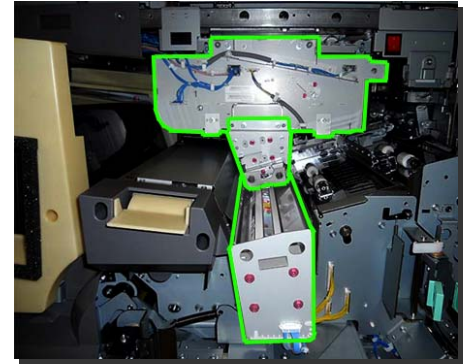
Technology Time—Inline Spectrophotometer

The Inline Spectrophotometer also delivers the *Xerox-unique* **Automated Color Quality Suite** of tools for the DocuColor 8080 and for Xerox 770 Digital Color Press.

The Inline Spectrophotometer is a single sensor in a larger assembly used to read color and density. The spectrophotometer reads the density patched after they have been imaged, transferred, fused and decurled.
An Inline Spectrophotometer is more precise in reading density and color—but does not bring the image quality adjustments (Image-to-Media Alignment, etc.) that the Full Width Array offers.
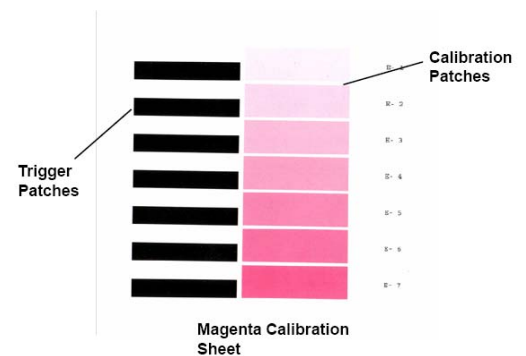
The Inline Spectrophotometer consists of these major components:

- **LED —** The LED illuminates the target patch.
- **Photodiodes**—6 photodiodes read the reflected light. The signals are used to determine color and density.
- **White Reference** —reference patch/guide used to "calibrate" the ILS system.
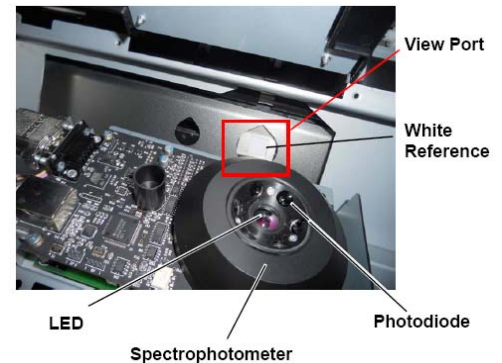
HOW IT WORKS...

When the automated calibration selection is made from a color server the color patch pages are printed. The number of pages varies based on selected sheet size. The pages are printed and when the trigger sensor sees the trigger patches (as seen in magenta calibration sheet to the right) it then reads the color patches and determines the color and density.

AUTOMATED COLOR QUALITY SUITE (ACQS)

Automated Calibration—FreeFlow Print Server, EFI and Creo all have selection for the Inline Spectrophotometer as source for calibration. FreeFlow print server also allows operators to set "automatic" calibration that is initiated automatically at specific times (time or volume/sheets printed interval)

Automated Profile Creation—FreeFlow Print Server, EFI and Creo have selection for the Inline Spectrophotometer for destination profile creation.

Automated Spot Color Calibration—*FreeFlow Print Server on DocuColor 8080* has the added feature—Automated Spot Color Calibration. An operator can create and/or modify a queue to automate spot color calibration. The calibration will be run every time a file is run through that queue. The feature will correct the "formulas" for each [coated PANTONE® library] spot color in the file. The EFI and Creo Print Servers can complete spot color calibration with a hand-held spectrophotometer.

Note: the features and functions of the Inline Spectrophotometer do NOT improve the specifications of the presses. They do, however, allow customers to get to consistent and accurate color and best image quality faster through automation.

	Color Press — Full Width Array			DocuColor 8080 — Inline Spectrophotometer			Xerox 770 — Inline Spectrophotometer	
	FFPS	Creo	EFI	FFPS	Creo	EFI	FFPS	EFI
Automated Calibration	●	●	●	●	●	●	●	●
Timed/Scheduled Calibration (hands-free)	○	○	○	●	○	○	○	○
Automated Destination Profiling*	●	●	◐	●	●	●	●	●
Automated Spot Color Calibration	◐	◐	◐	●	◐	◐	◐	◐
Image-to-Media Alignment	●	●	●	○	○	○	○	○
Automated Tone Reproduction Curve	●	●	●	○	○	○	○	○
Inboard/Outboard Density Variance	●	●	●	○	○	○	○	○

● Automated with ACQS ◐ Can be completed with hand-held spectrophotometer supplied with system

* Spot Color look-up tables are updated when creating a new profile.

Early Customer Feedback on Full Width Array Experience

"*Calibration* definitely improved my productivity!"

"**TRC Adjustment** works with no flaws!"

"Full Width Array is a great addition to my Color 1000 Press. I've been waiting for a long time for this level of spot-on front to back registration that the **Image-on-Media** feature brings me"