

# DIGITAL PRINTING INNOVATION AT HP SANT CUGAT

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hp  
TAKE A LOOK  
of the VERSATILITY of  
HP LATEX TECHNOLOGY  
Visit the Sign & Display Booth  
to see the breadth of applications.



# HEWLETT-PACKARD

The largest technology company in the world

- Fortune 10 – U.S.
- Fortune 26 – Global
- 324,000 employees
- 145,000 sales partners
- 210,000 service partners
- 88,000 retail locations

## **Business units**

- Enterprise Business
- Personal Systems Group
- **Imaging & Printing Group**



# GRAPHICS SOLUTIONS BUSINESS



**Indigo**  
Digital presses



**Special Printing Systems**  
OEM, Print modules



**DesignJet**  
Technical, Photo, Signage



**Inkjet High-Speed Production Systems**  
Web presses



**Scitex**  
Industrial signage



# LARGE FORMAT PRINTING @ SANT CUGAT

- **1985:** manufacturing only, 30 staff
- **1988:** R&D starts with 3 engineers
- **1993:** WW responsible for large format printing business
- **2000:** new markets: graphic arts, photo; growth to 200 R&D engineers; moving manufacturing to Asia
- **2010:** WW Graphic Arts center of excellence; 6000 visits per year; new applications: 3D, outdoor signage, indoor decoration



# HP Designjet Product Portfolio

## HP Large Format Professional Printers



HP Designjet 111



HP Designjet 510 Printer series



HP Designjet T610 Printer series



HP Designjet T770 24"



HP Designjet T1120 Printer series



HP Designjet T1120 HD MFP



HP Designjet T1120 SD MFP



HP Designjet T1200 HD MFP



HP Designjet 4020 Printer series



HP Designjet 4520 Printer series



HP Designjet 4520 MFP Printer



HP Designjet T7100



HP Designjet T2300 eMFP



HP Designjet Z3200 Photo Printer series



HP Designjet Z6100 Photo Printer series



HP Designjet Z2100 Photo Printer series



HP Designjet Z5200 PostScript®



HP Designjet Z6200



## HP Large Format Commercial Printers



HP Designjet 3D Mono & Color Printer



HP Designjet L2550 Printer series



HP Scitex LX600 series

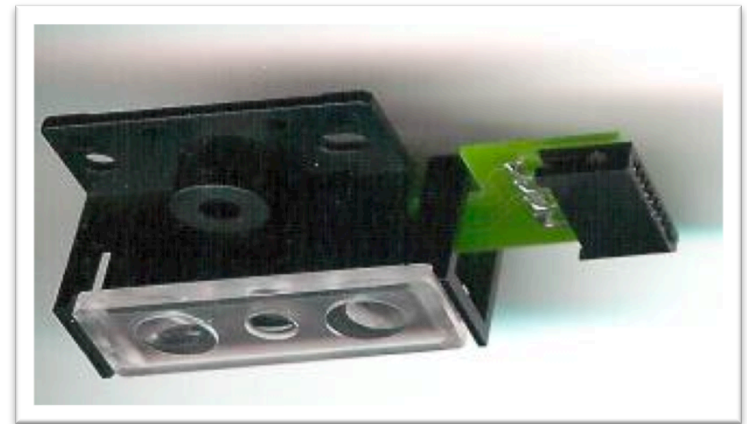
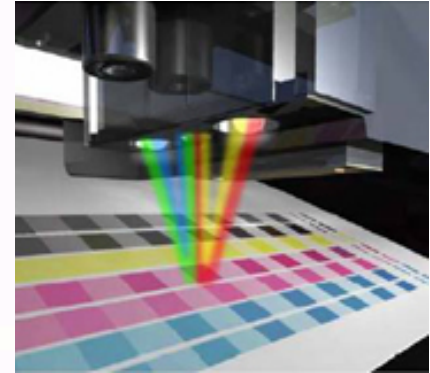


HP Scitex LX800 Printer series



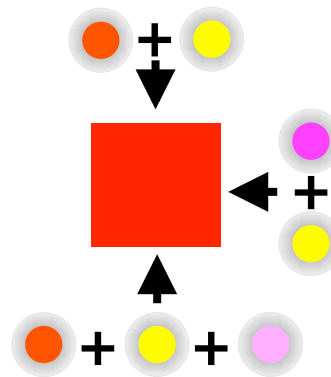
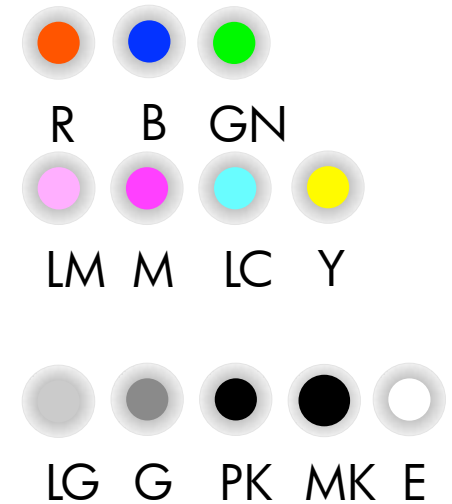
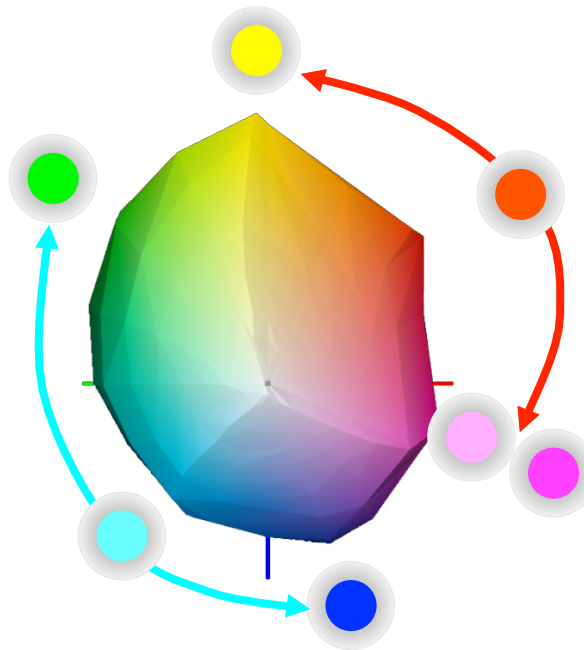
# HP DJ FIRSTS: **CLOSED LOOP COLOR**

- 1997: HP Designjet 2500CP
- Calibration without need of expert knowledge or external devices
- **Densitometer** integrated in print carriage
- Measures print relative to media; stores result internally
- Triggered from front panel, Printer Utility or 3<sup>rd</sup> party RIP
- Print to print, printer to printer **color consistency**
- Enables **distributed, unattended and remote production**



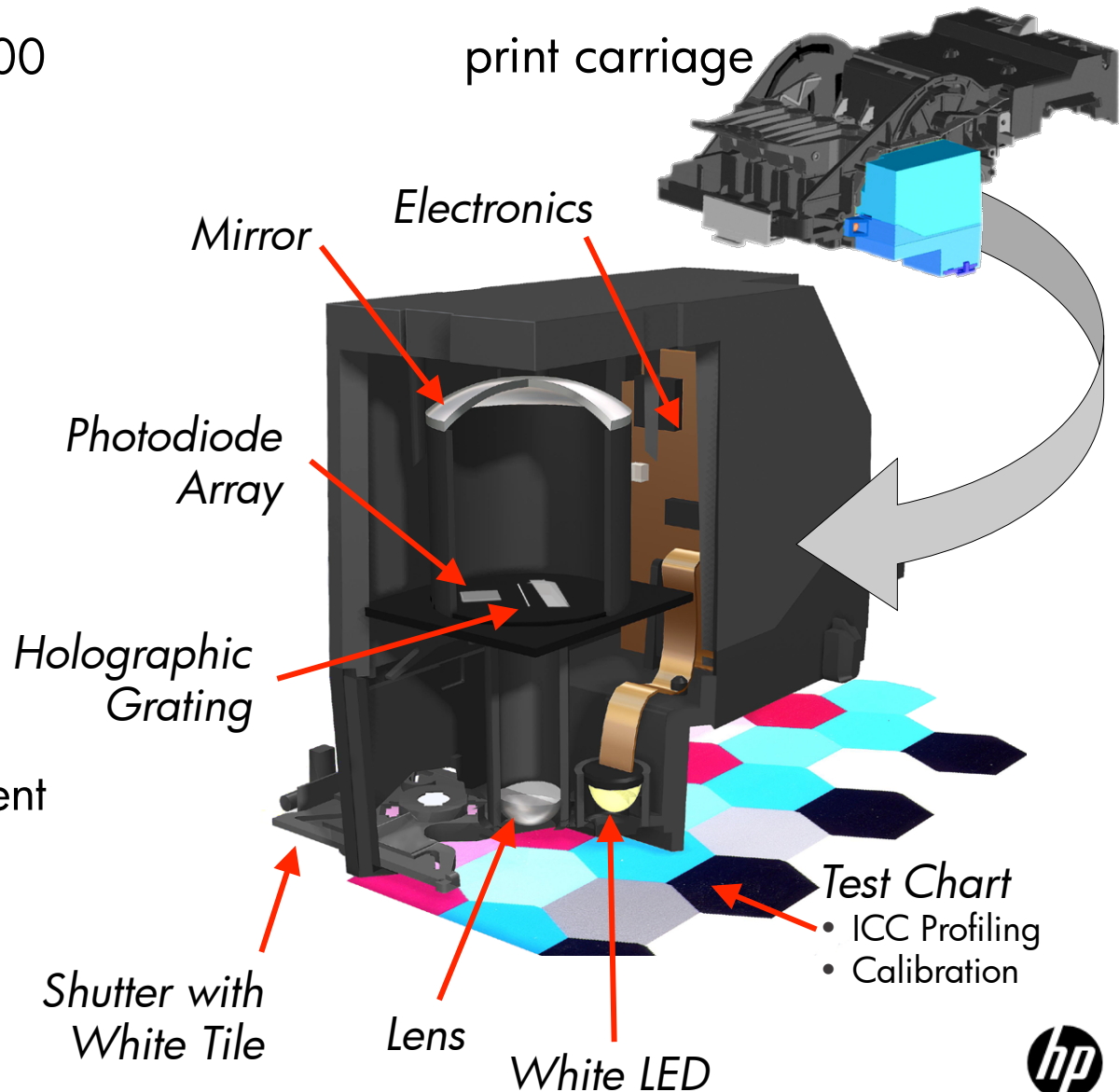
# HP DJ FIRSTS: 12 INKS

- 2006: HP Designjet Z3100
- 12 pigmented inks with 200 years **light fastness**
- Largest **color gamut** (100% ISO & SWOP, 85% Pantone)
- **Quad blacks:** deep, rich blacks; neutral grays
- Gloss enhancer
- Standard RGB and CMYK interfaces
- Enables **gallery-quality, archival** prints



# HP DJ FIRSTS: **EMBEDDED SPECTRO**

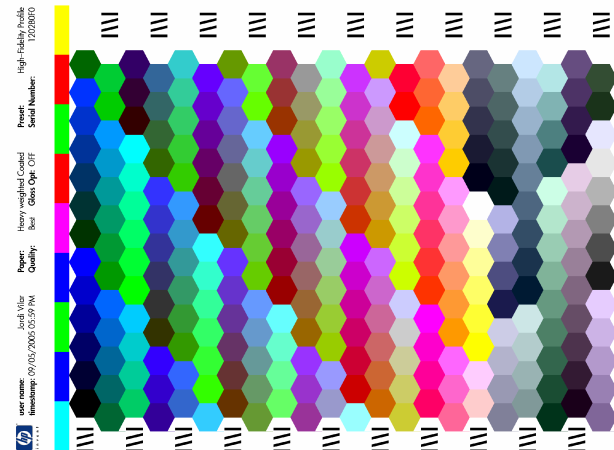
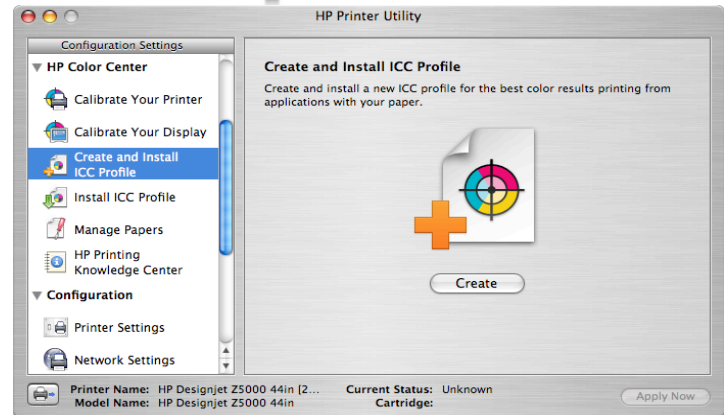
- 2006: HP Designjet Z3100
- GreatgMacbeth/Xrite **spectrophotometer**
- Integrated in printhead-shaped enclosure
- Part of print carriage → **scanning measurement**
- **Absolute** (media-independent) color measurement
- Enables **2x color consistency** improvement
- Enables **consistent, accurate and pleasing color**





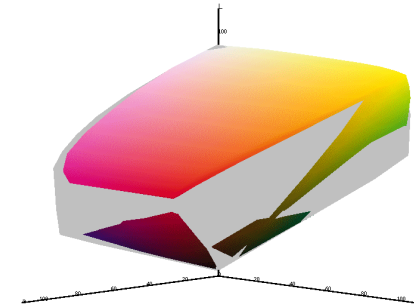
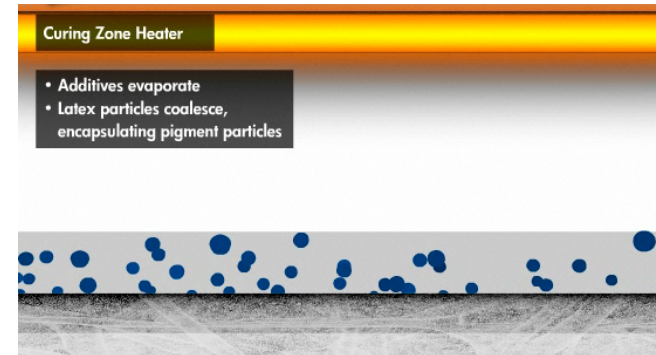
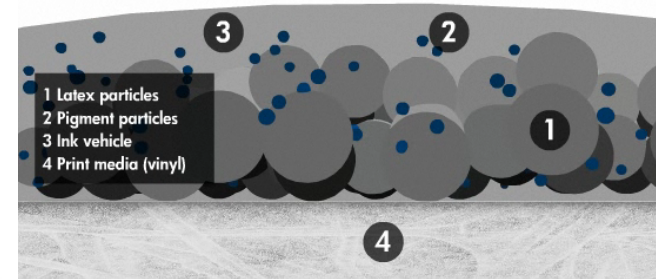
# HP DJ FIRSTS: **EMBEDDED PROFILER**

- 2006: HP Designjet Z3100
- ‘Green Button’ **ICC profiling**
- Robust defaults
- **High quality** (used for gallery prints)
- **Single-click**
  - Print profiling target
  - Measure patches
  - Compute ICC profile in printer
  - Export to PC/Mac & install
- **Ready to use** in Photoshop, ...
- Enables **easy to use and reliable color** by end to end ICC color management for experts and non-experts alike



# HP DJ FIRSTS: **LATEX INKS**

- 2008: HP Designjet L65500
- **Wide range of media** with high **image quality** at production speed
- High outdoor display **permanence**; scratch, smudge and water **resistant**; **odorless** prints –dry and ready to use right out of the printer
- High **flexibility**, suitable for printing on textiles and stretchable, formable substrates
- Wide color gamut: 640K CIELAB units
- Enables **green, indoor and outdoor, flexible signage** production for commercial applications



# INNOVATION ETHOS

*"We are an innovator's organization.  
Innovation is in our DNA.*

*Although we have already delivered a lot,  
we still have a lot to deliver.*

*We have to continue disrupting,  
contributing ... innovating."*



**Santiago Morera**

*Vice President & General Manager  
HP Designjet and Scitex LVI Business*

