FACT SHEET

DISCOVERY Print Data Validation (PDV)

File based inspection of multiple, variable data fields for cut sheet and continuous print applications

PRODUCT OVERVIEW

With digital print technology driving large scale variable data applications, typically printed on digital presses or using wide format inkjet technology, data integrity is of paramount importance.

The high-speed quality control of digitally printed sheets or web repeats, such as tax stamps, authentication labels, security print applications, lottery tickets and plastic cards, which have different, often multiple data fields on each item, poses a major technical challenge for the printer or label converter.

For these applications, the printed information on all items on a specific sheet or web repeat must be validated and verified to prevent a missing, duplicate or unreadable item being produced. Without 100% print data verification, a printing or integrity error can easily go undetected, exposing the printer or label converter to costly product returns, increased waste, financial penalties and the possible loss of future business.

Real-time variable data verification, performed immediately after print, provides the only viable solution for 100% checking and verification of correct sequencing and print quality of variable printed data on high speed printing and collating machines.

DISCOVERY Multiscan

DISCOVERY Multiscan captures images and data from a wide variety of camera and scanner technologies which are processed by a suite of DISCOVERY software tools to read, control, inspect, verify, log and report – providing 100% print quality inspection, variable data and production integrity verification and equipment control.

DISCOVERY Print Data Validation (PDV)

- DISCOVERY PDV, operating in combination with DISCOVERY Multiscan, is an in-line variable data integrity and print quality inspection system, ideally suited for sheet-fed or web applications with defined repeats containing multiple variable printed fields on each item.

- DISCOVERY PDV compares all the variable data (up to 400 fields) on a sheet or web repeat to a data file and reports on any data errors, missing or duplicate sheets found during the production run.

- A DISCOVERY PDV solution gives you the confidence that your print data meets your customers' specification, reducing your liability and waste, while improving your productivity, efficiency, and profitability. It provides the most comprehensive, adaptable and powerful solution on the market for verifying the integrity of print jobs running large volumes of variable data to ensure your printing is always 100% accurate.
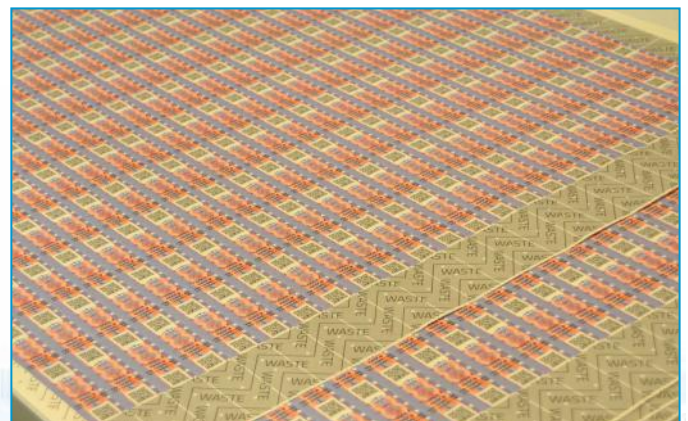
Data file Matching and Reconciliation

Lottery, gaming, phone cards, tax stamps or security print applications typically consist of serialised printed sheets/web repeats, each with multiple variable data fields. All variable data is driven by a data file, consisting of data records identifying the individual sheet or repeat number, with multiple data fields related to each record. The DISCOVERY PDV identifies the specific sheet or web repeat, reads all the variable data fields on every item on the sheet/repeat and reconciles it to the original data file.
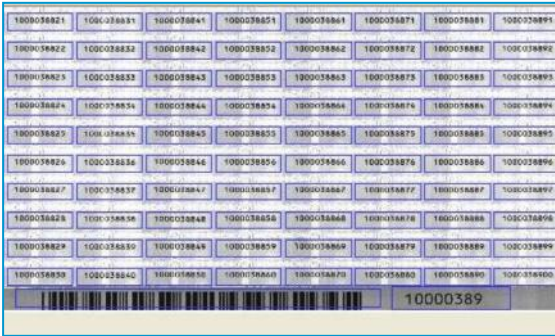
In the event of an mismatch being identified, the nature of the error and its location is logged, the operator is alerted and either the web is marked or the sheet is diverted. DISCOVERY PDV output reports on the number of sheets/repeats seen, the status of each sheet or repeat, each data record and each data field. The data is readily available in common formats for importing into most MIS or report generation platforms.

Easy Set-Up and User Friendly GUI

Using DISCOVERY PDV's simple to use set-up interface, jobs can be configured quickly and effectively. Flexible options enable the read data to be easily matched to its corresponding field in the data file. Alarm setting options provide control in the event of an error such as, whether to stop the device if a duplicate sheet is encountered. A well designed user interface provides a real-time view of the Sheet ID and a visual representation of the location of each data field on the sheet. The status of each field is colour coded (which can be configured) to enable the operator to quickly locate bad items.

DISCOVERY MULTISCAN

FACT SHEET

A typical sheet of variable data labels with a Sheet ID

DISCOVERY PDV GUI using colour to represent status of each item in real-time

FEATURES

Variable Barcodes and OCR Verification
- Full alphanumeric text - trainable by system operator
- Verify 1D or 2D barcodes
- QR codes and PDF417

Integrity Management
- Sequence/duplicate/missing checking by sheets and data fields
- Duplication and missing verification
- File/database reconciliation (up to 400 data fields/record)

Optional Inspections
- Barcode grading to ANSI/ISO standards
- Scratch panel verification for PIN numbering
- Print registration targets and density verification
- Colour deviation

Easy Set-up & Real Time GUI
- An intelligent, multi-lane image to data field mapping
- Colour coded view on status of each data field inspected
- Review mode simplifies job set and diagnostic testing

Control
- Operator Light & Audible Alarms/Warnings
- Jog sheet and/or printer stop on error (configurable)
- Marking & flagging device - Optional

Defect History / Reporting
- Full audit and error reporting by sheet/repeat
- Details given include number of sheets/repeat seen, its status and status of every record & data field verified

WEB APPLICATIONS
- Phone/Gift Cards: Serial/PIN numbers, scratch-off verification
- Lottery/Gaming: Number/Pattern/Scratch off verification
- Security Printing: authentication, identity, tax stamps labels
- Retail: Shipping/tracking labels. RFID label tags

SYSTEMS

Input Devices
- Any mono or colour line scan camera up to 16K including Discovery Maxscan
- Resolution: 150 to 1600 DPI
- Triggering: High resolution encoders
- Lighting: Long life L.E.D. Optional back-light

Processor / Interface
- OS: Windows™ 7 and Windows™ 10 (64bit)
- Chassis: Industrial Rack
- Power: 110-230VAC
- Approvals: CE Certified
- Interface: Touch Screen Monitor, keyboard & mouse
- Zebra printer and handheld barcode scanner

Performance
- Press Speeds: up to 350 meters/min (1150 ft./min)
- Web widths: Suitable for most label printer web widths

Installation / Integration
- On Label Press Installation incl. mounting kits
- Rewinders: Web stability frame, web guide and path rollers available if necessary
- Integration with Inspection Station
- Remote technical support and training

ADVANTAGES
- **Machine independent -** Can be retro-fitted to most existing label presses and printers
- **Reliable -** Using a wide range of camera technologies, inspection tools and equipment control features to suit all high speed sheet-fed / web applications
- **Flexible -** Ability to inspect multiple lanes of data fields to ensure full data integrity across all sheets or repeats with a job
- **Scalable -** Easily deploy new camera technology & additional DISCOVERY tools to meet changing inspection requirements
- **Supported -** Comprehensive maintenance contracts available featuring remote support and diagnostics

BENEFITS
- **Improve Product Quality** Detect defective sheets/repeats in real-time - 100% verification no sampling or offline QA
- **Lower Production Costs** - Prevent costly reprints, rejects and returns. Reduce Waste
- **Improved Productivity** - Automate and simplify sheet inspection processes saves on labour and time
- **Compliance** - Ensure production of all variable data items complies to client needs and government regulations
- **Increased Customer Satisfaction**—100% inspection & auditability meets requirements of demanding customers
- **Increased Revenues**: Attract more clients with assurances that all printed items will perform in the field as promised