FACT SHEET

DISCOVERY MAILMARK VERIFIER

In-line, High Performance Royal Mail's Mailmark™ Verification Solution

PRODUCT OVERVIEW

Royal Mail's Mailmark™ has been designed with high volume mail producers in mind. It harnesses barcode technology to provide a host of analytics that help mail producers and posting customers to analyse mailings and predict delivery times. This provides mailers with a higher level of assurance that mail has been delivered, with a more accurate indication of delivery date together with useful statistics to assist mailers in improving address quality. Mailmark helps clients to better coordinate their multi-media marketing campaigns, as well as improve their contact centre resource scheduling. For Royal Mail, Mailmark greatly automates internal processes and reduces their costs. Mailmark boasts the lowest postal rates for First & Second class mail.

However, if the Mailmark printed on a mail piece is incorrect or deemed unreadable by the Royal Mail's sorting machinery, these benefits are lost and Royal Mail can impose high "Adjustment" charges, which can seriously impact overall job profitability. Volume discrepancies, manifest inaccuracies, mis-sorts or Mailmark readability errors must be avoided to minimise penalties.

It is therefore crucial that mailers ensure that every Mailmark barcode is correct and conforms to the standards imposed by Royal Mail before each and every mail-piece leaves the print factory. More importantly, when issues arise, mailers are armed with a set of detailed evidencing reports to either confirm or dispute Royal Mail's claims.

Solution: The Discovery Mailmark Verifier

The Discovery Mailmark Verifier is a vision based system to inspect and validate the Mailmark printed on all mail items such as envelopes, direct mail or polywrapped mailings. Built on our flexible and robust Discovery Multiscan solution, the Mailmark Verifier has access to all of the Discovery platform's powerful capabilities. This includes a comprehensive range of verification, inspection and integrity software tools to ensure that your documents are always 100% correct. Sequence check, data matching and presence/absence software tools provide variable data verification from page to page printing including duplex operations. Inspection tools detect print defects such as print registration, colour deviation and print quality. Integrity tools such as Batch Control, File Audit and File Look-Up, verify that each and every printed page is produced with the highest levels of integrity compared to the original customer data job files.

The Discovery Mailmark Verifier scans and tracks each mail item and reads the printed (including in-line inkjet) Mailmark barcode. Each printed Mailmark is de-coded, inspected, graded and creates and logs data into an audit file. For any Mailmark barcode that fails to pass the required specification, the Mailmark Verifier instructs the inserter to divert the piece for further inspection, or flags it for an automated reprint. This allows the operator to quickly locate the problem, report it, repair it, and get the machine running again.
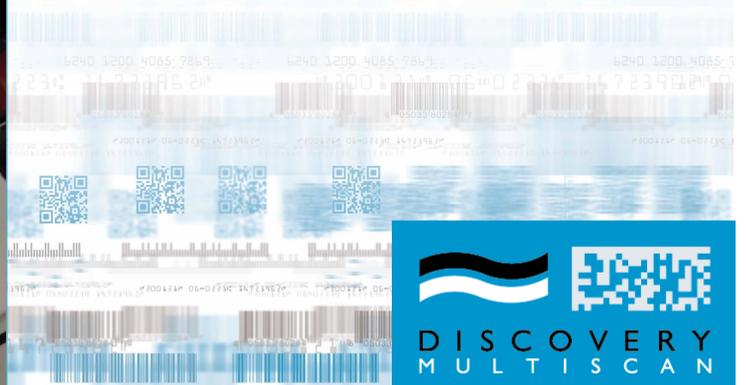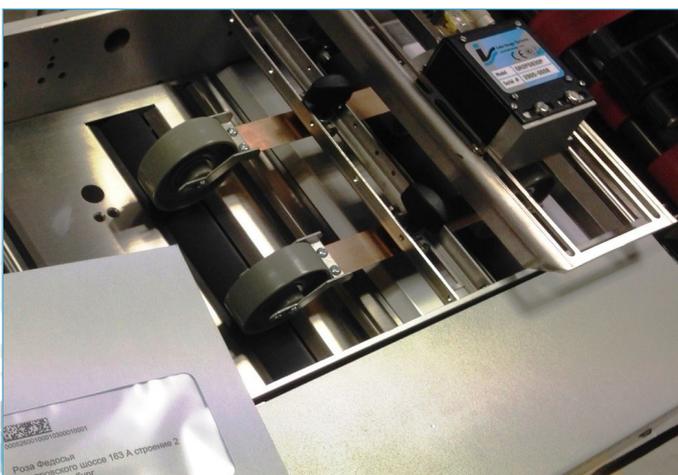
Furthermore, the Mailmark verifier captures an image of each envelope at the end of the inserter line before it is handed over to the Royal Mail or a downstream access provider.

Comprehensive MIS integration and Web Reporting

The Mailmark Verifier maintains a detailed audit file and logs status and any errors for all pages and envelopes during the job. At the end of every job, a detailed audit file is created, which can be passed to a Mailmark management or an ADF system to adjust and record actual volumes and other consignment details. This ensures that the eManifest submitted to Royal Mail is 100% accurate. If Royal Mail questions a mail shipment or imposes "Adjustment" charges, then the Mailer is armed with all the evidence necessary to dispute Royal Mail's claims.

Open & Scalable

Suitable for most brands of printing, mailing, bindery and finishing equipment, the proven modular design of Discovery Multiscan, enables mailers to purchase only the base system and software licences they need and then purchase additional tools as their requirements grow.

DISCOVERY MULTISCAN

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LAKE IMAGE

DISCOVERY MULTISCAN PLATFORM - FULL CAPABILITIES

Verification
- Correct sequencing
- Correct paper stock
- Identify duplicate / missing items
- Presence / absence of text, logos & images
- X Y location, orientation & measurement
- Address Masking
- Front / Back duplex
- MICR Elements e.g. Check/Account Numbers

Inspection
- Missing or blocked inkjets
- Print quality, streaks, hickies, stray toner & voids
- Print registration targets
- CMYK Colour Variation (Delta E)
- Barcode Grading

Integrity
- Batch Control, File Audit and File Look-up
- Full Text (IQ) Matching
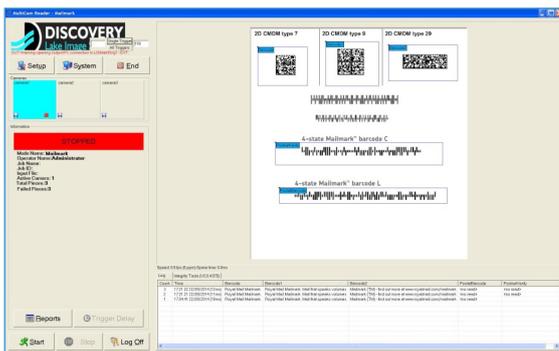- Print file reconciliation

Control
- Divert, Tray, batch, Mark/Tag or Bundle
- Operator Alarms / Warnings / Stop
- Dual Monitor Web Viewing (Optional)

Reporting & Outputs
- Full networked reporting
- 100% Audit log & Job Accounting
- Operator / job / production logs
- QC Retains - Image Archive at defined intervals
- Roll to Roll Job Sheet generation

System
- Conditional Processing - page or variable content
- System Security - Admin and Operator Logins

SYSTEM

Input Devices
- Area Scan Cameras - MaxRead, GigE, Firewire, Analogue
- Line Scan Cameras - Up to 16K Line scan
- Maxscan Linear Scanner - 600DPI, Colour/Mono, 3 widths
- Triggering: High resolution encoders (5000 ppr)
- Lighting: Long life L.E.D. Optional back-light

Outputs
- Serial & Network Outputs
- XML Outputs
- ADF System Integration

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

Performance
- Min. defect sizes: sub $1mm^2$
- Processing Time: >50 reads per second
- Press Speeds: up to 350 meters/min (1150 ft./min)

Installation / Integration
- On Press: Standard press mounting kits
- Rewinders: Web stability frame, web guide and path rollers available if necessary
- Remote technical support and training

SUPPORTED CODE FORMATS

Text / OCR
- Full Alphanumeric font trainable by system operator.

1D & 2D Barcodes
- EAN 13 & EAN 8
- OMR
- Datamatrix
- PDF417
- QR Code
- UPC A & UPC E
- Code 128, Code 39 & Code 93
- 2/5 discrete & Interleaved
- Phamacode

Postal Barcodes
- UK MailMark™, 4State code
- US IMB, POSTNET, PLANET
- Australian Post
- Japanese Post

Barcode Grading
- To ISO/IEC 15416:2000
- UPC A & UPC E
- Code 128 & Code 39
- EAN-8, EAN-13, EAN-128
- 2/5 interleaved
- Codebar

Electronic
- RFID
- Magnetic Strip

TYPICAL APPLICATIONS

- **Web Print** - Mailmark barcode grading, print quality inspection, streak/void detection, front/back web matching, variable data legibility, track & trace, missing/duplicate piece detection
- **Cut Sheet Printing** - Mailmark barcode grading, print quality inspection, Base stock verification, missing or duplicate piece detection
- **Mail Processing (inserting & addressing equipment)** - Matching, Mailmark quality verification, static verification, collation control, double, missing/duplicate piece detection, tray/bundle sorting. Read & Print applications
- **Bindery (polywrappers)** - Mailmark quality verification, missing/ duplicate detection, tray/bundle sorting. Read & print personalisation

BENEFITS

- **Reduces Costs -** Minimises the risk of surcharges by validating each Mailmark™ printed on every piece and ensuring their eManifest data is 100% correct before handing the consignment to Royal Mail
- **Improved Reporting -** Comprehensive piece level data collected enables mailers to evidence the integrity of their consignments if issues arise with Royal Mail
- **Increased Customer Satisfaction** - through optimised postal sortation solutions, richer MI data and better predictive delivery information. This enables Mailer to attract more profitable business
- **Mitigate Risks** - Ensure all jobs comply to Royal Mail standards
- **Less Scrap / Less Waste** - Immediately prevent costly scrapping of misprinted product