



## Application output management

### Legacy application data stream management for the mainframe

Columbus Z REFLECT improves system throughput by intercepting reports sent to VTAM printers, to then either place them on the operating system spool, or distribute them directly to Macro 4's Columbus OM report queues or Columbus Central for further manipulation and distribution

**Columbus Z REFLECT intercepts and flexibly redirects IBM 3270 data streams to either the JES or POWER spool where they can be managed by an output management system such as Macro 4's Columbus Z, or distributed directly to Macro 4's Columbus OM or Columbus Central document delivery solutions. Columbus Z REFLECT provides the following benefits:**

- Increase output flexibility by enabling application-generated VTAM data streams to be diverted to the JES or POWER spool queues
- Reduce reliance on scarce legacy development skills by allowing print destinations to be changed easily, without modifying your core business applications
- Increase throughput by routing output to the operating system spool, where it can be managed by an output management system, or sent directly to a document management solution for further manipulation and distribution
- Lower business risk by bringing CICS or IMS output under the control of an output management solution
- Eliminate the problem of lost VTAM print output following CICS termination
- Reduce hardware costs as reports can be routed to any printer on the network

#### **Mainframe spool printer emulation**

Columbus Z REFLECT is a VTAM and local 3270 printer emulator that intercepts IBM 3270 printer data streams from user applications and writes them to a JES or POWER spool queue with user-defined characteristics.

From the spool queue, the data streams may be printed on a local system printer or routed anywhere else a network configuration will allow.

Using Columbus Z REFLECT, output from legacy applications can be redirected to any network printer, providing much greater flexibility and allowing failover in the event of a printer failure.

Avoid changes to legacy applications

Reduce business risk

Enhance your document management capabilities

## Avoid application changes

Modification of business applications is no longer required as a Columbus Z REFLECT 'logical printer' appears to the system in an identical fashion to a physical printer. Multiple virtual printers can be defined under Columbus Z REFLECT, each tailored to the precise needs and requirements of a particular system.

## Security

The Columbus Z REFLECT configuration defines authorized users, the printers and spool definitions they can modify and the commands they are permitted to use:

- Columbus Z REFLECT provides exit points at startup and user signon, where additional security may be applied
- Columbus Z REFLECT also provides an interface for external security products such as RACF, ACF2 and Top Secret, using a standard SAF interface

## Flexibility and control

Users can control when spool files are available for processing and printing by defining their close criteria. A spool file may be closed in a number of ways; typical examples include time or idle interval, after a specified number of lines or pages, or on detection of specific character or control strings.

All logical printers, spool characteristics, closure comparison criteria and authorized users are defined in a configuration file that is loaded at Columbus Z REFLECT startup time.

The configuration can be modified at any time and updated dynamically by an authorized user.

## Online displays

Online displays enable authorized users to view and (optionally) modify printer and spool definition characteristics. All displays can be configured as required:

- Full help is available for all online displays
- Columbus Z REFLECT features national language support and can be run in different languages at the same installation

## Integration with mainframe and open systems document and output management solutions

Columbus Z REFLECT is able to automatically route output to the JES or POWER spool, from which it can be managed by Macro 4's output management solutions. For z/OS, Columbus Z provides extensive manipulation and distribution facilities. Macro 4's VTAMPrint software provides similar functionality for z/VSE environments.

Columbus Z REFLECT is also able to transfer output directly to Macro 4's Columbus OM and Columbus Central print and digital delivery solutions for open systems; this creates an opportunity for further report manipulation and distribution where required.

Integration with mainframe and open systems document and output management solutions can deliver cost savings by minimizing output delays, reducing helpdesk calls and by eliminating the need to 'hardwire' links between applications and delivery channels.

It can also simplify output administration, while print-related data collection provides organizations with accurate accounting and statistics to monitor resources and optimize printer fleets.

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### Please contact us for more information:

**USA** Tel: +1 973 526 3900 Email: [market.usa@macro4.com](mailto:market.usa@macro4.com)  
**Europe** Tel: +44 1293 872000 Email: [market@macro4.com](mailto:market@macro4.com)

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