

Columbus for Document Management Solutions

World-class document management and delivery for the multi-channel enterprise

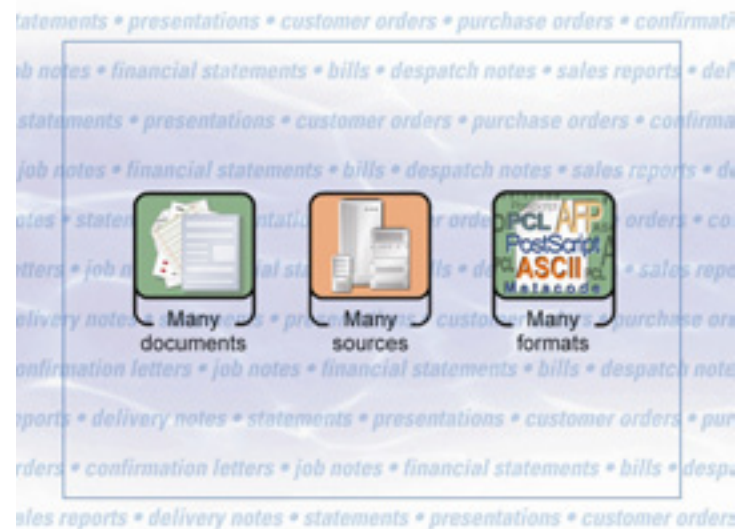
The information explosion

More information has been produced in the last thirty years than in the previous five thousand - the entire history of civilisation. What's more it is predicted that this volume will double in less than five years*.

Whether in printed or digital form, over 90 per cent of all corporate information is contained in documents, firmly establishing their importance at the heart of every process, determining key business decisions made every day. Documents drive and link business processes within an increasingly complex information chain.

Today's printed and digital documents need to be distributed to an increasingly diverse range of media, across a variety of complex computing platforms and channels, including printers, faxes, e-mail, the Internet and mobile technology devices.

Too often, in the rush to adopt new media technologies, the importance and fundamental role of paper-based documents is overlooked. The paperless office is unlikely to ever materialise. With the US alone printing 1.5 trillion pages per year, the associated costs and reliance on paper are greater now than ever before.



And as organisations grow the output management challenge becomes more complex - coping with heterogeneous populations of printers and other devices, computing environments and delivery requirements.

Clearly, the need for a centralised method of managing multichannel document delivery is a key factor in corporate success. Macro 4's Columbus for output management solution is the best answer to these pressing business needs.

The output management 'reality check'

- IDC found that 80 per cent of calls logged with IT helpdesks are document management related.
- IDC identified a \$12 billion 'knowledge deficit' – money wasted by Fortune 500 corporations.
- Searching for relevant data or basing decisions on inadequate information Gartner found that knowledge workers waste up to 8 hours per week as a result of information delivery inefficiencies.

Columbus – realising the true value of business information

Columbus for output management assures the multi-channel delivery of documents, automating the information supply chain and adding value to business information through intelligent document management.

With more efficient operations and reduced resources required to manage document delivery, Columbus customers experience the real value of their business information, a stronger return on IT investments and a distinct and sustainable competitive advantage.

Columbus – the output management answer

Gartner research found that most organizations underestimate the cost of printing by 30 - 50 per cent, because they only include obvious hardware and consumable charges and overlook the hidden costs and impact of not having an output management strategy.

Consider:

- The sales director who needs a mainframe report but has to wait for it to be hand-delivered because he can't print it on the local network printers. *Columbus assures the delivery of information to the right place, regardless of the originating computing platform, destination device, medium or location.*
- The IT manager who's facing an increasing workload, with no additional resource or support. *Columbus integrates seamlessly with existing hardware and software so companies can maximise their investments across the entire system infrastructure. With assured delivery to and from anywhere and the scalability to grow with the organisation's requirements, Columbus offers a risk-free, future eproof solution to output management challenges.*

- The finance director who's concerned about escalating paper and distribution costs. *Columbus reduces the need for printed documents with a full online viewing capability and optional electronic distribution. And with more output control, delivery to the point of need and automatic recovery from the point of failure, there are less wastage and disposal costs.*
- The operations director who's inundated by requests for training and additional resources from helpdesk staff. *Columbus provides a single point of control for enterprise-wide output so instead of having to use numerous different applications, users only have to use one to control all devices. It empowers users to help themselves with comprehensive document tracking and management functionality.*
- The mobile employee who's dependent on print centre staff to print and send mainframe documents to him. *Columbus is accessible from any location or system using a Web browser. This greatly increases the efficiency of staff, especially those based off site, enabling them to download and print remotely located documents to their laptop and printer at any time of day.*
- A manager's frustration because an ERP generated document hasn't arrived. *Columbus assures the delivery of information by automatically resolving problems before they impact on the business. Fully SAP™ R/3® certified, Columbus integrates seamlessly with this and other ERP applications to enhance output functionality and management within the ERP environment.*

Columbus functional overview

True cross-platform capability

Columbus provides complete flexibility by being truly cross-platform. It can be deployed across any combination of Unix, Windows 2000, Windows NT® and S/390 and can manage output from any source across any network of heterogeneous systems to any destination. Columbus gives today's complex organisations extreme flexibility by providing a single output architecture, independent of the numerous applications residing on a wide variety of platforms.

Intelligent document management

Columbus, on receipt of a document, determines the processing requirements against a set of pre-defined rules and implements the required actions. For example:

- *Routing* the document through a document composition or document transformation engine.
- *Splitting* the document into several smaller documents.
- *Consolidating* several documents into a larger document.
- *Dispatching* the document to the appropriate single or multiple destination(s), such as a printer, for hard copy, together with an HTML version for online viewing via the Web.

Assured and managed document delivery

Columbus assures the delivery of documents to any device or system, managing and recovering from failures in the network, servers, clients or print devices automatically. All-inclusive security features define enduser access down to an individual document level.

Columbus provides complete status information not only to the end-user, but also to the application that generated the output and to central management systems.

Using Columbus, the amount of network bandwidth required by large print files can be reduced by compressing content and controlling the rate of dispatch. Comprehensive output usage statistics and accounting information is also provided.

Multi-channel delivery and presentment

Columbus can deliver any document through any combination of channels, not only to printers and faxes, but also by e-mail, SMS or to Web sites. With a scalable and flexible architecture, Columbus enables organisations to deal with the problems of everchanging requirements for an ever-increasing range of channels, impacting a multitude of applications.

Enterprise output archiving

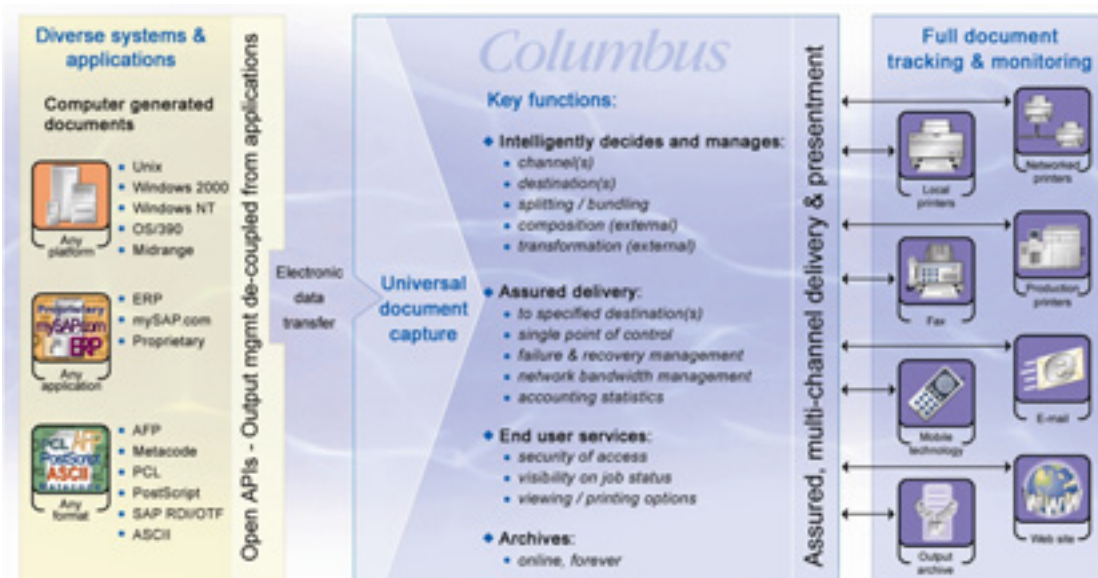
Columbus not only deals with the document in its initial form, but also incorporates a best-of-breed archiving facility, that ensures fast, easy, long term access. Documents of any type can be stored in Columbus and easily but securely accessed both internally and by external organisations. Additional features provide data mining of document content, instant printing, e-mailing or faxing and transformation of documents into HTML/XML for easy access through a browser. From creation to long term storage, Columbus manages the complete document life cycle.

Enterprise printer management

Columbus allows any application to be connected to any printer group. This significantly increases flexibility for many organisations that are currently heavily restricted as to which applications can deliver to printer groups in other parts of the organisation. This is a particular issue in the event of a merger or acquisition, which inevitably leads to a mix of host and printer environments. Columbus' ability to 'auto discover' new printers, for example at the time of initial implementation, and to load the data into an industry standard LDAP repository has profound time saving benefits.

End-user control

Columbus allows users an unprecedented degree of permission-based control. End-users can view documents online, rather than print them, or print selected pages after previewing them on screen. Furthermore, at any time, documents can be status tracked, re-scheduled, deleted and viewed from the Columbus output archive.



Additional technology highlights:

- **Job ticketing** – the control mechanism which facilitates total visibility of a document's status throughout its processing life cycle, and through which a wide variety of highly tailorable processing options can be implemented.
- **Message delivery system** – ensures that each processing step, as defined by the job ticket, and the associated lookup data, is executed and that any failures are notified and resolved. The system can be either Columbus' internal component or, optionally, MQSeries.
- **Web user interface** – ensures operational flexibility by providing controlled and secure access to job status information from any workstation, without the need for special software.
- **Open APIs** – provide maximum scope for bespoke and third party product integration.

Industry standards:

- **RDBMS** – the use of established technologies such as DB2 or Oracle for dynamic data such as job tickets, document attributes and recovery tables. Provides a full-range of built-in features for scalability, flexibility, automatic recovery and user-defined enquiries.
- **LDAP** – also provides built-in security, replication and recovery mechanisms and is used for 'static' data such as job ticket templates, printer definitions and configuration tables.
- **XML** – is used for internal messaging to maximise ease of implementing external interfaces and customized requirements, as well as coping with future requirements.
- **SNMP** – provides open interfacing to network management systems as well as standard device management.

Columbus – providing the information advantage

A winning solution. Columbus is the technology behind Macro 4's Business Information Logistics solution, the most advanced document management and delivery solution available today. With 9 of the top 10 Fortune 100 and over 3,500 blue chip companies as customers in the utilities, financial services, telecommunications, manufacturing and retail sectors, our impressive customer portfolio is a testament to our ability to get it right first time, every time.

Rapid payback, low risk implementation. Columbus solutions are fast to implement – in weeks, not months, so you can start reaping the benefits sooner. Macro 4's international delivery and deployment capability and proven breadth and depth of expertise in the field of output management have made the company the IT partner of choice for a growing portfolio of worldbeating organisations.

Technological excellence. Columbus is a breakthrough in output management technology that is designed to form an integral component of a total IT strategy. Built on a robust, scalable and secure architecture that consistently outperforms other products, Columbus manages the entire information supply chain – from document creation to archiving – all from a single point of control.

A future proof investment. Your Columbus system can be easily expanded and extended over time, adding new channels, documents and users as your business requirements evolve. You can also benefit from a range of complementary Columbus solutions that fit together seamlessly to provide an enterprise architecture for document delivery and management. These solutions include:

- Columbus for document-enabled eCRM.
- Columbus for electronic bill presentment and Web delivery.
- Columbus for information exchange.
- Columbus for enterprise report management.
- Columbus for output management.
- Columbus for document-enabled business applications.

A reliable implementation partner. Macro 4 has over 20 years' experience in delivering document management solutions to organisations worldwide. Our Professional Services consultants will deliver a solution tailored to your specific needs, drawing from extensive technical and industry expertise and experience in implementing output management solutions.

Macro 4 – the leading output management company

Macro 4 has developed Columbus for output management as the next-generation output management solution. It further improves upon the series of products which have delivered successful solutions to hundreds of major organisations for more than 20 years, eliciting comments such as:

"The trouble-free operation and the excellent support from Macro 4 convinced us to integrate the solution across the company and with our business partners."

Harald Muhl, Mobilcom.

"Now, nobody has to wait for output or worry about losing documents. We have a much more resilient output environment, with better control and increases in efficiency, productivity and user confidence."

James Lodder, Pirelli Cables.

"Macro 4 always demonstrates a willingness to work in whatever way suits us best, providing us with excellent support and assistance right from the evaluation phase through the implementation to this day."

Mike Harding, TNT.

"We needed a solution that would work with our existing architecture. Macro 4's solution made Output Management simple."

Steve Williams, Friends Provident.

"I could not imagine how we would function as an operation if we did not have solutions with the flexibility, reliability and industry strength of Macro 4's solutions."

Lisa Parrish, The Associated Examining Board.

To find out how Columbus can streamline and improve your output management, call your local Macro 4 office or e-mail us at market@macro4.com

Macro 4 is an independent, leading developer of world-class, business-enabling solutions:

- Document Management Solutions – document management and delivery for the multi-channel enterprise.
- Application Availability – OS/390 application development, testing and deployment.
- Systems Management – system automation, connectivity and performance monitoring.

Our solutions underpin traditional and e-business environments, enabling companies to realise their business goals quickly and efficiently. The company's key strengths lie in its wealth of experience, spanning more than 30 years, and enviable ability to provide major organisations worldwide with innovative and successful computing solutions that meet their real business requirements today and in the future.

All Macro 4 solutions are available through an established global network of subsidiaries and international business partners.

Benelux	France	Germany	Italy
Macro 4 (Benelux) NV/SA Mechelen	Macro 4 SAS Paris	Macro 4 GmbH Aschheim b. Muenchen	Macro 4 Srl Milano
Tel: +32 1 574 7480	Tel: +33 1 53 57 69 50	Tel: +49 89 610 0970	Tel: +39 2 213 1941
Email: market.be@macro4.com www.macro4.com	Email: market.fr@macro4.com www.macro4.fr	Email: market.de@macro4.com www.macro4.de	Email: market.it@macro4.com www.macro4.it
Spain	Switzerland	UK	USA
Macro 4 (Espana) SA Madrid	Macro 4 AG Thalwil	Macro 4 plc Crawley	Macro 4 Inc. Parsippany
Tel: +34 91 443 0220	Tel: +41 0 44 723 40 00	Tel: +44 1293 872000	Tel: +1 973 402 8000
Email: market.es@macro4.com www.macro4.com	Email: market.ch@macro4.com www.macro4.ch	Email: market@macro4.com www.macro4.com	Email: market.usa@macro4.com www.macro4.com

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