Development of Powerful 1:1 Business Documents
Statements, bills, letters, policies, reports, CRM mailings.

- integrated design presenting the data, the logic and layout on its fully formatted page.
- use any type of business data natively.
- integrated Change Management for development, test, sign off and production.
- generation of AFP and PDF.
- super fast formatter available for 11 platforms including LINUX.
- one time document resource development for printing, archiving and Web delivery.
- use common document elements and definitions across many applications.

Papyrus Output Management
Papyrus Postprocessing/PrintPool

The centralized document pool offers many opportunities for cost savings and better quality customer output. Documents from batch and ad hoc can be stored in a common document pool for later bundling, sorting and mail optimization. Documents are automatically routed to different output channels and tracked. Perfect document quality and fidelity is guaranteed to all output channels - supporting all printers, web presentation, and archiving.

Papyrus Print Management/
Automated Document Factory
This proven system is designed for seamless multi-channel output.

Highlights:
- automated process management, tracking and monitoring across platforms and output channels.
- integrated intelligent resource management.
- load balancing, job splitting for parallel processing.
- from the Papyrus Desktop, authorized users have centralized administration of all printers and jobs in the network.
- single time document development and formatting to print on all printers, archive and Web delivery.

Papyrus Archiving and Internet Delivery
Papyrus WebArchive is a short term and long-term archive.

- documents are absolutely identical on paper and on the Web.
- single time development for print and e-delivery.
- all Papyrus generated documents include index information.
- documents are archived in AFP, PDF or TIFF.
- immediate viewing and reprinting by customer care.
- Papyrus WebArchive is available for z/OS, UNIX and Windows.
**Papyrus WebRepository**
Provides centralized and web-based management for document development for batch, ad hoc and interactive business documents.

Papyrus WebRepository stores versioned document templates and elements such as text, forms, fonts and logos on a centralized server, providing workflow control for development, test and sign off. It helps organizations to comply with increasing regulatory requirements by ensuring the legal content and the quality of all documents produced, automating the workflow and providing a full audit trail of the document throughout the development and the following production process.

**User Authorization:**
Each user has a Role which can also have a privilege defined. Role and Policy define what a user sees on the Papyrus Desktop GUI. Adapters for LDAP and RACF are available.

**Papyrus WebPortal**
Simply use your centrally-managed business documents for your web applications.

Papyrus WebPortal, a single entry point for producing virtually any type of business document, provides a unified document interface. Users, such as customers, agents, and employees, can immediately access and create inbound and outbound corporate and customer documents such as reports, offers, statements, faxes and e-mails using a thin-client standard Web browser environment.

**Papyrus Correspondence/Letter System**
Any user can generate highly customized letters. Dynamic document assembly executes the correct text elements, graphics and other document resources defined and fills the letter with the variable customer information. The user can be prompted to customize authorized text and data fields. He has access to a simple text editor that offers typing text freely, using a spell checking utility, underline, cut, copy and paste, selecting a certain font, etc. Depending on their user authorization and on the definition of the letter application, only some parts or all of the letter can be edited.

**Papyrus Response Management**
Powerful applications for Managing and Creating Customer Responses.

The Papyrus Response Management Framework automatically classifies incoming correspondence, extracts key information and generates suggestions for individual replies. This framework helps organizations substantially reduce manual processing, allowing your customer to receive a timely, personalized response using their preferred communication channel.

**Papyrus Capture**
Eliminates labor and time-intensive manual data entry.

Papyrus integrates capture technology to process incoming mail (letters, faxes, e-mails, SOAP messages). A classification is performed and all relevant data is captured. Intelligent document capture with Papyrus Capture provides a wide range of capabilities to make valuable, business critical information on incoming business documents (order forms, invoices, money transfers, forms, e-mails etc.) accessible to a corporation.
With the re-branding of Chaucer Insurance in September 2000, the company wanted to improve the documentation issued to the brokers and their customers. The documents produced at that time were very dated and were printed using dot matrix printers on carbon copy paper that was hand separated. With these existing restrictions, the requirements were simple – to be able to print professional looking documents on A4 size paper using the existing PCL printers.

In addition to the above requirements, Chaucer Insurance was keen to invest in a solution that was easy to use, and offered the possibility for development and growth within their business.

Chaucer Insurance considered Papyrus plus two other vendors. Papyrus was chosen based on its track record for good performance and ease of use. It was also clear that a Papyrus solution would not require long term training or consultancy requirements from the vendor, as some in-house knowledge already existed.

The WYSIWYG approach to application development with Papyrus Designer was a major influence, as it significantly reduced development time, thus improving the appearance of their business documents very quickly.

Dynamic Insurance Documents with Papyrus
The Solution

The Papyrus solution is split between individual policies (batch printing) and fleet policies (on demand printing).

For the batch processing, data is stored on Chaucer Insurance’s core system Insure90 which resides on an AS/400 platform. The data is transferred via FTP as a flat file string format with channel codes to a Windows server running Papyrus DocEXEC and Papyrus Server/PCL. Papyrus DocEXEC formats the documents and they are then converted from AFP to PCL by the Papyrus Server/PCL module, before being printed on Canon GP405/IR300 or HP 4300 printers. Documents are also printed locally by Papyrus users, for example the large fleet policies which are printed on demand by a dedicated department.

Chaucer Insurance is currently printing in the region of 200,000 pages per month using Papyrus. These include a variety of different documents, from policy documents such as certificates and schedules etc., to monthly broker statements and ad-hoc claim forms generated by telephone calls from their clients. In addition to the variable policy documents, Papyrus is also used to create fixed documents such as new business and claim letters.

The Benefits

Chaucer Insurance wanted a solution that was quick to implement, requiring as little training as possible. The Papyrus solution was implemented in just two days, with complex applications being developed in a matter of weeks.

“We have had very few problems with the Papyrus software and these have been resolved quickly. It has lived up to expectations of being quick and easy to use,” said David Little, Senior Analyst Programmer. “Although our use of Papyrus is quite limited compared to its capabilities, it fulfills all of our current requirements and will allow for a great deal of additional functionality should we require it in the future. We find its flexibility very impressive, for example adding bespoke marketing messages or catering for legislation changes can be implemented in a fraction of the time it took previously,” he concluded.
The Bank
Banca BSI Italia SpA is controlled by BSI SA, one of the leading international private bankers.
BSI SA was founded in Lugano (Switzerland) in 1873 and was acquired by Gruppo Generali in 1998. Today it operates branches and representative offices in all major financial centers in Europe, North and South America as well as in the Far East. Banca BSI Italia SpA is located in Milan and has offices in Bologna, Rome and Turin. It offers personalized services for portfolio management and “wealth management”.

The Approach
The bank wanted to implement a more “customer oriented” communication and the possibility of merging several documents into one envelope to meet its customers’ wishes to receive all correspondence at the same time.
Moreover, the bank wanted to supply the customer with a more personalized service, by integrating an output management solution with a CRM application utilizing the customers data. Banca BSI Italia started to look for an integrated solution for output management, printing, bundling and sorting with automated definitions.

Before Papyrus
Data coming from AS/400 was processed with home-coded applications for extracting the data and later printing. A visual basic program was placing the data into the documents and added OMR barcodes when required. The final document was a simple sequence of listed records, printed with a single fixed pitch font in black and white, while meeting the legal requirements in terms of data presentation.
Transactions receipts for wire transfers, purchase/selling transactions, etc. were generated daily, printed and mailed each in a separate envelope. The documents were later archived in a centralized system that stores single pages in Tiff format (crypted) with embedded AFPDS files.

The Papyrus Solution for Banca BSI Italia SpA
Banca BSI Italia SpA chose the Papyrus Document System to manage the total document life-cycle. The decision criteria, after a one-week pilot installation, were the Post-Processing capabilities for the automatic bundling and sorting and the easy-to-use application development tool.
The use of AFP within Papyrus was ensuring the compatibility with the existing archiving system. The data could be maintained as it was. There was no need to modify or structure the data like in other solutions under evaluation. With Papyrus there was no need of modifying the AS/400 applications and the printing could be easily done on fast PCL printers in full color. Post-Processing procedures are defined not in the data but using the indexes generated during the formatting step.

The Solution

Papyrus Designer Package on a Windows XP Client
is used to define the logic and layout of the document application. It maps the data coming from AS/400 into a graphic context.
- Document logic definition
- Definition of the logic for sorting the documents (PP)
- Definition of the customization criteria (PP)
- List files (PP)
- Treatment of images and fonts
- Dynamic generation of 3D pie charts from the data
- Algorithm for the OMR code generation (PP)
- Grouping criteria of all the daily transaction records for each customer

Papyrus DocEXEC on a Windows 2000 Server
- For generating the AFPDS file with indexes

Papyrus Postprocessing on a Windows 2000 Server
- Postprocessing - Sort & Bundling Utility
- Utility for batch Postprocessing for bundling and sorting documents using the indexes

Papyrus Server/PCL
- Converts AFP to PCL at time of printing on 2 full color PCL printers

The processing steps above are automatically managed by Papyrus WebControl which provides print management and error recovery.
**Document logic definition**

The data is originated on an AS/400 platform and transferred to the Windows server via FTP. The original data format with an EBCDIC translation is used to define the document design. The data is the result of an extraction that uses different proprietary applications.

The document is created using the bank’s red color and full color 3D pie charts, where each element is characterised by a specific cmyk (color combination) defined by the marketing division. The first chart shows the portfolio by investment type (shares, funds, bonds,...), the second chart refers to different currencies (Euro, US Dollar, GB Pound, Swiss Franc,...)

**PostProcessing criteria definition**

The use of PostProcessing functionalities offers the possibility to re-organize each customer’s documents (lines) according to the marketing requirements at any time. This means that a letter or a specific communication can be added (generally at the beginning of a document) even right before the production formatting step or printing.

The first formatting step generates all the document graphics. If the error code is = 0, then a second data file is generated to trigger the PostProcessing run for:

- Sorting each customer’s document and bundling the different investment lines. If the customer owns more than one investment line, then the formatter reads the priorities for presenting the information on the document.
- Adding a letter with a different content depending on the type of account at the top of each statement for each investment line.
- Adding a summary page at the end of each document including a glossary for correctly interpreting the information contained in the previous documents.
- Adding “1 of n.” page numbering and the sequence for positioning the OMR codes, according to the algorithm of the enveloping machine.

The AFP files generated by the different formatting steps are stored in the PrintPool FS (file system) and bundled with the first bundling step. The documents are then sorted according to the index. This procedure also produces a list file with all the information relating to the documents: number of pages, position of the AFP file, etc. This information can be used later as an input file for further processing steps like adding summary banner pages or statistics and accounting.

**Formatting and printing**

The formatting step is automatically started via Papyrus WebControl. Papyrus WebControl is installed on a Windows 2000 Server and it monitors a directory for the production data. The AFP file produced is then converted to PCL and printed. All these steps are automated through the use of an Agent that finds the right tasks according the administrator’s definitions.

**Archiving**

Banca BSI is currently using a third party archiving system, which stores AFPDS embedded in Tiff images. To guarantee compatibility with this system Papyrus DocEXEC generates three separate files (RES,NDX,AFP). This archiving system can only store pages and not documents, so at the DOCDEF coding stage ISIS defined a command that generates an Invoke Medium Map for each page.
The Papyrus Objects Platform unifies all your corporate inbound and outbound business communications into a seamlessly integrated document solution. Your investment is guaranteed! Long-term upward compatibility, unmatched seamless platform and output channel independence.

**Your Document Switchboard**

The end of programming. Java not required. XML optional.

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**Papyrus Document Frameworks**
- Automated Document Factory
- Enterprise Application Integration
- Enterprise Output Management
- Enterprise Content Management
- Business Process Management
- Portal and Web Applications
- Change Management
- Correspondence
- Campaign Management
- Print Management
- Capture/Classify/Extract
- E-mail, Fax

**ISIS Locations**

International Headquarters
Austria
ISIS Information Systems GmbH
ISIS Marketing Service GmbH
ISIS Knowledge Systems GmbH
Alter Wienenerweg 12
A-2344 Maria Enzersdorf
T: +43-2236-27551-0
F: +43-2236-21081
E-mail: info@isis-papyrus.com

US Headquarters
ISIS Papyrus America, Inc.
301 Bank St.
Southlake, TX 76092
T: 817-416-2345
F: 817-416-1223

Asia-Pacific Headquarters
ISIS Papyrus Asia Pacific Ltd
9 Temasek Blvd.
#03-03 Suntec City Tower 2
Singapore 038989
T: +65-6339-8719
F: +65-6336-6933

Engeland
ISIS Papyrus UK Ltd
25 Cherry Orchard North
Kembrey Park
Swindon
Wiltshire SN2 8UH
T: +44-1793-644616
F: +44-1793-692978

Germany
ISIS Papyrus Deutschland GmbH
Heerdter Lohweg 81
40549 Düsseldorf
T: +43-2236-27551-0
F: +43-2236-21081

Benelux
ISIS Papyrus Benelux
Waterloo Office Park
Dreve Richelle 161
B-1410 Waterloo
T: +32-2-352-8720
F: +32-2-352-8802

Italy
ISIS Papyrus Italy Srl
via Monte Navale 11
10015 Ivrea (TO)
T: +39-0125-6455-00
F: +39-0125-6455-150

France
ISIS Papyrus France SARL
La Grande Arche Parol Nord
92044 Paris La Défense
T: +33-1-40903510
F: +33-1-40903501

Spain
ISIS Thot SL.
c. Azabache 17
28224 Madrid
T: +34-91-351-1686
F: +34-91-351-4432

www.isis-papyrus.com

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"Fulfilling the needs of our corporate customers with an integrated document lifecycle solution sets us apart and make us a proven leader. Advanced technology and best of breed software products provide our customers with a competitive edge."

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"Papyrus Solutions automate your document processes and integrate your business data, holding the promise to reduce cost, increase efficiency and provide enhanced capability."

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Integration Cost
increases exponentially with the number of software products used.

More products?
More customizing?
More JAVA/XML?

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Annemarie Pucher  Max J Pucher
Managing Director  Chief Architect

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