

Papyrus.

## A Future-Proof Concept.

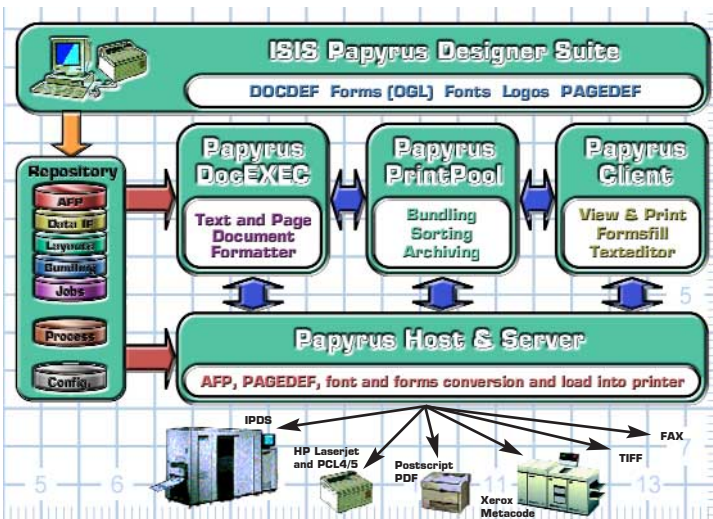
In more than ten years of close cooperation with corporate customers of all sizes and on all five continents we came across the same expectations for a business document system over and over again:

- Effortless graphical development
- Powerful document logic with programming language support
- No conversion of print resources
- Freedom to choose any hardware and software platform
- Powerful production formatting
- Use any input data format
- Reuse existing documents
- Document and print resource distribution through Internet and Intranet
- Remote controlled printing over networks
- Dynamic document capabilities for applications such as SAP
- One central version controlled resource library for the complete document life cycle
- Archiving without format conversion - and many more.

We listen to our customers and understand their needs!

So we created the only completely integrated business document solution in today's marketplace. • Operating system independent • Printer independent • Network and web enabled • State of the art document design and formatting • Powerful end user interfaces • A full array of distribution and printing services.

More than 1500 satisfied customers world wide are saving time and money today and are gaining a competitive edge through the customization capabilities of the Papyrus document applications.



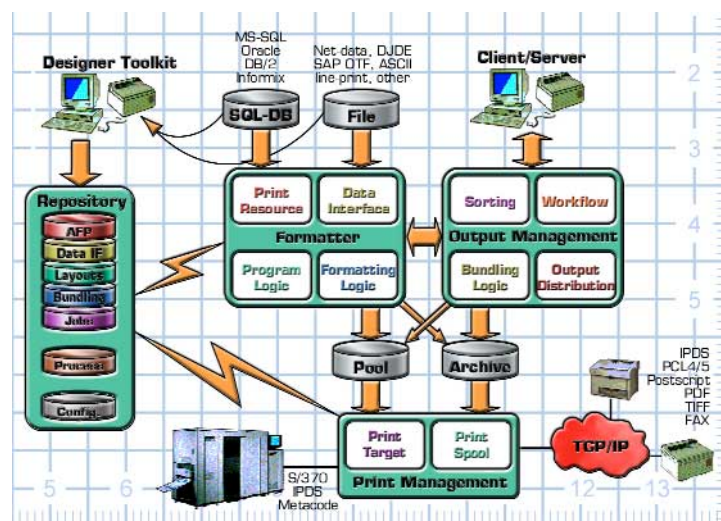
Papyrus System Components

printing, dynamic customer documents, barcode printing, networking and so on. It will let you use your old printers with new applications or add new print technologies like color printing without recreating your existing forms, fonts, logos and documents all over again.

We know, that these claims sound unbelievable. We all have heard them too often. ISIS Papyrus offers you a unique and unprecedented guarantee: You do not pay for any Papyrus software unless it works in your environment and is ready to use for production.

We will guide you through the steps necessary to introduce state of the art business document technology in your existing infrastructure with the doors wide open for whatever new technology the future will bring.

<http://www.isis-papyrus.com>



Papyrus System Blueprint

## An Architected Solution.

The Papyrus Document System is much more than the sum of its software components. Its architecture follows a thoughtfully designed blueprint providing solutions to individual customer problems as well as a long-term concept for integrating new technologies naturally into your environment.

All Papyrus components can be used as stand alone products. Combined in an integrated system they cover the complete document life cycle from development to the archive.

The Papyrus System will help you to use your existing documents, resources and data when you want to migrate to new document technologies like distributed

<http://www.isis-papyrus.com>



# ISIS Papyrus. Business Document Automation and Management™.

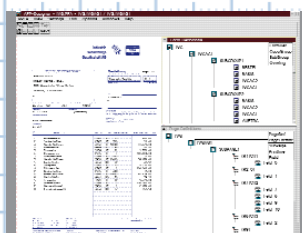
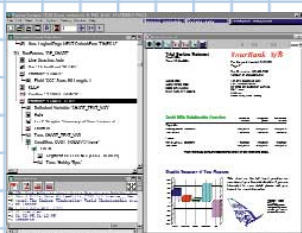
Papyrus.  
A Total Document Solution.

Evolution did not stop with walking upright.



# Document Design

Papyrus Designer Suite is the most powerful document design tool in today's marketplace. 100% WYSIWYG, dot accuracy and a full array of design and logic functions let you create everything from simple forms to complex, dynamic, formatted one-to-one business documents.



# Statement Formatting

Papyrus DocEXEC is a super fast document formatter on mainframe, UNIX and PC platforms using any input data type and structure. It supports special functions such as dynamic charts, barcode and image printing.

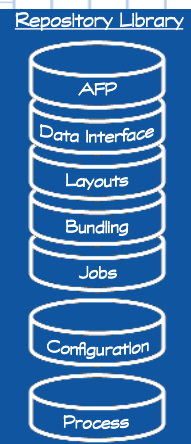


# Post Processing

Papyrus' pooling concept for bundling, sorting and merging of documents is a unique, but extremely powerful feature. Documents of any data source can be assembled into envelopes and mail optimized.

- Papyrus PrintPool**
- Documents are stored to PrintPool
  - Facilitates distribution, OMR or barcoding, envelope merging
  - Provides reviewing and reprinting according to index
  - Optimizes the postage per mail piece
  - Utilizes available discount structures
  - Prioritizes users, documents, combinations
  - Pages from multiple files can be merged according to sequence
  - Additional page numbering or OMR codes can be printed
  - Generate ZIP or postcode sequenced printlists

# Central Repository



Papyrus WebRepository provides a complete document management solution allowing version control for source and objects.

- Centralized management of text, forms, fonts, logos
- Any WebBrowser can access documents and resources
- Authorized users can use, update or create new documents

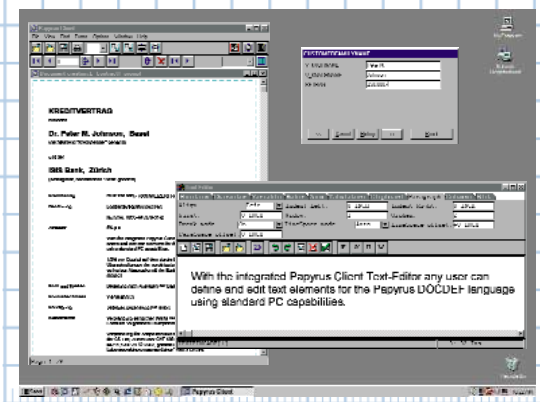
Papyrus Client is the end user interface for Client/Server documents and integrates the host and PC world. Identical document formatting capabilities are available on the mainframe and PC. This concept enforces a corporate identity and provides a company-wide forms and document infrastructure. There are substantial time and money savings by reusing forms elements across applications, platforms and printers.

## Forms Fill

- Use central form overlays and logos
- Fill predefined data fields into the form
- Use listboxes, mathematical calculations, date formatting
- Link to a local or host database
- Print to any network or host printer
- Save input data as a file for reuse

## Document Formatting and Text Editing

- Background formatting and printing
- User controlled document formatting
- Dynamic dialog interface
- 'Prompting' for text and data
- Texteditor enables user text maintenance
- Migration from IPDT/ASF/DCF
- Papyrus Desktop for user application integration
- Host access user specific
- DDE integration



# AFP Viewing

Papyrus Client provides true AFP viewing and printing capability for the Internet and Intranet using JAVA.

## AFP JAVA Viewer

- License-free AFP Viewer
- Supports AFP raster fonts and Adobe TrueType outline fonts
- Printing to any printer
- Provides ACIF TLE index search
- Platform independent

# Papyrus System Blueprint

Papyrus is a fully integrated Business Document System featuring printer and platform independent document development, management and production.

# Papyrus. A Total Document Solution.

## Benefits:

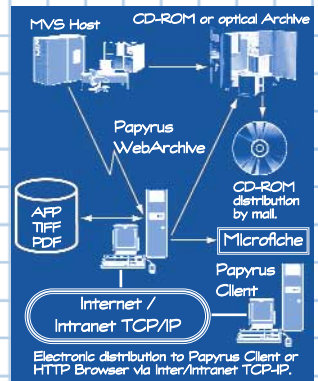
- A future-proof document application blueprint.
- Modular step by step implementation.
- No change required to print data-streams.
- Supports AFP applications and resources.
- Supports existing Xerox DJDE datastream.
- ASCII / EBCDIC codepage independent.
- Unicode and DBCS Japanese/Chinese supported.
- Hebrew and Arabic right-to-left writing.
- The highest presentation accuracy possible.
- The most integrated and powerful architecture.

© ISIS Papyrus America, Inc.

# Archiving and Distribution

Papyrus WebArchive opens the world of mass customer document distribution using Internet technology.

- Stores AFPDS, TIFF, PDF, Linedata
- Uses a file or database system
- Supports AFP indexing
- Access through WebBrowser
- Supported platforms: MVS, UNIX, WinNT, OS/2

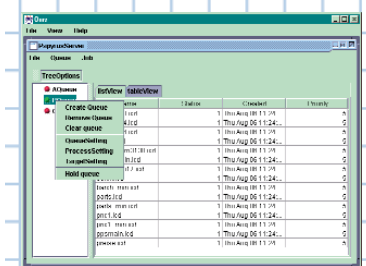


# Print Services

Papyrus Host/Server offers print management and transparent conversion of print applications across platforms, network and channel attached printers. Papyrus WebControl enables the spool management with a JAVA user interface.

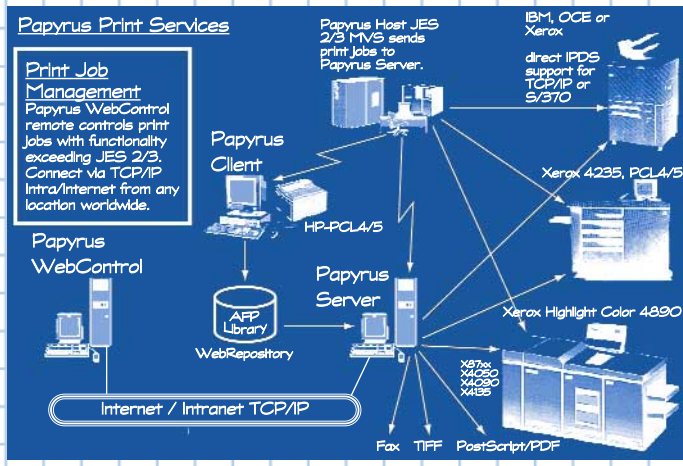
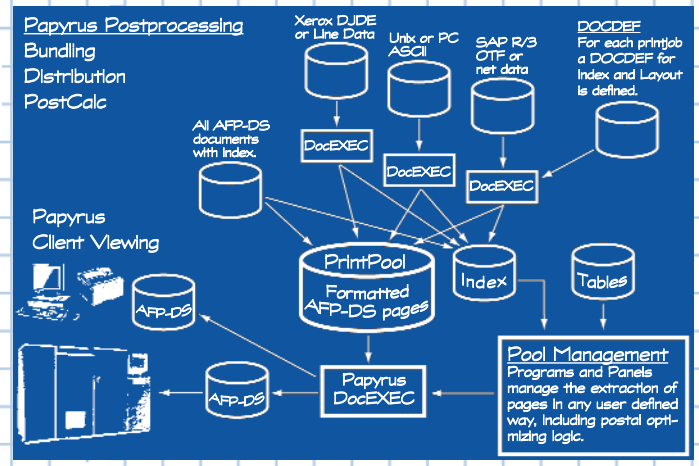
## Papyrus WebControl

- Define customized queues for various jobs/spools
- User access authorization
- Spool management/print management
- Job status/scheduling/re-routing
- Selection of job priorities
- Creation of multiple job classes



## Papyrus Print Server

- Printing of AFP-DS and Pagedef applications to IPDS, PCL, Xerox Metacode, Postscript, PDF, TIFF, Fax and Microfiche
- Uses AFP resources in 240, 300, 600 dpi
- IOCA Image and BCOCA Barcode support
- Print output from/to page
- Accesses version controlled resources in the Repository

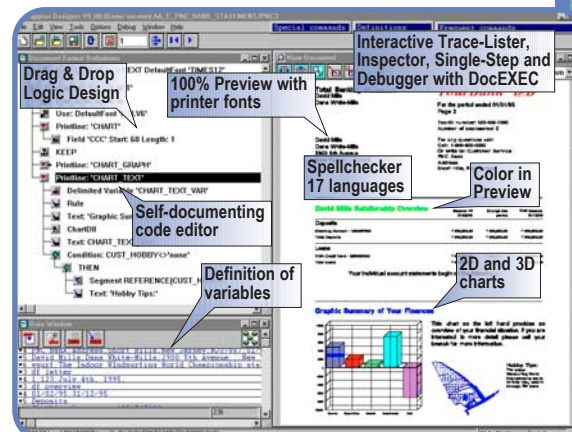




# Take advantage of Papyrus' superior functionality.

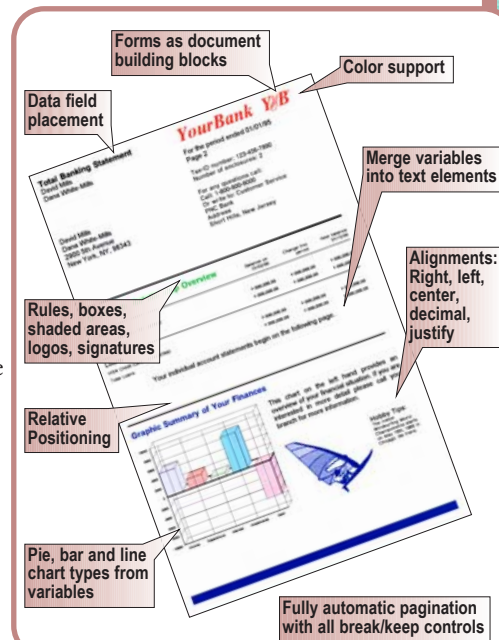
## Papyrus Designer Suite

- Document design is fully integrated and graphical
- Highest presentation accuracy. 100% WYSIWYG. Dot accurate
- Embedded formatting engine enables immediate viewing of all document pages during design
- Drag and drop document elements
- Visual programming using logic tree. No coding required
- Cross referencing of data, logic and document
- Self documenting
- Very complex document logic possible due to programming language support
- Work with the real data, logic, print resources and document on screen
- Use any Adobe, TrueType or AFP rasterfont in 240, 300 or 600 dpi
- Generate various full color chart types from the input data



## Papyrus DocEXEC Formatter

- Use any data type, structure and sequence
- Upward compatible from PPFA
- Supports any type control structure (channel codes, DJDE, SAP, <TAGs>)
- Available on MVS, AIX, Sun, HP/UX, DEC Alpha, WinNT, 95, OS/2
- Text and page formatter
- Dynamic and scalable TIFF to IOCA conversion
- List and log files
- Substitution tables and upper/lower case conversion
- Text and table formatting with right, left, center, decimal and justify alignment
- Dynamically inverted or shaded text fields and areas
- Document colors can change with data variables
- Print variable text in any angle
- Define any number and size of logical pages for one physical page
- Decimal positioning for columns
- One formatter run produces '1 of n' page numbering and OMR controls
- Dynamic chart graphs from variable data. 2D and 3D charts in full color.
- Generate archive indexes for multiple output files (i.e. ACIF, ...)



## Benefits

### Of a Business Document System:

- Greatly simplify document development
- Manage a business document library
- Access variable data in files and databases
- Customize each document to the receiver
- Enable production on any platform
- Output to any target medium or printer
- Archive and retrieve documents
- Improve user productivity and quality
- Ensure fast return on investment

### Of an Integrated System:

- Reduce development time and cost
- Limit dependency on system programmers
- Shorten the time-to-market for documents
- Improve document functionality and quality
- Deploy to any platform and printer
- Increase reusability and long-term stability
- Reduce printing and print management expense
- Control cost for archiving and workflow
- Get return of investment in less than two years

### Papyrus Unique Benefits:

- A future-proof document application blueprint
- Modular step-by-step implementation
- No change required to print data-streams
- Supports AFP applications and resources
- Supports existing Xerox DJDE datastream
- ASCII / EBCDIC codepage independent
- Unicode and DBCS Japanese/Chinese supported
- Hebrew and Arabic right-to-left writing
- The highest presentation accuracy possible
- The most integrated and powerful architecture

## Experience it yourself!

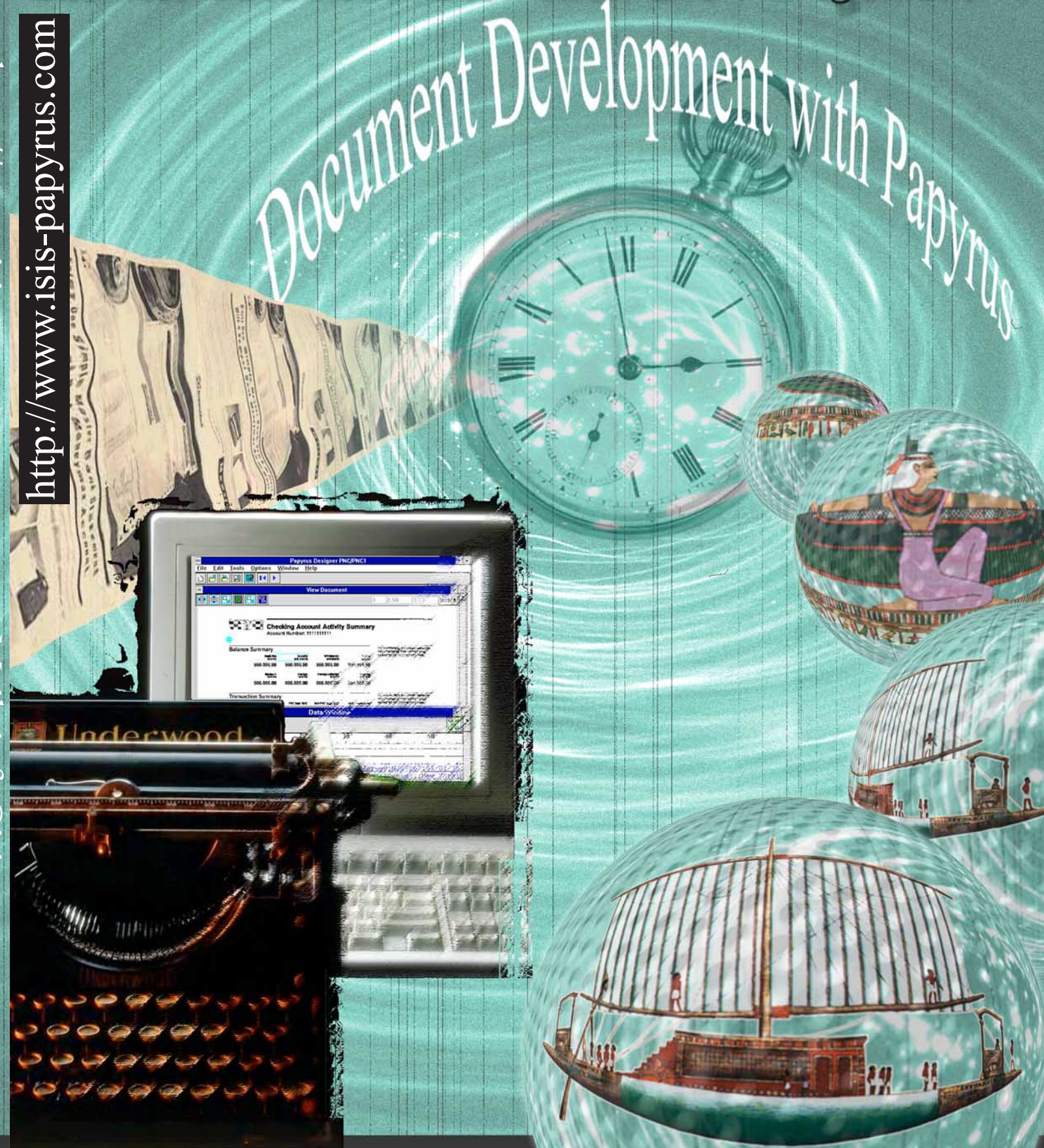
### Unheard of in our industry!

- You don't pay for software unless you use it
- Tryout period before you pay
- No more guessing - just hard facts
- Buy only a one week in-house workshop
- Real application development - not just demos
- You define the criteria for a successful installation
- Test the production run on your own system
- Highest level of expert training
- Pressure free evaluation of the ISIS Papyrus Document System in your own infrastructure

<http://www.isis-papyrus.com>

[eMail: info@isis-papyrus.com](mailto:info@isis-papyrus.com)

# ISIS Papyrus. Business Document Automation and Management™.



Evolution did not stop with walking upright.



# Real World Documents Created with Papyrus

## Consolidated Bank Statements

- ✓ Consolidated statement including account types of a client in one multipage document
- ✓ Pages are numbered '1 of n'
- ✓ On first page: Summary table of all accounts with dynamic background shading in color
- ✓ A unique segment for each account type increases readability
- ✓ Column subtotals are calculated at page break
- ✓ An account summary is provided by a dynamic chart generated from the input data
- ✓ Incorporate high quality pictures of account representatives or advertising artwork
- ✓ Using fixed x/y positioned elements in a dynamic document
- ✓ In this example formatting is done on MVS and printing is on a Xerox highlight color printer
- ✓ OMR codes control post processing equipment

### Financial institutions around the world utilizing Papyrus

UBS United Bank of Switzerland ... Citibank Asia Pacific  
Credit Suisse/First Boston ... Rabo Bank, Netherlands  
Hongkong Bank ... National Bank of Canada ... and many more

*Says Don Maxwell of The Mutual Group, Canada:*

*"Application delivery time has been cut to 1/5th to 1/10th of the time that it took using DCF. This is due to a much simpler data file, accurate GUI interface, and rich functionality of the product."*

## Special features used in the Citigold application.

- ✓ DBCS support: Chinese, Japanese, Korean
- ✓ Print mixed mode: English and Chinese on one page, even in one line of data/text
- ✓ Consolidated statements include 26 different account types
- ✓ Marketing Messages are generated by the marketing department in MS-Word and placed conditionally depending on the result for each account type
- ✓ Check image printing: Checks are scanned in TIFF, converted directly to IOCA by the formatter, resized to fit the available space and printed at the nominal speed of the printer
- ✓ '1 of n' page numbering
- ✓ Dynamic bar and pie charts from data input
- ✓ Print document to OCE IPDS printers, Xerox Metacode printers and PCL LAN attached printers using the Papyrus Print Services

### More financial institutions utilizing Papyrus

Den Danske Bank, Denmark ... Banco Pastor, Spain  
Volkswagen Financial Services ... OUB Overseas United Bank  
COOP Bank Switzerland ... and many more

*Says Sven Meurlin of Stroede Data, Sweden:*

*"One of the key factors was the software support offered by ISIS. After having used Papyrus for almost a year, we are very happy with the immediate and knowledgeable support we received."*

## Personalized Insurance Documents

- ✓ Every document is highly customized and unique for each person with only the relevant pages printed and mailed
- ✓ Different text formatting styles are used across pages
- ✓ Inverted headlines in color
- ✓ Inverted summary fields in color
- ✓ Legal text generated in MS-Word is merged into the flow of the document
- ✓ One formatting run produces '1 of n' page numbering plus OMR and BAR CODES to control post processing equipment
- ✓ Complex table functions simplify data presentation
- ✓ A dynamic table of contents is printed on the first page
- ✓ This example is printed and formatted on MVS using Xerox highlight color printers
- ✓ Multiple column text with full column break and text formatting controls

### Well known insurance companies utilizing Papyrus

Equitable Life Assurance ... Generali ... AXA Colonia  
The Mutual Group ... Commercial Union ... Catalana Occidente  
Zürich Insurance ... Winterthur Insurance ... and many more

*Says Chris Gardiner of Equitable Life Assurance, England:*

*"Everything ISIS stated in their brochures including the print quality from the Papyrus Designer to Metacode to PCL5 has been delivered. In 4 months of trial we did not have a single unsolved problem."*

## Telephone bills for multiple lines and services.

- ✓ Consolidated invoices combine all telephone services
- ✓ On the first page a dynamic box summarizes all payments. The amount due is shown on an attached payment slip for electronic payment transfer
- ✓ On subsequent pages a complex table structure is used to present the detailed information of calls for every phone line
- ✓ Documents are sorted by number of pages to support different envelope sizes
- ✓ To accommodate post processing equipment, a single formatting run produces documents last page first
- ✓ Formatting speed is up to 400.000 pages per hour on a single Pentium PC running WindowsNT
- ✓ Depending on the number of pages per document, the application is printed on an IBM 3900 continuous forms printer or on a Xerox cutsheet printer

### Major telephone providers around the world using Papyrus

German Telecom/TeDe Mobil ... Swisscom ... Belgacom  
Singapore Telecom ... Thai Telephone ... PTT Luxembourg  
AMS American Management Systems ... and many more

*Says Peter Scholz of ivv, Germany:*

*"The Papyrus Document System provides a standard architecture and a clearly defined strategy across all platforms with simply the best tools for document application development."*



## Papyrus Archiving Solutions

### Papyrus WebArchive:

The **Papyrus WebArchive** offers company wide access as well as direct access for customers via the HTTP Internet technology using any web browser. Viewing and printing is provided on any platform by the license free **Papyrus JAVA AFP Viewer**. Alternatively the documents are converted by Papyrus for viewing to GIF or PDF format.

### Secure access for viewing:

After user identification and password verification, the customer will be presented with a list of available documents from a personal folder, which can be selected via hyperlinks for viewing. The **Papyrus JAVA AFP Viewer** presents the documents in perfect quality. The documents can be compressed and encrypted, so that for the actual viewing of the document another password is requested.

### Short term Archiving or Staging:

Immediate access to the mailed documents via the document index is provided to the customer service representative for viewing, local or central reprinting and faxing. The business documents are stored in tables or folders in the **Papyrus WebArchive** only for the first few months after production, when such inquiries occur most often.

### Supported formats:

AFP-DS, TIFF, PDF, line-mode

### The storage media:

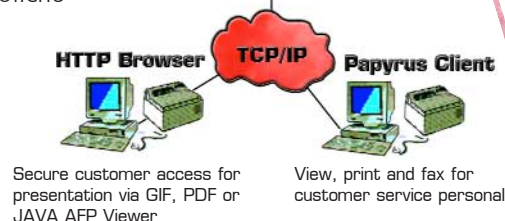
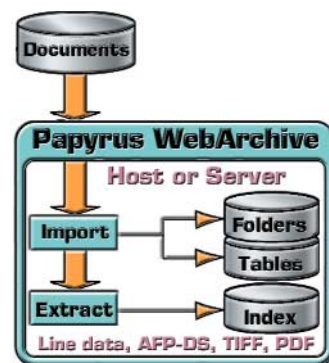
DASD, RAID, optical disks, tape libraries, CD-ROM, Microfiche

### Storage space requirements:

AFP-DS: 1-2 kB per page  
TIFF: 50-70 kB per page  
PDF: 20-30 kB per page

### Linking up to other archives:

IBM Visual Info	- stored format AFP - viewing <b>Papyrus AFP Viewer</b>
Filenet	- stored format TIFF - viewing TIFF viewer
Siemens ARCIS	- stored format TIFF - viewing TIFF viewer
Microfiche	- stored format Anacomp IDF and TIFF
CD-ROM	- stored format AFP - viewing <b>Papyrus AFP Viewer</b>



## A customer installation

**Volkswagen Financial Services AG** uses a **Papyrus LifeCycle Server** to manage all document development and printing for its four automobile companies - Volkswagen, Audi, Skoda and Seat - and for their respective leasing applications.

### The Requirements:

- Easy migration of more than 1000 existing Xerox DJDE documents into a printer independent document format. Newly developed and converted documents will be integrated into the output management system
- Assembling Xerox line mode documents from the mainframe with documents from SAP R/3 on AIX and documents generated by the PC user on Windows
- Easy and fast graphical development of new forms and documents
- Optimized mailing of these documents and execution of the postal charge discounts for multiple daily mailings of 50.000 envelopes
- Direct printing to 600 dpi OCE PS 235 IPDS printers
- Print queue management
- Requested platform: AIX and NT
- Requested database: Oracle

### The Solution:

**Papyrus PrintPool** is the key component for collection, postage optimization and printing. Documents are extracted from the database based on print lists generated by **Papyrus PostCalc**. The extracted documents are post processed to include the franking information, the page numbering and the OMR codes for the enveloping machines including control for accompanying inserts.

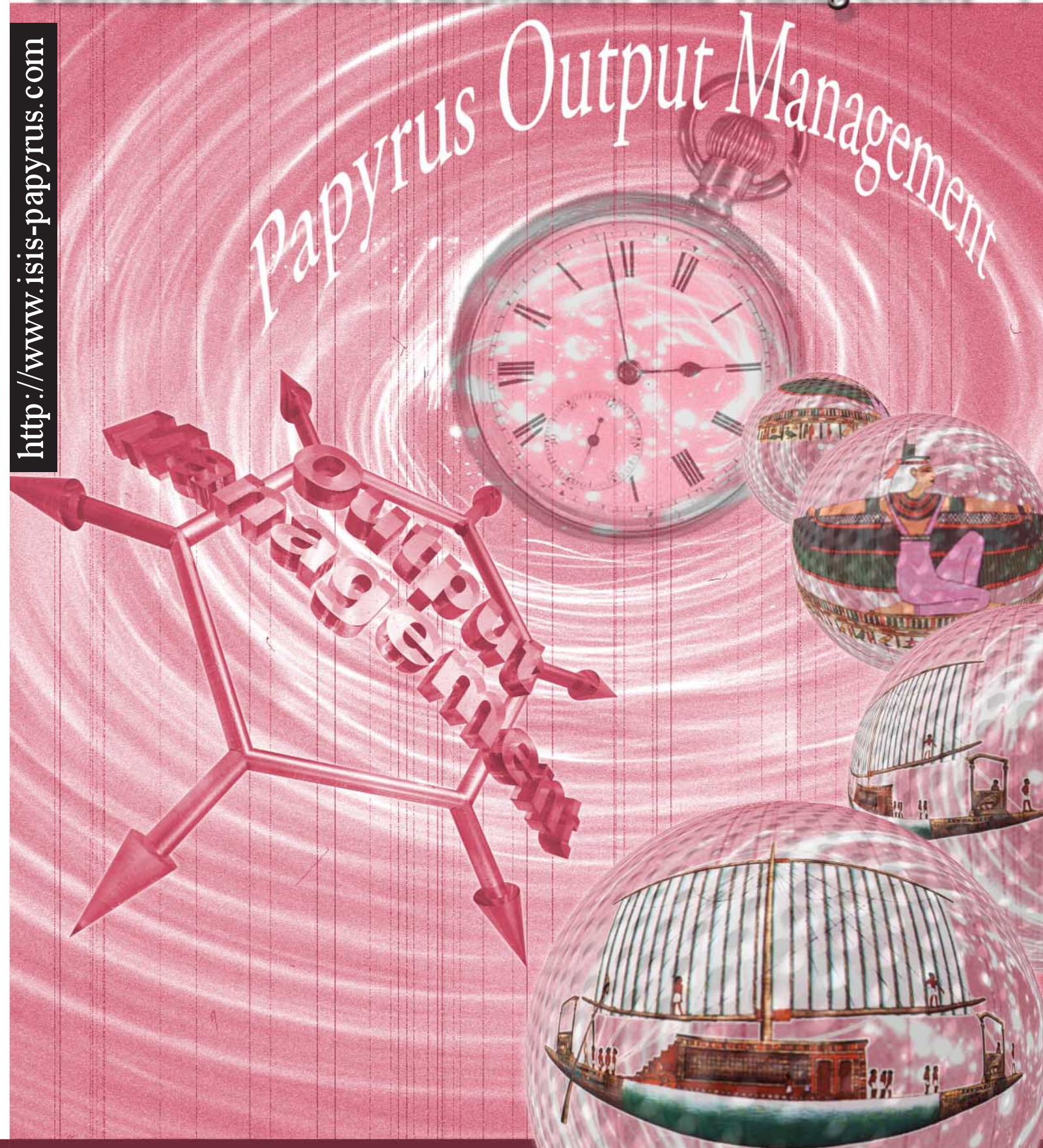
**Papyrus PostCalc** uses the database tables to establish the optimal number of envelopes and to calculate the postal charges. It creates print lists for each postal charge category classified according to sorted ZIP codes and ZIP code groups. **PostCalc** provides a JAVA GUI where all steps can be manually queried and executed. Using JAVA enables **PostCalc** to operate on any system platform.

**Papyrus Designer** and **Papyrus DocEXEC** are used for the migration of existing documents and for development of new documents. At the design stage the index for each document is defined in the **Papyrus Designer** using the application input data. **Papyrus DocEXEC** provides the batch document formatting.

**Papyrus LifeCycle Server** controls the production printing on 2 OCE PS 235 IPDS printers in 2 UP mode via a Barr Channel card and routes some of the output to decentralized PCL network printers. **Papyrus WebControl** provides a graphical interface for spool and print management.

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Evolution did not stop with walking upright.



# Pooling, not spooling!

# Papyrus Output Management

## The Concept

The Papyrus Output Management provides you with a unique solution for bundling, distribution, mail optimization and archiving of business documents. Using an architected document format, Papyrus is capable of merging documents from different applications for post processing and optimization. Furthermore the documents can be archived and distributed for viewing and reprinting using web technology.

### The Benefits:

Substantial cost reduction by

- reducing the amount of printouts
- reducing the number of envelopes mailed
- optimizing the postage per mail piece
- utilizing available discount structures
- merging host and PC documents into one envelope
- printing less by viewing before printing
- utilizing high speed printers for PC documents

### The Functions:

- Bundling, assembling, sorting
- Envelope merging
- Postal optimization and calculation
- Distribution and reprinting
- OMR and barcoding

## The Papyrus PrintPool

### Use any kind of data source:

All documents generated from various input data files at different times are stored into the **PrintPool**. The documents in the **PrintPool** are received from batch production on the mainframe and on the server or they are individually generated by the PC user.

### Send documents to the pool:

All documents are either sent via a queue directory, FTP, SNA RJE, or a MVS JES submitted job. The PC user submits the documents using an automatic TCP/IP send function provided by the Papyrus Desktop.

### Storing the document with index:

In addition to the composed documents the document index gets generated. The index, e.g. customer number, invoice number, page number, ... is easily defined at time of development in the Papyrus Designer, using the information from the application data file.

### Using a database:

The documents and the index are stored in a database of your choice, i.e. on the mainframe DB2 or on the server with Oracle. For simple bundling requirements it is also possible to store the documents in a file based system.

### The bundling process:

Panels are provided to manage the extraction of pages in any user defined manner. The bundling logic is completely flexible and extendible using customizable programs and DB control tables. Start the bundling process timed, triggered or by the user. The documents can be grouped into one envelope per customer or for a certain user or user department. The group sequence can be prioritized based on total group page numbers, users, documents and combinations thereof.

### Add barcode, OMR and page numbering 1 of n:

Once the documents are electronically bundled and sequenced, the Papyrus DocEXEC formatter will add information for the postprocessing equipment like the barcode, OMR code or i.e. 1 of 5 page numbering to the document. Papyrus offers a wide range of standard barcode formats, including 2D Data Matrix barcodes.

### Destination of documents:

As Papyrus generates all documents in a printer and platform independent format, they can then be printed to IPDS, Xerox Metacode, PCL and Postscript printers connected to the mainframe, the server or the client PC. Additionally they can be faxed, archived and distributed to the Internet.

### Previewing and Reprinting:

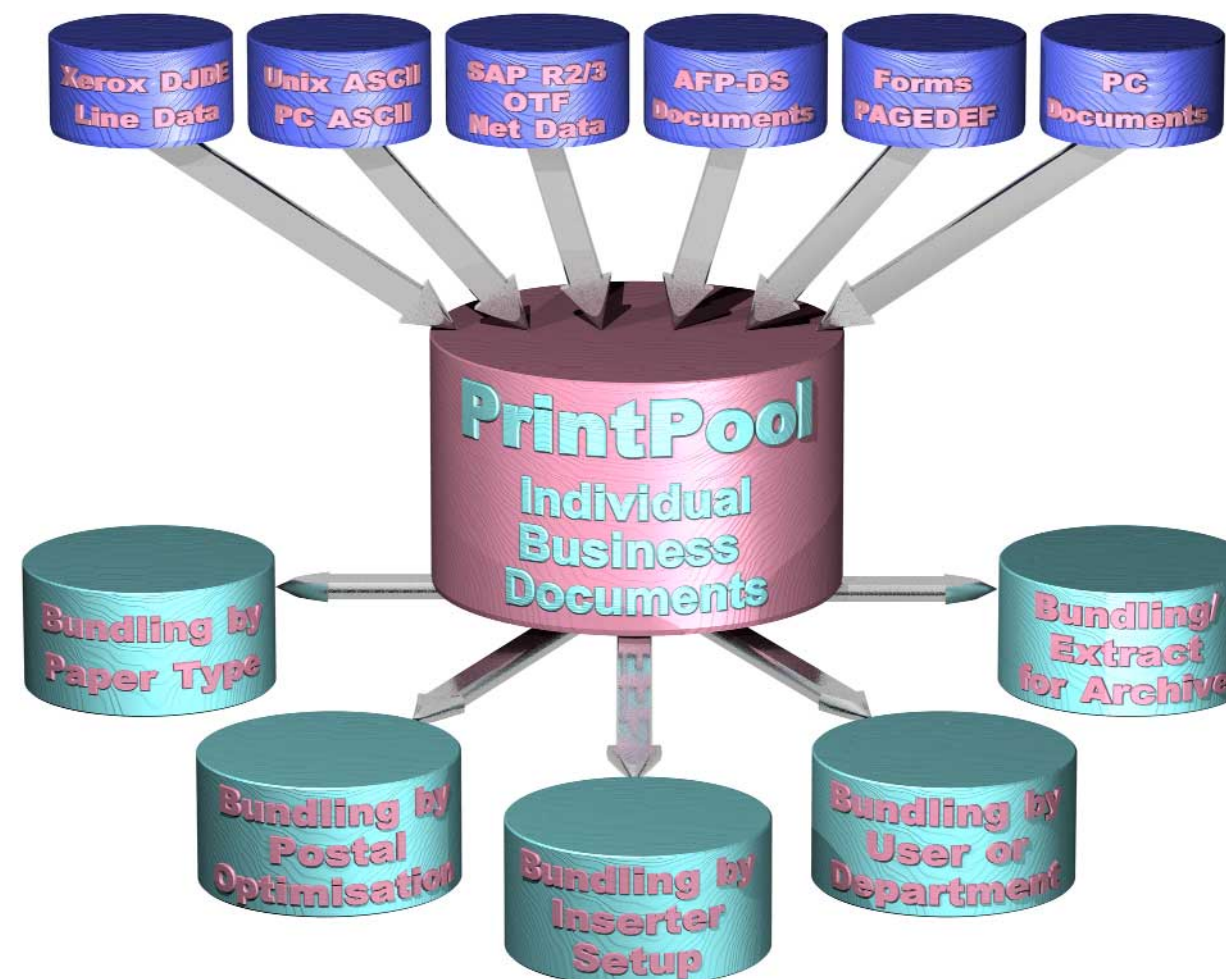
All documents can be reprinted by index. The user can search for documents in the **PrintPool** and view them in perfect quality before printing on a printer of choice.

### Bundling and Mail Optimization using Papyrus PostCalc:

The JAVA or C++ based Papyrus Postcalc programs are used to apply for postal discounts if they are available from the local postal authorities. Postcalc produces the ZIP or postcode sequenced PRINT-LIST. Once this is requested for printing, Papyrus DocEXEC assembles the pages from the **PrintPool**, merges pages for one envelope, assigns inserts, calculates the postage and prints the proper OMR code on each page to control the enveloping.

### Papyrus WebArchive:

The complete Papyrus PrintPool solution can be linked to the **WebArchive**, which enables user access through the Internet.

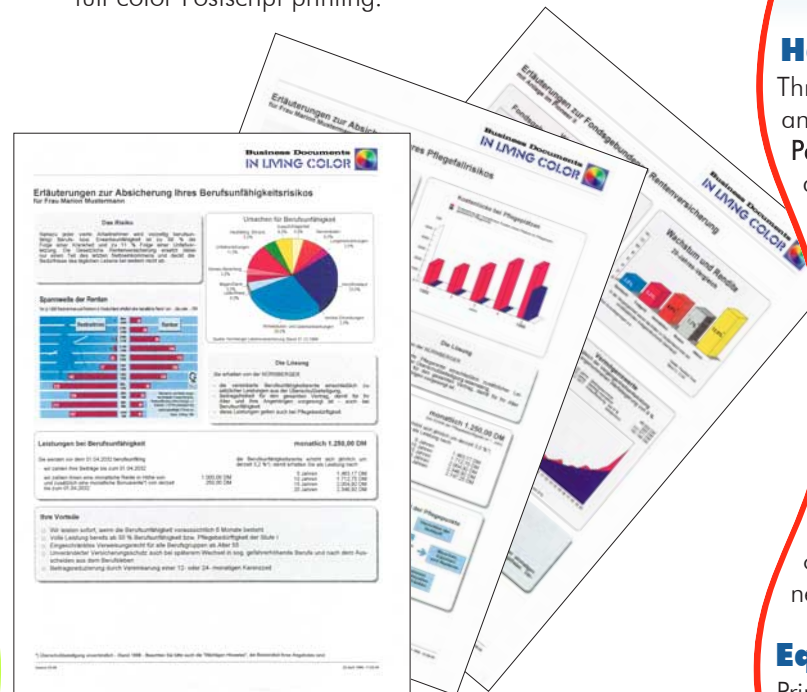




Get a headstart on new document printing technologies with Papyrus Print Services.

### Color Printing

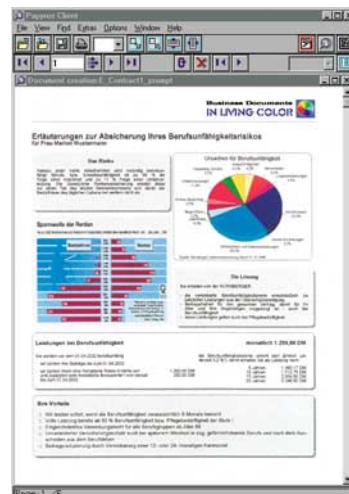
Papyrus supports spot color in IPDS and Metacode plus full color Postscript printing.



### View before print

With Papyrus WebControl authorized users can access the print server from their desktops to view and manage print queues.

Users can view documents by index using the Papyrus AFP Viewer and print selected pages.



### Print Resolutions

Papyrus supports 240, 300 and 600 dpi.

## The Customers

### Hapag-Lloyd, Germany

Three MVS mainframes use Papyrus Host/FSS to manage and transfer data and print resources via JES2/3 to 100 Papyrus Servers worldwide for the printing of shipment documents on local PCL printers. In several locations the Papyrus Server/Fax solution is used for high volume faxing of MVS mainframe documents.

#### Mr. Karden of Hapag-Lloyd:

*"The Papyrus Server made the change from line-oriented printing to forms/data printing to our existing PCL printers at all international offices possible."*

### Stroede Data, Sweden

Printing AFP applications with Papyrus Server running on WinNT and OS/2 to channel attached IPDS plus network attached Xerox Metacode and PCL printers.

### Equitable Life, UK

Printing AFP applications on MVS using Papyrus Host/Metacode to directly connected Xerox Metacode printers plus PCL printers in the LAN.

### Citibank Asia Pacific

Printing consolidated bank statements using Papyrus Server in many different countries throughout Asia and Eastern Europe on IPDS, Xerox Metacode and PCL printers. The applications are mixed mode English and Chinese language. Using Papyrus Server there is a free choice of printer for every country. DBCS capable printers are not required for DBCS printing.

### American Airlines, USA

Papyrus Server is used to print a paycheck application from SAP data on central IPDS and remote PCL printers.

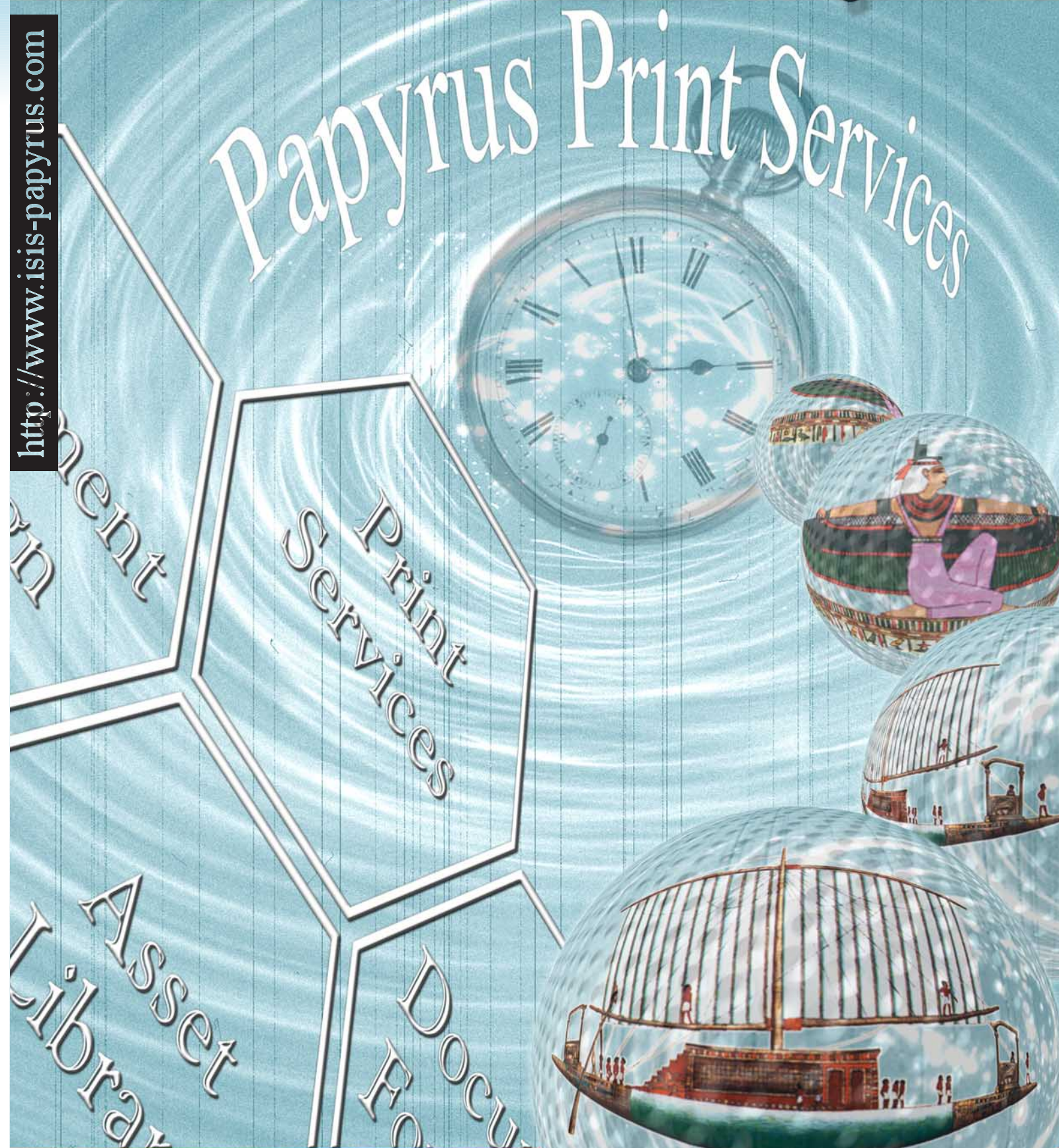
### Victoria Insurance, Austria

Printing AFP documents with Papyrus Server to channel attached Xerox spot color printers.

### Swiss National Bank

Swiss National Bank has chosen Papyrus Server when migrating their print from MVS to AIX. The customer stated that all functions they ever had using JES on MVS are available to them on AIX plus many more using Papyrus WebControl.

<http://www.isis-papyrus.com>





100% matching results on any printer with the same resolution!

# Papyrus Print Services

## The Concept

The **Papyrus Document System** uses a unique Middleware concept which separates the document application from the printer hardware.

At time of print the platform and printer can be chosen freely without any changes to the user application. Even printer limitations such as resolution, front/back paper control or cutsheet/fanfold/roll printing can be controlled independently from the layout.

The document is converted transparently and seamlessly by **Papyrus** to the chosen target printer format. This includes fonts, forms and graphics. Optionally the document can be viewed in perfect quality before print.

### Benefits and advantages:

- Substantial time and money savings by developing forms and document applications only once for use with any printer type and platform
- High flexibility: Switch printers at any time
- Get identical results of a printed document on different printers with the same resolution
- Convenient print spool management with a JAVA based, platform independent, graphical user interface
- Fast and easy reprint of selected pages
- Print less by viewing before print

### The input data format:

**Papyrus** generates a printer independent AFP document from any data file to print to any printer on the market. Xerox DJDE, IBM Pagedef and SAP data formats are supported too.

### Mainframe Printing

**Papyrus Host** offers the printing of AFP applications to directly attached Xerox Metacode and PCL printers with transparent conversion into the target printer format.

### Host to LAN Printing

**Papyrus Host/FSS** spools the data and manages the availability of the correct version of all print resources between the MVS host and PC or UNIX server platforms. It is a functional subsystem for JES2/3 using SNA or TCP/IP network connectivity.

### Migrating your print from MVS to UNIX

**Papyrus Server**, available on all common UNIX platforms, is the perfect choice for your migration. Besides the AFP printing to any printer hardware it offers all the spool management capabilities you have become used to by using JES on the mainframe. In addition you can get advanced functionality like managing your printer via the Internet using **Papyrus WebControl**.

### Server Printing

**Papyrus Server** generates the AFP document format from data and converts it transparently at time of print to the chosen

target printer format. IPDS, PCL, Xerox Metacode, Postscript printers and fax services are supported as well as archive interfaces for optical/microfiche storage. Print resource management between the server and printer is provided.

The printers can be directly attached to the server or managed by printer address in the LAN.

#### Printing from several printer trays:

**Papyrus** uses the AFP FORMDEF definitions to control input bin and simplex/duplex switching for different paper types.

**Supported platforms:** AIX, Sun Solaris, HP/UX, Dec Alpha, NT and OS/2.

### Printing to IPDS

**Papyrus Server/IPDS** offers the capability to spool and print any line-data or formatted AFPDS application to any channel attached or TCP/IP LAN attached IPDS printer.

### Printing to Xerox Metacode

**Papyrus Host/Metacode** and **Papyrus Server/Metacode** generate the Xerox Metacode on the mainframe (MVS) and on server platforms (AIX, Sun, HP, DEC Alpha, NT, and OS/2).

You can print to S/370 channel and TCP/IP attached 40XX printers or alternatively to tape.

### Printing to PCL

**Papyrus Host/PCL** and **Papyrus Server/PCL** can generate the PCL on the MVS mainframe or on the server and print to any directly attached PCL printer or IP address in the LAN.

### Printing to Postscript

**Papyrus Server/PS** generates a Postscript file to be printed on various Postscript printers.

**Papyrus** also provides a conversion to the Xerox VIPP format to print true color documents on Xerox Postscript printers.

### Printing to Scitex printers

**Papyrus** supports Scitex highlight color printers.

### Distribution via Fax, e-mail and PDF

**Papyrus Server/Fax** generates the TIFF and PCL format which is the supported format of many fax machines on the market today. **Papyrus** also supports the TOPCALL fax format for high quality fax solutions.

All documents can be distributed by e-mail in PDF or GIF format for PC viewing.

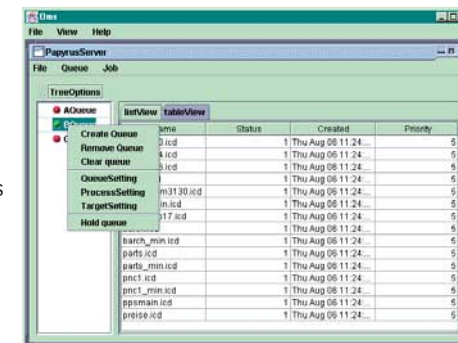
## Print Management

**Papyrus Host** is used to manage printing between the host, server and client environment. It is a functional subsystem of JES 2/3 that also provides CICS print interfaces. It manages all print resources such as forms, fonts, logos, PAGEDEF, FORMDEF and DOCDEF plus the data needed for document generation and print. **Papyrus Host** also ensures the use of the correct version of resources when printing on different platforms. In addition it allows you to define server and printer destinations that are addressable by JES.

### Print Spool Management

**Papyrus WebControl** offers print spool and print queue management via TCP/IP Internet/Intranet.

- Define customized queues for various jobs/spools
- Authorize user access
- Spool management/print management
- Job status/scheduling/rerouting
- Select job priorities
- Create multiple job classes



File	Queue	Job	Status	Created	Priority
Create Queue	1.job	1	1	Thu Aug 08 11:24	5
Remove Queue	1.job	1	1	Thu Aug 08 11:24	5
Clear queue	1.job	1	1	Thu Aug 08 11:24	5
QueueSetting	1.job	1	1	Thu Aug 08 11:24	5
ProcessSetting	1.job	1	1	Thu Aug 08 11:24	5
TargetSetting	1.job	1	1	Thu Aug 08 11:24	5
Hold queue	1.job	1	1	Thu Aug 08 11:24	5
batch_min.job	1.job	1	1	Thu Aug 08 11:24	5
batch_max.job	1.job	1	1	Thu Aug 08 11:24	5
batch_min.job	1.job	1	1	Thu Aug 08 11:24	5
batch_max.job	1.job	1	1	Thu Aug 08 11:24	5
batch_min.job	1.job	1	1	Thu Aug 08 11:24	5
batch_max.job	1.job	1	1	Thu Aug 08 11:24	5
batch_min.job	1.job	1	1	Thu Aug 08 11:24	5
batch_max.job	1.job	1	1	Thu Aug 08 11:24	5

### Reprinting

Reprinting by index (e. g. page number, customer number, invoice number, etc.) is a standard feature of **Papyrus Server**.

### Output Management, Papyrus PrintPool

**Papyrus Print Services** are tightly integrated with the **Papyrus Output Management**. Online programs, batch applications and PC users can store individual documents in the **Papyrus PrintPool** for subsequent automated bundling, distribution and print procedures.

### Central Configuration Management

A central database stores user authorization, location and functionality of all print servers and printers in the network. Jobs can be defined, stored and scheduled for print to any server.





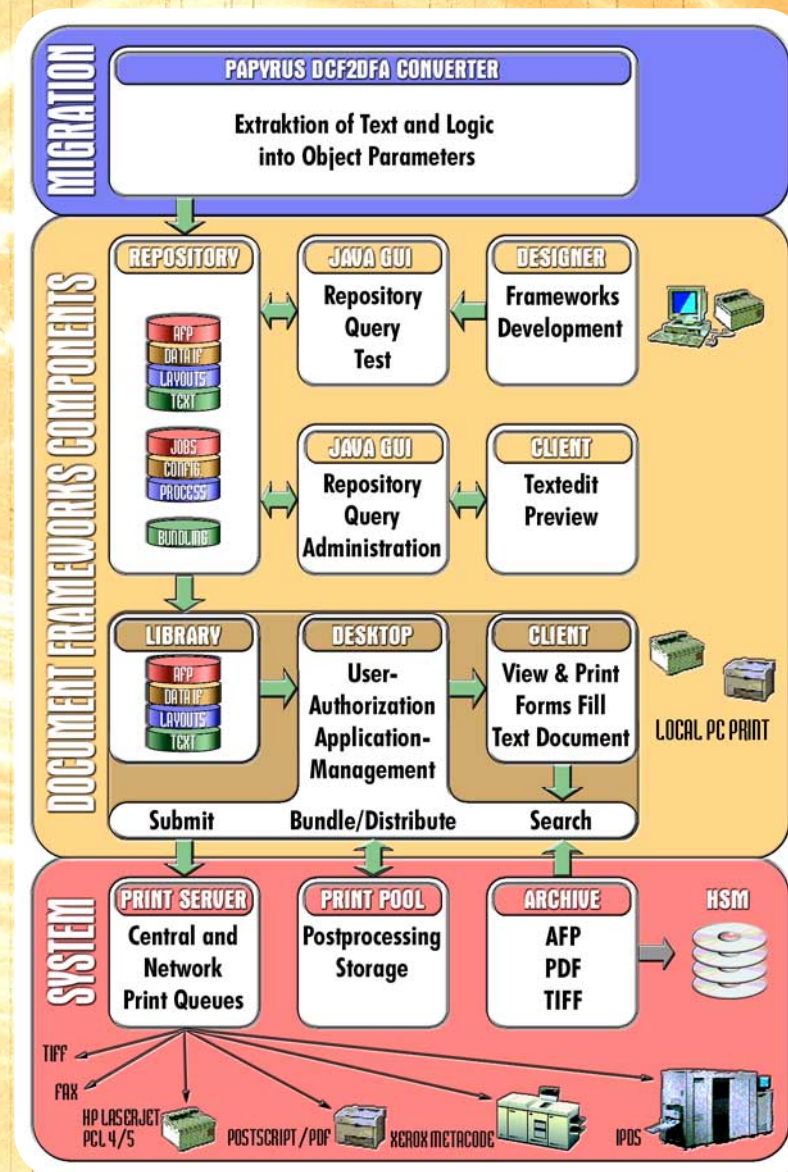
# PAPYRUS DOCUMENT FRAMEWORKS

## Components

The **Document Framework** is an application concept using the following **Papyrus** Standard Components:

- **Papyrus Designer:** An integrated graphical development platform for all **Papyrus** applications
- **Papyrus DocEXEC:** A powerful formatter for dynamic documents on MVS, AIX, Solaris, HP-UX, Digital UNIX, OS/2 and NT
- **Papyrus Client with User Desktop** for simple retrieval of documents and applications by the end user. User utility for viewing, printing and formatting
- **Papyrus WebRepository**
  - Central management for text, forms, fonts and logos
  - Company wide forms management, request and billing
  - Print OnDemand of filed documents on central, LAN or PC printers
  - Version control for all document source and objects
- **Papyrus Converter** for the migration of text building blocks, e. g. DCF2DFA
- **Papyrus Postprocessing** with **PrintPool** for merging, bundling and sorting of documents
- **Papyrus PostCalc** for optimized postage per mail piece
- **Papyrus WebArchive** provides
  - Automatic indexing and filing in the **WebArchive** Database.
  - View and reprint of filed documents on central, LAN or PC printers
  - Searching, viewing and local printing of documents in the archive for authorized users.
  - Supported formats: AFP, PDF, TIFF, line data
- **Papyrus Server** for AFP printing on IPDS, PCL4/5, Xerox Metacode, Scitex and Postscript printers.

All components are modular and can be used in various configurations.



<http://www.isis-papyrus.com>

ISIS Papyrus.  
Business Document Automation and Management™.

Papyrus Document Frameworks

Migration of  
Legacy Text Applications  
IPDT/ASF, M-Text, etc.

Evolution did not stop with walking upright.



# Migration of Legacy Text Applications, IPDT/ASF, M-Text, etc. to Papyrus Document Frameworks

## WHY MIGRATE?

IBM's IPDT/ASF is one of the oldest and most common document production systems in the mainframe world. Like many other legacy text systems, however, it does not measure up to today's requirements in a modern document system:

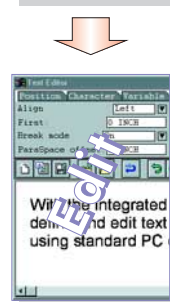
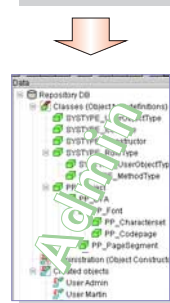
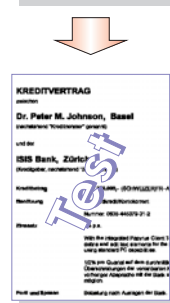
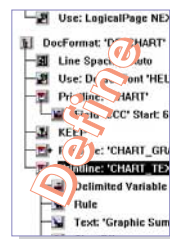
- Cumbersome development of documents without the ability to view the result during the programming process. To be tested, the application has to be formatted and printed, which is very time consuming.
- The development infrastructure is very limited. Code is simply typed into a text editor. There are no graphical design tools with WYSIWYG viewing and debugging capabilities.
- Production and printing of documents is typically only available on the mainframe.
- Limited version control.
- Industry experts, who usually do not have appropriate programming skills, have to learn a programming language (DCF) to be able to write text for documents.
- Inconvenient end user interface: Documents and building blocks can only be selected by input of numbers without the ability to view the finished document.

## THE SOLUTION

**Papyrus Document Frameworks** provide a flexible way to create documents for the document designer as well as for the end user.

The following features are supported:

- 100% WYSIWYG document design with accurate viewing during the entire design process
- Unlimited graphical design possibilities
- Powerful design infrastructure with data interface and logic definition
- Visual programming - no coding
- Simple updating and maintenance due to WYSIWYG viewing and graphical editing
- Version control of all documents and document resources (fonts, logos, text building blocks)
- Task separation: The design engineer develops the application. The text administrator is not concerned with programming and can focus on writing and parametrizing the text (WYSIWYG viewing).
- The end user sees the formatted document or letter. Prompt commands allow him to select or edit building blocks, add individual text and view the finished document WYSIWYG.

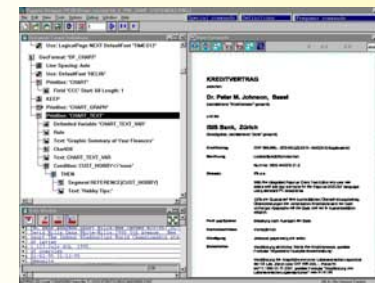


## DESIGNER

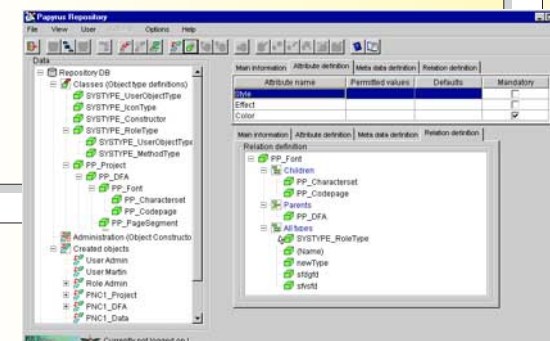
### Document Development and Test

The designer develops all the document applications. **Papyrus Designer** is used to create modular document building blocks which can easily be put together into documents.

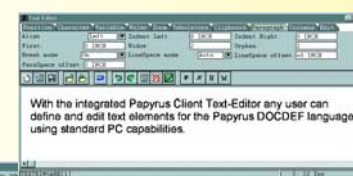
Unlike the usual design process, these document building blocks are just a framework of the documents and do not include specific text.



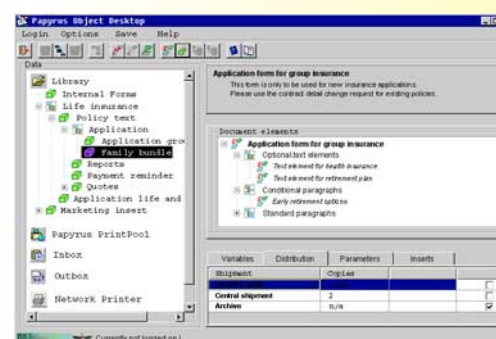
Papyrus Designer



Papyrus Repository JAVA GUI



Papyrus Client with Texteditor and Prompt-Window

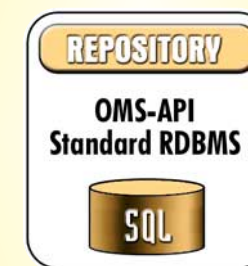


Papyrus Object Desktop

## REPOSITORY

Management of:

- Fonts, forms, logos
- Document building blocks
- Text
- Object parameters
- Layouts
- Print jobs and queues



Features:

- Version control for objects and source
- Access with **JAVA GUI** or **Papyrus Desktop**
- Authorized access

Distribute

## LIBRARY



File based management for menu and document objects

## ADMINISTRATOR

### Text and Parametrizing

Text and other parameters, such as values for conditional prompts, for-next loops, etc. can be parametrized by the text administrator in a simple fashion. He takes a building block and edits parameters and text (e. g. various greeting texts), which are then saved as an object separate from the document building block. In this manner the document frame is formed from the parametrized building blocks. Text editing is done WYSIWYG in the **Papyrus Client**.

## END USER

### Assemble and Edit

The end user now has the simple task of selecting the appropriate building blocks from the **Papyrus Desktop** (e. g. which greeting text). Using **Papyrus Client** he edits the data (text or variables) within his authorization. All changes are stored in a history file and can be reviewed and recalled for later corrections.

**Papyrus Desktop** provides access to central services such as PrintPool and archive.

## THE CONCEPT

**Papyrus** offers a complete solution for business documents. Document development, production, archiving and version control as well as **Papyrus** components for optimized mailing and postage are available.

The underlying AFP architecture makes printer and platform independent development of document building blocks and resources possible. All documents can be viewed, archived, distributed, printed, merged and bundled. No manual conversion of print resources is necessary for printing to different printers. The document on the screen matches the printed document from any printer 100%.

Management of document building blocks and print resources for company wide use is simplified by using a single resource library. Reusing of document building blocks makes the document development efficient and quick. The look of the printed document can be guaranteed on all platforms and printers which helps to maintain the corporate identity.

## THE MIGRATION

The main task when switching from IPDT to **Papyrus Document Frameworks** is the migration of the DCF text blocks. This is done with the **Papyrus DCF2DFA-Converter**.

- The DCF text blocks are taken from the GIL and loaded into the converter.
- The converter then renders the DCF blocks into **Papyrus Document Framework** building blocks: That means, the content of the DCF blocks is converted to parameters of **Papyrus** building blocks.
- These parameter files are stored in the **Papyrus Repository**.
- The conversion and storage is done in one OS/390 batch run.
- The migration of other data and objects (e. g. customer data, user data, authorization systems, ...) into the repository is usually done by the customer, because formats and data structures differ from case to case. For that reason **ISIS** provides a detailed data model of the repository.



# Papyrus Documents for SAP

## Solution at a glance

# ISIS Papyrus.

## Business Document Automation and Management™.

**Papyrus Designer Suite** on WinNT/95/98 or OS/2 is used for WYSIWYG design of the document layout, data file definition and document logic definition. Forms elements, fonts and logos can be edited with the provided tool kit.

**Papyrus DocEXEC** formats the data coming from the SAP application into the printer and platform independent AFP format. **DocEXEC** is a super fast formatting engine which is available on MVS, AIX, SUN, DEC Alpha, HP/UX, WinNT/95/98 and OS/2.

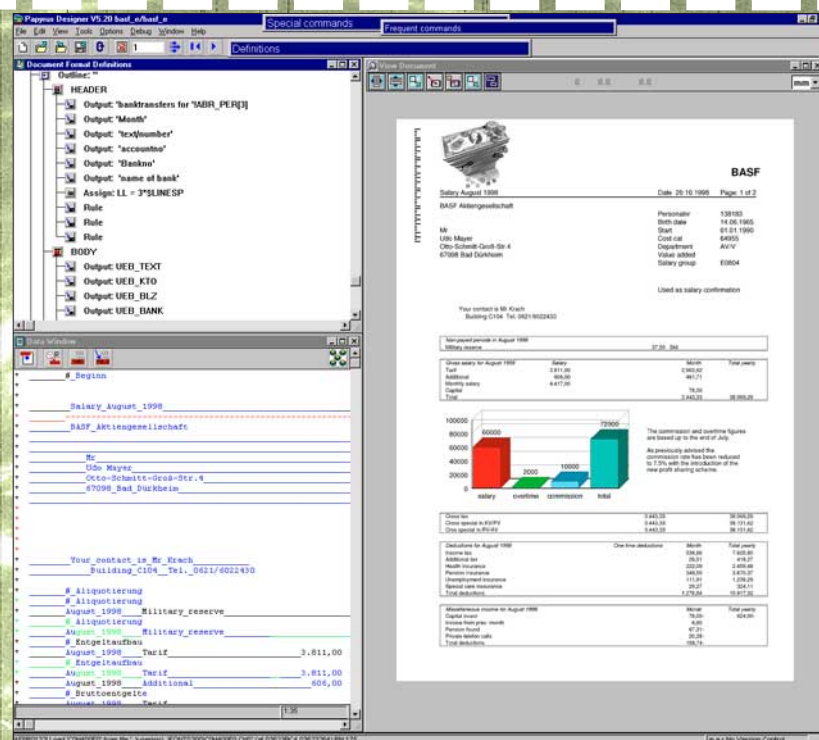
**Papyrus PrintPool** is used for bundling of documents from different business applications that are generated at different times. PC users can send documents such as customer letters to the pool for combined mailing with other business documents. OMR Codes, Barcodes and print lists with postal codes can be generated to optimize volume discounts.

**Papyrus Print Services** print any AFP document generated from SAP data to IPDS, Xerox Metacode, PCL and Postscript printers. They can be on the mainframe or server platforms, channel attached or in the LAN. **Papyrus Print Services** handle the conversion of the application to the target printer transparently and without manual intervention at time of print. Furthermore, **Papyrus** offers graphical print spool and job management including reprinting, scheduling and rerouting of jobs.

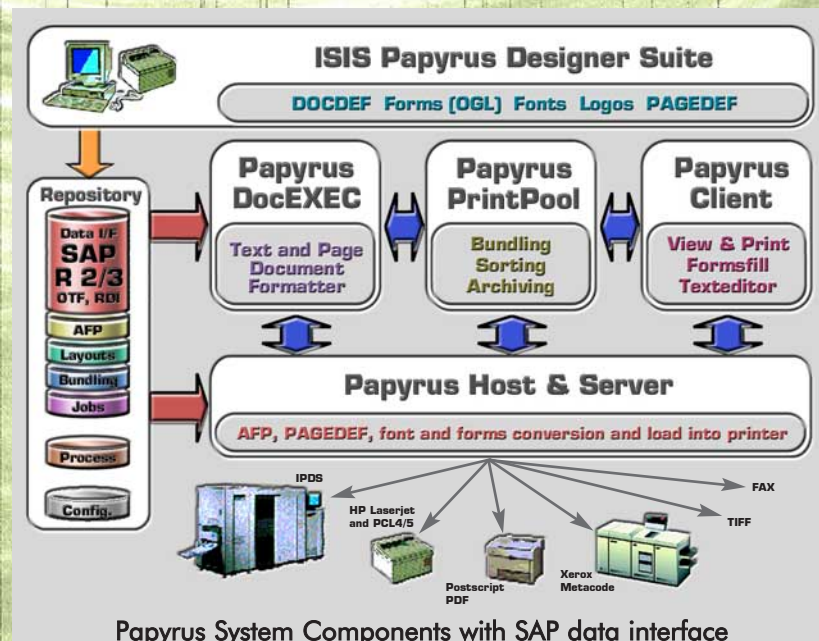
Customer Care applications like invoices can be stored in the **Papyrus WebArchive** for later immediate retrieval of pages by customer care personal. Documents are stored with Index information and can be viewed, reprinted and faxed in perfect quality using **Papyrus Client**. Long term archiving is available in TIFF and AFP using the archiving system of your choice.

For online and interactive document generation, **Papyrus Client** offers viewing, filling, formatting, text editing, PC printing plus 'Prompting' for text and data.

A central **Papyrus Repository** stores all document elements and offers complete version control of all resources required for accurate reproduction.



**Papyrus Designer/DocEXEC:** Integrated viewing and editing of document, logic and data on a single screen



**Papyrus System Components with SAP data interface**

<http://www.isis-papyrus.com>



Evolution did not stop with walking upright.



# The Concept

**Papyrus** provides a total solution for SAP business documents. Impressive documents, that are easy to read, are rapidly developed from SAP data. Printing can take place on any platform with the printer of your choice. Bundling and merging of pages from SAP with other document applications is fully supported to optimize mailing operations and postal discounts. Archiving and distribution are available in a variety of media, including CD-Rom and the Internet.

Many good reasons for **Papyrus:**

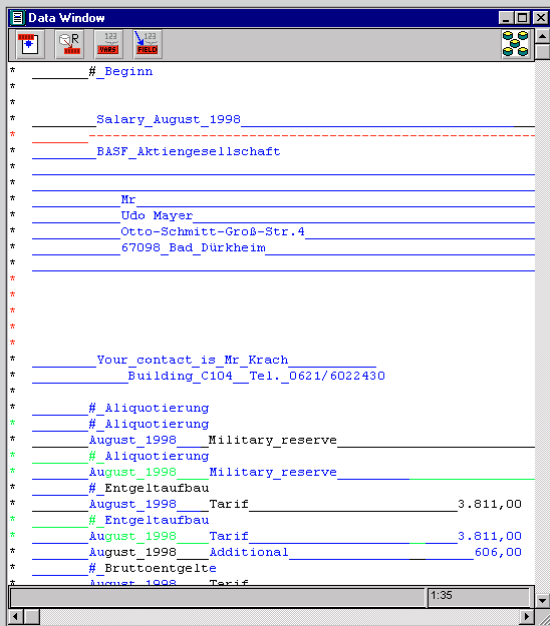
- ☆ **Papyrus** is the only total solution for SAP business documents
- ☆ Simple, time saving graphical and visual document design
- ☆ No coding is required
- ☆ **Papyrus** generates a printer and platform independent document format
- ☆ Documents are developed once and printed transparently on your choice of IPDS, Xerox Metacode, Postscript or PCL printers
- ☆ **Papyrus** provides graphical development of forms elements, fonts, logos and dynamic document formatting on 10 different operating platforms
- ☆ Archiving and viewing are available in TIFF, AFP, GIF and PDF
- ☆ OMR codes and barcodes are standard features
- ☆ Text editing can be done using Word or the **Papyrus Client**

# The Benefits

- ☆ Substantial time and money savings due to userfriendly graphical design
- ☆ Eliminate preprinted forms to reduce printing and handling cost
- ☆ Reuse document elements for many different applications
- ☆ Maintain the corporate image by enforcing a company standard
- ☆ Include marketing messages
- ☆ Improve understanding of content by presenting the data with a chart
- ☆ Optimal access of documents over the Internet and Intranet
- ☆ Distribution of documents using CD-ROM
- ☆ Flexibility to print on any platform to any printer without changing the application

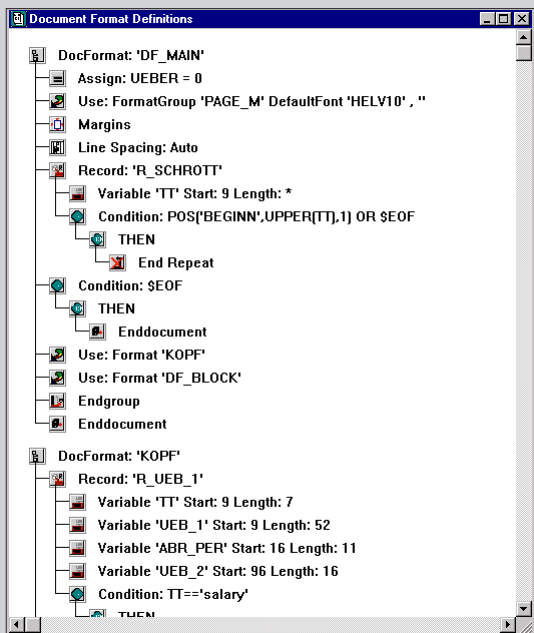
# The Data

**Papyrus** supports SAP R/2 data from MVS, OTF from SAP R/3 and the new SAP R/3 RDI (Raw Data Interface).

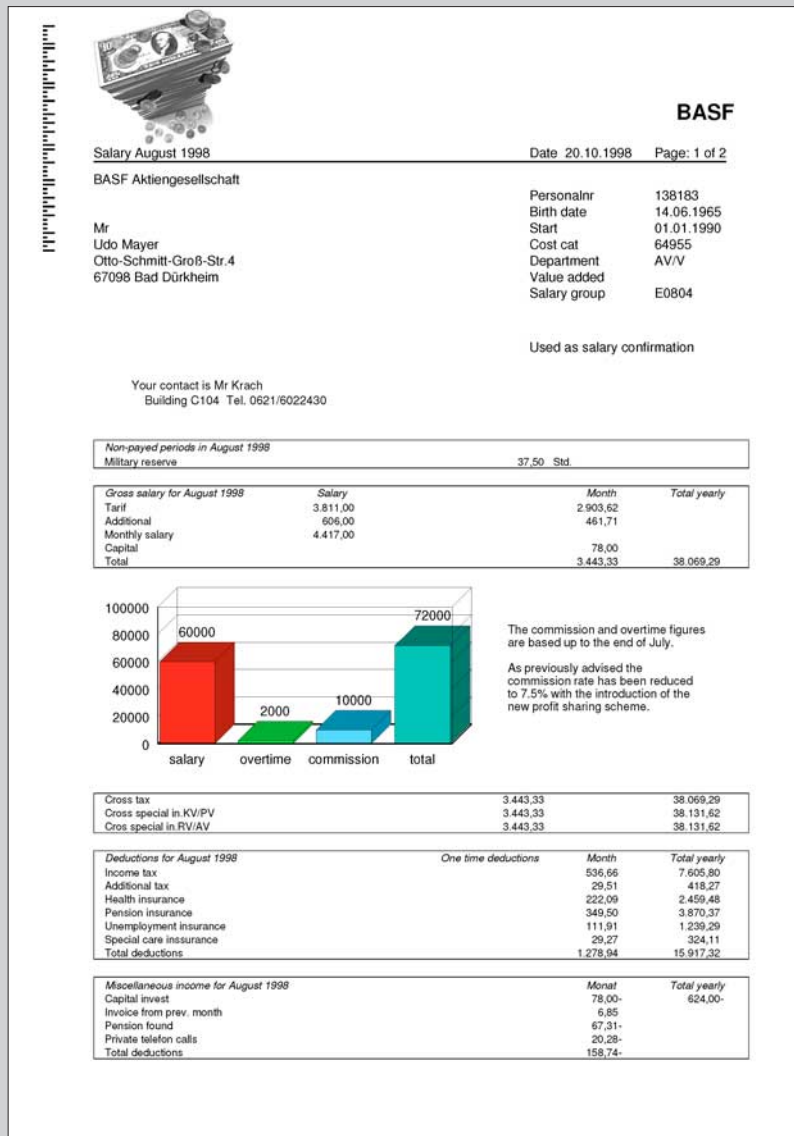


# The Logic

- ☆ Data is taken directly from SAP
- ☆ Subroutines are called 'by reference', their names being taken from the input data
- ☆ Recursion allows for an intuitive control structure
- ☆ Data retrieved from distinct lines is merged together
- ☆ A dynamic chart is generated from the input data



# The Documents



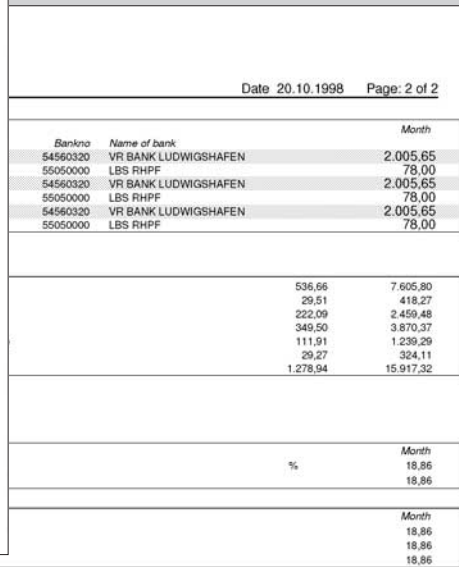
- ☆ All document features mentioned are achieved in one formatting run
- ☆ Reusable building blocks speed development and help preserve a corporate identity
- ☆ Page breaks are fully automatic with margin, break and keep controls. No need for application generated blank lines and page feeds
- ☆ Subtotal is calculated at page break
- ☆ Decimal alignment for columns
- ☆ Boxes and shadings can be both predefined and fully dynamic
- ☆ Document can be printed in 240/300 and 600 dpi



**Working Together Today to Make  
Products for Tomorrow**

BASF Aktiengesellschaft 67056 Ludwigshafen

- ☆ Spot color and full color support
- ☆ Inverted or shaded lines greatly increase readability
- ☆ Documents can be sorted by numbers of pages into several output files to support different envelope sizes
- ☆ Automatic generation of control marks for envelopes - OMR code
- ☆ One step INLINE page reordering
- ☆ The same data stream can be printed 1-up or n-up while still controlling the position of pages on the sheets
- ☆ The truly device independent data stream allows for efficient electronic archiving
- ☆ Marketing messages, generated by the marketing department in MS-Word are placed conditionally



Mr  
Raymond Wilman  
Blight Chaundler Grove 7282  
2153 Chicago

You can reach  
Telekom-invoicing  
P.O.B. 12345  
1090 Vienna  
via phone: 168  
e-mail tv.bc.wien@pta.at

Account-No.:  
7.501.818  
DVRNR: 0962635

For questions have  
your customer number  
8000011045 at your han

Request for payment

Dear Raymond Wilman

We want to remind you, that the following bill(s) (in total 77 595,90) are still open.  
If the bills have not been paid completely in the meantime, we kindly ask, to transfer this amount  
within 10 days, by using the enclosed payment slip.

We want to use this opportunity to remind you, that we are allowed to add penalty interests according to contract Ö47 lit.11

Account No.	Document No.	Due date	Reminder	Amount
018583021934	10000002512	01.02.1998	1	6 345,00
018583021935	10000002512	01.02.1998	1	1 564,80
018583021930	10000002512	01.02.1998	1	12 381,00
100583041934	10000002512	01.01.1998	2	2 101,00
018583021935	10000002511	01.01.1998	2	829,90
018583021930	10000002511	01.01.1998	2	7 295,30
018583021930	10000002510	01.12.1997	3	4 113,70
018583021935	10000002510	01.12.1997	3	23 065,10
100583041934	10000002510	01.12.1998	3	4 455,30
018583021930	10000002510	01.12.1998	3	4 715,00
018583021936	10000002510	01.12.1998	3	812,00
018583021937	10000002510	01.12.1998	3	2 812,30
018583021938	10000002510	01.12.1998	3	1 734,20
Subtotal				67 913,50

Page 1 of 1

TELEKOM AUSTRIA AKTIENGESELLSCHAFT UID: AT U40198200 Sitz: Wien  
company legend: 144 477t company legend court: Handelsgericht Wien

- ☆ Incorporate high quality pictures
- ☆ Reprint header and subtotal on following page
- ☆ Imposition for multiple logical pages per sheet
- ☆ Provides reviewing and reprinting according to index
- ☆ Fully code page independent



Subtotal from prev. page				67 913,50
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018583021932	10000002503	01.12.1998	3	8 526,80
reminders fee				60,00
interests				150,00
Total in ATS:				77 595,80
This amount in ATS is equal to Euro (1 Euro = 13,90 ATS):				5 582,43

