Exstream Dialogue V6 offers new functionality for workstations and z/OS

At a glance

Customer Relationship Management (CRM)-based enterprise business communication system including:

- Personalization for print, interactive, and Web applications
- Ability to design once collaboratively, and deliver through any communication channel
- Delivery of full-color communications
- More than 60 customizable modules geared towards your specific business
- Wide range of data input formats, including Word, Overlay Generation Language (OGL), Metacode, XML, PDF, Quark, and Advanced Function Presentation™ (AFP)
- More than 18 print and electronic output formats, including AFP, Printer Control Language (PCL), Postscript, Personalized Print Markup Language (PPML), Variable Information Printing Program (VIPP), XML, HTML, PDF, and PowerPoint
- Integrated marketing modules to drive effective campaigns and integrate with CRM systems
- Comprehensive production workflow capabilities
- Outstanding production print performance

Overview

Exstream Dialogue¹ is a high-performance enterprise personalization solution that combines document creation, campaign management, multi-channel delivery, and Web application development into one easy-to-use software suite.

Dialogue’s client/server architecture allows many users to work on the same application at once. Using an intuitive graphical interface, designers and business users can develop personalized documents and Web applications, create business rules, and define production characteristics.

Dialogue can do much more than just create value-added documents, it can also streamline related processes and integrate workflows to help eliminate siloed systems, pre- and post-processes, redundant activities, and program maintenance.

New capabilities in Exstream Dialogue for Workstations V6 include:

- Ability to compare two fully-composed AFP™ documents to verify output quality before production
- Ability to extract data from PDF XML Forms Architecture documents

¹ Key prerequisites ....................................... 2
² AP distribution ........................................ 2
³ Description ............................................. 3
⁴ Product positioning .................................... 15
⁵ Program number ........................................ 15
⁶ Offering Information ................................... 16
⁷ Publications .......................................... 16
⁸ Technical information .................................. 16
⁹ Ordering information ................................... 17
¹⁰ Terms and conditions ................................. 21
¹¹ Prices ..................................................... 21
• Ability to fill in PDF XML Forms Architecture documents with Dialogue variables
• New coverage report for the business rules in a document application
• Web services

New capabilities in both Exstream Dialogue for Workstations V6 and Exstream Dialogue for z/OS® V6 include:

• Support for documents with interactive functions
• Support for Adobe InDesign objects
• Ability to create condensed test files from customer driver files

1 Dialogue products are owned by Exstream and are not InfoPrint® Solutions Company products. Dialogue products are licensed and warranted by Exstream. Neither party has any responsibility for, or makes any representation or warranties regarding the other’s products or services.

Key prerequisites

The server requires:

• A workstation running
  – Microsoft® Windows®
  – Sun Solaris
  – Linux™
  – IBM AIX®
  or a mainframe running z/OS.
• Any ODBC-compliant database manager.
• IBM WebSphere® MQ, SOAP, or JMS.

Clients require PCs running Windows.

Program Number

For details, refer to the Program number section in this announcement.

Planned availability date

May 23, 2008

In the following AP countries only:

• Australia
• China
• Hong Kong
• India
• Japan
• Korea
• Malaysia
• Singapore
• Taiwan

AP distribution

<table>
<thead>
<tr>
<th>Country/Region Announced</th>
<th>Program Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>InfoPrint Solutions Company Asia Pacific</td>
<td>AP08-0118</td>
</tr>
</tbody>
</table>

InfoPrint is a registered trademark of Ricoh Co., Ltd.
<table>
<thead>
<tr>
<th>Region</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASEAN*</td>
<td>Yes</td>
</tr>
<tr>
<td>India/South Asia**</td>
<td>Yes</td>
</tr>
<tr>
<td>Australia</td>
<td>Yes</td>
</tr>
<tr>
<td>People’s Republic of China</td>
<td>Yes</td>
</tr>
<tr>
<td>Hong Kong S.A.R. of the PRC</td>
<td>Yes</td>
</tr>
<tr>
<td>Macao S.A.R. of the PRC</td>
<td>No</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>No</td>
</tr>
<tr>
<td>Japan IOT</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Malaysia and Singapore only
** India only

### Description

**Applications**

Exstream Dialogue is cross-industry middleware for a wide range of personalized communications. Leading companies use Dialogue to create all of their personalized customer communications. Examples of Dialogue applications by sector include:

- **Financial Services**
  - Investment statements
  - 401(k) statements
  - Wealth management statements
  - Performance reports
  - Consolidated statements
  - Confirms
  - 1099s and tax reports
  - Correspondence
  - Online personalized financial plans
  - Online presentment
  - Web fulfillment

- **Banking**
  - Bank statements
  - Trust statements
  - Consolidated statements
  - Correspondence
  - Performance reports
  - Portfolio reports
  - Online banking services
  - Online presentment

- **Insurance**
  - On demand requests
  - 401(k) statements
  - Benefits booklets
  - Policies
  - Quotes
Operating environments

Dialogue software has three basic operating environments:

• Declarations pages
• Welcome kits
• Bills
• Notices
• Endorsements
• Renewals
• Explanations of benefits
• Agent reports
• ID cards
• Claim reports
• Commission statements
• Installment schedules
• Cancellation notices

• Telecom/Utility
  • Telephone bills
  • Bundled bills
  • Customized online brochures
  • Newsletters
  • Web fulfillment

• Service Bureau
  • Complex financial statements
  • Direct mail
  • Personalized promotions
  • Correspondence
  • Newsletters and promotions
  • Long portfolio documents
  • Catalogs
  • Coupons
  • Multi-chapter publications
  • Web fulfillment and self-service

• Retail
  • Catalogs
  • Collateral fulfillment
  • Renewal notices
  • Promotions
  • Direct mail
  • Brochures
  • Coupons
  • Correspondence
  • Web fulfillment
• A design environment that includes the interface through which applications are built, accessed, maintained, and controlled.

• A production environment where applications are integrated with dynamic data to create personalized documents for output through a variety of channels.

• A Web environment that enhances the production environment by allowing the creation of personalized Web applications through the same Dialogue design interface.

**Design environment:** The Designer is the foundation of the design environment and includes a design interface and a design database. All application design and application management processes, such as campaign management and workflow approval, are handled within the design environment.

**Production environment:** After an application is fully designed, tested, and packaged, it is moved to the production environment where it is processed with live data by the Dialogue engine. The Dialogue engine runs on most any computer platform including Windows 98, NT, 2000, XP, HP-UX, Sun Solaris, IBM AIX, RS6000, AS/400®, MVS™, OS-390, and z/OS.

A powerful connector infrastructure can link to any system or database in your enterprise so Dialogue can retrieve and update data in real time.

**Web environment:** With Web services, your interactive communications can be completely integrated with all of Dialogue's other capabilities. The entire process, from interface design to preview, security, and workflow, can be built and controlled through the Dialogue Designer, making Dialogue a powerful Web application builder. The same application packages and data sources used to create personalized print documents can be employed for dynamic Web content, and Web site interactions can drive the creation of any type of output supported by Dialogue.

Designers and business users can develop Web applications using the Designer without any specialized programming knowledge. Web Services supports multiple engines for previewing and is scalable to support thousands of interactive users. Data collected interactively can also be queued for batch processing by production print/mail systems.

**Design module descriptions**

**Designer:** The Dialogue design environment is used to create fully dynamic Web-based forms and processes that capture data from users (who are typically customer service representatives, sales agents, prospects, or customers themselves). The Dialogue Designer logically links the Web forms together to build the application that guides users through the interactive document generation process. Because Web Services is tightly integrated with Dialogue, many of the traditional steps required for Java™-based development can be eliminated, resulting in tremendous productivity and cost savings.

While interacting with Dialogue, all users are connected to the Designer, which consists of a design interface and a design database. The Designer runs on Windows 98, NT, 2000, XP and is installed on each user's workstation. The same Designer is used to design all personalized Web Services applications.

**Design Interface:** Using the intuitive, visual design interface, users create design components and define business rules and production characteristics. These design objects can be created once and then reused in multiple applications for multi-channel delivery, significantly cutting down design time.

The design interface can be configured so different users can access different aspects of the communication process, such as format creation, versioning, message management, business rules, and workflow controls. You can create customized interfaces for various users or user groups.

The design interface provides many sophisticated tools for designing any type of document. Each document can be designed in full color and then output in color, highlight, or black and white with no changes to the design. The design interface also doubles as an online viewer so you can prototype, review, and modify your documents immediately online avoiding lengthy waits for printed output.

**Design Database:** Dialogue is an object-oriented system, meaning that users create objects and combine them together to build applications. The design database houses all of these objects, as well as the processes associated with applications, including security access, version control,
workflow definitions, campaign management rules, and application packaging. This database is ODBC-compliant and supports most popular database formats. It can be installed on any NT, UNIX®, System i™, or mainframe platform accessible through a network.

Standard design objects supported by Dialogue and managed in the design database include:

- Applications — The collection of all documents, campaigns, files, delivery channels, and so on, that are needed to process a specific job.
- Documents — The collection of pages and associated controls that define a given document (such as a letter or statement).
- Pages — A single page of a design. A page can be included in one or more documents.
- Campaigns — The collection of messages and associated controls that define a specific marketing promotion.
- Messages — Any kind of marketing, educational, or informational text, paragraphs, and graphics dynamically incorporated into documents.
- Data files — Test data for applications can be used to define the layout and content of each file. Data variables can be mapped using simple drag-and-drop technology or automatically mapped from XML or COBOL copybooks. Input files can be used to initialize data, to drive the generation of documents, and to serve as reference (or lookup) sources for supplemental customer data. Output files can be defined for report generation, audit sources, and so on.
- Design components — Design components, including tables, images, text boxes, and shapes are added to pages to build a communication. Components may be added directly to pages and messages or may be stored in the component library for use on multiple pages.

Reuseable components are created one time and used on many different pages (components can be changed one time and automatically replaced in all applications in which they appear).

Requirements: One Designer is required for each designer within the organization. The Designer runs on Windows 98, NT, 2000, XP. The Designer database can be any ODBC-compliant database (including DB2®, Oracle, SQL Server, and so forth) run on any platform accessible through the network (Windows Servers, HP-UX, Sun Solaris, IBM AIX, RS/6000, AS/400, MVS, OS-390, and z/OS).

Design PDF: This module allows PDF files to be imported as images into a Dialogue design object, such as a page. PDFs are converted to images to maintain the original color quality. If output to PDF, the imported PDF is merged with the Dialogue design elements to create a new, completely integrated output PDF.

Metacode-DXF: This DXF converter allows you to incorporate Metacode designs into Dialogue applications. It imports Metacode print streams into Dialogue at design time to create page objects.

Overlay Generation Language DXF Converter (OGL-DXF): Allows Dialogue to convert OGL, an AFP overlay language used to define and create forms, into the Dialogue Exchange Format (DXF). Once the OGL DXF file is imported into Designer, the new forms can be edited and enhanced with variable content. Features include:

- AFP (IBM Infoprint) forms that are converted into pages within Dialogue
- Manipulation of new pages in Dialogue with variable data, color, and so on
- Ability to migrate forms and maintain new, updated content easily with Dialogue

InDesign-DXF: Uses Adobe InDesign to convert InDesign objects into DXF for import into Designer. Once in Designer, the objects on the pages can be edited and enhanced with variable content. Most InDesign objects are available for conversion in Dialogue. Some advanced objects may not be supported initially, so Dialogue gives you the option of omitting the object or converting it to a static bitmap image.

DLF Designer: Extends the functionality of Extream Dialogue Designer so that document developers can create Live documents by adding interactive functions, such as editing controls.
and rules, into any existing or new Dialogue document application. Functionality traditionally included in entire document systems can be included in Live document applications. Live documents can be designed as stand-alone applications or for inclusion in Web-based or other types of custom-developed interactive systems.

**DLF Input:** Allows an edited Live document (DLF file) to be used as input to the Dialogue engine for data extraction, to trigger events, create other documents, or to be used as content within another document, which could be output in any format (such as AFP, PDF, PostScript, and so forth).

**DLF Fulfillment:** Supports template processing, allowing users to store an edited DLF file along with an accompanying distribution list, or defined location for one, in a repository for fulfillment processing by Dialogue. For this type of processing, the edited Live document may have some variables and rules that will be resolved in the Dialogue production run.

**PDF Form Miner:** Includes Quark Xtensions to convert Quark pages into Dialogue Exchange Format (DXF) for input into Designer. Once in Designer, the objects on the pages can be edited and enhanced with variable content. Most Quark objects are available for conversion in Dialogue. Some advanced objects may not be supported initially, so Dialogue gives the user the option of omitting the object or converting it to a static, bitmap image.

**Quark-DXF:** This module includes Quark Xtensions to convert Quark pages into the Dialogue Exchange Format (DXF) for import into the Designer. Once in Designer, the objects on the pages can be edited and enhanced with variable content. Most Quark objects are available for conversion in Dialogue. Some advanced objects may not initially be supported, so Dialogue will give the user the option to omit the object or convert it to a static, bitmap image.

**Dialogue Compare:** Reduces testing time by allowing you to quickly compare the Dialogue ECF output from two different runs. Designed for full comparisons of Dialogue output, this utility is especially useful when upgrading to new versions of Dialogue or validating whether desired changes have taken effect.

**AFP Compare:** This module is a comparison utility for viewing two AFP print streams side by side to verify output quality before production. It uses the native capabilities of AFP Viewer to compare two pages, allowing you to test document applications in a fraction of the time it takes with manual methods. With AFP Compare, you can visually check output on the screen for quality assurance before running expensive production or Print Factory™ processes.

**AFP Batch Compare:** This module compares two fully-composed AFP documents to verify output quality before production. Generally, these files are too large for a manual compare process. AFP Batch Compare uses the same technology as the AFP Compare module, allowing you to test document applications in a fraction of the time it would take with manual processes. If you are making changes to applications, AFP Batch Compare allows you to verify and note these differences before running production processes. When upgrading software or performing an infrastructure update (such as an operating system upgrade), the AFP Batch Compare tool may be used to verify that an existing application has not been impacted or modified. By running the batch comparison of two print files, you can quickly recognize whether or not changes have occurred in the entire print file. Contrast this to doing a manual comparison and note the immediate impact on the regression testing process.

**AFP Viewer:** AFP Viewer is WYSIWYG display software for viewing, modifying, indexing, and printing AFP files. AFP files are rendered on the screen exactly as they will appear in print. Additionally, AFP Viewer allows you to create subsets of the original document, with or without resources. It includes search capabilities for text or indexed Tagged Logical Elements (TLE).

**AFP Indexer:** Runs on Windows and UNIX platforms to create a separate index file that is compliant with the AFP architecture. This index file contains references into the original AFP file. These references may define customer groups and data values for elements within a customer group. For example, customer groups may be listed by customer account ID. Elements for each customer group might include customer name, address, and zip code.

**Rule Analyzer:** Provides a coverage report for the business rules used in a document application. Based on the input data used in a Dialogue test or production run, the Rule Analyzer will report which rules are executed and the number of times each rule was true or false. This dramatically improves the quality of customer communications by automated examination of the completeness of test data.

**Test Data Capture:** Allows you to reduce application testing time by creating and using smaller,
more effective sets of test data. Test Data Capture selectively generates test files directly from customer driver files by extracting the most relevant records, giving Dialogue developers the ability to work with effective test files that create easier-to-proof output files. Test Data Capture also generates reports that show the specific data values included in the test file and which rules were tested.

**PDF Form Miner:** Allows the extraction of the content of data fields of PDF XML Forms Architecture (XFA) documents. PDF XFA is an Adobe specification that defines interactive documents. XFA documents have an XML data layer that can be easily mapped to Dialogue variables. With the DPF Form Miner module, Dialogue can read a PDF XFA document as a data source, populate the mapped variables, and use the data elements like any other data, regardless of source. This allows form-based documents to be easily automated in a production environment, which is especially important when follow-up documents, such as welcome kits or confirmations, need to be created and sent to the customer.

**Document creation modules**

**1:1 Document Creator:** This module includes the base functionality needed to build personalized documents for print and electronic delivery in batch, real-time, and interactive processing environments. 1:1 Document Creator, combined with Designer and a single output driver, is the minimum configuration required to build a fully personalized document using Dialogue.

**Advanced Tables:** Allows you to create sophisticated statements and other complex documents using transaction-driven tables that flow dynamically from one page to another. Table entries are automatically populated from input data at run time. Section- and subsection-based tables are supported, as well as controls to handle headers and footers correctly when tables flow onto multiple pages. Tables can include an unlimited number of levels, and widow/orphan control is automatic. Features include:

- Select from five table types for simplified table creation and control.
- Unlimited headers and footers.
- Automatic table flow to unlimited number of columns or pages.
- Automatic widow/orphan control.
- Automatic split and flow for two side-by-side tables.
- Serpentine table flow.
- Automatic replication of transaction array data tables.
- Easy-to-create, multi-level hierarchical tables.
- Organization of tables into multi-level sections, including sections based on record type or data values.
- Rules on groups or individual table rows and columns.
- Table rows that split when flowing across multiple pages.
- Automatic calculation of subtotals and running totals on each page.
- Table cells can be highlighted or colored based on variable conditions.
- Pop-up tips when editing table rows.
- Smart table analyzer reviews table designs and provides a list of errors and suggested design improvements.
- Multi-table sorting (how you want your tables to be ordered in the statement).
- Tables can be anchored at the bottom and grow upward.

**Dynamic Charting:** Allows you to create data-driven, full-color, variable charts, including pie, line, area, bar, progress bar, stacked bar, comparative bar, horizontal bar, comparative horizontal charts, range charts, and calendars. All charts can be displayed in 3-D and shadow mode.

**Exstream Dialogue Live Editor:** Provides a controlled environment for creating Dialogue Live Format (DLF) documents as templates or in an on demand mode. Dialogue Live Editor can edit,
add, or remove elements, select from content lists, and upload and alter resources with a preview capability. Live Editor can provide content and document flow, including pagination, style, and format in order to eliminate inconsistent branding, user errors, and compliance risks.

**Publication Support:** This module lets you create complex publications that include tables of contents, cross-references, footnotes, and indexing. Features include:

- Multilevel table of contents (customer and chapter/document levels)
- Rule-based automatic renumbering of sections, paragraphs, and lists
- Dynamic creation of indexes, with up to three hierarchical levels for each index key word
- Folio by chapter numbering
- Dynamic generation of footnotes in tables and text boxes
- Style sheets for formatting text and paragraphs

**Advanced Design Workflow:** This module supports user-defined workflow approval processes for document design and extends the functionality provided in the Base Personalization module. System administrators can define workflow approval processes for objects and route them to different business groups such as legal, compliance, marketing, and quality assurance. For example, an investment company might require a more stringent approval workflow process for documents going out to customers than those for internal groups. Objects can be routed using single group (serial) or multiple group (parallel) paths. Administrators can easily track workflows, verify object status, review comments, and maintain different versions in separate folders. Rejected objects are sent back to the originator for changes and resubmission.

**Compliance Support:** Compliance Support makes it easy to manage content by effective dates and jurisdictions (or locations). This allows compliance administrators and other business users to automatically include or exclude appropriate content from customer documents based on effective dates or jurisdictions. Compliance Support is particularly important for the insurance industry, which is continually challenged to maintain varying content that complies with state and national government regulations. For example, insurance companies are often required to produce policies based on a customer's state and the language approved by that state's insurance commission as of the date the policy contract was signed. By specifying the customer's state and effective date, Dialogue automatically picks from various versions of the same text or paragraphs.

**Unicode:** Unicode support enables Dialogue to read data and produce output that is double-byte encoded. This module is required for support of languages, such as Japanese and Chinese, using two bytes to reference characters.

**Integrated marketing modules**

**Campaign Management:** This module provides advanced message management and formatting so you can build and integrate sophisticated 1:1 marketing and informational messages into your print and electronic documents. Campaigns can include an unlimited number of text or graphical messages and are designed to target specific customer profiles. They are created by marketing or other business users, then prioritized, selected, and integrated into the document at run time, depending on the customer data being processed.

Campaign messages can include text, charts, and imported images. Pull-down menus allow users to easily create the rules that specify who gets what campaign or message. More technical users can optionally use the Visual Basic-like rule editor to create even more complex campaign rules. Features include:

- 1:1 messages dynamically incorporated into document at run time
- Campaign selection based on qualification and multitiered prioritization for each customer.
- Consistent distribution of campaigns across all delivery mediums.
- Options for incorporating messages in document flow within text boxes or tables.
- Placement of messages can be tied to specific sets of documents for each customer.
- Campaigns can be identified as must go, go only if it doesn't cause page limit to be exceeded, go only if it doesn't add postage, or filler only, which means send if there's room.
- Campaigns may be activated for specific time periods.
• Ability to control the number of messages sent in a run (for test marketing programs).
• Dynamic file import of external images and text (requires Dynamic File Import module).
• Timing of message qualification can be controlled.
• Reporting on which messages are sent to each customer.

**Advanced Campaign Management:** This module includes all the capabilities of the Campaign Management module with the added ability to link campaigns together, track every campaign that goes to every customer, and analyze campaign results. Features include:

• Linking campaigns so that follow-up campaigns are sent based on what was previously sent, or based on a response to the prior campaign.

• Controlling how many times a campaign should be sent to a customer, or the time periods it should be sent (for example, every 45 days).

• Tracking at a summary or individual customer level.

• Tracking by campaign or by each campaign message.

• Tracking Knowledgebase for storing all campaign activity so campaigns can be qualified based on previous responses from the customer.

• Pre-flight testing to determine how many customers will get campaign.

• Detailed reporting so you can analyze the success or ineffectiveness of campaigns.

**Anywhere for Marketing (Anywhere Server and Anywhere Designer):** Anywhere for Marketing is a browser-based design capability that allows users to incorporate rules-based messages and other variable content into marketing communications from any location, using an Internet browser. Anywhere for Marketing meets the increasing demand for distributed collaborative workflow, while reducing deployment costs and improving time to market.

**Data and content integration module descriptions**

**ODBC Data Access:** ODBC, or Open Database Connectivity, is a popular standard that enables Dialogue's production engine to access relational databases and other enterprise data sources directly during document creation. The ODBC Access module lets you map any ODBC relational database into Dialogue without the use of a custom-written program. ODBC query results are mapped to variables using Designer and stored as library objects. Users are presented with table views of the data, making it easy to map and extract the appropriate data.

**Print Miner:** This module lets you use an existing print file as input to Dialogue. Dialogue uses data from the print file to repurpose applications, including reformatting, changing colors, adding marketing messages, and converting to multiple outputs.

Dialogue's advanced mapping makes it easy to mine whole paragraphs, tables, array data, and other complex elements from the print file. Based on absolute page positioning or relative locations called "spots," variables are mapped so they will be populated from the line data print streams at run time. Standard channel codes for both ANSI and Machine carriage controls are used to break the line data file into pages. Features:

• Line data files include channel-based impact printer format, Xerox's Line Conditioned Data Set (LCDS) format (also known as Dynamic Job Descriptor EntryDJDE line data), and IBM's mixed mode Advanced Function Presentation (AFP) format.

• Page types definitions based on constant values contained on the page; and ability to set them to trigger the start of a new customer or section.

• Mapping locations can range from static, single-occurrence data elements to multiple transaction-based data elements.

• Ability to combine multiple lines of data into a single element.

• Identification of whole paragraphs or data ranges as data elements.

**XML (input):** XML (input) provides the ability to input XML files into Dialogue based on any document type description (DTD) or schema. Tag attributes can be mapped manually using
Dialogue's drag-and-drop visual data mapper. A significant portion of the XML file can be automatically mapped, including all variables that need to be created. Features include:

- Importing data into Dialogue as input or reference files
- Allowing drag and drop of Dialogue variables for mapping to tag names, tag values, or tag attributes (Visual data mapper)
- Automapping of XML tag names to tag values including variable creation
- Mapping XML tags to the same variable or to different variables based on where they reside in the tag hierarchy

**Dynamic Content Import:** This module lets you import images, text, RTF and PDF files into a document as it is created. Objects are imported to placeholder variables that define their characteristics and file location, and are included in the composed output at run time.

**PDF Import as Image:** Allows you to use placeholder variables to import PDF content at run time into AFP, Composed XML, PDF, PostScript, PPML, VIPP, and VPS print streams.

**PDF Form Pre-fill:** Fills in XFA documents with Dialogue variables. These variables can be mapped to the fields specified in the PDF XFA XML data layer. When Dialogue runs, a referenced PDF XFA document will be read, updated with the Dialogue variables, and produced as PDF output. The PDF XFA document can then be edited in Acrobat. The benefit is that PDF forms can be partially (or fully) completed, based on known information, in advance of being distributed to the customer.

**Dynamic Data Access:** Dynamic Data Access (DDA) is Dialogue's connector architecture module. It connects Dialogue's production engine to any system or database in your enterprise infrastructure to collect data, update data, write reports, or execute user-written routines. This allows Dialogue to process transaction data in real time, support encryption/decryption applications, and read/write to any corporate database or application. DDA can be used for any or all of the Dialogue driver, initialization, reference, and report files to eliminate flat file input and data retrieval ahead of time. Additionally, DDA allows dynamic table look-up and can spawn other processes.

**IBM WebSphere MQ Connector:** The IBM WebSphere MQ connector supports both synchronous and asynchronous messaging for a variety of applications.

**Java Messaging Service (JMS) Connector:** The JMS connector is part of the open J2EE platform and provides seamless integration with Java standard messaging. The JMS connector is typically used for Web applications, particularly transaction processing, and supports both synchronous and asynchronous messaging.

**Simple Object Access Protocol (SOAP) Connector:** SOAP, an XML-based messaging technology, is a W3C standard which specifies the rules for locating Web services. The Dialogue SOAP connector integrates Web services with applications (regardless of how those applications were built) and facilitates the communication between them.

**Microsoft Message Queue (MSMQ) Connector:** The MSMQ connector allows Dialogue to communicate with user-written programs or other enterprise infrastructure software via messages placed in Microsoft message queues, providing rich integration with other systems.

**IBM Content Manager Connector:** An out-of-the-box DDA connector that allows the retrieval of content directly from the IBM Content Manager database.

**Watched Directory Connector:** Allows implementation of a new type of real-time system. It watches a directory for data source files until it is given the command to shut down. When a file is presented, it opens the file, reads its contents, and passes the information to the Dialogue Engine for processing.

**Production workflow module descriptions**

**High-Volume Delivery:** This module lets you control the creation of print files to maximize the efficiency of your print/mail centers. Dialogue simultaneously builds output files for delivery through virtually any print and electronic channel, for example, a color version, an e-mail version, and a black and white version. To streamline distribution, outputs can be routed to the
appropriate queue based on the number of pages, weight, or other rule-based specifications. Dialogue performs imposition, creates audit files, and breaks the print stream into subsets based on the queue. Features include:

- Multiple output queues documents that can be routed to many queues simultaneously.
- Dynamic output file naming.
- Multiple-up support to allow any number of logical pages per physical page (with other design objects between logical pages).
- Alignment of creep pages toward center according to paper thickness so margins are consistent after booklet is trimmed.
- Preparation of documents for processing on a specified inserter. Bar codes are automatically placed on page insert stations and are variably set based on the inclusion of the insert.
- Banner page creation.
- Audit and quality control files.
- Convenience breaks output file names can either be static or variable, and files can be segmented into smaller, more manageable volumes for shop-floor production efficiencies. Breaks are controlled by page and document counts, variable data, and rules.
- Queue breaks by document and page.

Output Sorting and Bundling: Output Sorting and Bundling module allows customer communications to be reordered and grouped into "bundles" (or householded) after document composition, but before output is created. This is a two-step process that includes:

1. Document creation
2. Sorting and finishing

Step 2 can be run many times to facilitate many delivery and process requirements without recomposing documents. Additionally, cover and trailer pages can be created around bundles and bar coded with the customer documents. These features provide you with more flexibility in high-volume production processing, and allow you to simplify processes and improve overall processing performance. Output Sorting can save millions of dollars in postage, and supports applications such as householding and broker/dealer/agent packages. The High-Volume Delivery module is required to use Output Sorting and Bundling.

Application Consolidator: This module allows you to consolidate output from different Dialogue application run at different times, into one sort file. It also lets you do advanced householding for better postal rates and break large runs into smaller, more manageable ones. Both the High-Volume Delivery, and Output Sorting and Bundling modules are required to use Application Consolidator.

AFP Jazz: AFP Jazz is a next-generation print stream optimization solution for adding and deleting content, as well as merging, sorting, and consolidating AFP files all through a visual interface. This module requires no AFP training or programming, so your AFP output can be easily enhanced to meet changing business objectives without complicated, time-consuming programming efforts to incorporate changes. Features include ability to:

- Quickly locate and extract individual documents within one or several files
- Order and merge multiple AFP files
- Integrate with industry mailing software to maximize postal savings and maintain address integrity
- Consolidate multiple AFP files from multiple sources for house-holding purposes
- Control the number of sheets to be included in each envelope
- Remove selected pages
- Generate cover sheets, address sheets, or banner pages
- Add BCOCA™ bar codes to your output; erases text, OMR marks, images, or bar codes to hide content
- Add or replace text, OMR marks, or bar codes to satisfy changing operational requirements
• Include OMR marks or bar codes automatically based on duplex pages or inserts, and optionally places them on the back of a duplex document
• Split AFP files or documents to efficiently drive printers
• Dynamically create an AFP index with any content from the file itself or an external system
• Re-index an AFP file with additional fields from the file's content or an external system
• Selectively duplicate document pages to provide multiple copies
• Generate reports for audit or billing purposes
• Generate reports for automated document factory (ADF) systems

Dialogue Batch Compare: Reduces testing time by allowing a quick batch compare of two Dialogue ECF output files from different runs of Dialogue. Batch Compare will create a report file that identifies the volume and type of changes encountered between the two files. Once you have identified the differences, you can use the Dialogue Compare utility to view the differences.

AFP Conversion: Dialogue offers four modules for converting fully composed AFP input into PDF, TIFF, PCL, and BMP formats. These AFP conversion modules allow you to leverage IBM AFP print architectures with the latest output devices. You can meet demand for online delivery with the AFP converters serving as a bridge between existing applications and electronic delivery devices. Additionally, you can maximize printer assets by routing AFP documents to available production printers and Internet output formats. These conversion tools can also simplify indexing and archiving by allowing you to index data according to AFP page content and integrating it into COLD and content management systems.

AFP-PDF: Converts fully composed AFP input into Portable Document Format (PDF).

AFP-TIFF: Converts fully composed AFP input into a Tagged Image File Format (TIFF) image.

AFP-PCL: Converts fully composed AFP input into Printer Control Language (PCL) format.

AFP-BMP: Converts fully composed AFP input into a bitmap (BMP) image.

Tem Post: Designed exclusively for companies in France, the Tem Post module is a ready-to-use solution embedding all rules necessary for Tem Post compliance. The Tem Post module streamlines the process of postal distribution according to the standard French Poste Tem Post contract. In particular, this contract requires specific sorting and bundling of envelopes into containers that cannot exceed determined weights, allowing enterprises using the Tem Post module to reduce their postal costs by as much as 10%.

Output modules

Advanced Function Presentation (AFP): The AFP formats produced by Dialogue are user controlled and support Image Output Content Architecture (IOCA) and Image Format 1 (IM1) formats, raster font creation and inclusion, Graphic Object Content Architecture (GOCA) shading and drawing components, Tagged Logical Element (TLE), and No Operation (NOP) record creation. All resources are created and can be included in the print stream. Color modes supported include AFP full color; AFP OCA in color, black and white, highlight, or spot color; and black and white. Three levels of AFP optimization can be selected.

Dialogue Live Format (DLF): DLF files, or Live documents, can be generated by the Dialogue engine just like any other type of document output. Based on XML standards, DLF was designed to support any type of interactive document. DLF embodies the interactive application framework for accessing and feeding external systems, interfacing with workflow systems, controlling presentation, formatting, and editing rules, providing user and content authentication, and containing data and content. DLF output can be produced from a workstation, concurrently by the Dialogue engine with other output in high volume, or created on demand using Dialogue Real-time. DLF files can also be used as input to Dialogue.

Ink Jet Printer Data Stream (IJPDS): IJPDS is an ink jet print format for Scitex Digital printers. It supports black and white, highlight color, and full color modes. IJPDS is an ideal format for Scitex's VersaMark Business Color Press because it runs high-volume, transaction-oriented color documents at very fast speeds and lower print costs.
**3211 Line Data:** Supports output to 3211 impact line printers. Features include record separation, text overflow, ANSI or MACHINE carriage controls, ASCII and EBCDIC output character sets, number of lines-per-inch, number of characters-per-inch, blank line removal, and line overprinting.

**Metacode:** Metacode is a format used for Xerox high-speed laser printers. Dialogue-produced Metacode output allows for dynamic creation of images and fonts. Dialogue adds kerning and tracking for fonts, as well as enhanced shading and area patterns, to extend the base functionality contained in Metacode. Full color, highlight color, dual tone, and black and white modes are supported for both online and offline environments. Optimization for online high-speed printers is optional.

**Memory Image Bitmap File (MIBF):** MIBF format is a proprietary Miyakoshi Corporation file format for inkjet print streams. This module supports high-speed, full-color production. The color transformations are based on a single input ICC profile and output ICC profile specified in printer settings. The profiles are applied to all images in packaging. MIBF supports high-quality plane separation for CMYK JPEG and CMYK TIFF images. MIBF produces multiple output files based upon the number of Bitmap Image Processors (BIPs) specified in the printer setting.

**Personalized Print Markup Language (PPML):** PPML is an open, device-independent standard for color printing. PPML supports a full range of on-demand printing, ranging from the office environment to high-speed production environments.

**PostScript:** Dialogue supports both Level 2 and Level 3 PostScript devices. Dialogue automatically builds forms and images, and places them at the top of the print stream so they can be pre-ripped and referenced. Both Type42 fonts (available in PostScript V2.013 and above) and Adobe Type1 fonts can be created to support all Level 2 and Level 3 PostScript printers. Full color, highlight color, gray scale, and black and white modes are supported.

**Printer Control Language (PCL):** This module provides functionality for PCL V5 printers. It supports black and white, gray scale, highlight color, and full color modes.

**Variable Information Printing Program (VIPP):** VIPP is a Xerox print language built on PostScript that supports the full range of Xerox printers. It is a “higher level” print format that allows color output to run at faster speeds. With VIPP, Dialogue can use pre-ripped objects to produce high-volume, color output at incredibly fast speeds particularly with the Xerox iGen3 color printer.

**Variable Print Specification (VPS):** This module creates VPS output. VPS is a specially designed PostScript-based print language, developed by Creo, for the definition of variable information documents. Used extensively by Xerox printers, VPS is an intelligent language that provides a structured definition of the documents being processed.

**VDX:** Allows creation of output on Kodak NexPress printers. VDX has many of the same options already supported by PDF such as outlines, compression, binary output, encryption, and color space.

**HyperText Markup Language (HTML):** This module creates HTML output, the current standard for publishing hypertext on the Web. HTML is a non-proprietary format based on SGML, and can be created and processed by a wide range of tools from simple plain text editors to sophisticated WYSIWYG authoring tools. The Dialogue HTML module supports CSS2 and XML Scalable Vector Graphics (SVG), the new W3C Web standard for describing two-dimensional graphics in XML.

**Portable Document Format (PDF):** The PDF module creates fully composed PDF files and therefore is searchable using Adobe Acrobat Reader (other products create each page as an image, making the PDF very large and unsearchable). Dialogue automatically builds bookmarks so documents and their components are organized and indexed. Support for the standard base 14 fonts is included, as well as the creation and inclusion of other TrueType or Adobe Type1 fonts. This produces a PDF output that has the identical look of documents sent to other devices. Additionally, Dialogue can provide binary compression to minimize the size of files. Full color, highlight color, and black and white modes are supported.

**Rich Text Format (RTF):** This module creates RTF output. RTF, the Microsoft Word format, includes formatting, font information, text color, and page layout information, and can be processed by virtually all word processing programs. This is important for applications in which the output needs to be revised by customers.
Tag Image File Format (TIFF): This module creates TIFF image output, a widely used format for storing image data. TIFF G4 is the standard format for faxing and is also used for storing documents in archival and retrieval systems. Every page is converted to a black and white bitmap and compressed using CCITT G4 compression. Output is normally one page per file.

PowerPoint: Produces HTML output specifically formatted for Microsoft PowerPoint 2000 business presentation software. Can also convert the HTML format to a .ppt file on a machine with PowerPoint installed. Producing output is a one-step process.

XML (data): This module creates XML report data files. All data variables are available for inclusion in the report. Any DTD or schema is supported, and nested hierarchies are repeated based on the size of the array variable.

XML (composed): This module allows the creation of composed XML that can be changed into many presentation formats because it is created in the Dialogue Exchange Format (DXF). DXF format is based on the W3C standard XSL-FO (eXtensible Stylesheet LanguageFormatting Objects) and, as such, completely specifies text placement, font, and other attributes.

XML (content): This module uses an Exstream Software published XML schema and creates an XML file that contains all page and document composition content. The content is created without formatting features such as fonts, color, X-Y coordinates, and so on. The purpose of this module is to mine content from components like text, tables, charts, images, and so on, that are output from the page design. The order of these components is presented in the order of composition and inclusion in the page design. As with other PDLs, you can include search keys, which are generated as XML comment records embedded inside the XML (content) output.

Real time: Dialogue Real time is an on demand document service solution that integrates with an enterprise’s existing message layers and custom-built systems, or Web Services interactive systems, to produce fully personalized documents in real time. Real time works with existing systems by “listening” to the message layer for system requests that are generated by users or triggered by predefined system rules. When a transaction request is detected, Dialogue “wakes up” and composes the requested document on demand using the data provided or from the instructed locations. The personalized document is transmitted back to the message layer via Dialogue connectors, making it immediately available for handoff to the system where the request originated. Real time offers customers, prospects, and customer service representatives greater convenience and self-service capabilities by allowing them to submit online requests for account information and other real-time, electronic documents such as quotes, service inquiries, and other documents.

Application Query Service: The Application Query Service module is an interactive document service that allows a real-time application to query a Dialogue package file to obtain:

1. A list of the documents in the package file
2. The variables required for a selected document

This introspection capability allows for the creation of highly intelligent and dynamic real-time applications. Application Query Service supports Java and C++ on all platforms, and COBOL and other languages on z/OS.

Web services (Exstream Dialogue for workstations only): Allows Dialogue applications to participate seamlessly in an organization’s service oriented architecture (SOA). Using standards-based methods, Dialogue can incorporate data provided by Web services during the document creation process. In addition, content produced by Dialogue can be passed directly to other Web services for subsequent processing. Dialogue Live Editor can also use Web Services for integration with other systems.

Product positioning

Exstream Dialogue complements InfoPrint Solutions production print solutions to help provide an end-to-end solution for the creation of customized documents for Customer Relationship Management (CRM).

Program number
<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5639-AAK</td>
<td>6.0</td>
<td>Exstream Dialogue for Workstations</td>
</tr>
<tr>
<td>5639-AAJ</td>
<td>6.0</td>
<td>Exstream Dialogue for z/OS</td>
</tr>
<tr>
<td>5639-AAL</td>
<td>6.0</td>
<td>Exstream Dialogue Live Editor</td>
</tr>
</tbody>
</table>

**Product identification number — PID**

<table>
<thead>
<tr>
<th>Program PID number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5639-AAK</td>
</tr>
<tr>
<td>5639-AAJ</td>
</tr>
<tr>
<td>5639-AAL</td>
</tr>
</tbody>
</table>

**Plant of control and manufacture**

- Plant of Control: ISC
- Plant of Manufacture: ISC

**Trademarks**

AFP, Advanced Function Presentation, MVS, System i, Print Factory, and BCOCA are trademarks of International Business Machines Corporation in the United States or other countries or both.

z/OS, AIX, WebSphere, AS/400, and DB2 are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

UNIX is a registered trademark of the Open Company in the United States and other countries.

Linux is a trademark of Linus Torvalds in the United States, other countries or both.

InfoPrint is a registered trademark of Ricoh Co., Ltd., in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

**Offering Information**

Product information is available via the Offering Information Web site

http://www.ibm.com/common/ssi

**Publications**

No publications are shipped with these programs.

**Technical information**

**Specified operating environment**

**Hardware requirements:** The server requires:

- A workstation running one of the following:
  - Microsoft® Windows®
  - Sun Solaris
  - Linux™
– IBM AIX®

or a mainframe running z/OS®.

• Any ODBC-compliant database manager.
• IBM WebSphere® MQ, SOAP, or JMS.

Clients and Live Editor require PCs running Windows

**Software requirements:** The program’s specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a README file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

**Planning information**

**Packaging:** Exstream Dialogue is shipped on CD-ROMs. There is one CD-ROM for the base feature and one CD-ROM for each optional feature that is ordered.

**Security, auditability, and control**

Exstream Dialogue uses the security and auditability features of the Windows, Sun Solaris, Linux, IBM AIX, or z/OS operating system under which it is installed. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

**Ordering information**

**Charge metric:** The software license for Exstream Dialogue V6 includes the first year of Software Maintenance, which consists of defect support, “how-to” support, and free upgrades to the latest release of V6. Renewals are directly with the vendor.

Order a 1:1 Document Creator and at least one output driver optional feature for each server. Order at least one Designer optional feature.

1:1 Document Creator and the following optional features run on the server and are licensed per install:

• Advanced Tables
• Dynamic Charting
• Publication Support
• Enterprise Design Workflow
• Compliance Support
• Campaign Management
• Advanced Campaign Management
• Anywhere Server
• ODBC Data Access
• Print Miner
• XML (input)
• Dynamic Content Import
• PDF Import as Image
• PDF Form Pre-fill
• Dynamic Data Access
• IBM Content Mgr Connector
• JMS Connector
• MSMQ Connector
• IBM WebSphere MQ Connector
• SOAP Connector
• Watched Directory Connector
• High Volume Delivery
• Output Sorting and Bundling
• Application Consolidator
• Dialogue Batch Compare
• AFP™ Jazz
• AFP-PDF
• AFP-PCL
• AFP-TIFF
• AFP-BMP
• Tem Post
• AFP Batch Compare
• PowerPoint
• RTF
• TIFF
• XML (data)
• XML (composed)
• XML (content)
• Real-time
• Application Query Service
• Web Services
• WebVerse (z/OS only)
• Unicode
• AFP Output Driver
• AFP Indexer
• IJPDS
• Metacode-DXF
• MIBF
• PCL
• PDF Form Miner
• PDF Form Pre-fill
• PostScript
• PPML
• Rule Analyzer
• Test Data Capture
• VDX
• VIPP
- VPS
- 3211 Line Data
- Metacode
- HTML
- PDF
- Designer
- Design PDF
- Dialogue Compare
- Quark-DXF
- OGL-DXF
- AFP Viewer
- AFP Compare
- Anywhere Designer

The following product runs standalone and is licensed per server:

- DLF
- DLF Input
- DLF Fulfillment
- Dialogue Live Editor
- Test Data Capture

The following product runs standalone and is licensed per client:

- DLF Designer
- InDesign DXF

The following product runs standalone and is licensed per workstation:

- Exstream Dialogue Live Editor V6

The minimum configuration required to build a fully personalized document using Exstream Dialogue consists of 1:1 Document Creator, Designer, and at least one output driver.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Media feature</th>
<th>1 year software</th>
<th>OTC feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exstream Dialogue for z/OS</td>
<td>5639-AAJ</td>
<td>5003</td>
<td>D6CJ</td>
</tr>
<tr>
<td>InDesign-DXF</td>
<td>D6CD</td>
<td>D6CE</td>
<td>D6CF</td>
</tr>
<tr>
<td>Test Data Capture</td>
<td>D6CH</td>
<td>D6CG</td>
<td>DBMN</td>
</tr>
<tr>
<td>DLF Input</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLF Fulfillment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLF Designer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metacode-DXF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Media feature</th>
<th>1 year software</th>
<th>OTC feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exstream Dialogue Live Editor</td>
<td>5639-AAL</td>
<td>5003</td>
<td>D6CN</td>
</tr>
<tr>
<td>Order type description</td>
<td>Machine type/ Media software</td>
<td>Feature maintenance</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Exstream Dialogue for Workstations</td>
<td>5639- AAK 5003</td>
<td>1 year</td>
<td></td>
</tr>
<tr>
<td>1:1 Document Creator</td>
<td>D5WH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designer</td>
<td>D6AH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design PDF</td>
<td>D6AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialogue Compare</td>
<td>D5VN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quark-DXF</td>
<td>D5CA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OGL-DXF</td>
<td>D6BW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP Indexer</td>
<td>D6CL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP Viewer</td>
<td>D5VW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP Compare</td>
<td>D5VQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Tables</td>
<td>D6BR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Charting</td>
<td>D6BT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publication Support</td>
<td>D6BN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise Design Workflow</td>
<td>D5WL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance Support</td>
<td>D6AF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campaign Management</td>
<td>D6AE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Campaign Management</td>
<td>D5VK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anywhere Server</td>
<td>D6AA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anywhere Designer</td>
<td>D6AB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ODBC Data Access</td>
<td>D5VQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print M ner</td>
<td>D5VT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XML (input)</td>
<td>D6AR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Content Import</td>
<td>D5WC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF Import as Image</td>
<td>D5VR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Data Access</td>
<td>D6BU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBM Content Mgr Connector</td>
<td>D5VF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JMS Connector</td>
<td>D5VP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSMQ Connector</td>
<td>D6BQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBM WebSphere MD Connector</td>
<td>D6AT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOAP Connector</td>
<td>D5WE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watched Directory Connector</td>
<td>D5VL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Volume Delivery</td>
<td>D6AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Sorting and Bundling</td>
<td>D6AV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Consolidator</td>
<td>D6AC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialogue Batch Compare</td>
<td>D6AJ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP Jazz</td>
<td>D5VR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP-PDF</td>
<td>D5WU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP-PCL</td>
<td>D5WI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP-TIFF</td>
<td>D5VW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP-BMP</td>
<td>D5WP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tem Post</td>
<td>D6AW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP Batch Compare</td>
<td>D5WN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFP</td>
<td>D5VM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IJPDS</td>
<td>D6BP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metacode- DXF</td>
<td>D5VD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M BF</td>
<td>D5ja</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCL</td>
<td>D6BH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PostScript</td>
<td>D5WG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPML</td>
<td>D5Vv</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VDX</td>
<td>D6CB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI PP</td>
<td>D6BK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VPS</td>
<td>D6BL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3211 Line Data</td>
<td>D5VJ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metacode</td>
<td>D6BM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTML</td>
<td>D5VU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF</td>
<td>D5VA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Point</td>
<td>D5WB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTF</td>
<td>D6BA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIFF</td>
<td>D5HW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XML (data)</td>
<td>D5VM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XML (composed)</td>
<td>D6BB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XML (content)</td>
<td>D6BG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time</td>
<td>D5WV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Query Service</td>
<td>D6AD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unicode</td>
<td>D6BE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Data Capture</td>
<td>D6AK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF Form Pre-fill</td>
<td>D6BF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF Form M ner</td>
<td>D6BG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLF Input</td>
<td>D6AL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with InfoPrint® Solutions are contained in the applicable contract documents such as the InfoPrint Solutions International Program License Agreement and the InfoPrint Solutions Agreement for Acquisition of Software Maintenance.

**Agreement:** Supplier's license terms apply.

**Limited warranty:** Not warranted by InfoPrint Solutions Warranty, if any, provided by supplier.

**Volume orders:** Not applicable

**Educational allowance available:** No

**Prices**

For all local charges, contact your IBM representative.

**IBM Global Financing**

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit

http://www.ibm.com/financing

IBM Global Financing offerings are provided through IBM Credit LLC in the United States, and other subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice.

For more financing information, visit

http://www.ibm.com/financing

**Trademarks**

AFP is a trademark of International Business Machines Corporation in the United States or other countries or both.

AIX, z/OS, and WebSphere are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

Linux is a trademark of Linus Torvalds in the United States, other countries or both.

InfoPrint is a registered trademark of Ricoh Co., Ltd., in the United States, other countries, or both

Other company, product, and service names may be trademarks or service marks of others.

This announcement is provided for your information only. For additional information visit the InfoPrint Solutions Company worldwide contact page at: http://www.infoprint.com/selectcountry

InfoPrint Solutions Company Asia Pacific
Announcement AP08-0118