

TECHNOLOGY AUDIT

DOC1 Suite









Pitney Bowes




BUTLER GROUP VIEW

ABSTRACT

DOC1 Suite from Pitney Bowes is an electronic document composition application that enables organisations to turn documents such as statements into highly personalised communications. Customers no longer want to receive all correspondence from organisations in traditional printed formats. They may prefer to be contacted via e-mail or by SMS and organisations must cater for a variety of delivery requirements. Communications created by DOC1 can be delivered through multiple channels. Although DOC1 can be used as a stand-alone Pitney Bowes product, it is part of a much larger portfolio of products offered by the company, and to create an end-to-end communications delivery solution more than one product may be required. DOC1 is a horizontal product, which addresses the communications needs of all large and medium-sized enterprises globally. In Butler Group's opinion, there is a growing market for personalised customer communications as competition in all market sectors intensifies, and Pitney Bowes is well positioned to exploit this.

KEY FINDINGS

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|  DOC1 has a WYSIWYG editor for creating highly personalised communications. |  It supports transactional promotion (TransPromo) initiatives. |
|  Comprehensive desktop publishing features are included. |  Includes a flexible, high performance production engine. |
|  Supports delivery through multiple channels. |  Batch communications can be personalised. |
|  Margin notes can be written next to the text in customer communications. |  Creating an end-to-end customer communications solution may require additional products. |

Key:  Product Strength  Product Weakness  Point of Information

LOOK AHEAD

Planned enhancements to DOC1 include extending the functionality for Trans Promo, interactive communications, and in-bound communications to make the management better, faster, and simpler.

FUNCTIONALITY

In highly competitive markets, it is imperative that organisations push content out to customers and potential customers via their preferred delivery channel as speedily as possible. Traditionally the task of creating mass communications to customers would have been a technical one, with business managers putting in a request to IT, who would create the communication, which would then have to be approved by business management before publication. This complex process was inherently costly and would invariably create a delay in sending out correspondence and other business communications, which is not acceptable in highly competitive market sectors where churn rates are high, and organisations require much faster time-to-market. The only way that this can be reasonably achieved is by putting the design and development of communications into the hands of business users. Organisations that are able to do this should also see an increase in Return On Investment through the ability to service customers more effectively, and provide much quicker and timelier marketing campaigns. DOC1 from Pitney Bowes has been designed to help organisations to communicate with customers in a more timely fashion, allowing them to improve their competitiveness by streamlining the process for creating communications.

Product Analysis

DOC1 is an electronic document composition application that enables organisations to turn business documents such as statements, letters, and invoices into personalised customer-facing communications that can be delivered through multiple channels. It forms part of Pitney Bowes' extensive portfolio of products that provides comprehensive solutions for the creation and delivery of communications, which include products in the areas of output management, data quality, GIS mapping, and content management.

DOC1 is a key component of Pitney Bowes Business Insight (PBBI)'s Customer Communication Management (CCM) suite of products that together form a comprehensive document solution that can be tailored to the individual requirements of organisations. Other components include document archiving, content management, account management, and two-way e-mail management.

It is supplied with a WYSIWYG design environment that has been designed to allow both experienced developers and casual business users to create documents in a timely fashion. It combines comprehensive Desktop Publishing features with conditional logic, object and resource management, and variable data inclusion. This is a powerful feature and an advantage in a product of this nature, as it allows marketing departments to personalise batch communications by using conditions to determine the content that each recipient receives. This means that communications which are developed as batch communications that may be sent to many thousands of customers can be highly targeted. This is supported by a flexible, high performance production engine that can be run on a large number of platforms and allows many thousands of pages to be generated in seconds. It supports a wide range of output data stream combinations, which can be executed in batch or on-demand modes. In addition it does not convert content from other formats unless it is necessary.

Integration with CCM Content Author provides additional capabilities that provide an authoring environment for business users. It includes built-in workflow that allows content to be passed through an approval process. This is an example of the extensive Pitney Bowes portfolio and the fact that different products can be used together to create solutions rather than just point products.

The functionality of DOC1 can be extended to front-office users as part of the EngageOne Interactive Communication solution, which allows customer-facing users to create highly personalised individual ad hoc documents, such as customer correspondence, contracts, and negotiated documents in real time from standard DOC1 pre-defined templates.

DOC1 is supplied with an easy-to-use Word-like document editor, which minimises the training that word users require to use the product, and allows any user to create designs for both dynamically interactive and complex transactional document applications that support the Transactional Promotions (TransPromo) initiatives. TransPromo takes advantage of reduced costs in such areas as colour printing to produce communications for one-to-one marketing, for example by personalising statements, so that organisations can provide more timely information. A valuable feature is the ability to write margin notes next to the content in the main document flow in order to highlight key points in the document.

A custom resource map capability provides the ability to create and add entries as well as map font families, which can be mapped at the PostScript to language level and at the AFP to font size level. In addition the height of a message box can be adjusted from the top or bottom to fit the content of the message. The box can also be resized to fit the dimensions of selected message areas. The message streaming capability allows message areas or document content that has been created in Content Author to be inserted as continuous, flowable units that continue onto new pages as required.

However, producing communications in a printed format is all very well, but many customers no longer wish to be communicated with in that manner, and organisations must now be able to deliver output across multiple channels. DOC1 supports delivery through fax, e-mail, SMS, Web self-service, and call centre access as well as an additional print format.

Product Operation

The DOC1 Designer Windows client can be run in stand-alone or client/server modes. The application resources are managed in an MS SQL database, which can either be local or distributed. It supports .NET communication, and business rules and production resources are created as a single, easily transported file for production execution. DOC1 Generation has a command-line executable production engine and a highly portable code base, which can be run on ten platforms and can be executed as a one-off batch or in a range of on-demand modes. The Document Composition Service (DCS) provides an application server version of DOC1 Generate, which makes it available as a Web service in a Service Oriented Architecture (SOA). In order to support and provide high availability and resilience for large horizontal and vertical environments, Content Author is a highly scalable Web client for business users to edit content. The administration of users and resources is carried out via a Windows client, and the resources are managed in a SQL database.

The DOC1 Designer has been architected to support very large multi-user application design groups that are all accessing the same repository database. The Web and Client/server environments of Content Author support thousands of distributed users. Pitney Bowes has carried out stress testing, which has proved that more than 5,000 concurrent users can be easily supported. In addition, there are no initial software distribution requirements for end users. The DOC1 Generate production engine has no limitations as to how large input and output streams can be and how fast it can run. These factors are therefore determined by the available system resources. Benchmark figures from Pitney Bowes supported by customer experiences show throughput figures ranging between hundreds and thousands of pages being generated per second depending on the platform, the output format, and the complexity of the application.

All of the design resources are stored in a SQL database and they can be backed-up as part of the normal data protection procedures. Specific functionality supports snapshots of application resources to be taken and restored within the DOC1 Designer itself. The production engine supports check-pointing and restarting to support very large applications. A high level of availability in high volume environments, which Pitney Bowes defines as tens of thousands of on-line users, is provided with multiple levels of redundancy and recovery.

DOC1 data can be integrated with Group 1's Data Flow™ data integration solution, which provides the ability to export data files with associated XML schema that describe the data structure, further demonstrating the close fit between the different products in the company's portfolio. DOC1's Data Format Editor is able to import XML files so that associated data can be automatically marked up using the editor. Support is provided for PostScript and PDF formats. In addition advanced barcodes that provide features such as scalability, different presentation options, and security are supported for publications intended for AFP output.

Multiple repositories can be defined for selection by users at log-in time, which means that users are able to select data from multiple sources to aggregate into a single document. Objects such as text boxes, barcodes, or images that use fixed or anchored placement can be positioned dynamically using variable data as well as using constants.

Product Emphasis

For organisations in vertical markets such as Insurance, Financial Services (including banking and credit card processing), Utilities, Telecommunications, and Government the ability to be able to communicate with customers on a regular basis is a critical part of the relationship. There are many new channels of communications, including e-mail and SMS, and organisations must be able to communicate with customers through their preferred channel. One of the advantages of DOC1 is that it supports correspondence and other communications to customers in many formats, allowing companies to communicate with customers via the delivery channel of their choice, be it in paper format, by e-mail, to a mobile device, or via the Internet.

The ability for business users to personalise content so that two people being sent the same ad hoc or batch communication – regardless of their preferred channel or format – receive different and highly personalised content, will improve customer satisfaction and loyalty and, at the same time, reduce costs and operational risk. DOC1 provides the ability to produce highly personalised communications, and as a pioneer of TransPromo communications, it must be regarded as a market leader in the electronic document composition market.

DEPLOYMENT

DOC1 is available on a number of platforms. DOC1 Generate supports Windows platforms, OS/390 and z/OS IBM mainframes, IBM OS/400 (iSeries), IBM AIX, TRU64 Unix, HP-UX, Red Hat Enterprise Linux, Sun Solaris, SUSE Linux, and Open VMS. DOC1 Designer runs on Windows platforms. CCM Content Author requires MS IIS for the distributed editor, and it runs on Windows for the administration. The DOC1 suite is not dependent on any other of the CCM portfolio components. However, some of the other components, such as EngageOne Interactive correspondence and negotiated document offering require DOC1. Other components can be used by DOC1 to manage inbound and outbound customer communications. MS SQL Server is used for the repositories. The Document Composition Service is built on an application server technology and therefore requires any of the major application servers.

DOC1 Suite is supplied as a packaged software product that does not, according to Pitney Bowes, require any custom installation procedures. Installation of the design pieces requires knowledge of the location, capacity, and availability of a SQL Server, whilst the product pieces require knowledge of the file system and capacity of the intended host environment. Pitney Bowes Professional Services often performs both the installation and the initial application development.

The length of time that the deployment takes is dependent on the complexity of the environment and the application. The software itself can be installed and be usable in a number of hours, but the typical first application normally requires three to four weeks of development time.

The Suite can be deployed using a modular approach as there are a number of components, some of which are focused on the deep back office of the organisation, whilst others are targeted at contributing business users. Organisations can configure and licence these components according to need. All of the functionality is installed upfront, and access to individual modules is controlled by key codes that require no additional roll-out of code to deploy.

There is very little administrative overhead required once the system has been implemented. The main tasks are loading new fonts and images required by application designs and corporate branding standards. However, this task can often be minimised as DOC1 is able to take advantage of standard Windows resources. Because the repositories are based on standard databases, back-up and recovery and administration involve normal procedures that are already provided by IT administrators within the enterprise.

Pitney Bowes provides regularly scheduled and custom classroom courses both on-site and at Pitney Bowes locations worldwide. According to Pitney Bowes the product is supplied with detailed documentation and on-line user assistance.

Ongoing technical support is provided by specialised Global CCM Customer Support hubs located in the USA, UK, and Singapore, which cover the major business areas of the Americas, Europe, and Asia. These provide Level 1 and Level 2 support and are supplemented by local in-country PBB1 offices at dozens of locations worldwide. A permanent maintenance team of programmers and testers is available to address reported software problems. Urgent software changes are provided via regular 'PFT' builds, which are grouped together into maintenance versions of released software as required.

Legacy integration is one of the strengths of the DOC1 suite, as the product has been supporting legacy systems since its first version around 15 years ago. The legacy systems have been maintained and augmented ever since. The legacy interfaces focus on the data sources, the feeding of production information to pre-existing archiving systems, and the monitoring of progress. A journal file provides customers with numerous ways to load metadata from the production process into existing legacy systems. DOC1 supports all types of flat files, fixed, and variable formats, using an extensive graphical data dictionary feature, which allows the simple definition of legacy system data feeds.

A deployment of DOC1 should result in business procedure changes, which should become more streamlined and simpler. Functions carried out in the past by technical personnel will now be able to be performed by business users. For example, business content contributors can create their own content using Content Author without any technical intervention, reducing time to market for new documents and changes to existing ones. Responses to change requests should improve greatly as some existing processes can be bypassed.

The major risks that may cause the project to fail are firstly a failure to create accurate, effective, and relevant communications by failing to get the content right, because of a lack of understanding of the data, its purpose, or its use. This is often a result of not allowing business users access to data. The second risk concerns user requirements where the system is too complex for business users to create documents themselves, and it is necessary for back-office users to understand the business needs, which means that document creation can be a long, drawn-out process.

The core DOC1 package comprises a DOC1 Designer seat plus a licence to run DOC1 Generate on any supported platform, producing one type of output data stream. Additional Designer seats, output drivers, and production platforms can be added as required. There are no significant add-on features and no limits on production volumes. CCM Content Author is sold as a separate offering and is licensed according to the number of concurrent users. Localised packages of DOC1 and Content Author are available for English, French, German, Unified Spanish, Brazilian Portuguese, Japanese, Simplified Chinese, and Korean.

PRODUCT STRATEGY

DOC1 is a horizontal product, which addresses the communications needs of all large and medium-sized enterprises globally. However, Pitney Bowes targets a number of vertical sectors, which are Insurance, Financial Services (including banking and credit card processing), Utilities, Telecommunications, and Government. Although the product scales both up and down to address the requirements of all sizes of organisation, Pitney Bowes targets, and experiences most success with, top tier global enterprises in the verticals mentioned above, although it is also popular amongst middle tier organisations.

According to Pitney Bowes, Return On Investment (ROI) can be significant as business processes are streamlined and savings are made by feeding the ADF with more document types. However, calculating ROI can be a complex task, which is often part of a larger initiative by the organisation to improve customer care, and one that will differ from organisation to organisation.

Pitney Bowes sees a market opportunity arising from a reduction in colour printing costs and renewed demand for TransPromo applications, which is an area that in which DOC1 was a market leader 14 years ago. There is also a growing demand and need for businesses to improve the management of interactive communications, which Pitney Bowes has a solution for with EngageOne, its Interactive solution, and DOC1 provides a key foundational component for this. Another opportunity is provided by a requirement to address in-bound communications on the channel of original delivery, primarily in the e-mail and SMS channels.

PBBI has a very large global direct sales channel in all major markets. This is augmented by a strong partnership network ranging from very large integrators to small 'boutique' organisations with very specialised skills. Large global partners include major Systems Integrators such as Oracle, IBM, Unisys, EDS, various print vendors such as Kodak and Xerox, and other key partners and major outsource vendors such as Convergys, Xerox Global Services, and PBMS. Technology partners tend to be focused on output device support and include Ricoh/IBM, Xerox, Kodak, HP, and Océ. DOC1 competes with HP Exstream, ISIS, GMC, Metavante, Thunderhead, and Oracle Skywire.

The software is licensed for perpetual use with an annual maintenance contract that entitles the organisation to all fixes, enhancements, and new versions of the suite for the life of the renewal. Professional Services are provided for an added cost.

The average cost for a typical deployment varies according to the customer and the application. The business model is to empower a customer to be independent, but to provide, where necessary, Professional Services to ensure that the deployment succeeds, particularly where the initial timescales are tight. Maintenance and support varies by region but typically includes 24x7 cover for production emergencies and normal working hours support for other issues. Customer support desks are available worldwide.

The release strategy is generally to have a new point release every 12 to 18 months, with 'Early Availability' releases supplementing these, to provide urgently required functionality between the main releases.

COMPANY PROFILE

Pitney Bowes is a global organisation with headquarters in Stamford, CT, and major offices in Lanham, MD and Troy, NY in the US; Toronto, Canada; Watford, UK; Munich, Germany; Paris, France; Milan, Italy; Singapore; Tokyo, Japan; Noida, India; and Sydney and Melbourne in Australia.

Pitney Bowes Business Insight (PBBI) is a division of Pitney Bowes Inc., which is traded on NYSE under the symbol PBI. The division was formed in September 2007, by unification of two industry leaders – Group 1 Software and MapInfo. PBBI's solutions are available in multiple languages in 60 countries.

Pitney Bowes has more than 36,000 employees across the globe, out of which more than 1,700 are in PBBI division. PBBI has more than 7,000 customers across the globe. Customers of DOC1 include: ABN AMRO, Basler Kantonalbank, British Gas, Grameenphone, Staalbankiers, Thomas Cook, Endsleigh Insurance, and Interelectra.

Table 1: Financial Details			
Year ending December 31	2007	2006	2005
Revenue (US\$ Billion)	6.12	5.73	5.37
Change on Previous Year (%)	6.8	6.7	-
Total Net Income/(Loss) (US\$ Million)	1.66	0.47	2.19

Source: Pitney Bowes **DATAMONITOR**

SUMMARY

The electronic document composition market is difficult to categorise as it sits between content management and Customer Relationship Management (CRM). It has also been categorised as output management, although Pitney Bowes has another product that provides functionality in this area. Enterprise Content Management (ECM) vendors are beginning to move into the output management space, and although they provide the ability to create and manage communications, they do not handle the type of highly personalised communications that DOC1 has been designed for.

DOC1 is a well-established product that supports the creation of customer communications that can be delivered through the customer’s channel of choice. Reductions in the price of colour printing provide organisations with the opportunity to offer TransPromo communications, an area that Pitney Bowes pioneered with American Express around 14 years ago. With an extensive portfolio of products that enables organisations to create a complete communications creation and delivery solution, Pitney Bowes has to be regarded as a market leader in the area of customer communications, and DOC1 is worthy of closer examination.

Table 2: Contact Details	
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