



DOCUMENT AUTOMATION SOFTWARE

## THE CHALLENGES OF AUTOMATING DOCUMENT CREATION

## EMPOWERING THE KNOWLEDGE WORKER

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Abstract: This document provides an overview of the drivers and challenges of document automation, and explores the solutions that ActiveDocs provides.

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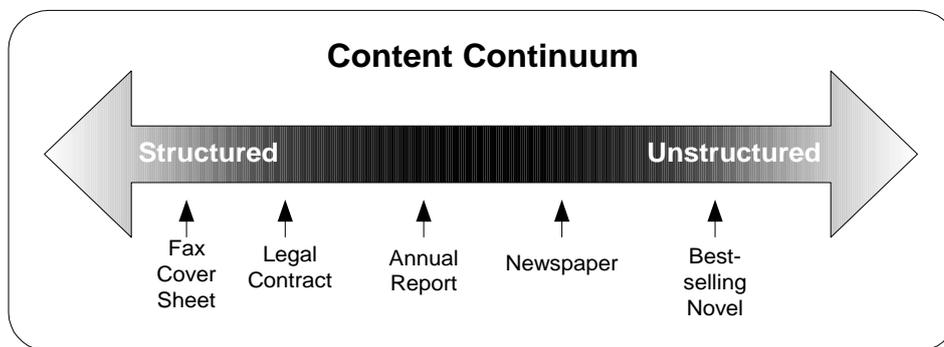
## 1 Introduction

More than ever before, the world is focused on creating and managing content. The rise of the Internet, and in particular the World Wide Web, is largely responsible, but despite this, the world is producing more and more documents.

The reasons for creating these documents are as varied as the number of different organisations and the people who work within them. Documents may contain a combination of text, data and images; they may consist of a single page, or could be thousands of pages in length. And the information they capture and store is often vital to many functions – from producing sales quotations, to policy and procedure documents, to contractual agreements and employment or legal contracts.

All organisations produce documents, whether they are large or small. Many of these organisations produce hundreds or even thousands of such documents a day.

While there are significant quantities of documents being produced, often the documents themselves are similar in nature. They could be letters mailed to customers, faxes sent to suppliers, or policy and procedure documents that contain the same basic structure. In other words, many of these documents contain content that is repetitive, that changes little from one document to the next. While some of the content will change, other aspects of the document, such as its structure and how it is formatted, may not.



Each of these types of documents occupies a different position in the 'Content Continuum'. Fax cover sheets, for example, are very structured: they typically contain the details of the person to whom the fax is directed, the fax number and a brief message. Apart from changes to this information, the structure of the document is the same every time.

Contrast this with the latest bestselling novels. These vary significantly in structure, and may contain chapters of varying sizes, and pages of varying styles and lengths. In other words, these types of documents are very unstructured.

As these documents become more complex, and organisations adopt new systems and technology, the information for these documents needs to come from different places. Pricing information needs to be looked up in a financial management or Enterprise Resource Planning (ERP) system, while customer address details have to be looked up in a customer relationship management (CRM) system.

Other parts of these documents may need to be copied from elsewhere – other similar documents that have been produced in the past, or spreadsheets that contain charts that need to somehow be incorporated.

In short, many documents need to contain information that resides outside of the application that is creating them.

## 2 The Challenges

While tools such as Microsoft® Word have made it much easier to create documents of all kinds, challenges still remain.

These challenges are not so much concerned with how a tool such as Word can be used to create documents; rather, they concern the types of documents being created. More often than not, organisations – large and small – create documents that have some or all of the following attributes:

- Repetitive Content – Contracts, sales quotations and newsletters are often structured identically each time they are produced; only parts of the content may change.
- Data from Data Sources – Address details may need to be looked up in a CRM system, or pricing information accessed from your ERP system.
- Unstructured Content – Other documents may be created by combining parts of other documents, or useful pieces of content you have used before.

Regardless of the document, most of us produce documents with at least one of these attributes every day. In producing these documents we use a wide range of techniques to perform these tasks.

While standard functions of an application, such as cut and paste, can help to reduce the effort involved in recreating content, often this is error prone – we may forget to select a piece of text when we try and copy it, or when we do paste the content, it needs to be reformatted to match the remainder of the document.

When it comes to formatting, we often need to apply formats and styles throughout a document to ensure it adheres to our organisation's standards but it is easy to miss a paragraph, or to inaccurately apply the font size or type.

And when we locate errors in the document, we need to spend time correcting them, and often we may also need to correct those corrections.

Regardless of how well one can use a tool such as Microsoft® Word and take advantage of its features, inevitably these issues will arise.

The result: documents that vary in their quality, their look and feel and in the accuracy of the information that they contain. And the longer it takes to fix them, the less time you have to do other things, such as look after your customers.

### 3 Perils of Programming

In recent years, application vendors have had these concerns in mind when devising new features and functions for their applications. Many such tools now contain powerful programming languages, designed to empower users so that they can automate parts of the document creation process.

However, while new possibilities are opened up by offering these features, not everyone is able to take advantage of them. Programming is a skill that is developed over months – if not years – and the complexities associated with it are not always for the faint hearted.

Despite the power it can offer, programming remains limited in scope. Programmers develop solutions designed to solve a business problem; if they need to solve a different business problem, it is another programming job.

As organisations seek to automate the document process, for example, using programming, they quickly find that even though the end result solves their immediate document requirement, the solution cannot “scale” to solve other, even similar, requirements.

And while a programmer can sit down and write a way of accessing data in a database, or providing a user friendly form on screen to capture information, this comes at a price: such solutions can be expensive to develop and, should changes need to be made, organisations also have to ensure the skilled personnel are available to make those changes.

In the modern world where time to market is of the essence, these delays or risks attributed to in house development can reduce your competitive advantage.

## 4 Introducing the Intelligent Document

Basic document automation solutions have been around for several years and have helped to achieve the benefits outlined above.

In recent times, products such as ActiveDocs have been released that take advantage of the latest versions of Microsoft® Word, and extend them to enable powerful, “active” and consistent documents to be produced with ease.

ActiveDocs extends Microsoft® Word to provide a range of innovative productivity tools, including:

- A Wizard-driven dialog box – complete with prompts – which replaces the traditional macro and template driven approach to performing repetitive Word tasks. Users simply fill out a browser-based Wizard form, entering data or selecting values – this information is automatically inserted into the document, in the correct area and with the correct formatting.
- The ability to seamlessly access and update external data sources and repositories of text based data relevant to the Word document being created. Users can easily select a customer’s address from a CRM system, or get a list of a range of products from the ERP system. There is no need to copy and paste, and the information – because it can come from live sources – is always up to date.
- The use of Snippets to store and access commonly used sentences and portions of documents. For documents that are less structured, you can store text and images and simply drag and drop these into your document as and when you need them. Favourite paragraphs, or your company’s terms and conditions can be inserted with ease.
- The ability to populate a document management profile with relevant information captured during the document creation phase of the document lifecycle, thus removing one of the most irritating tasks for the end user when using document management systems.

ActiveDocs can quickly and easily provide this functionality, using its Word-based Template Design and Content Manager design component management environment. Rather than rely on programmers to create bespoke solutions that cannot be re-used to suit your organisation’s changing requirements, changes can be made easily and by anyone skilled in the use of the Design Tools, which reduces risk and provides competitive advantage. Your organisation can become more efficient and productive, quicker than ever before.

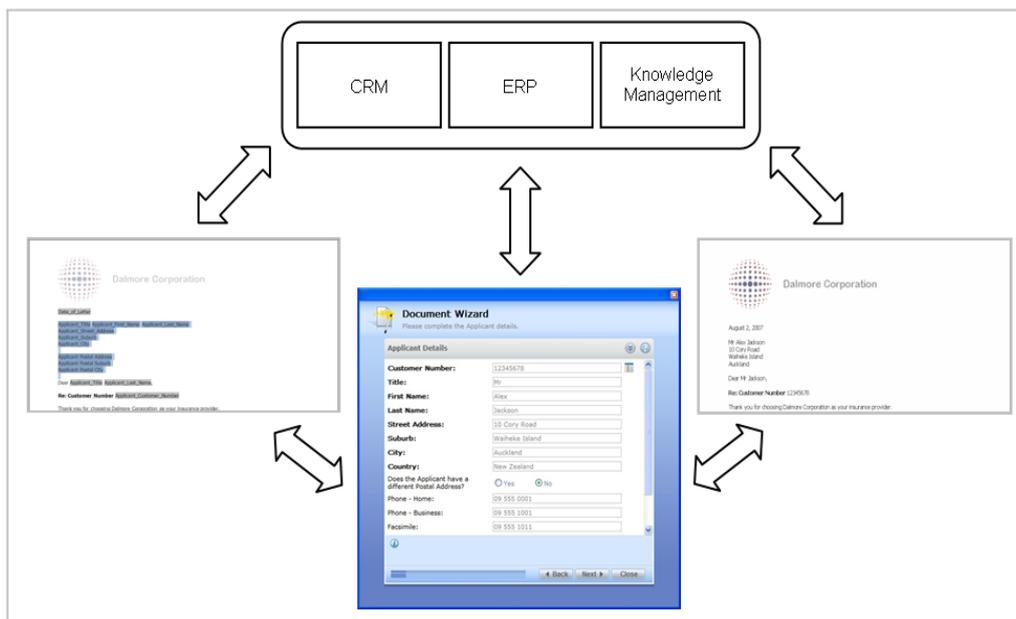
## 5 Round Tripping

ActiveDocs has also been developed to take advantage of the latest technologies. As well as being able to access data that is stored in your CRM or financial systems, ActiveDocs can also update these systems should it be required by leveraging ActiveDocs Solutions Studio module.

A salesperson in your organisation is putting together a proposal for one of your customers. Using ActiveDocs, they create the basic document, accessing core address and product information out of your organisation's CRM and ERP systems. As the document evolves, more information is collected from people in the organisation – the names of key contacts, characteristics of the organisation – which helps to supplement your proposal. Unless you diligently – and manually – add this valuable information to your CRM system, it could be easily lost.

Using ActiveDocs Solutions Studio integration module, the document generation process can be extended to store any additional information you capture back into the systems that may use it. This information – a valuable asset – need not be contained within a single proposal; it can be captured and re-used, ensuring you protect this asset.

This principle is called “round tripping”. Not only can ActiveDocs harness the information and data stored within your organisation, it can also contribute to it. XML technologies can be used to transfer data between ActiveDocs and your different systems, ensuring that information is always up to date and available.



## 6 Automating Document Creation

By taking advantage of ActiveDocs, your organisation can gain extra efficiencies when preparing documents – ActiveDocs can generate them for you.

ActiveDocs can not only help to automate the creation of standard documents. It can extend the traditional template to become more powerful by taking advantage of new technologies and other data sources.

Some of the key benefits of ActiveDocs include:

- **Increased Accuracy** – Documents will contain correct information, and forms will be filled out in the correct manner.
- **Consistency** – Ensure that consistent terms and language are used by all people in your organisation. The tool also ensures that all parts of the document will be completed or, at the very least, considered by the person writing the document.
- **Enforce Standardisation** - Encourage your organisation to standardise on document terms, best practices and overall look and feel of your organisation's output.
- **Enhanced Productivity** - Dramatically reduce the time required to create complex documents such as financial statements; enable trainees to create first drafts of documents previously done by seasoned professionals; enable parts of your organisation to serve more clients with the same or fewer resources.
- **Increased Responsiveness** – Dramatically reduce the time between client interviews and their write-ups, or the settlement of a case and its documentation.
- **Improved Processes** – Allow instant sharing (across time, staff, and offices) of client data captured and stored in answer files; facilitate access and re-use of client information already stored in a case management system. Better understand and re-engineer these kinds of processes through the very work of automating them.
- **Template Rationalisation** – The overall reduction or rationalisation of the number of templates used within an organisation is possible due to the implementation of rule driven content. This enables one ActiveDocs template to replace a number of templates or document variants used prior to the introduction of ActiveDocs.
- **Consolidated Expertise** – Capture the substantial knowledge of more experienced and specialised employees (e.g. the right questions, options, language, strategies) so that:
  - Knowledge is shared within an office and across different offices.
  - Knowledge is preserved in case of staff turnover.
- **Better Job Satisfaction** - Free your staff to focus on more challenging and satisfying tasks rather than repetitive, time-consuming document creation.

### IT Advantages

There are numerous advantages to selecting a solution such as ActiveDocs, as opposed to developing a system on your own.

- Developing this level of functionality would be much more time consuming and expensive to achieve if it were to be developed for your organisation.
- Solutions developed in-house are often created for a single type of document; additional solutions will need to be developed for other types.
- You are less likely to be “orphaned” – the person who developed the templates may leave your organisation, leaving you stranded without support.
- Integration with third-party software (such as document management systems) can be achieved.
- You will get up and running much more quickly.
- Your solution will be tested and working – you just need to configure it, not develop it and test it yourself.
- Training costs are reduced as your users understand Microsoft® Word and how it works, therefore providing IT staff with more time to focus on other issues.

## 7 Summary

As organisations continue to produce documents in large volumes, time and effort – and therefore money – are often expended performing repetitive document creation tasks.

ActiveDocs provides knowledge workers with the ability to create intelligent documents quickly, easily and consistently, using the world's most popular software application: Microsoft® Word.

Organisations can be assured the documents they produce are consistent and of a high quality, and adhere to all standards within the organisation. ActiveDocs supports the provision of consistent and correct templates by providing the means to manage templates, and user access to templates, from one location – keeping the business in control.

ActiveDocs can quickly provide tangible business benefits through the use of standard technologies such as Microsoft® Word, XML, SQL etc, enabling organisations to create great documents by leveraging the unstructured and structured information available.

These benefits can be accomplished quickly and using a standard tool, reducing maintenance and training costs and ensuring your organisation can leverage your intellectual property, improve staff productivity and provide more efficient service to your customers.