

Guidelines

F o r I T M a n a g e m e n t



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Electronic Document Management & Workflow

INVU:

Principia 

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Invu is a Microsoft Gold Certified Partner and a member of the Business Application Software Developers Association (BASDA). Its version 5.4 and Series 6 software have been accredited by the Institute of Chartered Accountants in England & Wales (ICAEW). In January 2006 Invu became the first EDM ISV to join SAP's portfolio and is certified for integration with SAP Business One.

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1. Executive Summary

As anyone who has nervously opened up their email inbox after a fortnight's holiday will know, we are drowning in information in today's world.

We are constantly bombarded by marketing messages, emails, newsfeeds, video clips and much more. At the same time, the amount of paper we receive in the mail shows no sign of slowing.

To prove the point, a study¹ by the School of Information Management and Systems at the University of California, Berkeley, found that in 2002, the world created five exabytes of information – the equivalent of 37,000 new libraries. The same study found that volumes of new information grew by 30% a year between 1999 and 2002.

The 'paperless office', much discussed in the 1980s, has failed to materialise in most organisations. Invoices, purchase orders and dispatch notes are still usually printed on paper, and emails are often printed for filing purposes.

On top of that we have the mass of electronic data we receive and send each day from our desktop computers. Most of this information – emails, Word documents and Excel spreadsheets – never finds its way into corporate databases. It remains in its unstructured form on the individual desktop systems.

Those files may hold vital information, but for the most part, they are hidden from the rest of the company.

So how do we take control?

We know that many, or most, of the items (electronic and paper) that we receive are junk, but sorting the worthwhile from the rubbish can be a laborious job. And once we have identified the valid information, we then have to sort it, process it, make decisions based on it, file it and then possibly archive it.

Having the right information at the right time, instantly available, is essential. For example, if a customer calls to enquire about his account, he expects you to have all the relevant information and correspondence at your fingertips. Offering to ring back later, or worse – keeping him on the line while you ferret through filing cabinets – just will not do. Good customer service is a prerequisite for staying in business.

In these guidelines, we propose a way forward for handling the growing mountain of data and for getting the best out of it. We show how paper documents can be digitised and merged with electronic records. We demonstrate how a well-managed electronic document management system can slash staff costs, save office space, and create better working conditions, as well as speeding up office processes.

We will also show how business procedures can be defined, implemented and automated, how policies can be enforced, and how information can be managed through the various stages of the process.

And this is not just for big organisations. Low-cost servers and data storage have brought the necessary technology within the reach of all companies. By the use of workflow and electronic document management systems, it is possible to make paper in-trays, and snail-like internal mail systems a thing of the past.

All we really need is the will to meet the challenge.

2. Introduction

The aim of these guidelines is to provide the reader with an action plan for managing all forms of information efficiently.

The successful outcome of following this action plan will be:

- Reduction, or total removal, of traditional office filing cabinets
- Elimination of routine filing tasks

'The "paperless office", much discussed in the 1980s, has failed to materialise in most organisations'

¹ 'How much information? 2003', www2.sims.berkeley.edu/research/projects/how-much-info-2003/execsum.htm

- Saving of office space
- Faster access to information
- Integration of all paper and electronic documents
- No more lost documents
- Faster processing of incoming documents (e.g. invoices, orders)
- Better handling of customer queries
- Efficient management of office processes
- A full audit of who did what, and when
- Compliance with legal and contractual obligations

We shall look at two main areas – electronic document management (EDM) and workflow – and see how they can be applied to deliver the benefits outlined above.

2.1 The challenge

Companies hold information in many forms, including paper documents, electronic databases and, in some cases, recordings of telephone conversations. In addition, every personal computer in the organisation will hold emails, word processing documents, spreadsheets, presentations, pictures and even video clips – all of which may have a relevance to the business, but which are held and managed by the user of that machine in a largely unstructured format.

It is estimated that around 85% of all data held by companies today is in unstructured form, and growing fast.

'It is estimated that around 85% of all data held by companies today is in unstructured form, and growing fast'

Why is this a problem?

If data is scattered around the company in different formats, it is harder to find and analyse, and it is far easier to lose or overlook. Take for example a customer who calls their supplier to find out about a delivery that had been promised but failed to materialise. The original order may have been on paper, and the delivery might have been promised via an email message. How easy is it for the customer service person to come back with an explanation of events? They may need to go to filing cabinets to look for the order, or get someone else to do it, and then phone the delivery department to check what was promised.

2.2 The solution

With a well designed EDM system and workflow in place, the job would be simple.

The customer service assistant would be able to view an image of the original order (the paper document having been scanned into the system), and they would have access to any relevant emails, as well as to the main delivery and customer files. A good workflow system could avert the query in the first place by flagging up the late delivery in time to warn the customer.

These guidelines lay out the steps companies need to take in order to take control of their information. It is a practical guide that looks at the hardware and software required, plus the organisational changes that need to take place to support the systems.

It also provides real-life case studies of companies that have gone through the process and describes the business and financial benefits they have derived.

3. Overview

3.1 The curse of the filing cabinet

In July 2006, the Daily Telegraph reported that for the first time, the cost of renting an office in a smart part of London had gone over the £100-per-square-foot mark.

While this was a record, and was way above the average for London, some agents forecast that £120 per square foot will become common in some parts of London's West End over the next two years as demand for office accommodation continues to increase.

To put it mildly, space is at a premium, and not only in London but in most cities around the UK. If companies can reduce their need for office space, by employing fewer people or using less or smaller equipment, they can reap instant savings.

Take the case of the humble four-drawer filing cabinet for example – a piece of equipment that has been a part of office life for decades. That familiar piece of low-tech equipment occupies about four square feet of floorspace when closed, but needs more like 12 square feet to allow someone to open it. But the expensive real estate it occupies is just the start of the hidden costs. There is also the sheer drudgery of filing and managing paperwork that drains morale among workforces and contributes to stress. For instance, 20 per cent of teachers quit the profession citing excessive paperwork.

And here are a few more facts to consider:

- The typical information worker now spends up to a quarter of his or her day searching for the right information to complete a given task.²
- The average document is copied 19 times and each cost £14 to file.³
- 7.5% of all documents get lost and 3% of the remainder are misfiled.³
- It costs £80 to find a misfiled document/£150 to reproduce a lost one.³
- A 4-drawer filing cabinet costs £17,000 to fill and £1500 to maintain.³
- People waste six weeks per year trying to find mislabelled, misfiled or misplaced documents.³
- A USB memory device with one Gigabyte capacity (enough to hold the contents of a well-filled four-drawer filing cabinet), and small enough to fit on a key-ring, now costs less than £15.⁴

'If companies can reduce their need for office space, by employing fewer people or using less or smaller equipment, they can reap instant savings'

3.2 Go electronic

The answer is to convert all paper files into electronic form, where they can be managed automatically and accessed by anyone connected to the network. This is faster, safer – and saves on floorspace.

Existing paper files can also be pulled out of their cabinets and scanned for storage in electronic form. The paper can then be sent for recycling, and the empty cabinets disposed of.

All future incoming paper mail can be scanned into the document management system. Much of the paper can be destroyed immediately, provided you have the right processes and technology in place to safeguard the image of the original document.

This provides us with thousands, maybe millions, of images of paper documents held on a computer server. Now we have to ensure they can be organised for easy retrieval. With the right software, they can be filed away in a range of ways.

Some companies may choose to mimic their old methods and arrange the documents in the electronic equivalent of a filing system, with drawers, folders or files.

Others will take advantage of the software to link documents with the customer, with a certain application, or to a contract or date.

The software may even be able to interpret the content of the documents, using optical character recognition, and provide a much more flexible and detailed form of indexing.

It gives users the chance to look for a document even if they cannot remember the precise details. By entering a few keywords they remember, the system can dig out any documents that match the requirements, in a matter of seconds.

With paper files, that kind of search would be virtually impossible.

² Butler Group – Enterprise Search and Retrieval (October 2006)

³ Coopers and Lybrand, INC Magazine (1996)

⁴ Amazon.co.uk (December 2006)

3.3 Completing the jigsaw

As we know, paper files are just part of the problem.

One of the biggest challenges facing businesses is how to achieve a single view of all the electronic information they hold. Because information systems have grown up over years to satisfy different applications and needs, they have become separate 'islands of information'.

For instance, many financial services companies still have separate systems for mortgages, loans, savings, insurance, investments and current accounts. This results in them having a fragmented view of any customer who has more than one account with them. That can create unfortunate consequences, for instance sending out a rude reminder to an overdrawn current account holder without realising that same customer has large investments with the bank.

It also robs the organisation of many cross-marketing and up-selling opportunities, because no-one has a clear view of the customer's needs and potential requirements.

Electronic document management and workflow systems can provide the necessary 'glue' to make links between these various islands of information and form a network which allows the creation, storage and retrieval of all electronic files. In other words, it can help impose order in a fragmented and disorganised group of systems.

But that is not all. For many organisations, email has become a vital means of communication with their customers, suppliers and business partners.

The email inbox has become the office worker's own private filing cabinet, storing important information relating to the business. Emails may contain important attachments in word-processing documents or spreadsheets, and can constitute legally binding contractual commitments.

But once again, the email inbox is an 'island of information' unless it can be properly referenced and indexed as part of the company's overall information infrastructure.

The EDM system needs to be able to capture this information as it flows into and out of the organisation via the email server, and to record what was sent to whom. That way, the vast mountain of email messages can come under the ambit of the overall information management programme.

3.4 A complete view

With paper files digitised, emails indexed and with automated links into the organisation's main information systems, it is now possible to gain a comprehensive picture of what goes on.

For instance, a customer service assistant can immediately see details of a customer's orders, payments, correspondence (both paper and email) and deliveries.

It is faster, cheaper and takes less space – but most of all; it offers a dramatic improvement in efficiency and customer service.

4. Building a Workflow and EDM System

So far in this paper, we have concentrated primarily on the need to digitise all documents, and build an index of all files, including emails and transaction data.

That is the first stage in gaining control of information in the business or organisation. It allows users to retrieve information without going to filing cabinets, or asking people to forward email messages that may relate to their query. It means that users have fast and comprehensive access to the information they need, without moving from their desk.

A working EDM system marks a giant leap forward for many organisations and delivers big benefits, but it can also be the springboard for far greater efficiencies.

'One of the biggest challenges facing businesses is how to achieve a single view of all the electronic information they hold'

By combining EDM with an efficient workflow system, organisations can begin to take control of all their business processes, introduce new levels of disciplines and rigour, and ensure jobs are done as fast and smoothly as possible. It means the end of people forgetting or omitting to carry out tasks, and documents getting parked in an in-tray waiting to be looked at. It ensures that procedures are followed properly every time.

4.1 So what is workflow?

One basic definition of workflow is 'the automation of business processes'. Another more helpful description is 'getting the right work to the right people at the right time, every time, and knowing you have done so'.

Workflow automates the processes and decisions that are applied to documents as they pass through an organisation.

Let's illustrate this with an example. A company receives an invoice through the post, but before it can be paid, it has to go through a series of pre-defined processes. Someone will want to check it against a purchase order, get the approval of whoever placed the order, and possibly pass it up to a higher authority if it exceeds a certain threshold limit. Once approved, it will go to the accounts payable department, where a cheque is raised and sent out.

In a paper-based office, the mail room will receive and open the invoice and put it in the internal post to the accounts department. Someone there will check the purchase order number (presuming it is on the invoice) against a purchase order that has to be pulled out of a filing cabinet. If all is in order, it goes back into the internal mail to the person who placed the order to ensure the product was received or the service delivered. They may sign it, but if it is over their limit, it goes to their manager for countersigning, and eventually makes its way back to accounts for payment. Even if all those people act on it as soon as they receive it, the process may take days. If any one of them buries it on their desk, the payment is delayed, the supplier finally calls to complain, and is forced to supply a replacement invoice. The company loses its quick-payment discount, and there is then a chance the first invoice will be found later and a duplicate payment made.

With a workflow system in place, the incoming invoice is scanned in and the digital image is routed directly to an accounts clerk who can match it against a purchase order held electronically on the company's computerised accounts system. The workflow system then automatically routes the invoice to the person who made the order for approval, and then (because it knows the value of the order) to the higher authority for secondary approval. Once approval is given, it is immediately back with accounts, generating an automated payment.

If any of the people in the process is away, or fails to take action within a defined period, the system can be programmed to raise an automatic alert. This might take the form of an email to one of their colleagues or a supervisor so that the situation can be dealt with quickly. In this way, transactions cannot get lost or delayed.

4.2 What does a workflow system consist of?

The basis of any workflow system is a computer network, with users connected to it via their workstations.

The workflow system itself will include:

- **Workflow software.** This is specialised software designed to track events on the network and route documents to different users, according to defined business rules. The workflow system provides the tools to allow the business rules to be codified and then ensures the rules are followed.
- **Server hardware.** The workflow application can share hardware with other software, but some companies may choose to put the workflow on a separate server for extra security. Given the importance of the workflow data, it is recommended that the server should have Raid-5 disks installed, and that regular back-ups are taken.
- **A scanner,** in order to capture images of any incoming paper documents so that they can be treated in the same way as electronic records.

'The basis of any workflow system is a computer network, with users connected to it via their workstations'

4.3 How do I set about implementing workflow?

Understand what you have

Before you can automate your business processes, you need to gain a clear picture of how processes work now. The resultant workflow system may mimic exactly what went on beforehand, or it may provide the opportunity to streamline or improve procedures.

The analysis of processes will require you to track different documents (e.g. invoices) as they flow through the organisation; see who they go to; what decisions those people make (approve/reject invoice); and how those decisions affect where they go next (e.g. if the invoice is rejected, what happens to it?). If a document needs to go outside the organisation (to a business partner, regulator, customer etc), that will also need to be taken into account.

Build computer models of your processes

With a clear understanding of the processes, it is now possible, using the workflow tools, to create graphical representations of the document flows. These diagrams illustrate the path a document takes through the organisation, and include any decisions that may affect its path (e.g. invoice needs to go to higher authority for approval).

The business rules in the computer model may also govern timescales for certain processes to take place, and set thresholds that must not be exceeded. The workflow model can therefore act as an all-seeing supervisor and flag up problems in time for them to be resolved.

Integrate with other systems

In order to provide users with a comprehensive picture, the workflow will need to integrate with the organisation's transaction systems (e.g. the accounts system).

4.4 Exploiting the benefits

With a well-designed electronic document management and workflow system in place, an organisation should be able to reap a whole range of instant benefits, including:

- **Tighter timescales**
Because the work goes to the right users at the right time, instead of people having to search for documents or wait for them to be delivered physically, you can cut out huge time delays, and plan for much faster processing times.
- **Include business partners**
Many companies work with outside partners who need to be involved in business processes. Instead of putting paperwork into the post to them, or emailing them documents, users can leave the process to the workflow system to manage the transfer of information over the network. The workflow systems ensure the process happens, and it also keeps a record of the event.
- **Flexible working**
Administrative staff can work from remote offices or from home and still be part of the workflow system. They can log on to the network, and deal with any documents that have been passed to them to process. They no longer need to be physically in the same room or building as the filing cabinet.
- **Guaranteed delivery**
Business rules built into the workflow system ensure all procedures are followed every time, and that documents reach the right people on time. Thresholds and alerts will call attention to any deviation from the rules automatically.
- **Version control and auditing**
The electronic document management system will maintain a full audit trail of what happens to every document. This shows who saw it and when, and what changes they made to the document. The system should hold a copy of the original document and a full trail of all changes made to it.

This avoids the confusion of people working on different versions of the documents. It also provides a tamper-proof audit trail in case any query or dispute arises.
- **Flexibility**
With the workflow model defined in the software, it is possible to alter

'Before you can automate your business processes, you need to gain a clear picture of how processes work now'

processes very easily, and often without having to re-train staff. The organisation just needs to alter the graphic representation of the processes, and this will immediately be reflected in how documents are handled and routed. It makes continuous process improvement more straightforward, and does not place a huge burden on the IT department to build new processes.

5. Management and Operational Factors

5.1 How do I get started?

Some companies will do a regular analysis of their business processes and, as part of a continuous improvement programme, introduce new ways of working to increase efficiency.

For most companies, however, processes develop over time, new jobs are introduced and staff often find themselves having to bend or by-pass procedures to do their job. In most cases, companies continue to operate and get the work done. They may realise that, in an ideal world, they could work more efficiently, but often the demands of everyday working prevent them from getting round to making improvements.

Crunch time often comes when certain processes start to fall down badly, and it begins to have a serious impact. For example, invoices are rarely paid on time and late-payment surcharges start to mount; auditors or industry regulators ask for information that you are unable to provide on time; customers move elsewhere because your service is inconsistent and slow.

5.2 Outside help

By the time these tangible symptoms are evident, the organisation in question needs to move fast to stop processes slipping further into chaos. There may be finger-pointing between departments and different levels of staff, who may want to shift the blame on to each other. They may be unable to see that the problem lies in the processes rather than being anybody's fault.

The simplest avenue is to call in experts in electronic document management and workflow who are able to analyse processes in an objective and dispassionate way.

A typical project would progress as follows:

1. An initial day for the consultants to meet the senior members of the organisation, to hear what they believe are the main areas of trouble, and to identify the key problems. These could be things such as late invoice payment; or complaints from customers that they can't get information about delivery times; or even a high turnover of administrative staff.
2. The consultants should then write a summary report of how they see the problems, and where they think the company is suffering the most pain. It should show in summary how an EDM and workflow system could help, and it should ask the company to prioritise their problems. In brief, they should identify the main points of pain, and which problem needs to be fixed first.

NB: do not try to cure all problems at once – go for quick wins.

3. The feedback should allow the consultants to create a project definition report – this will summarise the scope of the project; describe the problems it aims to solve, and should set out goals and milestones.
4. Build a project board with stakeholders from all levels of the business, including the workers who will have to use the new systems, and will be affected by the changes. This is extremely important: managers' perceptions of how jobs are done may be very different from the true picture of events. Hands-on staff have a valuable contribution to make in shaping the new system and should be part of the planning. It is vital to have buy-in from all affected parts of the business.

At this stage, the consultants will speak to each of the stakeholders on the project board individually to get their input, and from this information, they should be able to create a map of all the business processes.

5. The map is presented back to the full project board for their overall approval. There may be some discussions, as the final map may differ from what some

'The simplest avenue is to call in experts in electronic document management and workflow who are able to analyse processes in an objective and dispassionate way'

people believe is the way things work. But once the map is agreed, then it is possible for the supplier to build a proof-of-concept system that will demonstrate how the full working system might operate.

6. Once the proof of concept is accepted, then the supplier can build the full working system, which should be introduced within the pre-set timescale – this should be a matter of weeks in order to deliver swift and tangible benefits.

5.3 Keys to success

Many IT projects fail because they are too ambitious, too wide-ranging, and take too long to go from early concept to final implementation.

A well-focused EDM and workflow project, targeted at a specific organisational point of pain, can deliver immediate benefits, and a return on investment of less than six months. It can also act as a catalyst for further improvements throughout the organisation.

The following factors will increase your chances of success:

- Keep the project small. In a small project, the goals can be kept clear, concise and accurate, and it is far easier to measure the return on investment. With modern tools it should be possible to create a working solution within two months.
- Do not get bogged down in the project, or sidetracked by the things you can't do straightaway. You need quick wins, to demonstrate the power of the technology. It can then be extended to other parts of the organisation later on.
- Try to go for individual departments where the biggest problems are. You are dealing with a smaller group of people, so the implementation can be faster. User acceptance is faster. And when users get enthusiastic about it in that department, they will spread the word. The other departments will look forward to having the system installed.

5.4 Other considerations

5.4.1 What to do with your paper?

After adopting EDM and scanning all paper files and incoming documents into the system, the organisation should no longer need to keep the paper documents. In theory, they could all be destroyed.

In practice, companies tend to put paper documents into boxes and store them in a less expensive storage facility. This may be dictated by company policy and the requirements of the particular sector, but it is worth making the point that the courts do now recognise electronic files as evidence, provided the user can provide a credible audit trail that proves the file has not been tampered with.

Once they come to trust the EDM system, many companies will move to a policy of shredding paper after 30 days.

5.4.2 Back-up and recovery

Ensure you back-up all files regularly and that you have a business continuity plan in place. Test the plan regularly to ensure it works – remember, many rehearsals expose weakness in the plan.

5.4.3 A platform for continuous improvement

A workflow system is not set in concrete. As companies develop and processes are added or altered, these changes can be instantly reflected in the workflow business rules.

6. Workflow in Practice

6.1 Bournville Village Trust

Before the introduction of workflow, invoices coming into the Bournville Village Trust (BVT) joined a paper trail that lacked control and could cause delays in payments.

'Once an invoice went into the internal post, you didn't know where it was. It could be sitting on someone's desk, or the wrong desk, and you wouldn't know,' recalls John Stevenson, Assistant Director of Financial Services (IT), at BVT.

'A well-focused EDM and workflow project, targeted at a specific organisational point of pain, can deliver immediate benefits, and a return on investment of less than six months'

Since the implementation of a workflow system, the handling of invoices has improved dramatically and the whole process has become far easier to monitor and audit.

The Trust, created by philanthropist George Cadbury in 1900, administers and develops housing, providing homes for some 25,000 people in Shropshire, Warwickshire and Birmingham. It now manages around 8,000 properties, evenly split between tenant and owner-occupied.

Invoices for work carried out on its estates now come into one central address where they are immediately scanned into the workflow system. They can then be sent for approval and matched against the original order in the Trust's QL financial accounting package. As soon as it is approved, the invoice is sent back to the accounts department for payment.

John Stevenson says that as well as allowing them to get rid of banks of filing cabinets and create more office space, the system has produced greater control in the accounts function, because they can tell where the invoice is in the organisation at any time.

'It has also helped year-end auditing,' he says. 'Our external auditors have found the process much easier to validate. They need to follow certain invoices through the process as part of their auditing, and they found it much better with the electronic documents rather than having to go through boxes of documents.'

In addition, he says he has been able to create new workflow processes to cater for other tasks around the organisation. 'Our supplier helped us to do it at first, but now we are able to create workflows ourselves,' he says.

So far, all paper invoices have been kept boxed in low-cost off-site storage, but with the completion of a full accounting year with the new system, he says they will now be able to get rid of the paper documents.

Future plans include the scanning of all incoming correspondence from tenants, for easier processing.

6.2 Man Financial

Man Financial, a London-based brokerage company specialising in the futures and options market, is using EDM and workflow effectively to speed up the processing of new clients and to provide staff with instant access to client information.

The company uses a workflow system to scan and process 1,800 pages of A4 paper every day, the equivalent of opening 30 new client accounts. The system is also used for all documentation sign-off purposes.

Once scanned into the system, client files are passed through an intelligent electronic routing process across different sites in the organisation. As soon as the details are in the system, staff have access to the information, and are better able to deal with customer enquiries.

Electronic sign-offs ensure an audit log and an event history is kept of every document that enters into the system. The appropriate security ensures the integrity of all documents.

Sharon Webb, Man Financial's Documentation Manager, says that one further benefit of the system is that workflow rules can be changed to reflect new business conditions. 'It has given us the flexibility we needed in the event that our procedures or regulatory requirements changed or new areas of business came on board,' she says.

7. Conclusion

The so-called paperless office has been a long time coming but it is now within the grasp of even quite a small organisation, thanks to the following factors:

- Cheap hardware – an office workstation may cost £300 or less

'Once an invoice went into the internal post, you didn't know where it was. It could be sitting on someone's desk, or the wrong desk, and you wouldn't know'

- Reliable office networks – local area networks are now easy to install and are robust enough to operate at near-100% availability. In addition, wireless networks can be used to remove the need for expensive cabling.
- Internet access and email are now a mainstream part of office life. Communication – both internal and with outside customers, suppliers and business partners – is increasingly done with an email message.
- Affordable scanners – scanners are now commodity items, often coming as part of a multi-function printing device. They provide the means for paper coming into the organisation to be captured and turned into an electronic image. Once that image is created, it can become just another electronic file on the network, immediately accessible to any user with the right access privileges.
- Affordable EDM software – this allows the organisation to take control of all its electronic documents, including emails and scans of paper documents.
- Affordable workflow software – this provides the means to set business rules and ensure they are followed. They also ensure the work goes to the right people at the right time, rather than people having to go and search for the files.

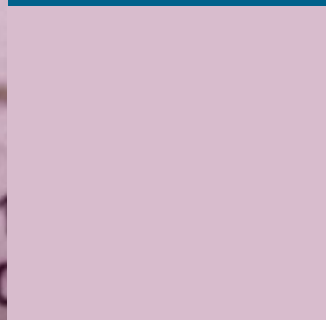
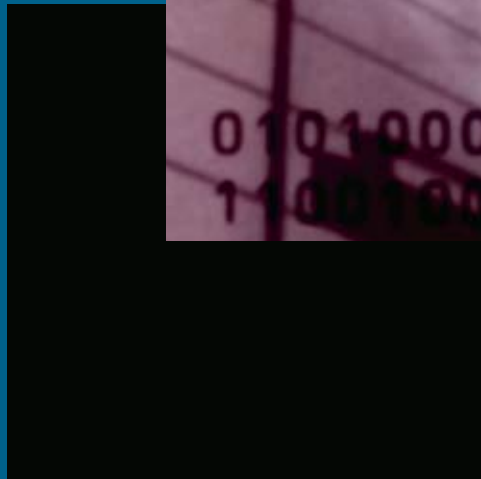
The benefits of adopting EDM and workflow have been outlined earlier in this paper, but there are several broader factors that need to be considered.

- **Increased competition.** No company can afford to stand still or rest on its laurels these days. Competition, both from low-wage economies and from new ways of doing business (on-line shopping, for instance), ensures that only the fittest will survive. Organisations in both the public and private sectors all need to look for continuous improvements in the ways they operate.
- **Greater regulation.** All areas of activity now come under greater scrutiny and regulation. From financial services to the health service, organisations must account for what they do. Independent financial advisors must be able to prove they gave best advice. Schools need to keep detailed records in case of litigation, as do health authorities. Well indexed electronic files allow the relevant information to be found if needed.
- **'Green' issues.** It is recognised that generating piles of printed material is not only expensive, but also consumes energy and creates a great deal of waste. Keeping information and documents is far more energy-efficient and consumes fewer resources.
- **Staff morale.** If staff are able to handle, for example, customer queries efficiently (and thereby create satisfied customers), their working lives will be more fulfilling. If, on the other hand, they are constantly battling to find the right document or the right information, they are not only less efficient but will find themselves under constant stress.

Electronic document management and workflow can be of assistance to any organisation that has to deal with paper documents. It is affordable, easy to implement and provides instant benefits. In a tough, competitive world, it should be a feature of almost every office.

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