



5 International Codes of Practice For Electronic Document Management

Background

For hundreds of years paper has been an acceptable way for businesses and other organisations to store their information.

Most companies however, now use computer systems to create original documents, which are thus in an electronic form. It has been estimated that more than 90% of company documents are now produced electronically.

The legal position on the use, in court, of information stored in electronic form is not clear-cut. In legal disputes electronic evidence (like any form of evidence) may be challenged for authenticity. Courts (and other bodies such as industry regulators) throughout the world vary in their understanding, and thus acceptability of electronic original documents.

To help organisations to obtain the full benefits of electronic document management, and to enable them to demonstrate authenticity, a comprehensive set of **5 International Codes of Practice** have been published.

Developed with the support of national standards bodies, industry associations, government departments and the legal profession, the **5 Codes** build on existing UK Codes of Practice (for example BSI-DISC PD 0008:1998) by enabling them to be used internationally and extending them into new areas of electronic document management. The **5 Codes**, which are described in more detail overleaf, provide a comprehensive and consistent framework for the working practices and technology requirements necessary to prove the authenticity of electronic documents. Through their use businesses can establish a sound basis on which to operate electronically - without reliance on paper.

What the 5 Codes mean for your business

The business benefits of trading with the 'Electronic Original' document are of enormous significance and involve a major paradigm shift in organisations working practices.

There are 5 discreet steps in the 'life cycle' of a document, be it electronic or paper/microfilm; Creation, Communication, Live Usage, Retention and Archiving. The **5 Codes** allow for all of these steps to be electronic, although in practice paper is often more efficient during the 'live usage' phase of the cycle.

The 'life cycle' cost of a document has been calculated to be \$10¹. With the increasing use of documents (estimated at rising about 20% per annum), this cost is becoming recognised as significant in an organisations administration overheads. Savings of around 25% on this 'life cycle' cost is considered achievable from inter-organisational trading using the 'electronic original'.

Paper based documents are frequently being retained because no clear route for organisations has existed to transfer to electronic original based trading - until now.

Availability

The **5 Codes** were published in 1999 by the British Standards Institution (BSI), and a number of International Associations.

¹ Research carried out by Xerox and Pitney Bowes in the USA

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The 5 International Codes of Practice

The **5 Codes** are for use in any application where information is created, stored, communicated, used, and / or archived in an electronic form. Compliance with the **5 Codes** will enable the authenticity of such electronic documents to be demonstrated, and thus reduce the risk of challenge by an opposing party in litigation.

As many organisations are trading internationally, the **5 Codes** are designed for use within any legal or regulatory environment. The **5 Codes** can also be applied in any industry sector, and using any technology. This is achieved by developing **Codes of Good Practice**, which emphasise the need for organisations to maintain approved **policies** for document management, and implement demonstrable **procedures** which enable reliable **audit trails** to be accessed in the event of a challenge to **authenticity**.

Each Code is designed to interlink in a dependence hierarchy, starting with Storage (Code 1) and concluding with Archiving (Code 5). All the Codes cover any type of data file, including scanned images, data files and voice/video recordings.

In Detail:

1: Storage

All electronic documents must be stored in an electronic form at some time in their 'life cycle'. This Code describes the controls that should be implemented to reduce the risk of them being lost or changed during storage (short or long term). The controls described can be applied to systems irrespective of the type of electronic storage media in use. Whilst the benefits of WORM optical storage are highlighted, the additional controls that should be implemented where magnetic media (tape or disk) in rewritable forms are used are also described.

2: Electronic Communications

When electronic documents are moved from one system to another (either externally or internally), their authenticity may be compromised. This Code described controls which should be implemented to enhance confidence in such systems, and to be able to demonstrate to a court that authenticity has been maintained. The Code is independent of specific transmission technology, and so can be implemented on networks or remote transmission via carriers (circuit switched or message switched).

3: Digital Identity and Copyright Authentication

In some applications it is vital to be able to prove the identity of the owner (originator) of an electronic document. This Code described the procedures and processes which should be implemented to enable this proof to be obtained and documented. The Code also includes controls required where Digital Copyright Protection and Digital Signatures are used to confirm the authenticity of electronic documents in storage and when transmitted.

4: Authentication Verification Using Certification Authorities

This Code describes the verification procedures required when using third party services which provide Digital Signature or Copyright Protection systems. These systems are designed to enable organisations to show that verification and authentication has taken place. The benefits of Trusted Third Party verification are discussed.

5: Using Trusted Third Remote Archives

Finally, organisations may decide to archive documents using a third party. This Code describes the controls necessary for the effective use of a Trusted Remote Archive. The issues of legal admissibility, authenticity and evidential weight of information contained in the archived documents are addressed.