



Document Control Software

Complying with AS9100 requirements

A document control software system ensures that good manufacturing methods are adopted and improved upon. According to ISO standards, only authorized personnel can impart changes to the documentation directing manufacturing methods. Besides, all changes need to be recorded for future verification. Therefore, any organization following ISO norms is required to have a system in place to control document changes.

Getting an ISO certification is fine but being able to continuously maintain the system is a challenge. For example, a process involving paper or hybrid electronic / paper systems requires meticulous maintenance from both the company in general and the senior management in particular. It is common practice for a system to be left unattended once certification has been accomplished. The process of upgradation is again considered only when an audit is at hand. This is because most organizations consider an ISO certification too time consuming to maintain. If manual systems are put in place to maintain processes, they can be error prone and employees may have a free hand with documents. In addition, new versions may not be available on time. In order to get rid of the above problems, organizations look forward to quality management software systems.

This article highlights the document control concepts of a quality management system and on how its processes allow a company to positively influence the following:

- ✓ Maintaining its processes
- ✓ Controlling the distribution of documents
- ✓ Improving profitability

A document control software system encompasses various features, as highlighted in the following paragraphs.

- Restrictive Access
- Document Management
- Automatic Version Control
- Simple System Administration
- User Friendliness
- Document Grouping/Access Rights



Restrictive access

- **User/Password protection**

All systems require a unique Username / Password combination for each user having access to the system. In addition, the password needs to be alphanumeric to ensure that it cannot be logically recreated.

- **Intruder lockout**

An account needs to be automatically locked out if a user attempts to login using an inaccurate Username / Password combination. The locking out function is activated when a preconfigured number of false attempts have occurred. This protects against attempts by unauthorized individuals to access the system. The System Administrator is the only individual who can re-set a locked out account.

- **Document access restrictions**

An organization runs on the strength of its workforce. Each person within this workforce has a unique role, which may or may not require him or her to interact with a person having a different role. Therefore, it is imperative to set up foolproof documentation procedures to ensure restricted access to the system. Usually, access verification enables the following:

- ✓ Viewing or Read Access
- ✓ Authoring or Write Access
- ✓ Approving

Users can be given access to one or more of these functions depending on their role.

Document management

To improve the efficiency of running an organization, processes that have iterative elements need to be automated. Document management enhances the functioning of an ISO system. The following points highlight the importance of a document management system.

- **Application independence**

A system needs to control documents from a variety of commonly used applications such as Word and Excel. In addition, the system needs to handle audio and video files.

- **Lifecycle management**

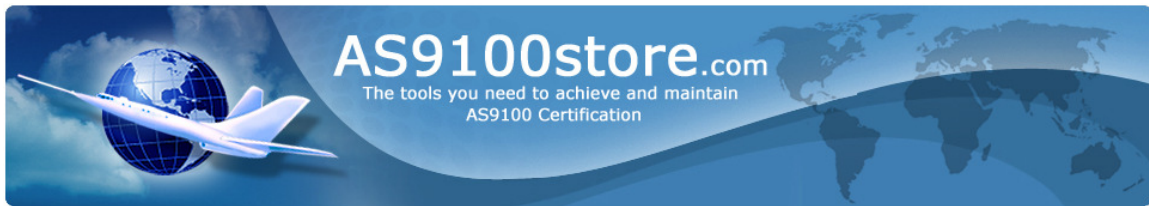
Documents follow a lifecycle that begins at a draft, passes through publishing and ends at archiving. It is important that access is restricted to the documents at each stage of its lifecycle.

- **Document history**

All events pertaining to a document need to be automatically recorded. Accessibility of document history can be given to approved users.

- **Central and safe storage**

Documents need to be stored in a secure manner to ensure only authorized access on one hand while shielding against loss or destruction on the other.



Automatic version control

Version control of a document is both time consuming and can lead to embarrassing mistakes when a new version replaces an older one. A document control system can provide key automation benefits as listed below:

- **Availability of the latest version**

There should be no doubts about the document being available in the latest version to rule out any confusion that may arise.

- **Automatic routing**

When document needs approval, reviewing or other changes, the concerned persons need to be automatically notified.

- **Automatic document replacement**

Newer approved versions of a document need to automatically replace older versions. The obsolete version needs to be archived.

- **Automatic email notifications**

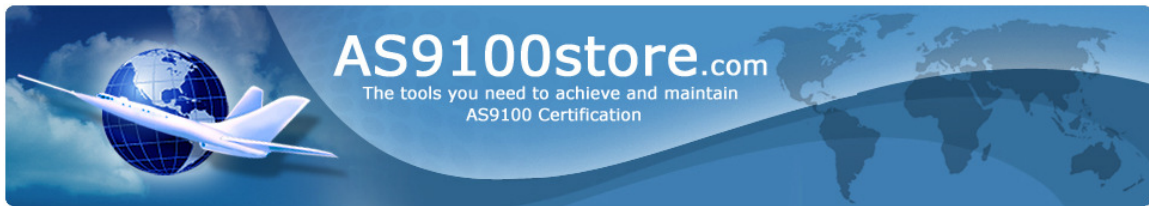
E-mail notifications, which can be deactivated, can be provided to inform users when they are required to perform a task or need to be aware of an event. There should also be another notification system in place, which cannot be deactivated. Tasks such as reviews, approvals and change requests can be informed through such notifications. Events such as publishing, confirmed rejections and rejected change requests could also be notified.

- **Approval history**

A document can be in any stage of its life cycle. Managers should be able to view the complete approval status and history of any document at any stage.

- **Automatic publishing on approval**

Once a document is approved, it should be published automatically to users who have its access rights. Older versions need to be replaced and archived.



Simple system administration

An easy to use system administration ensures that any user can understand the document control procedures while having a minimal understanding of technology. An effective form of system administration encompasses the following:

- **Preconfigured routing**

Routing rules should depend on document types or approval type. They can be set and fixed under the bonnet with easy to understand attributes.

- **Configurable user access rights**

The system administrator should be able to configure read and write access rights by grouping documents together.

- **System reporting**

A simple report builder should be incorporated into the system. This would help administrators create reports with flexibility. In addition, the option of standard built in reports would enhance information.

User Friendliness

A document control system should provide users with an easy to learn experience. The following list focuses on the importance of keeping a document control system simple.

- **Platform independence**

The system should work irrespective of the platform to enable it to merge with different databases.

- **Eliminate installation**

The system can eliminate the need to install applications by means of user friendly software such as flash.

- **Web-based client access**

A user should be able to connect to the system from any Internet connection regardless of physical location. This enables geographically dispersed clients and suppliers / customers to access the system without additional software or hardware.

- **Search capability**

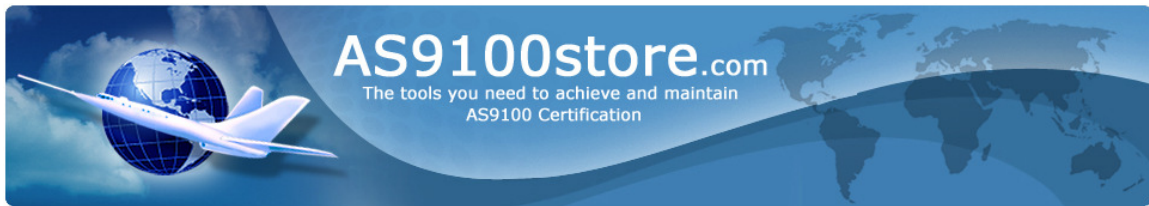
Documents need to be keyword friendly. Users should be able to search for documents using keywords. Only those documents that meet the search criteria and the user's access rights need to be displayed.

- **Grouping of documents**

Once documents are grouped, they provide easier search options. An easy to use graphical interface, such as Windows Treeview, with folders and sub-folders enable documents to be grouped and searched logically.

- **Training for system administrators and regular users**

Easy and interactive Web based training, in parts, can be made available to users depending on their convenience.



Document grouping and access rights

When a document control system has been put in place, the responsibility for each document group or class needs to be demarcated. This enhances the efficacy of the system and the resources cater to the people who play a role. Grouping of both users and documents are discussed in the following list.

- **Document Grouping**

Documents within a document control system serve a purpose. Many other documents may also serve the same purpose and can be logically grouped. This ensures that only specific users need to be given access to the documents groups.

- **Documents Readers**

Access to documents needs to be restricted to users who need to view or make changes to the documents as part of their responsibility. Document grouping plays a major role in determining access rights. Time invested in grouping yields rich rewards.

Certain software systems provide access only to users groups. Before being given access, the users too need to be grouped.

- **Documents Writers**

Writers have management responsibility over documents. They are the originators or authors of the documents and are responsible for updating them. They also need to report alterations made in a document and the reasons for making the changes. Writers may also be readers of the documents. This accountability may be at a department / functional level or at an organization level depending on the company.

- **Documents Approvers**

Certain documents need go through a review and approval process. Approvers ensure that documents are accurate. They are experts in their relative fields and may be required only to review and approve documents in functional areas. They may also function as document readers and writers.

The structure of the document control system is based on the above four classifications. Such a group enables a system to run smoothly and ensures that document control software can be configured easily. Spending time on people and document grouping is time well spent.

Conclusion

Companies that have graduated from a manual system to an electronic document control system may be of the opinion that:

- day-to-day tasks are easily completed.
- return on investment has been made.

However, the companies will agree that transition has required an important investment in time. This investment will ensure that the new document control system has been well planned. Finally, organizations are bound to have a sigh of relief that a hosted document control system does not require upgrades in infrastructure.