

## Document Management

Document management refers to the way that organisations control:

- > the development, approval and release of documents
  - > the review and change (revision) of documents
  - > the distribution of documents; ensuring availability, accessibility and protection of confidentiality.
- This includes printed documents and electronic files.

Documents are used to communicate information and provide evidence of work done and decisions made. Documents disseminate and preserve experience.

During the lifecycle of an engineering project, documentation is required to define and manage the project and measure its success. Engineers create, review, and use a range of documents, in collaboration with multiple parties. An essential requirement of document management is to ensure that the correct and agreed version of each document is available to all document users.

## Document Types

- > Charter, project plan
- > Brief, scope, requirements
- > Work breakdown structure
- > Budgets, schedules
- > Project meeting agendas and minutes
- > Management plans
- > Design drawings, construction plans
- > System models, analyses and simulations
- > Software libraries and code
- > Change request
- > Hazard register
- > Project risk assessment and mitigation plan
- > Test plan
- > Reports, lessons learnt

## Document Management Considerations

When developing or reviewing a document, consider these questions on how it should be managed:

<b>What type of document?</b>	<ul style="list-style-type: none"> <li>&gt; What is its purpose and scope?</li> <li>&gt; What information needs to be conveyed?</li> </ul>
<b>Who is it for?</b>	<ul style="list-style-type: none"> <li>&gt; Who needs to know this information?</li> <li>&gt; How much information do they need, when and in what form?</li> <li>&gt; What type of access do they need – to read, to edit/contribute to, to maintain?</li> </ul>
<b>Where is it kept?</b>	<ul style="list-style-type: none"> <li>&gt; What type of document is it?</li> <li>&gt; Who needs access to this information and for how long?</li> <li>&gt; Are there any privacy, confidentiality or legal requirements to be considered?</li> <li>&gt; How long does it need to be kept?</li> <li>&gt; What needs to happen to it once the project is finished?</li> </ul>
<b>Production details</b>	<ul style="list-style-type: none"> <li>&gt; What information is required by users?</li> <li>&gt; Who are the creator(s), the reviewer(s), the contributor(s) and the person/people responsible for the development, content and distribution?</li> <li>&gt; When was it created?</li> <li>&gt; Are there other versions? How do those versions differ from each other?</li> <li>&gt; How are changes managed and approved?</li> <li>&gt; How is the use of obsolete documents prevented?</li> </ul>

## Document Control Plan

A **Document Control Plan** (or Document Management Plan) describes how documents will be managed during the lifecycle of a project, to ensure quality and consistency. The Document Control Plan provides a ‘road-map’ to track documents, whether: adding, archiving, or removing documentation from use. A Document Control Plan will describe the type of documents used on a project. This table shows the information that a Document Control Plan might include for each document type.

Purpose	Location	Owner	Authority	Review schedule	Access	Distribution	Archive
Purpose of the document type	Physical or virtual location of current version/s	Name of person responsible for creation and maintenance of the document type	Names of those who have the authority to author, review and approve	When/how often document/s will be updated/reviewed	Who has access to the document type	How will each person with access be notified that the document is available	What will happen to the document when it is no longer needed or is replaced by a later version

## Document Change

The change (review, update, revision) of documents must be managed, so that those using or seeking the information can be confident they have the latest information. Tracking and controlling the change of information is as critical as its development. Documents should be changed according to a Change Management Procedure.

Document change is expensive. Keeping documents short or splitting large documents into multiple parts can make management simpler.

The change history of a document is often recorded in a revision history table at the start of a document, or within the title-block of a drawing. This is what it might look like:

DATE	REVISION	CHANGE NOTICE	DESCRIPTION	AUTHOR	REVIEWED	APPROVED
15 JUL 2013	0.1		FOR REVIEW	L. CARTER		
18 AUG 2013	1.0	ECN0253	FIRST RELEASE	L. CARTER	M. BALDWIN	J. WATTS
21 NOV 2015	1.1	ECN0924	SUPPLIER CHANGE	M. AHMED	B. RAWLINGS	J. WATTS

## Document Distribution

The process for distributing documents should be described in the Document Control Plan. Documents can contain commercially-sensitive or security-sensitive information, so their distribution must be planned accordingly. Documents must be made accessible to those who need them, while protecting them from those who should not see them. Documents can also be deliverables; their delivery and receipt should be tracked, so there is a record of the information reaching its intended audience.

It is sometimes necessary to instruct recipients to return or destroy old versions of documents.

## Reference Material

Learn about quality. *American Society for Quality (ASQ)*. Retrieved from <https://asq.org/quality-resources/iso-9000>