Policies, Procedures & Work Instructions

White Paper

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PRO-JECT/CESS-MGT

Introduction

It is of vital importance to have and maintain clear policies, procedures and work instructions. Not only to support all due care principles, but mainly to organize and document operational processes in a clear and coherent manner.

Having a proper procedural framework in place improves and ensures the streamlining and uniformity of operations. It will contribute to having adequately trained employees, and can contribute to the presentation of the internal way of working in case of acquisition and tender processes.

Quality Management

The International Organization for Standardization (ISO) created the Quality Management System (QMS) standards in 1987. A QMS is a collection of business processes focused on consistently meeting customer requirements and enhancing their satisfaction. It is aligned with a company's purpose and strategic direction.

Quality management ensures that an organization, product or service is consistent. It focuses not only on product and service quality, but also on the means to achieve it. Quality management consists of four main components:

Quality planning is the process for identifying which quality standards are relevant to the project and determining how to satisfy them. Quality planning means planning how to fulfill process and product (deliverable) quality requirements. Quality is the degree to which a set of inherent characteristics fulfill requirements.

Quality assurance is a way of preventing mistakes or defects in manufactured products and avoiding problems when delivering solutions or services to customers, which ISO 9000 defines as "part of quality management focused on providing confidence that quality requirements will be fulfilled.

Quality control is a process by which entities review the quality of all factors involved in production. ISO 9000 defines quality control as "A part of quality management focused on fulfilling quality requirements".

Quality improvement is a systematic approach to reduction or elimination of waste, rework, and losses in production processes.

Scope

This paper aims to give an overview of generally accepted principles in relation to the drafting, maintaining and retrieving of policies, procedures and work instructions. Further it tries to shed some light on the myriad of terms used in this context.

As documentation can be part of a quality management system we will first go into some generalities about quality management to paint the bigger picture. Note that an ISO compliant quality management system is considered by some as an overkill or unnecessary overhead. It is definitely not a 'must have'.

ISO 9000 Family

The ISO 9000 series are based on eight quality management principles, which are defined in ISO 9000:2005 "Quality management systems - Fundamentals and vocabulary", and in ISO 9004:2009 "Managing for the sustained success of an organization".

Principle 1 - **Customer focus**
Principle 2 - **Leadership**
Principle 3 - **Involvement of people**
Principle 4 - **Process approach**
Principle 5 - **System approach to management**
Principle 6 - **Continuous improvement**
Principle 7 - **Factual approach to decision making**
Principle 8 - **Mutually beneficial supplier relationships**

ISO 9001:2015 "Quality management systems - Requirements" follows the Plan-Do-Check-Act cycle in a process based approach, and encourages risk based thinking.

Outline requirements for ISO 9001:2015 are: Context of the Organization, Leadership, Planning, Support, Operation, Performance Evaluation and Improvement. These minimum requirements must be met in order to be eligible for certification.

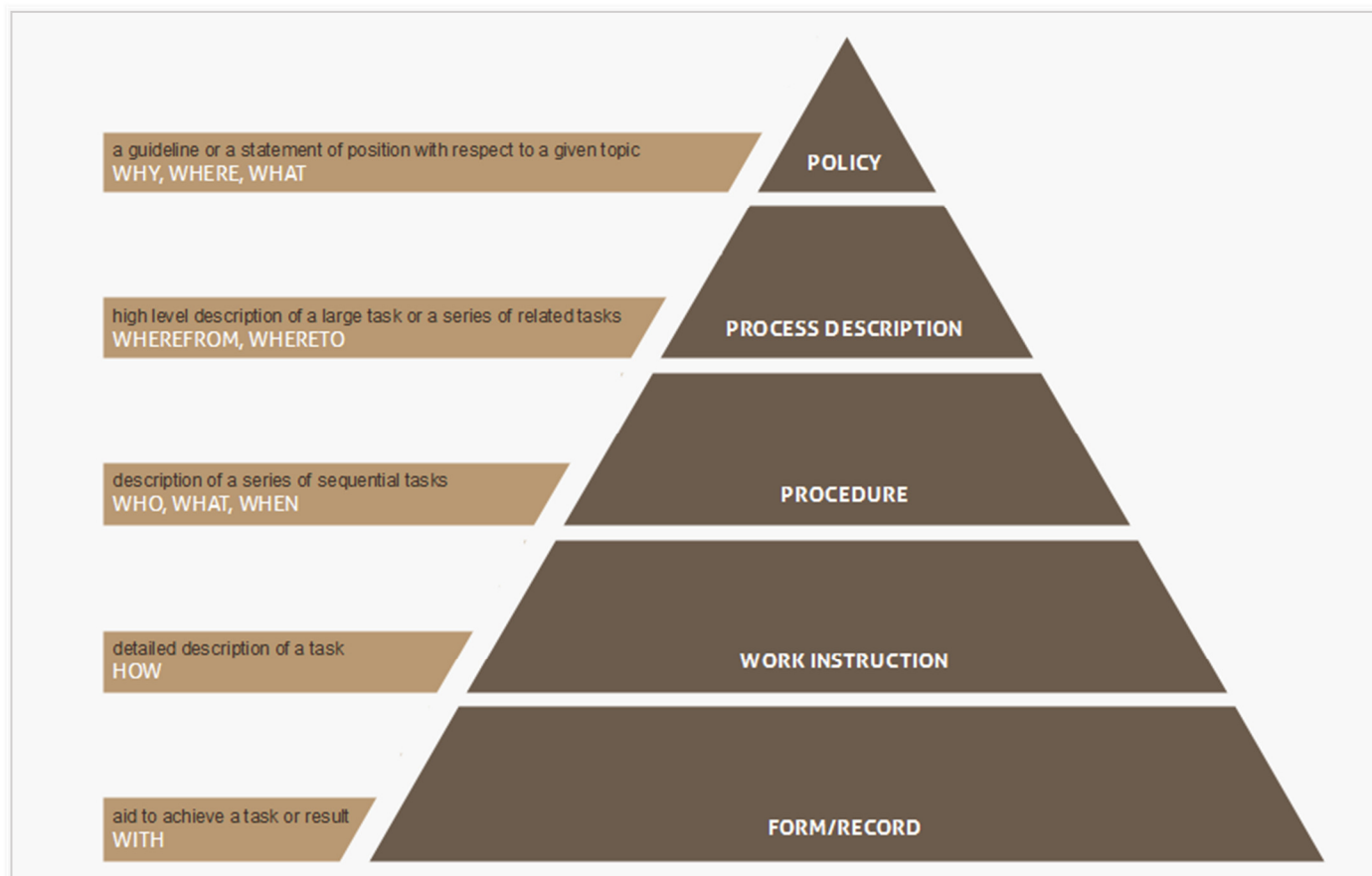| WORLDWIDE TOTAL OF ISO 9001 CERTIFICATES				
2000	2001	2002	2003	2004
409,421	510,616	561,747	567,985	660,132
2005	2006	2007	2008	2009
773,867	896,929	951,486	982,832	1,064,785
2010	2011	2012	2013	2014
1,118,510	1,111,698	1,096,987	1,126,460	1,138,155

The Big Picture

Where do policies, procedures and work instructions fit into the quality management system? And what about process descriptions? And is a heavy ISO protocol really necessary?

To begin with the last question: no, it is certainly not necessary to comply with ISO standards. Setting up a quality management system requires a lot of effort and time and thus investment. It all depends on the estimated balance between investment and return. In some cases having an ISO certificate might give an edge over a competitor, or might even be set as requirement for winning a particular assignment.

It certainly proves that the internal processes have been thought over and documented thoroughly. But it is not a requirement, nor even a guarantee, for having well-designed processes and related documentation.

The pyramid structure as shown below can be used as a guideline without having a QMS in place. The levels roughly relate to the document levels as described in ISO 9001:2008. Note in this respect that in ISO 9001:2015 document levels have been dropped to accommodate a more flexible approach and to allow the inclusion of modern forms of communication such as audio and video.

a guideline or a statement of position with respect to a given topic WHY, WHERE, WHAT	**POLICY**
high level description of a large task or a series of related tasks WHEREFROM, WHERETO	**PROCESS DESCRIPTION**
description of a series of sequential tasks WHO, WHAT, WHEN	**PROCEDURE**
detailed description of a task HOW	**WORK INSTRUCTION**
aid to achieve a task or result WITH	**FORM/RECORD**

Policies

A policy is a deliberate system of principles to guide decisions and achieve rational outcomes. A policy is a statement of intent, and is implemented as a procedure or protocol.

Policies are generally adopted by the Board, or corporate management; of an organization, whereas procedures or protocols would be developed and adopted by senior executive officers.

Policies can assist in both subjective and objective decision making. Policies to assist in subjective decision making usually assist senior management with decisions that must consider the relative merits of a number of factors before taking decisions and are as a result often hard to objectively test.

In contrast policies to assist in objective decision making are usually operational in nature and can be objectively tested such as for example a password policy.

Processes

A business process or business method is a collection of related, structured activities or tasks that produce a specific service or product for a particular customer or customer group.

A process may often be visualized as a flowchart of a sequence of activities with interleaving decision points, or as a process matrix of a sequence of activities with relevance rules based on data in the process.

Three types of business processes are usually distinguished: **Management Processes**: the processes that govern the operation of a 'system'; **Operational Processes**: processes that constitute the core business and create the primary value stream; **Supporting Processes**: processes which support the core processes.

Business processes are designed to add value for the customer and should not include unnecessary activities. The outcome of a well-designed business process increases effectiveness and efficiency.

Procedures

A procedure, commonly referred to as a standard operating procedure, or SOP, is a set of step-by-step instructions compiled by an organization to help users to carry out routine operations.

SOPs aim to achieve efficiency, quality output and uniformity of performance, while reducing miscommunication and failure to comply with industry regulations.

In short a procedure outlines how to perform a process, such as "Invoicing". A procedure should describe at least who performs which action, in which sequence the steps in the task are to be performed, and which criteria (standard) must be met.

A procedure ought to be more detailed than a process, but again less detailed than a work instruction.

Graphical Representation

Process descriptions, procedures, and some work instructions, can be visualized and combined in flow charts and diagrams. In case procedures are purely text based it is more cumbersome for the users to look up the specific information they are looking for. Furthermore, a bunch of text is not that inviting to leaf through and read. Clearly representing the process flow or procedure to follow in a graphical manner allows for a quicker understanding and stimulates consultation of the documentation.

Work instructions or manuals can also be created by using video and audio tools which record (onscreen) actions providing the option to add onscreen annotations. It has to be noted that maintaining such manuals often requires re-recording of segments.

Work Instructions

A work instruction is essentially a tool provided to help someone to do a job correctly and should be very detailed on how to accomplish a specific job, task or assignment

Four essentials of effective working instructions can be distinguished: **Credibility**: users trust them; **Clarity**: users understand them; **Accessibility**: users can easily retrieve them; and **Consistency**: the instructions match user training.

Individual work instructions are very specific to an industry or company. Supplemental documentation may be used including user manuals, technical manuals, instructional videos, naming convention matrices, etc., in order to create detailed work instructions. The challenge is to disclose correct and to-the-point information with a user friendly interface.
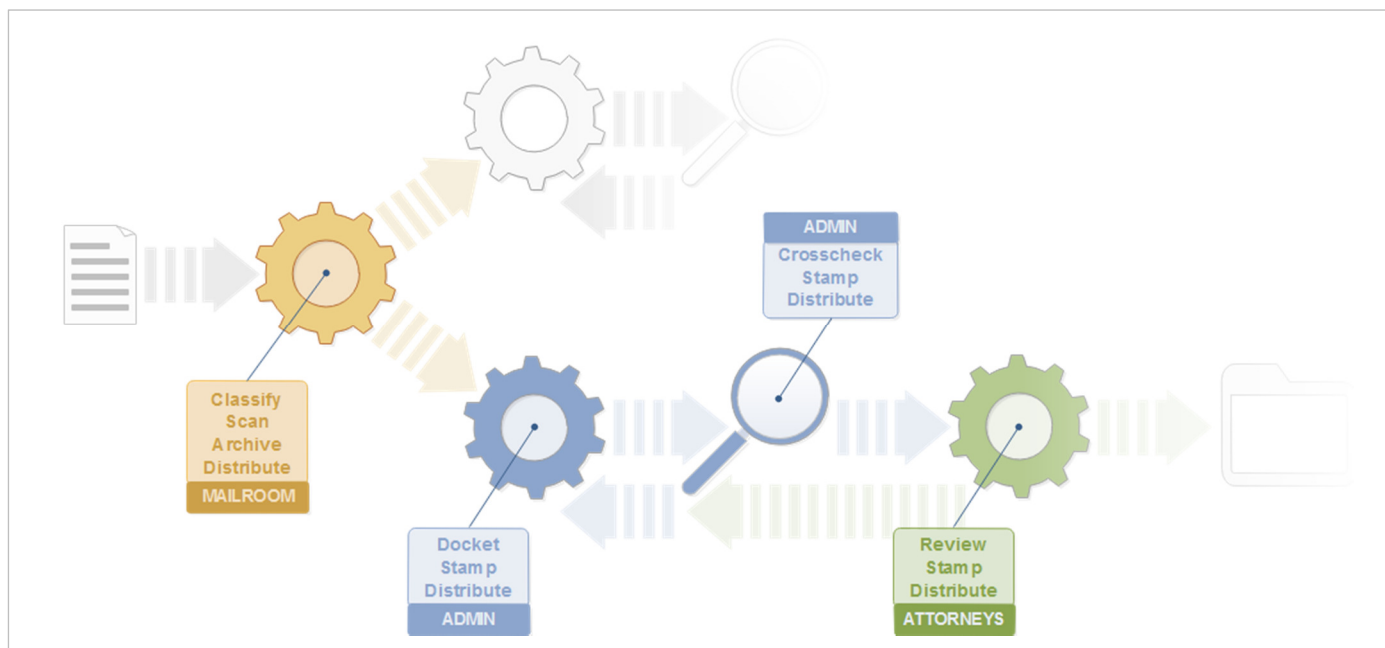
Forms / Records

The 'lowest' level of documentation includes forms used to create records, checklists, surveys, or other documents used in the creation of a product or service.

Records are a critical output of any procedure or work instruction. They form the basis of process communications, audit material, and continuous improvement initiatives. It's easy to underestimate the importance of this documentation part.

The only disadvantage with non-textual representation is that special software is needed to create and maintain the process descriptions and procedures, and thus requires specialized knowledge. The big advantage though is that complex and elaborate information can be presented in a relatively concise and intuitive manner.

Process flow, procedure and work instructions, are combined In the below example flow diagram of a document flow within a company including several departments, roles and tasks. The 'task boards' and 'process cogs' could be made interactive allowing the users to retrieve the procedure or work instructions by clicking on the relevant icon or task.

SOME FLOWCHART SOFTWARE

SOFTWARE	DEPLOYMENT	CREATION	APPLICATIONS
Microsoft Visio	Local	Real-time collaboration, Multi-page support, Expandable canvas, Layers, Create charts from data source	Business process modelling, Mind maps, Network diagrams, SWOT analysis, Technical drawings, UML, Venn diagrams, Wireframes
Edraw Max	Local	Real-time collaboration, Multi-page support, Expandable canvas, layers, Create charts from data source	Business process modelling, Mind maps, Network diagrams, SWOT analysis, Technical drawings, UML, Venn diagrams, Wireframes
Lucidchart	Cloud	Real-time collaboration, Multi-page support, Expandable canvas, Layers, Create charts from data source	Business process modelling, Mind maps, Network diagrams, SWOT analysis, Technical drawings, UML, Venn diagrams, Wireframes
ConceptDraw	Cloud	Multi-page support, Expandable canvas, Layers	Business process modelling, Network diagrams, SWOT analysis, Technical drawings, UML, Venn diagrams, Wireframes
SmartDraw	Cloud	Multi-page support, Expandable canvas, Layers	Business process modelling, Mind maps, Network diagrams, SWOT analysis, Technical drawings, UML, Venn diagrams, Wireframes
Cacoo	Cloud, Local	Real-time collaboration, Multi-page support, Expandable canvas, Layers	Mind maps, Network diagrams, SWOT analysis, UML, Venn diagrams, Wireframes

* this list is not exhaustive by any means. Find more here and on Google.
** only functionality relevant to this white paper is listed, use the hyperlink to check out the complete feature overview on the vendor's website

SOME VIDEO/AUDIO CAPTURE SOFTWARE

SOFTWARE	OUTPUT	CAPTURE TOOLS	EDITING TOOLS
Movavi Screen Capture	Video formats (11), Audio formats (6)	Capture screen, Capture audio, Capture from webcam, Hot key controls, Capture from stream, Capture VoIP calls, Schedule recording, Capture from mobile device	Timeline editing, Adjust audio, Pan & Zoom, Add media, Add titles, Add annotations
Camtasia	Video formats (5), Audio formats (1)	Capture screen, Capture audio, Capture from stream, Capture VoIP calls, Schedule recording	Timeline editing, Adjust audio, Pan & Zoom, Add media, Add titles, Add annotations
Adobe Presenter	Video formats (1)	Capture screen, Capture audio, Capture from webcam, Hot key controls, Capture from stream	Timeline editing, Pan & Zoom, add media, Add titles, Add annotations
Smartpixel	Video formats (3)	Capture screen, Capture audio, Capture from webcam, Hot key controls, Capture from stream, Capture VoIP calls	Timeline editing, Add media, Add titles, Add annotations
Snagit	Video formats (1)	Capture screen, Capture audio, Capture from webcam, Hot key controls, Capture from stream, Capture VoIP calls	Timeline editing
Screenpresso PRO	Video formats (3)	Capture screen, Capture audio, Capture from webcam, Hot key controls, Capture from stream, Schedule recording	Timeline editing, Pan & Zoom

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Documentation Framework

Writing process or procedural documents, and/or graphically representing those is one thing. As organizations deal with a multitude of policies, processes and procedures some kind of framework must be applied in order to connect all the dots.

The simplest framework is to maintain everything in textual format in Office documents, which can be linked to each other via hyperlinks, object inclusion, and naming conventions.

The method called 'Information Mapping', described by the authors as a "research-based, systematic approach to analyzing, organizing and presenting clear and user-focused information", is worth mentioning here as it uses Word documents as a basis.

Another alternative, or addition, is the use of flowcharts and infographics, which even can be made interactive when deployed on a mobile device, or intranet/internet site.

A relatively simple way to maintain, link and publish all process related information is using a so-called Wiki. A Wiki is a website that provides collaborative modification of its content and structure directly from a web browser.

A good example of an application with sophisticated collaboration options to maintain a Wiki-like structure is Confluence. Confluence also incorporates Gliffy, an intuitive flowchart tool.

A step up the ladder comes Quality Management and SOP software. This software enables digital management of quality management systems and procedural (medium to large) environments.

Top of the bill in this segment is probably Business Process Management Software. These type of more industrial systems provide many process related features with heavy weight engines.

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Quality Management Software

This type of software manages content and business processes for quality and compliance across the value chain. It can be viewed as a quality management platform with an integrated IT architecture and data model that facilitates cross-functional communication and collaboration.

SOME QUALITY MANAGEMENT SOFTWARE			
SOFTWARE	**DEPLOYMENT**	**FEATURES**	
TheLeanMachine	Cloud, SaaS, Web, Local	Audit Management, Compliance Management, Document Management, ISO Standards Management, Knowledge Management, Maintenance Management, Risk Management	One-time user license
ComplianceQuest	Cloud, SaaS, Web, Mobile	Audit Management, Compliance Management, Document Management, ISO Standards Management, Knowledge Management, Maintenance Management, Risk Management	Monthly per user
Isolocity	Cloud, SaaS, Web, Mobile	Audit Management, Compliance Management, Document Management, ISO Standards Management, Maintenance Management, Risk Management	Upon request

Note1: find more here and on Google.
Note2: only functionality relevant to this white paper is listed, use the hyperlink to check out the complete feature overview on the vendor's website

SOP Software

Some SOP related functionality is included in BPM suites, such as in Process Street, but lightweight documentation apps to build a database of information exist alongside. Notes, checklists, pictures, screenshots, workflows and work instructions are combined in these applications.

SOME SOP SOFTWARE			
SOFTWARE	**DEPLOYMENT**	**FEATURES**	
SweetProcess	Cloud	Checklists, Collaboration, Reminders, Include media	Monthly per user
Hackpad	Cloud, Local, Mobile	Checklists, Collaboration, Reminders, Include media , Meta tagging	Monthly per user
Evernote	Local, Mobile	Checklists, Collaboration, Reminders, Include media, Organizational structure diagram	Monthly per user

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Business Process Management Software

A market has developed for enterprise software leveraging the Business Process Management concepts to organize and automate processes. BPM is now considered a critical component of operational intelligence solutions to deliver real-time, actionable information.

SOME BUSINESS PROCESS MANAGEMENT SOFTWARE			
SOFTWARE	**DEPLOYMENT**	**FEATURES**	
Process Street Business Premium	Cloud, Local, Mobile	Business Rules Management, Collaboration, Process Analysis, Process Capture, Process Change tracking, Process Mapping, Process Modelling & Design, Process Simulation	Monthly per user
cDevWorkflow	Cloud, Local	Business Rules Management, Collaboration, Process Analysis, Process Capture, Process Change Tracking, Process Mapping, Process Modelling & Design, Process Simulation	One-time user license
BPM Suite	Cloud, SaaS, Web, Local	Business Rules Management, Collaboration, Process Analysis, Process Capture, Process Change Tracking, Process Mapping, Process Modelling & Design, Process Simulation	Freeware

Note1: find more here and on Google.
Note2: only functionality relevant to this white paper is listed, use the hyperlink to check out the complete feature overview on the vendor's website

Sources

Articles: ISO9001 blog by Mark Hammar at 9001 Academy, "Process vs. Procedure vs. Work Instruction" by The9000Store, "What's the Difference between Procedures and Work Instructions?" by Chris Anderson at BizManualz, "Is it a Polciy, Process, Procedure or Work Instruction?" by TheStreamlinedBusinessBlog, "Four Essentials of Effective Work Instructions" by Patrick Sweeney at Explainers, "Quality Management", "ISO9000", "Policy", "Business Process", "Procedure", "Standard Operating Procedures" at Wikipedia, Google.

Software Comparison: "Flow Chart Software Reviews" by Jill Bowers at TopTenReviews , "Video Capture Software Reviews" by Danny Chadwick at TopTenReviews, "Top Quality Management Software Products" byCapterra, "Don't Overlook Standard Operating Procedures" by Jonatahn Chan at Zapier, "Top Business Process Management Software Products" by Capterra, Vendor websites, Google.

HOW CAN WE HELP YOU?

✓ Help you to determine the best possible software solution in relation to your needs and requirements

✓ Draft and visualize process descriptions, procedures and work instructions

✓ (Re)design the procedural framework within your company

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