

Creating Helpful Process Directives

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Three Facets to Effective Directives

- Directive System Architecture
- Structure of Directives within Architecture
- Writing Style of Each Directive

Each part compliments the other

One Set of Directives

- Medium/Large Programs
- Small Projects
- Research Programs
- Engineering Services

Goal: Develop a Single Directive System Scalable to Accommodate Diverse Types of Typical Programs

Directive System Architecture

Procedures

Directive/
Non-Tailorable

High Level
Directly Traceable
to CMMI, ISO, Corp Stds

Work
Instructions

Directive/
Tailorable

Lower Level,
Further Direction on
“How” to
Meet Requirement

Enablers

Non-Directive

Guidelines/
Templates

Project and Organization level Directives are Separate

Directive Structure

1. Document Information

2. Interfaces

3. Inputs/Outputs

4. Definitions

5. Instruction

6. Requirements

7. Revision History

Document Information

- Administrative – Document Number, Date, Revision
- Summary - No more than two sentences
- Intended Users
- Stakeholders
- Interfaces (Optional in Enablers)
 - Identify Referenced Documents by Document Number, Document Title, and Directive Type
- Inputs/Outputs (Optional in Enablers)
 - Inputs - Any conditions, materials, requirements, or outputs of other processes necessary to begin the process
 - Outputs - all outputs of the process to which the document relates, including deliverable products, or products that require storage in a project or organizational database or repository
- Definitions (Optional in Enablers)
 - Terms specific to the organization or the directive system; and terms whose meaning differs from the common dictionary meaning.
 - Hyperlink to its Definition in the Glossary

Instruction

- Provide a narrative description that tells users how to execute the process.
 - Amplifies the Requirements
 - Adds Explanatory or Tutorial Information
 - Places the Process and its Requirements in a Coherent Narrative
- Identify requirements in bold type.
- Keep the directives as concise as possible.
- Where possible, make the process scalable to account for projects of different sizes and types.

Requirements

- Table That Lists Each Requirement
 - Core of a Procedure or Work Instruction
 - Not part of enablers
 - Assigns a Unique Number to Each Requirement
 - Maps Each Requirement to a Narrative Paragraph
- Programs and Organization are Responsible Only for Complying with the Requirements in the Table (As Tailored)
- Table Used as Input for Tailoring Tool
- Objective Evaluation Checklists Derived from Table

Writing Style

- Document naming conventions
- Discipline specific Directives begin with the discipline designation (i.e., “Program Management”, “PM”, “Software”, “SW”, etc.)
- Spell out the first use of acronyms and abbreviations
- Refer to directive documents by hyperlinked document number, italicized title, and directive type

Writing Style - continued

- The first sentence of each paragraph identifies the responsibility for that paragraph
- *active voice, present tense, indicative mood*—“who does what.”
- Identify by role the responsible person or team; do not use “the project” or “the organization.” Do not state that someone “ensures” or “assures” that something happens unless the requirement is strictly a verification function.
- If the same people are responsible for the entire document, identify the responsibility in the first paragraph; write the rest of the document in “directive” style.

Writing Style - continued

- Directive
 - Subsequent sentences in the paragraph provide directive instructions. Use the *active voice, present tense, imperative mood* -- begin with an action verb.
 - Examples: “Prepare the charts using the format in Appendix B.” “Submit comment sheets to the review scribe.” “Update the sizing estimates monthly.”
- Explanatory
 - If any further information is needed to explain a directive, use the *active voice, present tense, indicative mood*.
 - Example: “Sizing includes measured and projected usage.”

Avoid ...

- Passive voice. Instruct the reader to “do something” rather than stating that “something is done.”
 - Example: “The technical lead reviews the documents. The reviewers each record their comments on the comment sheets. The review team assigns action items.”
 - Rather than “Documents are reviewed, comments are recorded on comment sheets, and corrective action is assigned.”
- “*perform.*” Use an imperative verb that defines what to do.
 - Example: “Tailor” instead of “Perform tailoring activities.”; “
 - Objectively evaluate the process” instead of “Perform objective evaluation of the process.”
- “*the following.*” Omit or use an imperative verb. Example: “Consider:” instead of “Consider the following.”
- “*in accordance with.*” Use “*according to*” to specify a directive document with which a requirement complies. Example: “Analyze the data according to EI-98-45,
- “*personnel.*” Identify the actual role. Example “The Program Configuration Management representative controls the work product list” instead of “Configuration Management personnel control the work product list.”
- “*in order to.*” Use “*to*”. Example: “Reviewers complete comment sheets to record their comments.” instead of “Reviewers complete comment sheets in order to record their comments.”
- “*prior to*” (or “*prior*”). Use “*before,*” which means the same thing.
- “*utilize.*” Use “*use.*”
- “*On a ... basis.*” Specify the time interval. Examples: “Publish the report monthly” instead of “Publish the report on a monthly basis.”
- “*activity*” when referring to an individual, team, or organizational entity. Specify the entity.

Summary

- Goals
 - ISO/AS9100, Corporate Standards, CMMI model compliant, as scoped
 - Single, user-friendly directive system
- Method
 - Use generic wording where possible
 - Create a Facilities Plan → Document Facility Planning
 - SOW → Tasks
 - Keep it short and simple → really short and simple
 - Rely heavily on non-directive templates and guidelines
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Questions ? ? ?