Effective Use of Non-Directive Tools and Templates – Integrating the “How’s” with the “What’s

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Overview

• Directive and Enabler System Overview
• Types of Enablers
• Example of enabler template
• Example of enabler tool
• Enablers which are guidelines
• Connection between directives and non-directive enablers
• Lessons Learned
Directive and Enabler System Overview

Organizational Policy
Management Commitment

Raytheon Corporate Standards

External Standards
CMMI, ISO

Directive/
Tailorable

Work Instructions

Organization and
Program Requirements

Non-Directive

Enablers
(3 Categories)

Guidelines/
Templates
Enabler Types

Endorsed

Functional

Practitioner

Formal CM Tool

Corporate PAL

Local PAL

Stakeholder Involvement

Engineering  Operations  Quality  Supply Chain

Change Control Board

Document Sharing DocuShare

Virtual Teaming eRoom®

Limited Control
Endorsed Enablers

• Implement:
  – One or more directive requirement(s) and/or
  – One or more Corporate Process Element(s)

• Available in the Raytheon Corporate process repository
Functional Enablers

• Contain data, attributes, codes, and cost elements that are frequently changed or updated

• Often very specific to task activities used by functional organization or Business Units
Practitioner Enablers

• Aids used by a particular project or team
• Products Developed by an individual who wishes to share it
• Do not fit in either of the other categories
• Generally stored in the Local Process Assets Library (PAL)
## Enabler Categories

<table>
<thead>
<tr>
<th>Type</th>
<th>Endorsed Enablers</th>
<th>Functional Enablers</th>
<th>Practitioner Enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>Implements a process in a Work Instruction or corporate standard</td>
<td>Functional Org. desires to promote consistent behavior</td>
<td>Individual has tool or process to share</td>
</tr>
<tr>
<td><strong>Examples</strong></td>
<td>Metrics Tool Program Review Minutes Bid Template</td>
<td>Tailoring guidelines for small projects Risk and Opp. Mgt toolkit</td>
<td>Template for capturing action items</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>Formal CCB</td>
<td>Identified by Discipline or PAL Administrator</td>
<td>User Control or PAL Administrator</td>
</tr>
<tr>
<td><strong>Repository</strong></td>
<td>ClearCase Corporate PAL</td>
<td>DocuShare Local PAL Discipline Repository</td>
<td>DocuShare Local PAL Desktop</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>Process Website Hyperlink Web Search</td>
<td>Process Website Web Search Program, Dept Web Page</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Relationship to Directives</strong></td>
<td>Yes, required</td>
<td>Could be if related to TD</td>
<td>None</td>
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</table>
Endorsed Enabler Template Example

Program Name:
IPT(s):
Chair:

<table>
<thead>
<tr>
<th>Core Members:</th>
<th></th>
<th></th>
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<th>Date:</th>
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<tbody>
<tr>
<td>IPTL(s)</td>
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<td></td>
</tr>
<tr>
<td>FM(s)</td>
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<tr>
<td>PE(s)</td>
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<td>Scribe:</td>
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</table>

<table>
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<th>Support Members:</th>
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<tr>
<td>Quality Representative</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM Representative</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>DM Representative</td>
<td></td>
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<tr>
<td>Specialty Engineering Representative</td>
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<tr>
<td>SCM Representative</td>
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## Agenda:

<table>
<thead>
<tr>
<th>1. Restate meeting objectives. Capture any specific objectives from the IPTL(s).</th>
<th>☐</th>
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</thead>
<tbody>
<tr>
<td>2. Review action items. Include any unresolved AIs from Reviews, as needed.</td>
<td>☐</td>
</tr>
<tr>
<td>3. Review IPT highlights/ issues/concerns/risks and opportunities.</td>
<td>☐</td>
</tr>
<tr>
<td>4. Review resource needs</td>
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</tr>
</tbody>
</table>
| 5. Review product/process metrics, evaluate, analyze and provide support as necessary.  
  ▪ (Part A) Metrics discussion – Focus on trends, out of bound metrics, issues/concerns  
  ▪ (Part B) SPC discussion | ☐ |

## Meeting Notes / Decisions:

**Metrics discussion:**
- Document analysis results within the metrics package.
- Compare program performance in CPI, SPI, Defect Containment and Requirements Volatility against the expected ranges of values (norms) and the desired ranges of values (goals)
- Were any trends or any points outside the limits?
  - If so, what corrective action was taken?
- Is the program’s data within the limits predicted by the Predictive Model(s)?
  - If not, what corrective action was taken?
## Requirements Volatility

<table>
<thead>
<tr>
<th></th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
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<tbody>
<tr>
<td>Baseline (excludes TBDs)</td>
<td>1504</td>
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<td>1504</td>
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## Org Limits

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<th>QPM/OPP Values (Reqmts Vol)</th>
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<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<td>42%</td>
<td>42%</td>
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<td>Org Lower Limit (EROV)</td>
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<tr>
<td>Project Goal (Optional)</td>
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<td>7%</td>
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<tr>
<td>Org Goal (DROV)</td>
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<td>7.5%</td>
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<td>7.5%</td>
<td>7.5%</td>
<td>7.5%</td>
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<tr>
<td>Org Upper Spec Limit (DROV)</td>
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<td>15%</td>
<td>15%</td>
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<td>15%</td>
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</table>
Endorsed Enabler Tool Example - continued
Functional Enabler Example – SW Maintenance Tailoring Guidelines

- Guidelines for Common Work Instructions
  - Gates – Developmental Gates are not applicable unless there is an enhancement that is over the Threshold
  - WPMP – Update or create per maintenance work products.
  - Structured Decision Making – Use when triggered. Establish triggers.
  - Program Data Archive – Use structure from development, as applicable.
  - Objective Evaluation - SQE plans with program concurrence and performs and reports results.
  - Peer Review – Deliverable software products require some form of peer review, either desk check or formal peer review.
  - Process Review or equivalent stakeholder monthly program meeting
  - Metrics – Each month collect and report Accomplishments Summary, Problem Summary, SPI/CPI, Defect Containment (2 years), Lessons Learned, Risk and Opportunity Management, Problem Report Status (CRs and PRs), Schedule, Size Trend, Staffing. The program/customer may require additional metrics.
Document each meeting with minutes and track to closure any action items. Refer to EN-01-23-01 The Process Review Meeting Minutes Template Enabler for an example format for minutes and action items.
Connection between directives and enablers - Webpage
Lessons Learned

• Enablers provide excellent aid to programs
• Structure for maintaining and controlling enablers
  – Controls different types of enablers
  – Promotes their use
  – Separate from directives
• Non-Directive – Tailoring not required
• Distinctions between different types of Enablers
• Annual Review of Endorsed Enablers and Directives
• Reduction in Directive System Size
Questions ? ? ?