Software Contract Administration Service Process Guidebook

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Software CAS Process Guidebook

Agenda

- Introduction
- Link to Policy
- Guidebook Purpose
- Guidebook Architecture
- Chapter 4 (Risk Management)
- Chapter 5 (Supplier Software Development Measurement)
- Summary

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Introduction

- DCMA was established on March 27, 2000, with Major General Timothy P. Malishenko as director
- The new Agency was formerly the Defense Contract Management Command (DCMC), which was a major subordinate command of the Defense Logistics Agency (DLA)
- DCMA operates under the direction and authority of the Under Secretary of Defense (Acquisition, Technology, and Logistics)

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Introduction

- DCMA is responsible for managing contracts with the thousands of suppliers who deliver goods and services to the DoD
- The new agency also is chartered to streamline and standardize the contracting process as part of Defense acquisition reform
- The DCMA provides direct service on DoD contracts through approximately 67 Contract Management Offices (CMOs) that are located throughout the country

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Introduction

One major responsibility of a CMO is to provide the DoD acquisition community with the information that is needed to make the right decisions on …

- *Cost*
- *Delivery schedule*
- *Performance of products*

… that are developed under contract.

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Link to Policy

- **Shift in how we do business**
  - Integration of surveillance with Risk management into a Risk Handling Plan
- **New Supplier Risk Management policy**
  - Risk Assessment and Management Process(RAMP)
  - Automated tool for collection of Supplier Key Process risk ratings
  - Software Contract Administration Services is one of 18 areas that will be required for RAMP input

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Link to Policy

- **Identify Supplier Key Processes**
- **Determine if Key Processes are:**
  - High
  - Moderate
  - Low
- **Focus will be on High and Moderate**
- **SEI SW-CMM KPAs**

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Guidebook Purpose

- **DCMA conducted performance reviews of all Contract Management Offices**
- **One of the areas that need improvement is software measurement**
  - Why is measurement important
  - Understanding Supplier measures
  - How to analyze and prioritize
  - Understanding the issues that lead to measures

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Guidebook Purpose

- **Feedback from performance evaluations reinforced the need for a guidebook on how to do activities identified in the Agency's One Book**
- **This feedback accelerated the development of the guidebook**
- **Measurement will need to be understood in order to accurately identify and analyze risk as described in Supplier Risk Management**

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Guidebook Purpose

- One Book is the policy - "*what to do*"
- Guidebook provides - "*how to do*" along with examples, links, and relevant information
- Guidebook will be updated based on need
- Process for change to Guidebook is not as rigid as One Book changes
- Philosophy shift to Supplier Risk Management
- DCMA piloting CMM Based Insight Process

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Guidebook Architecture

- Currently in Draft
- 13 Chapters
- 9 Appendices
- Various examples
- Use of hypertext and hyperlinks
- Used SEIs process for guidebook development
- Development team skill mix

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Guidebook Architecture - Chapters

Executive Summary

1 - How to use

2 - Software CAS Intro

3 - Early CAS

4 - ***Risk Management***

5 - ***Supplier Software Development Measurement***

6 - Software Professional Development Program

7 - Software Performance Maturity Model

8 - Automated Test Equipment

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Guidebook Architecture - Chapters (Cont.)

9 - Customer Interface

10 - Software Standards

11 - Capability Maturity Model Based Insight

12 - Software Capability Evaluations

13 - Software Professional Estimating & Collection System

Guidebook Architecture - Other

- References, Acknowledgements, Comment Form

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Guidebook Architecture - Appendix

A - Acronyms

B - Contract Review Checklist Examples

C - Memorandum of Agreement, Memorandum of Understanding, Supporting Subcontractor Administration Delegation examples (In Development)

D - Process & Product Evaluation Examples

E - Informal/Formal Review Examples (In Development)

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Guidebook Architecture - Appendix (Cont.)

F - Risk Assessment Tool

G - Risk Handling Plan Examples (In Development)

H - Supplier Software Development Documentation Checklist (In Development)

I - Supplier Development Like-Cycle Models

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Chapter 4 (Risk Management)

- **Describes activities related to Supplier Risk Management as described within DCMA policy**
- **Contains detail information on the five components of Risk Management**
  - Planning
  - Assessment
    - Identification and Analysis
  - Handling
  - Monitoring
  - Documentation

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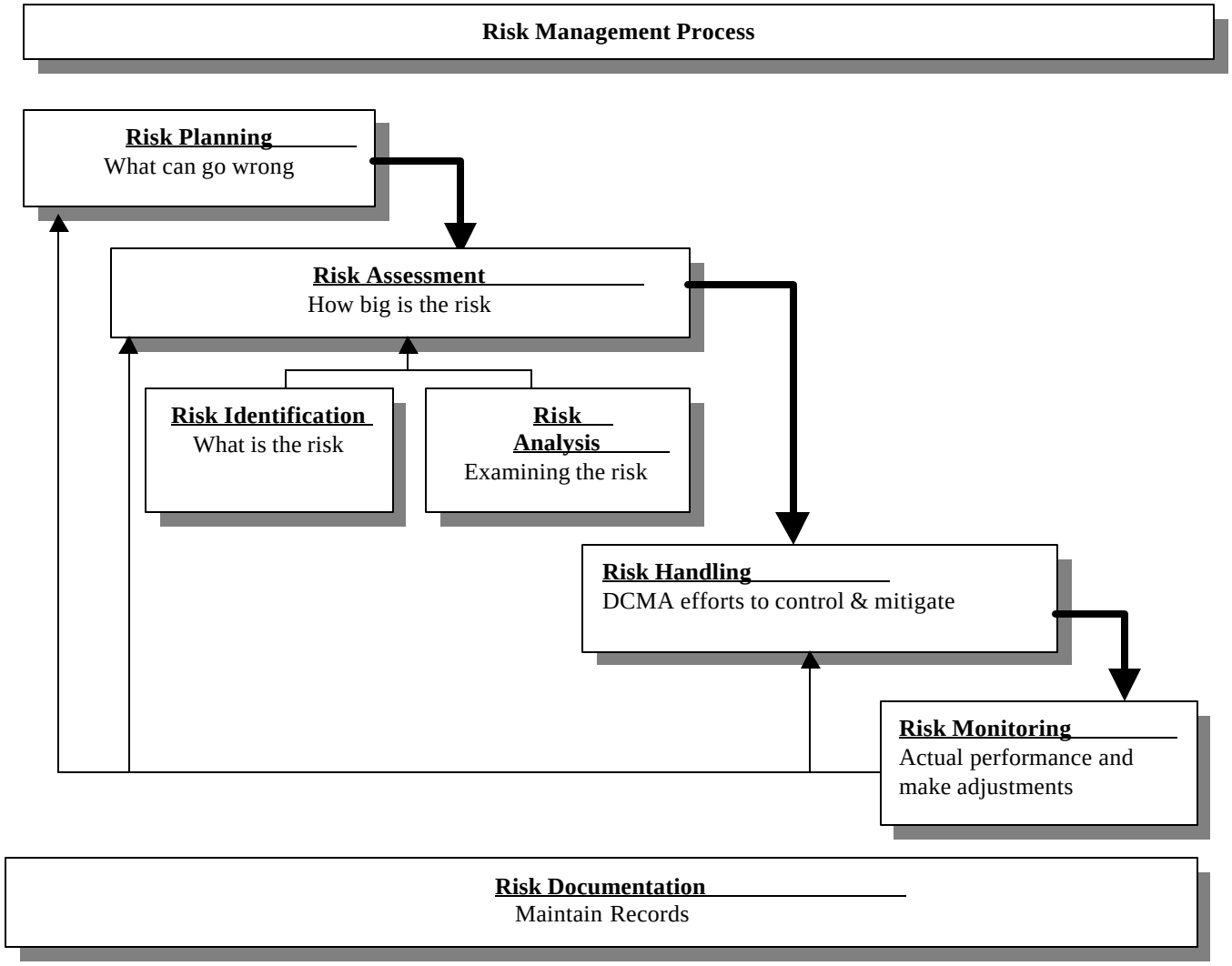
Risk Management



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Chapter 5 (Supplier Software Development Measurement)

- **Describes the activities related to the measurement of supplier's software development**
- **Provides information on:**
  - ***Importance of Software Measurement***
    - Dependency on software greater than ever
    - Measurement is the key element of successful management not only in software development, but also in all engineering disciplines

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- ***Establishing a Measurement Process***
  - Keep it simple
  - Ensure that it is flexible
  - Ensure there is enough information available, so that objective decision making can be achieved
  - Could be part of the Risk Handling Plan
  - Couple with Supplier's measurement process
  - Participate in Supplier's IPT

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- ***Measurements***
  - Based on identified Supplier's Key Process Areas
  - Focus on High and Moderate risk levels
  - Impacts on Cost, Schedule, and Technical Performance
  - Other measures will provide insight based on issues identified
  - PSM methodology supports DCMAs Supplier Risk Management philosophy for Software CAS

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- ***Measurements (Cont.)***
  - Guidebook uses Earned Value example as described in PSM
  - the ISSUE is Resource and Cost, so the CATEGORY is Financial Performance, which means the MEASURES are Earned Value and Cost
  - Plan to include in Guidebook:
    - ⇨ Schedule and Progress Issue examples
    - ⇨ Development Performance examples

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- ***Integrated Product Teams (IPTs)***
  - Why should DCMA Software Personnel participate on Supplier IPTs
  - Describes how involved in IPTs provides close working relationship with supplier and external customer (Program Office)
  - Describes how IPTs are involved with software measurement - one focus is setting goals and objectives

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- ***Integrated Product Teams (IPTs)***
  - When measures provide meaningful indicators, IPTs can clearly understand their *PROGRESS* and better allocate resources for identified *RISKS* and the remaining tasks
  - Identification of risk are responsibility of IPTs
  - Guidebook also provides links to various documents on guidelines for IPTs

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- ***Risk Handling Plan***
  - DCMA Software Personnel are required to develop a Risk Handling Plan
  - Plan is the strategy of their effort related to the identified risk
  - Prioritize identified high, moderate, and low risk areas as indicated in the Software CAS Risk Matrix
  - Objective of prioritizing risks is to identify which risks should be handled first

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- ***Risk Handling Plan (Cont.)***
  - When prioritizing risks, the probability of occurrence and potential consequence should the risk be realized must be considered
  - Software professional should plan their activities and adjust their work effort to reflect the process risk rating
  - Contains other information such as: points of contacts, records and file locations, risk matrix and supporting rational, risk-handling techniques, schedule of activities, etc
  - Customer Memorand of Agreement (MOA)

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- ***Measurement Process Examples***
  - There are various ways to establish a measurement process. Every project is different and this is due to:
    - ⇨ CMO limitations
    - ⇨ MOA
    - ⇨ Software personnel capability
    - ⇨ Program office structure
  - Guidebook contains some various types of measurement methodologies, there are others
  - Attempt to provided some examples that DCMA software personnel could use in the day-to-day activities

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– ***Measurement Process Examples (cont.)***

- **Practical Software Measurement (PSM)**

  - ⇨ Developed by Government & Industry
  - ⇨ Based on actual software projects
  - ⇨ Focus is on Issues, Categories, Measures (ICM)
  - ⇨ PSM process good fit with RAMP
- **Software Program Managers Network (SPMN)**

  - ⇨ Developed 16 critical software practices
  - ⇨ Based on actual software projects
  - ⇨ Good starting point for measurement
- **Plan to include others in future revisions**
  - ⇨ ASMO, STSC, SEI, others

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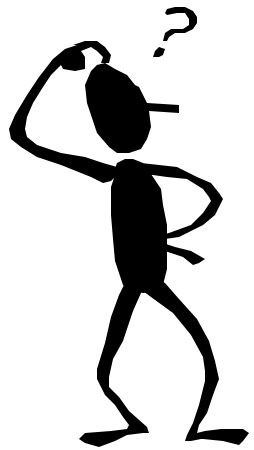
Summary

- New Agency
- How the guidebook is Linked to Policy
- Guidebook Purpose and value
- Guidebook Architecture
- Risk Management
- Supplier Software Development Measurement

Questions

Comments



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