



DSDC ASSESSMENT OVERVIEW

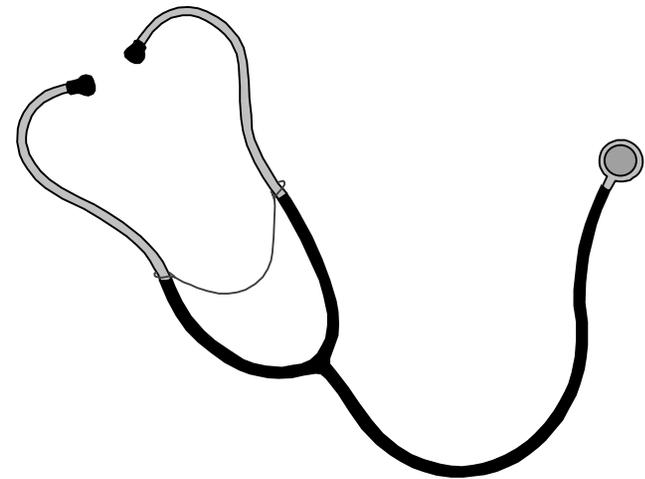
PRESENTED BY
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OBJECTIVES

- **To understand purpose of assessment**
- **To understand assessment process**
- **To understand role in assessment**

TOPICS

- **Types of Appraisals**
- **CMM Based Appraisal for Internal Process Improvement (CBA-IPI)**
- **Assessment Activities**
- **DSDC Assessment Plans**





HISTORY OF APPRAISAL METHODS

1988 -1991 Self-assessments

1990 -1995 Software Process Assessments (SPA)

**1991-1993 Capability Maturity Model for
Software, Ver. 1.0**



CURRENT APPRAISAL METHODS

Interim Profile

**Software Capability Evaluation (SCE),
Version 3.0**

**CMM-Based Appraisal for Internal Process
Improvement (CBA IPI)**

SCE vs. CBA IPI

SCE



CBA IPI

**Evaluation (usually for
source selection)**

Done TO you

Done WITH you

**Organization determines
scope**

Organization owns results

CBA-IPI ELEMENTS

ASSESSMENT PLAN

ASSESSMENT TEAM

DATA COLLECTION

DATA VALIDATION

RATING

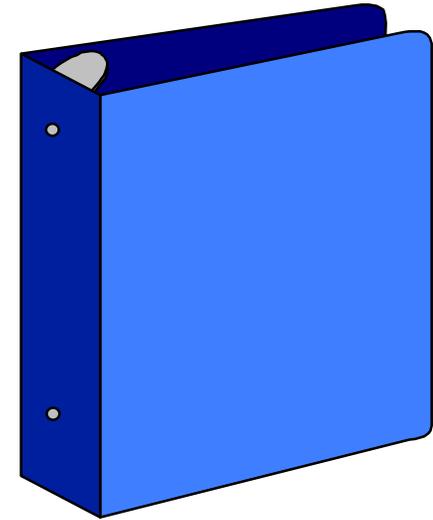
REPORTING OF ASSESSMENT RESULTS



ASSESSMENT PLAN

INCLUDES

- **Goals for assessment**
- **CMM and organization scope**
- **Schedule and resources**
- **Assessment outputs and follow-on activities**
- **Planned tailoring of assessment method**
- **Risks and constraints**
- **Sponsor's authorization**





ASSESSMENT PARTICIPANTS

- **Assessment Team**
6 DSDC + 2 Certified Lead Assessors
- **Project Leaders (4)**
- **Questionnaire Respondents (4-8)**
- **Functional Area Representatives**
6-12 per session
grouped by area



ASSESSMENT ACTIVITIES

- **EXECUTIVE BRIEFING**
- **PRE-ASSESSMENT ACTIVITIES**
- **ONSITE ACTIVITIES**
- **FINAL REPORT AND RECOMMENDATIONS BRIEF**
- **FOLLOW-ON ACTIVITIES**

EXECUTIVE BRIEFING

- **Senior Management**
- **Benefits of CBA-IPI**
- **Return on Investment**
- **Overview of CBA-IPI process**





PRE-ASSESSMENT ACTIVITIES

- **Identify assessment scope**
- **Develop assessment plan**
- **Prepare and train team**
- **Brief assessment participants**



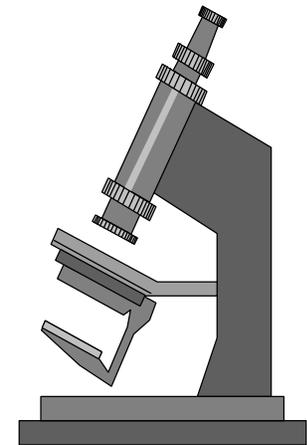
FEBRUARY 1997 ASSESSMENT SCOPE

CMM SCOPE

Included all Level 2 and Level 3 KPAs

ORGANIZATION SCOPE

**Included all capital enhancement projects in
the Procurement Product Line**



ASSESSMENT PRINCIPLES

CONFIDENTIAL

- **OBSERVE STRICT CONFIDENTIALITY**
- **INVOLVE SENIOR MANAGEMENT AS ASSESSMENT SPONSOR**
- **APPROACH ASSESSMENT COLLABORATIVELY**
- **INTERVIEW MANAGEMENT SEPARATELY FROM PRACTITIONERS**
- **FOCUS ON ACTION**



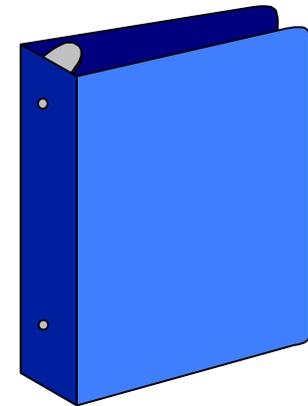
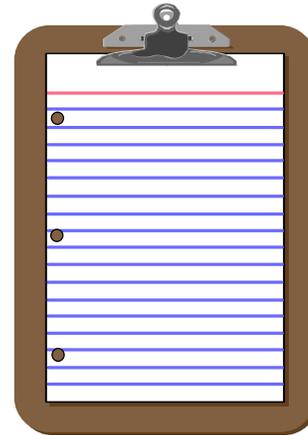
DATA SOURCES

- **Maturity questionnaire responses (CMM terminology)**
- **Interview data from individual Project Manager interviews (DSDC terminology)**
- **Interview data from Functional Area Representatives (FAR)s**
- **Document data**
- **Presentation data**



TYPES OF DOCUMENTS

- **Plans**
- **Procedures**
- **Reports**
- **Correspondence**
- **Meeting Minutes**



DATA VALIDATION

RULES OF CORROBORATION

- **Observations are based on data from at least two independent sources**
- **Observations are based on data obtained during at least two different data-gathering sessions**
- **Observations are confirmed by at least one data source reflecting work actually being done.**



RATING

1. A KPA or goal is satisfied if this aspect of the CMM is implemented and institutionalized either as defined in the CMM, or with an adequate alternative.
2. A KPA goal is unsatisfied if there are significant weaknesses in the appraised entity's implementation or institutionalization of this aspect of the CMM, as defined, and no adequate alternative is in place.



RATING CONT'D

- 3. A KPA or goal is not applicable if the KPA is not applicable in the organization's environment.**
- 4. A KPA or goal is not rated if the associated appraisal findings do not meet the coverage criteria or if this aspect of the CMM falls outside the scope of the appraisal.**



IMPLEMENTATION VS. INSTITUTIONALIZATION

AN ACTIVITY IS:

- **IMPLEMENTED**

when

**documented
trained
used**

- **INSTITUTIONALIZED**

when ALSO

**measured
changed based on lessons learned
triggers a consequence if not followed**



REPORTING RESULTS

- **Final Findings Briefing**
- **Strengths and weaknesses of each KPA**
- **KPA Profile**

Indicates whether KPAs are satisfied, unsatisfied, not rated, or not applicable



CMM Key Process Area (KPA) Profile

Increment 3

LEVEL 2

M
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3

Defined KPAs

- Peer Reviews
- Intergroup Coordination
- Software Product Engineering
- Integrated Software Management
- Training Program
- Organization Process Definition
- Organization Process Focus

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2

Repeatable KPAs

- Software Configuration Management
- Software Quality Assurance
- Software Subcontract Management
- Software Project Tracking & Oversight
- Software Project Planning
- Requirements Management

- Fully Satisfied
- Partially Satisfied
- Not Satisfied
- Not Applicable
- Not Rated



FOLLOW-ON ACTIVITIES

- ***ASSESSMENT TEAM***

 - Develops recommendations**

 - Documents assessment results**

 - Prioritizes issues**

- ***SEPG***

 - Develops action plan**

 - Implements establishing phase**

STRENGTHS

- **Strong Senior Management Commitment to Process Improvement**
- **SEPG is operating effectively**
- **Associates not afraid of hard work**
- **Organization has strong technical capabilities**
- **Organization is eager to improve**
- **Organization committed to delivering quality products**
- **Organization knows and supports its systems and customers**
- **Organization understands that everyone (including customers) must take this journey together**
- **DSDC Project Guide is a very effective tool**
- **Auditing has enhanced implementation of the process**

RECURRING THEMES

- **Resources are adequate for current workload but can easily become strained with downsizing and increased number of projects**
- **Metrics are being collected but not used effectively to improve the process**
- **Metrics have not been defined for all level 3 KPAs and therefore there is limited management visibility**
- **Policies and procedures have not been fully defined for most level 3 KPAs**
- **Level 3 Institutionalization Common Features are not satisfied for most KPAs**

RECOMMENDATIONS

- Review metrics program and how the metrics can be used more effectively to improve process and products**
- Review resource allocations based on changes in the organization and workloads**
- Address life cycle requirements traceability**
- Establish an organizational planning database**
- Establish defect and lessons learned database**
- Improve definition of technical interfaces with subcontractors**
- Acquire automated tool for configuration management**
- Expand SQA audits to cover technical software products**

ASSESSMENT SCHEDULE

- **February 1997** **Procurement Product Line Assessment**
- **1997 - 1998** **Training, Audits & Internal Assessments**
- **1998 - 1999** **Level 2 & 3 Assessments of all DSDC**

1992						
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	