Practical Software Measurement

A foundation for objective project management

Insight and the Readiness Growth Model (RGM) Workshop

Office of the Under Secretary of Defense
Acquisition and Technology

Joint Logistics Commanders
Joint Group on Systems Engineering

Objectives of the Workshop

- Review Current and Future Tool Requirements
- Identify Types of Analyses Needed
- Preview RGM and Highlight Integrated Tool Approach
- Assess Applicability of the Tools With Development Methodologies
- Identify Types of Data Currently Collected by Users
- Identify User Types/Profiles

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Agenda

- *0830-0915 RGM and Insight Status*
- *0915-0930 User Surveys*
- *0930-1000 User input on managing s/w development using measurement tools*
- *1000-1030 Break*
- *1030-1130 User input*
- *1130-1300 Lunch*
- *1300-1500 User input*
- *1500-1530 Break*
- *1530-1600 Workshop Wrap-up*
- *1600-1700 Open Q&A and tool free play*

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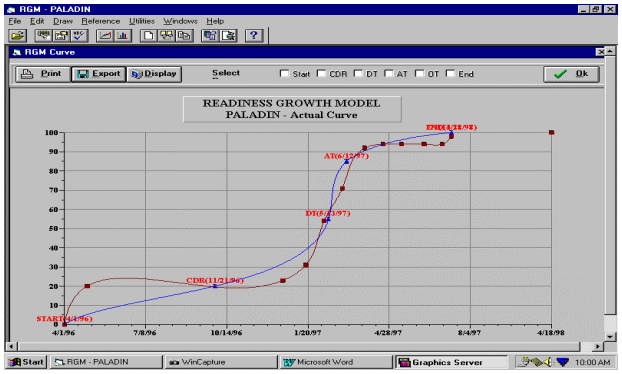
Readiness Growth Model Actual Curve Compared to Ideal Curve



Genesis of the RGM (Circa later 80's)

- Software-intensive Systems Undergoing Operational Test Were Failing Due to Immature Software
- Army Test & Evaluation Community Began Seeking Better Assurance That Software Was "Ready for Test"

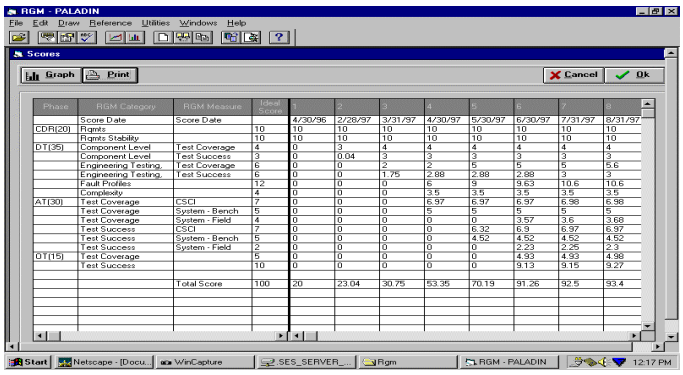
The Need for RGM

- Shortcomings of 12-Step Approach
  - Discrete Measurement
  - Stand-alone Results
  - No Bottom-line System Assessment
- 1991 ARDEC Solution
  - Single, Composite Index

RGM Features

- Quantitative and graphical
- Comprehensive
- Predictive
- Adaptable
- Tailorable
- Versatile
- Multi-Use/Domain Independent

Program Evaluation Using RGM



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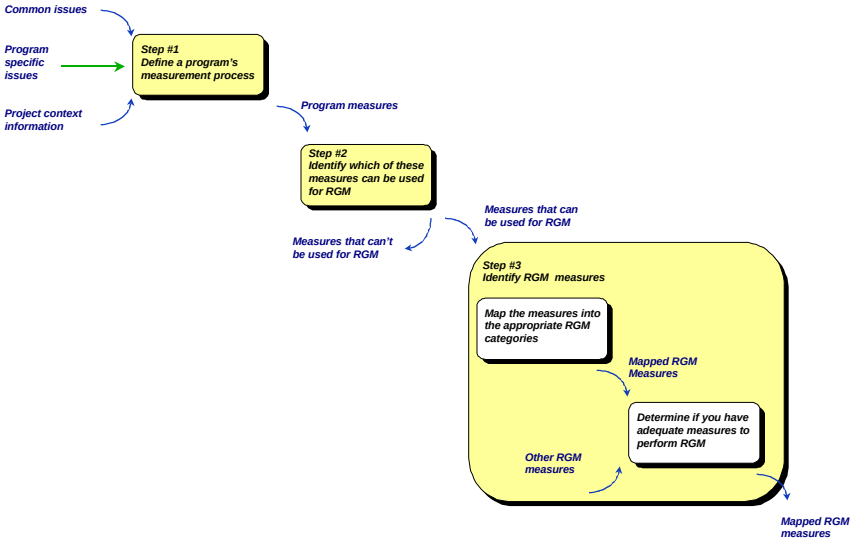

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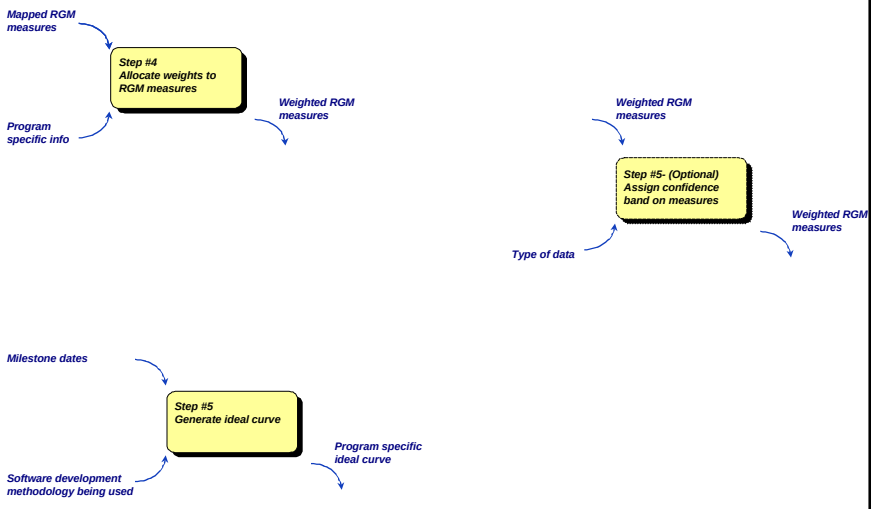

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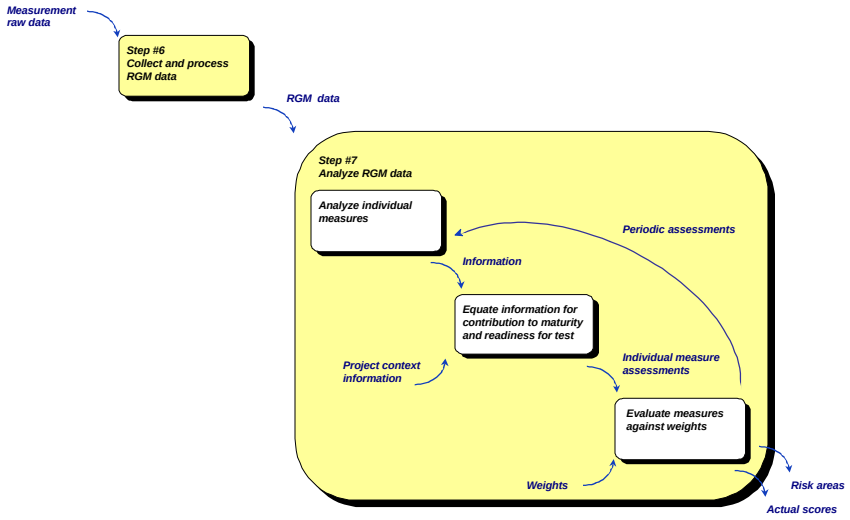

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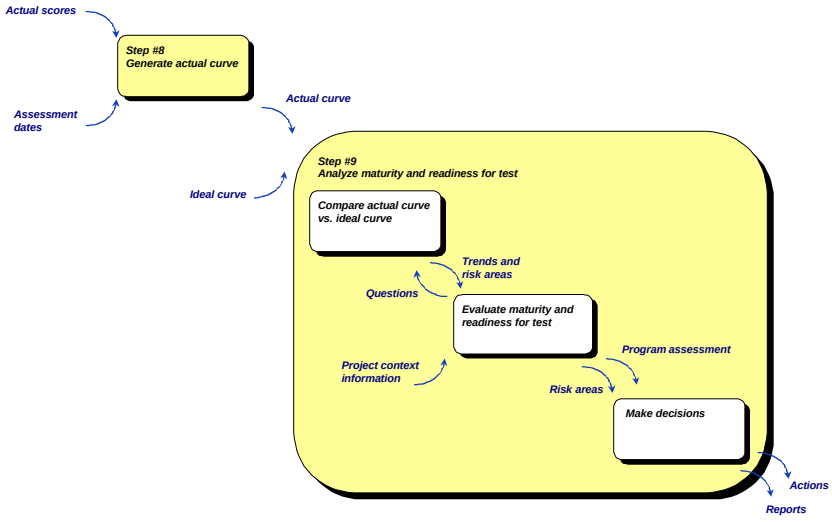


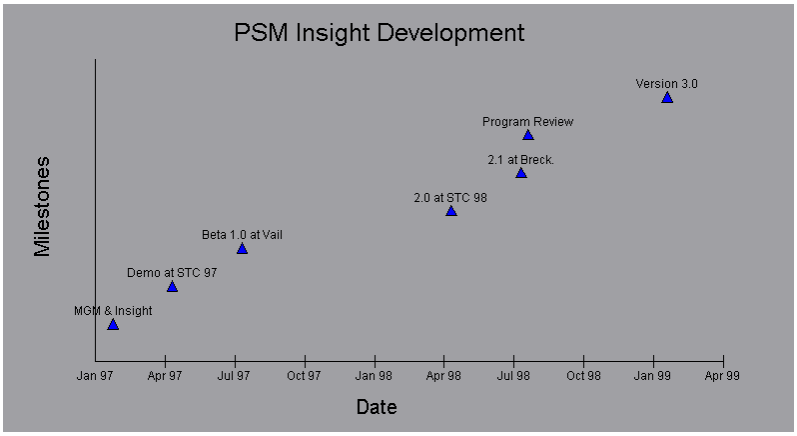
PSM Insight Background

Over the past year and a half, the PSM Insight Development Team has been developing an automated tool to implement and support the PSM process. Insight version 2.0 was released at STC-98 and allows analysts and managers to address project information needs and obtain insight into project risks and issues.

Insight Background

Even if you have been familiar with or using the PSM process, you will find that Insight 2.1 requires time to understand the interface and use the tool effectively. This latest version of the tool carries PSM one step closer to its goal of providing a flexible desktop tool to support project management.

Schedule



Key Features You Will Find in Insight 2.1

- *An excellent tailoring process that allows users to:*
  - *Define projects*
  - *Identify project issues and categories*
  - *Select and specify software measures*
  - *Access a complete library of reports to help you tailor and share information about your project*
- *The capacity for both manual data entry and automated data import & export, supported by:*
  - *A data entry screen that is customized to your chosen measure*
  - *Powerful data search and locate capabilities*
  - *Import process for several standard data formats*

Key Features (Cont.)

- Procedures for generation of indicators for any measurement data, including
  - Graphs and tables that depict comparative data, trends, and snapshots of project status
  - Features to control of every graph feature with the Graph Control
  - Presentation-quality graphs and reports
- Extensive context-sensitive help for every screen
- User's Manual that presents guidance in the use of Insight

Key Functions Not Yet Implemented

- Calculated fields
- Complete table restructure
- Cross Aggregation (e.g., WBS and a CI)
- Import directly from Access and Excel
- Multiple measure indicators
- Gantt charts and histograms
- Flexible Program Control Panel
- Export data to a variety of COTS file formats
- Security
- 32 bit version

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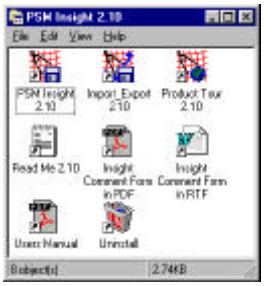
Insight Walkthrough

- ***Insight 2.10***
- ***Users Manual***
- ***Electronic Import/Export***