PSM Insight Beta Test Review and Feedback Session

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Objectives of the Workshop

- *Describe the Underlying Architecture and Design Issues*
- *Review the Tool Features*
- *Demonstrate Installation Procedures*
- *Develop Beta Test Procedures*
- *Provide Feedback on Tool Functionality for Release 1.0 and Beyond*

Background

- ■ *Insight Prototype - West Virginia Development (1996)*
  - *Pseudo-Polymorphic Data Structures*
  - *Ultimate in Flexibility But Less Control Over Data and Indicators*

Background *(continued)*

- *Army's Software Metrics Management Information System - Windows (SMMIS-W)*
  - *DOS Version in 1994*
  - *Supports 14 Specific Metrics*
  - *Initial Plans Were to Extend Metrics Guided Maturity to Support the Army Set of Metrics*
  - *Uses ODBC for Data Import*
  - *Merged Insight Requirements in Feb 1997*

Insight Features

- **Functionality Divided into Tailoring and Application**
- **Extensive Use of Wizards**
- **Parameterize Data Table and Indicator Creation for Explicit Control => Flexibility**
- **Built in Support for Electronic Data Import**
- **Templates for PSM Issues, Categories and Measures (ICMs)**
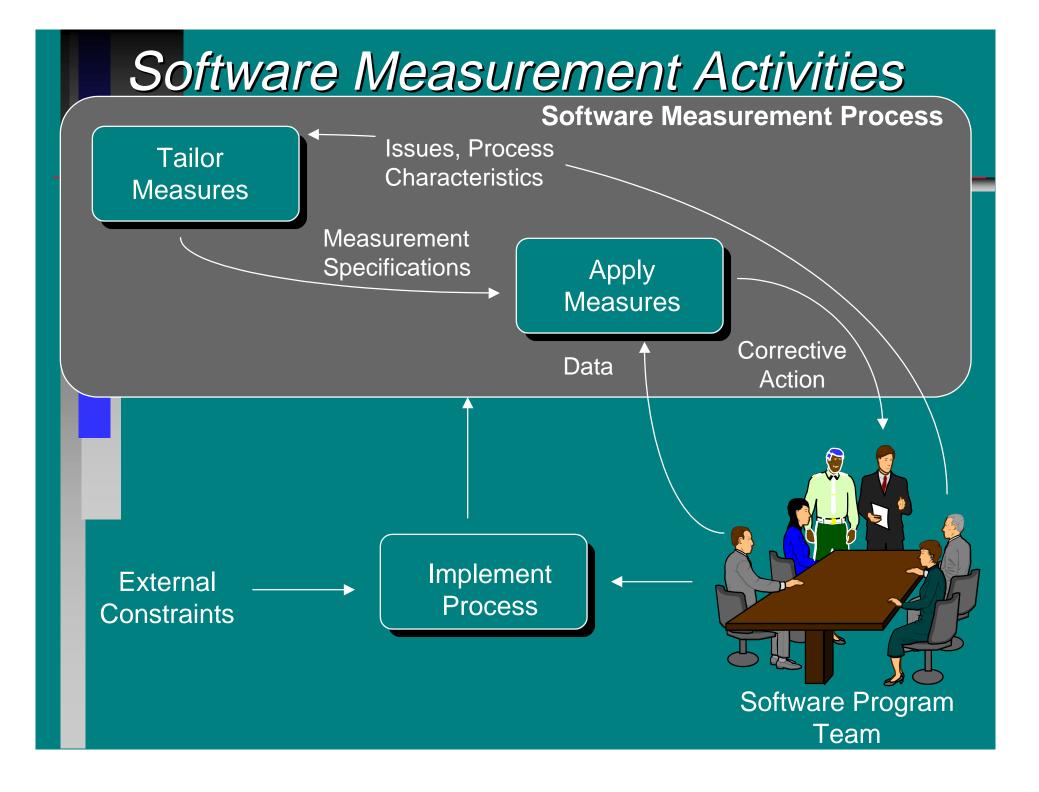- **Easy Addition of Other ICMs**

Workshop Output

- *A Set of Recommendations for Changes or Additions to Insight Functionality*
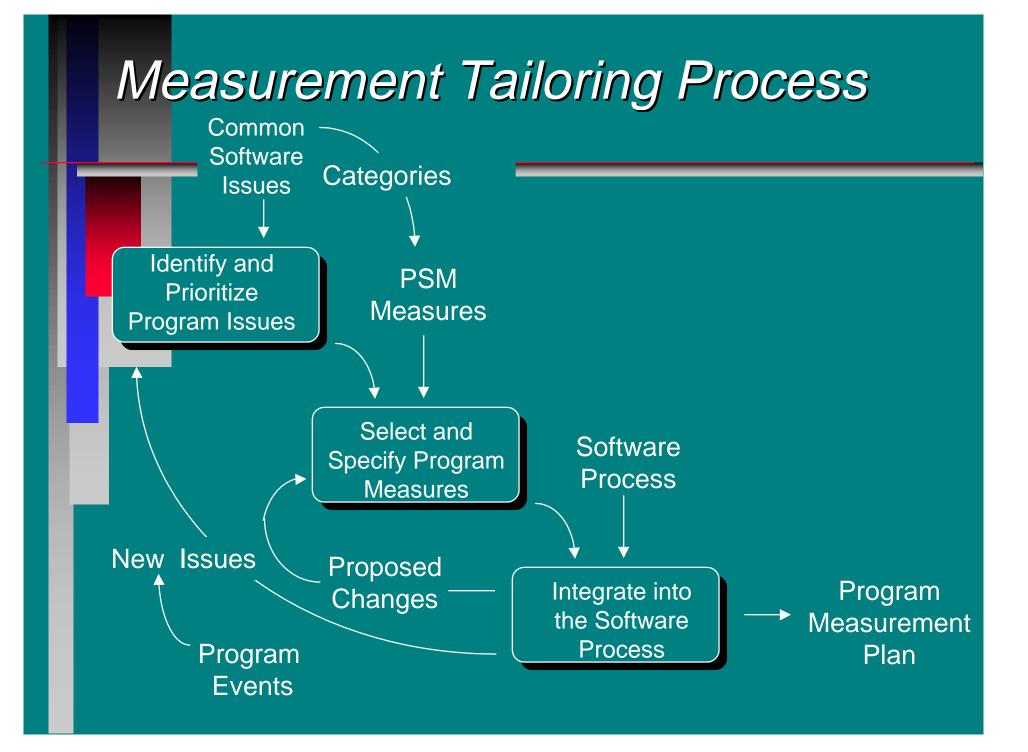
- *Beta Test Procedures*

Underlying Architecture

- *Built on the PSM Measurement Process*
- *User Tailorable Issues, Categories, Measures and Data Formats*
- *Tool Functionality*
  - *Tailoring*
  - *Application*
  - *Electronic Data Transfer*

Software Measurement Activities

Software Measurement Process

Tailor Measures

Issues, Process Characteristics

Measurement Specifications

Apply Measures

Data

Corrective Action

Implement Process

External Constraints

Software Program Team

Measurement Tailoring Process

Common Software Issues

Categories

Identify and Prioritize Program Issues

PSM Measures

Select and Specify Program Measures

Software Process

New Issues

Proposed Changes

Integrate into the Software Process

Program Measurement Plan

Program Events

Measurement Application Process

Software
Issues

Collect and
Process Data

Derived
Issues

Define and
Generate
Indicators

Software
Questions

Analyze
Issues

Other Program
Information

Report
Results

Take
Action

Underlying Architecture (continued)

- **Data are organized using:**
  - *Attributes*
  - *Structures*
- **Attributes: special data items which are used to characterize other measurement data (e.g. organization, activities, priority levels)**

Underlying Architecture (continued)

- **Structures: Special kind of attribute with multiple levels. Allows aggregation. Three structures in initial release:**
  - *Component*
  - *Work Breakdown Structure*
  - *Function*
- **Users cannot add a structure. Users can modify names of components, etc.**

Underlying Architecture (continued)

- *Data can be stored as totals to date, or as cummulative data*
- *Indicator generation depends on knowing which of these options is selected*

Planned Enhancements for Insight

- *Integrated Risk Management Capability*
- *Flexible Project Control Panel*
- *Support for the Readiness Growth Model*
- *More Extensive On-line Help*

Open Questions

- *Written Guidance*
- *Tutorial*
- *Security*
- *Windows 3.1*
- *Linkage to Risks at the Issue, Category or Measurement Level*
- *Upload to Repository*
- *Additional Features*

Beta Test Procedures

- *Beta Testers Provide Software Trouble Reports to the Insight Beta Test Manager*
- *Also Provide Final Report*
- *Preferred Access to Insight Information through Contolled-Access Account on PSM Webpage*
- *Help Desk is Ready to Provide Solutions:*
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