NOTE: This is a summary of the presentation given at SUGI 31. This is not a SUGI Paper but a summary of a "SAS Presents" presentation.
SAS Enterprise Guide for SAS Programmers

About SAS Enterprise Guide

- The "Swiss Army Knife" of SAS
  - Harnesses many of the traditional strengths of SAS in a friendly yet powerful interface that add some new tricks to the SAS experts capabilities
- Target audiences
  - Statisticians
  - SAS Programmers
  - Business Analysts
  - Report Developers

Enterprise Guide Flexibility

- SAS programming environment to work seamlessly across many servers
- Organize your data, code, output, and notes around subject areas
- Guided wizards for data access, reporting, and analytics
- Advanced OLAP analysis
- Drag and drop reporting
- Intelligence creation and authoring to the SAS Business Intelligence Server

The Benefits of Enterprise Guide

- Effectively create and maintain your analyses and reports
- Greater visibility for your work
- Less repetitive work and more strategic work
- The new up to date preferred interface to SAS
- Greater return on your SAS investment and expertise.

Enterprise Guide Status

- 4,000+ sites worldwide
  - This count does not include sites using via PC SAS license
- Current Production Release is 4.1
  - Successor to Enterprise Guide 3.0.2
  - Delivery in 2006MAR
  - Dependent on SAS Service Pack 4 for certain new features, such as:
    - Reporting
    - Information Map access via IMLE

Enterprise Guide Status

- Works transparently with PC SAS or SAS Servers on any platform
- Bundled with PC SAS starting with SAS 9.1
Enterprise Guide Requirements

- **Client**
  - Internet Explorer 5.5 or higher
    - Embedded and used for HTML output viewing
  - Operating System
    - Windows 2000 or later

- **Server (minimum requirements)**
  - If the “server” is the local PC, BASE SAS
  - Otherwise (remote)
    - BASE SAS (8.2 or later)
    - SAS Integration Technologies -OR-
      Local PC SAS with CONNECT and CONNECT on the remote SAS server

Enterprise Guide 4.1

Key Enhancements for SAS Programmers

- Many enhancements for SAS Programmers in this release!
- Improve export code interface- include hierarchies of PF’s and individual data flows
- Show consolidated SAS log for all user written and EG generated SAS code in a project
- Enhanced local scheduling- especially save/e-mail/export/publish
- Parameterize stored process variable role assignments
- Represent Save As/Send To as tasks in process flow
- Define libname wizard
- Allow user-defined associations and dependencies within process flow
- Integration of SAS Reporting capabilities for SAS programs
  - Ability to place output objects side by side
  - Format text, delete sections, other formatting operations
  - Preserve interactive graph changes after rerunning
  - Preserve formatting and allow refresh of results
  - Publish results to Report Repository for use by Web Report Studio users

- **Project Parameters**
  - Centralized management of user macro variables (integrated for use with tasks and SAS programs)
  - Your project parameters flow through automatically to your stored process authoring

- Addition of enhanced editor during stored process authoring wizard
- For longer running code, you can watch the log scroll by before the submitted code is complete, just like DMS
Usage

• Projects
  – The place to organize your programs, logs, output, datasets used/created, notes, and Word documents for your project
  – User defined dependencies to manually control program submission/order
• Local SAS
  – Automatically available if installed on same PC as Enterprise Guide
• Server Based SAS
  – Requires Integration Technologies -OR-
  – Local PC SAS with CONNECT and CONNECT on the remote SAS server

Administration

• The Enterprise Guide Repository- last release to support this is 4.1
• SAS Metadata Repository Integration- since 3.0!
• Security- Centrally controlled and respected
• Data Access- metadata based, autoexec.sas or config.sas, and your session assigned libnames
• Binders- only available with EG Repository
• Server Based File Access- transparent via EG
• SAS Workspace Servers
• SAS Stored Process Servers
Enterprise Guide Interaction with SAS Application Servers

- **SAS Metadata Server**
  - Read and write metadata for repository objects such as stored processes.
  - Read metadata for objects such as libraries, tables, IT channels, and SAS Workspace and SAS Stored Process servers defined via SAS Management Console.

- **SAS Workspace Server**
  - Access resources such as tables, views, databases via SAS ACCESS®.
  - Execute SAS code, EG tasks, and queries.
  - Move and copy library members and files between different SAS Workspace Servers.
  - Perform a variety of maintenance tasks
    - Renaming and deleting files and folders
    - Copying server and PC SAS files, SAS datasets, even database tables to files, libraries, or databases

- **SAS Stored Process Server**
  - Author stored processes via an intuitive and powerful wizard interface
  - Update stored processes
  - Execute stored processes and present results.

- **SAS OLAP Server**
  - Access cube data and process MDX queries.
  - Primarily used via EG’s OLAP Analyzer interface

- **Other Servers**
  - Microsoft Analysis Services (OLAP)
  - SAP BW (OLAP)
Enterprise Guide Data Access

- Data Access
  - PC File import facility (BASE SAS only required)
  - Locally Accessible Data Sources- ODBC, OLE DB, Exchange Server
  - SAS Data
  - Server Based SAS ACCESS engines
  - SAS Scalable Performance Data Server (SPDS)
  - SAS OLAP Server
  - Data Migration and Transparency
  - Data Location and Code Execution Location
Tasks and Code from Enterprise Guide

- **SAS Tasks and Wizards**
  - Overview of Tasks and Wizards
  - How They Work
  - Preview Code and Inserting Custom SAS Code In a Task
  - A Review of Major Task Areas
  - Exporting Code
  - Tasks Limitations
  - Tasks make their selections and options available during stored process authoring
  - Use project parameters to control variable role assignment at run time

- **The Code Editor**
  - SAS Enhanced Editor
    - Same editor as used in traditional DMS
  - Usage
    - SAS programs can be saved embedded in the project or as separate files anywhere on your file system
  - Options and Settings
    - Many options to control appearance and behavior of the editor
  - Limitations Relative to DMS
    - EG does not support SAS AF®, FSP, Insight, or SCL
    - EG replaces this functionality with custom tasks written in VB.NET or C#
  - Consolidated SAS log across all sessions/nodes
Output and Intelligence Distribution
With Enterprise Guide

- **Output Management**
  - Output Types: quickly and easily switch between/among text, HTML, PDF, RTF, and SAS Report Object Model (ROM)
  - Easily switch among styles used
  - Styles & Style Editor
    - Quickly and easily create custom CSS styles for HTML and SAS ROM controlling almost every table and title/footnote element
  - Report control capabilities
    - Static snapshots
    - Dynamic reports combining many outputs
    - Refresh results while preserving interactive formatting

- **Distribution of your Work and Results**
  - Stored Process Authoring
    - Publish from a node or a flow
  - The Document Builder
  - Portal/LDAP Publishing
  - Scheduling
  - E-mail
  - SAS/IntrNet®
  - Report Repository for Web Viewing and Refresh
  - Easily export code individually or as a flow
Future Improvements for SAS Programmers

- Some of the new features planned for the next release of Enterprise Guide (post 9.2)
  - Conditional logic node for EG Process Flow
  - New version of the enhanced editor with top two SASWare Ballot® items addressed, also Unicode support
    - Automatic color coding of parentheses to easily find missing parenthesis
    - Automatic highlighting of MACRO usage in editor
  - New PROC REPORT based wizard