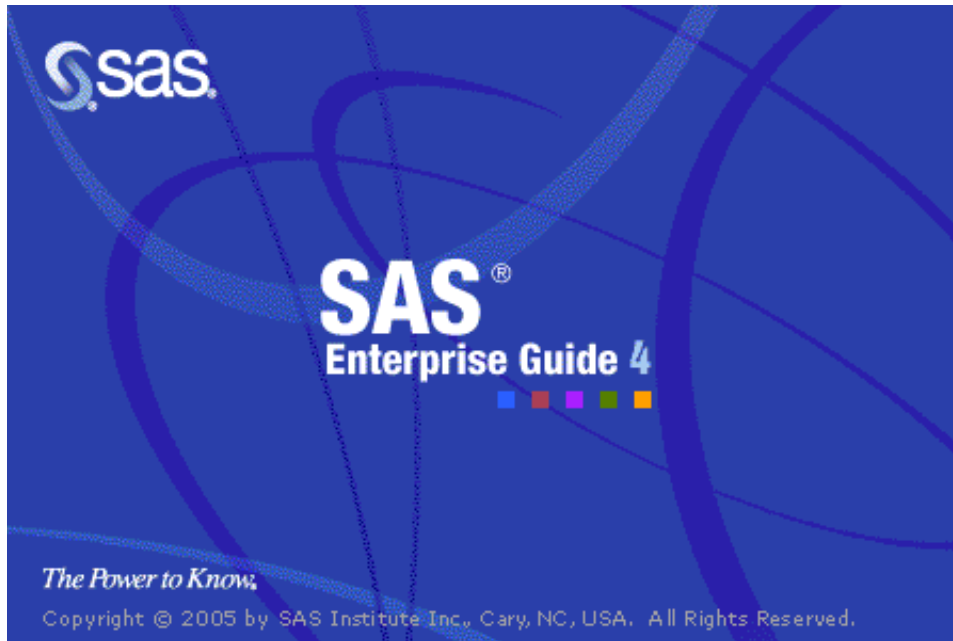


# What's New- SAS Enterprise Guide 4.1



*Presented by Josée Ranger-Lacroix  
SAS Education, Ottawa  
November 22<sup>nd</sup> 2006 OASUS Meeting*

# SAS...Then vs. Now

**Then – Powerful Tools**

**Now – Enterprise Solutions**

```
proc catmod order=data;
  weight wt;
  response / out=preds;
  model severity=trt hospital;
run;
quit;
```

/\* Keep just the predicted values, predictors, and response \*/

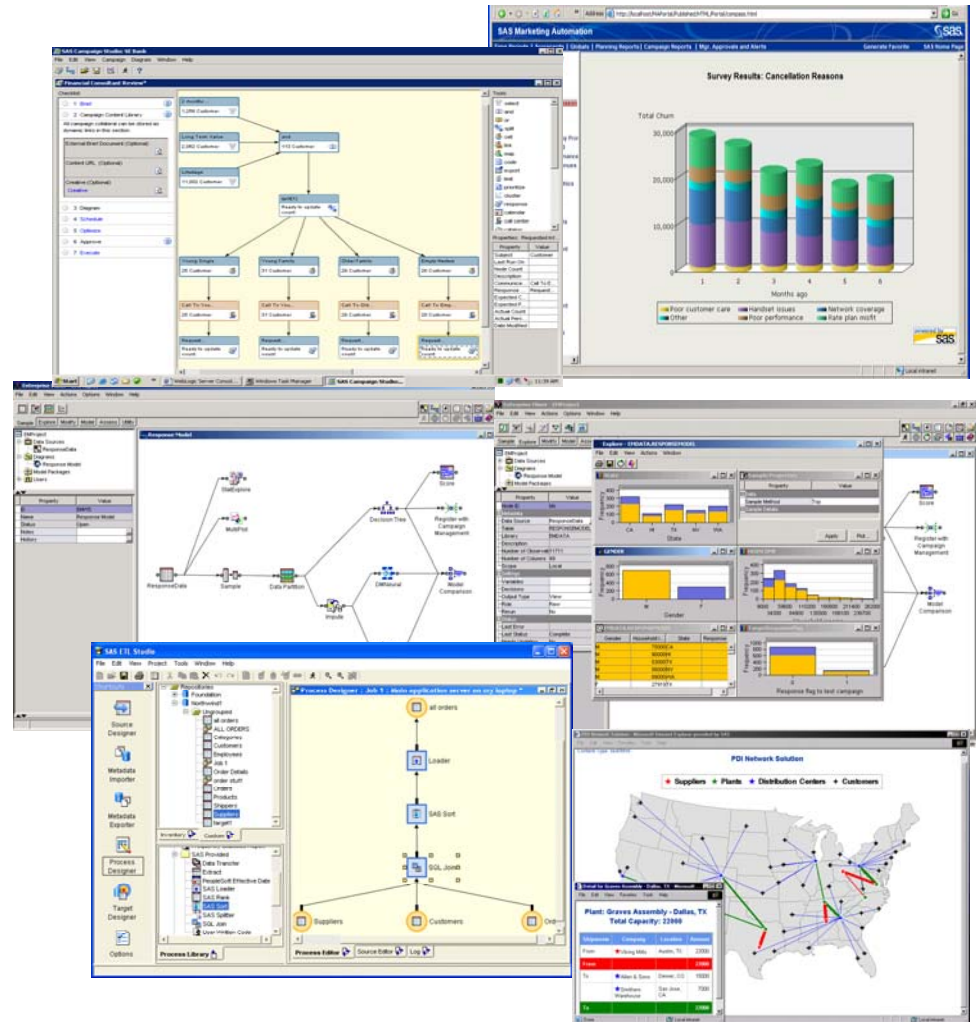
```
data pred2;
  set preds;
  if _type_='PROB';
  keep severity trt hospital _pred_;
run;
```

/\* Find predicted response level (level with highest predicted probability) in each sample. \*/

```
proc summary data=pred2 nway;
  class trt hospital;
  var _pred_;
  output out=predlvl (drop=_type_ _freq_)
    maxid(_pred_(severity))=predlvl;
run;
```

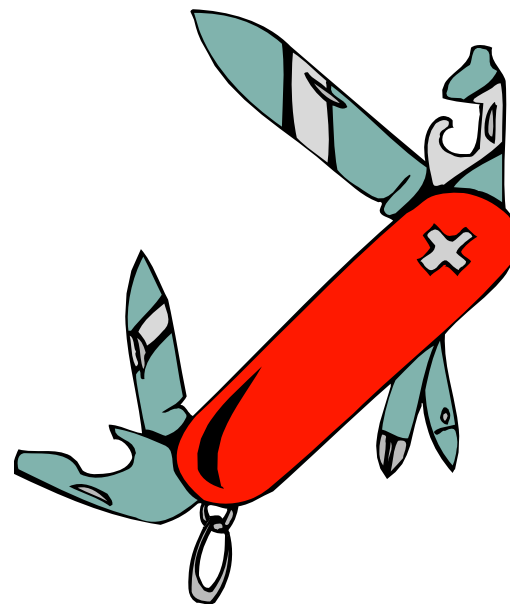
/\* Transpose the predicted values so that there is one observation per sample containing predicted values for each response level. \*/

```
proc transpose data=pred2 out=pred3 (drop=_name_);
  by trt hospital;
  id severity;
  var _pred_;
run;
```



# About SAS Enterprise Guide

- The “Swiss Army Knife” of SAS
  - Harnesses many of the traditional strengths of SAS in a friendly yet powerful interface
- Target audiences
  - Statisticians
  - SAS Programmers
  - Business Analysts
  - Report Developers



# What is Enterprise Guide ?

Enterprise Guide is an easy-to-use Windows application that provides:

1. An intuitive visual interface
2. Transparent access to data
3. Access to the power of SAS
4. Easy exporting of data and results to other applications
5. Scripting and automation
6. Access to a programming interface

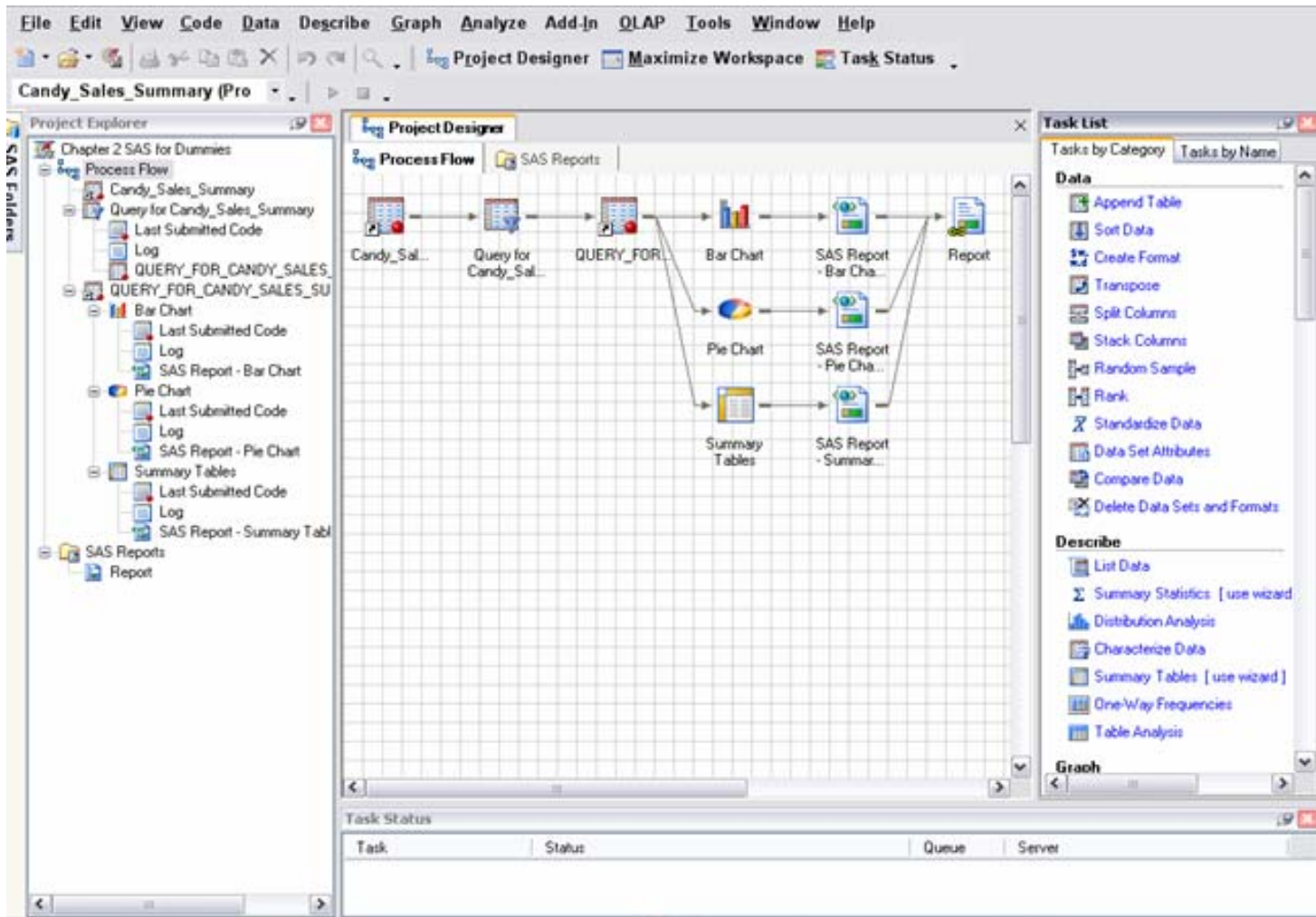
# Enterprise Guide Flexibility

- SAS programming environment
- Drag and drop reporting
- Organize your data, code, output, and notes around subject areas → Project
- Guided wizards for data access, reporting, and analytics
- Advanced OLAP analysis
- Intelligence creation and authoring to the SAS Business Intelligence Server (eg: Stored process)

# The Benefits of Enterprise Guide

- Effectively create and maintain your analysis and reports (ad hoc & recurring)
- Greater visibility for your work
- Less repetitive work → more strategic work
- The new up to date preferred interface to SAS
- Greater return on your SAS investment and expertise.

# New App Layout



The screenshot displays the SAS Project Designer interface for a project named "Candy\_Sales\_Summary (Pro)". The main workspace shows a workflow diagram with the following steps:

```

    graph LR
      A[Candy_Sal...] --> B[Query for Candy_Sal...]
      B --> C[QUERY_FOR...]
      C --> D[Bar Chart]
      C --> E[Pie Chart]
      C --> F[Summary Tables]
      D --> G[SAS Report - Bar Cha...]
      E --> H[SAS Report - Pie Cha...]
      F --> I[SAS Report - Summar...]
      G --> J[Report]
      H --> J
      I --> J
  
```

The interface includes several panels:

- Project Explorer:** Shows a hierarchical tree of project components, including folders for "Process Flow", "SAS Reports", and "Report".
- Task List:** A panel on the right containing a list of tasks categorized by "Data" and "Describe".
  - Data:** Append Table, Sort Data, Create Format, Transpose, Split Columns, Stack Columns, Random Sample, Rank, Standardize Data, Data Set Attributes, Compare Data, Delete Data Sets and Formats.
  - Describe:** List Data, Summary Statistics [use wizard], Distribution Analysis, Characterize Data, Summary Tables [use wizard], One-Way Frequencies, Table Analysis.
- Task Status:** A table at the bottom with columns for Task, Status, Queue, and Server.

# Key New Features in EG 4.1

- Export & email as a step in project
- Allows you to combine multiple output on a page
- New and better data grid for creating data
- New and improved query builder task
  - Extensive effort to modernize this task
  - Now stored process enabled
  - Many new feature requests added in addition to slicker interface





### Sales by Product Line and Quarter - Query Builder

Query Name:  Output name:

Computed Columns... 
  Parameters... 
  Validate 
  Preview 
  Options

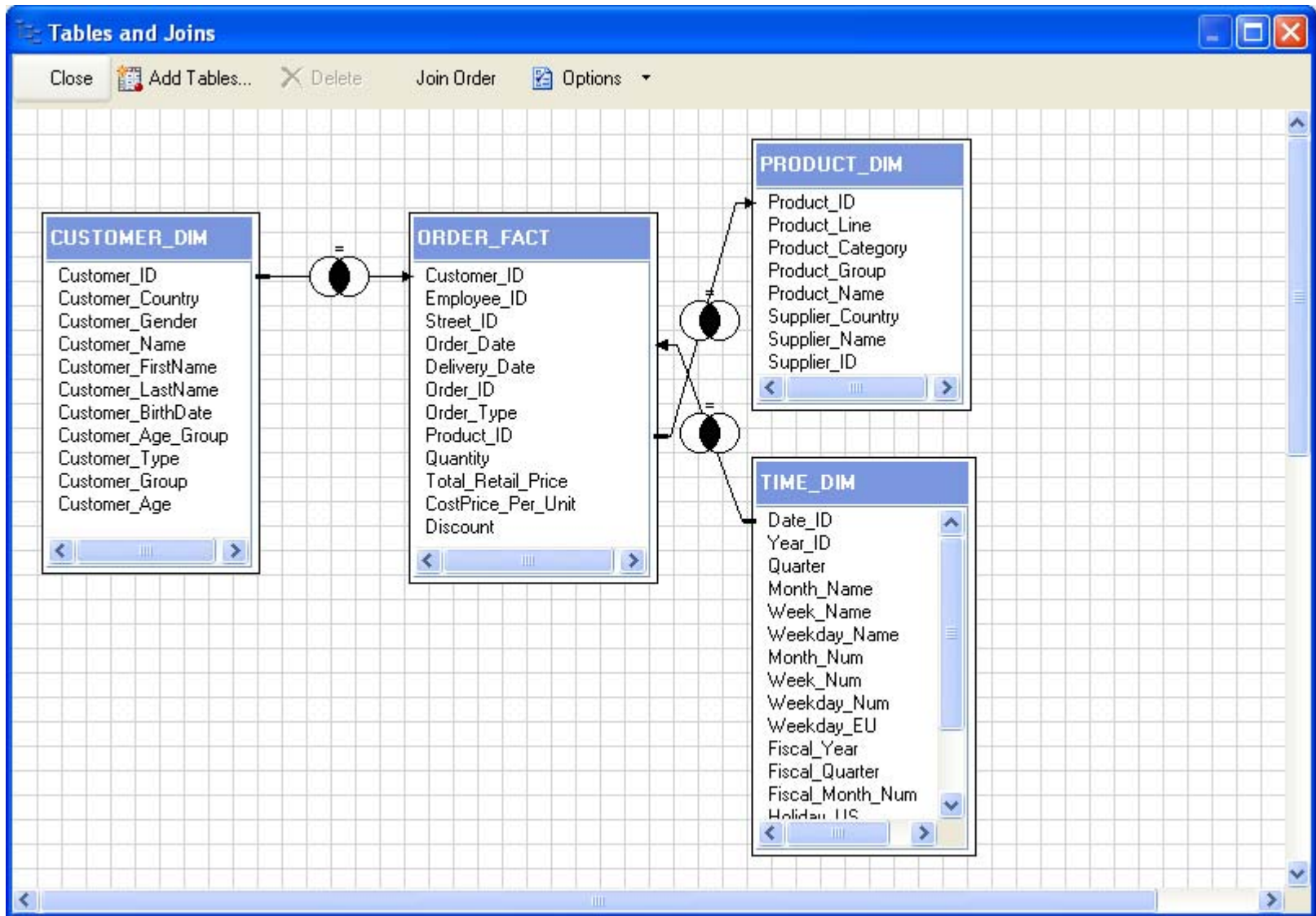
- CUSTOMER\_DIM
  - Customer\_ID ( Customer ID )
  - Customer\_Country ( Customer Co
  - Customer\_Gender ( Customer Ge
  - Customer\_Name ( Customer Nan
  - Customer\_FirstName ( Customer
  - Customer\_LastName ( Customer
  - Customer\_BirthDate ( Customer E
  - Customer\_Age\_Group ( Custome
  - Customer\_Type ( Customer Type
  - Customer\_Group ( Customer Gro
  - Customer\_Age ( Customer Age )
- ORDER\_FACT
  - Customer\_ID ( Customer ID )
  - Employee\_ID ( Employee ID )
  - Street\_ID ( Street ID )
  - Order\_Date ( Date Order was pla
  - Delivery\_Date ( Date Order was
  - Order\_ID ( Order ID )
  - Order\_Type ( Order Type )
  - Product\_ID ( Product ID )
  - Quantity ( Quantity Ordered )
  - Total\_Retail\_Price ( Total Retail
  - CostPrice\_Per\_Unit ( Cost Price
  - Discount ( Discount in percent o

Filter the raw data

CUSTOMER\_DIM.Customer\_Gender = "M"  
 CUSTOMER\_DIM.Customer\_Age\_Group = "31-45 years"

WHERE CUSTOMER\_DIM.Customer\_Gender = "M" AND  
 CUSTOMER\_DIM.Customer\_Age\_Group = "31-45 years"

Filter the summarized data



# Key New Features in EG 4.1 - Tasks - General

- Extensive graph tasks enhancements based on feedback from customer
- Data mining scoring task
- Publish/save tasks, send mail for scheduled projects
- New wizards for graph/describe tasks
- Create “New Data” wizard
- Almost 80 Tasks Total in EG 4.1!

# Key New Features in EG 4.1 - Tasks

- **DATA**

- Data Set Attributes (Contents)
- Compare Data (within a dataset or across datasets)
- Delete Data Sets & Formats

- **DESCRIBE**

- Summary Statistics Wizard
- Summary Tables Wizard
- Characterize Data Wizard

- **GRAPH**


- Wizards for Bar Chart, Pie Chart & Line Plot
- New Bar-Line Chart Task

- **ANALYSE**

- Model Scoring Wizard (requires EM)
- Time Series → Create Time Series Data wizard

**Compare Data**

1 of 4 Select the data set(s) to be compared.



This area should show a high level description of what the Compare Data task does. This text should come from the high level description usually at the beginning of the documentation section for a SAS task.

Compare variables from base and comparison data sets.  
 Compare variables within the same base data set.

**Base Data**  
SAS Server:  
Library: WORK Browse...  
Data set:

**Comparison Data**  
SAS Server:  
Library: WORK Browse...  
Data set:

< Back Next > Finish Cancel Help

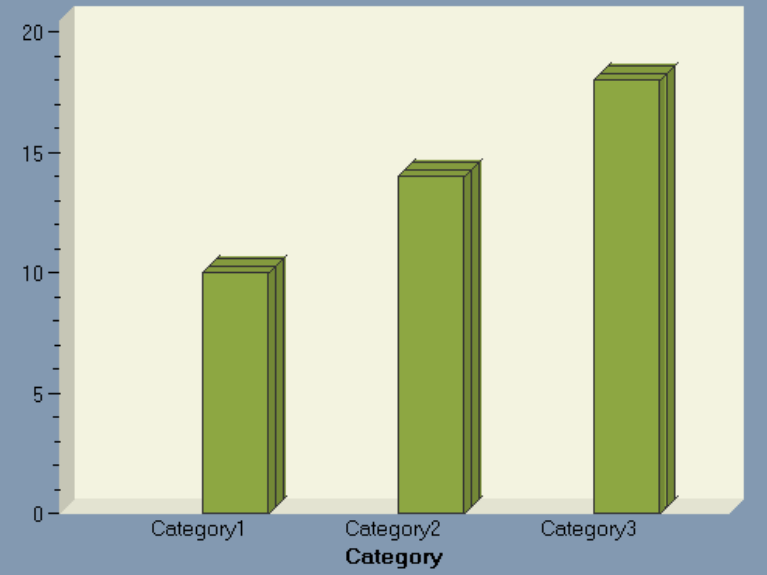
# Key New Features in EG 4.1

- Access to Information Maps
- Enhanced Stored Process Authoring
- Improved Integration with the SAS®9 Platform
  - SAS Server and Metadata Explorer in EG
- OLAP Analyzer Enhancements
- EG performance enhancements
- Interactive Data Visualization
- Report Controls Integration

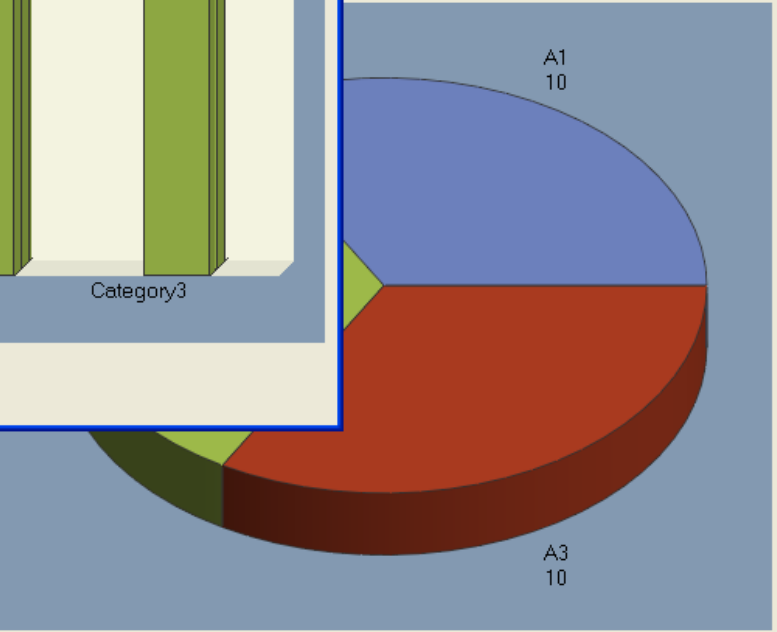
**Interactive data visualization**

File Edit View

**Response**



Category	Response
Category1	10
Category2	14
Category3	18



Segment	Value
A1	10
A3	10

**Data** **Properties**

Segments:

AgeGroup

Segment size:

Rate

Group by:

Year

Depth:

Year

Chart by:

Year

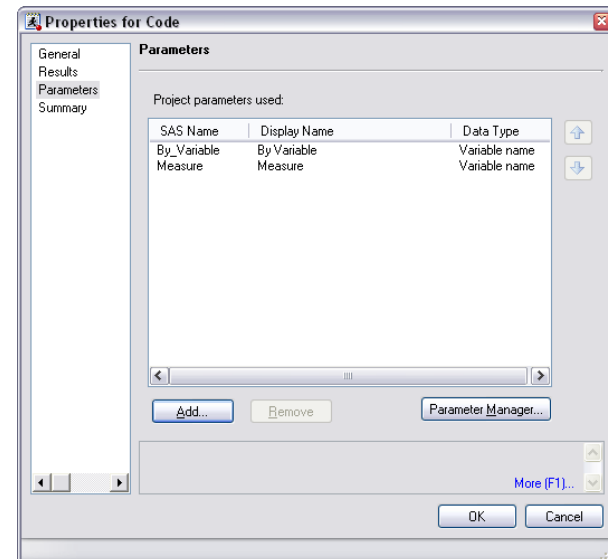
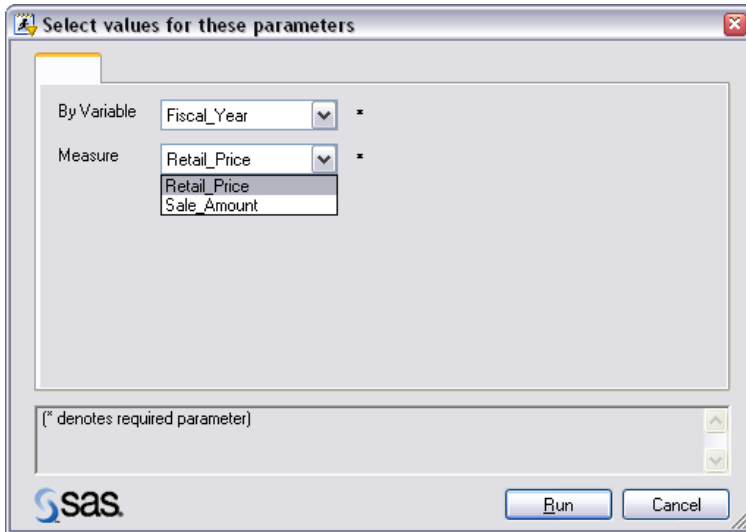
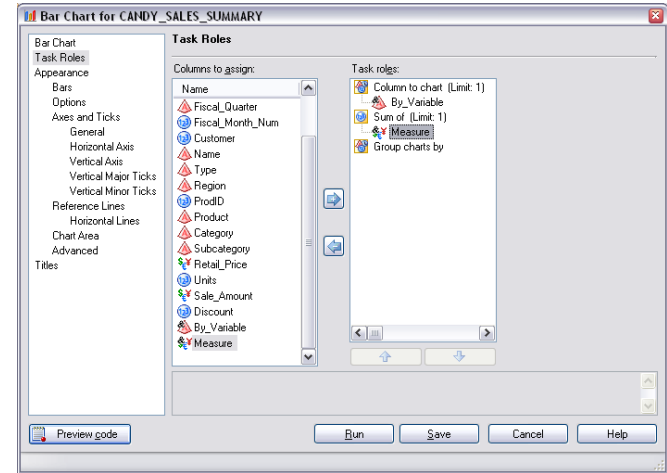
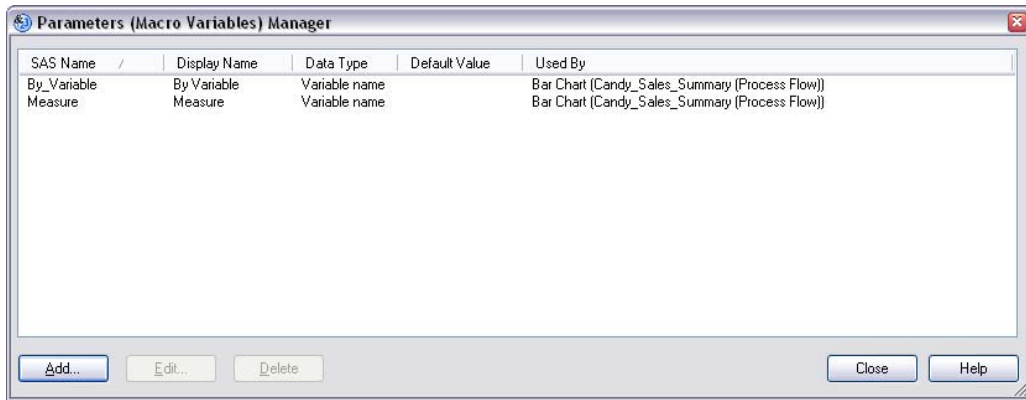
2D



# Enhancements to the User Interface and Work Flow

- **Unified logging of all tasks/code nodes in your project**
  - Includes multiple runs of same item
  - Configurable in terms of size of log
- **Process Flow Enhancements**
  - Print a Process Flow Diagram
  - Explicit ordering of any nodes
- **Parameterized tasks and code nodes**
  - Extension of parameterized queries in EG 3
  - Objective is to make projects behave nearly identical to the stored processes authored from them
  - Pass through to SP authoring

# Parameterized Projects



# Summary of EG 4.1 New Features

- Analytic Reporting
- Query Builder redesign
- Integration with Information Maps, WRS, ETL Studio, and Enterprise Miner
- Parameterized projects
- Enhanced stored process authoring
- Server explorer
- Library wizard
- OLAP enhancements
- A variety of new tasks and wizards

# EDUCATION UPDATE: **New 1 Day Courses!**

Starting in 2007, SAS will offer 6 new 1 day courses on targetted topics:

- **Base SAS**

- course 1: Proc REPORT
- course 2: Proc TABULATE, Proc MEANS, Proc FREQ
- course 3: ODS Level 1

- **Statistics**

- course 1: Proc LOGISTIC
- course 2: Proc GLM
- course 3: Proc REG, Proc UNIVARIATE, Proc MEANS

# Thank you



EG Courses:

Dec. 18<sup>th</sup>, Feb. 14<sup>th</sup>, Mar. 27<sup>th</sup>

---

**THE  
POWER  
TO KNOW.®**

You can visit our WEB site at:  
<http://support.sas.com/training/canada/>