

Creating ActiveX Graphs for Presentations
using SAS[®] Enterprise Guide[®]
PhilaSUG Spring 2005 Meeting
June 15, 2005

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Cephalon Today

Achieving The Right Balance

- > Fully integrated, biotech-based pharmaceutical company
- > Focus on research and development
- > Major presence in the United States and Europe
- > Three key products marketed in the United States
- > Rapid growth
- > Generating significant cash flow

Today's Key Marketed Products

Provigil®

Excessive Sleepiness

Gabril®

Epilepsy

Actiq®

Breakthrough
Cancer Pain

Now more patients than ever can... **New Indication**

Wake Up to the Possibilities of PROVIGIL

The first and only wake-promoting agent — now indicated to improve wakefulness in patients with excessive sleepiness associated with narcolepsy, obstructive sleep apnea/hypopnea syndrome (OSA), and shift work sleep disorder (SWSD)

PROVIGIL®
(MODAFINIL) 8
Tablets

Wake up to life.™

Selectively Target GABA Reuptake

Hit your mark with Selective GABA Reuptake Inhibition (SGRI)

- Inhibits GABA levels at sites by selectively binding to SERT, the predominant GABA uptake transporter
- Proven safety profile with a low potential for drug interactions
- Limited pharmacokinetic effect on previously common substrates
- The pharmacokinetic profile of GABRIL™ (gabapentin) is unaffected by coadministration

Mark your territory with Selective GABA Reuptake Inhibition. The new science of selective GABA reuptake inhibition (SGRI) is a novel approach to the treatment of epilepsy. GABRIL™ (gabapentin) is a selective GABA reuptake inhibitor (SGRI) that has been shown to be effective in the treatment of epilepsy. GABRIL™ (gabapentin) is a selective GABA reuptake inhibitor (SGRI) that has been shown to be effective in the treatment of epilepsy.

GABRIL™
gabapentin HCl
Original active, GABA specific.

When onset matters...

Actiq on call.

With ACTIQ, pain relief may be observed in 15 minutes.¹

Rapid transmembrane absorption

- The rapid and transmembrane nature of ACTIQ allows for rapid and efficient absorption and onset of absorption of the drug.
- Absorption may occur through the oral mucosa, allowing for rapid onset of pain relief.
- The oral mucosa is a highly vascularized area, allowing for rapid absorption of the drug.
- The oral mucosa is a highly vascularized area, allowing for rapid absorption of the drug.

No pharmacologically active metabolites

- Lactin and other active metabolites are rapidly eliminated from the body.
- The oral mucosa is a highly vascularized area, allowing for rapid absorption of the drug.

Typical opioid side effects

- The oral mucosa is a highly vascularized area, allowing for rapid absorption of the drug.

Stability, convenience, control

- The oral mucosa is a highly vascularized area, allowing for rapid absorption of the drug.

Important Warnings

ACTIQ is not to be used in patients with a known hypersensitivity to any of the ingredients. ACTIQ is not to be used in patients with a known hypersensitivity to any of the ingredients. ACTIQ is not to be used in patients with a known hypersensitivity to any of the ingredients.

Actiq
The Original

Long Title for the Presentation

The Working Title

How to extract real-time Clintrace Oracle data using SAS/Access to Oracle then merge and subset the data to then produce a 3D ActiveX control graph which can be easily pasted into PowerPoint without writing any code using SAS Enterprise Guide...

SAS[®] Enterprise Guide[®]

A Querying and Reporting Tool

- > Enterprise Guide[®] (EG) is an easy-to-use Windows application that provides:
 - > An intuitive, visual interface
 - > Access to the power of SAS
 - > Transparent access to data
 - > Ready-to-use tasks for analysis and reporting
 - > Easy exporting of data and results to other applications
 - > Scripting and automation
- > Users of all experience levels can produce meaningful results quickly


SAS[®] Enterprise Guide[®]

The Power of SAS without Programming

- > EG provides a state-of-the-art Windows interface with:
 - > Drag-and-drop functionality
 - > Dialog boxes
 - > Wizards
 - > A color-code syntax editor
 - > A full Online Help facility, embedded context-sensitive help, and Getting Started tutorial
- > This slide and previous slide were taken verbatim from the EG training manual

ActiveX Control

A Interactive Graphic Format

- > The ActiveX control output graphic format is interactive
- > This is the default output format from EG
- > Can be viewed in Microsoft Internet Explorer 
- > Right-click on graph to change chart type and many other options via Graph Toolbar
- > Is easily inserted into Word, Excel, and PowerPoint

Interface Environment

- > Project Window
 - > Interactive, real time flow chart
- > Task Window
 - > Data retrieval, manipulation and analysis
 - > Summary statistics, tables, graphics
- > Code / Data Window
 - > SAS 9.13
 - > Display of data and output from project window
- > Status Window
 - > Real time display

Interface Environment

The screenshot displays the SAS Enterprise Guide interface. The main window is titled "SAS Enterprise Guide - J:\Medical\Global Product Safety\Mac\SAS and ENTERPRISE GUIDE\Presentation.egp". The menu bar includes File, Edit, View, Code, Data, Describe, Graph, Analyze, OLAP, Add-In, Tools, Window, and Help. The toolbar contains various icons for file operations and analysis. The main workspace is divided into several panes:

- Process Flow:** A grid-based workspace for creating and editing process flows. It contains a "Presentation" folder and a "Code1" object.
- Code/Data Window:** A window for editing code or data. It contains the following SAS code:

```
libname aesus02 oracle user="xxxxxx" pw="xxxxxx" path="xxxxxx" schema="xxxxxx";
```
- Task List:** A pane on the right side of the interface, titled "Task List". It has two tabs: "Tasks by Category" and "Tasks by Name". It lists various tasks under three categories:
 - Create New Items in Project:** Create Code, Create Data using Data Grid, Create Note, Create Query using Active Date, Create Empty Query, Create Empty Process Flow.
 - Add Items to Project:** Open From My Computer, Open From SAS Server/Binder, Open OLAP Cube, Open Existing Project, Open OLEDB, Open ODBC, Open Project.
 - Graph:** Area Plot, Bar Chart, Box Plot, Bubble Plot, Contour Plot, Create Map Feature Table, Donut Chart, Line Plot, Map Graph, Pie Chart, Radar Chart.
- Task Status:** A table at the bottom of the interface showing the status of tasks. It has columns for Task, Status, Queue, and Server.

The Windows taskbar at the bottom shows the Start button, several application icons, and the system tray with the time 7:23 AM. The text "Project Window" is overlaid on the Process Flow pane, "Code/Data Window" is overlaid on the Code/Data window, and "Task Window" is overlaid on the Task List pane.

Opening / Importing Database

- > Database connectivity

- > Import data, connect to server via SAS/Access to Oracle

- > For Example:

- > libname usaes oracle user="readonly" pw="readonly"
path="clintrace" schema="USAES";

- > Remote data accessibility

- > Project flow develops in project window, real time data in code/data window

- > Query, subset and analyze the Data

Opening / Importing Database

The screenshot displays the SAS Enterprise Guide interface. The 'File' menu is open, showing options such as 'New', 'Open', 'Save', and 'Import Data...'. The 'Open' submenu is expanded, highlighting 'From SAS Server/Binder...'. The main workspace contains a grid and a code editor with the following text:

```
user="gps_readonly" pw="xxxxxx" path="xxxxxx" schema="xxxxxx";
```

On the right side, the 'Task List' pane is visible, listing various tasks categorized into 'Control Charts', 'Basic Analysis', 'Data', and 'Regression'. The 'Data' category includes tasks like 'Append Table', 'Create Format', 'Random Sample', 'Rank', 'Sort Data', 'Split Columns', 'Stack Columns', 'Standardize Data', and 'Transpose'. The 'Regression' category includes 'Generalized Linear Models', 'Linear', and 'Logistic'. The Windows taskbar at the bottom shows the Start button and several open applications: Calendar - Microsoft Outl..., Microsoft PowerPoint - [...], SAS Enterprise Guide ..., and untitled - Paint. The system tray shows the time as 10:00 AM.

Query Using Active Data

Join Tables

AES_ILLT_NAME	ID				
1 ACUTE PANCREATI	10028813	Nausea	10028817	Nausea and vomiting	10018012
2 DRUG INTERACTIO	10028813				
3 HEADACHE	10028813				
4 DRUG INTERACTIO	10028813				
5 NO ADVERSE EFFE	10028813				
6 HEADACHE	10028813				
7 CONSTIPATION	10028813				
8 NAUSEA	10028813				

Applying Custom Filters

Process Flow

Project

- Code1
- Clinical Event Data
- Event Data
- Exposed Drug Data
- Reg Process Flow

Query1 for Exposed Drug Data - Query Builder

Filter Data | Select and Sort | Tables

AES_EXPOSED_DR...

Add Data... | Validate Query | Preview

Show preview of the generated code

Task Status

Task	Status	Queue	Server

Task List

- Create Map Feature Table
- Donut Chart
- Line Plot
- Map Graph
- Pie Chart
- Radar Chart

Ready

Microsoft PowerPoint - [...]

SAS Enterprise Guide ...

4:31 PM

Query Results: Display Output

The screenshot displays the SAS Enterprise Guide interface. The main window shows a process flow diagram with tasks 'Code1', 'AES_CLINI...', 'AES_EVENT...', and 'AES_EVENT...'. A table of query results is visible at the bottom left. The 'Bar Chart for QURY0587' dialog box is open, showing a grid of 12 chart styles. The '3D Grouped Colored Vertical Bars' style is selected. The dialog includes a 'Preview code' checkbox, 'Run', 'Save', 'Cancel', and 'Help' buttons. A note at the bottom of the dialog states: 'The "Column to chart" role must have at least 1 variables assigned to it.'

Task	Status	Queue	Server
1			
2			
3			
4			
5			
6			
7			
8			
9			

AES\$EVENT_ID	
1	CEPH-1538-99-0025
2	US010900
3	CEPH-1538-99-5243
4	US010914
5	US011154
6	CEPH-1538-99-5261
7	CEPH-1538-99-5261
8	CEPH-1538-99-5261
9	US004573

Customizing Output: Assigning Field Tasks

Vertical Bars

Horizontal Rows

Task	Status	Queue	Server
------	--------	-------	--------

Formatting Final Output

The screenshot displays the SAS Enterprise Guide interface. The main window shows a process flow diagram with a task named 'Code1'. A dialog box titled 'Bar Chart for RAND3878' is open, showing the 'Titles' section. The 'Section:' list includes 'Graph' and 'Footnote', both of which are checked. The 'Text for section: Graph' field contains the text 'SOC FREQUENCIES BY PRODUCT'. Below this, a preview window shows the text 'Format Axis, Font, Scale, Title'. The dialog also has a 'Preview code' checkbox and buttons for 'Run', 'Save', 'Cancel', and 'Help'. The background shows the SAS Enterprise Guide main window with a menu bar (File, Edit, View, Code, Data, Describe, Graph, Analyze, OLAP, Add-In, Tools, Window, Help) and a toolbar. The task list at the bottom shows a table with columns 'Task', 'Status', 'Queue', and 'Server'. The Windows taskbar at the bottom shows the Start button, several application icons, and the system tray with the time '7:52 AM'.

Exporting Final Output

The screenshot displays the SAS Enterprise Guide interface. The main window shows a process flow diagram with tasks: Clinical Event Data, Code2, WORK.CHART, Bar Chart, and HTML Cha. A context menu is open over the HTML Cha task, with 'Export...' selected. Below the process flow, a bar chart titled 'SOC FREQUENCIES BY DRUG' is visible, showing a frequency of approximately 250. The right-hand side features a 'Task List' pane with categories like 'Create New Items in Project', 'Add Items to Project', and 'Graph'. The bottom taskbar shows the Start button, SAS Enterprise Guide, and Microsoft PowerPoint, with the system clock at 8:04 AM.

Process Flow:

- Clinical Event Data
- Code2
- WORK.CHART
- Bar Chart
- HTML Cha

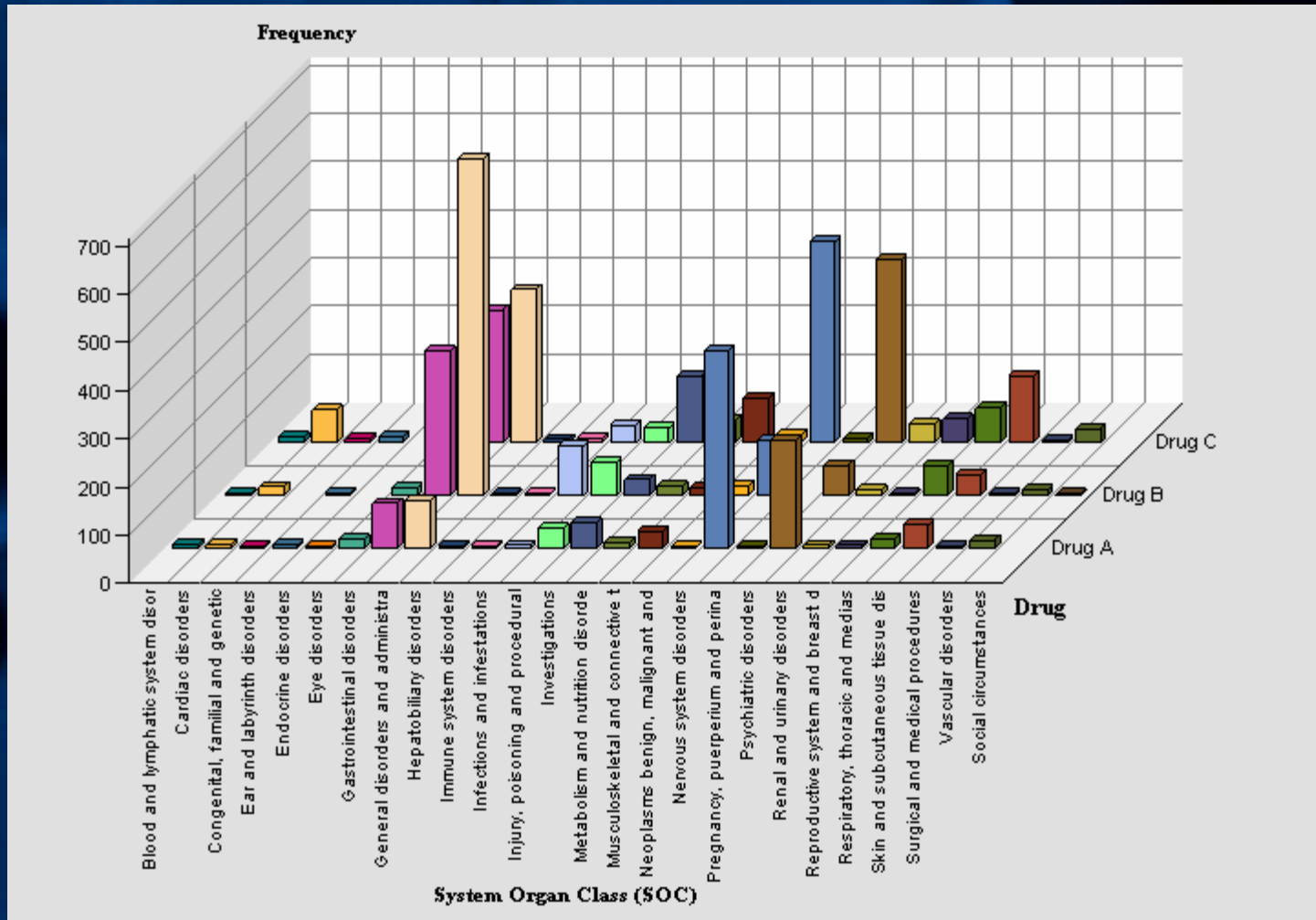
Task List:

- Create New Items in Project**
 - Create Code
 - Create Data using Data Grid
 - Create Note
 - Create Query using Active Date
 - Create Empty Query
 - Create Empty Process Flow
- Add Items to Project**
 - Open From My Computer
 - Open From SAS Server/Binder
 - Open OLAP Cube
 - Open Exchange
 - Open OLEDB
 - Open ODBC
 - Import Data
- Graph**
 - Area Plot
 - Bar Chart
 - Box Plot
 - Bubble Plot
 - Contour Plot
 - Create Map Feature Table
 - Donut Chart
 - Line Plot
 - Map Graph
 - Pie Chart
 - Radar Chart

Bar Chart Data (Approximate):

Drug	Frequency
Drug 1	200
Drug 2	250
Drug 3	280

ActiveX Interactive Output



Start Enterprise Guide Demonstration



Conclusion

Enterprise Guide Strengths

- > An easy-to-use Windows application that has an intuitive, visual interface and transparent access to *ANY* data source
- > The code generation helps even experienced SAS users learn more about SAS coding
- > ActiveX, ActiveX, ActiveX, super powerful presentation graphic object
- > Great for Prototyping output and Presentation quality output

Conclusion

Enterprise Guide Limitations

- > Users should have some technical/analytical experience to produce meaningful results quickly
- > Publication quality graphs still may not be possible without additional SAS code
- > Much slower than SAS, but the application is writing code for the user

Comments/Questions?

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