

Graphics Server 5

Graphics
Server

Graphics Server provides the means of integrating presentational and "hot" graphs and charts into Windows, Windows NT and Windows '95 applications, and is the most professional, yet easy-to-use, software tool for achieving this level of sophistication. It offers much more than other graphing software - multiple platforms, multiple hosts, multiple interfaces, the most extensive range of graphs, charts and statistics, and more.

Active-X (32 bit)	DLL with property based API (16/32 bit)
OCX (16 bit)	VCL for Borland's Delphi (16/32 bit)
VBX (16 bit)	MS Visual C++ class library (16/32 bit)
MS FoxPro FLL	Borland OWL class library

GS v. 5
comes as....

Because **Graphics Server** comes as an Active-X, VBX, OCX, VCL, DLL and C++ class it is programmable at a wide variety of levels.

The well-established **VBX** interface makes programming easy by setting values in the VBX property list. The VBX and Active-X both have an elegant property page system that is even easier to use. And they both have an interactive toolbar that can be used at both design and run time to edit the characteristics of a graph or chart. Increased **data array sizes** - The 32-bit versions of Graphics Server and GRAPH OLE control now support 128,000 (yes, one hundred and twenty eight thousand) data array points

The **property-based** DLL enables property-based programming from host languages that do not support either the VBX or OLE Controls.

The **extended function-based DLL** interface is for use when access to all the 150+ low-level GS functions is required. Using this API, virtually any kind of graph can be custom designed with user interaction via "hot" regions and "hot" graphs to create sophisticated EIS applications. This rich API can also be accessed when using the VBX or OLE Control allowing dual programmatical control.

Programming
Interfaces for
the novice &
professional
programmer

Thousands of Visual Basic and Delphi programmers already use the Microsoft and Borland versions of our VBX and OCX but the new version of **Graphics Server 5** offers **so much more**:

Active-X control with code signed cabinets for easy Internet download

Web image file output

Web browser MAP file creation for hot graphing

Graphs rotated in **True 3D** with perspective

The **Toolbar** for design and runtime control of all graph elements

Hot graphs to turn them into interactive controls

Surface, bubble, log/log, lin/log, tape, candlestick graphs

Box-whisker, error-bar and Fast Fourier transform statistics

Time-series graphs for **real-time** data plotting including line style

Tilt and thickness controls for **3D pie charts**

Combination graphs: line-line, bar-line, area-bar and HLC-line with double axes

Style control for legends, labels and titles with sculptured backdrops

X and Y axis **scale and range** control

Full printing control through the Device Context

256 colour palette manager

Bitmap and metafile backdrops

Annotation through the freeform text and drawing functions

Null values, and options to bridge across **missing data points**

Date labels on X-axis

Fast way to pass large arrays to both the VBX and Active-X

Active-X, VBX,
and 16 bit
OCX Custom
Controls

The ActiveX control

The Active-X control (OCX) is for client side use - i.e. the graph control is displayed in the browser on the client. At present the control can only be displayed in MS Internet Explorer 3.x and although there are a number of third party plug-ins for Netscape that allow the use of an Active-X in a Netscape browser Graphics Server has not yet been tested with them.

The Active-X control is placed into an object tag in the HTML document:

```
<object id="graph" classid="CLSID:0842D100-1E19-101B-9AAF-1A1626551E7C"codebase=http://www.bitspersecond.co.uk/32.cab#Version=2,0,0,0000 align="baseline" border="0" width="390" height="390">
```

If the control is not found locally then its "codebase" is downloaded. VBScript can then be used to control the graph and set its methods and properties.

Server side graphing has the advantage of not requiring a client side control - i.e. all the graphing is done on the server. Graphics Server now supports JPEG and GIF image files (plus MAP files). The JPEG conversion DLLs are on the installation CD, but because of licensing restrictions, libraries for converting to GIF format are available only from our web site. Before using them you must obtain a licence from Unisys who hold the patent for LZW compression.

From a standard Windows application, using the new properties for exporting GIF/JPG and MAP files, you can send image and MAP files to a web server. The MAP files make it possible to introduce 'hot' links from your image files.

Server side graphing

We have created a number of applications using Graphics Server for server side programming, and Centura Inc. has released a product named 'Orion' that uses GS technology to create dynamic graphs from a database. We have also created similar VB,C++ and Delphi programs as server side applications. Graphics Server is also being tested to ensure that it works with active server pages.

We are not planning to create a Graphics Server applet in the near future, but are working on some Java classes - please keep an eye on our web site for more information.

Graphics Server now supports data persistence or the saving and restoring of a graph definition to a file when using the CGraph class, the GSPROP property-based DLL or the VBX. For users of the VBX and Active-X it adds an extra dimension for saving and loading *templates* at design or run time.

The VBX and Active-X are now data aware. There are new property Pages to manage the binding, allowing you to select fields for data and labels, with some new bound data properties which can be accessed both at design and run-times.

As well as being presented on-screen and printed, graphs and charts be saved to disk in either Windows metafile format (WMF), or device-independent bitmap format (BMP). They can also be sent to the clipboard for pasting into other applications.

GS within ISAPI, CGI & ASP apps

- | | | |
|-------------------------|--------------------|------------------------|
| Floating bar - 2D & 3D | Pie - 2D & 3D | Area - 2D & 3D |
| Gantt | Bubble | Log/Lin |
| Tape | Polar | Scatter |
| High-low-close | Line | Maximum |
| Minimum | Mean | Standard Deviation |
| Best fit line | Curve fitting | Spline curve fitting |
| Surface | True-3D graphs | Error bars |
| Lin/Log & Log/Log | 3D graph rotation | Box-whisker graphs |
| Open-high-low-close | Floating bar chart | Fast Fourier Transform |
| Candlestick | Palette management | Moving average |
| Time series (real time) | Combination graphs | Pareto chart |

BITS PER SECOND LTD

True 3D

With **Graphics Server** graphs and charts can be projected in True3D, allowing rotated views with control over rotation, elevation and eye position (perspective and foreshortening).

Toolbar for the Active-X, VBX and 16 bit OCX Custom Controls

The *new* toolbar makes it possible, in design and run time, to view the graph output and change it's characteristics as required. There are toolbar controls for the following:

2D & 3D graph gallery	Statistical, curve and trend control
Symbol and marker choice	Overlaid (combo) graph control
Graph style design	Error bar design
Data input, label and legend control	Background design
Graph titles styling	General system control
Axes and grid styling	General program control
True 3D and rotation control	On-line Help
Font sizing and styling choice	About box

The Toolbar can also generate Custom Events which allow the implementation of designed dialogs at run-time.

Interactive zooming within a graph	Apply clipping to graph region
Graph datum lines	Set number of axis minor ticks
Smart pie labels to avoid overlap	Data labels attached to bars and symbols
Select ticks inside/outside/through axis	Error bars on all log graphs
Y label formats - decimal, EXP, thousands & text	
File templates save/restore in System property page	
Cloned/metafile printing to a different aspect ratio	
Fast way to pass large arrays to both the VBX & Active-X	
Label functions for VB which take arrays of strings	
Curve fitting: polynomial, log, exponential, spline and moving average	
No limit to number of 'hot' regions on certain graph	
Label functions for VB which take arrays of strings	
Printing - common dialog to change printers & the ability to set orientation, margin and size	Configure space between bars in 2D
Statistics & curves for single set bar and all log graphs	
NewLine property to design line break character in Design property page	

Even more features available from Graphics Server...

Developers that incorporate **Graphics Server** into their applications can distribute the run-times royalty-free providing their end-users do not have access, in any way, to the Graphics Server API.

As usual with Bits Per Second products registered users can get free and high quality technical support via telephone, fax, e-mail, or our web site for 60 days after the original registration. Telephone support after 60 days is available through our Level 2 support programme.

Contact ComponentSource Freefone :

France : 0800 90 92 62
Deutschland : 0130 86 07 06
Italia : 1677 90046
Sverige : 020 794 989
The Netherlands : 06 022 8832
United Kingdom : 0800 581111

International : +44 118 958 1111
Facsimile : +44 118 958 9999

E-mail : ComponentSource@compuserve.com

Web : <http://www.componentsource.com>

BITS PER SECOND LTD

ComponentSource is a Microsoft(R) Solution Provider