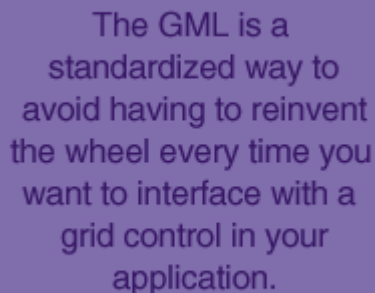# A Utility For Grid Control: BASIS Grid Management Library

By Greg Grisham

The grid is an extremely flexible control that provides many features required by business applications running in the GUI environment. There are two basic modes for grid controls: data-aware and standard grids.

Data-aware grids display values in a file and handle file I/O automatically, therefore, a programmer can use a data-aware grid to quickly and simply display a quantity of data in a short amount of programming time and effort.

> The GML is a standardized way to avoid having to reinvent the wheel every time you want to interface with a grid control in your application.

Standard grids, however, do not perform any file I/O or automatic displaying. Because the grid control makes extensive use of the SENDMSG() function and Notify events, an understanding of SENDMSG() and Notify events is required to program and manage the basic features of the grid control, such as displaying data. For most business applications, displaying data is the tip of the iceberg. Once displayed, the user manifests endless thoughts on what they want from or to do to that data. The initial display might even spark additional questions for other queries of other resources.

In response to these additional demands, BASIS partner SCS Consulting Services Inc. has developed a standardized interface for a non data-aware grid called the Grid Management Library (GML). The GML is a set of public programs that help a programmer use a grid interface. This command-like set of instructions is referred to as procedures. When procedures are executed within the GML programs, they are expanded in a manner similar to executing macro instructions. The GML eliminates the need for a programmer to use SENDMSG functions and also provides interpretation and overall management of grid Notify events.

Internal to theGML is a set of functions that produces consistent interface and behavior that enhances functionality and allows the programmer to be much more productive. Grid functionality is avery powerful tool, but the amount of code necessary tofully utilize themany features ofthe grid can bequite cumbersome.
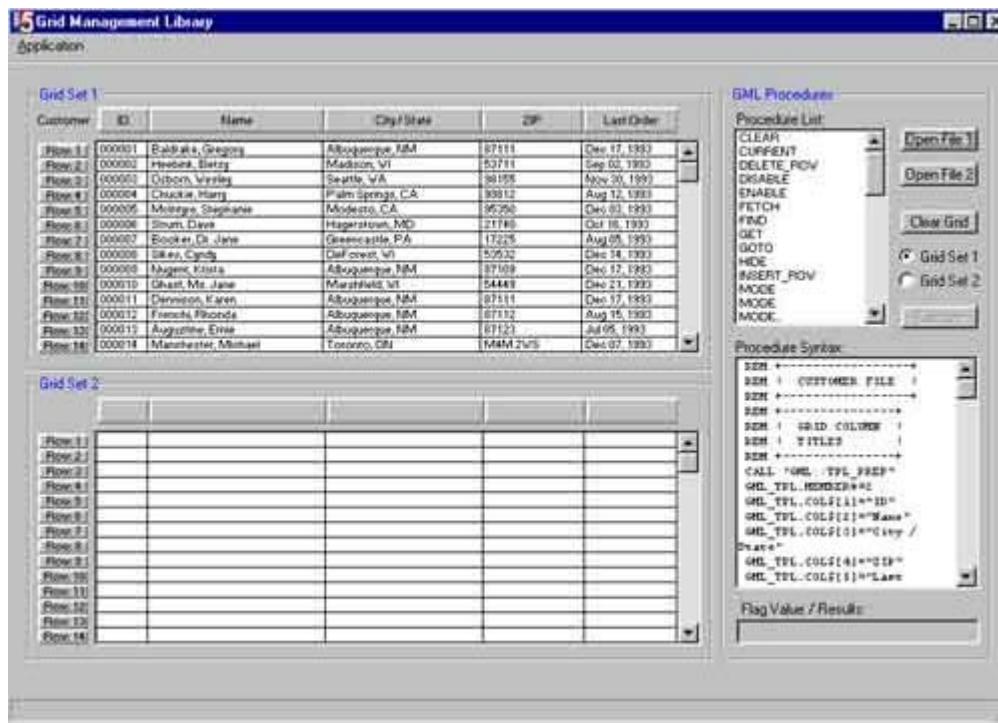
The GML provides your grids with spreadsheet-like functionality.

In most situations, the display of one grid only leads to the need to display another, with the sub-selection data displayed. At this point, the amount of supporting code from your application can be quite intense.

The GML solves what is probably the biggest problem with a grid display, that it looks like a spreadsheet. Most users can move around a spreadsheet with little training, particularly because the basic design hasn't changed in the last 15 years. Users understand that they can re-sort their data by clicking on the column of interest. They can edit a particular field simply by clicking on it. They can perform simple, filtered queries on the data in front of them without having to leave that particular screen.

When users see their data show up in grid and think it's a spreadsheet, they expect the same functionality in performing queries and edits. The grid itself doesn't know that much about your data to be able to perform at that level. The GML overlays that grid display to deliver spreadsheet functionality. Don't mistake the meaning here to be that your
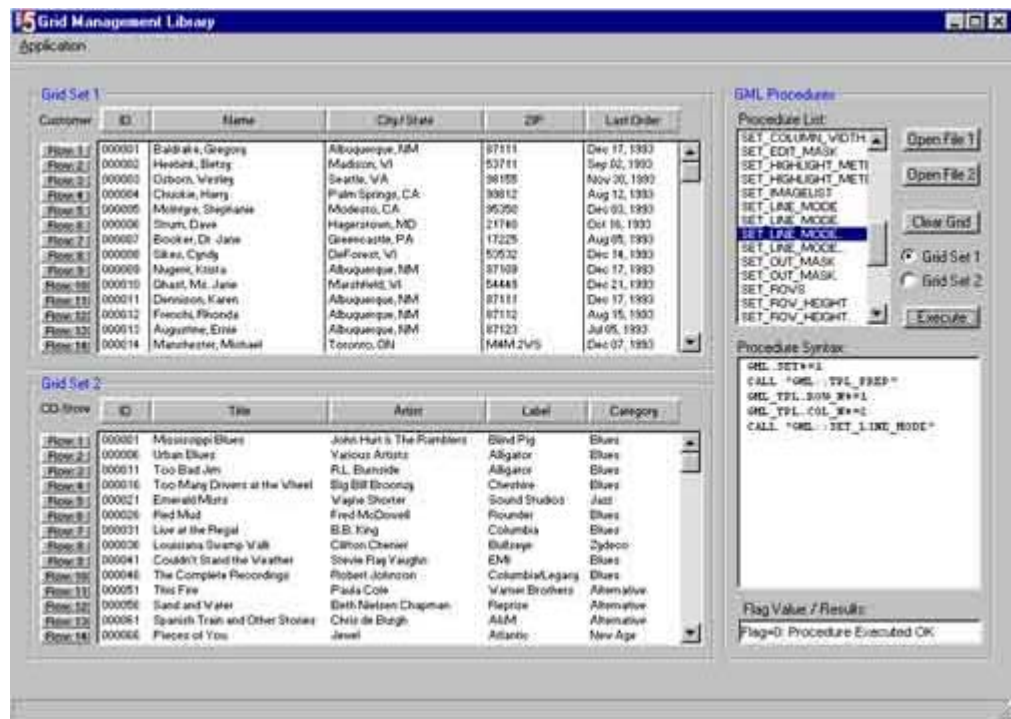
Using the GML, users can easily re-sort data, resize columns and edit fields.

application should be just as good as a spreadsheet. On the contrary, your application has already replaced the spreadsheet. But the inherent advantage to the spreadsheet is its simplicity. The GML delivers this, with all the sorting and editing functionality, with only a minimal amount of information from the application. Furthermore, the interface is now standardized between your modules.

The development and availability of the GML has just made GUI programming and data presentation a whole lot easier. You can get the GML for use in your GUI application development by calling your BASIS Sales Representative directly or BASIS Sales at 1.800.423.1396. See the GML at work in this issue's demo CD, in the Sample Programs. You can also see a presentation about the GML on the CD.