<first row> and <last row> are 1-based row numbers. <first col> and <last col> are 1-based column numbers; 1 refers to Column A. These refer to the defined rows and columns in the worksheet even if some or all cells are blank. If <last col> is zero, this means that there are no defined cells in the worksheet.

If *infoMode* is 3, XLLoadWave does not load the file but instead returns information about the first worksheet or the worksheet specified by /S via the string variable S_value. The format of the returned information is:

```
NAME:<worksheet name>;FIRST:<first cell>;LAST:<last cell>;
```

<first cell> and <last cell> are expressed in standard Excel notation (A1, B24, etc.). These refer to the defined rows and columns in the worksheet even if some or all cells are blank. If <last cell> is "@0", this means that there are no defined cells in the worksheet.

Use the **StringByKey**, **NumberByKey** functions to extract the information from S_value. If you use these functions, your code won't break if we later add a keyword/value pair to the returned information.

Examples

Old versions of Excel came with a number of sample files. One of them was called “Instrument Data”. The following procedure loads an area of this file, makes a table and then makes a graph of the loaded waves.

This example assumes that you have the "Instrument Data.xls" file and a symbolic path named Science that points to the folder containing the file.

```
Function InstrumentData()
    // Load Instrument Data file from the Scientific Analysis folder
    XLLoadWave/O/T/R=(C9,M27)/W=8/C=9/P=Science "Instrument Data.xls"

    // Make graph.
    Display M1, M2, M3 vs X_Time
    Label bottom, "Time"; Label left, "Mass"
    ModifyGraph dateInfo(bottom)={1,0,0}
End
```

See also **Loading Excel Data Into a 2D Wave** on page II-162.

XWaveName

XWaveName(*graphNameStr, traceNameStr*)

The XWaveName function returns a string containing the name of the wave supplying the X coordinates for the named trace in the named graph window or subwindow.

Parameters

graphNameStr can be "" to refer to the top graph window.

When identifying a subwindow with *graphNameStr*, see **Subwindow Syntax** on page III-92 for details on forming the window hierarchy.

traceNameStr is the name of the trace in question.

Details

XWaveName returns an empty string ("") if the trace is not plotted versus an X wave.

For most uses, we recommend that you use **XWaveRefFromTrace** instead of WaveName. XWaveName returns a string containing the wave name only, with no data folder path qualifying it. Thus, you may get erroneous results if the X wave referred to in the graph has the same name as a different wave in the current data folder. Likewise, if the named wave resides in a folder that is not the current data folder, you will not be able to refer to the named wave.

graphNameStr and *traceNameStr* are strings, *not* names.

Examples

```
Display ywave vs xwave              // XY graph
Print XWaveName("","ywave")         // prints xwave
```

See also

Trace Names on page II-282, **Programming With Trace Names** on page IV-87.