

## **The IEDATA add-in**

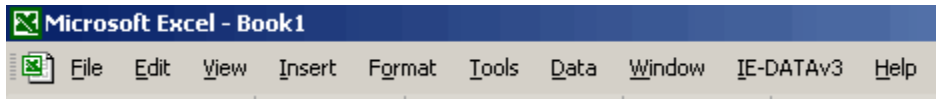
The IEDATA add-in is designed to allow access to the data stored in the Informa Economics database from within a Microsoft Excel spreadsheet. With this add-in, you have access to thousands of time series, without having to know where the data is stored, or the variable name. Macros may be added to a spreadsheet to automate daily tasks and insure data in the spreadsheet is current and up-to-date.

**To install the IEDATA add-in, please refer to the Installation Guide.**

### ***USING the IEDATA add-in FROM THE SPREADSHEET MENU***

The IEDATA menu is set up with easy to read and use descriptions, which allow the user to quickly and easily locate the data files and variables they need. A copy of the Microsoft Excel and IEDATA menu screen is shown below. There are four basic steps to importing data into your spreadsheet:

1. Open a file
2. Select the variables
3. Set a time range
4. Import the numbers and/or descriptions



Click **IEDATA** from the default menu; the **IEDATA MENU** will then appear.

## OPEN

To open a file, double click the area of interest in left column. After each selection, a further breakdown is possible. Continue selecting areas of interest by double clicking on the category in the left column. A copy of the **File Selection** menu is shown below. The box on the right contains data files which have met your selection criteria. The "**MORE FILES**" button, allows you to scroll through these files. Double click on the file description in the right-hand box you wish to Open.



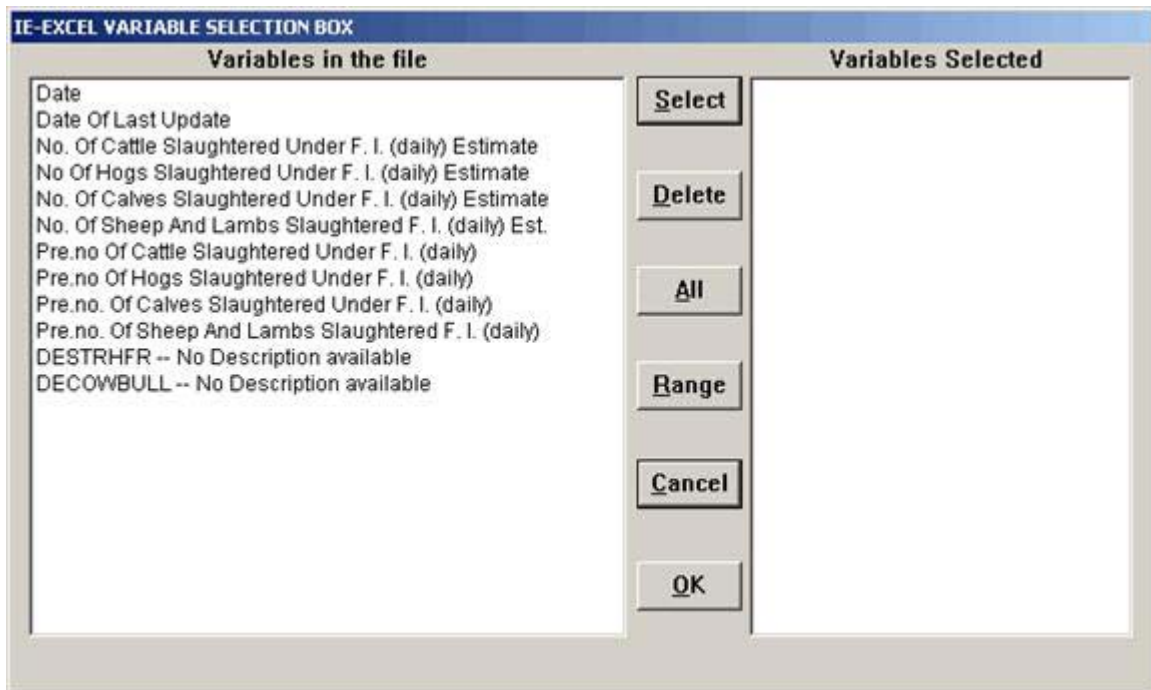
To open a file, click on the selection group desired, then click on **Select group** (or double click on that group name). The menu will then advance to the next menu level and the list the files belonging to the group that you selected (in the second list box). You can continue to narrow your selection of files by selecting items from the group menu in the left box. When you find the description of the file you want, click on the file description in the file list box (the box on the right), then click on the **Open** button (or double click on the description). To see the next group of 20 files, select **More files** and the next 20 files will be displayed. To go to the first file in the selected group, click on **First file**. To go to the top of the menu tree (as displayed above), click on **Group TOP**. To cancel your selection and return to Excel, click on the **Cancel** button.

**TIP** - If you know the name of the file you want, you can click the **Enter** button, then the IEDATA add-in will prompt you for the name of the file.

**NOTE:** The **Remember menu** checkbox is return you to the same place in the menu tree (file categories) the next time you select **Open** from the IEDATA menu.

## VARIABLE

Once a file has been opened, you must select the variables from the file you wish to import into your spreadsheet. Using the mouse, double click on the variable to select the ones you desire, these variables will then appear in the box on right. Select **'OK'** when finished. You may select as many variables as you like. The order in which the variables are selected will be the order in which they are imported. Don't forget to chose the **DATE** variable if you would like to import the dates which correspond to the data points to be imported. The **Variables Selected** menu is shown below. After you have selected the variables you wish to import, continue with the IEDATA Import functions from the menu.



To select a variable click on the description in the left box, then click on the **Select** button. For example to include the date variable on your imports, click on the word **date** in the box on the left, then click on the **Select** button. The word **date** will then appear on the box on the right. You will notice that there is the special description **blank**, which when selected will instruct the IEDATA add-in to skip that column on all subsequent imports. To delete a variable from the selected list, click on the description in the right box (the selected variables box) then click on the **Delete** button. To select all variables in the IEDATA database, click on the **All** button. You should note that this appends to the list of any selected variables. To cancel any changes to the variables selected, click on the **Cancel** button. After you have made all of the desired selections, click on **OK**. The order of the variable in the list determines the order of any of the IEDATA add-in import functions.

If a spreadsheet range contains the names of the IEDATA variables you can click the **Range** button. You will then be prompted for the spreadsheet range that contains the IEDATA variable list. Highlight the range, then click OK. If the text in a specific cell does not match one of the variables in the IEDATA database, or a specific cell does not contain text, the IEDATA add-in will skip that column on all subsequent imports. In this manner you can import data into non-adjacent columns. Before you can import any data, it is necessary to select at least one variable.

## **TIME**

To select a beginning time range for data import, type the desired beginning date into any cell in the spreadsheet

(April 6, 1993 would be 5/6/93). Next, select **TIME** from the IEDATA menu. You will be prompted for the cell containing the beginning date. Click on that cell, then click OK and then continue with the IEDATA IMPORT options.

There are two ways to specify a time range, either as a beginning/ending date range, or as a series of dates in the spreadsheet to match the data.

## **MATCH**

IEDATA gives you the option of matching data to a time series of dates already contained in your spreadsheet. The time range does not have to be in any order, the dates to match can be random. To only import data for a desired range of date, select **MATCH** from the **IEDATA** main menu. When prompted, simply highlight the range containing the dates in the spreadsheet, then click OK. Next IMPORT NUMBERS as usual. IEDATA will match the time range you have selected in the spreadsheet.

## **IMPORT DESCRIPTION**

This option allows you to import the variable descriptions into your spreadsheet. IEDATA defaults to horizontal data import unless specified otherwise (see section on import direction). Select the **Import Descriptions** option from the IEDATA menu. When prompted, click on the upper left cell to hold the descriptions, then click OK. The descriptions for each selected variable will be imported into individual cells in the spreadsheet.

## **IMPORT UNITS**

This option allows you to import the variable units into your spreadsheet. Select **Import Units** option from the IEDATA menu. When prompted, click on the upper left cell to hold the unit descriptions, then click OK

## **IMPORT NUMBERS**

This option allows you to import the data numbers into your spreadsheet. Select **Import Numbers** option from the IEDATA menu. When prompted, click on the upper left corner of the range to hold the data, then click OK. IEDATA will import the data. To bring in a specific number of data points, specify that number of rows in the range. That is, if you wanted to bring in 12 data points, the range would contain 12 rows. The number of columns specified has no effect on the import. To import all of the data, just click on one cell (the upper left corner), and IEDATA will import the numbers down and to the right.

## **IMPORT Direction**

IEDATA defaults to importing data in column (vertical) format with the dates going down the spreadsheet, and descriptions of the data going across the spreadsheet. To transpose the import functions where dates go across the spreadsheet (horizontal) click **Import Direction** from the IEDATA menu. When prompted, enter **H** to transpose the import functions. To change the import functions back to vertical, select **Import Direction** from the IEDATA menu, and when prompted enter **V** to import the data with the dates running vertically down the spreadsheet.

## **IEDATA add-in Visual Basic Macro functions**

All of the the IEDATA add-in functions are designed to be used in a macro. The macro functions can be called from visual basic or as Excel 4 functions. The following section documents the visual basic functions.

In order to reference the IEDATA visual basic macro functions, from the visual basic editor, click **Tools, References**, then check the box **SCIVB.XLS**. This tells visual basic where to find the add-in functions.

## **Syntax**

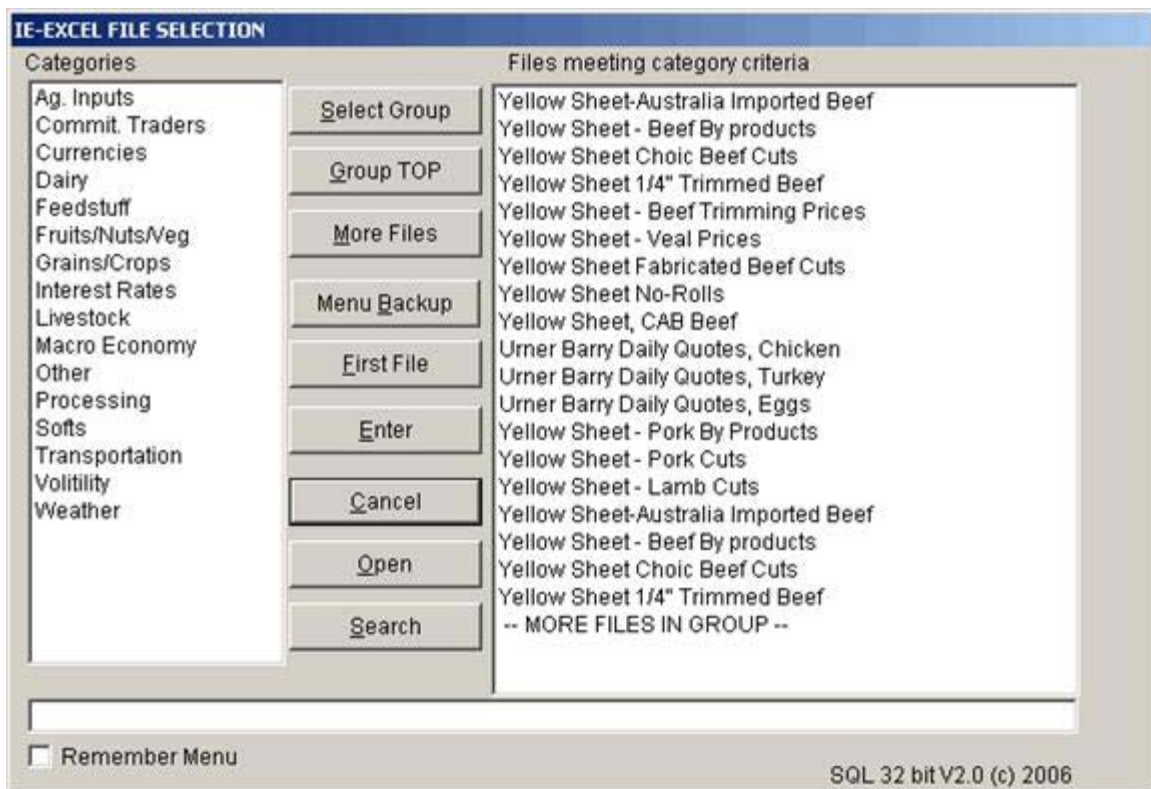
**Command formats:** In the documentation for each of the commands, the following nomenclature is used: for items in brackets (e.g. [1] [2] ), you may optionally include the items in brackets; for items in braces (e.g. {1|2|3} ), you **must** choose one of the items.

## SCI\_VB\_OPEN

**SCI\_VB\_OPEN** opens an IEDATA database file. If a range is specified, the IEDATA add-in will look up the name of the file from the first cell in the range. That is, if the cell A1 contained the string **POULSLAU** (the name of the file to open), the macro could read:

**SCI\_VB\_OPEN(A1)** or the macro could read **SCI\_VB\_OPEN ("POULSLAU")**.

In either case, the filename may be specified in either upper or lower case characters. When no parameters are specified, the IEDATA add-in will open a window to prompt you for the file. This window contains two list boxes, plus buttons to control the selection process. The first list box (on the left) contains the IEDATA add-in selection menus. The second list box contains a listing of the first 20 files found that match the selection criteria up to that point. An example of the file selection window is shown below.



To open a livestock file, you could click on the selection group livestock (left window), then click on **Select group**. The menu will then advance to the next menu level and the list of files (in the second list box) will change to only livestock files. You can continue to narrow your selection of files by selecting more items from the group menu in the left box. To see the next group of 20 files, select **More files** and the next 20 files will be displayed. To go to the first file in the selected group, click on **First file**. To go to the top of the menu tree (as display above) click on **Group top**. If you know the name of the file, you can click on the **Enter** button, the IEDATA add-in will prompt you for the name of the file. To cancel you selection and return to Excel, click on the **Cancel** button. To

open a file, click on the file description in the file list box (the box on the right), then click on the **Open** button.

*Format:*

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**SCI\_VB\_OPEN(FILENAME AS STRING)**

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*Example:*

```
SUB EXAMPLE_SCI_VB_OPEN() ' OPENS A FILE BY SPECIFYING THE FILENAME
AS A STRING
  TT = "LCZ4 "
  SCI_VB_OPEN (TT)
  SCI_VB_OPEN ("LCZ4")
END SUB
```

## SCI\_VB\_ROPEN

**SCI\_VB\_ROPEN** opens an IEDATA file by specifying a spreadsheet range that holds an IEDATA filename.

*Format:*

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**SCI\_VB\_ROPEN(SPREADSHEET\_RANGE AS STRING)**

---

*Example:*

```
SUB EXAMPLE_SCI_VB_ROPEN() ' OPENS A FILE BY PASSING A REFERENCE TO
A SPREADSHEET
  'CELL THAT CONTAINS THE FILE NAME
  SCI_VB_ROPEN ("SHEET1!B4") ' CELL MAY BE REFERENCED BY COLUMN
LETTER & ROW
  ' NUMBER, OR
  SCI_VB_ROPEN ("SHEET1!R4C2") ' BY THE RC FORMAT.
END SUB
```

## SCI\_VB\_GET\_TIME

**SCI\_VB\_get\_time** is the function to define the beginning date and optionally the last date to import data. If only one cell is specified, IEDATA assumes this is a beginning date, and will import data from that date to the end of the dataset. If a range is entered, IEDATA assumes that the upper left corner of the cell contains the beginning date, and the lower right corner of the range contains the ending date. IEDATA will only import data between the two dates inclusive.

You can also specify the beginning time directly in the function call. To specify the beginning time as January 4, 1992, the function would be specified as :

**SCI\_VB\_get\_time("1/4/92").**

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet), you will be prompted for the range containing the beginning and ending dates. This behave in the same manner as if the range is specified, that is, if a single cell is specified as the range, only the beginning time is set. If multiple cells are specified as the range, the upper left corner of the range is the beginning time for importing the data, and the lower right corner of the range is the last date to import.

*Format:*

---

**SCI\_VB\_GET\_TIME(SPREADSHEET\_RANGE AS STRING)**

---

*Example:*

```
SUB EXAMPLE_SCI_VB_TIME() ' SETS THE TIME RANGE BY PASSING A  
REFERENCE TO ONE  
  'OR MORE CELLS IN THE SHEET THAT CONTAIN THE BEGINNING DATES  
  SCI_VB_GET_TIME ("SHEET1!B1:B2") ' CELL MAY BE REFERENCED BY COLUMN  
LETTER &  
  ' ROW NUMBER, OR  
  SCI_VB_GET_TIME ("SHEET1!R1C2:R2C2") ' BY THE RC FORMAT.  
END SUB
```

## SCI\_DATE\_FORMAT

*Format:*

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**SCI\_DATE\_FORMAT({RANGE|STRING})**

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**SCI\_date\_format** determines how date imported into a spreadsheet is displayed. The format string specified is the same as the format string specified in the Excel-Format-Number command. That is, to import dates as m/d/yy (i.e. 1/4/92), the function would be specified as **SCI\_date\_format("m/d/yy")**.

If no parameters are specified, the IEDATA add-in will prompt you for the string. By default, all dates are imported in the m/d/yy format.

## SCI\_VB\_GET\_MATCH

**SCI\_VB\_get\_match** is the function to define a series of dates of data you wish to import. With this function, data can be imported in any order, or for specific dates. If there is no data in the IEDATA system that corresponds to a particular date, that row is skipped. Likewise, if an invalid date is entered, the IEDATA add-in will skip that row. The list of dates for the data that you wish to import, do not have to be in chronological order. The dates can be in any order. The imported data will be in the same order as the dates specified in the time range. In this manner, selected data can be retrieved from the IEDATA system for any dates in any order.

*Format:*

---

**SCI\_VB\_GET\_MATCH(SPREADSHEET\_RANGE AS STRING)**

---

*Example:*

```
SUB EXAMPLE_SCI_VB_MATCH() ' SETS THE TIME RANGE BY PASSING A
REFERENCE TO ONE
    'OR MORE CELLS IN THE SHEET THAT CONTAIN THE BEGINNING DATES
    SCI_VB_GET_MATCH ("SHEET1!B1:B2") ' CELL MAY BE REFERENCED BY
COLUMN LETTER &
    ' ROW NUMBER, OR
    SCI_VB_GET_MATCH ("SHEET1!R1C2:R2C2") ' BY THE RC FORMAT.
END SUB
```

## SCI\_VB\_DIRECTION

**SCI\_VB\_direction** determines how data is imported into the spreadsheet. If you want the dates to go down a column, the direction is **Vertical**. If you want the dates to go across the spreadsheet, the direction is **Horizontal**. When the direction of the data is vertical, variable names and variable descriptions are imported across the spreadsheet in one row (like column headings). When the direction is set to horizontal, the variable names and descriptions are imported down a spreadsheet column (like row stubs).

To set the change the direction to Horizontal, the command function would be **SCI\_VB\_direction("H")**. To reset the direction to vertical, the command would be **SCI\_VB\_direction("V")**. In both instances, the string "H" or "V" may be specified in either upper or lower case letters.

If no parameters are specified, the IEDATA add-in will prompt you for the string. By default, all imports are vertical (date going down the spreadsheet and heading across).

*Format:*

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**SCI\_VB\_DIRECTION({"H"}|"V"})**

---

*Example:*

```
SUB EXAMPLE_SCI_DIRECTION() ' SETS THE IMPORT DIRECTION
  SUB SCI_VB_DIRECTION("H") ' SETS THE IMPORT DIRECTION TO
  HORIZONTAL
  SUB SCI_VB_DIRECTION("V") ' SETS THE IMPORT DIRECTION TO VERTICAL
END SUB
```

## SCI\_VB\_IMPORT\_

There are several IEDATA Import functions. These functions all require a spreadsheet range as a parameter to the function that tells IEDATA where to import the requested items.

The import functions are:

SCI_VB_IMPORT_NUM	Imports the numbers for the selected variables
SCI_VB_IMPORT_DESC	Imports the descriptions of the selected variables
SCI_VB_IMPORT_UNITS	Import the units of measure of the selected variables
SCI_VB_IMPORT_SOURCE	Imports the data source for the selected variables
SCI_VB_IMPORT_VARIABLE	Imports the IEDATA variable names
SCI_VB_IMPORT_FILEDESC	Imports the description of the data file selected
SCI_VB_IMPORT_FILENAME	Imports the IEDATA filename

The import variable and import filename functions are typically used to save the user choices for future macros.

*Format:*

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**SCI\_VB\_IMPORT\_{NUM|DESC|UNITS|SOURCE|VARIABLE|FILEDESC|FILENAME}  
(SPREADSHEET\_RANGE AS STRING)**

---

*Example:*

```
SUB EXAMPLE_SCI_VB_IMPORT_NUM() ' IMPORTS THE NUMBERS FOR THE
SELECTED
    ' VARIABLES INTO A
    ' SPREADSHEET RANGE. IF A CELL RANGE IS SPECIFIED, DATA
WILL ONLY
    ' BE IMPORTED INTO THAT RANGE. THAT IS, IF YOU SPECIFY
ROWS
    ' 1-10 AS THE RANGE, THE MOST DATA THAT WILL BE IMPORTED
WILL BE
    ' DATA FOR 10 DATES, REGARDLESS OF THE AMOUNT OF DATA IN
THE
    ' DATABASE. TO IMPORT FROM THE BEGINNING DATE TO THE END
OF
    ' THE SERIES, SPECIFY A SINGLE CELL AS THE IMPORT RANGE.
    ' IN ALL OF THE FUNCTIONS, CELLS MY BE REFERENCED BY
EITHER THE
    ' COLUMN LETTER-ROWNUMBER COMBINATION (B7), OR THE RC
FORMAT (R7C2)
    ' NOTICE, THAT ONLY THE UPPER LEFT CORNER NEEDS TO BE
SPECIFIED.
    SCI_VB_IMPORT_NUM ("SHEET1!B11") ' IMPORTS THE NUMBERS
    SCI_VB_IMPORT_NUM ("SHEET1!R11C2") ' IMPORTS THE NUMBERS USING RC
FORMAT
    SCI_VB_IMPORT_DESC("SHEET1!B7") ' IMPORTS THE VARIABLE
DESCRIPTIONS
    SCI_VB_IMPORT_UNITS("SHEET1!B8") ' IMPORTS THE UNITS OF MEASURE
    SCI_VB_IMPORT_FILEDESC("SHEET1!B5") ' IMPORTS THE FILE DESCRIPTION
    SCI_VB_IMPORT_FILENAME("SHEET1!B4") ' IMPORTS THE IEDATA FILENAME
    SCI_VB_IMPORT_VARIABLE("SHEET1!B6") ' IMPORT THE IEDATA VARIABLE
NAMES
END SUB
```

## SCI\_IMPORT\_NUM

*Format:*

**SCI\_IMPORT\_NUM( [RANGE] )**

**SCI\_import\_num** is the function to import numbers into the spreadsheet. If the range is specified, the numbers will be imported without any prompts into the specified range. If you want to bring in data through the end of the data file, only specify one row as the range. To bring in a specific number of data points, specify that number of rows in the range. That is, if you wanted to bring in 12 data points, the range would contain 12 rows. The number of columns specified has no effect on the import.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the data. To import all of the data, only select one row. If you only want a specific number of data points, highlight that many rows. After entering this range (either by typing in the cell addresses or using the mouse to highlight the cell in the worksheet), select **OK** from the dialog box. The data will then be imported. The cursor will change to the hourglass shape as long as data is being imported into the spreadsheet.

## SCI\_IMPORT\_DESC

*Format:*

**SCI\_IMPORT\_DESC( [RANGE] )**

**SCI\_import\_desc** is the function to import the descriptions of the variables selected into the spreadsheet. If the range is specified, the descriptions will be imported without any prompts into the specified range.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the descriptions. The cursor will change to the hourglass shape as long as descriptions are being imported into the spreadsheet.

## SCI\_IMPORT\_FILENAME

*Format:*

**SCI\_IMPORT\_FILENAME( [RANGE] )**

**SCI\_import\_num** is the function to import the name of the file into the spreadsheet. If the range is specified by calling the function from a macro sheet, the filename will be imported without any prompts into the specified range.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the filename.

## SCI\_IMPORT\_SOURCE

*Format:*

**SCI\_IMPORT\_SOURCE( [RANGE] )**

**SCI\_import\_num** is the function to import the data source into the spreadsheet. If the range is specified, the text will be imported without any prompts into the specified range.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the text.

## SCI\_IMPORT\_VARIABLE

*Format:*

**SCI\_IMPORT\_VARIABLE( [RANGE] )**

**SCI\_import\_num** is the function to import the variables selected into the spreadsheet. If the range is specified, the variable names will be imported without any prompts into the specified range.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the data.

By saving the variable names in the spreadsheet, it is easy to select the saved variables some time later with the SCI\_get\_variable function discussed later.

## SCI\_IMPORT\_UNITS

*Format:*

**SCI\_IMPORT\_UNITS([RANGE])**

**SCI\_import\_units** is the function to import units of the numbers into the spreadsheet. If the range is specified, the text will be imported without any prompts into the specified range. When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet) you will be prompted for the range to hold the text.

## SCI\_GET\_VARIABLE

*Format:*

**SCI\_GET\_VARIABLE([RANGE])**

**SCI\_get\_variable** is the function that allows you to choose which variables and the order of the variables you want to bring into your spreadsheet. If a range is specified, the range should contain the names of variables from the selected spreadsheet. If the text in a specific cell does not match one of the variables in the IEDATA database, or a specific cell does not contain text, the IEDATA add-in will skip that column on all subsequent imports. In this manner you can import data in no adjacent columns. Before you can import any data, it is necessary to select at least one variable.

When no parameters are specified (either by using the IEDATA add-in menu or from a macro sheet), a window will open prompting you to select the variables from the IEDATA add-in variable selection menu. This window contains two list boxes, plus buttons to control the selection process. The first list box (on the left) contains a list of the variable descriptions for all variables in the file. The second list box (on the right) contains a list of all currently selected variables.

To select a variable click on the description in the left box, then click on the **Select** button. For example to include the date variable on your imports, click on the word **date** in the box on the left, then click on the **Select** button. The word **date** will then appear on the box on the right. You will notice that there is the special description **blank**, which when selected will instruct the IEDATA add-in to skip that column on all subsequent imports. To delete a variable from the selected list, click on the description in the right box (the selected variables box) then click on the **Delete** button. To select all variables in the IEDATA database, click on the **All** button. You should note that this appends to the list of any selected variables. To cancel any changes to the variables selected, click on the **Cancel** button. After you have made all of the desired selections, click on **OK**. The order of the variable in the list determines the order of any of the IEDATA add-in import functions.