

Chapter II-9 — Importing and Exporting Data

Stripping leading and trailing spaces also allows Igor's Load Fixed Field routine to load values that are left-justified or right-justified, so long as each value for a given row is in a consistent width field.

Igor's Load Fixed Field Text routine works just like the Load Delimited Text routine except that, instead of looking for a delimiter character to determine where a column ends, it counts the number of bytes in the column. All of the features described in the section **Loading Delimited Text Files** on page II-129 apply also to loading fixed field text.

The Load Waves Dialog for Fixed Field Text

To load a fixed field text file, invoke the Load Waves dialog by choosing Data→Load Waves→Load Waves. The dialog is the same as for loading delimited text except for three additional items.

In the Number of Columns item, you must enter the total number of columns in the file. In the Field Widths item, you must enter the number of bytes in each column of the file, separated by commas. The last value that you enter is used for any subsequent columns in the file. If all columns in the file have the same number of bytes, just enter one number.

If you select the All 9's Means Blank checkbox then Igor will treat any column that consists entirely of the digit 9 as a blank. If the column is being loaded into a numeric wave, Igor sets the corresponding wave value to NaN. If the column is being loaded into a text wave, Igor sets the corresponding wave value to "" (empty string).

Specifying Fixed Field Widths Programmatically

If all of the columns in the file consist of the same number of bytes, you can specify this number using the LoadWave /F flag. If different columns consist of different numbers of bytes, you have to use the LoadWave /B flag to specify the width of each column.

Loading General Text Files

We use the term "general text" to describe a text file that consists of one or more blocks of numeric data. A block is a set of rows and columns of numbers. Numbers in a row are separated by one or more tabs or spaces. One or more consecutive commas are also treated as white space. A row is terminated by a carriage return character, a linefeed character, or a carriage return/linefeed sequence.

The Load General Text routine handles numeric data only, not date, time, date/time or text. Use Load Delimited Text or Load Fixed Field Text for these formats. Load General Text can handle 2D numeric data as well as 1D.

The first block of data may be preceded by header information which the Load General Text routine automatically skips.

If there is a second block, it is usually separated from the first with one or more blank lines. There may also be header information preceding the second block which Igor also skips.

When loading 1D data, the Load General Text routine loads each column of each block into a separate wave. It treats column labels as described above for the Load Delimited Text routine, except that spaces as well as tabs and commas are accepted as delimiters. When loading 2D data, it loads all columns into a single 2D wave.

The Load General Text routine determines where a block starts and ends by counting the number of numbers in a row. When it finds two rows with the same number of numbers, it considers this the start of a block. The block continues until a row which has a different number of numbers.

Examples of General Text

Here are some examples of text that you might find in a general text file.

Simple general text

ch0	ch1	ch2	ch3	(optional row of labels)
2.97055	1.95692	1.00871	8.10685	
3.09921	4.08008	1.00016	7.53136	