

Mac OS 9 used the carriage-return character (CR).

Unix uses linefeed (LF).

Windows uses a carriage-return and linefeed (CRLF) sequence.

When loading waves, Igor treats a single CR, a single LF, or a CRLF as the end of a line. This allows Igor to load text data from file servers on a variety of computers without translation.

LoadWave Text Encodings

This section applies to loading a text file using Load General Text, Load Delimited Text, Load Fixed Field Text, or Load Igor Text.

If your file uses a byte-oriented text encoding (i.e., a text encoding other than UTF-16 or UTF-32), and if the file contains just numbers or just ASCII text, then you don't need to be concerned with text encodings.

If your file uses UTF-16, UTF-32, or contains non-ASCII text, you may need to tell the LoadWave operation which text encoding the file uses. For details, see **LoadWave Text Encoding Issues** on page II-149.

Loading Delimited Text Files

A delimited text file consists of rows of values separated by tabs or commas with a carriage return, linefeed or carriage return/linefeed sequence at the end of the row. There may optionally be a row of column labels. Igor can load each column in the file into a separate 1D wave or it can load all of the columns into a single 2D wave. There is no limit to the number of rows or columns except that all of the data must fit in available memory.

In addition to numbers and text, the delimited text file may contain dates, times or date/times. The Load Delimited Text routine attempts to automatically determine which of these formats is appropriate for each column in the file. You can override this automatic determination if necessary.

A numeric column can contain, in addition to numbers, NaN and [\pm]INF. NaN means "Not a Number" and is the way Igor represents a blank or missing value in a numeric column. INF means "infinity". If Igor finds text in a numeric or date/time column that it can't interpret according to the format for that column, it treats it as a NaN.

If Igor encounters, in any column, a delimiter with no data characters preceding it (i.e., two tabs in a row) it takes this as a missing value and stores a blank in the wave. In a numeric wave, a blank is represented by a NaN. In a text wave, it is represented by an element with zero characters in it.

Determining Column Formats

The Load Delimited Text routine must determine the format of each column of data to be loaded. The format for a given column can be numeric, date, time, date/time, or text. Text columns are loaded into text waves while the other types are loaded into numeric waves with dates being represented as the number of seconds since 1904-01-01.

There are four methods for determining column formats:

- Auto-identify column type
- Treat all columns as numeric
- Treat all columns as text
- Use the LoadWave /B flag to explicitly specify the format of each column

You can choose from the first three of these methods using the Column Types pop-up menu in the Tweaks subdialog of the Load Waves dialog. To use the /B flag, you must manually add the flag to a LoadWave command. This is usually done in a procedure.

In the "auto-identify column type" method, Igor attempts to determine the format of each column by examining the file. This is the default method when you choose Data→Load Waves→Load Delimited Text. Igor