

date/time, and the string "T" means all columns are text. The string must not contain any blanks or other extraneous characters.

Here are examples of suitable strings:

"N"	All columns are numeric.
"T"	All columns are text.
"1T1D3N"	One text column followed by one numeric date/time column followed by three or more numeric columns.
"1T1N3T25N"	One text column followed by one numeric column followed by three text columns followed by 25 or more numeric columns.

When loading numeric columns, the "use column type string" method differs from the "treat all columns as numeric" method in one way. In the "Treat all columns as numeric" method, any text cells in the numeric column are treated as blanks. This behavior is compatible with previous versions of XLLoadWave. In the "use column type string" method, if XLLoadWave encounters a text cell in a numeric column, it converts the text cell into a number. If the text represents a valid number (e.g., "1.234"), this will produce a valid number in the Igor wave. If the text does not represent a valid number (e.g., "January"), this will produce a blank in the Igor wave. This is useful if you have a file that inadvertently contains a text cell in a numeric column.

XLLoadWave and Wave Names

As you can see in the Load Excel File dialog, XLLoadWave uses one of three ways to generate names for the Igor waves that it creates. First, it can take wave names from a row that you specify in the worksheet. In this case XLLoadWave expects that the row contains string values. Second, it can generate default wave names of the form ColumnA, ColumnB and so on, where the letter at the end of the name indicates the column in the worksheet from which the wave was created. Third, XLLoadWave can generate wave names of the form wave0, wave1 and so on using a base name, "wave" in this case, that you specify.

XLLoadWave supports a fourth wave naming method that is not available from the dialog: the /NAME flag. This flag allows you to specify the desired name for each column using a semicolon-separated string list.

There are several situations, described below, in which XLLoadWave changes the name of the wave that it creates from what you might expect. When this happens, XLLoadWave prints the original and new names in Igor's history area. After the load, you can use Igor's Rename operation to pick another name of your choice, if you wish.

If a name in the worksheet is too long, XLLoadWave truncates it to a legal length. If a name contains characters that are not allowed in standard Igor wave names, XLLoadWave replaces them with the underscore character.

If two names in the worksheet conflict with each other, XLLoadWave makes the second name unique by adding a prefix such as "D_" where the letter indicates the Excel column from which the wave is being loaded.

If a name in the worksheet conflicts with the name of an existing wave, XLLoadWave makes the name of the incoming wave unique by adding one or more digits unless you use the overwrite option. With the overwrite option on, the incoming data overwrites the existing wave.

If XLLoadWave needs to add one or more digits to a name to make it unique and if the length of the name is already at the limit for Igor wave names, XLLoadWave removes one or more characters from the middle of the name.

It is possible that a name taken from a cell in the worksheet might conflict with the name of an Igor operation, function or macro. For example, Date and Time are built-in Igor functions so a wave can not have these names. If such a conflict occurs, XLLoadWave changes the name and prints a message in Igor's history area showing the original and the new names.