When loading Matlab string data into an Igor wave, the Igor wave will be of dimension one less than the Matlab data set. This is because each element in a Matlab string data set is a single byte whereas each element in an Igor string wave is a string (any number of bytes).

MLLoadWave does not support loading of the following types of Matlab data: cell arrays, structures, sparse data sets, objects, 64 bit integers.

Numeric Data Loading Modes

The Load Matlab MAT File dialog presents a popup menu that controls how numeric data is loaded into Igor. The items in the menu are:

Load columns into 1D wave	Each column of the Matlab matrix is loaded into a separate 1D Igor wave.
Load rows into 1D wave	Each row of the Matlab matrix is loaded into a separate 1D Igor wave.
Load matrix into one 1D wave	The entire Matlab matrix is loaded into a single 1D Igor wave.
Load matrix into matrix	The Matlab matrix is loaded into an Igor multi-dimensional wave*.
Load matrix into transposed matrix	The Matlab matrix is loaded into an Igor multi-dimensional wave* but the rows and columns are transposed.

* Starting with Igor Pro 8.00, after loading a matrix that results in an Mx1 2D wave, MLLoadWave automatically redimensions the wave as an M-row 1D wave.

When loading data of dimension 3 or 4, the first three modes treat each layer (“page” in Matlab terminology) as a separate matrix. For 3D Matlab data, this gives the following behavior:

Load columns into 1D wave	Each column of each layer of the Matlab data set is loaded into a separate 1D Igor wave.
Load rows into 1D wave	Each row of each layer of the Matlab data set is loaded into a separate 1D Igor wave.
Load matrix into one 1D wave	The layer of the Matlab data set is loaded into a 1D Igor wave.
Load matrix into matrix	The Matlab 3D data set is loaded into an Igor 3D wave.
Load matrix into transposed matrix	The Matlab 3D data set is loaded into an Igor 3D wave but the rows and columns are transposed.

When loading 3D or 4D data sets, the term "matrix" in the last two modes is not really appropriate. MLLoadWave loads the entire 3D or 4D data set into a 3D or 4D Igor wave.

Loading Version 7.3 MAT Files as HDF5 Files

In 2006 Matlab added version 7.3 of their MAT file format. A version 7.3 MAT file is an HDF5 file with 512 bytes of Matlab-specific information at the start of the file. The HDF5 library allows applications to prepend application-specific data, so version 7.3 MAT files can be loaded as HDF5 files.

You may find it useful to load such files as HDF5 files because Igor has better HDF5 support than MAT-file support, because you don't have Matlab on your machine, or because Igor's Matlab support does not work with your Matlab installation. See **Igor HDF5 Guide** on page II-183 for information on Igor's HDF5 support.

A version 7.3 MAT file contains an HDF5 signature at byte offset 512. The HDF5 signature is an 8-byte pattern described at https://support.hdfgroup.org/HDF5/doc/H5.format.html.