

Setup Instructions for Connecting to MATLAB

(XMIM_MATLAB)



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Part Number: 081_60

Date: January 30, 2008

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Patented May, 1995 U.S. Patent No. 08/392, 612

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Setup Instructions for Connecting to MATLAB (XMIM_MATLAB)

MATLAB® is a technical computing software package with more than 600 mathematical, statistical, and engineering functions. This functionality is extended with interactive graphical capabilities for creating plots, images, surfaces, and volumetric representations. For more information on MATLAB, visit the MathWorks website at: <http://www.mathworks.com/>.



These instructions show how to connect to the MATLAB plug-in. For the latest instructions on how to use Java API from the MATLAB environment, see the "[MATLAB with Java API \(com.lim.mimapi Package\)](#)" chapter in the *MIM Data and Development Guide*.

In order to bring data from the MIM database into MATLAB you must first do the following one time setup.

Setup Instructions

1. Create a directory in your matlab installation.

For example:

```
C:\MATLAB6p5\extern\xmim
```

2. Copy these three dlls into the directory: "xmim4.dll", "oncrpc4.dll" and "xmim_matlab.dll"
3. In your Matlab command window change to the directory you created.

```
>> cd([matlabroot '\extern\xmim'])
```

Here are some sample SHOW WHEN statements to run in the MATLAB command window to test the connection.

Use the following syntax:

```
xmim_matlab('hostname', port_number, num_exec_units, exec_units, fill_option, 'query')
```

Example #1: Daily with forward fill

```
xmim_matlab('trinity', 0, 1, 4, 1, 'Show 1: Close of KR 2: Close of DELL 3: Close of IBM When Date is after 12/1/1974')
```

Example #2: Hourly with backward fill

```
xmim_matlab('trinity', 0, 1, 3, 2, 'Show 1: Close of CL 2: Close of NG When Date is after
3/1/2003')
```

num_exec_units: The frequency that the data is sampled according to the selected exec_units.

For example, if exec_units are minutes (exec_units = 2), and num_exec_units = 15, then the data is sampled in 15 minute increments.

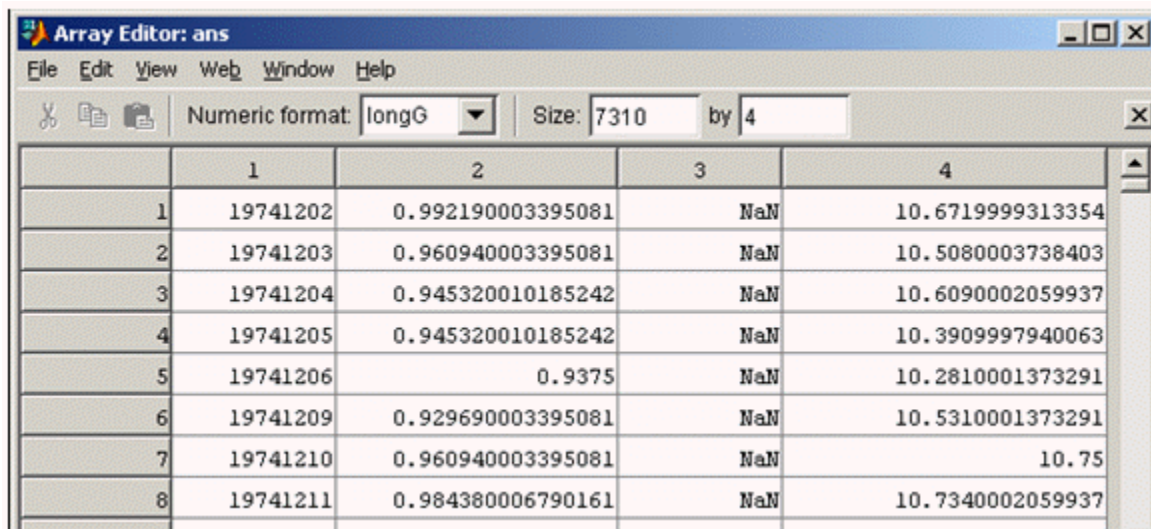
exec_units:

- 2 = minutes
- 3 = hourly
- 4 = daily
- 5 = weekly
- 6 = monthly

fill_options:

- 0 = Fill with NaN's
- 1 = Fill Forward
- 2 = Fill Backward
- 3 = Fill Linear
- 4 = Fill Geometric
- 5 = Fill Logarithmic
- 6 = Fill Nearest

The following graphic shows the MIM data populated in the MATLAB software.



	1	2	3	4
1	19741202	0.992190003395081	NaN	10.6719999313354
2	19741203	0.960940003395081	NaN	10.5080003738403
3	19741204	0.945320010185242	NaN	10.6090002059937
4	19741205	0.945320010185242	NaN	10.3909997940063
5	19741206	0.9375	NaN	10.2810001373291
6	19741209	0.929690003395081	NaN	10.5310001373291
7	19741210	0.960940003395081	NaN	10.75
8	19741211	0.984380006790161	NaN	10.7340002059937