

M-Tools

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Introduction

The M-Tools family is a suite of tools that can be utilized to simplify and facilitate the development of M[umps] software. It consists of 3 KIDS distributions, each corresponding to one facet of development:

- XT*7.3*107
 - M Debugger with Eclipse integration
- XT*7.3*101
 - M editor with Eclipse integration
- XT*7.3*81
 - M Unit functionality, a unit test suite

For more information about each KIDS distribution, see the *Description.txt file in each subfolder.

All tools are released under the Apache 2 (<http://www.apache.org/licenses/>) license.

Code Walkthrough

How to use the tools:

Explain integration with eclipse

MUnit test creation:

MUnit tests are written as MUMPS code with in entry points in a routine file. To designate an entry point as one that contains tests, add a comment to the line that starts the entry point with the string “@TEST” followed by a description of what the test will perform.

There are a series of check entry points that are used as the test within each entry point:

- CheckEQ^XTMUNIT – Check that a given value and a baseline value are equal
- CheckTF ^XTMUNIT– Check that a given Boolean statement returns true

Example usages of the test codes:

```
D CHEQ^XTMUNIT(1,1,"1 doesn't equal 1")
```

```
D CHKTF^XTMUNIT(2=2,"2 not equals 2")
```

```
D FAIL^XTMUNIT("Force a failure")
```

Running MUnit tests:

Running the tests of a particular routine involves calling a single entry point in the XTMUNIT routine.
EN^XTMUNIT(<routine name>)

Installation

Each KIDS distribution should take less than five (5) minutes to install. The bolded text indicates what should be typed at the prompt. It is recommended that the three KIDS files are moved out of the repository before installation, as the spaces in the folder names can cause the path to not be accepted. All three KIDS distributions are to be installed using the Vista Kernel Installation and Distribution System menu:

```
VISTA>S DUZ=1 D ^XUP
```

```
<snip>
```

```
Select OPTION NAME: XPD MAIN           Kernel Installation & Distribution System
```

```
<snip>
```

```
Select Kernel Installation & Distribution System <TEST ACCOUNT> Option:  
installation
```

```
<snip>
```

```
Select Installation <TEST ACCOUNT> Option: Load a Distribution
```

```
Enter a Host File: **Enter Path to .KID file**
```

```
KIDS Distribution saved on <snip>
```

```
Select Installation <TEST ACCOUNT> Option: Install Package(s)
```

```
Select INSTALL NAME: **Enter Install name of .KID file**
```

```
<snip>
```

```
Want KIDS to INHIBIT LOGONS during the install? NO// No
```

```
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO// No
```

```
Enter the Device you want to print the Install messages.
```

```
You can queue the install by enter a 'Q' at the device prompt.
```

```
Enter a '^' to abort the install.
```

```
DEVICE: HOME// HOME
```

Testing:

The testing for the M-Tools suite is not available at this time.

Conclusion:

The M-Tools repository contains a suite of tools that will integrate with a local Eclipse installation and a MUMPS