# **TESTING CHEAT SHEET**

Framework for convenient unit testing. This cheat sheet summarizes commonly used utility Testing command line instructions and test suite structure for quick reference.

### INSTALLATION OF UTILITY TESTING

To install utility Testing an installed NodeJS and NPM are needed.

### \$ npm install -g wTesting

Global installation of utility Testing by NPM.

### **MAIN COMMANDS**

All commands of the utility start with **tst**.

\$ tst .help

Get help.

\$ tst .help [ command ]

Get help on a specific command.

\$ tst .suites.list [ path ]

Find test suites at a specific path.

\$ tst .run [ path ]

Run test suites found at a specific path.

\$ tst .imply [ options... ] .run [ path ]

Change state or imply variable value.

### **RUNNING TESTS**

\$ tst .run [ path to a test file ( directory ) || path with glob ]
\$ node [ path to a test file ]

Running of test suite (test suites) by utility Testing and NodeJS.

### PRIMARY RUNNING OPTIONS

To control testing the running options is used.

- \$ tst .imply verbosity:[ number ] .run [ path ]
- \$ tst .imply v:[ number ] .run [ path ]
- \$ tst .run [ path ] verbosity:[ number ]
- \$ tst .run [ path ] v:[ number ]

Option sets the verbosity of report. Accepts a value from 0 to 9. Default value is 4.

- \$ tst .imply routine:[ name ] .run [ path ]
- \$ tst .imply r:[ name ] .run [ path ]
- \$ tst .run [ path ] routine:[ name ]
- \$ tst .run [ path ] r:[ name ]

Option to test separate test routine. Accepts name of test routine.

\$ tst .imply testRoutineTimeOut:[ time ] .run [ path ]

\$ tst .run [ path ] testRoutineTimeOut:[ time ]

Option limits the testing time for test routines. Accepts time in milliseconds. Default value is 5000ms.

\$ tst .imply accuracy:[ number ] .run [ path ]

\$ tst .run [ path ] accuracy:[ number ]

Option sets the numeric deviation for the comparison of numerical values. Accepts numeric values of deviation. Default value is 1e-7.

### SECONDARY RUNNING OPTIONS

Running options that extend control of testing.

\$ tst .imply sanitareTime:[ time ] .run [ path ]

\$ tst .run [ path ] sanitareTime:[ time ]

Option sets the delay between completing the test suite and running the next one. Accepts time in milliseconds. Default value is 2000ms.

\$ tst .imply negativity:[ number ] .run [ path ]

\$ tst .run [ path ] negativity:[ number ]

Option restricts the console output of passed routines and increases output of failed test checks. Accepts a value from 0 to 9. Default value is 1.

\$ tst .imply silencing:[ number ] .run [ path ]

\$ tst .run [ path ] silencing:[ number ]

Option enables hiding the console output from the test object. Accepts 0 or 1. Default value is 0.

\$ tst .imply shoulding:[ number ] .run [ path ]

\$ tst .run [ path ] shoulding:[ number ]

Option disables negative testing. Accepts 0 or 1. Default value is 0

\$ tst .imply fails:[ number ] .run [ path ]

\$ tst .run [ path ] fails:[ number ]

Option sets the number of errors received to interrupt the test. Accepts number of fails. By default is unlimited.

\$ tst .imply beeping:[ number ] .run [ path ]

\$ tst .run [ path ] beeping:[ number ]

Option disables the beep after test completion. Accepts 0 or 1. Default value is 1.

\$ tst .imply coloring:[ number ] .run [ path ]

\$ tst .run [ path ] coloring:[ number ]

Option makes report colourful. Accepts 0 or 1. Default value is 1.

\$ tst .imply timing:[ number ] .run [ path ]

\$ tst .run [ path ] timing:[ number ]

Option disables measurement of time spent on testing. Accepts 0 or 1. Default value is 1.

\$ tst .imply debug:[ number ] .run [ path ]

\$ tst .run [ path ] debug:[ number ]

Option sets value of Config.debug. Accepts 0 or 1. Default value is null, utility does not change debug mode of test object.

\$ tst .imply rapidity:[ number ] .run [ path ]

\$ tst .run [ path ] rapidity:[ number ]

The option controls the amount of time spent on testing. Accepts values from -9 to +9. Default value is 0.

\$ tst .imply concurrent:[ number ] .run [ path ]

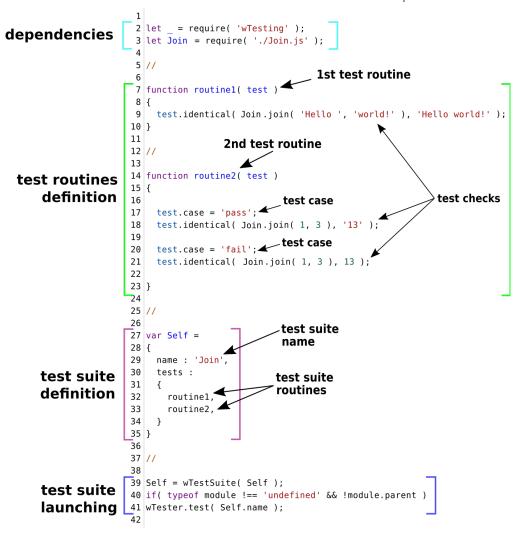
\$ tst .run [ path ] concurrent:[ number ]

Option enables parallel execution of test suites. Accepts 0 or 1. Default value is 0.

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### **TEST SUITE STRUCTURE**

A test file should contain only one test suite. Example of a minimum test file is given below. It uses the basic structural elements and can be considered as a test suite template.



## **TEST CHECKS**

Test checks are the smallest structural element that checks one aspect of a test object behavior.

### test.is( boolLike arg );

Passes if argument is true-like.

### test.isNot( boolLike arg );

Passes if argument is false-like.

### test.isNotError( errorLike arg );

Passes if argument is not error.

## test.identical( any arg1, any arg2 );

test.il( any arg1, any arg2 );

Passes if both arguments are identical.

### test.notIdentical( any arg1, any arg2 );

test.ni( any arg1, any arg2);

Passes if both arguments are not identical.

# test.equivalent( any arg1, any arg2 ); test.et( any arg1, any arg2 );

Passes if both arguments are equivalent.

# test.notEquivalent( any arg1, any arg2 ); test.ne( any arg1, any arg2 );

Passes if both arguments are not equivalent.

### test.contains( any arg1, any arg2);

Passes if the arguments are identical or the first argument contains the second argument.

### test.setsAreIdentical( arrayLike arg1, arrayLike arg2 );

Passes if elements of both arguments are identical.

### test.gt( numberLike arg1, numberLike arg2 );

Passes if the value of the first argument is greater than the value of the second.

### test.ge( numberLike arg1, numberLike arg2 );

Passes if the value of the first argument is greater or equal to the value of the second.

### test.lt( numberLike arg1, numberLike arg2 );

Passes if the value of the first argument is less than the value of the second.

#### test.le( numberLike arg1, numberLike arg2 );

Passes if the value of the first argument is less or equal to the value of the second.

### test.mustNotThrowError( routine arg );

Passes if the routine does not throws an error synchronously or asynchronously.

### test.returnsSingleResource( routine arg );

Passes if the routine ends synchronously or the concequence returns only one resource.

### test.shouldThrowErrorSync( routine arg );

Passes if the routine throws an error synchronously.

### test.shouldThrowErrorAsync( routine arg );

Passes if the routine throws an error asynchronously.

### test.shouldThrowErrorOfAnyKind( routine arg );

Passes if the routine throws an error synchronously or asynchronously.