Unit Tests

Unit Tests are provideing way to test core functionallity of the written software components. Matlab supports various methods to apply Unit Tests. The designed tests are using script-based testing. So for each function or functionallity needs to be tested a own test script is written and gathered into a main test script where all standalone test scripts are combined to a test suite and executed at once.

Contents

runTests

Test suite script which executes all Unit Tests scripts at once and gathers the test results in a Matlab table.

removeFilesFromDirTest

Test of function removeFilesFromDir. Creates several files and directories and deletes them during testing.

rotate3DVectorTest

Test rotate3DVector function. Do some rotations and check results.

generateDipoleRotationMomentsTest

Test the generation of magnetic dipole moments for a full rotation between 0° and 360°.

generateSensorArraySquareGridTest

Test the meshgrid generation of the sensor array and shifting it in x and y direction.

computeDipoleH0NormTest

Test magnetic field norming function. Simple test of consitent data.

computeDipoleHFieldTest

Test the magnetic dipole equation to generate dipole fields in 3D meshgrid of data points. Test field characteristics like symmetry and so on.

tiltRotationTest

Test tilt rotation of a dipole magnetic. Tilt magnet and coordinate cross to fetch pole values during rotation.

Requirements

- Other m-files required: None
- Subfunctions: None
- MAT-files required: None

See Also

- Script-Based Unit Tests
- Write Script-Based Unit Tests
- Write Script-Based Unit Tests Using Local Functions
- Analyze Test Case Result

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