# **TEST LOG**

| Test Case               | Test Case Description   | Date<br>Tested | Pass (P) | Fail<br>(F) |
|-------------------------|---|----------------|----------|-------------|
| Winnow.data_to_list     | The function which transforms a file into a list of data based on the separating character.                   | 09/27/15       | P        |             |
| Winnow.do_analysis      | Performs the entire analysis and compares the first results with known results.                               | 09/27/15       | P        |             |
| Winnow.do_gwas          | Performs GWAS analysis on a small set of data and compares the performetric results with the expected values. | 09/27/15       | P        |             |
| Winnow.load_data        | Tests that the load_data function correctly creates lists for beta and p-values.                              | 09/27/15       | P        |             |
| Winnow.load_ote         | Loads the OTE KT file into a boolean list.  | 09/27/15       | P        |             |
| Performetrics.accuracy  | Compares actual and expected result for the accuracy function on a small set of data (12 values)              | 09/27/15       | P        |             |
| Performetrics.auc       | Compares actual and expected result for the area under the curve function on a small set of data (12 values)  | 09/27/15       | P        |             |
| Performetrics.error     | Compares actual and expected result for the error function  | 09/27/15       | P        |             |
| Performetrics.fdr       | Compares actual and expected result of the FDR function   | 09/27/15       | P        |             |
| Performetrics.fn        | Compares actual and expected number of false negatives  | 09/27/15       | P        |             |
| Performetrics.fp        | Compares actual and expected number of false positives  | 09/27/15       | P        |             |
| Performetrics.fpr       | Compares actual and expected false positive rate  | 09/27/15       | P        |             |
| Performetrics.mae       | Compares actual and expected result of the MAE function   | 09/27/15       | P        |             |
| Performetrics.mattcorr  | Compares actual and expected result of the Mattcorr function  | 09/27/15       | P        |             |
| Performetrics.precision | Compares actual and expected result of the Precision function   | 09/27/15       | P        |             |
| Performetrics.rmse      | Compares actual and expected root mean squared error  | 09/27/15       | P        |             |
| Performetrics.sens      | Compares actual and expected sensitivity  | 09/27/15       | P        |             |
| Performetrics.spec      | Compares actual and expected specificity  | 09/27/15       | P        |             |
| Performetrics.tn        | Compares actual and expected number of true negatives   | 09/27/15       | P        |             |

| Performetrics.tp             | Compares actual and expected number of true positives   | 09/27/15             | P  |   |
|------------------------------|---|----------------------|----|---|
| Performetrics.tpr            | Compares actual and expected true positive rate   | 09/27/15             | P  |   |
| Performetrics.youden         | Compares actual and expected result of the Youden statistic   | 09/27/15             | P  |   |
| Performetrics.avgcovarweight | Tests the actual and expected means for a set of covariate data   | 09/29/15             | P  |   |
| Adjustments.fdr_bh           | Compares actual and expected results of the Benjamini Hochberg FDR p-value adjustment method            | 09/27/15             | P  |   |
| GWAS.with_beta               | Compares actual and expected performetric results using data without covariates and with beta values    | 09/27/15             | P  |   |
| GWAS.without_beta            | Compares actual and expected performetric results using data without covariates and without beta values | 09/27/15             | P  |   |
| GWAS.with_beta_covariate     | Compares actual and expected performetric results using data with covariates and with beta values       | 09/29/15             | P  |   |
| GWAS.without_beta_covariate  | Compares actual and expected performetric results using data with covariates and without beta values    | 09/29/15             | P  |   |
| ListRanker.function          | Tests the ranking function  | 09/30/15             | P  |   |
| ListRanker.inputs            | Tests that the expected input files exist and can be read   | 09/30/15             | P  |   |
| ListRanker.outputs           | Ensures that the function produces the two output files   | 09/30/15             | P  |   |
| MPlot.directory              | Makes sure that the test directory is accessible  | 09/30/15             | P  |   |
| MPlot.function               | Tests that the MPlot functions create the desired output files  | 09/30/15             | P  |   |
| Demonstrate.directory        | Makes sure that the test directory is accessible  | 09/30/15             | P  |   |
| Demonstrate.function         | Tests that the Demonstrate functions create the desired output files                                    | 09/30/15             | P  |   |
| Demonstrate2.directory       | Makes sure that the test directory is accessible  | 09/30/15             | P  |   |
| Demonstrate2.function        | Tests that the Demonstrate2 functions execute without throwing errors                                   | 09/30/15             | P  |   |
| Demonstrate2.outputs         | Tests that the Demonstrate2 functions create the desired output files                                   | 09/30/15             | P  |   |
|                              |   | TOTAL<br>(Pass/Fail) | 38 | 0 |

#### Test Coverage

# Winnow/winnow.py

- 84.44% coverage
- 76 covered lines, 90 relevant lines

# Winnow/data.py

- 87.88% coverage
- 29 covered lines, 33 relevant lines

#### Winnow/checkhidden.py

- 89.47% coverage
- 17 covered lines, 19 relevant lines

# Winnow/performetrics.py

- 96.32% coverage
- 131 covered lines, 136 relevant lines

## Winnow/fileimport.py

- 100% coverage
- 13 lines

# Winnow/gwas.py

- 100% coverage
- 9 lines

## Winnow/adjustments.py

- 100% coverage
- 15 lines

Note: Because Demonstrate and it's associated functions are written in R, coveralls will not measure test coverage. That being said, the tests still run through Travis CI and the results are included in the above table.