**Manual Testing**

**Testing for loading data from Biopaths**

To load data from BioPaths output files into the PID ORACLE database, the following command is run:

( cat javascript/\*.js | \ /cgap/schaefec/current/PATHWAY/Driver.pl \

-it js \ -ot table \

-if - \ -of all.dat \

-ontf pid\_ontology.xml \

-idf id\_map.txt ) >& all.log

The all.log file created by this command consists of warning and error messages that need to be checked manually by the software developer. Status messages are provided for the developer for any case where there may be a data error that needs to be addressed:

1. Process types and conditions defined in BioPaths are missing from the ORACLE database tables and must be entered.
2. Formatting errors in the BioPaths pathway source file which cause the source file to be parsed incorrectly
3. An interaction has been defined with multiple interaction types.
4. A molecule object does not have a molecule name, identifier, and/or molecule type defined
5. Coordinates of an object are beyond BioPath limits, therefore the object will not appear correctly in BioPaths. Usually this is an object that needs to be deleted and recreated.

The developer works with the Nature Publishing Group data curators to determine which messages need to be addressed and fixed.

**Manual tests for 508 compliance**

For issues where the HHS 508 compliance tests are not able to determine whether a specific issue is present, the software developer is required to manually inspect the page to determine compliance. When the issue is determined to be resolved (or non-existent), the developer uses the Accenture Digital Diagnostics Engine to manually record that the page has been checked and is compliant.

**User Interface Tests**

1. Verify that JPG, SVG, and Silverlight graphs are showing up correctly for the pathways included in the “Most Recently Added” Pathways section.
2. Verify that all new static files sent by Nature Publishing Group are showing up correctly on the live site.

**Manual Tests for Monthly Data Updates**

1. Ensure that data files for pathway data, search tables, data mappings, and xml files have been generated correctly and are loaded into the database.
2. For data exported to other sources, ensure that the data has been exported correctly by comparing the exported data to PID data, making sure that nothing was lost or changed.
3. Check that all necessary graphics files have been generated correctly, moved to the correct directories, and have permissions set correctly.

Our goal over the next year is to create test cases in Selenium RC which can be run automatically each time the data is reloaded, both on the staging and production servers. These tests will be created for the data generated during the monthly update process, data exported to other formats, and BioPaths. This process will allow our current testing to become far more robust.