

GREAT Versioning

Our data reproducibility policy

GREAT will always allow you to reproduce the results of previous analyses. GREAT does this by employing a versioning system that can run previous GREAT releases as well as the most current one.

What are the differences between different GREAT versions?

Every time we upgrade GREAT in a way that will change your analysis results (for example when we update our ontologies) we will:

1. Note that clearly in the NEWS box of the input page.
2. Let you choose between running the newest version, or an older version which will reproduce exactly the same results before our update.

Technically speaking, GREAT versions are numbered as X.Y.Z, where each of X, Y, and Z are integers. Increments to Z (e.g. from 1.2.0 to 1.2.1) indicate minor changes to the user interface (minor bug fixes or minor functionality additions) that do not change the output data at all. Increments to Y or X (e.g. from 1.2.6 to 1.5.0) indicate larger changes (ontology updates, data format changes, UI changes) that may alter the output for a given input data set. GREAT versions that increment either Y or X are available to be run, to ensure you can always reproduce results you obtained previously.

Notes on the functionality changes of large GREAT updates are [available here](#).

When should I run an earlier version of GREAT?

If you are just beginning a new analysis, we recommend that you use the newest version of GREAT, as it has the most up-to-date ontology data and all of the functionality GREAT provides. However, if you began an analysis of some data prior to a GREAT upgrade and want to either reproduce those results or analyze a different data set using a consistent GREAT version (i.e. for consistency within a single manuscript) you can do so by running the appropriate GREAT version.

How can I run an earlier version of GREAT?

By default, the input GREAT page (<http://bejerano.stanford.edu/great>) points to the current GREAT version. Below the "Genomic Regions Enrichment of Annotations Tool" banner is a pulldown menu indicating the version of GREAT you are currently using. Each entry in the pulldown indicates the name of the GREAT version available and the date range for which this version was the most current version of GREAT. For example, the entry

GREAT version 1.2.6 Reproduce results from 05/20/2010 to 11/18/2010

indicates that GREAT version 1.2.6 was the default GREAT version from when GREAT was first publicly available (05/20/2010) until 11/18/2010. So, if you want to reproduce a result that you generated using the default GREAT version any time within that date range, you should use GREAT v1.2.6.

Note that even though the first GREAT public release was version 1.2.0, only v1.2.6 is available since v1.2.6 has minor UI improvements or bug fixes over v1.2.0 but still produces the exact same output data (see "What are the differences between different GREAT versions?" above).