Torrent Scout Configuration

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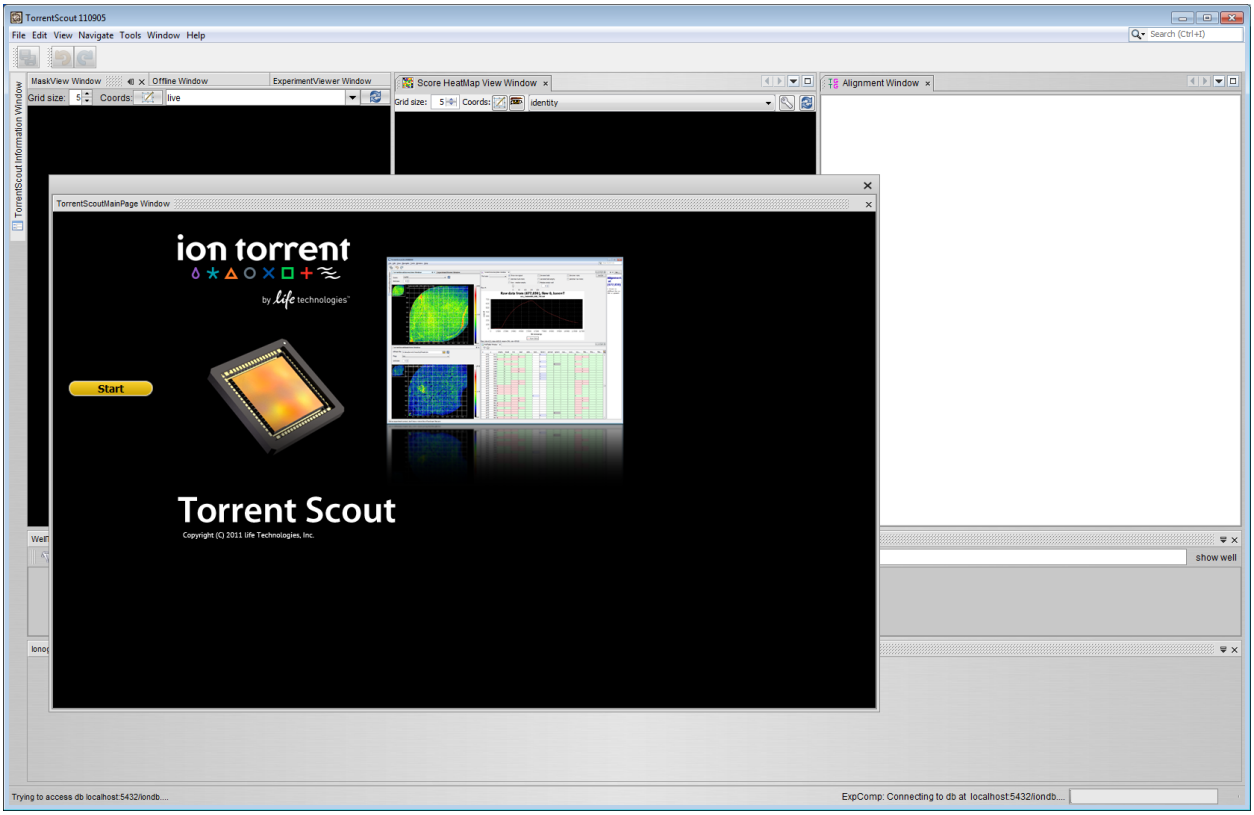
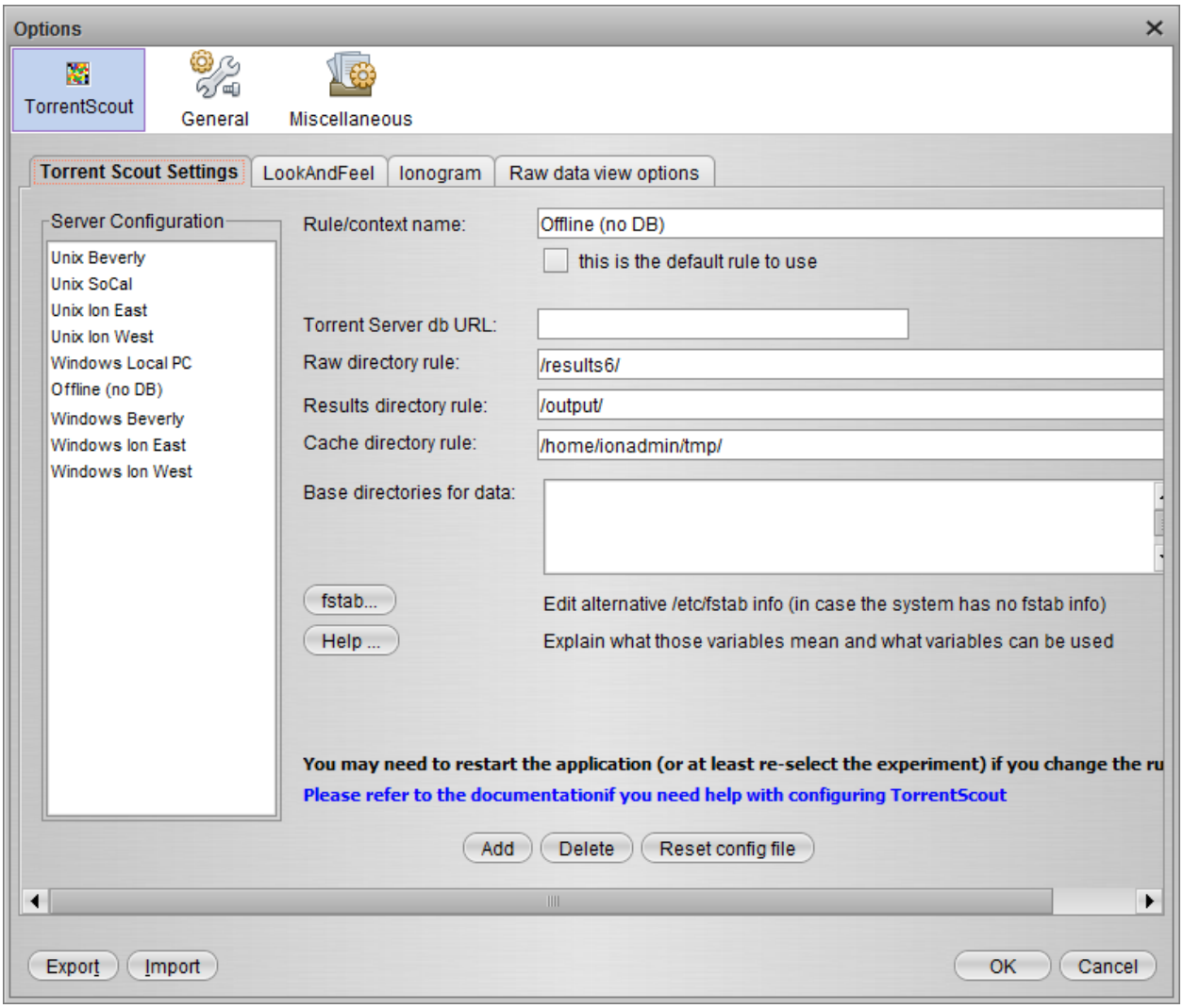
First Time Use of Torrent Scout

If you just installed the application for the first time (or have deleted all previous installations and deleted all preferences in ~/.nbapp-torrentscout/*), you should get a screen with one start button.:



This button will automatically first open the options panel if you are using it the first time – and it will try to guess (based on the applications url), which site might make the most sense for you:

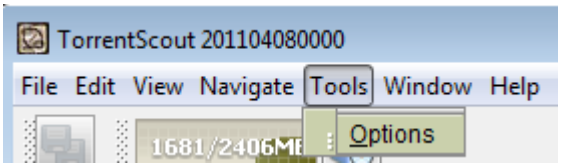


Otherwise it will point you to the Experiment explorer module.

Configuring Torrent Scout for Use With a Database

Opening the Configuration Panel

- If you are using Torrent Scout for the very first time, it will automatically open the Options Panel for you
- Otherwise, go to the menu Tools/Options to open the configuration panel:



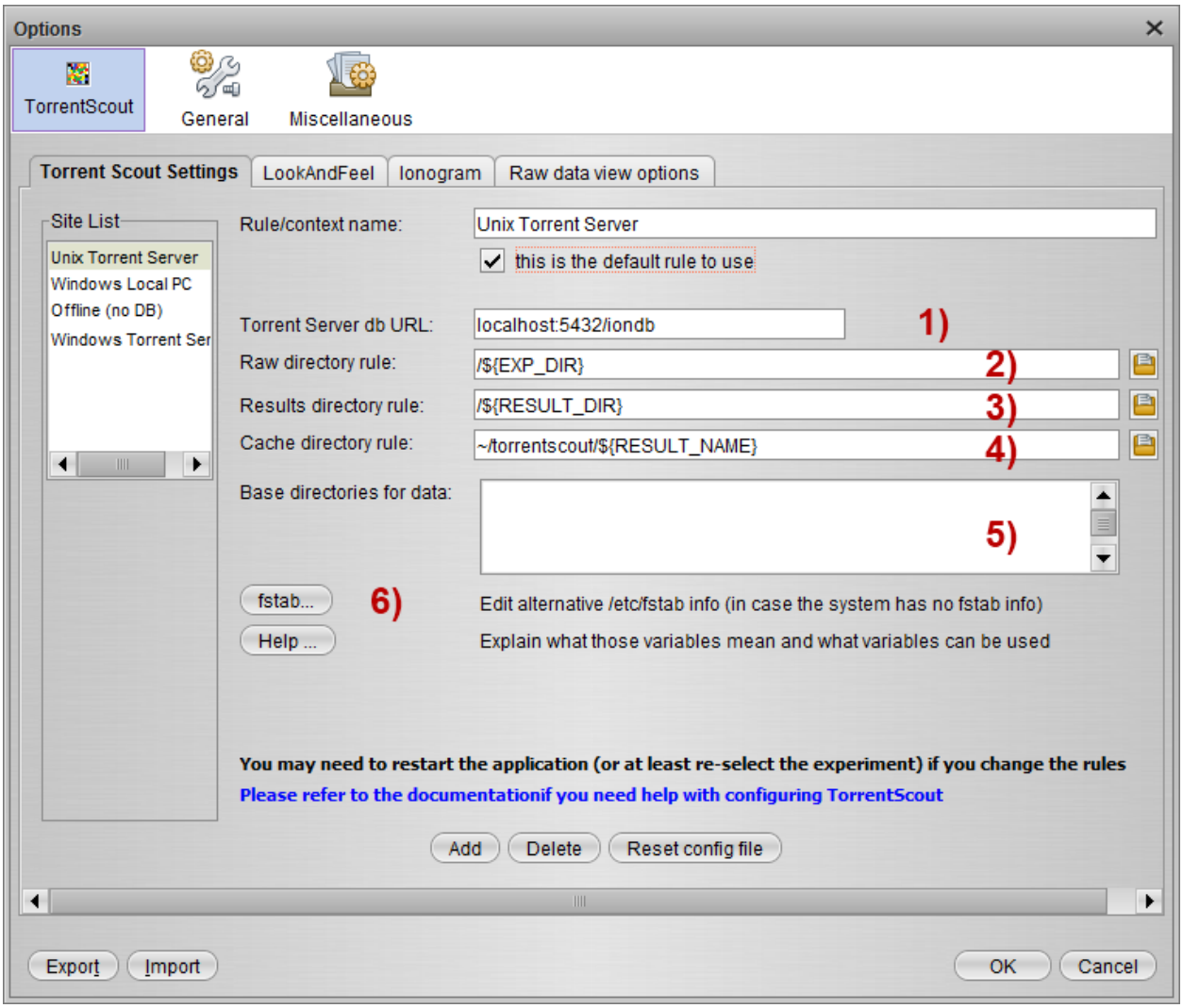
- It will try to figure out the configuration that makes the most sense to you, based on the url torrent scout was started with.

Overview of the Configuration Panel

Torrent Scout can be used in several modes: offline use without any database, online use with a local database, and online use with one or more remote databases

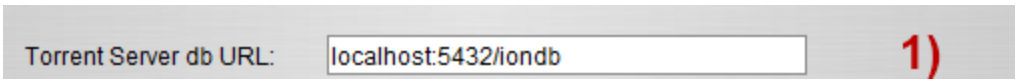
The "Site List" on the left shows all the modes. More modes can be defined in a complex environment with multiple Torrent Servers. Here by default, we are using just one server\

On the right side the information panel allows you to define the URL to the database and the **rules** used to locate the experimental data.



1. The Database/Server URL:

This is the URL of the experimental database



If you want to connect to a locally installed datase (if you run Torrent Scout either on the server itself), you can use localhost as URL

The default port is **5432**

The default database name is **iondb**

If you are running Torrent Scout on a client machine that does not host the database, put in the URL of your Torrent Server where the database is hosted (without the http://).
Example: my.server.com:5432/iondb

2. The Raw Directory Rule

This rule tells Torrent Scout how to find the raw .dat files for every experiment:

If you are running Torrent Scout in offline mode (no database) and are just looking at one experiment, then you can of course specify a full path such as c:/mydata/someexperiment

However if you want to look at different experiments and want to select them with the database, then Torrent Scout needs to know where to find the data.

How to define rules is explained in another section below

3. The Results Directory Rule

This rule tells Torent Scout where to find results files for a particular run such as:

- Bfmask.bin
- The .bam file
- The .sff file(s)
- 1.wells file etc

As in the raw rule, the explanation follows below.

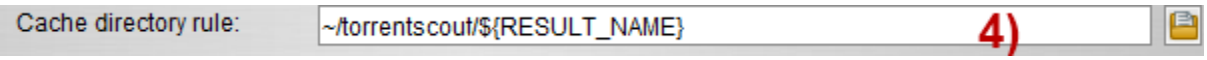
4. Cache Directory Rule

When running Torrent Scout, it will create index files (such as an index of the .sff file or of the .bam file). These are specific for each experiment and need to be stored somewhere.

Also, when looking at 314 chip data, it will also create an index of those files. These index files are quite large and you will need at least 50 GB of storage if you want to index all flows. Files using a newer version of the .dat file format will no longer need those index files.

The cache should be a separate folder for each run.

How to define rules is explained in another section below



5. Using Multiple Storage Devices

In most cases the simple rules should be sufficient. However if you are storing the results data on multiple drives and when there is not a clear rule on where to find the data, this allows you to specify multiple possible locations of where to find the data. Torrent Scout will then attempt to find the data on all of the drives listed.

6. Helping Torrent Scout find the data with fstab

In a complex environment with many storage devices, it can sometimes take quite some time for Torrent Scout to find the experimental data if it has to try each base directory every time to locate an experiment.

To speed up this process, the fstab (which is literally the copy/paste of /etc/fstab content) info will help to let Torrent Scout find the data more quicky.

Again this is only used in the most complex environments.

Defining the Rules

Basic Variables

The content of all of the following variables is stored in the database.

So when a user clicks on an experiment or run in the ExperimentViewer, the information about the experiment is retrieved and stored in the variables below.

Variable Name	Description	Example Value

${PGM_NAME}	The name of the PGM	PGM1, PGM2, Storm, Hendrix etc
${EXP_NAME}	The name of the experiment (from the database)	R_2011_03_28_18_36_46_user_HEN-272-R9017-BB229_LN434_NHB-KM
${RESULTS_NAME}	The name of the run (from the database)	Auto_HEN-272-R9017-BB229_LN434_NHB-KM_3807_6370
${EXP_DIR}	The full path to the .dat files (from the database)	/results/PGM1/ R_2011_03_28_18_36_46_user_HEN-272-R9017-BB229_LN434_NHB-KM
${RESULTS_DIR}	The URL to the report (from the database)	/output/Home/ Auto_HEN-272-R9017-BB229_LN434_NHB-KM_3807_6370

When a rule contains a variable such as ${PGM_NAME}, the variable name is replaced with value from the current experiment, such as PGM1.

Additional Variables

These variables are evaluated after the an experiment is selected:

Variable Name	Description	Example Value
${BASE}	One of the directories listed in the "Base Directories" text area	Windows: C:\data1 C:\data2 Unix: \results1 \results2 \results3
${RAW_DIR}	The evaluated directory for raw directory, for instance to be used in the rule for the cache directory	/results/PGM1/ R_2011_03_28_18_36_46_user_HEN-272-R9017-BB229_LN434_NHB-KM

Example Rules

Raw Directory Rule:

- The most common rule that works in most cases is simply **/${EXP_DIR}**
- An alternative is: /base/folder/**${PGM}/${EXP_NAME}**

Results Directory Rule:

- The most common rule is: **/${RESULTS_DIR}**
  Note usually the results directory starts with /output. If you want to use this simple rule, you have to make sure there is a symbolic link on your system called /output that points to the actual "output" directory where the results are stored
- As an alternative, specify the whole path:
  /mydata/results/output/analysis/Home/**${RESULTS_NAME}**

Cache Directory Rule:

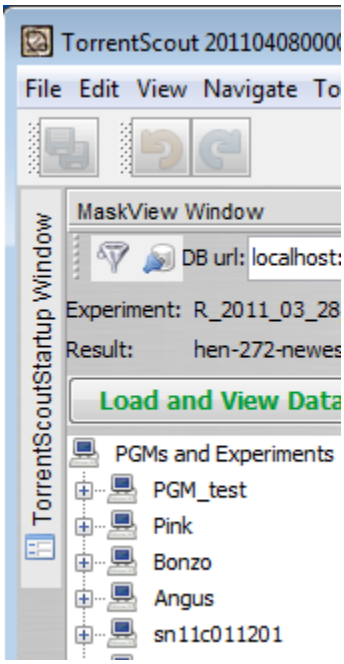
- The cache directory should always include the results name, otherwise the cache might be used for a different set of results that doesn't apply to that experiment!
- The most common rules:

- /${RESULTS_DIR}
- /${EXP_DIR}/${RESULTS_NAME}
- /tmp/${RESULTS_NAME}

- **Make sure the cache directory has enough disk space:**
  - **A few GB if you are not caching the .dat files (and for newer 316/318 chip .dat files)**
  - **At least 50 GB for 314 chip data if you are caching the .dat files**

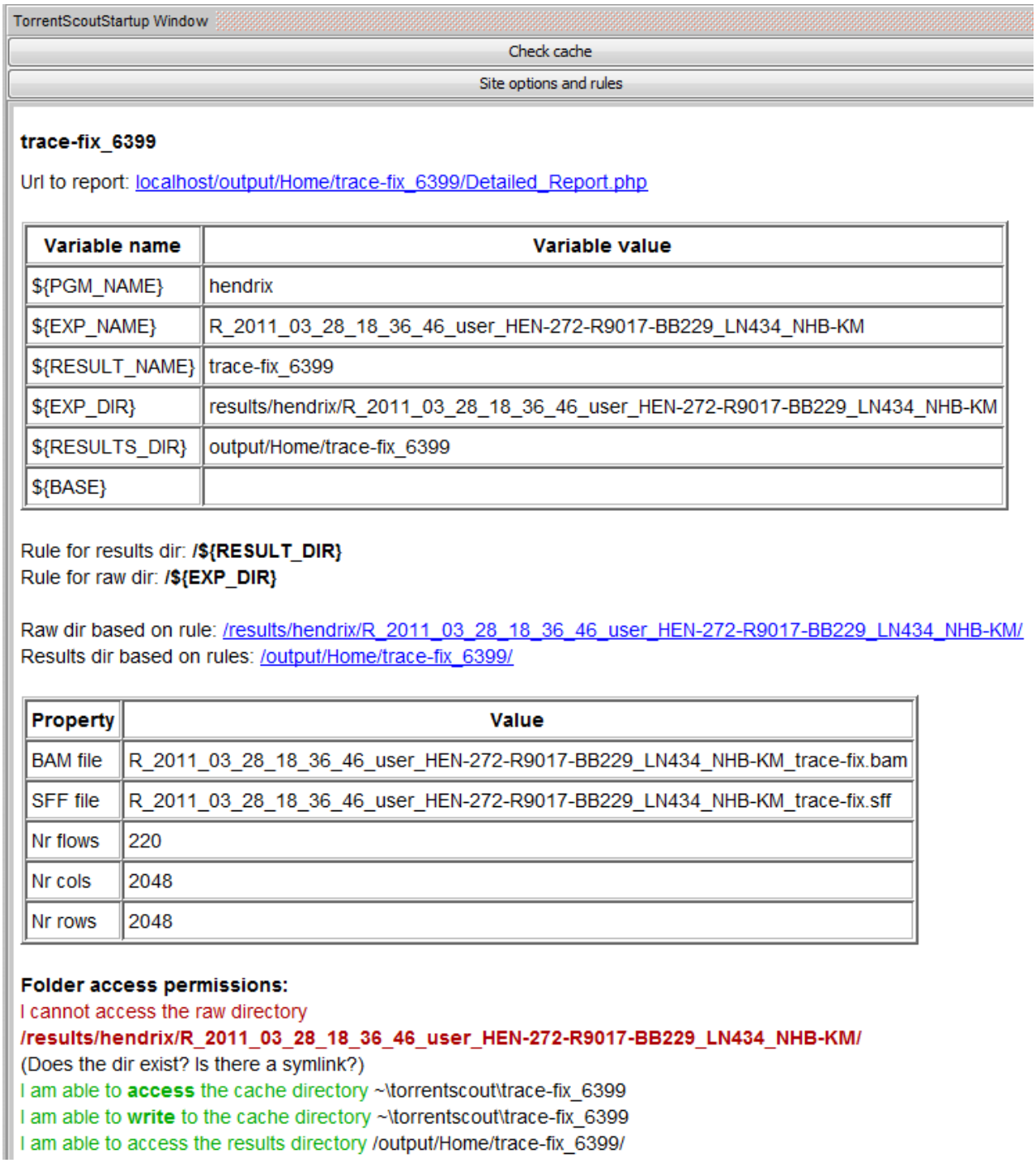
Checking the Content of the Variables

On the left side of the Torrent Scout main Window there is a vertical tab called "TorrentScoutStartupWindow":



When you move your mouse over tis tab, it will open an information window that shows you :

- The variable names and their content given the current context
- The rules as defined
- The resulting evaluated rules given the variable content



For instance in this example, the ${RESULTS_DIR} is output/Home/trace-fix_6399, the rule for the results directory is /${RESULTS_DIR}, and the evaluated rule is /output/Home/trace-fix_6399

Common Error Message:

When a user attempts to view experimental data, Torrent Scout will apply the specified rules to the current experimental context and paths given from the database.

If Torrent Scout fails to locate the data, it will show a message similar to this:

If this happens, please go back to the configuration panel and make sure the rules are defined correctly.