How To Set Up and Use The Tritium Replay Code

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Chapter 1

Introduction

The official replay code for the tritium family of experiments lives in GitHub. This decision was made to allow better version control in a large collaboration. The main repository will have everything set up for working on the *aonl* machines. This document will walk you through setting up your fork of this repository to work in your personal workspace.

This document assumes that you already have ROOT 6 and the Hall A Analyzer version 1.6 installed in your personal workspace.

Chapter 2

Setting Up The Code

2.1 Set Up Environmental Variables

There are four environmental variables that need to be set in order for the replay to work.

1. ANALYZER - Set to the directory where the analyzer lives.
2. PATH - Add the directory where the analyzer lives.
3. LD_LIBRARY_PATH - Add the directory where the analyzer lives
4. DB_DIR - Set to the directory of the replay database

If you are using the official replay, a script is provided to do this for you. In the replay directory, run:

```
source sourceme.sh
```

This script can serve as an example for setting up your own installation as well. If you are using `csh` instead of `bash` be sure to replace `export` with `setenv` and `=` with a space.

2.2 Directory Structure

The code has been set up so that the number of lines that need to be changed to reflect your directory structure can be kept to a minimum.

In rootlogon.C:

1. Set *char* replay_dir_prefix* to the directory where your code lives. There must be a trailing */%s*.

In def_tritium.h:

3. Set *char* REPLAY_DIR_PREFIX* to the directory where your code lives. There must be a trailing */%s*.

4. Set *char* ROOTFILE_DIR_PREFIX* to the directory where your root files will be stored. There must be a trailing */%s*.

5. Add the location of your raw data folder to the *static const char* PATHS[]* array if you do not have access to the standard directories.

Now you must compile the ReplayCore. To do this, type the following commands into a terminal in the replay directory.

```
analyzer
.L ReplayCore.C+
.q
```

2.3 Compiling The Libraries

To compile all of the libraries, a script has been provided. Go into the *replay/libraries/* directory. From there, run the command:

```
./libs.sh
```