**Heimdall install Memo**

Instruction from: https://sourceforge.net/p/heimdall-astro/wiki/Install/

Required:

* [Dedisp](https://github.com/ajameson/dedisp)
* [Thrust](http://thrust.github.io/) version >=1.6
* [Boost](http://www.boost.org/) version >= 1.49
* [PSRDADA](http://psrdada.sourceforge.net/)
* [CUDA](https://developer.nvidia.com/cuda-downloads) version >= 4.2

Before install:

Mkdir $HOME/linux\_64

Mkdir $HOME/opt

Vi ~/.bashrc

Export LD\_LIBRARY\_PATH=$HOME/linux\_64/lib:/usr/lib:/usr/lib64:/usr/local/lib

Export CUDA\_NVCC\_FLAGS="-O3 -arch sm\_61"

PATH="$HOME/linux\_64/bin:$HOME/linux\_64/lib:$HOME/heimdall/Applications:$HOME/opt/dedisp:$HOME/opt/psrdata:$PATH"

1. **Dedisp:**

sm\_arg = 61

CUDA: 8.0

THRUST\_DIR ?= $(HOME)/opt/thrust-1.6

INSTALL\_DIR = $(HOME)/linux\_64

make && make install

1. **Psrdada:**

2.1 cd $HOME/opt

2.2 the PSRDADA CVS repository can be accessed through anonymous (pserver) CVS as follows. First, log in to the CVS server with the following two commands:

touch $HOME/.cvspass

cvs -d:pserver:anonymous@psrdada.cvs.sourceforge.net:/cvsroot/psrdada login

When prompted for the password for *anonymous*, simply hit Enter. Finally, check out the software with the following command:

cvs -z3 -d:pserver:anonymous@psrdada.cvs.sourceforge.net:/cvsroot/psrdada co -P psrdada

2.3 ./bootstrap

* 1. ./configure --prefix=$HOME/linux\_64 --with-cuda-include-dir=/usr/local/cuda-8.0/include --with-cuda-lib-dir=/usr/local/cuda-8.0/lib64
  2. make && make install

1. **Boost:**

<http://www.boost.org/users/history/version_1_63_0.html>

I download boost from the link above.

Use the boost from /boost\_1\_63\_0/tools/build

3.1 sh bootstrap.sh

3.2 ./b2 install --prefix==$HOME/linux\_64

1. **Heimdall install:**

4.1 git clone git://git.code.sf.net/p/heimdall-astro/code heimdall

4.2 ./bootstrap

4.3 ./configure prefix=$HOME/linux\_64 --with-thrust-include-dir=$HOME/opt/thrust-1.6 --with-dedisp-dir=$HOME/linux\_64 --with-psrdada-dir=$HOME/linux\_64 --with-boost=$HOME/linux\_64 --with-cuda-include-dir=/usr/local/cuda-8.0/include --with-cuda-lib-dir=/usr/local/cuda-8.0/lib64

4.4 make && make install

**run Heimdall:**

heimdall -f PM0141\_017A1.fil -dm\_nbits 32 -v -output\_dir . (or ~/linux\_64/bin/heimdall)