"Wurtz, Ron" <wurtz1@llnl.gov> December 8, 2010 3:00 PM
To: "Newby, Robert Jason" <newbyrj@ornl.gov>
Re: detail you might shed light on
Security: ■Signed (Ronald E. Wurtz)

SIS Linux Setup

Modify /etc/udev/rules.d/10-usrp.rules to include the following line:

```
ACTION=="add", BUS=="usb", SYSFS{idVendor}=="1657", SISFS{idProduct}=="3150", GROUP:="usrp", M
ODE:="0666"
```

Modify /etc/udev/rules.d/60-hiddev.rules to include the following line:

```
KERNEL=="hiddev*", NAME="hiddev%n",  MODE="0666"
```

SIS installation

Contents [hide]

USB [edit]

Tell your linux install what to do when the SIS3150 VME controller is connected to your usb port

Modify/create /etc/udev/rules.d/10-usrp.rules to include the following line:

```
ACTION=="add", BUS=="usb", SYSFS{idVendor}=="1657", SYSFS{idProduct}=="3150", GROUP:="usrp", M
ODE:="0666"
```

Modify/create /etc/udev/rules.d/60-hiddev.rules to include the following line:

```
KERNEL=="hiddev*", NAME="hiddev%n",  MODE="0666"
```

New systems may require a change in syntax for /etc/udev/rules.d/10-usrp.rules similar to

```
ACTION=="add", SUBSYSTEM=="usb", ATTR{idVendor}=="1657", ATTR{idProduct}=="3150", GROUP:="usrp
", MODE:="0666"
```

You may avoid a reboot by reloading the udev rules with sudo udevadm control –reload-rules

Dependencies [edit]

Optionally, if you want to use a mysql database make sure its installed. And when configuring root make sure he can find the mysql

library and header.

ROOT [1] is definitely required. I recommend downloading the source and installing. Get the root source at ftp://root.cern.ch/root/root_v5.24.00.source.tar.gz Note that recent Lab Firewall issues block ftp downloads so I have often had to go to the request to request an egress before download the file. Or go to Starbucks for coffee.

```
Unpack the tarball.
export ROOTSYS=PATH_TO_ROOT_DIRECTORY
export PATH=$ROOTSYS/bin:$PATH
export LD_LIBRARY_PATH=$ROOTSYS/lib:$LD_LIBRARY_PATH
cd $ROOTSYS
./configure
make
```

Install SIS USB Driver [edit]

We will need the struck USB driver/library. Unpack the sisusb-1.0 tarball. (svn+ssh:/yana.llnl.gov/usr/gapps/ngm/svnrepo/sisusb-1.0 or from the struck software CD)

```
export SISUSB=LOCATION_TO_SOURCE/install
cd $SISUSB/..
./configure --prefix=$SISUSB
make
make install
```

Build the LLNL DAQ and Analysis Code [edit]

```
svn co svn+ssh:/yana.llnl.gov/usr/gapps/ngm/svnrepo/NGMDaq
export NGMINSTALL=ANY_LOCATION_YOU_LIKE
cd NGMDaq
./autogen.sh --prefix=$NGMINSTALL
make
make install

cd MDDAC
./autogen.sh --prefix=$NGMINSTALL
make
make install

cd ../SISSystem
./autogen.sh --prefix=$NGMINSTALL
make
make install
```

On Dec 8, 2010, at 11:53 AM, Newby, Robert Jason wrote:

> Hi Ron,
>
> There is always some analog filtering. If you have a 200MS/s digitizer it probably has a filter limiting the bandwidth to 100MHz.
>
> Cheers,
> Jason
>
> On Dec 8, 2010, at 2:46 PM, Wurtz, Ron wrote:
>
> > Jason:

> Do you know if there is an actual analog filter on-board on the Struck digitzers that does a little smoothing just to match all features to its resolution limit. If so, is it modifiable? I looked through the digitizer manual and couldn't find any suggestion this is the case. If not, then I'm guessing the only filtering that you ever referred to is the (modifiable) digital FIR filter, which I now understand in detail.
>
> Ron