

Local Data Acquisition



Adding Digitizers, Ex: Quanterra Q330

- Get the Dataless SEED from PDCC for your station, and import it into the Inventory. Sync so you see it in the bindings. In my example, it ISTI's test station NP2 in the nonexistent XX network
- Create a new seedlink profile. Call it slink_q330
- Double-click on the new profile to open it up. Instead of creating a Chain, look at the popup list.

Choose q330 – Quanterra Q330 UDP/IP

The image shows a software interface with a list of network profiles. The interface is divided into several sections:

- Left Panel:** A tree view of networks under the heading "Networks". The list includes folders for AF, G, GE, GT, HL, II, IM, IU, KO, MN, PF, PM, ZT, and ZZ. A sub-folder "NP2" is expanded, showing three items: "arlink", "global", and "slarchi...".
- Center Panel:** A list of network profiles. The "q330 - Quanterra Q330 (UDP/IP)" profile is highlighted in orange. Other profiles include "chain - Seedlink server (TCP/IP)", "dm24 - Guralp DM24 (serial plugin)", "dr24 - Geotech DR24 (serial plugin)", "edata - EarthData PS6-24 (serial plugin)", "ewexport - Earthworm export server (TCP/IP)", "ewexport_pasv - Earthworm passive export server (TCP/IP)", "fs_mseed - Mini-SEED file plugin", "hrd24 - Nanometrics HRD24 (serial plugin)", "liss - LISS server (TCP/IP)", "m24 - Lennartz M24", "minilogger - SEP064 USB Seismometer Interface", "mk6 - MK6", "mseedfifo - mseedfifo_plugin", "mseedscan - MseedScan", "mws - MWS (serial plugin)", "naqs - NAQS (TCP/IP)", "nmxp - NAQS (TCP/IP) with nmxptool. ...", "orb - Antelope ORB (TCP/IP)", "ps2400_eth - The ps2400_eth plug-in fetches data ...", "reftek - RefTek RTPD (TCP/IP)", "sadc - SADC10/18/20/30 (serial plugin)", "scream - SCREAM! server (TCP/UDP/IP) plugin ...", and "scream_ring - SCREAM! server plugin that receives ...".
- Right Panel:** A file browser showing a directory structure. The "seedlink" folder is expanded, showing sub-folders "slink_q330" and "slink_q330". The "slink_q330" folder is selected, and its contents are visible in the main window.

Put In Relevant Info

sources

▼ **q330**

address newpaltz.isti.com Hostname or IP.	port 5330 Source port to receive data packets.	udpport auto UDP port.
proc Name of the proc object (defined in streams.xml); used ...	slot 1 Q330 dataport number (1-4).	serial 0x010000069a41263 Q330 serial number (with 0x prefix).
auth 0x00 Q330 auth code (with 0x prefix).		

q330 - Quanterra Q330 (UDP/IP)

seedlink
slink_IRIS
slink_IRIS_HH
slink_q330
slarchive
slmon
slink_IRIS
slink_IRI...
slink_q330



Update Configuration

- Drag your new slink_q330 onto the new station you just added.
- Go to System tab: Press “ESC” key
- Update Configuration
- Restart Seedlink
- Check with slinktool



We've Got Data!

- `sysop@ubuntu14 $ slinktool -Q : | grep NP`
- `ZZ NP2 ACE T 2017/08/24 00:28:09.9999 - 2017/08/24 00:45:37.9999`
- `ZZ NP2 BHE D 2017/08/24 00:28:08.4195 - 2017/08/24 00:49:09.4195`
- `ZZ NP2 BHN D 2017/08/24 00:28:08.4195 - 2017/08/24 00:49:09.4195`
- `ZZ NP2 BHZ D 2017/08/24 00:28:08.4195 - 2017/08/24 00:49:09.4195`
- `ZZ NP2 HHE D 2017/08/24 00:28:09.9683 - 2017/08/24 00:49:10.9683`
- `ZZ NP2 HHN D 2017/08/24 00:28:09.9683 - 2017/08/24 00:49:10.9683`
- `ZZ NP2 HHZ D 2017/08/24 00:28:09.9683 - 2017/08/24 00:49:10.9683`



Issues With a New Station?

- Check the log. The Seedlink log is here:
- `tail -f ~/seiscomp3/var/log/seedlink.log`
- Thu Aug 24 02:49:49 2017 - seedlink:
127.0.0.1:60858 : ATD : DATA 0007EE
- Thu Aug 24 02:49:49 2017 - seedlink:
127.0.0.1:60858 : STATION TRIS G
- Thu Aug 24 02:49:49 2017 - seedlink:
127.0.0.1:60858 : TRIS : DATA



Example #2 Reftek

- Same sequence... add metadata, add Seedlink plugin reftek – RefTek RTPD (TCP/IP), and configure it here.

sources

▼ reftek

address
Hostname or IP of the RTPD server.

port
Port of the RTPD server.

map
Defines an alternative unit mapping file. The default file is in \$INSTALLDIR/var/lib/seedlink/reftek2sl.map. If this path is not an absolute path it will be treated as relative path to \$INSTALLDIR/var/lib/seedlink. The map file is used if the unit is not explicitly given in the binding. Each line in the file is one mapping from a unit to a station name. The first column is the unit id e.g. 91F3 and the second column the Seedlink station name e.g. ABCD.

unit
The unit id.

proc
Name of the proc object (defined in streams.xml); used ...

default_tq
Default timing quality in percents. This value will be ...

unlock_tq
Timing quality to use when GPS is out of lock.

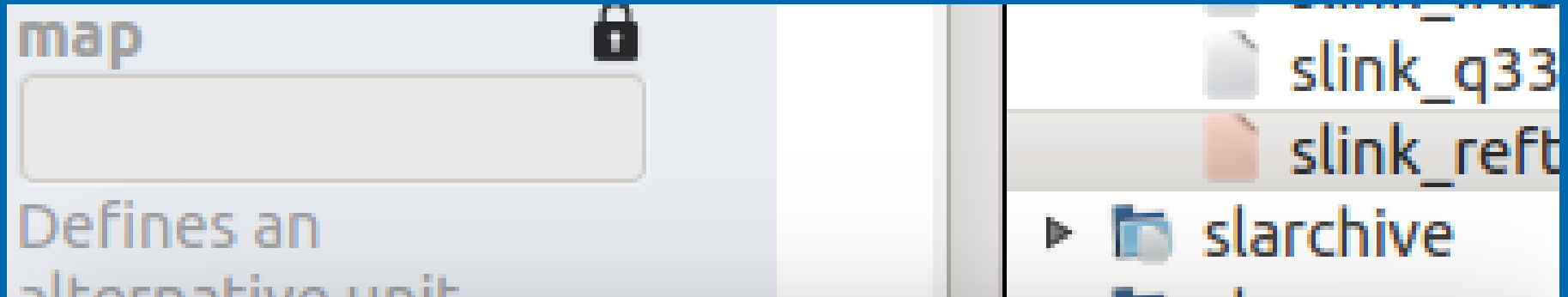
log_soh
Send Reftek state-of-health data as Mini-SEED LOG stream.

reftek - RefTek RTPD (TCP/IP)

global
scautopick
scwfparam
seedlink
slink_IRIS
slink_IRIS_HH
slink_q330
slink_reftek
slarchive



Create a Map File



Defines an alternative unit mapping file. The default file is in `$INSTALLDIR/var/lib/seedlink/reftek2sl.map`. If this path is not an absolute path it will be treated as a relative path to `$INSTALLDIR/var/lib/seedlink`. The map file is used if the unit is not explicitly given in the binding. Each line in the file is one mapping from a unit to a station name. The first column is the unit id e.g. 91F3 and the second column the Seedlink station name e.g. ABCD.

reftek2sl.map

- B3E8 OHN1
 - B42F OHN3
 - B948 OHN4
 - B980 OHM6
 - B95C OHM8
-
- --- you'll need to create this file, it doesn't already exist for you ---



Tricky Part

- cd to
~/seiscomp3/share/templates/seedlink/reftek
- Look at the standard template file there:
- streams_reftek.tpl
- sysop@ubuntu14:~/seiscomp3/share/templates/seedlink\$ cat reftek/streams_reftek.tpl
- <proc name="reftek">
- <tree>
- <input name="0.0" channel="Z" location="" rate="100"/>
- <input name="0.1" channel="N" location="" rate="100"/>



reftek/streams_reftek.tpl

- <proc name="reftek">
- <tree>
- <input name="0.0" channel="Z" location="" rate="100"/>
- <input name="0.1" channel="N" location="" rate="100"/>
- <input name="0.2" channel="E" location="" rate="100"/>
- <node stream="HH"/>
- </tree>
- <tree>
- <input name="0.3" channel="Z" location="" rate="100"/>
- <input name="0.4" channel="N" location="" rate="100"/>
- <input name="0.5" channel="E" location="" rate="100"/>
- <node stream="HN"/>



Tricky Part

- Add that to
- `~/seiscomp3/var/lib/seedlink/streams.xml`
- If the above doesn't exist, create it. It must start with
- `<streams>`
- And end with
- `</streams>`
- The procname must match what's on the config screen in `scconfig`.

Usual Update etc.

- Add the new seedlink profile on top of your new metadata
- Save the bindings
- Update Config
- Restart relevant modules



Example 3 Guralp – look in templates for help

```
seiscomp3/share/templates/seedlink/scream$ cat  
scream2sl.map
```

```
#
```

```
#keyword      stream  network  station  channel  ID
```

```
#
```

```
ChanInfo  PMSTZ4  IP      PMST      BHZ      1
```

```
ChanInfo  PMSTN4  IP      PMST      BHN      2
```

```
ChanInfo  PMSTE4  IP      PMST      BHE      3
```

```
ChanInfo  PACTZ4  IP      PACT      BHZ      4
```

```
ChanInfo  PACTN4  IP      PACT      BHN      5
```

```
ChanInfo  PACTE4  IP      PACT      BHE      6
```

```
# To take also the sysid into account prepend it to the
```

```
# streamid generated by a dot
```



Usual Update etc.

- Add the new seedlink profile on top of your new metadata
- Save the bindings
- Update Config
- Restart relevant modules
- Look at the reftek example; maybe examine streams.xml if you don't see data

