

Rod's Guide to MVO Seismics

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Use in conjunction with Miscellaneous Notes document on MVO Staff web page

1 One login for everything

user: seisan
pw: mont-serrat

2 ip addresses

172.20.0.163	piton
172.20.0.164	Seismologist's iMac
172.20.0.14	earthworm00
172.20.0.15	MVOscream

3 Data acquisition

Scream! on MVOscream
earthworm on earthworm00

use Remote desktop to monitor and edit

4 Remote Desktop to MVOscream and earthworm00

From MVO-WXP-OPS-S01, use Remote Desktop icon

From Seismologist's iMac, use CoRD

Server setup
restrict users to one session

Client setup
don't connect to console

Note that this conflicts with with the advice in the Miscellaneous Notes document.

5 Mounts and directories

5.1 *piton*

/mnt/mvoscream/data	-	Raw Scream! data
/mnt/earthworm00/monitoring_data	-	Data generated by earthworm
/mnt/volcano01/SF1	-	Seisan database of final processed data. (older events removed)
/mnt/volcano02/SF1Backup	-	Full backup of seisan database.
/mnt/dome/seismic_data	-	Various

5.2 *Seismologists iMac*

/Volumes/monitoring_data
/Volumes/dome/seismic_data

6 Scream! Notes

Two instances running

- MBWH - gets forwarded to Puerto Rico
- All other stations

7 Earthworm Notes

All stuff in c:\earthworm

Backup of installation in SF1 on piton

7.1 *If earthworm crashes*

1. ew_nt.bat
2. startstop
3. power-cycle modem in computer room (key with Director)

7.2 *Alarms*

Always restart sound_alarm module after restarting any alarm module

Three alarms used

1. Tremor
2. Swarms
3. General

Alarms logged in c:\earthworm

8 Seisan Notes

8.1 Seisan Databases

IRIG	Old analog data
MVOE_	Triggered event database, 1996 onwards
DSNC_	Continuous waveform database, 1996 onwards

8.2 Historical Data

- No continuous seismic data for July 2003 and May 2006 collapse.
- Richard Luckett (BGS) is copying this data to disk for us.

9 Swarm

Connect to earthworm server
ip: 172.20.0.14
port: 16022

10 Software on piton

10.1 Directories for operational scripts and programs

/live
/home/seisan/PRO

10.2 Operational scripts and programs

plot_slice	time slices etc
plot_cumul	Cumulative stuff, time axis is 3 years off
volcstat	Calculates and plots daily event counts

10.3 Data files

~/WOR/compile_slice.dat Auto-generated S files for all events since
2003-01-01, includes spectral data

Silvio has separate rockfall database
Silvio has separate database for old data

11 Access from outside MVO

11.1 Teamviewer (Windows only)

Used to connect to MVO-WXP-OPS-S01

ID: 38 970 449

pw: mont-serrat

Access

- Remote Desktop to earthworm00
- Remote Desktop to MVOScream

11.2 VPN

gateway: 208.90.112.40
group: MVO
user pw: domesizeX
group pw: mvo2SALEM
username: volmvoext
domain: MVO

Access

- Swarm
- ssh to piton with X-forwarding
 - ssh to iMac, no X-forwarding
 - Seems to work OK from Sea Dreams
 - but not from Trinidad

11.3 MVO web page

- <http://172.20.0.9/> (inside MVO)
- <http://www.mvo.ms/> (outside MVO)

Access

- helicorders
- spectrograms
- earthquake counts page doesn't work properly
- RSAM data shows offset

12 MATLAB (on Seismologist's iMac)

Most scripts in Documents/MATLAB

12.1 *rsam_analysis*

Set of scripts to smooth RSAM data and to count small events - see *rsam_analysis_auto* for usage.

It creates timeseries objects that can be analysed using *tstool*:

<i>rsam1</i>	1-minute RSAM data
<i>smooth1</i>	smoothed 1-minute RSAM data
<i>event1</i>	Detected evnts at each stations
<i>event</i>	Detected events for network

These objects are stored in the file *rsam.mat*.

12.2 *rsam_analysis_auto*

This script automatically generates a plot showing the events counts and RSAM data for the last 15 (?) days. Output is always in the shared directory
/Volumes/monitoring_data/rsam-analysis

If run from the command line, it shows the plot on the screen.

It is also run as a cron job, running every 15 minutes, using
~/bin/rsam_analysis_auto.sh. This creates the following files

- *rsam.mat*
- *rsam_analysis_auto.png*

The cron job parameters are as follows

*0,15,30,45 * * * * /Users/seisan/bin/rsam_analysis_auto.sh*

13 Seismic Network

MBRV

CMG-40T ready for installation, maybe do at same time as GPS installation

14 Infrasound Data

On Italian PC

Data in C:\Data\MNT\

Sample script to read data on Seismologists iMac,
Documents/MATLAB/infrasound_mlab_import.

Need to make it easy to access and compare to seismic data.