0. Things to check and know!

0.1 Make sure to use Java jre1.6.0_07 (at least)

0.2 Will need an X11 window
Using XQuartz, open xterm window and enter 'xhost +'
In terminal windows ssh -X -Y USERNAME@seafloor (or other server)

1. Prepare files for processing

1.1 Make cruise work directory and sub-directories

*mkdir /turf/mgds/work/gma_mcs/{cruise_id}

*mkdir /turf/mgds/work/gma_mcs/{cruise_id}/segy

*mkdir /turf/mgds/work/gma_mcs/{cruise_id}/nav

*mkdir /turf/mgds/work/gma_mcs/{cruise_id}/img

mkdir /turf/mgds/work/gma_mcs/RC2204

mkdir /turf/mgds/work/gma_mcs/RC2204/segy

mkdir /turf/mgds/work/gma_mcs/RC2204/nav

mkdir /turf/mgds/work/gma_mcs/RC2204/img

1.2 Copy or FTP segy data files to segy directory; copy nav files to nav directory

1.3.1 rename segy files to {cruise_id}-{line_id}.segy

cd /turf/mgds/work/gma_mcs/RC2204/segy

ls -1 *segy > a.a

gawk 'BEGIN{FS="."}{print "mv -i "$0" "$3"-"$4".segy"}' a.a > b.b

edit b.b...save b.b

chmod a+x b.b

b.b

1.3.2 rename navigation files to {cruise_id}-{line_id}.nav_tmp

cd /turf/mgds/work/gma_mcs/RC2204/nav

ls -1 *ploc > a.a

gawk 'BEGIN{FS="."}{print "mv -i "$0" "$3"-"$4".nav_tmp"}' a.a > b.b

head nav files to check form of line names -edit (lowercase to upper?)

run the move commands

1.4 reformat navigation files

* columns should be tab separated:

line cdp lat lon

* make sure there are no header lines in the .nav files

* line names in the nav files must be EXACTLY like the filesnames

===> line04 IS NOT line4

Make a list of files:

ls -1 *.nav_tmp > c.c

Create a list of reformat commands (also removes 2 header lines) by:

-convert to uppercase and remove dash as needed:

awk '{print "gawk \047 BEGIN{getline;getline}{gsub(\042-\042,\042\042,$11);print toupper($11),$3,$1,$2}\047 " $0" > "}' c.c > d.d

Paste list of ".nav" filenames onto d.d:

edit file c.c, remove _tmp, save as e.e, paste d.d e.e > f.f

run f.f commands

head *nav to check that line-id within file matches filename

Another example - no header line in file:

awk 'BEGIN{OFS="\t"}{print $11,$3,$1,$2}' EW9607-sigma1.nav_tmp > EW9607-sigma1.nav

*** if a multiple-section line (see segy files), make new navfiles.

For UTIG-download files this should not occur.

Cut navfile to CDP/CMP range (may be in segy filename)

and put NEW line-filename in first column of .nav file:

awk '{OFS="\t"}{if($2>=5835 && $2<=9010)print "1237vf", $2, $3, $4 }' RC2102-1237.nav_tmp > RC2102-1237vf.nav

1.5 MAKE SURE THERE ARE NO .NAV FILES WITHOUT A MATCHING .SEGY FILE

* Make a list of lines in both segy and nav directories

* compare lists to make sure they are identical

* you will get no output from 'diff' if the files are identical

cd ../nav

ls -1 *nav | awk 'BEGIN{FS="."}{print $1}'> linelist; more linelist

cd ../segy

ls -1 *segy | awk -F'.' '{print $1}'> linelist; more linelist

diff linelist ../nav/linelist

2. Processing

2.1 Create sun raster files:

run commands like:

java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMChirp EW0007-101.segy > EW0007-101.segy.out

* cd /turf/mgds/work/gma_mcs/{cruise_id}/segy

* Run:

/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMChirp {cruise_id}-{line_id}.segy > {cruise_id}-{line_id}.segy.out

o One way to run in batch:

cd ../segy

awk '{print "/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMChirp "$1".segy > "$1".segy.out" }' linelist > xmchirp.awk

chmod u+x xmchirp.awk

xmchirp.awk

2.2 Create bounds file:

'bounds' file (tab-separated) looks like this:

(cruise line CDPmin CDPmax delay duration)

RC2102 1069.sap02 201 6283 0 15848

RC2102 1070.sap03 201 11475 3000 8848

RC2102 1071.sap04 201 5997 0 11848

* cd /turf/mgds/work/gma_mcs/{cruise_id}/nav

* Run: /turf/mgds/work/gma_mcs/processing/awk_bounds

* output:"rm: cannot remove `tmp1'" is correct unless bounds are being recomputed which requires old files to be removed

cd ../nav

/turf/mgds/work/gma_mcs/processing/awk_bounds

2.3 Convert .ras files to r2.gz:

* cd /turf/mgds/work/gma_mcs/{cruise_id}/segy

* Run:

/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.image.RasToRas2 {cruise_id}-{line_id}.ras .4

o One way to run in batch:

cd ../segy

awk '{print "/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.image.RasToRas2 "$1".ras .4"}' linelist > rastoras2.awk

chmod u+x rastoras2.awk

./rastoras2.awk

2.3.1 View r2.gz files to check for errors:

This must be done in a X11 window or other terminal that provides a graphical user interface.

* Run:

/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.image.R2ImageViewer {cruise_id}-{line_id}.r2.gz

o One way to run in batch:

cd ../segy

awk '{print "/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.image.R2ImageViewer "$1".r2.gz"}' linelist > r2imageviewer.awk

chmod u+x r2imageviewer.awk

r2imageviewer.awk

2.3.2 Move r2.gz files to /turf/mgds/work/gma_mcs/{cruise_id}/img

* cd /turf/mgds/work/gma_mcs/{cruise_id}/segy

* mv *r2.gz /turf/mgds/work/gma_mcs/{cruise_id}/img

cd ../segy

mv *r2.gz ../img

2.3.3 Make mcs_control file:

* cd /turf/mgds/work/gma_mcs/{cruise_id}/nav

* Run:

/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMControl {cruise_id} . > control.out

cd /turf/mgds/work/gma_mcs/RC2204/nav

/opt/jre1.6.0_07/bin/java -Xmx256m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMControl RC2204 . > control.out

2.3.4 Create full size .jpg files:

This must be done in a X11 window or other terminal that provides a graphical user interface.

MOVE UP to cruise directory:

* cd /turf/mgds/work/gma_mcs/{cruise_id}

* Run:

/opt/jre1.6.0_07/bin/java -Xmx1024m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMRas2ToJPG {cruise_id}

* Move .jpg to /img

cd /turf/mgds/work/gma_mcs/RC2204

/opt/jre1.6.0_07/bin/java -Xmx1024m -cp /turf/mgds/work/gma_mcs/XMCSTools.jar haxby.db.xmcs.XMRas2ToJPG RC2204

mv *jpg img

3. Finalize

3.1 Create live directory and copy files:

****BEFORE YOU COPY FILES

****CLEAN UP THE NAV DIRECTORY:

cd /turf/mgds/work/gma_mcs/RC2204/nav

rm a.a b.b c.c d.d e.e f.f *tmp*

* mkdir /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/{cruise_id}

* cp -r /turf/mgds/work/gma_mcs/{cruise_id}/nav /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/{cruise_id}

* cp -r /turf/mgds/work/gma_mcs/{cruise_id}/img /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/{cruise_id}

mkdir /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/RC2204

cp -r /turf/mgds/work/gma_mcs/RC2204/nav /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/RC2204

cp -r /turf/mgds/work/gma_mcs/RC2204/img /public/mgg/web/new.geomapapp.org/htdocs/data/portals/mcs/RC2204

****Make sure permissions are set to world-readable.

3.2 Update expedition list and check GeoMapApp:

* The expedition list is found /public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/

* cd /public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/

* cp expedition_list expedition_list.old.{date}

cd /public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/

cp expedition_list expedition_list.old.2011.11.28

* tail ../{cruise_id}/nav/control.out
example:
HEALY:West East South North
-178.72779 186.15154 74.15647 89.080707

tail /turf/mgds/work/gma_mcs/RC2204/nav/control.out

* edit expedition list - add cruise, GMA map code and WESN - tab-separated
GMA map code:
1 = Mercator
2 = south polar only
3 = Mercator + south polar (3 = 2+1)
4 = north polar only
5 = Mercator + north polar (5 = 4+1)
7 = Mercator + south polar + north polar (7 = 4+2+1)

The data_set_uid lookup tables are found at
/public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/mcs_lookup

Go to the database table entry_data_set and select entry_id= RC2204
Note the REMOTE seismic data_set_uid value. (If there is none, but the
entry exists, a remote data_set will have to be ingested.)
Substitute that value below, then execute the gawk statement to create
the lookup table.
cd /public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/mcs_lookup
gawk 'BEGIN{data_set_uid = 23837}{print $1"-"$2, "segy", data_set_uid}'

/public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/RC2204/nav/bounds > RC2204.data_lookup

Email rt-gma_sync@marine-geo.org
to Ed Bohl,

For the next regular rsync:
I have added 1 cruise to the GMA/VO Digital Seismic portal - AG1208

I have updated:
/public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/expedition_list
and
/public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/mcs_lookup
and added:
/public/mgg/web/app.geomapapp.org/htdocs/data/portals/mcs/AG1208

thanks,

Check for cruise in MCS portal in GMA, if any problems revert to previously saved expedition file while going back and troubleshooting.

3.3 clean up work directories

```
cd /turf/mgds/work/gma_mcs/RC2204
ls
rm -r *
```

3.4 update the Drupal http://team.marine-geo.org/list/mcs-gma

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