To report a problem, see http://surfer.nmr.mgh.harvard.edu/fswiki/BugReporting
\n\n
New invocation of recon-all
\n\n
Mon Jun 16 12:02:01 CDT 2014
/Applications/freesurfer/subjects/CMH-9018
/Applications/freesurfer/bin/recon-all
-noaseg -gca atlas.gca -all -subjid CMH-9018 -nogcareg
subjid CMH-9018
setenv SUBJECTS_DIR /Applications/freesurfer/subjects
FREESURFER_HOME /Applications/freesurfer
Actual FREESURFER_HOME /Applications/freesurfer
build-stamp.txt: freesurfer-Darwin-lion-stable-pub-v5.3.0
Darwin dhcp-10-101-100-17.wireless.northwestern.private 12.5.0 Darwin Kernel Version 12.5.0: Sun Sep 29 13:33:47 PDT 2013; root:xnu-2050.48.12~1/RELEASE_X86_64 x86_64
cputime unlimited
filesize unlimited
datasize unlimited
stacksize 8192 kbytes
coredumpsize 0 kbytes
memoryuse unlimited
descriptors 256
memorylocked unlimited
maxproc 709

PhysMem: 1149M wired, 844M active, 348M inactive, 2341M used, 5847M free.

##
program versions used
$Id: recon-all,v 1.379.2.73 2013/05/12 23:15:37 nicks Exp $
$Id: mri_motion_correct.fsl,v 1.14 2011/03/02 20:16:39 nicks Exp $
mri_convert -all-info
ProgramName: mri_convert ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:02-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_convert.c,v 1.179.2.7 2012/09/05 21:55:16 mreuter Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
FLIRT version 5.5
$Id: talairach_avi,v 1.9 2011/03/02 18:38:06 nicks Exp $
mri_convert --version
stable5
ProgramName: tkregister2_cmdl ProgramArguments: --all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:03-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: tkregister2.c,v 1.121.2.1 2011/03/28 20:25:16 greve

Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
Program nu_correct, built from:
Package MNI N3, version 1.10, compiled by nicks@aspasia.local (i686-apple-darwin10.2.0) on 2010-02-26 at 14:19:30
ProgramName: mri_make_uchar ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:03-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_make_uchar.c,v 1.4 2011/03/02 00:04:14 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_normalize ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:03-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_normalize.c,v 1.73.2.1 2012/10/17 19:11:32 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_watershed ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:03-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_watershed.cpp,v 1.96.2.1 2011/11/08 22:18:44 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_gcut ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:04-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_gcut.cpp,v 1.14 2011/03/02 00:04:16 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_segment ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:04-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_segment.c,v 1.40 2011/03/02 00:04:24 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_label2label ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:04-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_label2label.c,v 1.40.2.2 2013/04/02 16:26:15 greve Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_em_register ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:04-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_em_register.c,v 1.84.2.3 2013/02/09 00:49:26 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-

17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_ca_normalize ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:04-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_ca_normalize.c,v 1.52.2.2 2012/10/17 19:11:32 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_ca_register ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_ca_register.c,v 1.78.2.3 2013/02/09 00:42:20 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_ca_label ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_ca_label.c,v 1.96.2.1 2012/08/28 22:11:20 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_pretess ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_pretess.c,v 1.20 2011/03/02 00:04:23 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_fill ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_fill.c,v 1.118 2011/03/16 21:23:49 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_tessellate ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_tessellate.c,v 1.36 2011/03/02 00:04:25 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_concatenate_lta ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:05-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_concatenate_lta.c,v 1.10 2011/03/16 21:23:48 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_normalize_tp2 ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:07-GMT BuildTimeStamp: May

14 2013 09:12:01 CVS: $Id: mri_normalize_tp2.c,v 1.8 2011/03/02 00:04:23 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_smooth ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:07-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_smooth.c,v 1.28 2011/03/02 00:04:34 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_inflate ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:07-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_inflate.c,v 1.43 2011/03/02 00:04:32 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_curvature ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:07-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_curvature.c,v 1.31 2011/03/02 00:04:30 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_sphere ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:07-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_sphere.c,v 1.57 2011/03/02 00:04:34 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_fix_topology ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_fix_topology.c,v 1.48 2011/03/02 00:04:32 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_topo_fixer ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_topo_fixer.cpp,v 1.29 2011/03/02 00:04:34 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_ca_label ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_ca_label.c,v 1.35 2011/03/02 00:04:27 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200

ProgramName: mris_euler_number ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_euler_number.c,v 1.8.2.2 2013/01/14 22:40:07 greve Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_make_surfaces ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_make_surfaces.c,v 1.127.2.6 2013/05/12 22:28:01 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_register ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:08-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_register.c,v 1.59 2011/03/02 00:04:33 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_volmask ProgramArguments: --all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_volmask.cpp,v 1.25 2011/03/02 00:04:34 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_anatomical_stats ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_anatomical_stats.c,v 1.72 2011/03/02 00:04:26 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mrisp_paint ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mrisp_paint.c,v 1.11 2011/03/02 00:04:35 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_curvature_stats ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_curvature_stats.c,v 1.64 2011/03/02 00:04:30 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mris_calc ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mris_calc.c,v 1.37.2.8 2013/01/28 17:05:17 greve Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private

Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
$Id: mri_robust_register.cpp,v 1.52.2.3 2012/11/20 17:26:47 mreuter Exp $

ProgramName: mri_robust_register ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:09-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_robust_register.cpp,v 1.52.2.3 2012/11/20 17:26:47 mreuter Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
$Id: mri_robust_template.cpp,v 1.37.2.2 2012/10/10 19:59:06 mreuter Exp $

ProgramName: mri_robust_template ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:10-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_robust_template.cpp,v 1.37.2.2 2012/10/10 19:59:06 mreuter Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_and ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:10-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_and.c,v 1.4 2011/03/02 00:04:13 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_or ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:10-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_or.c,v 1.3 2011/03/02 00:04:13 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_fuse_segmentations ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:10-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_fuse_segmentations.c,v 1.8 2011/03/02 00:04:15 nicks Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
ProgramName: mri_segstats ProgramArguments: -all-info ProgramVersion: $Name: stable5 $ TimeStamp: 2014/06/16-17:02:10-GMT BuildTimeStamp: May 14 2013 09:12:01 CVS: $Id: mri_segstats.c,v 1.75.2.9 2013/02/16 00:09:33 greve Exp $ User: IngvalsonLab Machine: dhcp-10-101-100-17.wireless.northwestern.private Platform: Darwin PlatformVersion: 12.5.0 CompilerName: GCC CompilerVersion: 40200
##
GCADIR /Applications/freesurfer/average
GCA atlas.gca
GCASkull RB_all_withskull_2008-03-26.gca

AvgCurvTif average.curvature.filled.buckner40.tif
GCSDIR /Applications/freesurfer/average
GCS curvature.buckner40.filled.desikan_killiany.2010-03-25.gcs
#######################################
INFO: current FREESURFER_HOME does not match that of previous processing.
  Current: /Applications/freesurfer
  Previous: /usr/local/freesurfer
#--
#@# MotionCor Mon Jun 16 12:02:11 CDT 2014
Found 1 runs
/Applications/freesurfer/subjects/CMH-9018/mri/orig/001.mgz
Checking for (invalid) multi-frame inputs...
WARNING: only one run found. This is OK, but motion
correction cannot be performed on one run, so I'll
copy the run to rawavg and continue.
\n cp /Applications/freesurfer/subjects/CMH-9018/mri/orig/001.mgz
/Applications/freesurfer/subjects/CMH-9018/mri/rawavg.mgz \n
/Applications/freesurfer/subjects/CMH-9018
\n mri_convert /Applications/freesurfer/subjects/CMH-9018/mri/rawavg.mgz
/Applications/freesurfer/subjects/CMH-9018/mri/orig.mgz --conform \n
mri_convert /Applications/freesurfer/subjects/CMH-9018/mri/rawavg.mgz
/Applications/freesurfer/subjects/CMH-9018/mri/orig.mgz --conform
$Id: mri_convert.c,v 1.179.2.7 2012/09/05 21:55:16 mreuter Exp $
reading from /Applications/freesurfer/subjects/CMH-9018/mri/rawavg.mgz...
TR=9.34, TE=3.86, TI=450.00, flip angle=12.00
i_ras = (-1, 0, 0)
j_ras = (0, -1, 0)
k_ras = (-0, -0, 1)
Original Data has (0.4688, 0.4688, 0.699999) mm size and (512, 512, 184) voxels.
Data is conformed to 1 mm size and 256 voxels for all directions
changing data type from short to uchar (noscale = 0)...
MRIchangeType: Building histogram
Reslicing using trilinear interpolation
writing to /Applications/freesurfer/subjects/CMH-9018/mri/orig.mgz...
\n mri_add_xform_to_header -c /Applications/freesurfer/subjects/CMH-
9018/mri/transforms/talairach.xfm /Applications/freesurfer/subjects/CMH-
9018/mri/orig.mgz /Applications/freesurfer/subjects/CMH-9018/mri/orig.mgz \n
INFO: extension is mgz
#--
#@# Talairach Mon Jun 16 12:02:33 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_nu_correct.mni --n 1 --proto-iters 1000 --distance 50 --no-rescale --i orig.mgz
--o orig_nu.mgz \n
\n talairach_avi --i orig_nu.mgz --xfm transforms/talairach.auto.xfm \n
\nINFO: transforms/talairach.xfm already exists!

The new transforms/talairach.auto.xfm will not be copied to
transforms/talairach.xfm
This is done to retain any edits made to transforms/talairach.xfm
Add the -clean-tal flag to recon-all to overwrite transforms/talairach.xfm\n
#---
#@# Talairach Failure Detection Mon Jun 16 12:03:53 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n talairach_afd -T 0.005 -xfm transforms/talairach.xfm \n
talairach_afd: Talairach Transform: transforms/talairach.xfm OK (p=0.2686,
pval=0.0169 >= threshold=0.0050)
\n awk -f /Applications/freesurfer/bin/extract_talairach_avi_QA.awk
/Applications/freesurfer/subjects/CMH-9018/mri/transforms/talairach_avi.log \n
\n tal_QC_AZS /Applications/freesurfer/subjects/CMH-
9018/mri/transforms/talairach_avi.log \n
TalAviQA: 0.97206
z-score: -1
#---
#@# Nu Intensity Correction Mon Jun 16 12:03:53 CDT 2014
\n mri_nu_correct.mni --i orig.mgz --o nu.mgz --uchar transforms/talairach.xfm --n 2
\n
/Applications/freesurfer/subjects/CMH-9018/mri
/Applications/freesurfer/bin/mri_nu_correct.mni
--i orig.mgz --o nu.mgz --uchar transforms/talairach.xfm --n 2
nIters 2
$Id: mri_nu_correct.mni,v 1.18.2.1 2013/01/09 21:23:42 nicks Exp $
Darwin dhcp-10-101-100-17.wireless.northwestern.private 12.5.0 Darwin Kernel
Version 12.5.0: Sun Sep 29 13:33:47 PDT 2013; root:xnu-
2050.48.12~1/RELEASE_X86_64 x86_64
Mon Jun 16 12:03:53 CDT 2014
Program nu_correct, built from:
Package MNI N3, version 1.10, compiled by nicks@aspasia.local (i686-apple-
darwin10.2.0) on 2010-02-26 at 14:19:30
tmpdir is ./tmp.mri_nu_correct.mni.2239
/Applications/freesurfer/subjects/CMH-9018/mri
mri_convert orig.mgz ./tmp.mri_nu_correct.mni.2239/nu0.mnc -odt float
mri_convert orig.mgz ./tmp.mri_nu_correct.mni.2239/nu0.mnc -odt float
$Id: mri_convert.c,v 1.179.2.7 2012/09/05 21:55:16 mreuter Exp $
reading from orig.mgz...
TR=9.34, TE=3.86, TI=450.00, flip angle=12.00
i_ras = (-1, 0, 0)
j_ras = (0, 0, -1)
k_ras = (0, 1, 0)
changing data type from uchar to float (noscale = 0)...
writing to ./tmp.mri_nu_correct.mni.2239/nu0.mnc...

Iteration 1 Mon Jun 16 12:03:56 CDT 2014
nu_correct -clobber ./tmp.mri_nu_correct.mni.2239/nu0.mnc
./tmp.mri_nu_correct.mni.2239/nu1.mnc -tmpdir
./tmp.mri_nu_correct.mni.2239/0/
[IngvalsonLab@dhcp-10-101-100-
17.wireless.northwestern.private:/Applications/freesurfer/subjects/CMH-
9018/mri/] [2014-06-16 12:03:56] running:
/Applications/freesurfer/mni/bin/nu_estimate_np_and_em -parzen -log -sharpen
0.15 0.01 -iterations 50 -stop 0.001 -shrink 4 -auto_mask -nonotify -b_spline 1 -
distance 200 -quiet -execute -clobber -nokeeptmp -tmpdir
./tmp.mri_nu_correct.mni.2239/0/ ./tmp.mri_nu_correct.mni.2239/nu0.mnc
./tmp.mri_nu_correct.mni.2239/nu1.imp

Processing:...Done
Processing:...Done
Processing:...Done
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Processing:.....Done
Processing:.....Done
Processing:.....Done
Number of iterations: 47
CV of field change: 0.000993777
[IngvalsonLab@dhcp-10-101-100-17.wireless.northwestern.private:/Applications/freesurfer/subjects/CMH-9018/mri/] [2014-06-16 12:04:12] running:
/Applications/freesurfer/mni/bin/make_template -quiet -shrink 3 ./tmp.mri_nu_correct.mni.2239/nu0.mnc ./tmp.mri_nu_correct.mni.2239/0//template.mnc

Transforming slices:.....Done
Transforming slices:.....
.....Done

Iteration 2 Mon Jun 16 12:04:17 CDT 2014
nu_correct -clobber ./tmp.mri_nu_correct.mni.2239/nu1.mnc ./tmp.mri_nu_correct.mni.2239/nu2.mnc -tmpdir ./tmp.mri_nu_correct.mni.2239/1/
[IngvalsonLab@dhcp-10-101-100-17.wireless.northwestern.private:/Applications/freesurfer/subjects/CMH-9018/mri/] [2014-06-16 12:04:17] running:
/Applications/freesurfer/mni/bin/nu_estimate_np_and_em -parzen -log -sharpen 0.15 0.01 -iterations 50 -stop 0.001 -shrink 4 -auto_mask -nonotify -b_spline 1 -distance 200 -quiet -execute -clobber -nokeeptmp -tmpdir ./tmp.mri_nu_correct.mni.2239/1/ ./tmp.mri_nu_correct.mni.2239/nu1.mnc ./tmp.mri_nu_correct.mni.2239/nu2.imp

Processing:.....Done
Processing:.....Done
Processing:.....Done

Processing:.....Done
Processing:.....Done
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Processing:.....Done
Processing:.....Done
Processing:.....Done
Processing:.....Done
Processing:.....Done
Processing:.....Done
Processing:.....Done
Processing:.....Done
Number of iterations: 30
CV of field change: 0.000982352
[IngvalsonLab@dhcp-10-101-100-17.wireless.northwestern.private:/Applications/freesurfer/subjects/CMH-9018/mri/] [2014-06-16 12:04:28] running:
/Applications/freesurfer/mni/bin/make_template -quiet -shrink 3 ./tmp.mri_nu_correct.mni.2239/nu1.mnc ./tmp.mri_nu_correct.mni.2239/1//template.mnc

Transforming slices:.....Done
Transforming slices:.....Done

mri_binarize --i ./tmp.mri_nu_correct.mni.2239/nu2.mnc --min -1 --o ./tmp.mri_nu_correct.mni.2239/ones.mgz

$Id: mri_binarize.c,v 1.26.2.1 2011/04/08 15:40:50 greve Exp $
cwd /Applications/freesurfer/subjects/CMH-9018/mri
cmdline mri_binarize --i ./tmp.mri_nu_correct.mni.2239/nu2.mnc --min -1 --o
./tmp.mri_nu_correct.mni.2239/ones.mgz
sysname Darwin
hostname dhcp-10-101-100-17.wireless.northwestern.private
machine x86_64
user   IngvalsonLab

input   ./tmp.mri_nu_correct.mni.2239/nu2.mnc
frame   0
nErode3d 0
nErode2d 0
output   ./tmp.mri_nu_correct.mni.2239/ones.mgz
Binarizing based on threshold
min   -1
max   +infinity
binval   1
binvalnot   0
Found 16777216 values in range
Counting number of voxels
Found 16777216 voxels in final mask
mri_binarize done
mri_segstats --id 1 --seg ./tmp.mri_nu_correct.mni.2239/ones.mgz --i orig.mgz --sum
./tmp.mri_nu_correct.mni.2239/sum.junk --avgwf
./tmp.mri_nu_correct.mni.2239/input.mean.dat

$Id: mri_segstats.c,v 1.75.2.9 2013/02/16 00:09:33 greve Exp $
cwd
cmdline mri_segstats --id 1 --seg ./tmp.mri_nu_correct.mni.2239/ones.mgz --i
orig.mgz --sum ./tmp.mri_nu_correct.mni.2239/sum.junk --avgwf
./tmp.mri_nu_correct.mni.2239/input.mean.dat
sysname Darwin
hostname dhcp-10-101-100-17.wireless.northwestern.private
machine x86_64
user   IngvalsonLab
UseRobust 0
Loading ./tmp.mri_nu_correct.mni.2239/ones.mgz
Loading orig.mgz
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found   1 segmentations
Computing statistics for each segmentation
 0   1   16777216 16777216.000

Reporting on   1 segmentations

```
Computing spatial average of each frame
  0
Writing to ./tmp.mri_nu_correct.mni.2239/input.mean.dat
mri_segstats done
mri_segstats --id 1 --seg ./tmp.mri_nu_correct.mni.2239/ones.mgz --i
./tmp.mri_nu_correct.mni.2239/nu2.mnc --sum
./tmp.mri_nu_correct.mni.2239/sum.junk --avgwf
./tmp.mri_nu_correct.mni.2239/output.mean.dat

$Id: mri_segstats.c,v 1.75.2.9 2013/02/16 00:09:33 greve Exp $
cwd
cmdline mri_segstats --id 1 --seg ./tmp.mri_nu_correct.mni.2239/ones.mgz --i
./tmp.mri_nu_correct.mni.2239/nu2.mnc --sum
./tmp.mri_nu_correct.mni.2239/sum.junk --avgwf
./tmp.mri_nu_correct.mni.2239/output.mean.dat
sysname  Darwin
hostname dhcp-10-101-100-17.wireless.northwestern.private
machine  x86_64
user     IngvalsonLab
UseRobust  0
Loading ./tmp.mri_nu_correct.mni.2239/ones.mgz
Loading ./tmp.mri_nu_correct.mni.2239/nu2.mnc
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found   1 segmentations
Computing statistics for each segmentation
  0    1                          16777216  16777216.000

Reporting on   1 segmentations
Computing spatial average of each frame
  0
Writing to ./tmp.mri_nu_correct.mni.2239/output.mean.dat
mri_segstats done
mris_calc -o ./tmp.mri_nu_correct.mni.2239/nu2.mnc
./tmp.mri_nu_correct.mni.2239/nu2.mnc mul .80881737923931387036
Saving result to './tmp.mri_nu_correct.mni.2239/nu2.mnc' (type = MINC )
[ ok ]
mri_convert ./tmp.mri_nu_correct.mni.2239/nu2.mnc nu.mgz --like orig.mgz
mri_convert ./tmp.mri_nu_correct.mni.2239/nu2.mnc nu.mgz --like orig.mgz
$Id: mri_convert.c,v 1.179.2.7 2012/09/05 21:55:16 mreuter Exp $
reading from ./tmp.mri_nu_correct.mni.2239/nu2.mnc...
TR=0.00, TE=0.00, TI=0.00, flip angle=0.00
i_ras = (-1, 0, 0)
j_ras = (0, 0, -1)
k_ras = (0, 1, 0)
INFO: transform src into the like-volume: orig.mgz
```

writing to nu.mgz...
mri_make_uchar nu.mgz transforms/talairach.xfm nu.mgz
type change took 0 minutes and 5 seconds.
mapping (17, 91) to (3, 110)

Mon Jun 16 12:05:00 CDT 2014
mri_nu_correct.mni done
\n mri_add_xform_to_header -c /Applications/freesurfer/subjects/CMH-9018/mri/transforms/talairach.xfm nu.mgz nu.mgz \n
INFO: extension is mgz
#---
#@# Intensity Normalization Mon Jun 16 12:05:01 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_normalize -g 1 nu.mgz T1.mgz \n
using max gradient = 1.000
reading from nu.mgz...
normalizing image...
talairach transform
 1.073 -0.272   0.109 -1.994;
 0.280   1.050 -0.140 -29.571;
-0.069   0.164   1.088 -14.763;
 0.000   0.000   0.000   1.000;
processing without aseg, no1d=0
MRInormInit():
INFO: Modifying talairach volume c_(r,a,s) based on average_305
MRInormalize():
MRIsplineNormalize(): npeaks = 10
Starting OpenSpline(): npoints = 10
building Voronoi diagram...
performing soap bubble smoothing, sigma = 8...

Iterating 2 times

3d normalization pass 1 of 2
white matter peak found at 117
white matter peak found at 97
gm peak at 72 (72), valley at 56 (56)
csf peak at 36, setting threshold to 60
building Voronoi diagram...
performing soap bubble smoothing, sigma = 8...

3d normalization pass 2 of 2
white matter peak found at 111
white matter peak found at 91
gm peak at 72 (72), valley at 51 (51)

```
csf peak at 40, setting threshold to 61
building Voronoi diagram...
performing soap bubble smoothing, sigma = 8...
Done iterating ----------------------------------
writing output to T1.mgz
3D bias adjustment took 2 minutes and 12 seconds.
#--------------------------------------------
#@# Skull Stripping Mon Jun 16 12:07:13 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_watershed -keep brainmask.auto.mgz brainmask.mgz brainmask.mgz -T1 -
brain_atlas /Applications/freesurfer/average/RB_all_withskull_2008-03-26.gca
transforms/talairach_with_skull.lta T1.mgz brainmask.auto.mgz \n

Keeping brain edits brainmask.auto.mgz brainmask.mgz
Mode:       T1 normalized volume
Mode:       Use the information of atlas (default parms, --help for details)

*******************************************************
The input file is T1.mgz
The output file is brainmask.auto.mgz
Weighting the input with atlas information before watershed

************************WATERSHED**************************
Sorting...
    first estimation of the COG coord: x=126 y=132 z=136 r=65
    first estimation of the main basin volume: 1158715 voxels
    Looking for seedpoints
      2 found in the cerebellum
      9 found in the rest of the brain
    global maximum in x=146, y=121, z=131, Imax=255
    CSF=17, WM_intensity=110, WM_VARIANCE=5
    WM_MIN=110, WM_HALF_MIN=110, WM_HALF_MAX=110, WM_MAX=110
    preflooding height equal to 10 percent
done.
Analyze...

    main basin size=1546051932685832 voxels, voxel volume =1.000
            = 1546051932685832 mmm3 = 1546051995566.080 cm3
done.
PostAnalyze...Basin Prior
 46 basins merged thanks to atlas
    ***** 0 basin(s) merged in 1 iteration(s)
    ***** 0 voxel(s) added to the main basin
done.
Weighting the input with prior template
```

```
**********TEMPLATE DEFORMATION**********

    second estimation of the COG coord: x=125,y=137, z=132, r=7757 iterations
^^^^^^^^ couldn't find WM with original limits - expanding ^^^^^^

  GLOBAL      CSF_MIN=1, CSF_intensity=2, CSF_MAX=5 , nb = 40770
 RIGHT_CER    CSF_MIN=1, CSF_intensity=2, CSF_MAX=4 , nb = 3240
 LEFT_CER     CSF_MIN=1, CSF_intensity=2, CSF_MAX=5 , nb = 2934
RIGHT_BRAIN   CSF_MIN=1, CSF_intensity=2, CSF_MAX=5 , nb = 16236
LEFT_BRAIN    CSF_MIN=1, CSF_intensity=2, CSF_MAX=43 , nb = 17910
   OTHER      CSF_MIN=1, CSF_intensity=2, CSF_MAX=3 , nb = 450
(2) Problem with the least square interpolation in GM_MIN calculation.

               CSF_MAX  TRANSITION  GM_MIN  GM
   GLOBAL
 before analyzing :    5,     11,       49,   68
 after  analyzing :    5,     36,       49,   44
  RIGHT_CER
 before analyzing :    4,     7,        46,   72
 after  analyzing :    4,     33,       46,   42
  LEFT_CER
 before analyzing :    5,     11,       49,   68
 after  analyzing :    5,     36,       49,   44
 RIGHT_BRAIN
 before analyzing :    5,     10,       48,   68
 after  analyzing :    5,     35,       48,   43
 LEFT_BRAIN
 before analyzing :    43,     47,       50,   70
 after  analyzing :    43,     49,       50,   54
   OTHER
 before analyzing :    3,     4,        39,   67
 after  analyzing :    3,     27,       39,   37
    mri_strip_skull: done peeling brain
    highly tesselated surface with 10242 vertices
    matching...59 iterations

**********VALIDATION**********
curvature mean = -0.015, std = 0.011
curvature mean = 59.059, std = 5.966

No Rigid alignment: -atlas Mode Off (basic atlas / no registration)
    before rotation: sse = 9.44, sigma = 15.73
    after  rotation: sse = 9.44, sigma = 15.73
Localization of inacurate regions: Erosion-Dilation steps
    the sse mean is 10.97, its var is 14.31
    before Erosion-Dilatation 11.40% of inacurate vertices
```

```
    after  Erosion-Dilatation 17.98% of inacurate vertices
    Validation of the shape of the surface done.
Scaling of atlas fields onto current surface fields

********FINAL ITERATIVE TEMPLATE DEFORMATION********
Compute Local values csf/gray
Fine Segmentation...28 iterations

    mri_strip_skull: done peeling brain

Brain Size = 934444 voxels, voxel volume = 1.000 mm3
        = 934444 mmm3 = 934.444 cm3


*****************************
Saving brainmask.auto.mgz
Keeping edits ...
Saving kept edits to brainmask.mgz .....
done
\nINFO: brainmask.mgz already exists!
The new brainmask.auto.mgz will not be copied to brainmask.mgz.
This is done to retain any edits made to brainmask.mgz.
Add the -clean-bm flag to recon-all to overwrite brainmask.mgz.\n
#--------------------------------------
#@# CA Normalize Mon Jun 16 12:07:35 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_ca_normalize -c ctrl_pts.mgz -mask brainmask.mgz nu.mgz
/Applications/freesurfer/average/atlas.gca transforms/talairach.lta norm.mgz \n
writing control point volume to ctrl_pts.mgz
using MR volume brainmask.mgz to mask input volume...
reading 1 input volume
reading atlas from '/Applications/freesurfer/average/atlas.gca'...
reading transform from 'transforms/talairach.lta'...
reading extra input line subject CMH-9018
reading extra input line fscale 0.150000
reading input volume from nu.mgz...
resetting wm mean[0]:  0 -->  0
resetting gm mean[0]:  0 -->  0
input volume #1 is the most T1-like
using real data threshold=21.0
skull bounding box = (66, 87, 63) --> (183, 179, 208)
using (105, 118, 136) as brain centroid...
mean wm in atlas =  0, using box (91,107,118) --> (119, 129,153) to find MRI wm
before smoothing, mri peak at 113
after smoothing, mri peak at 112, scaling input intensities by 0.000
scaling channel 0 by 0
```

using 136509 sample points...
INFO: compute sample coordinates transform
 0.985   0.000   0.170 -17.845;
 0.000   1.000   0.000 -19.386;
-0.170   0.000   0.985 -2.058;
 0.000   0.000   0.000   1.000;
INFO: transform used
finding control points in Left_Cerebral_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebral_White_Matter....
found 168 control points for structure...
bounding box (98, 152, 123) --> (116, 166, 133)
finding control points in Left_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Brain_Stem....
found 0 control points for structure...
skipping region 1 with no control points detected
finding control points in Left_Cerebral_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebral_White_Matter....
found 168 control points for structure...
bounding box (98, 152, 123) --> (116, 166, 133)
finding control points in Left_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Brain_Stem....
found 0 control points for structure...
skipping region 2 with no control points detected
finding control points in Left_Cerebral_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebral_White_Matter....
found 168 control points for structure...
bounding box (98, 152, 123) --> (116, 166, 133)
finding control points in Left_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Right_Cerebellum_White_Matter....
found 0 control points for structure...
finding control points in Brain_Stem....
found 0 control points for structure...
skipping region 3 with no control points detected
writing normalized volume to norm.mgz...
writing control points to ctrl_pts.mgz
freeing GCA...done.

normalization took 0 minutes and 24 seconds.
#--------------------------------------
#@# CA Reg Mon Jun 16 12:08:00 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_ca_register -nobigventricles -T transforms/talairach.lta -align-after -mask
brainmask.mgz norm.mgz /Applications/freesurfer/average/atlas.gca
transforms/talairach.m3z \n
not handling expanded ventricles...
reading extra input line subject CMH-9018
reading extra input line fscale 0.150000
using previously computed transform transforms/talairach.lta
renormalizing sequences with structure alignment, equivalent to:
	-renormalize
	-regularize_mean 0.500
	-regularize 0.500
using MR volume brainmask.mgz to mask input volume...
reading 1 input volumes...
logging results to talairach.log
reading input volume 'norm.mgz'...
reading GCA '/Applications/freesurfer/average/atlas.gca'...
label assignment complete, 0 changed (0.00%)
det(m_affine) = 1.00 (predicted orig area = 8.0)
label assignment complete, 0 changed (0.00%)
freeing gibbs priors...done.
average std[0] = 5.0
********************** pass 1 of 1 ************************
setting smoothness coefficient to 0.039
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0001: dt=23674.880000, rms=3.448 (0.000%), neg=0, invalid=1249605
0002: dt=23674.880000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0003: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.154
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0004: dt=1658.880000, rms=3.448 (0.000%), neg=0, invalid=1249605
0005: dt=1658.880000, rms=3.448 (0.000%), neg=0, invalid=1249605
0006: dt=1658.880000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0007: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.588
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605

0008: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0009: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0010: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0011: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0012: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0013: dt=128.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 2.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0014: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
0015: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
0016: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0017: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
0018: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
0019: dt=11.520000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 5.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0020: dt=1.280000, rms=3.448 (0.000%), neg=0, invalid=1249605
0021: dt=1.280000, rms=3.448 (0.000%), neg=0, invalid=1249605
0022: dt=1.280000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0023: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
resetting metric properties...
setting smoothness coefficient to 10.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0024: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0025: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
renormalizing by structure alignment....
renormalizing input #0
gca peak = 0.22917 (145)
uniform distribution in MR - rejecting arbitrary fit
gca peak = 0.05393 (45)
uniform distribution in MR - rejecting arbitrary fit
gca peak = 0.04038 (25)
uniform distribution in MR - rejecting arbitrary fit
gca peak Unknown = 0.98245 (0)
gca peak Left_Thalamus_Proper = 0.04038 (25)

gca peak Left_Stellate = 0.06210 (141)
gca peak Left_Porg = 0.07979 (145)
gca peak Left_Aorg = 0.05319 (58)
gca peak Right_Cerebral_White_Matter = 0.22917 (145)
gca peak Right_Cerebral_Cortex = 0.05393 (45)
gca peak Right_Aorg = 0.09222 (156)
gca peak Fifth_Ventricle = 0.10917 (140)
gca peak Left_Interior = 0.16275 (166)
gca peak Right_Interior = 0.16916 (164)
gca peak = 0.18158 (165)
gca peak = 0.13982 (172)
gca peak WM_hypointensities = 0.31540 (157)
gca peak Left_WM_hypointensities = 0.30435 (151)
gca peak = 0.09093 (234)
gca peak = 0.05351 (145)
gca peak = 0.05489 (148)
gca peak Fornix = 0.07705 (234)
label assignment complete, 0 changed (0.00%)
not using caudate to estimate GM means
estimating mean gm scale to be 1.00 x + 0.0
estimating mean wm scale to be 1.00 x + 0.0
estimating mean csf scale to be 1.00 x + 0.0
setting left cbm cortex = 1.00 x + 0.00
setting right cbm cortex = 1.00 x + 0.00
Left_Putamen too bright - rescaling by inf (from 1.000) to 65.2 (was 0.0)
Left_Pallidum too bright - rescaling by inf (from 1.000) to 70.3 (was 0.0)
Right_Putamen too bright - rescaling by inf (from 1.000) to 65.2 (was 0.0)
Right_Pallidum too bright - rescaling by inf (from 1.000) to 70.3 (was 0.0)
saving intensity scales to talairach.label_intensities.txt
********** pass 1 of 1 **********
setting smoothness coefficient to 0.008
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0026: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0027: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0028: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0029: dt=369.920000, rms=3.448 (0.000%), neg=0, invalid=1249605
0030: dt=369.920000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.031
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0031: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
0032: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
0033: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605

blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0034: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.118
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0035: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0036: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0037: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0038: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0039: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0040: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.400
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0041: dt=55.296000, rms=3.448 (0.000%), neg=0, invalid=1249605
0042: dt=55.296000, rms=3.448 (0.000%), neg=0, invalid=1249605
0043: dt=55.296000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0044: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0045: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0046: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 1.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0047: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
0048: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
0049: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0050: dt=24.576000, rms=3.448 (0.000%), neg=0, invalid=1249605
0051: dt=24.576000, rms=3.448 (-0.000%), neg=0, invalid=1249605
resetting metric properties...
setting smoothness coefficient to 2.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0052: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0053: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
label assignment complete, 0 changed (0.00%)
****
****

```
********************************************************************************
*********
********************************************************************************
*********
********** ALLOWING NEGATIVE NODES IN DEFORMATION
********************************
********************************************************************************
*********
********************************************************************************
*********
********************************************************************************
*********
********** pass 1 of 1 ************************
setting smoothness coefficient to 0.008
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0054: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0055: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0056: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0057: dt=1479.680000, rms=3.448 (0.000%), neg=0, invalid=1249605
0058: dt=1479.680000, rms=3.448 (-0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.031
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0059: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
0060: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
0061: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0062: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.118
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0063: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0064: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0065: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0066: dt=716.800000, rms=3.448 (0.000%), neg=0, invalid=1249605
0067: dt=716.800000, rms=3.448 (0.000%), neg=0, invalid=1249605
0068: dt=716.800000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.400
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
```

0069: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0070: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0071: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0072: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0073: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0074: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 1.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0075: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
0076: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
0077: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0078: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
0079: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
0080: dt=7.168000, rms=3.448 (0.000%), neg=0, invalid=1249605
resetting metric properties...
setting smoothness coefficient to 2.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0081: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0082: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
label assignment complete, 0 changed (0.00%)
label assignment complete, 0 changed (0.00%)
********** morphing with label term set to 0 **********
********** pass 1 of 1 **********
setting smoothness coefficient to 0.008
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0083: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0084: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
0085: dt=33144.832000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0086: dt=1479.680000, rms=3.448 (0.000%), neg=0, invalid=1249605
0087: dt=1479.680000, rms=3.448 (-0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.031
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0088: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
0089: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605

0090: dt=7962.624000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0091: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.118
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0092: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0093: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
0094: dt=614.400000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0095: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0096: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
0097: dt=512.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 0.400
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0098: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0099: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0100: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0101: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0102: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
0103: dt=64.512000, rms=3.448 (0.000%), neg=0, invalid=1249605
setting smoothness coefficient to 1.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0104: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
0105: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
0106: dt=5.120000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0107: dt=20.480000, rms=3.448 (0.000%), neg=0, invalid=1249605
0108: dt=20.480000, rms=3.448 (-0.000%), neg=0, invalid=1249605
resetting metric properties...
setting smoothness coefficient to 2.000
blurring input image with Gaussian with sigma=2.000...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0109: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
blurring input image with Gaussian with sigma=0.500...
0000: dt=0.000, rms=3.448, neg=0, invalid=1249605
0110: dt=0.000000, rms=3.448 (0.000%), neg=0, invalid=1249605
writing output transformation to transforms/talairach.m3z...
GCAMwrite

registration took 0 hours, 33 minutes and 4 seconds.
#-------------------------------------
#@# CA Reg Inv Mon Jun 16 12:41:03 CDT 2014
/Applications/freesurfer/subjects/CMH-9018/mri
\n mri_ca_register -invert-and-save transforms/talairach.m3z \n
Loading, Inverting, Saving, Exiting ...
Reading transforms/talairach.m3z
Inverting GCAM
Saving inverse
#-------------------------------------
#@# Remove Neck Mon Jun 16 12:41:50 CDT 2014
\n mri_remove_neck -radius 25 nu.mgz transforms/talairach.m3z
/Applications/freesurfer/average/atlas.gca nu_noneck.mgz \n
erasing everything more than 25 mm from possible brain
reading atlas '/Applications/freesurfer/average/atlas.gca'...
reading input volume 'nu.mgz'...
reading transform 'transforms/talairach.m3z'...
removing structures at least 25 mm from brain...
13538488 nonbrain voxels erased
writing output to nu_noneck.mgz...
nonbrain removal took 0 minutes and 53 seconds.
#-------------------------------------
#@# SkullLTA Mon Jun 16 12:42:43 CDT 2014
\n mri_em_register -skull -t transforms/talairach.lta nu_noneck.mgz
/Applications/freesurfer/average/RB_all_withskull_2008-03-26.gca
transforms/talairach_with_skull_2.lta \n
aligning to atlas containing skull, setting unknown_nbr_spacing = 5
reading extra input line subject CMH-9018
reading extra input line fscale 0.150000
using previously computed transform transforms/talairach.lta
reading 1 input volumes...
logging results to talairach_with_skull_2.log
reading '/Applications/freesurfer/average/RB_all_withskull_2008-03-26.gca'...
average std = 23.1   using min determinant for regularization = 53.4
0 singular and 5702 ill-conditioned covariance matrices regularized
reading 'nu_noneck.mgz'...
freeing gibbs priors...done.
bounding unknown intensity as < 20.2 or > 943.7
total sample mean = 92.0 (1443 zeros)
****
spacing=8, using 3481 sample points, tol=1.00e-05...
****
register_mri: find_optimal_transform
find_optimal_transform: nsamples 3481, passno 0, spacing 8
resetting wm mean[0]: 117 --> 126
resetting gm mean[0]: 74 --> 74

input volume #1 is the most T1-like
using real data threshold=6.0
skull bounding box = (65, 83, 61) --> (148, 192, 170)
using (93, 119, 116) as brain centroid...
mean wm in atlas = 126, using box (83,106,103) --> (103, 132,129) to find MRI wm
before smoothing, mri peak at 102
after smoothing, mri peak at 103, scaling input intensities by 1.223
scaling channel 0 by 1.2233
****
Nine parameter search. iteration 0 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-5.1, old_max_log_p =-5.4 (thresh=-5.4)
 0.964 0.418 -0.652 47.582;
-0.531 1.114 -0.070 23.010;
 0.564 0.335 1.048 -129.541;
 0.000 0.000 0.000 1.000;
****
Nine parameter search. iteration 1 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.8, old_max_log_p =-5.1 (thresh=-5.1)
 0.353 1.475 -0.184 -89.232;
-1.239 0.188 -0.874 324.479;
-0.821 0.351 1.240 0.753;
 0.000 0.000 0.000 1.000;
****
Nine parameter search. iteration 2 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.5, old_max_log_p =-4.8 (thresh=-4.8)
-0.222 1.689 0.818 -181.808;
-1.781 0.070 -0.627 372.163;
-0.591 -0.844 1.584 93.664;
 0.000 0.000 0.000 1.000;
****
Nine parameter search. iteration 3 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.3, old_max_log_p =-4.5 (thresh=-4.5)
-0.258 1.925 0.517 -169.885;
-2.099 -0.006 -1.024 463.127;
-0.979 -0.671 2.012 40.933;
 0.000 0.000 0.000 1.000;
****
Nine parameter search. iteration 4 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.3, old_max_log_p =-4.3 (thresh=-4.3)
 0.030 1.777 0.565 -185.286;
-2.391 0.170 -0.729 424.473;

-0.749 -0.715   2.288 -11.341;
 0.000   0.000   0.000   1.000;
****
Nine parameter search. iteration 5 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.3, old_max_log_p =-4.3 (thresh=-4.3)
-0.744   1.809   0.592 -109.419;
-2.330 -0.193 -1.296   537.918;
-1.128 -0.981   2.237   67.852;
 0.000   0.000   0.000   1.000;
****
Nine parameter search. iteration 6 nscales = 0 ...
****
Result so far: scale 1.000: max_log_p=-4.3, old_max_log_p =-4.3 (thresh=-4.3)
-0.744   1.809   0.592 -109.419;
-2.330 -0.193 -1.296   537.918;
-1.128 -0.981   2.237   67.852;
 0.000   0.000   0.000   1.000;
reducing scale to 0.2500
****
Nine parameter search. iteration 7 nscales = 1 ...
****
Result so far: scale 0.250: max_log_p=-4.3, old_max_log_p =-4.3 (thresh=-4.3)
-0.503   1.841   0.526 -127.392;
-2.330 -0.038 -1.336   522.806;
-1.273 -0.882   2.269   63.559;
 0.000   0.000   0.000   1.000;
****
Nine parameter search. iteration 8 nscales = 1 ...
****
Result so far: scale 0.250: max_log_p=-4.2, old_max_log_p =-4.3 (thresh=-4.2)
-0.473   1.846   0.654 -148.925;
-2.342 -0.008 -1.217   503.432;
-1.157 -0.923   2.250   57.763;
 0.000   0.000   0.000   1.000;
****
Nine parameter search. iteration 9 nscales = 1 ...
****
Result so far: scale 0.250: max_log_p=-4.2, old_max_log_p =-4.2 (thresh=-4.2)
-0.473   1.846   0.654 -148.925;
-2.342 -0.008 -1.217   503.432;
-1.157 -0.923   2.250   57.763;
 0.000   0.000   0.000   1.000;
reducing scale to 0.0625
****
Nine parameter search. iteration 10 nscales = 2 ...

```
**************************************
Result so far: scale 0.062: max_log_p=-4.2, old_max_log_p =-4.2 (thresh=-4.2)
-0.462   1.837   0.681  -153.078;
-2.367  -0.008  -1.177   500.312;
-1.116  -0.939   2.267   53.755;
 0.000   0.000   0.000   1.000;
**************************************
Nine parameter search.  iteration 11 nscales = 2 ...
**************************************
Result so far: scale 0.062: max_log_p=-4.2, old_max_log_p =-4.2 (thresh=-4.2)
-0.462   1.837   0.681  -153.078;
-2.367  -0.008  -1.177   500.312;
-1.114  -0.936   2.261   53.878;
 0.000   0.000   0.000   1.000;
min search scale 0.025000 reached
**********************************************
Computing MAP estimate using 3481 samples...
**********************************************
dt = 5.00e-06, momentum=0.80, tol=1.00e-05
l_intensity = 1.0000
Aligning input volume to GCA...
Transform matrix
-0.46188   1.83676   0.68124  -153.07777;
-2.36744  -0.00780  -1.17654   500.31177;
-1.11366  -0.93642   2.26123   53.87775;
 0.00000   0.00000   0.00000   1.00000;
nsamples 3481
Quasinewton: input matrix
-0.46188   1.83676   0.68124  -153.07777;
-2.36744  -0.00780  -1.17654   500.31177;
-1.11366  -0.93642   2.26123   53.87775;
 0.00000   0.00000   0.00000   1.00000;
 IFLAG= -1  LINE SEARCH FAILED. SEE DOCUMENTATION OF ROUTINE MCSRCH
ERROR RETURN OF LINE SEARCH: INFO= 3 POSSIBLE CAUSES: FUNCTION OR
GRADIENT ARE INCORRECT OR INCORRECT TOLERANCESoutof QuasiNewtonEMA:
013: -log(p) =   -0.0  tol 0.000010
Resulting transform:
-0.462   1.837   0.681  -153.078;
-2.367  -0.008  -1.177   500.312;
-1.114  -0.936   2.261   53.878;
 0.000   0.000   0.000   1.000;

pass 1, spacing 8: log(p) = -4.2 (old=-5.4)
transform before final EM align:
-0.462   1.837   0.681  -153.078;
-2.367  -0.008  -1.177   500.312;
```

-1.114 -0.936   2.261   53.878;
 0.000   0.000   0.000   1.000;

****
 EM alignment process ...
 Computing final MAP estimate using 382743 samples.
****
dt = 5.00e-06, momentum=0.80, tol=1.00e-07
l_intensity = 1.0000
Aligning input volume to GCA...
Transform matrix
-0.46188   1.83676   0.68124 -153.07777;
-2.36744 -0.00780 -1.17654   500.31177;
-1.11366 -0.93642   2.26123   53.87775;
 0.00000   0.00000   0.00000   1.00000;
nsamples 382743
Quasinewton: input matrix
-0.46188   1.83676   0.68124 -153.07777;
-2.36744 -0.00780 -1.17654   500.31177;
-1.11366 -0.93642   2.26123   53.87775;
 0.00000   0.00000   0.00000   1.00000;
dfp_em_step_func: 014: -log(p) = 4.6
after pass:transform: (-0.46, 1.84, 0.68, -153.08)
                      (-2.37, -0.01, -1.18, 500.31)
                      (-1.11, -0.94, 2.26, 53.88)
dfp_em_step_func: 015: -log(p) = 4.6
after pass:transform: (-0.46, 1.84, 0.68, -153.08)
                      (-2.37, -0.01, -1.18, 500.31)
                      (-1.11, -0.94, 2.26, 53.88)
dfp_em_step_func: 016: -log(p) = 4.6
after pass:transform: (-0.46, 1.84, 0.68, -153.08)
                      (-2.37, -0.01, -1.18, 500.31)
                      (-1.11, -0.94, 2.26, 53.88)
dfp_em_step_func: 017: -log(p) = 4.6
after pass:transform: (-0.46, 1.84, 0.68, -153.08)
                      (-2.37, -0.01, -1.18, 500.31)
                      (-1.11, -0.94, 2.26, 53.88)
dfp_em_step_func: 018: -log(p) = 4.6
after pass:transform: (-0.46, 1.84, 0.68, -153.08)
                      (-2.37, -0.01, -1.18, 500.31)
                      (-1.11, -0.94, 2.26, 53.88)
 IFLAG= -1 LINE SEARCH FAILED. SEE DOCUMENTATION OF ROUTINE MCSRCH
ERROR RETURN OF LINE SEARCH: INFO= 3 POSSIBLE CAUSES: FUNCTION OR GRADIENT ARE INCORRECT OR INCORRECT TOLERANCESpass 2 through quasi-newton minimization...

IFLAG= -1 LINE SEARCH FAILED. SEE DOCUMENTATION OF ROUTINE MCSRCH
ERROR RETURN OF LINE SEARCH: INFO= 3 POSSIBLE CAUSES: FUNCTION OR
GRADIENT ARE INCORRECT OR INCORRECT TOLERANCESoutof QuasiNewtonEMA:
020: -log(p) =   4.6 tol 0.000000
final transform:
-0.462   1.837   0.681 -153.078;
-2.367 -0.008 -1.177   500.312;
-1.114 -0.936   2.261   53.878;
 0.000   0.000   0.000   1.000;

writing output transformation to transforms/talairach_with_skull_2.lta...
registration took 31 minutes and 49 seconds.
#---------------------------------------
#@# SubCort Seg Mon Jun 16 13:14:32 CDT 2014
\n mri_ca_label -align norm.mgz transforms/talairach.m3z
/Applications/freesurfer/average/atlas.gca aseg.auto_noCCseg.mgz \n
sysname Darwin
hostname dhcp-10-101-100-17.wireless.northwestern.private
machine x86_64

setenv SUBJECTS_DIR /Applications/freesurfer/subjects
cd /Applications/freesurfer/subjects/CMH-9018/mri
mri_ca_label -align norm.mgz transforms/talairach.m3z
/Applications/freesurfer/average/atlas.gca aseg.auto_noCCseg.mgz

renormalizing sequences with structure alignment, equivalent to:
	-renormalize
	-renormalize_mean 0.500
	-regularize 0.500
reading 1 input volumes...
reading classifier array from /Applications/freesurfer/average/atlas.gca...
reading input volume from norm.mgz...
average std[0] = 9.8
reading transform from transforms/talairach.m3z...
Atlas used for the 3D morph was /Applications/freesurfer/average/atlas.gca
average std = 9.8   using min determinant for regularization = 9.7
0 singular and 0 ill-conditioned covariance matrices regularized
labeling volume...
renormalizing by structure alignment....
renormalizing input #0
gca peak = 0.15215 (139)
uniform distribution in MR - rejecting arbitrary fit
gca peak = 0.02932 (69)
uniform distribution in MR - rejecting arbitrary fit
gca peak = 0.02157 (43)
uniform distribution in MR - rejecting arbitrary fit

gca peak Unknown = 0.98245 (0)
gca peak Left_Thalamus_Proper = 0.02157 (43)
gca peak Left_Stellate = 0.13780 (149)
gca peak Left_Porg = 0.08494 (135)
gca peak Left_Aorg = 0.04479 (166)
gca peak Right_Cerebral_White_Matter = 0.15215 (139)
gca peak Right_Cerebral_Cortex = 0.02932 (69)
gca peak Right_Aorg = 0.08598 (170)
gca peak Fifth_Ventricle = 0.07482 (136)
gca peak Left_Interior = 0.07356 (189)
gca peak Right_Interior = 0.07141 (155)
gca peak = 0.16555 (171)
gca peak = 0.12716 (182)
gca peak WM_hypointensities = 0.05930 (164)
gca peak Left_WM_hypointensities = 0.07737 (150)
gca peak = 0.02892 (214)
gca peak = 0.06216 (146)
gca peak = 0.05480 (141)
gca peak Fornix = 0.03326 (207)
not using caudate to estimate GM means
estimating mean gm scale to be 1.00 x + 0.0
estimating mean wm scale to be 1.00 x + 0.0
estimating mean csf scale to be 1.00 x + 0.0
setting left cbm cortex = 1.00 x + 0.00
setting right cbm cortex = 1.00 x + 0.00
Left_Putamen too bright - rescaling by inf (from 1.000) to 62.6 (was 0.0)
Left_Pallidum too bright - rescaling by inf (from 1.000) to 67.4 (was 0.0)
Right_Putamen too bright - rescaling by inf (from 1.000) to 62.6 (was 0.0)
Right_Pallidum too bright - rescaling by inf (from 1.000) to 67.4 (was 0.0)
saving intensity scales to aseg.auto_noCCseg.label_intensities.txt
renormalizing by structure alignment....
renormalizing input #0
gca peak = 0.15215 (139)
gca peak = 0.02932 (69)
gca peak = 0.02157 (43)
gca peak Unknown = 0.98245 (0)
gca peak Left_Thalamus_Proper = 0.02157 (43)
gca peak Left_Stellate = 0.13780 (149)
gca peak Left_Porg = 0.08494 (135)
gca peak Left_Aorg = 0.04479 (166)
gca peak Right_Cerebral_White_Matter = 0.15215 (139)
gca peak Right_Cerebral_Cortex = 0.02932 (69)
gca peak Right_Aorg = 0.08598 (170)
gca peak Fifth_Ventricle = 0.07482 (136)
gca peak Left_Interior = 0.07356 (189)
gca peak Right_Interior = 0.07141 (155)

gca peak = 0.16555 (171)
gca peak = 0.12716 (182)
gca peak WM_hypointensities = 0.05930 (164)
gca peak Left_WM_hypointensities = 0.07737 (150)
gca peak = 0.02892 (214)
gca peak = 0.06216 (146)
gca peak = 0.05480 (141)
gca peak Fornix = 0.03326 (207)
not using caudate to estimate GM means
estimating mean gm scale to be 1.00 x + 0.0
estimating mean wm scale to be 1.00 x + 0.0
estimating mean csf scale to be 1.00 x + 0.0
setting left cbm cortex = 1.00 x + 0.00
setting right cbm cortex = 1.00 x + 0.00
Left_Putamen too bright - rescaling by inf (from 1.000) to 62.6 (was 0.0)
Left_Pallidum too bright - rescaling by inf (from 1.000) to 67.4 (was 0.0)
Right_Putamen too bright - rescaling by inf (from 1.000) to 62.6 (was 0.0)
Right_Pallidum too bright - rescaling by inf (from 1.000) to 67.4 (was 0.0)
saving intensity scales to aseg.auto_noCCseg.label_intensities.txt
saving sequentially combined intensity scales to
aseg.auto_noCCseg.label_intensities.txt
0 gm and wm labels changed (%nan to gray, %nan to white out of all changed
labels)
0 hippocampal voxels changed.
0 amygdala voxels changed.
pass 1: 2949 changed.
writing labeled volume to aseg.auto_noCCseg.mgz...
auto-labeling took 10 minutes and 36 seconds.
\n mri_cc -aseg aseg.auto_noCCseg.mgz -o aseg.auto.mgz -lta
/Applications/freesurfer/subjects/CMH-9018/mri/transforms/cc_up.lta CMH-9018
\n
will read input aseg from aseg.auto_noCCseg.mgz
writing aseg with cc labels to aseg.auto.mgz
will write lta as /Applications/freesurfer/subjects/CMH-
9018/mri/transforms/cc_up.lta
reading aseg from /Applications/freesurfer/subjects/CMH-
9018/mri/aseg.auto_noCCseg.mgz
reading norm from /Applications/freesurfer/subjects/CMH-9018/mri/norm.mgz
0 voxels in left wm, 116 in right wm, xrange [86, 257]
searching rotation angles z=[-7 7], y=[83 97]

searching scale 1 Z rot -7.0
searching scale 1 Z rot -6.8
searching scale 1 Z rot -6.5
searching scale 1 Z rot -6.2
searching scale 1 Z rot -6.0

searching scale 1 Z rot -5.7
searching scale 1 Z rot -5.5
searching scale 1 Z rot -5.2
searching scale 1 Z rot -5.0
searching scale 1 Z rot -4.7
searching scale 1 Z rot -4.5
searching scale 1 Z rot -4.2
searching scale 1 Z rot -4.0
searching scale 1 Z rot -3.7
searching scale 1 Z rot -3.5
searching scale 1 Z rot -3.2
searching scale 1 Z rot -3.0
searching scale 1 Z rot -2.7
searching scale 1 Z rot -2.5
searching scale 1 Z rot -2.2
searching scale 1 Z rot -2.0
searching scale 1 Z rot -1.7
searching scale 1 Z rot -1.5
searching scale 1 Z rot -1.2
searching scale 1 Z rot -1.0
searching scale 1 Z rot -0.7
searching scale 1 Z rot -0.5
searching scale 1 Z rot -0.2
searching scale 1 Z rot 0.0
searching scale 1 Z rot 0.3
searching scale 1 Z rot 0.5
searching scale 1 Z rot 0.8
searching scale 1 Z rot 1.0
searching scale 1 Z rot 1.3
searching scale 1 Z rot 1.5
searching scale 1 Z rot 1.8
searching scale 1 Z rot 2.0
searching scale 1 Z rot 2.3
searching scale 1 Z rot 2.5
searching scale 1 Z rot 2.8
searching scale 1 Z rot 3.0
searching scale 1 Z rot 3.3
searching scale 1 Z rot 3.5
searching scale 1 Z rot 3.8
searching scale 1 Z rot 4.0
searching scale 1 Z rot 4.3
searching scale 1 Z rot 4.5
searching scale 1 Z rot 4.8
searching scale 1 Z rot 5.0
searching scale 1 Z rot 5.3
searching scale 1 Z rot 5.5

searching scale 1 Z rot 5.8
searching scale 1 Z rot 6.0
searching scale 1 Z rot 6.3
searching scale 1 Z rot 6.5
searching scale 1 Z rot 6.8 global minimum found at slice 0.0, rotations (90.00, -0.00)
final transformation (x=0.0, yr=90.000, zr=-0.000):
-0.000   0.000   1.000   128.000;
-0.000   1.000 -0.000   128.000;
-1.000   0.000   0.000   128.000;
 0.000   0.000   0.000   1.000;
Segmentation fault
Darwin Ingvalsons-iMac.local 12.5.0 Darwin Kernel Version 12.5.0: Sun Sep 29 13:33:47 PDT 2013; root:xnu-2050.48.12~1/RELEASE_X86_64 x86_64

recon-all -s CMH-9018 exited with ERRORS at Mon Jun 16 13:53:42 CDT 2014

To report a problem, see http://surfer.nmr.mgh.harvard.edu/fswiki/BugReporting