

Length: 6993078466 (6.5G) [application/vnd.debian.binary-package] Saving to: 'freeseurfer_ubuntu22-7.4.1_amd64.deb'

freeseurfer_ubuntu22-7.4.1_amd64.deb 100%=====>] 6.51G 28.0MB/s in 4m 2s

2024-04-04 12:10:58 (27.6 MB/s) - 'freeseurfer_ubuntu22-7.4.1_amd64.deb' saved [6993078466/6993078466]

jalibata@vm-3b-3d-mari-gpu-processing-3 sudo apt-get update Get:1 http://security.ubuntu.com/ubuntu jammy-security/inRelease [110 KB] Get:2 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/inRelease [112 KB] Get:3 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/inRelease [119 KB] Get:4 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1303 KB] Get:5 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [123 KB] Get:6 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [1616 KB] Get:7 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [271 KB] Get:8 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [852 KB] Get:9 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [163 KB] Get:10 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [16.8 KB] Get:11 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [137.1 KB] Get:12 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [1476 B] Get:13 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [260 B] Get:14 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/inRelease [109 KB] Get:15 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB] Get:16 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/universe Translation-en [3652 KB] Get:17 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [128 KB] Get:18 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 KB] Get:19 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 KB] Get:20 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B] Get:21 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1519 KB] Get:22 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [293 KB] Get:23 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1648 KB] Get:24 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [279 KB] Get:25 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1060 KB] Get:26 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [241 KB] Get:27 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [22.1 KB] Get:28 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [49.6 KB] Get:29 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [12.0 KB] Get:30 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [472 B] Get:31 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [67.1 KB] Get:32 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [11.0 KB] Get:33 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [188 B] Get:34 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B] Get:35 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [28.4 KB] Get:36 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.2 KB] Get:37 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [164 B] Get:38 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B] Fetched 30.4 MB in 1s (8102 KB/s)

jalibata@vm-3b-3d-mari-gpu-processing-3 sudo apt-get upgrade

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

Calculating upgrade... Done

The following packages will be upgraded: apt apt-utils bsdextrautils bsdutils coreutils curl eject ethtool fdisk libapt-pkg0.8 libblkid1 libcurl3-gnutls libcurl4 libfdisk1 libmount1 libsmartcols1 libuuid1 mount snapd update-notifier-common util-linux uid-runtime

22 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.

Need to get 31.8 MB of archives.

After this operation, 1589 kB disk space will be freed. Do you want to continue? [Y/n] Y

Get:1 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 bsdutils amd64 1:2.37.2-4ubuntu3.3 [81.5 KB]

Get:2 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 coreutils amd64 8.32-4.1ubuntu2.2 [1437 KB]

Get:3 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 util-linux amd64 2.37.2-4ubuntu3.3 [1067 KB]

Get:4 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libapt-pkg0.8 amd64 2.4.12 [1512 KB]

Get:5 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apt amd64 2.4.12 [1363 KB]

Get:6 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apt-util amd64 2.4.12 [211 KB]

Get:7 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 mount amd64 2.37.2-4ubuntu3.3 [114 KB]

Get:8 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libsmartcols1 amd64 2.37.2-4ubuntu3.3 [35.5 KB]

Get:9 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libuuid1 amd64 2.37.2-4ubuntu3.3 [24.4 KB]

Get:10 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 uid-runtime amd64 2.37.2-4ubuntu3.3 [32.0 KB]

Get:11 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 update-notifier-common all 3.192.54.8 [185 KB] Get:12

http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libblkid1 amd64 2.37.2-4ubuntu3.3 [114 KB]

Get:13 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libmount1 amd64 2.37.2-4ubuntu3.3 [122 KB]

Get:14 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 eject amd64 2.37.2-4ubuntu3.3 [26.8 KB]

Get:15 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 bsdextrautils amd64 2.37.2-4ubuntu3.3 [1.4 KB]

Get:16 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 curl amd64 7.81.0-1ubuntu1.16 [194 KB]

Get:17 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libcurl4 amd64 7.81.0-1ubuntu1.16 [290 KB]

Get:18 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 ethtool amd64 1:5.16-1ubuntu1.1 [207 KB]

Get:19 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libfdisk1 amd64 2.37.2-4ubuntu3.3 [140 KB]

Get:20 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 fdisk amd64 2.37.2-4ubuntu3.3 [112 KB]

Get:21 http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libcurl3-gnutls amd64 7.81.0-1ubuntu1.16 [284 KB] Get:22

http://europe-central2-a.goe.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 snapd amd64 2.61.3+22.04 [24.7 MB] Fetched 31.8 MB in 1s (35.7 MB/s)

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../bsdutils_1:37.2-4ubuntu3.3_amd64.deb ...

Unpacking bsdutils (1:2.37.2-4ubuntu3.3) over (1:2.37.2-4ubuntu3) ...

Setting up bsdutils (1:2.37.2-4ubuntu3.3) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../coreutils_8.32-4.1ubuntu2.2_amd64.deb ...

Unpacking coreutils (8.32-4.1ubuntu2.2) over (8.32-4.1ubuntu2.1) ...

Setting up coreutils (8.32-4.1ubuntu2.2) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../util-linux_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking util-linux (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Setting up util-linux (2.37.2-4ubuntu3.3) ...

fatrm.service is a disabled or a static unit not running, not starting it. (Reading database

... 66054 files and directories currently installed.)

Preparing to unpack .../libapt-pkg0.8_2.4.12_amd64.deb ...

Unpacking libapt-pkg0.8:amd64 (2.4.12) over (2.4.11) ...

Setting up libapt-pkg0.8:amd64 (2.4.12) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../archives/apt_2.4.12_amd64.deb ...

Unpacking apt (2.4.12) over (2.4.11) ...

Setting up apt (2.4.12) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../apt-utils_2.4.12_amd64.deb ...

Unpacking apt-utils (2.4.12) over (2.4.11) ...

Setting up apt-utils (2.4.12) ...

Preparing to unpack .../mount_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking mount (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../libsmartcols1_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking libsmartcols1:amd64 (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Setting up libsmartcols1:amd64 (2.37.2-4ubuntu3.3) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../libuid1_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking libuid1:amd64 (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Setting up libuid1:amd64 (2.37.2-4ubuntu3.3) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../uid-runtime_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking uid-runtime (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../update-notifier-common_3.192.54.8_all.deb ...

Unpacking update-notifier-common (3.192.54.8) over (3.192.54.6) ...

Preparing to unpack .../libblkid1_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking libblkid1:amd64 (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Setting up libblkid1:amd64 (2.37.2-4ubuntu3.3) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../libmount1_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking libmount1:amd64 (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Setting up libmount1:amd64 (2.37.2-4ubuntu3.3) ...

(Reading database ... 66054 files and directories currently installed.)

Preparing to unpack .../eject_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking eject (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../libbdextrautils_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking bsdextrautils (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../7-curl_7.81.0-1ubuntu1.16_amd64.deb ...

Unpacking curl (7.81.0-1ubuntu1.16) over (7.81.0-1ubuntu1.15) ...

Preparing to unpack .../7-ibcurl4_7.81.0-1ubuntu1.16_amd64.deb ...

Unpacking libcurl4:amd64 (7.81.0-1ubuntu1.16) over (7.81.0-1ubuntu1.15) ...

Preparing to unpack .../4-ethtool_1:5.16-1ubuntu1.1_amd64.deb ...

Unpacking ethtool (1:5.16-1ubuntu1.1) over (1:5.16-1) ...

Preparing to unpack .../5-libfdisk1_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking libfdisk1:amd64 (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../6-fdisk_2.37.2-4ubuntu3.3_amd64.deb ...

Unpacking fdisk (2.37.2-4ubuntu3.3) over (2.37.2-4ubuntu3) ...

Preparing to unpack .../7-libcurl3-gnutls_7.81.0-1ubuntu1.16_amd64.deb ...

Unpacking libcurl3-gnutls:amd64 (7.81.0-1ubuntu1.16) over (7.81.0-1ubuntu1.15) ...

Preparing to unpack .../8-snapd_2.61.3+22.04_amd64.deb ...

Unpacking snapd (2.61.3+22.04) over (2.61.3+22.04-1) ...

Setting up snapd (2.61.3+22.04) ...

Installing new version of config file /etc/apparmor.d/usr.lib.snapd.snap-confine.real ...

snapd.failure.service is a disabled or a static unit not running, not starting it.

snapd.snap-repair.service is a disabled or a static unit not running, not starting it.

Failed to restart snapd.mounts-pre.target: Operation refused, unit snap.mounts-pre.target may be requested by dependency only (it is configured to refuse manual start/stop). See system logs and

'systemctl status snapd.mounts-pre.target' for details.

Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 142.

Setting up apt-utils (2.4.12) ...

Setting up bsdextrautils (2.37.2-4ubuntu3.3) ...

Setting up update-notifier-common (3.192.54.8) ...

update-notifier-common.service is a disabled or a static unit not running, not starting it.

Setting up libcurl3-gnutls:amd64 (7.81.0-1ubuntu1.16) ...

Setting up eject (2.37.2-4ubuntu3.3) ...

Setting up libfdisk1:amd64 (2.37.2-4ubuntu3.3) ...

Setting up mount (2.37.2-4ubuntu3.3) ...

Setting up fdisk (2.37.2-4ubuntu3.3) ...

Processing triggers for install-info (6.8-4build1) ...

Processing triggers for libc-bin (2.35-0ubuntu3.6) ...

Processing triggers for man-db (2.10.2-1) ...

Processing triggers for dbus (1.12.20-2ubuntu1) ...

Scanning processes...

Scanning databases...

Scanning linux images...

Running kernel seems to be up-to-date.

Restarting services...

Service restarts being deferred:

systemctl restart getty@tty1.service systemctl

restart networkd-dispatcher.service systemctl restart

packagekit.service systemctl restart polkit.service

systemctl restart rsyslog.service systemctl restart

serial-getty@tty0.service systemctl restart

systemd-journald.service systemctl restart

systemd-logind.service

/etc/ssh/sshd_config restart.d/systemd-manager systemctl

restart systemd-networkd.service systemctl restart

systemd-resolved.service systemctl restart

systemd-udev.service systemctl restart

unattended-upgrades.service systemctl restart

user@1001.service

No containers need to be restarted.

No user sessions are running outdated binaries.

Get:117 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libc6-dev amd64 2.35-0ubuntu3.6 [2100 KB]
Get:118 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 liblibp-dev amd64 1:1.2.11.dfsg-2ubuntu9.2 [164 KB]
Get:119 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libfontenc-dev amd64 1:1.1.4-1build1 [15.4 KB]
Get:120 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libfs6 amd64 2:1.0.8-1build1 [22.9 KB]
Get:121 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libfs-dev amd64 2:1.0.8-1build1 [29.1 KB]
Get:122 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libice-dev amd64 2:1.0.10-1build1 [31.4 KB]
Get:123 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libsm-dev amd64 2:1.2.3-1build1 [18.1 KB]
Get:124 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxext-dev amd64 2:1.3.4-1build1 [64.7 KB]
Get:125 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxt-dev amd64 1:1.2.1-1 [396 KB]
Get:126 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxmu-headers all 2:1.1.3-3 [54.1 KB]
Get:127 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxmu-dev amd64 2:1.1.3-3 [54.6 KB]
Get:128 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libxap-dev amd64 1:3.5.12-1ubuntu0.22.04.2 [90.7 KB]
Get:129 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxaw7-dev amd64 2:1.0.14-1 [253 KB]
Get:130 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxftxas-dev amd64 1:6.0.0-1 [12.2 KB]
Get:131 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxcomposite-dev amd64 1:0.4.5-1build1 [9326 B]
Get:132 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxrender-dev amd64 1:0.9.10-1build4 [26.7 KB]
Get:133 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxcursor-dev amd64 1:1.2.0-2build1 [28.2 KB]
Get:134 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxdamage1 amd64 1:1.1.5-2build1 [7154 B]
Get:135 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxdamage-dev amd64 1:1.1.5-2build1 [5264 B]
Get:136 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libbrotil-dev amd64 1.0.9-2build6 [337 KB]
Get:137 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libpng-dev amd64 1.6.37-2build5 [192 KB]
Get:138 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libfreetype-dev amd64 2.11.1+dfsg-1ubuntu0.2 [555 KB]
Get:139 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libfreetype6-dev amd64 2.11.1+dfsg-1ubuntu0.2 [8290 B]
Get:140 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxfont-dev amd64 1:2.0.5-1build1 [128 KB]
Get:141 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libxpat1-dev amd64 2.4.7-1ubuntu0.3 [147 KB]
Get:142 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 uuid-dev amd64 2.37.2-4ubuntu3.3 [33.1 KB]
Get:143 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpkg-perl all 1.21.1ubuntu2.3 [237 KB]
Get:144 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 pkg-config amd64 0.29.2-1ubuntu3 [48.2 KB]
Get:145 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libfontconfig-dev amd64 2.13.1-4.2ubuntu5 [151 KB]
Get:146 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libfontconfig1-dev amd64 2.13.1-4.2ubuntu5 [1836 B]
Get:147 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxft-dev amd64 2.3.4-1 [52.4 KB]
Get:148 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxi-dev amd64 2:1.8-1build1 [193 KB]
Get:149 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxinerama-dev amd64 2:1.1.4-3 [8104 B]
Get:150 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxkbfile-dev amd64 1:1.1.0-1build3 [85.0 KB]
Get:151 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxmu-dev amd64 2:1.1.3-3 [7926 B]
Get:152 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxrandr-dev amd64 2:1.5.2-1build1 [26.7 KB]
Get:153 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxreal amd64 2:1.2.1-1 [7776 B]
Get:154 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxres-dev amd64 2:1.2.1-1 [8538 B]
Get:155 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxss1 amd64 1:1.2.3-1build1 [8476 B]
Get:156 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxss-dev amd64 1:1.2.3-1build1 [12.3 KB]
Get:157 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxtst-dev amd64 2:1.2.3-1build4 [16.3 KB]
Get:158 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxv-dev amd64 2:1.0.11-1build1 [33.4 KB]
Get:159 http://europe-central2-a.gce.clouds.archive.ubuntu.com/ubuntu jammy/main amd64 libxvnc1 amd64 2:1.0.12-2build1 [13.7 KB]
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Fetched 97.1 MB in 30s (3277 kB/s)

```
Extracting templates from packages: 100%
Preconfiguring packages ...
Selecting previously unselected package language-pack-en-base.
(Reading database ... 46031 files and directories currently installed.)
Preparing to unpack .../000-language-pack-en-base_133a22.04+20240212_all.deb ...
Unpacking language-pack-en-base (1:22.04+20240212) ...
Selecting previously unselected package language-pack-en.
Preparing to unpack .../001-language-pack-en_133a22.04+20240212_all.deb ...
Unpacking language-pack-en (1:22.04+20240212) ...
Selecting previously unselected package bzip2.
Preparing to unpack .../002-bzip2_1.0.8-5build1_amd64.deb ...
Unpacking bzip2 (1:0.8-5build1) ...
Selecting previously unselected package gcc-11-base:amd64.
Preparing to unpack .../003-gcc-11-base_11.4.0-1ubuntu1-22.04_amd64.deb ...
Unpacking gcc-11-base:amd64 (11.4.0-1ubuntu1-22.04) ...
Selecting previously unselected package libisl23:amd64.
Preparing to unpack .../004-libisl23_0.24-2build1_amd64.deb ...
Unpacking libisl23:amd64 (0.24-2build1) ...
Selecting previously unselected package libmpc3:amd64.
Preparing to unpack .../005-libmpc3_1.2.1-2build1_amd64.deb ...
Unpacking libmpc3:amd64 (1.2.1-2build1) ...
Selecting previously unselected package cpp-11.
Preparing to unpack .../006-gpp-11_11.4.0-1ubuntu1-22.04_amd64.deb ...
Unpacking cpp-11 (11.4.0-1ubuntu1-22.04) ...
Selecting previously unselected package cpp.
Preparing to unpack .../007-cpp_4:13.1-2.0-1ubuntu1_amd64.deb ...
Unpacking cpp (4:11.2.0-1ubuntu1) ...
Selecting previously unselected package cab.
Preparing to unpack .../008-cab_20110502-7_amd64.deb ...
Unpacking cab (20110502-7) ...
Selecting previously unselected package fonts-dejavu-core.
Preparing to unpack .../009-fonts-dejavu-core_2.37-2build1_all.deb ...
Unpacking fonts-dejavu-core (2.37-2build1) ...
Selecting previously unselected package fontconfig-config.
Preparing to unpack .../010-fontconfig-config_2.13.1-4.2ubuntu5_all.deb ...
Unpacking fontconfig-config (2.13.1-4.2ubuntu5) ...
Selecting previously unselected package xorg-sgml-doctools.
Preparing to unpack .../011-xorg-sgml-doctools_1:3.11-1.1_all.deb ...
Unpacking xorg-sgml-doctools (1:1.11-1.1) ...
Selecting previously unselected package x11proto-dev.
Preparing to unpack .../012-x11proto-dev_2021.5-1_all.deb ...
Unpacking x11proto-dev (2021.5-1) ...
Selecting previously unselected package libxau-dev:amd64.
Preparing to unpack .../013-libxau-dev_1:3.0.9-1build1_amd64.deb ...
Unpacking libxau-dev:amd64 (1:1.0.9-1build1) ...
Selecting previously unselected package libxmp-dev:amd64.
Preparing to unpack .../014-libxmp-dev_1:3.0.1-3-0ubuntu5_amd64.deb ...
Unpacking libxmp-dev:amd64 (1:1.1.3-0ubuntu5) ...
Selecting previously unselected package xtrans-dev.
Preparing to unpack .../015-xtrans-dev_1.4.0-1_all.deb ...
Unpacking xtrans-dev (1.4.0-1) ...
Selecting previously unselected package libpthread-stubs0-dev:amd64.
Preparing to unpack .../016-libpthread-stubs0-dev_0.4-1build2_amd64.deb ...
Unpacking libpthread-stubs0-dev:amd64 (0.4-1build2) ...
Selecting previously unselected package libxcb-dev:amd64.
Preparing to unpack .../017-libxcb1-dev_1.14-3ubuntu3_amd64.deb ...
Unpacking libxcb1-dev:amd64 (1:1.14-3ubuntu3) ...
Selecting previously unselected package libx11-dev:amd64.
Preparing to unpack .../018-libx11-dev_2:1.8.7-5ubuntu0.3_amd64.deb ...
Unpacking libx11-dev:amd64 (2:1.8.7-5ubuntu0.3) ...
Selecting previously unselected package libgomp1:amd64.
Preparing to unpack .../019-libgomp1_12.3.0-1ubuntu1-22.04_amd64.deb ...
Unpacking libgomp1:amd64 (12.3.0-1ubuntu1-22.04) ...
Selecting previously unselected package gettext.
Preparing to unpack .../020-gettext_0.21-4ubuntu2_amd64.deb ...
Unpacking gettext (0.21-4ubuntu4) ...
Selecting previously unselected package xbitmaps.
Preparing to unpack .../021-xbitmaps_1.1.1-2.1ubuntu1_all.deb ...
Unpacking xbitmaps (1:1.1-2-1ubuntu1) ...
Selecting previously unselected package libfontconfig:amd64.
Preparing to unpack .../022-libfontconfig_2.13.1-4.2ubuntu5_amd64.deb ...
Unpacking libfontconfig:amd64 (2.13.1-4.2ubuntu5) ...
Selecting previously unselected package x11-common.
Preparing to unpack .../023-x11-common_1:3.0.10-1ubuntu1_amd64.deb ...
Unpacking x11-common (1:7.7+23ubuntu2) ...
Selecting previously unselected package libice6:amd64.
Preparing to unpack .../024-libice6_2:1.0.10-1build2_amd64.deb ...
Unpacking libice6:amd64 (2:1.0.10-1build2) ...
Selecting previously unselected package libsm6:amd64.
Preparing to unpack .../025-libsm6_2:1.2.3-1build2_amd64.deb ...
Unpacking libsm6:amd64 (2:1.2.3-1build2) ...
Selecting previously unselected package libxt6:amd64.
Preparing to unpack .../026-libxt6_1:3.0.1-1ubuntu1_amd64.deb ...
Unpacking libxt6:amd64 (1:1.2.1-1) ...
Selecting previously unselected package libxmu6:amd64.
Preparing to unpack .../027-libxmu6_2:1.1.3-2_amd64.deb ...
Unpacking libxmu6:amd64 (2:1.1.3-3) ...
Selecting previously unselected package libxpm6:amd64.
Preparing to unpack .../028-libxpm6_1:3.5.12-1ubuntu0.22.04.2_amd64.deb ...
Unpacking libxpm6:amd64 (1:3.5.12-1ubuntu0.22.04.2) ...
Selecting previously unselected package libxaw7:amd64.
Preparing to unpack .../029-libxaw7_2:1.0.14-1_amd64.deb ...
Unpacking libxaw7:amd64 (2:1.0.14-1) ...
Selecting previously unselected package libxrender1:amd64.
Preparing to unpack .../030-libxrender1_1:0.9.10-1build4_amd64.deb ...
Unpacking libxrender1:amd64 (1:0.9.10-1build4) ...
Selecting previously unselected package libxtst6:amd64.
Preparing to unpack .../031-libxtst6_2:1.2.4-1_amd64.deb ...
Unpacking libxtst6:amd64 (2:1.2.4-1) ...
Selecting previously unselected package libxinerama1:amd64.
Preparing to unpack .../032-libxinerama1_2:1.3.4-3_amd64.deb ...
Unpacking libxinerama1:amd64 (2:1.1.4-3) ...
Selecting previously unselected package xterm.
Preparing to unpack .../033-xterm_372-1ubuntu1_amd64.deb ...
Unpacking xterm (372-1ubuntu1) ...
Selecting previously unselected package libxfce3:amd64.
Preparing to unpack .../034-libxfce3_1:3.0.0-1_amd64.deb ...
Unpacking libxfce3:amd64 (1:6.0.0-1) ...
Selecting previously unselected package libxcursor1:amd64.
Preparing to unpack .../035-libxcursor1_1:3.0.2-2build4_amd64.deb ...
Unpacking libxcursor1:amd64 (1:1.2.0-2build4) ...
Selecting previously unselected package libxkbfile1:amd64.
Preparing to unpack .../036-libxkbfile1_1:3.0.1-1build1_amd64.deb ...
Unpacking libxkbfile1:amd64 (1:1.1.0-1build1) ...
Selecting previously unselected package x11-apps.
Preparing to unpack .../037-x11-apps_7:7.8+build2_amd64.deb ...
Unpacking x11-apps (7:7+8build1) ...
Selecting previously unselected package make.
Preparing to unpack .../038-make_4.3-4.1build1_amd64.deb ...
Unpacking make (4.3-4.1build1) ...
Selecting previously unselected package tsh.
Preparing to unpack .../039-tsh_6.21.00-1.1_amd64.deb ...
Unpacking tsh (6.21.00-1.1) ...
Selecting previously unselected package x11-xkb-utils.
Preparing to unpack .../040-x11-xkb-utils_7.7+build4_amd64.deb ...
Unpacking x11-xkb-utils (7.7+build4) ...
Selecting previously unselected package xserver-common.
Preparing to unpack .../041-xserver-common_2:3.0.14-1ubuntu1-22.04.9_all.deb ...
Unpacking xserver-common (2:21.1.4-2ubuntu1-7.22.04.9) ...
Selecting previously unselected package libglvnd0:amd64.
Preparing to unpack .../042-libglvnd0_1.4.0-1_amd64.deb ...
Unpacking libglvnd0:amd64 (1.4.0-1) ...
Selecting previously unselected package libwayland-server0:amd64.
Preparing to unpack .../043-libwayland-server0_1.20.0-1ubuntu3_amd64.deb ...
Unpacking libwayland-server0:amd64 (1.20.0-1ubuntu3) ...
Selecting previously unselected package libxkb-randr0:amd64.
Preparing to unpack .../044-libxkb-randr0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-randr0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libglvnd0:amd64.
Preparing to unpack .../045-libglvnd0_1.4.0-1ubuntu3-12.04.2_amd64.deb ...
Unpacking libglvnd0:amd64 (23.2.1-1ubuntu3-12.04.2) ...
Selecting previously unselected package libglapi-mesa:amd64.
Preparing to unpack .../046-libglapi-mesa_23.2.1-1ubuntu3-12.04.2_amd64.deb ...
Unpacking libglapi-mesa:amd64 (23.2.1-1ubuntu3-12.04.2) ...
Selecting previously unselected package libwayland-client0:amd64.
Preparing to unpack .../047-libwayland-client0_1.20.0-1ubuntu3-12.04.2_amd64.deb ...
Unpacking libwayland-client0:amd64 (1.20.0-1ubuntu3-12.04.2) ...
Selecting previously unselected package libx11-xcb1:amd64.
Preparing to unpack .../048-libx11-xcb1_2:1.1.4-1ubuntu3-12.04.2_amd64.deb ...
Unpacking libx11-xcb1:amd64 (2:1.1.4-1ubuntu3-12.04.2) ...
Selecting previously unselected package libxkb-drv0:amd64.
Preparing to unpack .../049-libxkb-drv0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-drv0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkb-drv0:amd64.
Preparing to unpack .../050-libxkb-drv0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-drv0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkb-present0:amd64.
Preparing to unpack .../051-libxkb-present0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-present0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkb-syncl:amd64.
Preparing to unpack .../052-libxkb-syncl_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-syncl:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkb-rfxs0:amd64.
Preparing to unpack .../053-libxkb-rfxs0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-rfxs0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkbxfence0:amd64.
Preparing to unpack .../054-libxkbxfence0_1:3-1build4_amd64.deb ...
Unpacking libxkbxfence0:amd64 (1:3-1build4) ...
Selecting previously unselected package libegl-mesa0:amd64.
Preparing to unpack .../055-libegl-mesa0_23.2.1-1ubuntu3-12.04.2_amd64.deb ...
Unpacking libegl-mesa0:amd64 (23.2.1-1ubuntu3-12.04.2) ...
Selecting previously unselected package libegl1:amd64.
Preparing to unpack .../056-libegl1_1.4.0-1_amd64.deb ...
Unpacking libegl1:amd64 (1.4.0-1) ...
Selecting previously unselected package libepoxy0:amd64.
Preparing to unpack .../057-libepoxy0_1.5.10-1_amd64.deb ...
Unpacking libepoxy0:amd64 (1.5.10-1) ...
Selecting previously unselected package libxkb-glx0:amd64.
Preparing to unpack .../058-libxkb-glx0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-glx0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkb-shm0:amd64.
Preparing to unpack .../059-libxkb-shm0_1:14-3ubuntu3_amd64.deb ...
Unpacking libxkb-shm0:amd64 (1:14-3ubuntu3) ...
Selecting previously unselected package libxkbxfvml:amd64.
Preparing to unpack .../060-libxkbxfvml_1:3-1build4_amd64.deb ...
Unpacking libxkbxfvml:amd64 (1:1.4-1build4) ...
Selecting previously unselected package libdrm-andgpus1:amd64.
Preparing to unpack .../061-libdrm-andgpus1_2.4.113-2ubuntu0.22.04.1_amd64.deb ...
Unpacking libdrm-andgpus1:amd64 (2.4.113-2ubuntu0.22.04.1) ...
Selecting previously unselected package libpciaccess0:amd64.
Preparing to unpack .../062-libpciaccess0_0.16-3_amd64.deb ...
Unpacking libpciaccess0:amd64 (0.16-3) ...
Selecting previously unselected package libdrm-intel1:amd64.
```

```
Preparing to unpack .../043-libdrm-intel1_2.4.113-2-ubuntu0.22.04.1_amd64.deb ...
Unpacking libdrm-intel1:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Selecting previously unselected package libdrm-nouveau2:amd64.
Preparing to unpack .../044-libdrm-nouveau2_2.4.113-2-ubuntu0.22.04.1_amd64.deb ...
Unpacking libdrm-nouveau2:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Selecting previously unselected package libdrm-radeon1:amd64.
Preparing to unpack .../045-libdrm-radeon1_2.4.113-2-ubuntu0.22.04.1_amd64.deb ...
Unpacking libdrm-radeon:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Selecting previously unselected package libiio1:amd64.
Preparing to unpack .../046-libiio1_1.3k1.0-7-ubuntu0.22.04.3_amd64.deb ...
Unpacking libiio1:amd64 (1:15.0.7-ubuntu0.22.04.3) ...
Selecting previously unselected package libhsensors-config.
Preparing to unpack .../047-libhsensors-config_1.3k3.6.0-7ubuntu1_all.deb ...
Unpacking libhsensors-config (1:3.6.0-7ubuntu1) ...
Selecting previously unselected package libhsensors:amd64.
Preparing to unpack .../048-libhsensors1_1.3k3.6.0-7ubuntu1_amd64.deb ...
Unpacking libhsensors:amd64 (1:3.6.0-7ubuntu1) ...
Selecting previously unselected package libgl1-mesa-dri:amd64.
Preparing to unpack .../049-libgl1-mesa-dri_23.2.1-1-ubuntu1.1-22.04.2_amd64.deb ...
Unpacking libgl1-mesa-dri:amd64 (23.2.1-1-ubuntu1.1-22.04.2) ...
Selecting previously unselected package libglx-mesa0:amd64.
Preparing to unpack .../070-libglx-mesa0_23.2.1-1-ubuntu1.1-22.04.2_amd64.deb ...
Unpacking libglx-mesa0:amd64 (23.2.1-1-ubuntu1.1-22.04.2) ...
Selecting previously unselected package libgl0:amd64.
Preparing to unpack .../071-libgl0_1.4.0-1_amd64.deb ...
Unpacking libgl0:amd64 (1.4.0-1) ...
Selecting previously unselected package libgl1:amd64.
Preparing to unpack .../072-libgl1_1.4.0-1_amd64.deb ...
Unpacking libgl1:amd64 (1.4.0-1) ...
Selecting previously unselected package libglman-1.0:amd64.
Preparing to unpack .../073-libglman-1.0_0.40.0-ubuntu0.22.04.1_amd64.deb ...
Unpacking libglman-1.0:amd64 (0.40.0-ubuntu0.22.04.1) ...
Selecting previously unselected package libxcvt0:amd64.
Preparing to unpack .../074-libxcvt0_0.1.1-3_amd64.deb ...
Unpacking libxcvt0:amd64 (0.1.1-3) ...
Selecting previously unselected package libfontenc1:amd64.
Preparing to unpack .../075-libfontenc1_1.3k1.1.4-1build3_amd64.deb ...
Unpacking libfontenc1:amd64 (1:1.1.4-1build3) ...
Selecting previously unselected package libfont2:amd64.
Preparing to unpack .../076-libfont2_1.3k3.0.5-1build1_amd64.deb ...
Unpacking libfont2:amd64 (1:12.0.9-1build1) ...
Selecting previously unselected package xserver-xorg-core.
Preparing to unpack .../077-xserver-xorg-core_2.3k21.1.4-2ubuntu1.7-22.04.9_amd64.deb ...
Unpacking xserver-xorg-core (2:121.1.4-2ubuntu1.7-22.04.9) ...
Selecting previously unselected package libxv0:amd64.
Preparing to unpack .../078-libxv0_1.12.1-dfsg-1_amd64.deb ...
Unpacking libxv0:amd64 (1:1.12.1-dfsg-1) ...
Selecting previously unselected package libxdev1:amd64.
Preparing to unpack .../079-libxdev1_1.1.6-1build0_amd64.deb ...
Unpacking libxdev1:amd64 (1.1.6-1build0) ...
Selecting previously unselected package libgudev-1.0-0:amd64.
Preparing to unpack .../080-libgudev-1.0-0_1.3k3237-2build1_amd64.deb ...
Unpacking libgudev-1.0-0:amd64 (1:1.3237-2build1) ...
Selecting previously unselected package libwacom-common.
Preparing to unpack .../081-libwacom-common_2.2.0-1_all.deb ...
Unpacking libwacom-common (2.2.0-1) ...
Selecting previously unselected package libwacom9:amd64.
Preparing to unpack .../082-libwacom9_2.2.0-1_amd64.deb ...
Unpacking libwacom9:amd64 (2.2.0-1) ...
Selecting previously unselected package libinput-bin.
Preparing to unpack .../083-libinput-bin_1.20.0-1ubuntu0.3_amd64.deb ...
Unpacking libinput-bin (1:20.0-1ubuntu0.3) ...
Selecting previously unselected package libinput10:amd64.
Preparing to unpack .../084-libinput1_1.20.0-1ubuntu0.3_amd64.deb ...
Unpacking libinput10:amd64 (1:20.0-1ubuntu0.3) ...
Selecting previously unselected package xserver-xorg-input-libinput.
Preparing to unpack .../085-xserver-xorg-input-libinput_1.2.1-1_amd64.deb ...
Unpacking xserver-xorg-input-libinput (1:2.1-1) ...
Selecting previously unselected package xserver-xorg-input-all.
Preparing to unpack .../086-xserver-xorg-input-all_1.3k37.7+23ubuntu2_amd64.deb ...
Unpacking xserver-xorg-input-all (1:17.7+23ubuntu2) ...
Selecting previously unselected package libxif:amd64.
Preparing to unpack .../087-libxif_1.3k1.8-1build1_amd64.deb ...
Unpacking libxif:amd64 (2:1.8-1build1) ...
Selecting previously unselected package libxrandr2:amd64.
Preparing to unpack .../088-libxrandr2_2.3k1.5.2-1build1_amd64.deb ...
Unpacking libxrandr2:amd64 (2:1.5.2-1build1) ...
Selecting previously unselected package xserver-xorg-input-wacom.
Preparing to unpack .../089-xserver-xorg-input-wacom_1.3k1.0.0-1ubuntu1_amd64.deb ...
Unpacking xserver-xorg-input-wacom (1:1.0.0-1ubuntu1) ...
Selecting previously unselected package xserver-xorg.
Preparing to unpack .../090-xserver-xorg_1.3k37.7+23ubuntu2_amd64.deb ...
Unpacking xserver-xorg (1:17.7+23ubuntu2) ...
Selecting previously unselected package libopenp11:amd64.
Preparing to unpack .../091-libopenp11_0.4.0-1_amd64.deb ...
Unpacking libopenp11:amd64 (1.4.0-1) ...
Selecting previously unselected package libglu-mesa0:amd64.
Preparing to unpack .../092-libglu-mesa_9.0.2-1_amd64.deb ...
Unpacking libglu-mesa:amd64 (9.0.2-1) ...
Selecting previously unselected package xfonts-encodings.
Preparing to unpack .../093-xfonts-encodings_1.3k1.0.5-2ubuntu2_all.deb ...
Unpacking xfonts-encodings (1:1.0.5-2ubuntu2) ...
Selecting previously unselected package xfonts-utils.
Preparing to unpack .../094-xfonts-utils_1.3k37.7+23ubuntu2_amd64.deb ...
Unpacking xfonts-utils (1:1.7+23ubuntu2) ...
Selecting previously unselected package xfonts-base.
Preparing to unpack .../095-xfonts-base_1.3k1.0.5-1_all.deb ...
Unpacking xfonts-base (1:1.0.5-1) ...
Selecting previously unselected package x11-session-utils.
Preparing to unpack .../096-x11-session-utils_7.7+4build2_amd64.deb ...
Unpacking x11-session-utils (7.7+4build2) ...
Selecting previously unselected package libxcb-shape0:amd64.
Preparing to unpack .../097-libxcb-shape0_1.14-2ubuntu3_amd64.deb ...
Unpacking libxcb-shape0:amd64 (1:1.14-2ubuntu3) ...
Selecting previously unselected package libxcomposite1:amd64.
Preparing to unpack .../098-libxcomposite1_1.3k30.4.5-1build2_amd64.deb ...
Unpacking libxcomposite1:amd64 (1:1.0.4.5-1build2) ...
Selecting previously unselected package libxft2:amd64.
Preparing to unpack .../099-libxft2_2.3k1.2.3-1build0_amd64.deb ...
Unpacking libxft2:amd64 (2:1.2.3-1build0) ...
Selecting previously unselected package libxv1:amd64.
Preparing to unpack .../100-libxv1_2.3k1.0.11-1build2_amd64.deb ...
Unpacking libxv1:amd64 (2:1.0.11-1build1) ...
Selecting previously unselected package libxft2:amd64.
Preparing to unpack .../101-libxft2_2.3k1.1.2-1ubuntu3_amd64.deb ...
Unpacking libxft2:amd64 (2:1.1.2-1ubuntu3) ...
Selecting previously unselected package x11-utils.
Preparing to unpack .../102-x11-utils_7.7+5build2_amd64.deb ...
Unpacking x11-utils (7.7+5build2) ...
Selecting previously unselected package x11-xserver-utils.
Preparing to unpack .../103-x11-xserver-utils_7.7+5build1_amd64.deb ...
Unpacking x11-xserver-utils (7.7+5build1) ...
Selecting previously unselected package xinit.
Preparing to unpack .../104-xinit_1.4.1-2ubuntu4_amd64.deb ...
Unpacking xinit (1:4.1-2ubuntu4) ...
Selecting previously unselected package xorg-docs-core.
Preparing to unpack .../105-xorg-docs-core_1.3k1.7.1-1.2_all.deb ...
Unpacking xorg-docs-core (1:1.7.1-1.2) ...
Selecting previously unselected package xinput.
Preparing to unpack .../106-xinput_1.6.3-1build1_amd64.deb ...
Unpacking xinput (1:6.3-1build1) ...
Selecting previously unselected package xorg.
Preparing to unpack .../107-xorg_1.3k37.7+23ubuntu2_amd64.deb ...
Unpacking xorg (1:17.7+23ubuntu2) ...
Selecting previously unselected package libdmx1:amd64.
Preparing to unpack .../108-libdmx1_1.3k1.1.4-2build1_amd64.deb ...
Unpacking libdmx1:amd64 (1:1.1.4-2build1) ...
Selecting previously unselected package libdmx-dev:amd64.
Preparing to unpack .../109-libdmx-dev_1.3k1.1.4-2build1_amd64.deb ...
Unpacking libdmx-dev:amd64 (1:1.1.4-2build1) ...
Selecting previously unselected package libx-dev-bin.
Preparing to unpack .../110-libx-dev-bin_2.35-2ubuntu3.6_amd64.deb ...
Unpacking libx-dev-bin (2:35-2ubuntu3.6) ...
Selecting previously unselected package linux-libc-dev:amd64.
Preparing to unpack .../111-linux-libc-dev_5.15.0-101.111_amd64.deb ...
Unpacking linux-libc-dev:amd64 (5.15.0-101.111) ...
Selecting previously unselected package libcrypt-dev:amd64.
Preparing to unpack .../112-libcrypt-dev_1.3k34.4.27-1_amd64.deb ...
Unpacking libcrypt-dev:amd64 (1:1.4.27-1) ...
Selecting previously unselected package rpcsvc-proto.
Preparing to unpack .../113-rpcsvc-proto_1.4.2-0ubuntu6_amd64.deb ...
Unpacking rpcsvc-proto (1.4.2-0ubuntu6) ...
Selecting previously unselected package librtmp-dev:amd64.
Preparing to unpack .../114-librtmp-dev_1.3.2-2ubuntu0.1_amd64.deb ...
Unpacking librtmp-dev:amd64 (1.3.2-2ubuntu0.1) ...
Selecting previously unselected package libnat-dev:amd64.
Preparing to unpack .../115-libnat-dev_1.3.0-2build2_amd64.deb ...
Unpacking libnat-dev:amd64 (1.3.0-2build2) ...
Selecting previously unselected package libcd-dev:amd64.
Preparing to unpack .../116-libcd-dev_2.35-2ubuntu3.6_amd64.deb ...
Unpacking libcd-dev:amd64 (2:35-2ubuntu3.6) ...
Selecting previously unselected package libib1:amd64.
Preparing to unpack .../117-libib1-dev_1.3k1.2.11-dfsg-2ubuntu9.2_amd64.deb ...
Unpacking libib1-dev:amd64 (1:1.2.11-dfsg-2ubuntu9.2) ...
Selecting previously unselected package libfontenc-dev:amd64.
Preparing to unpack .../118-libfontenc-dev_1.3k1.1.4-1build3_amd64.deb ...
Unpacking libfontenc-dev:amd64 (1:1.1.4-1build3) ...
Selecting previously unselected package libf6:amd64.
Preparing to unpack .../119-libf6_2.3k1.0.8-1build2_amd64.deb ...
Unpacking libf6:amd64 (2:1.0.8-1build2) ...
Selecting previously unselected package libf5-dev:amd64.
Preparing to unpack .../120-libf5-dev_2.3k1.0.8-1build2_amd64.deb ...
Unpacking libf5-dev:amd64 (2:1.0.8-1build2) ...
Selecting previously unselected package libf5-dev:amd64.
Preparing to unpack .../121-libf5-dev_2.3k1.0.10-1build2_amd64.deb ...
Unpacking libf5-dev:amd64 (2:1.0.10-1build2) ...
Selecting previously unselected package libf5-dev:amd64.
Preparing to unpack .../122-libf5-dev_2.3k1.2.3-1build1_amd64.deb ...
Unpacking libf5-dev:amd64 (2:1.2.3-1build1) ...
Selecting previously unselected package libxext-dev:amd64.
Preparing to unpack .../123-libxext-dev_2.3k1.1.4-1build0_amd64.deb ...
Unpacking libxext-dev:amd64 (2:1.3.4-1build1) ...
Selecting previously unselected package libxt-dev:amd64.
Preparing to unpack .../124-libxt-dev_1.3k1.2.1-1_amd64.deb ...
Unpacking libxt-dev:amd64 (1:1.2.1-1) ...
Selecting previously unselected package libxmu-buffers.
Preparing to unpack .../125-libxmu-buffers_2.3k1.1.3-1_all.deb ...
Unpacking libxmu-buffers (2:1.1.3-1) ...
Selecting previously unselected package libxmu-dev:amd64.
Preparing to unpack .../126-libxmu-dev_2.3k1.1.3-1_amd64.deb ...
Unpacking libxmu-dev:amd64 (2:1.1.3-1) ...
Selecting previously unselected package libxmu-dev:amd64.
Preparing to unpack .../127-libxmu-dev_2.3k1.5.12-1ubuntu0.22.04.2_amd64.deb ...
Unpacking libxmu-dev:amd64 (1:3.5.12-1ubuntu0.22.04.2) ...
Selecting previously unselected package libxaw-dev:amd64.
Preparing to unpack .../128-libxaw-dev_2.3k1.0.14-1_amd64.deb ...
Unpacking libxaw-dev:amd64 (2:1.0.14-1)
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[illegible]

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Unpacking libcliff:amd64 (4.3.0-ubuntu0.8) ...
Selecting previously unselected package libgd3:amd64.
Preparing to unpack .../195-libgd3_2.3.0-2ubuntu2_amd64.deb ...
Unpacking libgd3:amd64 (2.3.0-2ubuntu2) ...
Selecting previously unselected package libio-devtools.
Preparing to unpack .../196-libio-devtools_2.35-0ubuntu3.6_amd64.deb ...
Unpacking libio-devtools (2.35-0ubuntu3.6) ...
Selecting previously unselected package libfile-fontlock-perl.
Preparing to unpack .../197-libfile-fontlock-perl_0.22-2build1_amd64.deb ...
Unpacking libfile-fontlock-perl (0.22-2build1) ...
Selecting previously unselected package libgl-amber-dri:amd64.
Preparing to unpack .../198-libgl-amber-dri_21.3.9-0ubuntu1-22.04.1_amd64.deb ...
Unpacking libgl-amber-dri:amd64 (21.3.9-0ubuntu1-22.04.1) ...
Selecting previously unselected package libpng-tools.
Preparing to unpack .../199-libpng-tools_1.6.37-2build1_amd64.deb ...
Unpacking libpng-tools (1.6.37-2build1) ...
Selecting previously unselected package libvulkan:amd64.
Preparing to unpack .../200-libvulkan_1.3.204.1-2_amd64.deb ...
Unpacking libvulkan:amd64 (1.3.204.1-2) ...
Selecting previously unselected package libwacom-bin.
Preparing to unpack .../201-libwacom-bin_2.2.0-1_amd64.deb ...
Unpacking libwacom-bin (2.2.0-1) ...
Selecting previously unselected package libxatracker2:amd64.
Preparing to unpack .../202-libxatracker2_23.2.1-1ubuntu1-22.04.2_amd64.deb ...
Unpacking libxatracker2:amd64 (23.2.1-1ubuntu1-22.04.2) ...
Selecting previously unselected package mangasv-dev.
Preparing to unpack .../203-mangasv-dev_5.10-1ubuntu1_all.deb ... Unpacking
mangasv-dev (5.10-1ubuntu1) ...
Selecting previously unselected package mesa-vulkan-drivers:amd64.
Preparing to unpack .../204-mesa-vulkan-drivers_23.2.1-1ubuntu1-22.04.2_amd64.deb ...
Unpacking mesa-vulkan-drivers:amd64 (23.2.1-1ubuntu1-22.04.2) ...
Selecting previously unselected package xvrt.
Preparing to unpack .../205-xvrt_0.1.1-2_amd64.deb ...
Unpacking xvrt (0.1.1-2) ...
Selecting previously unselected package xfntts-scalable.
Preparing to unpack .../206-xfntts-scalable_13a1.0-3-1ubuntu1_all.deb ...
Unpacking xfntts-scalable (13a1.0-3-1ubuntu1) ...
Selecting previously unselected package xserver-xorg-video-amdpgu.
Preparing to unpack .../207-xserver-xorg-video-amdpgu_22.0.0-1ubuntu0.2_amd64.deb ...
Unpacking xserver-xorg-video-amdpgu (22.0.0-1ubuntu0.2) ...
Selecting previously unselected package xserver-xorg-video-radeon.
Preparing to unpack .../208-xserver-xorg-video-radeon_13a13.1.0-2ubuntu1_amd64.deb ...
Unpacking xserver-xorg-video-radeon (13a13.1.0-2ubuntu1) ...
Selecting previously unselected package xserver-xorg-video-ati.
Preparing to unpack .../209-xserver-xorg-video-ati_13a13.1.0-2ubuntu1_amd64.deb ...
Unpacking xserver-xorg-video-ati (13a13.1.0-2ubuntu1) ...
Selecting previously unselected package xserver-xorg-video-fbdev.
Preparing to unpack .../210-xserver-xorg-video-fbdev_13a0.5.0-2build1_amd64.deb ...
Unpacking xserver-xorg-video-fbdev (13a0.5.0-2build1) ...
Selecting previously unselected package xserver-xorg-video-nouveau.
Preparing to unpack .../211-xserver-xorg-video-nouveau_13a13.0.17-2build1_amd64.deb ...
Unpacking xserver-xorg-video-nouveau (13a13.0.17-2build1) ...
Selecting previously unselected package xserver-xorg-video-vesa.
Preparing to unpack .../212-xserver-xorg-video-vesa_13a2.5.0-2build1_amd64.deb ...
Unpacking xserver-xorg-video-vesa (13a2.5.0-2build1) ...
Selecting previously unselected package xserver-xorg-video-vmware.
Preparing to unpack .../213-xserver-xorg-video-vmware_13a13.3.0-2build1_amd64.deb ...
Unpacking xserver-xorg-video-vmware (13a13.3.0-2build1) ...
Selecting previously unselected package xserver-xorg-video-x11.
Preparing to unpack .../214-xserver-xorg-video-x11_13a13.7.23ubuntu2_amd64.deb ...
Unpacking xserver-xorg-video-x11 (13a13.7.23ubuntu2) ...
Selecting previously unselected package xserver-xorg-video-xorg.
Preparing to unpack .../215-xserver-xorg-video-xorg_0.1.5-gt120200331-3_amd64.deb ...
Unpacking xserver-xorg-video-xorg (0.1.5-gt120200331-3) ...
Selecting previously unselected package xserver-xorg-legacy.
Preparing to unpack .../216-xserver-xorg-legacy_23a21.1.4-2ubuntu1.7-22.04.9_amd64.deb ...
Unpacking xserver-xorg-legacy (23a21.1.4-2ubuntu1.7-22.04.9) ...
Setting up libxkb-dri3-0:amd64 (1.14-3ubuntu3) ...
Setting up libp1man-1-0:amd64 (0.40.0-1ubuntu22.04.1) ...
Setting up gcc-11-base:amd64 (11.4.0-1ubuntu22.04) ...
Setting up libwayland-server0:amd64 (1.20.0-1ubuntu0.1) ...
Setting up mangasv-dev (5.10-1ubuntu1) ...
Setting up libx11-xcb1:amd64 (2:1.7.1-1ubuntu3) ...
Setting up libp1access0:amd64 (0.16-3) ...
Setting up libdm-nouveau2:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Setting up libp1man-1-dev:amd64 (0.40.0-1ubuntu22.04.1) ...
Setting up libdamaged1:amd64 (1:1.1.5-2build12) ...
Setting up libp1access-dev:amd64 (0.16-3) ...
Setting up libxkb-xf860:amd64 (1.14-3ubuntu3) ...
Setting up libjpeg62:amd64 (1:6b2-3) ...
Setting up cab (0.111550-7) ... update-alternatives: using /bin/bad-cab to provide
/bad/cab in auto mode
Setting up libage:amd64 (1:13.5.12-1ubuntu0.22.04.2) ...
Setting up libx11:amd64 (2:1.7.1-1build1) ...
Setting up libxkb-winput0:amd64 (1.14-3ubuntu3) ...
Setting up libxrandr1:amd64 (1:0.9.10-1build4) ...
Setting up libpng-tools (1.6.37-2build1) ...
Setting up libfile-fontlock-perl (0.22-2build17) ...
Setting up libxkb-randem0:amd64 (1.14-3ubuntu3) ...
Setting up libdm-randem0:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Setting up libgvm0:amd64 (1.4.0-1) ...
Setting up libxkb-glx0:amd64 (1.14-3ubuntu3) ...
Setting up libdm-intel0:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Setting up libxkb-kaysym1:amd64 (0.4.0-1build13) ...
Setting up libxkb-shape0:amd64 (1.14-3ubuntu3) ...
Setting up x11-common (1:7.7-2ubuntu2) ...
Setting up libxsensors-config (1:3.6.0-2ubuntu1) ...
Setting up libxkb86gl:amd64 (2:1.1.5-0ubuntu3) ... Setting up
libxkbstate0:amd64 (1.10-2) ...
Setting up linux-libc-dev:amd64 (5.15.0-101.111) ...
Setting up libxkb-renderer-dr10:amd64 (0.3.9-1build13) ...
Setting up libxkb-shm0:amd64 (1.14-3ubuntu3) ...
Setting up libxkb-locem4:amd64 (0.4.1-1.1build12) ...
Setting up libgpm1:amd64 (1.20.3-0-ubuntu22.04) ...
Setting up bzflag (1.0.8-2build1) ...
Setting up libxvml:amd64 (2:1.0-2-2build12) ...
Setting up libxthread-stubs0-dev:amd64 (0.4.0-1build12) ...
Setting up libxkbgl:amd64 (2.3-1.3ubuntu0.22.04.1) ...
Setting up libxkbgl1:amd64 (1.4.0-1) ...
Setting up libxkb-util:amd64 (0.4.0-1build12) ...
Setting up libxkb86vm:amd64 (1:1.1.4-1build13) ...
Setting up libxkb-xkb1:amd64 (1.14-3ubuntu3) ...
Setting up libxkb-iso90:amd64 (0.4.0-2) ...
Setting up libxkb-present0:amd64 (1.14-3ubuntu3) ...
Setting up xorg-docs-core (1:1.7.1-1.2) ...
Setting up xtrans-dev (1.4.0-1) ...
Setting up libfontenc1:amd64 (1:1.1.4-1build13) ...
Setting up libxkb-xinerama0:amd64 (1.14-3ubuntu3) ...
Setting up libxkb-dev:amd64 (1.3.2-0ubuntu0.1) ...
Setting up rpcsvc-proto (1.4.2-0ubuntu0) ...
Setting up maw (1.14-1build1) ...
Setting up libxpcpy0:amd64 (1.5.10-1) ...
Setting up libxmd1:amd64 (1:1.1.4-2build12) ...
Setting up libxline0:amd64 (1:16.0.0-1) ...
Setting up libxkb-syncl:amd64 (1.14-3ubuntu3) ...
Setting up xfntts-encodings (1:1.0.5-0ubuntu2) ...
Setting up libxkbutil0:amd64 (1:2.3.1-0-1ubuntu1-22.04) ...
Setting up libxinerama1:amd64 (2:1.1.4-3) ...
Setting up libxvml:amd64 (2:1.0.1-1build12) ...
Setting up libxkb3:amd64 (1.2.1-2build1d1) ...
Setting up libxrandr2:amd64 (2:1.5.2-1build1d1) ...
Setting up fonts-dejavu-core (2.37-2build1) ...
Setting up libxsensors1:amd64 (1:3.6.0-7ubuntu1) ...
Setting up libjpeg-turbo0:amd64 (2:2.1.2-0ubuntu1) ...
Setting up libjpeg-dev:amd64 (1:2.1.2-0ubuntu1-22.04.2) ...
Setting up libgpm2-perl (1.21.2ubuntu2.2) ...
Setting up libmddev1:amd64 (1.1.6-1build14) ...
Setting up libvulkan:amd64 (1.3.204.1-2) ...
Setting up libwayp1:amd64 (1.2.2-0ubuntu0.22.04.2) ...
Setting up libxkb-dr12-0:amd64 (1.14-3ubuntu3) ...
Setting up libxft:amd64 (2:1.0.8-1build12) ...
Setting up libxns1-dev:amd64 (1.3.0-2build12) ...
Setting up libxshufence0:amd64 (1.3-1build4) ...
Setting up libxcrypt-dev:amd64 (1:4.4.27-1) ...
Setting up libxkb-randr0:amd64 (1.14-3ubuntu3) ...
Setting up libx11vms1:amd64 (1:15.0-7-0ubuntu0.22.04.3) ...
Setting up libxvrt0:amd64 (0.1-1-3) ...
Setting up xorg-xgl-doctools (1:1.11-1.1) ... Setting up
libgl-mesa:amd64 (9.0.2-1) ...
Setting up libxvml:amd64 (1:1.2.2-1build12) ...
Setting up libxkbfile1:amd64 (1:1.1.0-1build13) ...
Setting up libx1123:amd64 (0.24-2build1) ...
Setting up libx-dev-bin (2.10-0ubuntu3.6) ...
Setting up libxinfo1:amd64 (6.3-2ubuntu0.1) ...
Setting up libxcompstat1:amd64 (1:0.4.5-1build12) ...
Setting up libxfont1:amd64 (1:12.0.5-1build1) ...
Setting up libxvdev1:amd64 (1:12.1d4fsg-1) ...
Setting up tsh (6.21.00-1.1) ...
Setting up libxvrt1-dev:amd64 (1.0.9-2build6) ...
Setting up libgudev-1.0-0:amd64 (1:1237-2build1) ...
Setting up xhrtaps (1.1.1-2-1ubuntu1) ...
Setting up libxres1:amd64 (2:1.2.1-1) ...
Setting up libdm-amdpgul1:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Setting up libwacom-common (2.2.0-1) ...
Setting up libxkbcommon0:amd64 (1.4.0-1) ...
Setting up libwayland-client0:amd64 (1.20.0-1ubuntu0.1) ...
Setting up libjpeg8:amd64 (8c-0ubuntu10) ...
Setting up x11proto-dev (2021.5-1) ...
Setting up xpp-11 (11.4.0-1ubuntu22.04) ...
Setting up libgl-amber-dri:amd64 (21.3.9-0ubuntu1-22.04.3) ...
Setting up xinit (1.4.1-0ubuntu4) ...
Setting up mesa-vulkan-drivers:amd64 (23.2.1-1ubuntu1-22.04.2) ...
Setting up libxkbstate0:amd64 (2:1.0.10-1build12) ...
Setting up libdm-dev:amd64 (2.4.113-2-ubuntu0.22.04.1) ...
Setting up gettext (0.21-4ubuntu4) ...
Setting up libxvrt-dev:amd64 (0.1.1-3) ...
Setting up libxvrt-dev:amd64 (1:1.0.9-1build15) ...
Setting up libxkb-dev:amd64 (2:1.0.10-1build12) ...
Setting up libxkb1:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up libwacom1:amd64 (2.2.0-1) ...
Setting up fontconfig-config (1:12.1.4-4ubuntu2) ...
Setting up libxvrt1:amd64 (2:1.2.3-1build14) ...
Setting up libxcursor1:amd64 (1:1.2.0-2build14) ...
Setting up libgl-mesa-dri:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up xinput (1.6.3-1build12) ...
Setting up xfntts-utils (1:7.7-4build12) ...
Setting up libxcursor1:amd64 (1.6.3-2ubuntu0.1) ...
Setting up libxatracker2:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up libinput-bin (1.20.0-1ubuntu0.3) ...
Setting up xvrt (0.1.1-3) ...
Setting up libxvrt-dev:amd64 (1:1.1.3-0ubuntu5) ...
Setting up xfntts-base (1:11.0-3) ...
Setting up libgl-mesa0:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up libxkbcommon-x11-0:amd64 (1.4.0-1) ...
Setting up pkg-config (0.29.2-1ubuntu3) ...
Setting up libxvrt-dev:amd64 (2:1.0.8-1build12) ...
Setting up libwacom-bin (2.2.0-1) ...
```



```
Setting up libwayland-cursor0:amd64 (1.20.0-1ubuntu0.1) ...
Setting up opp (4:11.2.0-1ubuntu1) ...
Setting up libegl1:amd64 (1.4.0-1) ...
Setting up libbcf-dev:amd64 (2.35-0ubuntu3.6) ...
Setting up libctfrf:amd64 (4.1.0-0ubuntu0.8) ...
Setting up libfontconfig1:amd64 (2.13.1-4.2ubuntu5) ...
Setting up libxaw7:amd64 (2:1.2.3-1build1) ...
Setting up xfonts-scalable (1:1.0.3-1.2ubuntu1) ...
Setting up libkiput10:amd64 (1.20.0-1ubuntu0.3) ...
Setting up libxft2:amd64 (2.3.4-1) ...
Setting up libgls-mesa1:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up libxsh1-dev:amd64 (1:1.4-3ubuntu3) ... Setting up
libglsl:amd64 (1.4.0-1) ...
Setting up libxas-dev:amd64 (2:1.2.3-1build1) ...
Setting up libxal-dev:amd64 (2:1.7.5-1ubuntu0.3) ...
Setting up libxflxas-dev:amd64 (1:0.5.0-1) ...
Setting up libgl1:amd64 (1.4.0-1) ...
Setting up libxap2-dev:amd64 (2.4.7-1ubuntu0.3) ...
Setting up libxas-dev:amd64 (1:1.1.4-1build1) ...
Setting up libxas-dev:amd64 (2.37.2-4ubuntu3.3) ...
Setting up libxas-dev:amd64 (1:13.5.12-1ubuntu0.22.04.2) ...
Setting up libgl1:amd64 (2.3.0-0ubuntu0.3) ...
Setting up libxas:amd64 (1:11.2.1-1) ...
Setting up libxas-dev:amd64 (2:1.2.3-1build1) ...
Setting up libxas-dev:amd64 (1:1.2.3-1dfsg-0ubuntu9.2) ...
Setting up libxas-dev:amd64 (1.4.0-1) ...
Setting up libxas-dev:amd64 (2:1.2.3-1build1) ...
Setting up libxas-dev:amd64 (2:1.8-1build1) ...
Setting up libxas-dev:amd64 (1:10.9.10-1build1) ...
Setting up libgl-dev:amd64 (1.4.0-1) ...
Setting up libxas-dev:amd64 (2.35-0ubuntu3.6) ...
Setting up libxas-dev:amd64 (2:1.2.3-1build1) ...
Setting up libxas-dev:amd64 (1:11.0-1build1) ...
Setting up libxas-dev:amd64 (1:1.1.5-2build1) ...
Setting up libxas-dev:amd64 (1:1.1.5-2build1) ...
Setting up libxas-dev:amd64 (1:1.1.4-1build1) ... Setting up
libxas-dev:amd64 (1.6.37-1build1) ...
Setting up libxas-dev:amd64 (1:1.1.4-1build1) ...
Setting up libxas-dev:amd64 (2:1.0.14-1) ...
Setting up libxas-dev:amd64 (1:1.2.3-1build1) ...
Setting up x11-xserver-utils (7.7+8build1) ...
Setting up libxas-dev:amd64 (2:1.11.1dfsg-1ubuntu0.2) ...
Setting up libxas-dev:amd64 (1:1.0.1-1build1) ...
Setting up libxas-dev:amd64 (2:1.5.2-1build1) ...
Setting up libxas-dev:amd64 (1:1.2.1-1) ...
Setting up libxas-dev:amd64 (2:1.1.4-3) ...
Setting up x11-utils (7.7+8build1) ...
Setting up mesa-common-dev:amd64 (23.2.1-1ubuntu3.1-22.04.2) ...
Setting up x11-xserver-utils (7.7+8build1) ...
Setting up xterm (372-1ubuntu1) ... update-alternatives: using /usr/bin/xterm to provide /usr/bin/x-terminal-emulator
(x-terminal-emulator) in auto mode update-alternatives: using /usr/bin/xterm to provide /usr/bin/x-terminal-emulator
(x-terminal-emulator) in auto mode
Setting up libxas-dev:amd64 (2:1.1.3-3) ...
Setting up libxas-dev:amd64 (2:1.0.12-2build1) ...
Setting up libfontconfig1-dev:amd64 (2.13.1-4.2ubuntu5) ...
Setting up x11-xkb-utils (7.7+8build1) ...
Setting up libxas-dev (1:12.0.5-1build1) ...
Setting up x11-xkb (7.7+8build1) ...
Setting up libxas-dev:amd64 (2:1.1.3-3) ...
Setting up libxas-dev:amd64 (2:1.11.1dfsg-1ubuntu0.2) ...
Setting up libxas-dev:amd64 (2:1.0.14-3) ...
Setting up xserver-common (2:12.1.4-2ubuntu1.7-22.04.9) ...
Setting up xserver-xorg-lantern (2:12.1.4-2ubuntu1.7-22.04.9) ...
Setting up libxas-dev:amd64 (2.3.4-1) ...
Setting up libfontconfig1-dev:amd64 (2:13.1-4.2ubuntu5) ...
Setting up xserver-xorg-dev (2:12.1.4-2ubuntu1.7-22.04.9) ...
Setting up xserver-xorg-core (2:12.1.4-2ubuntu1.7-22.04.9) ...
Setting up xorg-dev (1:17.7+23ubuntu2) ...
Setting up xserver-xorg-video-radeon (1:18.1.0-0ubuntu1) ...
Setting up xserver-xorg-input-wacom (1:1.0.0-0ubuntu1) ...
Setting up xserver-xorg-video-radeon (1:10.5.0-2build1) ...
Setting up xserver-xorg-video-vesa (1:13.3.0-0build1) ...
Setting up xserver-xorg-video-intel (2:19.99.91git20210115-1) ...
Setting up xserver-xorg-video-vesa (1:12.5.0-1build1) ...
Setting up xserver-xorg-video-qxl (0.1.9git2020031-3) ...
Setting up xserver-xorg-video-amdgpu (22.0.0-1ubuntu0.2) ... Setting up
xserver-xorg (1:17.7+23ubuntu2) ...
Setting up xserver-xorg-video-nouveau (1:1.0.17-2build1) ...
Setting up xserver-xorg-input-libinput (1:2.1-1) ...
Setting up xserver-xorg-video-all (1:19.1.0-0ubuntu1) ...
Setting up xorg (1:17.7+23ubuntu2) ...
Setting up xserver-xorg-video-all (1:17.7+23ubuntu2) ...
Setting up xserver-xorg-input-all (1:17.7+23ubuntu2) ... Setting up
language-pack-en (1:22.04+20240212) ...
Setting up language-pack-en-base (1:22.04+20240212) ...
Generating locales (this might take a while)...
en_AG.UTF-8... done en_AG.UTF-8... done
en_GB.UTF-8... done en_GB.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done en_US.UTF-8... done
en_US.UTF-8... done
Generating complete.
Setting up freesurfer (7.4.1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for udev (249.11-0ubuntu3.12) ...
Processing triggers for install-info (6.8-4build1) ...
Scanning processes...

Scanning candidates...

Scanning linux images...

Running kernel seems to be up-to-date.

Restarting services...
Service restarts being deferred:
systemctl restart getty@tty1.service systemctl
restart networkd-dispatcher.service systemctl restart
packagekit.service systemctl restart polkit.service
systemctl restart syplog.service systemctl restart
serial-getty@tty0.service systemctl restart
systemd-journald.service systemctl restart
systemd-logind.service
/etc/needrestart/restart.d/systemd-manager systemctl
restart systemd-networkd.service systemctl restart
systemd-resolved.service systemctl restart
systemd-sdovd.service systemctl restart
unattended-upgrades.service systemctl restart
user@1001.service

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
0: Download is performed unattended as root as file '/home/jalibatos/freesurfer_ubuntu22-7.4.1_amd64.deb' couldn't be accessed by user 'apt'. - pkgAcquire:Run (13: Permission denied) jalibatos@vmd--jb-3d-mri-pre-processing:~$ tree /home/jalibatos/mri
Command 'tree' not found, but can be installed with:
snap install tree # version 1.8.0@pkg-3fde, or apt
install tree # version 2.0.2-1
See 'snap info tree' for additional versions.
jalibatos@vmd--jb-3d-mri-pre-processing:~$ ls -l | grep freesurfer
-rw-r--r-- 1 jalibatos jalibatos 699078468 Jun 27 2023 freesurfer_ubuntu22-7.4.1_amd64.deb jalibatos@vmd--jb-3d-mri-pre-processing:~$ dpkg -l | grep
freesurfer
ii freesurfer 7.4.1 amd64 freesurfer package
jalibatos@vmd--jb-3d-mri-pre-processing:~$ ls -la /usr/local/freesurfer/7.4.1 total 416 drwxr-xr-x 20 root root 4096 Apr 7 12:25
-rwxr-xr-x 1 root root 3240 Jun 14 2023 AddGetStatsUT.txt
-rwxr-xr-x 1 root root 47014 Jun 14 2023 DefaultUT.txt
-rwxr-xr-x 1 root root 95285 Jun 14 2023 FreeSurferColorsUT.txt
-rwxr-xr-x 1 root root 18106 Jun 14 2023 FreeSurferEnv.csh
-rwxr-xr-x 1 root root 18191 Jun 14 2023 FreeSurferEnv.sh
-rwxr-xr-x 1 root root 28381 Jun 14 2023 SegmentMOLUT.txt
-rwxr-xr-x 1 root root 1358 Jun 14 2023 SetUpFreeSurfer.csh
-rwxr-xr-x 1 root root 1350 Jun 14 2023 SetUpFreeSurfer.sh
-rwxr-xr-x 1 root root 4104 Jun 14 2023 Simple_surface_labels2009.txt
-rwxr-xr-x 1 root root 281 Jun 14 2023 SubCorticalLabelsUT.txt
-rwxr-xr-x 1 root root 25476 Jun 14 2023 WMParetoStatsUT.txt
drwxr-xr-x 13 root root 12288 Apr 7 12:25 average drwxr-xr-x 2 root root 4096 Apr 7 12:25 bin
-rwxr-xr-x 1 root root 56 Jun 14 2023 build-stamp.txt
drwxr-xr-x 3 root root 4096 Apr 7 12:24 diffusion drwxr-xr-x 3
root root 4096 Apr 7 12:25 dms drwxr-xr-x 2 root root 4096 Apr 7 12:25 fdata
drwxr-xr-x 5 root root 4096 Apr 7 12:24 fdata drwxr-xr-x 9 root
root 4096 Apr 7 12:24 lib drwxr-xr-x 2 root root 4096 Apr 7
12:25 data drwxr-xr-x 4 root root 12288 Apr 7 12:25 matlab
drwxr-xr-x 9 root root 4096 Apr 7 12:25 mni drwxr-xr-x 10 root
root 4096 Apr 7 12:24 mni-1.4 drwxr-xr-x 3 root root 4096 Apr 7
12:25 models drwxr-xr-x 8 root root 4096 Apr 7 12:25 python
drwxr-xr-x 2 root root 4096 Apr 7 12:25 sessions -rwxr-xr-x 1
root root 134 Jun 14 2023 sources.csh -rwxr-xr-x 1 root root
132 Jun 14 2023 sources.sh drwxr-xr-x 14 root root 4096 Apr 7
12:25 subjects
-rwxr-xr-x 1 root root 1681 Jun 14 2023 tmedit@PareColorsCMA
drwxr-xr-x 2 root root 4096 Apr 7 12:25 tktools drwxr-xr-x 4 root
root 4096 Apr 7 12:25 tntools
jalibatos@vmd--jb-3d-mri-pre-processing:~$ export FREESURFER_HOME=/usr/local/freesurfer/7.4.1/
jalibatos@vmd--jb-3d-mri-pre-processing:~$ source $FREESURFER_HOME/SetUpFreeSurfer.sh
----- freesurfer-linux-ubuntu22_206_347_4.1-20230216-jab860 -----
Setting up environment for FreeSurfer/F9-FAST (and FSL)
FREESURFER_HOME /usr/local/freesurfer/7.4.1/
F9FAST_HOME /usr/local/freesurfer/7.4.1/f9fast
F9FAST_OUTPUT_FORMAT nii.gz
SUBJECTS_DIR /usr/local/freesurfer/7.4.1/subjects
INFO: /home/jalibatos/matlab/startup.m does not exist ... creating MNI_DIR
/usr/local/freesurfer/7.4.1/mni
jalibatos@vmd--jb-3d-mri-pre-processing:~$ sudo gsu11 cp gsu11/data-mri-3d--pre-processing/license.txt /usr/local/freesurfer/7.4.1/
Copying gsu11/data-mri-3d--pre-processing/license.txt...
/ [1 files] 105.0 B / 105.0 B Operation completed
over 1 objects/105.0 B.
jalibatos@vmd--jb-3d-mri-pre-processing:~$ mkdir -p ~/mri_processed
jalibatos@vmd--jb-3d-mri-pre-processing:~$ export SUBJECTS_DIR=~/mri_processed
jalibatos@vmd--jb-3d-mri-pre-processing:~$ sudo apt update
Hit:1 http://europe-central2-a.gcp.clouds.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://europe-central2-a.gcp.clouds.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://europe-central2-a.gcp.clouds.archive.ubuntu.com/ubuntu jammy-backports InRelease Hit:4
http://security.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Building dependency tree... Done Reading state
information... Done
```



```
talairach_avi.log file is transforms/talairach_avi.log... mv -f /home/jalbhatoa/mri_processed/014_8_4401/mri/talairach_to_711-2C_as_mni_average_305_t4_vox2vox.txt
/home/jalbhatoa/mri_processed/014_8_4401/mri/transforms/talairach_to_711-2C_as_mni_average_305_t4_vox2vox.txt
Started at Sat Apr 13 09:53:20 UTC 2024 Ended at
Sat Apr 13 09:53:37 UTC 2024 talairach_avi done
##PSTIME 2024:04:13:09:53:20 talairach_avi M 4 e 17.07 S 1.41 U 9.71 P 65% M 253360 F 3 R 398168 W 0 c 4 w 1 I 0 0 295264 L 1.92 0.95 0.38
##PFLCLOADPOST 2024:04:13:09:53:37 talairach_avi M 4 1.56 0.92 0.38

cp transforms/talairach.auto.xfm transforms/talairach.xfm

lta_convert --src orig.mgz --trg /usr/local/freesurfer/7.4.1/average/mni305.cor.mgz --inxfm transforms/talairach.xfm --outlta transforms/talairach.xfm.lta --subject fsaverage --ltavox2vox
7.4.1

--src: orig.mgz src image (geometry).
--trg: /usr/local/freesurfer/7.4.1/average/mni305.cor.mgz trg image (geometry).
--lmmi: transforms/talairach.xfm input MNI/KPM transform.
--outlta: transforms/talairach.xfm.lta output LTA.
--s: fsaverage subject name
--ltavox2vox: output LTA as VOX_20_VOX transform.
LTA read, type = 1
1.13208 -0.00709 -0.03048 -1.59703;
0.03893 1.05783 0.14107 -2.24410;
0.03741 -0.18720 1.11019 -16.18555;
0.00000 0.00000 0.00000 1.00000; setting
subject to fsaverage
Writing LTA to file transforms/talairach.xfm.lta.... lta_convert
successful.
#
##M Talairach Failure Detection Sat Apr 13 09:53:39 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/mri talairach_afd -T
0.005 -xfm transforms/talairach.xfm

talairach_afd: Talairach Transform: transforms/talairach.xfm OK (p=0.8162, gval=0.8469 >= threshold=0.0050)
##PSTIME 2024:04:13:09:53:39 talairach_afd M 4 e 0.00 S 0.00 U 0.00 P 66% M 5888 F 0 R 220 W 0 c 0 w 1 I 0 0 0 L 1.56 0.92 0.38
##PFLCLOADPOST 2024:04:13:09:53:40 talairach_afd M 4 1.56 0.92 0.38

awk -f /usr/local/freesurfer/7.4.1/bin/extract_talairach_avi_awk.sh /home/jalbhatoa/mri_processed/014_8_4401/mri/transforms/talairach_avi.log

tai_UC_A2S /home/jalbhatoa/mri_processed/014_8_4401/mri/transforms/talairach_avi.log

Talairach: 0.98048 z-score: 0
#-----
##M Nu Intensity Correction Sat Apr 13 09:53:40 UTC 2024 mri_nu_correct.mni --i orig.mgz --o nu.mgz

--uchar transforms/talairach.xfm --n 2 --ants=04

/usr/bin/bc
/home/jalbhatoa/mri_processed/014_8_4401/mri
/usr/local/freesurfer/7.4.1/bin/mri_nu_correct.mni
--i orig.mgz --o nu.mgz --uchar transforms/talairach.xfm --n 2 --ants=04 nitors 2
mri_nu_correct.mni 7.4.1
Linux vm4-jb-3d-mri--pre-processing 6.5.0-1016-gcp #16-22.04.1-Ubuntu SMP Sat Mar 9 00:58:37 UTC 2024 x86_64 x86_64 GNU/Linux Sat Apr 13 09:53:40
UTC 2024 tpsair is ./tmp/mri_nu_correct.mni.3394 cd /home/jalbhatoa/mri_processed/014_8_4401/mri
Ant4848asPaIdCorrections -i orig.mgz -o ./tmp/mri_nu_correct.mni.3394/nu0.mgz --dtype uchar Ant4848asPaIdCorrectionsPa
done mri_binarize --i ./tmp/mri_nu_correct.mni.3394/nu0.mgz --min -1 --o ./tmp/mri_nu_correct.mni.3394/ones.mgz

7.4.1 cwd /home/jalbhatoa/mri_processed/014_8_4401/mri
cmdline mri_binarize --i ./tmp/mri_nu_correct.mni.3394/nu0.mgz --min -1 --o ./tmp/mri_nu_correct.mni.3394/ones.mgz sysname Linux
hostname vm4-jb-3d-mri--pre-processing
machine x86_64 user jalbhatoa

input ./tmp/mri_nu_correct.mni.3394/nu0.mgz frame
0 nRode3d 0 nRode2d 0 output
./tmp/mri_nu_correct.mni.3394/ones.mgz
Binarizing based on threshold min
-1 max
+infinity binval
1 binvalout 0
tstart = 0, tend = 0, nframes = 1 Starting
parallel 1
Found 16777216 values in range
Counting number of voxels in first frame
Found 16777213 voxels in final mask
Writing output to ./tmp/mri_nu_correct.mni.3394/ones.mgz Count: 16777215 16777215.000000 16777216 99.999994 mri_binarize done mri_segstats --id 1 --seg ./tmp/mri_nu_correct.mni.3394/ones.mgz --i
orig.mgz --sum ./tmp/mri_nu_correct.mni.3394/sum.junk --avgvf ./tmp/mri_nu_correct.mni.3394/input.mean.dat

7.4.1 cwd
cmdline mri_segstats --id 1 --seg ./tmp/mri_nu_correct.mni.3394/ones.mgz --i orig.mgz --sum ./tmp/mri_nu_correct.mni.3394/sum.junk --avgvf ./tmp/mri_nu_correct.mni.3394/input.mean.dat sysname Linux
hostname vm4-jb-3d-mri--pre-processing
machine x86_64 user jalbhatoa whitesurfame
white
Desktop 0
Loading ./tmp/mri_nu_correct.mni.3394/ones.mgz
Loading orig.mgz
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found 1 segmentations
Computing statistics for each segmentation

Reporting on 1 segmentations
Using PrintSegStat
Computing spatial average of each frame

Writing to ./tmp/mri_nu_correct.mni.3394/output.mean.dat mri_segstats done mri_segstats --id 1 --seg ./tmp/mri_nu_correct.mni.3394/ones.mgz --i ./tmp/mri_nu_correct.mni.3394/nu0.mgz --sum ./tmp/mri_nu_correct.mni.3394/sum.junk --avgvf
./tmp/mri_nu_correct.mni.3394/output.mean.dat

7.4.1 cwd
cmdline mri_segstats --id 1 --seg ./tmp/mri_nu_correct.mni.3394/ones.mgz --i ./tmp/mri_nu_correct.mni.3394/nu0.mgz --sum ./tmp/mri_nu_correct.mni.3394/sum.junk --avgvf ./tmp/mri_nu_correct.mni.3394/output.mean.dat sysname Linux
hostname vm4-jb-3d-mri--pre-processing
machine x86_64 user jalbhatoa whitesurfame
white
Desktop 0
Loading ./tmp/mri_nu_correct.mni.3394/ones.mgz
Loading ./tmp/mri_nu_correct.mni.3394/nu0.mgz
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found 1 segmentations
Computing statistics for each segmentation

Reporting on 1 segmentations
Using PrintSegStat
Computing spatial average of each frame

Writing to ./tmp/mri_nu_correct.mni.3394/output.mean.dat mri_segstats done
mri_calc -o ./tmp/mri_nu_correct.mni.3394/nu0.mgz ./tmp/mri_nu_correct.mni.3394/nu0.mgz mni 1.28165049409759046892
Saving result to ./tmp/mri_nu_correct.mni.3394/nu0.mgz (type = MCM [ ok ] mri_convert
./tmp/mri_nu_correct.mni.3394/nu0.mgz nu.mgz --like orig.mgz mri_convert ./tmp/mri_nu_correct.mni.3394/nu0.mgz
nu.mgz --like orig.mgz reading from ./tmp/mri_nu_correct.mni.3394/ones.mgz... TW=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 arc 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 4 seconds.
FIRST PERCENTILE 0.010000
90 PERCENTILE 0.900000
MAX_R 50.000000 l1 = 2, l2 =
46
mri_make_uchar mapping 5 118 to 3 110 : b -2.33409 m 0.948098 : thresh 2.46189 maxstat 271.424 : nzero 7220947 nsat 115

Sat Apr 13 09:56:59 UTC 2024 mri_nu_correct.mni done
##PSTIME 2024:04:13:09:53:40 mri_nu_correct.mni N 9 e 199.24 S 1.02 U 199.05 P 100% M 614012 F 0 R 527566 W 0 c 295 w 178 I 0 0 61856 L 1.56 0.92 0.38
##PFLCLOADPOST 2024:04:13:09:56:59 mri_nu_correct.mni N 9 2.00 1.49 0.72 mri_add_xform_to_header -o
/home/jalbhatoa/mri_processed/014_8_4401/mri/transforms/talairach.xfm nu.mgz nu.mgz

INFO: extension is mgz
##PSTIME 2024:04:13:09:56:59 mri_add_xform_to_header N 4 e 0.64 S 0.02 U 0.66 P 107% M 33552 F 0 R 4569 W 0 c 4 w 2 I 0 0 10976 L 2.00 1.49 0.72
##PFLCLOADPOST 2024:04:13:09:56:59 mri_add_xform_to_header N 4 2.00 1.49 0.72
#-----
##M Intensity Normalization Sat Apr 13 09:56:59 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/mri mri_normalize -g 1
--seed 1234 -mpurge nu.mgz T1.mgz

using max gradient = 1.000
setting seed for random number generator to 1234 assuming input
volume is MGH (Van Der Kouwe) MP-RAGE reading mri_src from
nu.mgz...
normalizing image...
NOT doing gentle normalization with control points/label talairach transform
1.13208 -0.00709 -0.03048 -1.59703;
0.03893 1.05783 0.14107 -2.24410;
0.03741 -0.18720 1.11019 -16.18555;
0.00000 0.00000 0.00000 1.00000;
processing without asep, noido
MRIzoomInit():
INFO: Modifying talairach volume c_(t,s) based on average_305
MRIzoomInit():
MRIgpinormalize(): npeaks = 21 Starting
Qwspgpinorm(): npeaks = 21 building Voronoi diagram...
performing soap bubble smoothing, sigma = 8...
Iterating 2 times
-----3d normalization pass
1 of 2 white matter peak found at 110 white matter
peak found at 108 gm peak at T2 (73), valley at 51
(51) csf peak at 37, setting threshold to 60 building
Voronoi diagram... performing soap bubble smoothing, sigma =
8...
-----3d normalization pass 2
2 of 2 white matter peak found at 110 white matter peak
found at 110 gm peak at 69 (69), valley at 47 (47) csf
peak at 35, setting threshold to 57 building Voronoi
diagram... performing soap bubble smoothing, sigma =
8... Done Iterating
-----writing output to T1.mgz
3D bias adjustment took 1 minutes and 22 seconds.
##PSTIME 2024:04:13:09:56:59 mri_normalize N 7 e 82.22 S 0.57 U 90.14 P 110% M 584184 F 0 R 267483 W 0 c 172 w 5 I 0 0 11032 L 2.00 1.49 0.72 ##PFLCLOADPOST 2024:04:13:09:58:22
mri_normalize M 7 2.27 1.70 0.86
#-----
##M Skull Stripping Sat Apr 13 09:58:22 UTC 2024 /home/jalbhatoa/mri_processed/014_8_4401/mri mri_en_register -skull nu.mgz
/usr/local/freesurfer/7.4.1/average/RB_all_withskull_2020_01_02_gca transforms/talairach_with_skull.lta aligning to atlas containing skull, setting
unknown_nbr_spacing = 5

== Number of threads available to mri_en_register for OpenMP = 2 == reading 1 input
volumes...
logging results to talairach_with_skull.log reading
"/usr/local/freesurfer/7.4.1/average/RB_all_withskull_2020_01_02_gca"...
GCAread took 0 minutes and 1 seconds.
average sds = 23.0 using min determinant for regularization = 52.8 s singular
and 9205 l1-conditioned covariance matrices regularized reading 'nu.mgz'...
reading gibbs priors...done, accounting for voxel sizes in initial transform
bounding unknown intensity as < 8.9 or > 356.0 total sample mean = 77.3 (1403
saxes) ***** spacing=8, using 3292
sample points, l2d1:08e-05... *****
register_mri: find optimal transform
```

```
find_optimal_transform: nnsamples 3292, passno 0, spacing 8 resetting
wm_mask[0]: 100 -> 108 resetting gm_mask[0]: 63 -> 63 input volume
#1 is the most T1-like using real data threshold=7.0
skull bounding box = (56, 52, 26) -> (200, 255, 230) finding center of left hemi
white matter using (154, 156, 128) as brain centroid of
Right Cerebral White Matter... MRImask(); Allow01FFGoom = 1
mask wm in atlas = 108, using box (WM,76,103) -> (121, 133,133) to find WM w before
smoothing, mri peak at 106 robust fit to distribution = 106 +- 6.9
after smoothing, mri peak at 107, scaling input intensities by 1.009 scaling
channel 0 by 1.00935 initial log p = -4.448
*****
First Search limited to translation only.
*****
***** max log p
= -4.451419 @ (0.000, 0.000, 0.000) max log p =
-4.717224 @ (-0.263, 5.263, -5.263) max log p =
-4.227760 @ (7.889, 2.437, 2.432) max log p = -4.302887
@ (-1.316, 3.947, -1.316) max log p = -4.280244 @
(-0.436, -1.374, 0.450) max log p = -4.282444 @ (0.000,
0.000, 0.000) max log p = -4.280244 @ (0.000, 0.000,
0.000) max log p = -4.280244 @ (0.000, 0.000, 0.000)
Found translation: (0.7, 2.9, -3.3); log p = -4.280
*****
Nine parameter search. iteration 0 nscases = 0 ...
*****
Result so far: scale 1.000; max_log_p=-3.970, old_max_log_p=-4.280 (thresh=-4.3)
1.15000 0.00000 0.00000 -18.00879; 0.00000
1.19413 0.31997 -44.92332;
0.00000 -0.27532 1.02750 23.59617;
0.00000 0.00000 0.00000 1.00000;
iteration took 0 minutes and 36 seconds.
*****
Nine parameter search. iteration 1 nscases = 0 ...
*****
Result so far: scale 1.000; max_log_p=-3.970, old_max_log_p=-3.970 (thresh=-4.0)
1.15000 0.00000 0.00000 -18.00879; 0.00000
1.19413 0.31997 -44.92332;
0.00000 -0.27532 1.02750 23.59617;
0.00000 0.00000 0.00000 1.00000; reducing
scale to 0.2500 iteration took 0 minutes and 35
seconds.
*****
Nine parameter search. iteration 2 nscases = 1 ...
*****
Result so far: scale 0.250; max_log_p=-3.889, old_max_log_p=-3.970 (thresh=-4.0)
1.10628 -0.00398 0.03600 -18.09666;
0.00000 1.19412 0.17955 -30.38489;
-0.03354 -0.11915 1.07904 4.21060;
0.00000 0.00000 0.00000 1.00000;
iteration took 0 minutes and 33 seconds.
*****
Nine parameter search. iteration 3 nscases = 1 ...
*****
Result so far: scale 0.250; max_log_p=-3.888, old_max_log_p=-3.889 (thresh=-3.9)
1.10628 -0.00398 0.03600 -18.09666;
0.00000 1.17889 0.17618 -27.15081;
-0.03354 -0.11915 1.07904 4.21060;
0.00000 0.00000 0.00000 1.00000; reducing
scale to 0.0625 iteration took 0 minutes and 33
seconds.
*****
Nine parameter search. iteration 4 nscases = 2 ...
*****
Result so far: scale 0.062; max_log_p=-3.860, old_max_log_p=-3.888 (thresh=-3.9)
1.10926 -0.02155 0.03688 -13.82939;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.10210 1.08348 0.06737;
0.00000 0.00000 0.00000 1.00000;
iteration took 0 minutes and 32 seconds.
*****
Nine parameter search. iteration 5 nscases = 2 ...
*****
Result so far: scale 0.062; max_log_p=-3.860, old_max_log_p=-3.860 (thresh=-3.9)
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000; min
search scale 0.025000 reached
*****
Computing MAP estimate using 3292 samples...
*****
***** dt =
3.00e-06, momentum=0.80, tol=1.00e-05
1_intensity = 1.0000
Aligning input volume to GCA...
Transform matrix
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000; nnsamples
3292
QuasiNewton: input matrix
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000;
ITFLAG=-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 TOLERANCEboutof QuasiNewtonBMA: 008: -log(p) = -0.0 tol 0.000010
Resulting transform:
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298; 0.00000
0.00000 0.00000 1.00000;
pass 1, spacing 8: log(p) = -3.860 (old=-4.448)
transform before final EM align: 1.10956 -0.02157
0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000;
*****
EM alignment process ...
Computing final MAP estimate using 364986 samples.
*****
***** dt =
3.00e-06, momentum=0.80, tol=1.00e-07
1_intensity = 1.0000
Aligning input volume to GCA...
Transform matrix
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000; nnsamples
364986
QuasiNewton: input matrix
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298;
0.00000 0.00000 0.00000 1.00000;
ITFLAG=-1 LINE SEARCH FAILED: SEE DOCUMENTATION OF ROUTINE MCSRCH ERROR RETURN OF LINE SEARCH: INFO= 6 POSSIBLE CAUSES: FUNCTION OR GRADIENT ARE INCORRECT OR INCORRECT TOLERANCEboutof QuasiNewtonBMA: 010: -log(p) = 4.3 tol 0.000000 final transform:
1.10956 -0.02157 0.01570 -13.99219;
0.01875 1.17942 0.15934 -29.20477;
-0.01743 -0.09998 1.08222 0.06298; 0.00000
0.00000 0.00000 1.00000;
writing output transformation to transforms/talairach_with_skull.ita...
#MPC6 mri_en_register VnPeak 794656
#SRUNTIME6 mri_en_register 0.0678 hours 2 threads registration took 4
minutes and 4 seconds.
##$PPTIME 2024:04:13:09:58:22 mri_en_register N 4 e 244.11 S 0 9.7 U 455.30 P 1860 M 629208 F 10 R 166614 W 0 c 841 w 54 I 151120 O 32 l 2.27 1.70 0.86
##$PSCADPOST 2024:04:13:10:02:26 mri_en_register N 4 3.45 2.82 1.33 mri_watershed -T1-brain_atlas /usr/local/freesurfer/7.4.1/average/RM_all_withskull_2020_01_02.gca
transforms/talairach_with_skull.ita T1.mgz brainmask.auto.mgz

Mode: T1 normalized volume
Mode: Use the information of atlas (default params, --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=105 z=115 x=89 first
estimation of the main basin volume: 2992269 voxels
Looking for seedpoints
2 found in the cerebellum 16 found in the
rest of the brain global maximum in x=109, y=90,
z=79, zmax=255
CSP=17, WM_intensity=110, WM_VARIANCE=3
WM_MID=110, WM_HALF_MID=110, WM_HALF_MAX=110, WM_MAX=110
preflooding height equal to 10 percent done. Analyze...
Main basin size=19032938350755 voxels, voxel volume =1.000
=19032938350755 mm3 = 1903293835298.496 cm3 done.
PostAnalyze...Basin Prior
**** 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=126,y=109, z=105, r=8454 iterations
***** couldn't find WM with original limits -> expanding *****
GLOBAL CSP_MIN=0, CSP_intensity=9, CSP_MAX=50, nb = 46874
RIGHT_CER CSP_MIN=0, CSP_intensity=9, CSP_MAX=29, nb = 3078
LEFT_CER CSP_MIN=0, CSP_intensity=7, CSP_MAX=30, nb = 2574
RIGHT_BRAIN CSP_MIN=0, CSP_intensity=19, CSP_MAX=47, nb = 15242
LEFT_BRAIN CSP_MIN=0, CSP_intensity=9, CSP_MAX=48, nb = 18440
OTHER CSP_MIN=1, CSP_intensity=23, CSP_MAX=37, nb = 540
CSP_MAX TRANSITION GM MIN GM GLOBAL
before analyzing : 50, 44, 42, 66 after
analyzing : 35, 44, 45, 44, 49 after
before analyzing : 29, 35, 44, 69 after
analyzing : 29, 41, 44, 48 LEFT_CER
before analyzing : 30, 39, 47, 67 after
analyzing : 30, 44, 47, 49 RIGHT_BRAIN
before analyzing : 47, 43, 41, 66 after
analyzing : 36, 43, 43, 48 LEFT_BRAIN
before analyzing : 68, 44, 42, 66 after
analyzing : 34, 44, 44, 49 OTHER
before analyzing : 37, 38, 42, 66 after
analyzing : 37, 40, 42, 46
mri_strip_skull: done peeling brain highly tessellated
surface with 10242 vertices matching...59 iterations
*****
*****VALIDATION*****
curvature mean = -0.014, std = 0.010 curvature mean = 67.782,
std = 6.958
```



```
( 0.02, 1.09, 0.17, -22.54)
(- 0.04, -0.18, 1.00, 19.87) 40p_cm_step_func 014: -log(p)
= 3.9
after pass:transform: ( 1.08, -0.02, 0.04, -13.10)
( 0.02, 1.09, 0.17, -22.54)
(- 0.04, -0.18, 1.00, 19.87)
IFLAG= -1 LINE SEARCH FAILED. SEE DOCUMENTATION OF ROUTINE MSEARCH ERROR RETURN OF LINE SEARCH: INFO= 3 POSSIBLE CAUSES: FUNCTION OR GRADIENT ARE INCORRECT OR INCORRECT TOLERANCE$pass 2 through quasi-newton minimization...
IFLAG= -1 LINE SEARCH FAILED. SEE DOCUMENTATION OF ROUTINE MSEARCH ERROR RETURN OF LINE SEARCH: INFO= 3 POSSIBLE CAUSES: FUNCTION OR GRADIENT ARE INCORRECT OR INCORRECT TOLERANCE$out of QuasiNewton$MA: 014: -log(p) = 3.9 tol 0.00000 final transform:
1.08089 -0.02208 0.04139 -13.10222; 0.01657 1.09441 0.16802
-22.54327; -0.04140 -0.17868 1.00406 19.87342; 0.00000 0.00000
0.00000 1.00000 writing output transformation to
transforms/talairach.lta... $VMNC8 mri_cm_register VmPeak 782100
$FRONTM88 mri_cm_register 0.0847 hours 2 threads registration took 5
minutes and 5 seconds.
#####TIME 2024:04:13:10:07:46 mri_cm_register N 7 e 305.02 S 1.12 U 560.87 P 1844 M 616568 F 0 R 166645 W 0 c 857 w 91 I 139952 0 40 L 3.13 2.78 1.54
#####$LOADPOST 2024:04:13:10:07:46 mri_cm_register N 7 3.55 3.42 2.18
#-----
## CA Normalize Sat Apr 13 10:07:46 UTC 2024 /home/jalbhata/mri/processed/014_8_4401/mri mri_ca_normalize -c ctrl_pts.mgz -mask brainmask.mgz nu.mgz
/usr/local/freesurfer/7.4.1/average/AB_all_2020-01-02.gca transforms/talairach.lta norm.mgz

writing control point volume to ctrl_pts.mgz using MR volume
brainmask.mgz to mask input volume...
reading 1 input volume reading atlas from
"/usr/local/freesurfer/7.4.1/average/AB_all_2020-01-02.gca"... reading transform from
"transforms/talairach.lta"...
reading input volume from nu.mgz...
resampling mri mean[0]: 98 --> 107 resampling
gm mean[0]: 61 --> 61 input volume #1 is
the best T1-like using real data
threshold=7.0
skull bounding box = (61, 50, 32) --> (193, 176, 198) finding center of left hemi
white matter using (105, 52, 15) as brain centroid of
Right Cerebral White Matter...
mean mri in atlas = 107, using box (89,77,89) --> (121, 107, 135) to find MRI wm before
smoothing, mri peak at 106 robust fit to distribution = 105 +/- 6.0
after smoothing, mri peak at 106, scaling input intensities by 1.009 scaling
channel 0 by 1.00943 using 246437 sample points...
INFO: compute sample coordinates transform
1.08089 -0.02208 0.04139 -13.10222;
0.01657 1.09441 0.16802 -22.54127;
-0.04140 -0.17868 1.00406 19.87342;
0.00000 0.00000 0.00000 1.00000; INFO: transform used
found 40230 control points in Left Cerebral White Matter... found
40230 control points for structure... bounding box (126, 50, 35)
--> (189, 153, 198)
Left Cerebral White Matter: limiting intensities to 97.0 --> 132.0
0 of 15 (0.0%) samples deleted finding control points in
Right Cerebral White Matter...
found 39478 control points for structure... bounding box
(68, 52, 33) --> (128, 156, 198)
Right Cerebral White Matter: limiting intensities to 92.0 --> 132.0
0 of 13 (0.0%) samples deleted finding control points in
Left Cerebellum White Matter... found 3105 control points for
structure...
bounding box (130, 128, 62) --> (175, 170, 115)
Left Cerebellum White Matter: limiting intensities to 106.0 --> 132.0
2 of 10 (20.0%) samples deleted finding control points in
Right Cerebellum White Matter...
found 2710 control points for structure... bounding box
(88, 128, 58) --> (123, 169, 115)
Right Cerebellum White Matter: limiting intensities to 115.0 --> 132.0
23 of 30 (76.7%) samples deleted finding control
points in Brain Stem... found 3475 control
points for structure...
bounding box (112, 121, 97) --> (144, 183, 126) Brain Stem:
limiting intensities to 102.0 --> 132.0
9 of 19 (47.4%) samples deleted using 87 total control points for
intensity normalization... bias field = 0.847 +/- 0.095 0 of 53 control
points discarded finding control points in
Left Cerebral White Matter...
found 40230 control points for structure... bounding box
(126, 50, 35) --> (189, 153, 198)
Left Cerebral White Matter: limiting intensities to 95.0 --> 132.0
43 of 119 (36.1%) samples deleted finding control points in
Right Cerebral White Matter...
found 39478 control points for structure... bounding box
(68, 52, 33) --> (128, 156, 198)
Right Cerebral White Matter: limiting intensities to 88.0 --> 132.0
1 of 129 (0.8%) samples deleted finding control points in
Left Cerebellum White Matter...
found 3105 control points for structure...
bounding box (130, 128, 62) --> (175, 170, 115)
Left Cerebellum White Matter: limiting intensities to 88.0 --> 132.0
11 of 47 (23.4%) samples deleted finding control points in
Right Cerebellum White Matter...
found 2710 control points for structure... bounding box
(88, 128, 58) --> (123, 169, 115)
Right Cerebellum White Matter: limiting intensities to 88.0 --> 132.0
16 of 48 (33.3%) samples deleted finding control
points in Brain Stem... found 3475 control
points for structure...
bounding box (112, 121, 97) --> (144, 183, 126) Brain Stem:
limiting intensities to 88.0 --> 132.0
55 of 84 (65.5%) samples deleted using 427 total control points for
intensity normalization...
bias field = 1.201 +/- 0.080 0 of 300 control points discarded
finding control points in Left Cerebral White Matter... found
40230 control points for structure... bounding box (126, 50, 35)
--> (189, 153, 198)
Left Cerebral White Matter: limiting intensities to 88.0 --> 132.0
0 of 217 (0.0%) samples deleted finding control points in
Right Cerebral White Matter... found 39478 control points for
structure... bounding box (68, 52, 33) --> (128, 156, 198)
Right Cerebral White Matter: limiting intensities to 102.0 --> 132.0
149 of 339 (44.0%) samples deleted finding control points in
Left Cerebellum White Matter... found 3105 control points for
structure...
bounding box (130, 128, 62) --> (175, 170, 115)
Left Cerebellum White Matter: limiting intensities to 88.0 --> 132.0
38 of 78 (48.7%) samples deleted finding control points in
Right Cerebellum White Matter... found 2710 control points for
structure... bounding box (88, 128, 58) --> (123, 169, 115)
Right Cerebellum White Matter: limiting intensities to 88.0 --> 132.0
38 of 67 (56.7%) samples deleted finding control
points in Brain Stem... found 3475 control
points for structure...
bounding box (112, 121, 97) --> (144, 183, 126) Brain Stem:
limiting intensities to 88.0 --> 132.0
93 of 131 (71.0%) samples deleted using 832 total control points for
intensity normalization... bias field = 0.995 +/- 0.037 0 of 512 control
points discarded writing normalized volume to norm.mgz... writing
control points to ctrl_pts.mgz freeing GCA... done. normalization took 1
minutes and 5 seconds.
#####TIME 2024:04:13:10:07:46 mri_ca_normalize M 8 e 65.31 S 0.60 U 65.97 P 1011 M 680484 F 7 R 408704 W 0 c 151 w 98 I 1440 0 3456 L 3.55 3.42 2.18
#####$LOADPOST 2024:04:13:10:08:15 mri_ca_normalize M 8 2.55 3.15 2.17
#-----
## CA Reg Sat Apr 13 10:08:15 UTC 2024 /home/jalbhata/mri/processed/014_8_4401/mri mri_ca_register -nobigventricles -T transforms/talairach.lta -align-after -mask brainmask.mgz norm.mgz
/usr/local/freesurfer/7.4.1/average/AB_all_2020-01-02.gca transforms/talairach.m32

not handling expanded ventricles... using previously computed transform
transforms/talairach.lta renormalizing sequences with structure alignment,
equivalent to:
-Tnormalize
-regularize_mean 0.500 -regularize 0.500 using
MR volume brainmask.mgz to mask input volume...

== Number of threads available to mri_ca_register for OpenMP = 2 == reading 1 input
volumes...
logging results to talairach.log reading input volume "norm.mgz"... reading GCA
"/usr/local/freesurfer/7.4.1/average/AB_all_2020-01-02.gca"... label assignment
complete, 0 changed (0.00%) freeing Gibbs priors... done.
average std[0] = 5.0 Starting
GCAMRegister()
label assignment complete, 0 changed (0.00%) nspaces = 1,
nlevels = 6
$pass= 1 of 1 ..... enabling
zero nodes setting smoothness cost coefficient to
0.156
GCAMreg# pass 0 level=1 level2 0 tsec 0 sigma 2
1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.16 tol=2.50e-01, dt=5.00e-02, exp_k=20.0, momentum=0.90, levels=6, niter=500,
lbi_dist=10.00, avgs=256, sigma=2.0, type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(1): init RMS 0.877466

GCAMreg# pass 0 level=1 level2 1 tsec 201.899 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.16 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbi_dist=10.00, avgs=256, sigma=2.0, type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(1): init RMS
0.774385

GCAMreg# pass 0 level=1 level2 2 tsec 201.899 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.16 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbi_dist=10.00, avgs=256, sigma=2.0, type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(1): init RMS 0.721435
```

```
#GCMreg# pass 0 level1 4 level2 1 tsec 237.006 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.62 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=0.5,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500...
GCMRegisterLevel(): init RMS 0.669072 setting smoothness cost
coefficient to 2.353

#GCMreg# pass 0 level1 3 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.35 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=2.0,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.697448

#GCMreg# pass 0 level1 3 level2 1 tsec 35.433 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.35 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=0.5,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500...
GCMRegisterLevel(): init RMS 0.697448 setting smoothness cost
coefficient to 8.000

#GCMreg# pass 0 level1 2 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=8.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=2.0,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000...
GCMRegisterLevel(): init RMS 0.782596

#GCMreg# pass 0 level1 2 level2 1 tsec 49.641 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=8.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=0.5,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500...
GCMRegisterLevel(): init RMS 0.75644 setting smoothness cost
coefficient to 20.000

#GCMreg# pass 0 level1 1 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=20.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=2.0,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000...
GCMRegisterLevel(): init RMS 0.827687

#GCMreg# pass 0 level1 1 level2 1 tsec 110.995 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=20.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=0.5,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.801423

resetting metric properties... setting smoothness
cost coefficient to 40.000

#GCMreg# pass 0 level1 0 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=40.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=2.0,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.770381

#GCMreg# pass 0 level1 0 level2 1 tsec 31.369 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=40.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=0.5,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.76182

GCMRegister done in 15.5271 min
Starting GCMaphenonormalizeWithAlignment() without scales
normalizing by structure alignment... normalizing input #0
gca peak = 0.10253 (16) mri peak = 0.10360 (22)
Left_Lateral_Ventricle (4): linear fit = 0.94 x + 0.0 (1778 voxels, overlap=0.758)
Left_Lateral_Ventricle (4): linear fit = 0.94 x + 0.0 (1778 voxels, peak = 15), gca=15.1 gca peak =
0.17690 (16) mri peak = 0.09468 (20)
Right_Lateral_Ventricle (43): linear fit = 1.10 x + 0.0 (1171 voxels, overlap=0.935)
Right_Lateral_Ventricle (43): linear fit = 1.10 x + 0.0 (1171 voxels, peak = 18), gca=17.5 gca peak =
0.28278 (96) mri peak = 0.07299 (95)
Left_Pallidum (52): linear fit = 1.00 x + 0.0 (421 voxels, overlap=0.930) Right_Pallidum
(52): linear fit = 1.00 x + 0.0 (421 voxels, peak = 96), gca=95.3 gca peak = 0.18348 (93) mri
peak = 0.06907 (98)
Left_Pallidum (13): linear fit = 1.04 x + 0.0 (358 voxels, overlap=0.815) Left_Pallidum
(13): linear fit = 1.04 x + 0.0 (358 voxels, peak = 97), gca=97.2 gca peak = 0.20755 (55)
mri peak = 0.09333 (40)
Right_Hippocampus (53): linear fit = 1.10 x + 0.0 (595 voxels, overlap=0.947) Right_Hippocampus
(53): linear fit = 1.10 x + 0.0 (595 voxels, peak = 60), gca=60.2 gca peak = 0.31831 (58) mri
peak = 0.09702 (63)
Left_Hippocampus (17): linear fit = 1.10 x + 0.0 (404 voxels, overlap=0.978) Left_Hippocampus
(17): linear fit = 1.10 x + 0.0 (404 voxels, peak = 64), gca=63.5 gca peak = 0.11957 (102) mri
peak = 0.06633 (105)
Right_Cerebral_White_Matter (41): linear fit = 1.02 x + 0.0 (51728 voxels, overlap=0.874)
Right_Cerebral_White_Matter (41): linear fit = 1.02 x + 0.0 (51728 voxels, peak = 105), gca=104.5 gca peak =
0.11420 (102) mri peak = 0.07017 (106)
Left_Cerebral_White_Matter (2): linear fit = 1.03 x + 0.0 (48641 voxels, overlap=0.785)
Left_Cerebral_White_Matter (2): linear fit = 1.03 x + 0.0 (48641 voxels, peak = 106), gca=105.6 gca peak =
0.11521 (59) mri peak = 0.04347 (67)
Left_Cerebral_Cortex (3): linear fit = 1.12 x + 0.0 (10848 voxels, overlap=0.647)
Left_Cerebral_Cortex (3): linear fit = 1.12 x + 0.0 (10848 voxels, peak = 66), gca=66.4 gca peak =
0.14338 (58) mri peak = 0.04601 (68)
Right_Cerebral_Cortex (42): linear fit = 1.12 x + 0.0 (11793 voxels, overlap=0.788)
Right_Cerebral_Cortex (42): linear fit = 1.12 x + 0.0 (11793 voxels, peak = 63), gca=64.7 gca peak =
0.13305 (70) mri peak = 0.08155 (75)
Right_Caudate (50): linear fit = 1.13 x + 0.0 (306 voxels, overlap=0.326) Right_Caudate
(50): linear fit = 1.13 x + 0.0 (306 voxels, peak = 79), gca=79.4 gca peak = 0.13761 (71)
mri peak = 0.09940 (77)
Left_Caudate (11): linear fit = 1.03 x + 0.0 (741 voxels, overlap=0.757)
Left_Caudate (11): linear fit = 1.03 x + 0.0 (741 voxels, peak = 73), gca=73.5 gca peak =
0.13537 (97) mri peak = 0.04117 (62)
Left_Cerebellum_Cortex (8): linear fit = 1.12 x + 0.0 (8306 voxels, overlap=0.367)
Left_Cerebellum_Cortex (8): linear fit = 1.12 x + 0.0 (8306 voxels, peak = 64), gca=63.6 gca peak =
0.13487 (56) mri peak = 0.04419 (62)
Right_Cerebellum_Cortex (47): linear fit = 1.12 x + 0.0 (13306 voxels, overlap=0.681)
Right_Cerebellum_Cortex (47): linear fit = 1.12 x + 0.0 (13306 voxels, peak = 62), gca=62.4 gca peak =
0.19040 (84) mri peak = 0.05927 (87)
Left_Cerebellum_White_Matter (7): linear fit = 1.04 x + 0.0 (5269 voxels, overlap=0.853)
Left_Cerebellum_White_Matter (7): linear fit = 1.04 x + 0.0 (5269 voxels, peak = 88), gca=87.8 gca peak =
0.18871 (83) mri peak = 0.06093 (85)
Right_Cerebellum_White_Matter (44): linear fit = 1.01 x + 0.0 (4678 voxels, overlap=0.974)
Right_Cerebellum_White_Matter (44): linear fit = 1.01 x + 0.0 (4678 voxels, peak = 84), gca=84.2 gca peak =
0.24428 (97) mri peak = 0.0419 (63)
Left_Amygdala (18): linear fit = 1.12 x + 0.0 (322 voxels, overlap=0.857) Left_Amygdala
(18): linear fit = 1.12 x + 0.0 (322 voxels, peak = 64), gca=63.6 gca peak = 0.35833 (56)
mri peak = 0.13333 (65)
Right_Amygdala (54): linear fit = 1.13 x + 0.0 (426 voxels, overlap=0.804) Right_Amygdala
(54): linear fit = 1.13 x + 0.0 (426 voxels, peak = 64), gca=63.6 gca peak = 0.12897 (85) mri
peak = 0.07236 (87)
Left_Thalamus (10): linear fit = 0.99 x + 0.0 (3858 voxels, overlap=0.960) Left_Thalamus
(10): linear fit = 0.99 x + 0.0 (3858 voxels, peak = 84), gca=83.7 gca peak = 0.13127 (83)
mri peak = 0.07950 (84)
Right_Thalamus (49): linear fit = 1.02 x + 0.0 (3136 voxels, overlap=0.917) Right_Thalamus
(49): linear fit = 1.02 x + 0.0 (3136 voxels, peak = 83), gca=85.1 gca peak = 0.12974 (78) mri
peak = 0.07657 (76)
Left_Putamen (12): linear fit = 0.96 x + 0.0 (1218 voxels, overlap=0.880) Left_Putamen
(12): linear fit = 0.96 x + 0.0 (1218 voxels, peak = 75), gca=75.3 gca peak = 0.17796 (79)
mri peak = 0.08777 (72)
Right_Putamen (51): linear fit = 0.94 x + 0.0 (1335 voxels, overlap=0.697) Right_Putamen
(51): linear fit = 0.94 x + 0.0 (1335 voxels, peak = 75), gca=74.7 gca peak = 0.10989 (80)
mri peak = 0.11260 (81)
Brain_Stem (16): linear fit = 1.07 x + 0.0 (7764 voxels, overlap=0.418) Brain_Stem (16):
linear fit = 1.07 x + 0.0 (7764 voxels, peak = 85), gca=85.2 gca peak = 0.13215 (88) mri
peak = 0.09605 (89)
Right_VentralDC (60): linear fit = 1.09 x + 0.0 (691 voxels, overlap=0.675) Right_VentralDC
(60): linear fit = 1.09 x + 0.0 (691 voxels, peak = 95), gca=95.5 gca peak = 0.11541 (89) mri
peak = 0.11756 (93)
Left_VentralDC (28): linear fit = 1.03 x + 0.0 (763 voxels, overlap=0.672) Left_VentralDC
(28): linear fit = 1.03 x + 0.0 (763 voxels, peak = 92), gca=92.1 gca peak = 0.20775 (25) mri
peak = 0.18611 (23) gca peak = 0.13257 (12) mri peak = 0.13953 (22)
Fourth_Ventricle (15): linear fit = 0.96 x + 0.0 (1282 voxels, overlap=0.705) Fourth_Ventricle
(15): linear fit = 0.96 x + 0.0 (1282 voxels, peak = 20), gca=20.3 gca peak Unknown = 0.94777 (
9) gca peak Left_Inf_Lat_Vessel = 0.18027 (28) gca peak Third_Ventricle = 0.20775 (25) gca peak
CSF = 0.16821 (33) gca peak Left_Accumbens_area = 0.32850 (63) gca peak Left_Undetermined =
0.98480 (28) gca peak Left_Vessel = 0.40887 (53) gca peak Left_choroid_plexus = 0.10898 (46)
gca peak Right_Inf_Lat_Vessel = 0.17798 (26) gca peak Right_Accumbens_area = 0.30137 (64) gca
peak Right_Vessel = 0.47828 (52) gca peak Right_choroid_plexus = 0.11612 (45) gca peak
Fifth_Ventricle = 0.59446 (35) gca peak WM_hypointensities = 0.10033 (78) gca peak
non_WM_hypointensities = 0.07035 (60) gca peak Optic_Chiasm = 0.25330 (73) not using caudate to
estimate OM means estimating mean gca scale to be 1.11 x + 0.0 estimating mean wm scale to be
1.03 x + 0.0 estimating mean WM scale to be 1.00 x + 0.0 saving intensity scales to
talairach_label_intensities.txt GCMaphenonormalizeWithAlignment() took 2.94973 min nonag pre
Starting GCMRegister() label assignment complete, 0 changed (0.00%) nspaces = 1, nlevels = 6
Repeat 1 of 1 ***** enabling zero nodes setting smoothness cost coefficient
to 0.008

#GCMreg# pass 0 level1 5 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=2.0,type=2, relabel=0, negno

blurring input image with Gaussian with sigma=2.000...
GCMRegisterLevel(): init RMS 0.782466
#GCMreg# pass 0 level1 5 level2 1 tsec 615.511 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=0.5,type=2, relabel=0, negno
```



```
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.454317
```

```
setting smoothness cost coefficient to 0.031
```

```
#GCAMreg# pass 0 level1 4 level2 0 tsec 0 sigma 2 l_jacobian=1.00 l_label=1.00 l_log_likelihood=0.20 l_smoothness=0.03 tol=3.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=0.5,type=2, relabel=0, negnoo
```

```
blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(): init RMS 0.451656
```

```
#GCAMreg# pass 0 level1 4 level2 1 tsec 473.089 sigma 0.5 l_jacobian=1.00 l_label=1.00 l_log_likelihood=0.20 l_smoothness=0.03 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=0.5,type=2, relabel=0, negnoo
```

```
blurring input image with Gaussian with sigma=0.500...
GCAMRegisterLevel(): init RMS 0.580172
```

```
setting smoothness cost coefficient to 0.118
```

```
#GCAMreg# pass 0 level1 3 level2 0 tsec 0 sigma 2 l_jacobian=1.00 l_label=1.00 l_log_likelihood=0.20 l_smoothness=0.12 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=2.0,type=2, relabel=0, negnoo
```

```
blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(): init RMS 0.560191
```

```
#GCAMreg# pass 0 level1 3 level2 1 tsec 384.474 sigma 0.5 l_jacobian=1.00 l_label=1.00 l_log_likelihood=0.20 l_smoothness=0.12 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=0.5,type=2, relabel=0, negnoo
```

```
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.510689
```

```
setting smoothness cost coefficient to 0.400

#GCAMreg# pass 0 level1 2 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=2.0,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=2.000... GCAMRegisterLevel(): init RMS
0.52682

#GCAMreg# pass 0 level1 2 level2 1 tsec 27.053 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=0.5,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.52682

setting smoothness cost coefficient to 1.000

#GCAMreg# pass 0 level1 1 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=2.0,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=2.000... GCAMRegisterLevel(): init RMS
0.577001

#GCAMreg# pass 0 level1 1 level2 1 tsec 25.745 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=0.5,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.575856

resetting metric properties... setting smoothness
cost coefficient to 2.000

#GCAMreg# pass 0 level1 0 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=2.0,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(): init RMS 0.503334
#GCAMreg# pass 0 level1 0 level2 1 tsec 155.347 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=5.00e-02, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=0.5,type=2, relabel=0, neg=no
blurring input image with Gaussian with sigma=0.500...
GCAMRegisterLevel(): init RMS 0.477352

GCAMRegister done in 39.345 min
***** ALLOWING NEGATIVE NODES IN DEFORMATION***** noneg post
Starting GCAMRegister() label assignment complete, 0 changed (0.008) gpasses = 1, nlevels = 4 #pass# 1 of
1 ***** enabling zero nodes setting smoothness cost coefficient to 0.008

#GCAMreg# pass 0 level1 5 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCAMRegisterLevel(): init RMS
0.469411

#GCAMreg# pass 0 level1 5 level2 1 tsec 31.068 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.469411

setting smoothness cost coefficient to 0.031

#GCAMreg# pass 0 level1 4 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.03 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCAMRegisterLevel(): init RMS
0.468611

#GCAMreg# pass 0 level1 4 level2 1 tsec 29.771 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.03 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS
0.468311

iter 0, gcam->neg = 1 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 1 after 1 iterations, nbhd
size=0, neg = 0

setting smoothness cost coefficient to 0.118

#GCAMreg# pass 0 level1 3 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.12 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000...
GCAMRegisterLevel(): init RMS 0.464116 iter 0, gcam->neg = 4
after 1 iterations, nbhd size=0, neg = 0

iter 0, gcam->neg = 4 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 1 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 5 after 2 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 6 after 2 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 4 after 2 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 7 after 10 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 11 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 12 after 11 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 8 after 2 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 3 after 4 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 9 after 12 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 5 after 8 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 9 after 3 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 5 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 4 after 9 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 5 after 13 iterations, nbhd
size=1, neg = 0

iter 0, gcam->neg = 4 after 3 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 4 after 2 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 10 after 5 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 4 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 1 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 1 after 1 iterations, nbhd
size=0, neg = 0

#GCAMreg# pass 0 level1 3 level2 1 tsec 160.031 sigma 0.5 1_jacobian=1.00
1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.12
tol=2.50e-01, dt=5.00e-02, exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=0.5,type=2, relabel=0, neg=yes blurring input image with Gaussian with sigma=0.500... GCAMRegisterLevel(): init RMS 0.449441

iter 0, gcam->neg = 1 after 3 iterations, nbhd
size=0, neg = 0

iter 0, gcam->neg = 2 after 2 iterations, nbhd
size=0, neg = 0
```

```
iter 0, gcam>neg = 2 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 1 after 0 iterations, nbhd
size=0, neg = 0

setting smoothness cost coefficient to 0.400

#GCMreg# pass 0 level1 2 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.446862

#GCMreg# pass 0 level1 2 level2 1 tsec 28.921 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.444825

setting smoothness cost coefficient to 1.000

#GCMreg# pass 0 level1 1 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.453005

#GCMreg# pass 0 level1 1 level2 1 tsec 26.87 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.452355

resetting metric properties... setting smoothness
cost coefficient to 2.000

#GCMreg# pass 0 level1 0 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000...
GCMRegisterLevel(): init RMS 0.44703 iter 0, gcam>neg = 1031
after 17 iterations, nbhd size=1, neg = 0

#GCMreg# pass 0 level1 0 level2 1 tsec 30.861 sigma 0.5 1_jacobian=1.00 1_label=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=2.50e-01, dt=5.00e-02,
exp_k=20.0, momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=0, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.450253

label assignment complete, 0 changed (0.00%)
GCMregister done in 9.86637 min
Starting GCMcomputeMaxPriorLabels()
Morphing with label term set to 0 ***** Starting
GCMregister() label assignment complete, 0 changed (0.00%) npasses = 1,
levels = 6 pass 1 of 1 ***** enabling zero nodes
setting smoothness cost coefficient to 0.008

#GCMreg# pass 0 level1 5 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.394355

#GCMreg# pass 0 level1 5 level2 1 tsec 14.958 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.01 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=256, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.394355

setting smoothness cost coefficient to 0.031

#GCMreg# pass 0 level1 4 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.03 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.394533

#GCMreg# pass 0 level1 4 level2 1 tsec 14.658 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.03 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=64, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.394533

setting smoothness cost coefficient to 0.118

#GCMreg# pass 0 level1 3 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.12 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.394847

#GCMreg# pass 0 level1 3 level2 1 tsec 27.119 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.12 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=16, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500...
GCMRegisterLevel(): init RMS 0.394735 iter 0, gcam>neg = 2
after 7 iterations, nbhd size=1, neg = 0

iter 0, gcam>neg = 1 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 1 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 1 after 6 iterations, nbhd
size=1, neg = 0

iter 0, gcam>neg = 4 after 10 iterations, nbhd
size=1, neg = 0

iter 0, gcam>neg = 1 after 0 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 6 after 4 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 9 after 9 iterations, nbhd
size=1, neg = 0

iter 0, gcam>neg = 1 after 1 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 1 after 4 iterations, nbhd
size=0, neg = 0

iter 0, gcam>neg = 1 after 0 iterations, nbhd
size=0, neg = 0 iter 0, gcam>neg = 2
after 2 iterations, nbhd size=0, neg = 0 setting
smoothness cost coefficient to 0.400

#GCMreg# pass 0 level1 2 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.39164

#GCMreg# pass 0 level1 2 level2 1 tsec 24.715 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=0.40 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=4, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(): init RMS
0.39164

iter 0, gcam>neg = 1 after 6 iterations, nbhd
size=1, neg = 0

iter 0, gcam>neg = 90 after 15 iterations, nbhd
size=1, neg = 0

iter 0, gcam>neg = 35
after 15 iterations, nbhd size=1, neg = 0 setting
smoothness cost coefficient to 1.000

#GCMreg# pass 0 level1 1 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=2.0,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=2.000... GCMRegisterLevel(): init RMS
0.395786

#GCMreg# pass 0 level1 1 level2 1 tsec 24.3 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=1.00 tol=2.50e-01, dt=5.00e-02, exp_k=20.0,
momentum=0.90, levels=6, niter=500, lbl_dist=10.00, avgs=1, sigma=0.5,type=2, relabel=0, neg=yes
blurring input image with Gaussian with sigma=0.500...
GCMRegisterLevel(): init RMS 0.395796 resetting metric
properties... setting smoothness cost coefficient to 2.000
```

```
%GCMReg# pass 0 level1 0 level2 0 tsec 0 sigma 2 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=2.50e-01, dt=5.00e-02, exp_k=0.20,0,
momentum=0.90, levels=4, niter=500, lbl_dist=10.00, nysgs=0, sigma=2.5,type=2, relabel=0, negyres

Blurring input image with Gaussian with sigma=2.000...
GCMRegisterLevel(1): init RMS 0.38331 iter 0, gcm=neg = 712
after 15 iterations, nbbd size=1, neg = 0

%GCMReg# pass 0 level1 0 level2 1 tsec 31.198 sigma 0.5 1_jacobian=1.00 1_log_likelihood=0.20 1_smoothness=2.00 tol=2.50e-01, dt=5.00e-02, exp_k=0.20,0,
momentum=0.90, levels=4, niter=500, lbl_dist=10.00, nysgs=0, sigma=0.5,type=1, relabel=0, negyres

Blurring input image with Gaussian with sigma=0.500... GCMRegisterLevel(1): init RMS
0.376388

GCMRegister done in 6.45443 min writing output transformation to
transforms/talairach.m3z...
GCMWrite
Calls to gcmLogLikelihoodEnergy 4747 tmin = 5.96992
Calls to gcmLabelEnergy 4195 tmin = 0.84175
Calls to gcmJacobianEnergy 4747 tmin = 4.18532
Calls to gcmSmoothnessEnergy 4747 tmin = 13.4619
Calls to gcmLogLikelihoodTerm 645 tmin = 1.92822
Calls to gcmLabelTerm 599 tmin = 4.17965
Calls to gcmJacobianTerm 645 tmin = 4.26562
Calls to gcmSmoothnessTerm 645 tmin = 1.79748
Calls to gcmComputeGradient 645 tmin = 31.5844 Calls to
gcmComputeMetricProperties 6685 tmin = 7.69882 mri_ca_register
took 1 hour*, 14 minutes and 20 seconds. #MCMC mri_ca_register
UnPeak 2100844
PROMPTTIME mri_ca_register 1.2390 hours 2 threads
##FFFTIME 2024:04:13:10:08:51 mri_ca_register N 9 # 4460.29 S 2.72 U 7736.92 P 1731 M 1328348 F 13 R 1034398 W 0 c 9697 v 16934 I 2192 O 63088 L 2.55 3.15 2.17
##FFSLADPOST 2024:04:13:11:23:12 mri_ca_register N 9 3.33 3.35 3.37
#-----#FF SUBOUT Sep Sat Apr 13 11:23:12 UTC 2024 mri_ca_label -relabel_unlikely 9 .3 -prior 0.5 -align norm.mgz transforms/talairach.m3z
/usr/local/freesurfer/7.4.1/average/RB_all_2020-01-02.gca asag.auto_nocCseg.mgz

synname Linux
hostname vmt-jr--3d-mri--pre-processing machine
x86_64

setenv SUBJECTS_DIR /home/jalbhata/mri/processed cd /home/jalbhata/mri/processed/014_8_4001/mri mri_ca_label -relabel_unlikely 9 .3 -prior 0.5 -align norm.mgz transforms/talairach.m3z
/usr/local/freesurfer/7.4.1/average/RB_all_2020-01-02.gca asag.auto_nocCseg.mgz

relabeling unlikely voxels with window_size = 9 and prior threshold 0.30 using Gibbs
prior factor = 0.500 renormalizing sequences with structure alignment, equivalent
to:
-renormalize
-renormalize_mean 0.500
-regualize 0.500

n= Number of threads available to for OpenMP = 2 == reading 1 input
volumes
reading classifier array from /usr/local/freesurfer/7.4.1/average/RB_all_2020-01-02.gca reading input
volume from norm.mgz average std[0] = 7.2
loading transform from transforms/talairach.m3z
setting orig areas to linear transform determinant scaled 6.54
Atlas used for the 3D morph was /usr/local/freesurfer/7.4.1/average/RB_all_2020-01-02.gca average std =
7.2 using min determinant for regularization = 1.2 0 singular and 0 ill-conditioned covariance
matrices regularized labeling volume... renormalizing by structure alignment....
renormalizing input 40 gca
peak = 0.15521 (20) mri peak =
0.11006 (22)
Left_Lateral_Ventricle (41): linear fit = 0.94 x + 0.0 (3944 voxels, overlap=0.751)
Left_Lateral_Ventricle (41): linear fit = 0.94 x + 0.0 (3944 voxels, peak = 19), gca=18.7 gca peak =
0.20580 (19) mri peak = 0.09673 (21)
Right_Lateral_Ventricle (43): linear fit = 1.27 x + 0.0 (3639 voxels, overlap=0.759)
Right_Lateral_Ventricle (43): linear fit = 1.27 x + 0.0 (3639 voxels, peak = 17), gca=16.6 gca peak =
0.20523 (16) mri peak = 0.09712 (20)
Right_Pallidum (52): linear fit = 0.93 x + 0.0 (274 voxels, overlap=1.017) Right_Pallidum
(52): linear fit = 0.93 x + 0.0 (274 voxels, peak = 89), gca=88.8 gca peak = 0.15814 (97) mri
peak = 0.08333 (101)
Left_Pallidum (13): linear fit = 1.04 x + 0.0 (239 voxels, overlap=0.891) Left_Pallidum (13):
linear fit = 1.04 x + 0.0 (239 voxels, peak = 101), gca=101.4 gca peak = 0.27624 (56) mri peak
= 0.08445 (61)
Right_Hippocampus (53): linear fit = 1.08 x + 0.0 (680 voxels, overlap=0.971) Right_Hippocampus
(53): linear fit = 1.08 x + 0.0 (680 voxels, peak = 60), gca=60.2 gca peak = 0.28723 (59) mri
peak = 0.09797 (64)
Left_Hippocampus (17): linear fit = 1.12 x + 0.0 (623 voxels, peak = 66), gca=65.8 gca peak = 0.07623 (103) mri
peak = 0.07392 (105)
Right_Cerebral_White_Matter (41): linear fit = 1.02 x + 0.0 (34843 voxels, overlap=0.801)
Right_Cerebral_White_Matter (41): linear fit = 1.02 x + 0.0 (34843 voxels, peak = 106), gca=105.6 gca peak =
0.07837 (105) mri peak = 0.08021 (106)
Left_Cerebral_White_Matter (2): linear fit = 1.03 x + 0.0 (36137 voxels, overlap=0.711)
Left_Cerebral_White_Matter (2): linear fit = 1.03 x + 0.0 (36137 voxels, peak = 109), gca=108.7 gca peak =
0.10143 (98) mri peak = 0.05113 (63)
Left_Cerebral_Cortex (3): linear fit = 1.13 x + 0.0 (12849 voxels, overlap=0.803)
Left_Cerebral_Cortex (3): linear fit = 1.13 x + 0.0 (12849 voxels, peak = 66), gca=65.8 gca peak =
0.11113 (58) mri peak = 0.04824 (68)
Right_Cerebral_Cortex (42): linear fit = 1.10 x + 0.0 (14114 voxels, overlap=0.812)
Right_Cerebral_Cortex (42): linear fit = 1.10 x + 0.0 (14114 voxels, peak = 64), gca=63.5 gca peak =
0.07796 (67) mri peak = 0.08653 (75)
Right_Caudate (50): linear fit = 1.14 x + 0.0 (954 voxels, overlap=0.900) Right_Caudate
(50): linear fit = 1.14 x + 0.0 (954 voxels, peak = 77), gca=76.7 gca peak = 0.14473 (69)
mri peak = 0.10319 (79)
Left_Caudate (11): linear fit = 1.05 x + 0.0 (937 voxels, overlap=0.887) Left_Caudate
(11): linear fit = 1.05 x + 0.0 (937 voxels, peak = 73), gca=72.8 gca peak = 0.14301 (56)
mri peak = 0.06007 (62)
Left_Cerebellum_Cortex (8): linear fit = 1.13 x + 0.0 (8955 voxels, overlap=0.641)
Left_Cerebellum_Cortex (8): linear fit = 1.13 x + 0.0 (8955 voxels, peak = 64), gca=63.6 gca peak =
0.14410 (55) mri peak = 0.06319 (65)
Right_Cerebellum_Cortex (47): linear fit = 1.13 x + 0.0 (11560 voxels, overlap=0.839)
Right_Cerebellum_Cortex (47): linear fit = 1.13 x + 0.0 (11560 voxels, peak = 62), gca=62.4 gca peak =
0.14305 (63) mri peak = 0.08650 (87)
Left_Cerebellum_White_Matter (7): linear fit = 1.03 x + 0.0 (3303 voxels, overlap=0.915)
Left_Cerebellum_White_Matter (7): linear fit = 1.03 x + 0.0 (3303 voxels, peak = 88), gca=88.0 gca peak =
0.13172 (84) mri peak = 0.08595 (85)
Right_Cerebellum_White_Matter (46): linear fit = 1.01 x + 0.0 (3367 voxels, overlap=0.972)
Right_Cerebellum_White_Matter (46): linear fit = 1.01 x + 0.0 (3367 voxels, peak = 85), gca=85.3 gca peak =
0.30461 (58) mri peak = 0.11366 (63)
Left_Amygdala (18): linear fit = 1.10 x + 0.0 (411 voxels, overlap=0.799)
Left_Amygdala (18): linear fit = 1.10 x + 0.0 (411 voxels, peak = 64), gca=61.5
gca peak = 0.32293 (57) mri
peak = 0.10881 (63)
Right_Amygdala (54): linear fit = 1.10 x + 0.0 (383 voxels, overlap=0.625) Right_Amygdala
(54): linear fit = 1.10 x + 0.0 (383 voxels, peak = 62), gca=62.4 gca peak = 0.10813 (90) mri
peak = 0.08196 (84)
Left_Thalamus (10): linear fit = 0.98 x + 0.0 (3146 voxels, overlap=0.971) Left_Thalamus
(10): linear fit = 0.98 x + 0.0 (3146 voxels, peak = 88), gca=87.8 gca peak = 0.11393 (83)
mri peak = 0.08031 (84)
Right_Thalamus (49): linear fit = 1.00 x + 0.0 (3353 voxels, overlap=0.979) Right_Thalamus
(49): linear fit = 1.00 x + 0.0 (3353 voxels, peak = 83), gca=82.6 gca peak = 0.08575 (81) mri
peak = 0.09316 (78)
Left_Putamen (12): linear fit = 0.93 x + 0.0 (981 voxels, overlap=0.702) Left_Putamen
(12): linear fit = 0.93 x + 0.0 (981 voxels, peak = 73), gca=74.9 gca peak = 0.08618 (78)
mri peak = 0.09340 (71)
Right_Putamen (51): linear fit = 0.94 x + 0.0 (923 voxels, overlap=0.606) Right_Putamen
(51): linear fit = 0.94 x + 0.0 (923 voxels, peak = 73), gca=72.9 gca peak = 0.08605 (78)
mri peak = 0.10571 (81)
Brain_Stem (16): linear fit = 1.05 x + 0.0 (8919 voxels, overlap=0.491) Brain_Stem (16):
linear fit = 1.05 x + 0.0 (8919 voxels, peak = 82), gca=82.3 gca peak = 0.12854 (81) mri
peak = 0.07567 (95)
Right_Ventricle (40): linear fit = 1.07 x + 0.0 (723 voxels, overlap=0.804) Right_Ventricle
(40): linear fit = 1.07 x + 0.0 (723 voxels, peak = 94), gca=93.7 gca peak = 0.15703 (87) mri
peak = 0.08866 (93)
Left_Ventricle (28): linear fit = 1.08 x + 0.0 (751 voxels, overlap=0.896) Left_Ventricle
(28): linear fit = 1.08 x + 0.0 (751 voxels, peak = 94), gca=93.5 gca peak = 0.17322 (25) mri
peak = 0.11640 (20)
Third_Ventricle (14): linear fit = 0.88 x + 0.0 (92 voxels, overlap=1.000) Third_Ventricle
(14): linear fit = 0.88 x + 0.0 (92 voxels, peak = 22), gca=22.1 gca peak = 0.17113 (14) mri
peak = 0.14412 (18)
Fourth_Ventricle (15): linear fit = 1.25 x + 0.0 (291 voxels, overlap=0.817) Fourth_Ventricle
(15): linear fit = 1.25 x + 0.0 (291 voxels, peak = 17), gca=17.4 gca peak Unknown = 0.94777 (
0) gca peak Left_Inf_Lat_Vent = 0.16827 (28) gca peak CSF = 0.20146 (58) gca peak
Left_Accumbens_area = 0.70446 (62) gca peak Left_undetermined = 1.00000 (18) gca peak
Left_Vessel = 0.89917 (53) gca peak Left_choroid_plexus = 0.11689 (35) gca peak
Right_Inf_Lat_Vent = 0.23504 (23) gca peak Right_Accumbens_area = 0.31650 (65) gca peak
Right_Vessel = 0.77268 (52) gca peak Right_choroid_plexus = 0.13275 (38) gca peak
Fifth_Ventricle = 0.60973 (39) gca peak WM_hypointensities = 0.11013 (77) gca peak
non_WM_hypointensities = 0.31614 (41) gca peak Optic_Chiasm = 0.31646 (76) not using caudate to
estimate GM means estimating mean gm scale to be 1.10 x + 0.0 estimating mean wm scale to be
1.03 x + 0.0 estimating mean csf scale to be 1.09 x + 0.0 saving intensity scales to
asag.auto_nocCseg_label.intensities.txt renormalizing by structure alignment.... renormalizing
input 40 gca peak = 0.17692 (19) mri peak = 0.11006 (22)
Left_Lateral_Ventricle (41): linear fit = 1.02 x + 0.0 (3944 voxels, overlap=0.882)
Left_Lateral_Ventricle (41): linear fit = 1.02 x + 0.0 (3944 voxels, peak = 19), gca=19.5 gca peak =
0.16231 (16) mri peak = 0.09673 (21)
Right_Lateral_Ventricle (43): linear fit = 0.94 x + 0.0 (3639 voxels, overlap=0.722)
Right_Lateral_Ventricle (43): linear fit = 0.94 x + 0.0 (3639 voxels, peak = 15), gca=15.0 gca peak =
0.26555 (89) mri peak = 0.08712 (20)
Right_Pallidum (52): linear fit = 1.01 x + 0.0 (274 voxels, overlap=1.012) Right_Pallidum
(52): linear fit = 1.01 x + 0.0 (274 voxels, peak = 89), gca=89.3 gca peak = 0.15424 (100)
mri peak = 0.08333 (101)
Left_Pallidum (13): linear fit = 1.00 x + 0.0 (239 voxels, overlap=1.008) Left_Pallidum (13):
linear fit = 1.00 x + 0.0 (239 voxels, peak = 100), gca=100.0 gca peak = 0.24797 (60) mri peak
= 0.08445 (61)
Right_Hippocampus (53): linear fit = 1.02 x + 0.0 (680 voxels, overlap=1.005) Right_Hippocampus
(53): linear fit = 1.02 x + 0.0 (680 voxels, peak = 62), gca=61.5 gca peak = 0.31322 (63) mri
peak = 0.09797 (64)
Left_Hippocampus (17): linear fit = 1.00 x + 0.0 (623 voxels, overlap=1.009) Left_Hippocampus
(17): linear fit = 1.00 x + 0.0 (623 voxels, peak = 63), gca=63.0 gca peak = 0.07763 (106) mri
peak = 0.07392 (105)
Right_Cerebral_White_Matter (41): linear fit = 1.00 x + 0.0 (34843 voxels, overlap=0.872)
Right_Cerebral_White_Matter (41): linear fit = 1.00 x + 0.0 (34843 voxels, peak = 103), gca=103.5 gca peak =
0.07610 (108) mri peak = 0.08021 (106)
Left_Cerebral_White_Matter (2): linear fit = 1.00 x + 0.0 (36137 voxels, overlap=0.838)
Left_Cerebral_White_Matter (2): linear fit = 1.00 x + 0.0 (36137 voxels, peak = 107), gca=107.5 gca peak =
0.08813 (68) mri peak = 0.05113 (63)
Left_Cerebral_Cortex (3): linear fit = 0.99 x + 0.0 (12849 voxels, overlap=0.988)
Left_Cerebral_Cortex (3): linear fit = 0.99 x + 0.0 (12849 voxels, peak = 65), gca=65.0 gca peak =
0.10314 (64) mri peak = 0.04824 (68)
Right_Cerebral_Cortex (42): linear fit = 1.02 x + 0.0 (14114 voxels, overlap=0.969)
Right_Cerebral_Cortex (42): linear fit = 1.02 x + 0.0 (14114 voxels, peak = 66), gca=65.6 gca peak =
0.20249 (76) mri peak = 0.09653 (79)
Right_Caudate (50): linear fit = 1.00 x + 0.0 (954 voxels, overlap=1.006) Right_Caudate
(50): linear fit = 1.00 x + 0.0 (954 voxels, peak = 76), gca=76.0 gca peak = 0.14919 (82)
mri peak = 0.10319 (79)
Left_Caudate (11): linear fit = 1.00 x + 0.0 (937 voxels, overlap=0.843) Left_Caudate
(11): linear fit = 1.00 x + 0.0 (937 voxels, peak = 82), gca=82.0 gca peak = 0.12143 (64)
mri peak = 0.06097 (62)
Left_Cerebellum_Cortex (8): linear fit = 1.00 x + 0.0 (8955 voxels, overlap=0.989)
Left_Cerebellum_Cortex (8): linear fit = 1.00 x + 0.0 (8955 voxels, peak = 64), gca=64.0 gca peak =
0.14046 (63) mri peak = 0.06319 (65)
Right_Cerebellum_Cortex (47): linear fit = 0.99 x + 0.0 (11560 voxels, overlap=0.990)
Right_Cerebellum_Cortex (47): linear fit = 0.99 x + 0.0 (11560 voxels, peak = 62), gca=62.1 gca peak =
0.14125 (88) mri peak = 0.08650 (87)
```

```
Left_Cerebellum_White_Matter (7): linear fit = 1.00 x + 0.0 (3303 voxels, overlap=0.977)
Left_Cerebellum_White_Matter (7): linear fit = 1.00 x + 0.0 (3303 voxels, peak = 81), gca=87.6 gca peak =
0.15849 (85) mri peak = 0.08599 (85)
Right_Cerebellum_White_Matter (46): linear fit = 1.00 x + 0.0 (1367 voxels, overlap=0.987)
Right_Cerebellum_White_Matter (46): linear fit = 1.00 x + 0.0 (1367 voxels, peak = 85), gca=84.6 gca peak =
0.23633 (63) mri peak = 0.13366 (63)
Left_Amygdala (10): linear fit = 1.00 x + 0.0 (411 voxels, overlap=1.020) Left_Amygdala
(10): linear fit = 1.00 x + 0.0 (411 voxels, peak = 63), gca=63.0 gca peak = 0.32501 (63)
mri peak = 0.10881 (65)
Right_Amygdala (54): linear fit = 1.07 x + 0.0 (383 voxels, overlap=0.108) Right_Amygdala
(54): linear fit = 1.07 x + 0.0 (383 voxels, peak = 67), gca=67.1 gca peak = 0.10812 (88) mri
peak = 0.58190 (84)
Left_Thalamus (10): linear fit = 1.00 x + 0.0 (3146 voxels, overlap=0.993) Left_Thalamus
(10): linear fit = 1.00 x + 0.0 (3146 voxels, peak = 88), gca=87.6 gca peak = 0.10371 (80)
mri peak = 0.08031 (84)
Right_Thalamus (49): linear fit = 1.01 x + 0.0 (3353 voxels, overlap=0.972) Right_Thalamus
(49): linear fit = 1.01 x + 0.0 (3353 voxels, peak = 81), gca=81.2 gca peak = 0.08513 (75) mri
peak = 0.59110 (76)
Left_Putamen (12): linear fit = 1.03 x + 0.0 (981 voxels, overlap=0.908) Left_Putamen
(12): linear fit = 1.03 x + 0.0 (981 voxels, peak = 78), gca=77.6 gca peak = 0.08371 (75)
mri peak = 0.05340 (71)
Right_Putamen (51): linear fit = 1.00 x + 0.0 (923 voxels, overlap=0.955) Right_Putamen
(51): linear fit = 1.00 x + 0.0 (923 voxels, peak = 75), gca=75.0 gca peak = 0.08436 (83)
mri peak = 0.10571 (81)
Brain_Stem (16): linear fit = 1.00 x + 0.0 (8919 voxels, overlap=0.723) Brain_Stem (16):
linear fit = 1.00 x + 0.0 (8919 voxels, peak = 83), gca=82.6 gca peak = 0.12327 (95) mri
peak = 0.07567 (85)
Right_Ventricle (60): linear fit = 0.99 x + 0.0 (723 voxels, overlap=0.880) Right_Ventricle
(60): linear fit = 0.99 x + 0.0 (723 voxels, peak = 94), gca=93.6 gca peak = 0.13703 (92) mri
peak = 0.08866 (93)
Left_Ventricle (28): linear fit = 0.99 x + 0.0 (751 voxels, overlap=0.974) Left_Ventricle
(28): linear fit = 0.99 x + 0.0 (751 voxels, peak = 91), gca=90.6 gca peak = 0.18883 (22) mri
peak = 0.16140 (20)
Third_Ventricle (14): linear fit = 1.02 x + 0.0 (92 voxels, peak = 23), gca=23.5 gca peak =
0.15037 (18) mri peak = 0.14412 (18)
Fourth_Ventricle (15): linear fit = 0.94 x + 0.0 (291 voxels, overlap=0.771) Fourth_Ventricle
(15): linear fit = 0.94 x + 0.0 (291 voxels, peak = 17), gca=16.8 gca peak Unknown = 0.94777 (
0) gca peak Left_Inf_Lat_Vent = 0.17762 (31) gca peak CBF = 0.20346 (39) gca peak
Left_Accumbens_area = 0.50930 (64) gca peak Left_undetermined = 1.00000 (29) gca peak
Left_Vessel = 0.89917 (53) gca peak Left_choroid_plexus = 0.11541 (35) gca peak
Right_Inf_Lat_Vent = 0.28853 (15) gca peak Right_Accumbens_area = 0.29407 (74) gca peak
Right_Vessel = 0.77268 (52) gca peak Right_choroid_plexus = 0.13275 (38) gca peak
Fifth_Ventricle = 0.91420 (35) gca peak WM_hypointensities = 0.10087 (79) gca peak
non_WM_hypointensities = 0.14453 (42) gca peak Optic_Chiasm = 0.31674 (76)
not using caudate to estimate OM means estimating mean
gm scale to be 1.02 x + 0.0 estimating mean wm scale to
be 1.00 x + 0.0 estimating mean ctf scale to be 0.98 x +
0.0
saving intensity scales to aseg.auto_nCCseg.label.intensities.txt
saving sequentially combined intensity scales to aseg.auto_nCCseg.label.intensities.txt
63904 voxels changed in iteration 0 of unlikely voxel relabeling
144 voxels changed in iteration 1 of unlikely voxel relabeling
7 voxels changed in iteration 2 of unlikely voxel relabeling
0 voxels changed in iteration 3 of unlikely voxel relabeling
40169 gm and wm labels changed (428 to gray, 472 to white out of all changed labels)
337 hippocampal voxels changed.
0 amygdala voxels changed. Reclassifying using Gibbs
Prriors pass 1: 55613 changed. Image 11: -2.090, PP=0.500
pass 2: 15339 changed. Image 11: -2.090, PP=0.500 pass 3:
3783 changed.
37833 voxels changed in iteration 0 of unlikely voxel relabeling
297 voxels changed in iteration 1 of unlikely voxel relabeling
21 voxels changed in iteration 2 of unlikely voxel relabeling
0 voxels changed in iteration 3 of unlikely voxel relabeling
6493 voxels changed in iteration 0 of unlikely voxel relabeling
62 voxels changed in iteration 1 of unlikely voxel relabeling
1 voxels changed in iteration 2 of unlikely voxel relabeling
0 voxels changed in iteration 3 of unlikely voxel relabeling
5226 voxels changed in iteration 0 of unlikely voxel relabeling
22 voxels changed in iteration 1 of unlikely voxel relabeling
0 voxels changed in iteration 2 of unlikely voxel relabeling
4202 voxels changed in iteration 0 of unlikely voxel relabeling
17 voxels changed in iteration 1 of unlikely voxel relabeling
3 voxels changed in iteration 2 of unlikely voxel relabeling
0 voxels changed in iteration 3 of unlikely voxel relabeling
!!!!!!!!!!!! ventricle segment 1 with volume 12608 above threshold 100 - not erasing !!!!!!!!!!!!!
!!!!!!!!!!!! ventricle segment 0 with volume 179 above threshold 100 - not erasing !!!!!!!!!!!!!
!!!!!!!!!!!! ventricle segment 5 with volume 101 above threshold 100 - not erasing !!!!!!!!!!!!!
!!!!!!!!!!!! ventricle segment 4 with volume 12113 above threshold 100 - not erasing !!!!!!!!!!!!!
!!!!!!!!!!!! ventricle segment 1 with volume 578 above threshold 100 - not erasing !!!!!!!!!!!!! writing
labelled volume to aseg.auto_nCCseg.mri_ca_label.utlimesac 1657.74130 mri_ca_label.utlimesac
2.535995 mri_ca_label.ru_maxrss 2106036 mri_ca_label.ru_ixrss 0 mri_ca_label.ru_idrss 0
mri_ca_label.ru_issrss 0 mri_ca_label.ru_minflt 1500792 mri_ca_label.ru_majflt 13 mri_ca_label
.ru_inop 0 mri_ca_label.ru_inblock 1992 mri_ca_label.ru_outblock 496 mri_ca_label.ru_paged 0
mri_ca_label.ru_swapcv 0 mri_ca_label.ru_nsigpals 0 mri_ca_label.ru_nvwsw 129 mri_ca_label.ru_nvwsw
1378 mri_ca_label took 27 minutes and 10 seconds.
mri_ca_label done
##PFSTIME 2024:04:13:11:52:12 mri_ca_label N 10 e 1630.27 8 2.65 U 1657.74 P 1014 M 2106036 F 13 R 1500736 W 0 c 1378 w 130 I 1992 O 696 L 3.33 3.35 3.35
##PFLGADPOST 2024:04:13:11:50:22 mri_ca_label N 10 2.0 1 2.03 2.25
-----##f CC Seg Sat Apr 13 11:50:22 UTC 2024 mri_cc -aseg aseg.auto_nCCseg.mpg -o aseg.auto.mpg -lta
/home/jaibhata/mri_processed/014_g_4401/mri/transforms/cc_up.lta 014_g_4401

will read input aseg from aseg.auto_nCCseg.mpg writing aseg
with cc labels to aseg.auto.mpg
will write lta as /home/jaibhata/mri_processed/014_g_4401/mri/transforms/cc_up.lta reading aseg
from /home/jaibhata/mri_processed/014_g_4401/mri/aseg.auto_nCCseg.mpg reading norm from
/home/jaibhata/mri_processed/014_g_4401/mri/norm.mpg 36288 voxels in left wm, 30482 in right wm,
range [129, 1201] detector rotation angles cwt=5, pt=1= 81
searching scale 1 2 rot 7.6 global minimum found at slice 126.4, rotations (1.47, 0.87) final
transformation (xw=126.4, yw=1.467, zw=0.868):
0.89306 -0.01315 0.02560 0.98279
0.01515 0.99989 0.00039 27.05489; -0.02561 -0.00000
0.99967 23.27249; 0.00000 0.00000 0.00000 1.00000;
updating x range 50 to 1126, 1301 in xformed coordinate best
afomed slice 127 min_x_forxix = 128 min_x_fornix = 130
min_x_fornix = 153 min_x_forxix = 128 min_x_fornix = 133 cc
center is found at 127.99 108 eigenvectors:
-0.00020 0.00327 0.99999;
-0.05001 -0.99874 0.00025; 0.99875 -0.05001 0.00036; error in mid anterior detected -
correcting... error in mid anterior detected - correcting... writing aseg with callosum to
/home/jaibhata/mri_processed/014_g_4401/mri/aseg.auto.mpg...
corpus callosum segmentation took 0.4 minutes
FWMDCB mri_cc VmPase 445000 mri_cc done
##PFSTIME 2024:04:13:11:50:22 mri_cc N 7 e 21.99 8 0.37 U 21.82 P 1008 M 344892 F 7 R 274333 W 0 c 38 w 14 I 1304 O 680 L 2.01 2.03 2.25
##PFLGADPOST 2024:04:13:11:50:44 mri_cc N 7 2.01 2.03 2.25
-----##f Merge
Adag Sat Apr 13 11:50:44 UTC 2024 cp
aseg.auto.mpg aseg.prsaurf.mpg

#-----
##f Intensity Normalization2 Sat Apr 13 11:50:44 UTC 2024 /home/jaibhata/mri_processed/014_g_4401/mri
mri_normalize -seed 1234 -mprage -aseg aseg.prsaurf.mpg -mask brainmask.mpg norm.mpg brain.mpg

setting seed for random number generator to 1234 assuming input
volume is MGH (Van der Kouwe) MP-RAGE using segmentation for
Initial Intensity Normalization using WM volume brainmask.mpg to
mask input volume...
reading mri_srf from norm.mpg... Reading aseg
aseg.prsaurf.mpg aseg read with width 256 (arc
width 256)
***** resampling aseg to account for mismatch with source image ***** normalizing image...
NDF doing gentle normalization with control points/label
processing with aseg removing outliers in the aseg WM...
822 control points removed Building bias image
building Voronoi diagram... performing soap bubble
smoothing, sigma = 0...
Smoothing with sigma 8 Applying bias correction
building Voronoi diagram... performing soap bubble
smoothing, sigma = 8...

Iterating 2 times
-----3d normalization pass
1 of 2 white matter peak found at 110 white matter
peak found at 108 gm peak at 71 (71), valley at 35
(35) ctf peak at 17, setting threshold to 53 building
Voronoi diagram... performing soap bubble smoothing,
sigma = 8...
-----3d normalization pass 2
of 2 white matter peak found at 110 white matter peak
found at 110 gm peak at 70 (70), valley at 39 (39) ctf
peak at 21, setting threshold to 53 building Voronoi
diagram... performing soap bubble smoothing, sigma =
8... Done iterating
-----writing output to
brain.mpg
3D bias adjustment took 1 minutes and 58 seconds.
##PFSTIME 2024:04:13:11:50:44 mri_normalize N 9 e 120.43 8 1.31 U 130.78 P 1094 M 1202180 F 0 R 665575 W 0 c 148 w 11 I 0 O 2584 L 2.01 2.03 2.25
##PFLGADPOST 2024:04:13:11:52:44 mri_normalize N 9 2.08 2.03 2.22
#-----
##f Mask BFS Sat Apr 13 11:52:44 UTC 2024
/home/jaibhata/mri_processed/014_g_4401/mri mri_mask -T 5 brain.mpg
brainmask.mpg brain.finalsurfs.mpg

threshold mask volume at 5
DoAbs = 0
Found 1478051 voxels in mask (pct= 8.81) maskval=0,
outval=0
Writing masked volume to brain.finalsurfs.mpg...done.
##PFSTIME 2024:04:13:11:52:44 mri_mask N 5 e 1.79 8 0.04 U 0.86 P 1154 M 74240 F 6 R 17253 W 0 c 3 w 10 I 1024 O 2568 L 2.08 2.03 2.22
##PFLGADPOST 2024:04:13:11:52:45 mri_mask N 5 2.08 2.03 2.22 cp
brain.finalsurfs.mpg brain.finalsurfs.mandedit.mpg
#-----
##f WM Segmentation Sat Apr 13 11:52:45 UTC 2024
AutoDenoiseImageFs -i brain.mpg -o antdnd.brain.mpg

##PFSTIME 2024:04:13:11:52:45 AutoDenoiseImageFs N 4 e 36.02 8 0.15 U 36.40 P 1009 M 200976 F 23 R 86480 W 0 c 39 w 24 I 4464 O 2568 L 2.08 2.03 2.22
##PFLGADPOST 2024:04:13:11:53:22 AutoDenoiseImageFs N 4 2.08 2.04 2.21 mri_segmet -walsim

13 -mprage antdnd.brain.mpg wm_seg.mpg

walsim = 13, voxres = 1, wsize = 13 Widening wm
low from 88 to 79
assuming input volume is MGH (Van der Kouwe) MP-RAGE wm mean:
110 wsize: 13 wm low: 79 wm hi: 125 gray low: 30 gray
hi: 99
Doing initial trinary intensity segmentation
MRIIntensitySegmentation() m_low=79, m_hi=125, gray_hi=99
white = 316161, nonwhite = 1617229, ambig = 288824, mask = 0
Using local statistics to label ambiguous voxels
AutoSelecting stats
Computing class statistics for intensity windows...
CCB_WM (101.0): 100.7 +- 6.2 [79.0 --> 125.0] CCB_WM
(73.0) : 72.4 +- 9.8 [30.0 --> 95.0] white_mean
100.743 white_sigma 6.18972 gray_mean 72.3573
gray_sigma 9.7892
```

```
setting bottom of white matter range wm_low to 82.1 setting
top of gray matter range gray_hi to 91.9 wm_low 82.1465
wm_hi 125 gray_low 30 gray_hi 91.9357
Recovering initial intensity segmentation...
MRIIntensitySegmentation() wm_low=82.1465, wm_hi=125, gray_hi=91.9357 white = 424082,
nonwhite = 16234055, ambig = 119079, msaak = 0
Recomputing local statistics to label ambiguous voxels...
wm_low 82.1465 wm_hi 125 gray_low 30 gray_hi 91.9357 using local geometry to
label remaining ambiguous voxels... polysize = 5, polvian = 3, gray_hi = 91.9357,
wm_low = 82.1465 MRIPolVMedianCurvedSegment() ssize=5, len=3, gmi=91.9357,
unlow=82.1465
101056 voxels processed (0.60)
46488 voxels white (0.28)
54568 voxels non-white (0.33)

Reclassifying voxels using Gaussian border classifier niter=1
MRITreclassify(): wm_low=77.1465, gray_hi=91.9357, ssize=13
198245 voxels tested (1.18)
46146 voxels changed (0.25)
37468 multi-scale searches (0.22)

Recovering bright white
MRITrecoveredBrightWhite() wm_low
82.1465 wm_hi 125 slack 6.18972
got_thresh 0.35 intensity_thresh
131.19 mmux_thresh 8.56 106
voxels tested (0.004) 64 voxels
changed (0.00)

removing voxels with positive offset direction...
MRITransformContraction() ssize=1, lsize=77.1465, hsize=91.9357 smoothing input
volume with sigma = 0.250
83975 voxels tested (0.50)
14938 voxels changed (0.09) thicks = 1
removing 1-dimensional structures...
MRITransformStructures() max_iter=10000, thresh=0, WM_MIN_VAL=0 3388
sparsely connected voxels removed in 1 iterations thickening thin
strands...
thicknss 4 segments
20 wm_hi 125
256 diagonally connected voxels added...
MRIThickenThinStrands() thicknss=4, segments=20
20 segments, 4761 filled
MRIThickenRightHem() 405 bright non-wm voxels segmented.
MRIThickenMorphology() WM_MIN_VAL=0, DIAGONAL_FIL=230 white matter
segmentation took 0.8 minutes writing output to wm_seg.mgz...
#####FRTIME 2024:04:13:11:54:13 mri_seg.mgz S 5 30.89 8 0.19 0 50.49 P 1024 M 143896 F 6 R 287325 W 0 c 112 W 1 1040 O 880 L 2.08 2.04 2.21
#####FLADPOST 2024:04:13:11:54:13 mri_seg.mgz S 5 2.04 2.03 2.20 mri_edit_wm_with_asag -keep-in

wm_seg.mgz brain.mgz asag.presurf.mgz wm.asagedit.mgz

mri_edit_wm_with_asag -keep-in wm_seg.mgz brain.mgz asag.presurf.mgz wm.asagedit.mgz preserving editing
changes in input volume
auto filling took 0.36 minutes reading wm
segmentation from wm_seg.mgz...
0 voxels added to wm to prevent paths from MTL structures to cortex
3437 additional wm voxels added
3 additional non-wm voxels added
SIO EDT: 67533 voxels turned on, 24488 voxels turned off.
propagating editing to output volume from wm_seg.mgz writing edited
volume to wm.asagedit.mgz...
#####FRTIME 2024:04:13:11:54:13 mri_edit_wm_with_asag W 5 21.36 8 0.41 U 21.40 P 1024 M 463696 F 4 R 315042 W 0 c 43 W 19 I 928 O 832 L 2.04 2.05 2.20
#####FLADPOST 2024:04:13:11:54:13 mri_edit_wm_with_asag W 5 2.02 2.03 2.19 mri_preteass

wm.asagedit.mgz wm_norm.mgz wm.mgz

Iteration Number : 1
pass 1 (xy): 23 found - 23 modified | TOTAL: 23 pass 2
(xy): 0 found - 23 modified | TOTAL: 23 pass 1 (xy): 0 found
15 found - 15 modified | TOTAL: 38 pass 2 (xy): 0 found
15 modified | TOTAL: 38
pass 1 (yz): 26 found - 26 modified | TOTAL: 64 pass 2
(yz): 0 found - 26 modified | TOTAL: 64 pass 1 (yz): 0 found
21 found - 21 modified | TOTAL: 85 pass 2 (yz): 0 found
- 21 modified | TOTAL: 85 pass 1 (xz): 25 found - 25
modified | TOTAL: 110 pass 2 (xz): 0 found - 25 modified
| TOTAL: 135 pass 1 (xz): 25 found - 25 modified |
TOTAL: 135 pass 2 (xz): 0 found - 25 modified | TOTAL:
135 Iteration Number : 1
pass 1 (++): 15 found - 15 modified | TOTAL: 15 pass 2
(++): 0 found - 15 modified | TOTAL: 15 pass 1 (++): 0 found
24 found - 24 modified | TOTAL: 39 pass 2 (++): 0 found
- 24 modified | TOTAL: 39 pass 1 (++): 26 found - 26
modified | TOTAL: 65 pass 2 (++): 0 found - 26 modified
| TOTAL: 65 pass 1 (++): 10 found - 10 modified |
TOTAL: 75 pass 2 (++): 0 found - 10 modified | TOTAL:
75 Iteration Number : 1
pass 1 (==): 129 found - 129 modified | TOTAL: 129 pass 2
(==): 0 found - 129 modified | TOTAL: 129 pass 1 (==): 97
found - 97 modified | TOTAL: 226 pass 2 (==): 0 found -
97 modified | TOTAL: 226 pass 1 (==): 124 found - 124
modified | TOTAL: 350 pass 2 (==): 0 found - 124 modified
| TOTAL: 350 pass 1 (==): 111 found - 111 modified |
TOTAL: 461 pass 2 (==): 0 found - 111 modified | TOTAL:
461 Iteration Number : 2
pass 1 (xy): 8 found - 8 modified | TOTAL: 8 pass 2
(xy): 0 found - 8 modified | TOTAL: 8 pass 1 (xy): 0 found
8 found - 8 modified | TOTAL: 16 pass 2 (xy): 0 found -
8 modified | TOTAL: 16 pass 1 (yz): 7 found - 7
modified | TOTAL: 23 pass 2 (yz): 0 found - 7 modified
| TOTAL: 26 pass 2 (yz): 0 found - 7 modified | TOTAL:
30 pass 1 (xz): 6 found - 6 modified | TOTAL: 36
pass 1 (xz): 0 found - 6 modified | TOTAL: 36
pass 1 (xz): 7 found - 7 modified | TOTAL: 43 pass 2
(xz): 0 found - 7 modified | TOTAL: 43 Iteration Number :
2
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (++): 0 found
2 found - 2 modified | TOTAL: 2 pass 2 (++): 0 found -
2 modified | TOTAL: 2 pass 1 (++): 4 found - 4
modified | TOTAL: 6 pass 2 (++): 0 found - 4 modified
| TOTAL: 6 Iteration Number : 2
pass 1 (==): 7 found - 7 modified | TOTAL: 7 pass 2
(==): 0 found - 7 modified | TOTAL: 7 pass 1 (==): 5
found - 5 modified | TOTAL: 12 pass 2 (==): 0 found -
5 modified | TOTAL: 12 pass 1 (==): 2 found - 2
modified | TOTAL: 14 pass 2 (==): 0 found - 2 modified
| TOTAL: 16 pass 2 (==): 0 found - 2 modified | TOTAL:
16 Iteration Number : 3
pass 1 (xy): 3 found - 3 modified | TOTAL: 3 pass 2
(xy): 0 found - 3 modified | TOTAL: 3 pass 1 (xy): 0 found
3 found - 3 modified | TOTAL: 6 pass 2 (xy): 0 found -
3 modified | TOTAL: 6 pass 1 (yz): 1 found - 1
modified | TOTAL: 7 pass 2 (yz): 0 found - 1 modified
| TOTAL: 7 pass 1 (yz): 0 found - 0 modified |
TOTAL: 7 pass 1 (xz): 0 found - 0 modified | TOTAL: 11 pass
1 (xz): 4 found - 4 modified | TOTAL: 11 pass
2 (xz): 0 found - 4 modified | TOTAL: 11 Iteration Number
: 3
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (++): 0 found
0 modified | TOTAL: 0 Iteration Number : 3
pass 1 (==): 0 found - 0 modified | TOTAL: 0 pass 1
(==): 0 found - 0 modified | TOTAL: 0 pass 1 (==): 0 found
1 found - 1 modified | TOTAL: 1 pass 1 (==): 0 found -
0 modified | TOTAL: 1 pass 1 (==): 2 found - 2
modified | TOTAL: 3 pass 2 (==): 0 found - 2 modified
| TOTAL: 3 Iteration Number : 4
pass 1 (xy): 0 found - 0 modified | TOTAL: 0 pass 1
(xy): 1 found - 1 modified | TOTAL: 1 pass 2 (xy): 0 found
0 found - 1 modified | TOTAL: 1 pass 1 (yz): 0 found -
0 modified | TOTAL: 1 pass 1 (yz): 0 found - 0
modified | TOTAL: 1 pass 1 (xz): 0 found - 0 modified
| TOTAL: 1 pass 1 (xz): 0 found - 0 modified |
TOTAL: 1 Iteration Number : 4
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (++): 0 found
0 modified | TOTAL: 0 Iteration Number : 5
pass 1 (==): 0 found - 0 modified | TOTAL: 0 pass 1
(==): 0 found - 0 modified | TOTAL: 0 pass 1 (==): 0 found
0 modified | TOTAL: 0 Iteration Number : 5
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (==): 0 found
0 modified | TOTAL: 0 pass 1 (==): 0 found - 0
modified | TOTAL: 0
Total Number of Modified Voxels = 746 (out of 525579: 0.141939)
binarizing input wm segmentation... Ambiguous edge configurations...
mri_preteass done

#####FRTIME 2024:04:13:11:54:13 mri_preteass W 4 3.37 8 0.02 U 3.44 P 1024 M 56960 F 20 R 12932 W 0 c 11 W 20 I 3872 O 840 L 2.02 2.03 2.19
#####FLADPOST 2024:04:13:11:54:13 mri_preteass W 4 2.02 2.02 2.19
#-----# Fill Sat Apr 13 11:54:37 UTC 2024 /home/albhatova/mri_processed/014_8_401/mri mri_fill -a ../scripts/pnosc.cut.log -form transforms/talairach.lta
-segmentation asag.presurf.mgz -ctab /usr/local/freesurfer/7.4.1/SubCorticalMassUT.txt wm.mgz filled.mgz

logging cutting plane coordinates to ../scripts/pnosc.cut.log... INFO: Using
transforms/talairach.lta and its offset for Talairach volume ...
using segmentation asag.presurf.mgz...
done.
searching for cutting planes... voxel to talairach voxel transform
1.0889 -0.02208 0.04139 -13.10222;
0.01657 1.09441 0.16802 -22.54128;
-0.04140 -0.17868 1.00406 19.87343;
0.00000 0.00000 0.00000 1.00000;
reading input volume... wm.mgzvoxel to talairach voxel transform
1.0889 -0.02208 0.04139 -13.10222;
0.01657 1.09441 0.16802 -22.54128;
-0.04140 -0.17868 1.00406 19.87343;
0.00000 0.00000 0.00000 1.00000; reading
segmented volume asag.presurf.mgz removing CC
from segmentation Looking for area (min, max) =
(350, 1400)
```

```
area[0] = 1508 (min = 350, max = 1400), aspect = 0.44 (min = 0.10, max = 0.75) need search
nearby
using seed (125, 121, 154), TAL = (3.0, 26.0, 7.0)
talairach voxel to voxel transform 0.92344 0.01208
-0.04009 11.16821 -0.01930 0.48918 -0.14800
22.73145;
0.03445 0.13873 0.96797 -15.20493; 0.00000
0.00000 0.00000 1.00000;
segmentation indicates oc at (125, 121, 154) --> (3.0, 26.0, 7.0) done.
filling took 0.8 minutes
talairach oc position changed to (3.00, 26.00, 7.00)
Erasing Brainstem...done.
seed_search_size = 5; min_neighbors = 5
search rh wm seed point around talairach space: (21.00, 26.00, 7.00) SMC: (107.26, 105.46, 156.78) search lh wm seed
point around talairach space (-15.00, 26.00, 7.00), SMC: (140.51, 104.77, 158.02) compute mri_fill using aaseg
Erasing Brain Stem and Cerebellum ...
Define left and right masks using aaseg:
Building Voronoi diagram ...
Using the Voronoi diagram for separating WM into two hemispheres ...
Find the largest connected component for each hemisphere ... Embedding
collectable mri_fill done, writing output to filled.mgz...
#####
##FFFTIME 2024:04:13:11:55:17 mri_fill N 10 e 49.68 S 1.22 U 48.60 P 100% M 956488 F 7 R 505351 M 0 c 103 w 1 I 144 O 248 L 2.02 2.03 2.19
##FFSLADPOST 2024:04:13:11:55:17 mri_fill N 10 L 2.01 2.02 2.18 cp
filled.mgz filled.wmto.mgz
$-----
## Tassellate lh Sat Apr 13 11:55:17 UTC 2024
/home/jalhhatoa/mri_processed/014_8_4401/scripts mri_preless ../mri/filled.mgz 255
../mri/norm.mgz ../mri/filled-preless255.mgz

Iteration Number : 1
pass 1 (xy-): 1 found - 1 modified | TOTAL: 1 pass 2
(xy-): 0 found - 1 modified | TOTAL: 1 pass 1 (xy-):
1 found - 1 modified | TOTAL: 2 pass 1 (yz-): 0 found -
1 modified | TOTAL: 2 pass 1 (yz-): 8 found - 8
modified | TOTAL: 10 pass 2 (yz-): 0 found - 8 modified
TOTAL: 10 pass 1 (yz-): 6 found - 6 modified |
TOTAL: 16 pass 2 (yz-): 0 found - 6 modified | TOTAL:
16 pass 1 (xz-): 1 found - 1 modified | TOTAL: 17 pass
2 (xz-): 0 found - 1 modified | TOTAL: 17 pass 1 (xz-):
0 found - 0 modified | TOTAL: 17 Iteration Number : 1
pass 1 (+++): 0 found - 0 modified | TOTAL: 0 pass 1
(+++): 0 found - 0 modified | TOTAL: 0 pass 1 (+++):
0 found - 0 modified | TOTAL: 0 Iteration Number : 1
pass 1 (++): 1 found - 1 modified | TOTAL: 1 pass 2
(++): 0 found - 1 modified | TOTAL: 1 pass 1 (++): 1
found - 1 modified | TOTAL: 2 pass 2 (-+): 0 found -
1 modified | TOTAL: 2 pass 1 (-+): 1 found - 1
modified | TOTAL: 3 pass 2 (-+): 0 found - 1 modified
| TOTAL: 3 pass 1 (-+): 0 found - 0 modified |
TOTAL: 3 Iteration Number : 2
pass 1 (xy-): 0 found - 0 modified | TOTAL: 0 pass 1
(xy-): 0 found - 0 modified | TOTAL: 0 pass 1 (yz-):
0 found - 0 modified | TOTAL: 0 pass 1 (xz-): 0 found -
0 modified | TOTAL: 0 pass 1 (xz-): 0 found - 0 modified
| TOTAL: 0 Iteration Number : 2
pass 1 (+++): 0 found - 0 modified | TOTAL: 0 pass 1
(+++): 0 found - 0 modified | TOTAL: 0 pass 1 (+++):
0 found - 0 modified | TOTAL: 0 pass 1 (+++): 0 found -
0 modified | TOTAL: 0 Iteration Number : 2
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (-+): 0
found - 0 modified | TOTAL: 0 pass 1 (-+): 0 found - 0
modified | TOTAL: 0
Total Number of Modified Voxels = 20 (out of 257977: 0.007753) Ambiguous edge
configurations...

mri_preless done

##FFFTIME 2024:04:13:11:55:17 mri_preless N 4 e 1.27 S 0.03 U 1.35 P 100% M 40576 F 0 R 8807 M 0 c 6 w 3 I 0 O 244 L 2.01 2.02 2.18
##FFSLADPOST 2024:04:13:11:55:18 mri_preless N 4 L 2.01 2.02 2.18

mri_tassellate ../mri/filled-preless255.mgz 255 ../surf/lh.orig.nofix

7.4.1 7.4.1 slice 40: 646 vertices, 723 faces slice 50: 5513
vertices, 9728 faces slice 60: 12804 vertices, 13066 faces slice
70: 21521 vertices, 21844 faces slice 80: 30641 vertices, 30952
faces slice 90: 40342 vertices, 40632 faces slice 100: 50268
vertices, 50418 faces slice 110: 61717 vertices, 62090 faces
slice 120: 72312 vertices, 72881 faces slice 130: 82920 vertices,
83249 faces slice 140: 92831 vertices, 93147 faces slice 150:
101000 vertices, 101265 faces slice 160: 107845 vertices, 108085
faces slice 170: 114196 vertices, 114396 faces slice 180: 119454
vertices, 119644 faces slice 190: 123768 vertices, 123884 faces
slice 200: 124696 vertices, 124702 faces slice 210: 124696
vertices, 124702 faces slice 220: 124696 vertices, 124702 faces
slice 230: 124696 vertices, 124702 faces slice 240: 124696
vertices, 124702 faces slice 250: 124696 vertices, 124702 faces
using the contoured surface RAS to save vertex points... writing
../surf/lh.orig.nofix using vox2ras matrix:
-1.00000 0.00000 0.00000 128.00000;
0.00000 0.00000 1.00000 -128.00000;
0.00000 -1.00000 0.00000 128.00000;
0.00000 0.00000 0.00000 1.00000;
##FFFTIME 2024:04:13:11:55:18 mri_tassellate N 3 e 1.00 S 0.01 U 1.03 P 100% M 36480 F 6 R 8124 M 0 c 4 w 6 I 1000 O 5848 L 2.01 2.02 2.18
##FFSLADPOST 2024:04:13:11:55:19 mri_tassellate N 3 L 2.01 2.02 2.18 xm -f

../mri/filled-preless255.mgz

mris_extract_main_component ../surf/lh.orig.nofix ../surf/lh.orig.nofix

counting number of connected components...
124696 voxel in opt #1 X=6 [v=124696,e=374106,f=249404] located at (-29.126892, -17.235172, 24.296610)
For the whole surface: 1m6 [v=124696,e=374106,f=249404]
One single component has been found nothing to do
done

##FFFTIME 2024:04:13:11:55:19 mris_extract_main_component N 2 e 0.56 S 0.14 U 0.48 P 111% M 248388 F 18 R 65593 M 0 c 3 w 22 I 3440 O 8776 L 2.01 2.02 2.18
##FFSLADPOST 2024:04:13:11:55:20 mris_extract_main_component N 2 L 2.01 2.02 2.18
$-----
## Tassellate rh Sat Apr 13 11:55:30 UTC 2024
/home/jalhhatoa/mri_processed/014_8_4401/scripts mri_preless ../mri/filled.mgz 127
../mri/norm.mgz ../mri/filled-preless127.mgz

Iteration Number : 1
pass 1 (xy-): 0 found - 0 modified | TOTAL: 0 pass 1
(xy-): 0 found - 0 modified | TOTAL: 0 pass 1 (yz-):
10 found - 10 modified | TOTAL: 10 pass 2 (yz-): 0 found
- 10 modified | TOTAL: 10 pass 1 (yz-): 7 found - 7
modified | TOTAL: 17 pass 2 (yz-): 0 found - 7 modified
| TOTAL: 17 pass 1 (xz-): 0 found - 0 modified |
TOTAL: 17 pass 1 (xz-): 0 found - 0 modified | TOTAL:
17 Iteration Number : 1
pass 1 (+++): 0 found - 0 modified | TOTAL: 0 pass 1
(+++): 0 found - 0 modified | TOTAL: 0 pass 1 (+++):
0 found - 0 modified | TOTAL: 0 Iteration Number : 1
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (-+): 0
found - 0 modified | TOTAL: 0 pass 1 (-+): 0 found - 0
modified | TOTAL: 0 Iteration Number : 2
pass 1 (xy-): 0 found - 0 modified | TOTAL: 0 pass 1
(xy-): 0 found - 0 modified | TOTAL: 0 pass 1 (yz-):
0 found - 0 modified | TOTAL: 0 pass 1 (xz-): 0 found -
0 modified | TOTAL: 0 pass 1 (xz-): 0 found - 0 modified
| TOTAL: 0 Iteration Number : 2
pass 1 (+++): 0 found - 0 modified | TOTAL: 0 pass 1
(+++): 0 found - 0 modified | TOTAL: 0 pass 1 (+++):
0 found - 0 modified | TOTAL: 0 pass 1 (+++): 0 found -
0 modified | TOTAL: 0 Iteration Number : 2
pass 1 (++): 0 found - 0 modified | TOTAL: 0 pass 1
(++): 0 found - 0 modified | TOTAL: 0 pass 1 (-+): 0
found - 0 modified | TOTAL: 0 pass 1 (-+): 0 found - 0
modified | TOTAL: 0
Total Number of Modified Voxels = 17 (out of 255884: 0.006644) Ambiguous edge
configurations...

mri_preless done

##FFFTIME 2024:04:13:11:55:20 mri_preless N 4 e 1.10 S 0.03 U 1.19 P 110% M 40448 F 0 R 8806 M 0 c 5 w 3 I 0 O 240 L 2.01 2.02 2.18
##FFSLADPOST 2024:04:13:11:55:31 mri_preless N 4 L 2.01 2.02 2.18

mri_tassellate ../mri/filled-preless127.mgz 127 ../surf/rh.orig.nofix

7.4.1 7.4.1
slice 60: 940 vertices, 1031 faces slice 50: 5769 vertices, 6012
faces slice 40: 14204 vertices, 14495 faces slice 70: 23955
vertices, 24332 faces slice 80: 34388 vertices, 34743 faces slice
90: 44937 vertices, 44903 faces slice 100: 56076 vertices, 56464
faces slice 110: 66661 vertices, 67013 faces slice 120: 77174
vertices, 77508 faces slice 130: 86528 vertices, 86887 faces
slice 140: 95553 vertices, 95854 faces slice 150: 102656
vertices, 102909 faces slice 160: 108946 vertices, 109194 faces
slice 170: 114796 vertices, 115016 faces slice 180: 120056
vertices, 120244 faces slice 190: 123567 vertices, 123883 faces
slice 200: 124444 vertices, 124472 faces slice 210: 124444
vertices, 124472 faces slice 220: 124444 vertices, 124472 faces
slice 230: 124444 vertices, 124472 faces slice 240: 124444
vertices, 124472 faces slice 250: 124444 vertices, 124472 faces
using the contoured surface RAS to save vertex points... writing
../surf/rh.orig.nofix using vox2ras matrix:
-1.00000 0.00000 0.00000 128.00000;
0.00000 0.00000 1.00000 -128.00000;
0.00000 -1.00000 0.00000 128.00000;
0.00000 0.00000 0.00000 1.00000;
##FFFTIME 2024:04:13:11:55:31 mri_tassellate N 3 e 1.00 S 0.03 U 1.03 P 106% M 36608 F 0 R 8122 M 0 c 2 w 2 I 0 O 5840 L 2.01 2.02 2.18
##FFSLADPOST 2024:04:13:11:55:32 mri_tassellate N 3 L 2.01 2.02 2.18 xm -f

../mri/filled-preless127.mgz

mris_extract_main_component ../surf/rh.orig.nofix ../surf/rh.orig.nofix

counting number of connected components...
124444 voxel in opt #1 X=28 [v=124444,e=373416,f=248944] located at (27.699318, -20.447222, 24.331997)
For the whole surface: 1m6 [v=124444,e=373416,f=248944]
One single component has been found
nothing to do done
```

```
#####FSTIME 2024:04:13:11:55:32 mris_extract_main_component N 2 e 0.60 S 0.12 U 0.55 P 1212 M 247808 F O R 65509 W O c 3 w 6 I O O 8760 L 2.01 2.02 2.18
#####FSLADPOST 2024:04:13:11:55:33 mris_extract_main_component N 2 e 2.01 2.02 2.18
#-----##### Smooth1 lh Sat Apr 13 11:55:33 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/scripts mris_smooth -nw -seed 1234
../surf/lh.orig.nofix ../surf/lh.smoothm.nofix

setting seed for random number generator to 1234 smoothing surface
tessellation for 10 iterations...
smoothing complete - recomputing first and second fundamental forms...
#####FSTIME 2024:04:13:11:55:33 mris_smooth N 5 e 2.11 S 0.13 U 2.16 P 1081 M 198080 F O R 59334 W O c w 10 I 600 O 8776 L 2.01 2.02 2.18
#####FSLADPOST 2024:04:13:11:55:35 mris_smooth N 5 e 2.01 2.02 2.18
#-----#####
### Smooth1 rh Sat Apr 13 11:55:35 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/scripts mris_smooth -nw -seed 1234
../surf/rh.orig.nofix ../surf/rh.smoothm.nofix

setting seed for random number generator to 1234 smoothing surface tessellation
for 10 iterations... smoothing complete - recomputing first and second
fundamental forms...
#####FSTIME 2024:04:13:11:55:35 mris_smooth N 5 e 2.12 S 0.12 U 2.19 P 1081 M 197804 F O R 59269 W O c w 7 I O O 8760 L 2.01 2.02 2.18
#####FSLADPOST 2024:04:13:11:55:37 mris_smooth N 5 e 2.09 2.04 2.18
#-----#####
### Inflation1 lh Sat Apr 13 11:55:37 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/scripts mris_inflate -no-save-sulc
../surf/lh.smoothm.nofix ../surf/lh.inflated.nofix

Mot saving sulc
Reading ../surf/lh.smoothm.nofix
avg radius = 46.1 mm total surface area = 67093 mm^2
step 060: RMS=0.028 (target=0.015) writing inflated surface to ../surf/lh.inflated.nofix inflation took 0.2
minutes

inflation complete. Mot saving sulc
mris_inflate utiltimesec 16.849794
mris_inflate stimeusec 0.144117
mris_inflate ru_maxrss 197952
mris_inflate ru_ixrss 0 mris_inflate
ru_idrss 0 mris_inflate ru_isrss 0
mris_inflate ru_minflt 52787
mris_inflate ru_maxflt 22 mris_inflate
ru_nswap 0 mris_inflate ru_inblock
4016 mris_inflate ru_outblock 8776
mris_inflate ru_nagand 0 mris_inflate
ru_nagrov 0 mris_inflate ru_nsignals 0
mris_inflate ru_nvcsw 247
mris_inflate ru_nivcsw 38
#####FSTIME 2024:04:13:11:55:37 mris_inflate N 3 e 10.69 S 0.15 U 16.84 P 1591 M 198080 F 22 R 52792 W O c 38 w 248 I 4016 O 8776 L 2.09 2.04 2.18
#####FSLADPOST 2024:04:13:11:55:48 mris_inflate N 3 e 2.23 2.07 2.19
#-----#####
### Inflation1 rh Sat Apr 13 11:55:48 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/scripts mris_inflate -no-save-sulc
../surf/rh.smoothm.nofix ../surf/rh.inflated.nofix

Mot saving sulc
Reading ../surf/rh.smoothm.nofix
avg radius = 46.1 mm total surface area = 67093 mm^2
step 060: RMS=0.032 (target=0.015) writing inflated surface to ../surf/rh.inflated.nofix inflation took 0.2
minutes

inflation complete. Mot saving sulc
mris_inflate utiltimesec 16.897794
mris_inflate stimeusec 1.087531
mris_inflate ru_maxrss 198092
mris_inflate ru_ixrss 0 mris_inflate
ru_idrss 0 mris_inflate ru_isrss 0
mris_inflate ru_minflt 520344
mris_inflate ru_maxflt 0 mris_inflate
ru_nswap 0 mris_inflate ru_inblock 0
mris_inflate ru_outblock 8760
mris_inflate ru_nagand 0 mris_inflate
ru_nagrov 0 mris_inflate ru_nsignals 0
mris_inflate ru_nvcsw 227
mris_inflate ru_nivcsw 52
#####FSTIME 2024:04:13:11:55:48 mris_inflate N 3 e 11.53 S 1.09 U 16.89 P 1551 M 198092 F O R 520349 W O c 52 w 228 I 4016 O 8760 L 2.23 2.07 2.19
#####FSLADPOST 2024:04:13:11:55:59
#-----##### QSphere lh Sat Apr 13 11:55:59 UTC 2024
/home/jalbhatoa/mri_processed/014_8_4401/scripts mris_sphere -q -p 6 -a 128 -seed 1234
../surf/lh.inflated.nofix ../surf/lh.qsphere.nofix

doing quick spherical unfolding. Limiting
unfolding to 6 passes using n_averages =
128
setting seed for random number generator to 1234 version:
7.4.1 available threads: 2 scaling brain by 0.325...
inflating... projecting onto sphere... surface projected - minimizing metric
distortion... vertex spacing 1.04 +- 0.56 (0.00-->36.77) (max 8 vno 52067 -->
52071)
face area 0.03 +- 0.03 (-0.05-->0.74) Entering
MRIInflateToSphere() inflating to sphere (rms error <
2.00) 000: dt: 0.9000, rms radial error=176.709, avg=0
005/300: dt: 0.9000, rms radial error=176.447, avg=0
010/300: dt: 0.9000, rms radial error=175.888, avg=0
015/300: dt: 0.9000, rms radial error=175.132, avg=0
020/300: dt: 0.9000, rms radial error=174.314, avg=0
025/300: dt: 0.9000, rms radial error=173.427, avg=0
030/300: dt: 0.9000, rms radial error=172.507, avg=0
035/300: dt: 0.9000, rms radial error=171.570, avg=0
040/300: dt: 0.9000, rms radial error=170.626, avg=0
045/300: dt: 0.9000, rms radial error=169.679, avg=0
050/300: dt: 0.9000, rms radial error=168.732, avg=0
055/300: dt: 0.9000, rms radial error=167.789, avg=0
060/300: dt: 0.9000, rms radial error=166.849, avg=0
065/300: dt: 0.9000, rms radial error=165.913, avg=0
070/300: dt: 0.9000, rms radial error=164.982, avg=0
075/300: dt: 0.9000, rms radial error=164.056, avg=0
080/300: dt: 0.9000, rms radial error=163.135, avg=0
085/300: dt: 0.9000, rms radial error=162.216, avg=0
090/300: dt: 0.9000, rms radial error=161.307, avg=0
095/300: dt: 0.9000, rms radial error=160.400, avg=0
100/300: dt: 0.9000, rms radial error=159.499, avg=0
105/300: dt: 0.9000, rms radial error=158.603, avg=0
110/300: dt: 0.9000, rms radial error=157.711, avg=0
115/300: dt: 0.9000, rms radial error=156.827, avg=0
120/300: dt: 0.9000, rms radial error=155.947, avg=0
125/300: dt: 0.9000, rms radial error=155.071, avg=0
130/300: dt: 0.9000, rms radial error=154.201, avg=0
135/300: dt: 0.9000, rms radial error=153.335, avg=0
140/300: dt: 0.9000, rms radial error=152.474, avg=0
145/300: dt: 0.9000, rms radial error=151.618, avg=0
150/300: dt: 0.9000, rms radial error=150.767, avg=0
155/300: dt: 0.9000, rms radial error=149.920, avg=0
160/300: dt: 0.9000, rms radial error=149.078, avg=0
165/300: dt: 0.9000, rms radial error=148.240, avg=0
170/300: dt: 0.9000, rms radial error=147.407, avg=0
175/300: dt: 0.9000, rms radial error=146.578, avg=0
180/300: dt: 0.9000, rms radial error=145.754, avg=0
185/300: dt: 0.9000, rms radial error=144.935, avg=0
190/300: dt: 0.9000, rms radial error=144.120, avg=0
195/300: dt: 0.9000, rms radial error=143.310, avg=0
200/300: dt: 0.9000, rms radial error=142.504, avg=0
205/300: dt: 0.9000, rms radial error=141.702, avg=0
210/300: dt: 0.9000, rms radial error=140.905, avg=0
215/300: dt: 0.9000, rms radial error=140.112, avg=0
220/300: dt: 0.9000, rms radial error=139.324, avg=0
225/300: dt: 0.9000, rms radial error=138.540, avg=0
230/300: dt: 0.9000, rms radial error=137.761, avg=0
235/300: dt: 0.9000, rms radial error=136.985, avg=0
240/300: dt: 0.9000, rms radial error=136.214, avg=0
245/300: dt: 0.9000, rms radial error=135.448, avg=0
250/300: dt: 0.9000, rms radial error=134.685, avg=0
255/300: dt: 0.9000, rms radial error=133.927, avg=0
260/300: dt: 0.9000, rms radial error=133.173, avg=0
265/300: dt: 0.9000, rms radial error=132.423, avg=0
270/300: dt: 0.9000, rms radial error=131.678, avg=0
275/300: dt: 0.9000, rms radial error=130.936, avg=0
280/300: dt: 0.9000, rms radial error=130.199, avg=0
285/300: dt: 0.9000, rms radial error=129.466, avg=0
290/300: dt: 0.9000, rms radial error=128.737, avg=0
295/300: dt: 0.9000, rms radial error=128.012, avg=0 300/300: dt:
0.9000, rms radial error=127.291, avg=0

spherical inflation complete.
epoch 1 (R=10.0), pass 1, starting sse = 14317.70 taking
momentum steps... taking momentum steps... taking
momentum steps... taking momentum steps...
pass 1 complete, delta sse/iter = 0.21/30 = 0.00041 epoch 2
(R=40.0), pass 1, starting sse = 2201.83 taking momentum
steps... taking momentum steps... taking momentum steps...
taking momentum steps... pass 1 complete, delta sse/iter =
1.00/13 = 0.00032 epoch 3 (R=160.0), pass 1, starting sse =
172.99 taking momentum steps... taking momentum steps...
taking momentum steps... taking momentum steps...
pass 1 complete, delta sse/iter = 0.19/20 = 0.00091 epoch 4
(R=640.0), pass 1, starting sse = 4.43 taking momentum
steps... taking momentum steps... taking momentum steps...
taking momentum steps...
pass 1 complete, delta sse/iter = 0.24/30 = 0.00786 final
distance error 1600000.00 writing spherical brain to
../surf/lh.qsphere.nofix spherical transformation took
0.0208 hours FSSUNTIME8 mris_sphere 0.0208 hours 2 threads
#####FSTIME 2024:04:13:11:55:59 mris_sphere done
#####FSLADPOST 2024:04:13:11:55:59 mris_sphere N 9 e 74.95 S 7.90 U 117.32 P 1671 M 202904 F 11 R 3686073 M O c 294 w 1569 I 1584 O 8776 L 2.19 2.07 2.19
#####FSLADPOST 2024:04:13:11:55:14 mris_sphere N 9 e 2.58 2.20 2.22
#-----#####
### QSphere rh Sat Apr 13 11:57:14 UTC 2024 /home/jalbhatoa/mri_processed/014_8_4401/scripts
mris_sphere -q -p 6 -a 128 -seed 1234 ../surf/rh.inflated.nofix ../surf/rh.qsphere.nofix

doing quick spherical unfolding. Limiting
unfolding to 6 passes using n_averages =
128
setting seed for random number generator to 1234 version:
7.4.1 available threads: 2 scaling brain by 0.325...
inflating... projecting onto sphere... surface projected - minimizing metric
distortion... vertex spacing 1.04 +- 0.58 (0.00-->36.42) (max 8 vno 89286 -->
89287)
face area 0.03 +- 0.03 (-0.20-->0.52) Entering
MRIInflateToSphere() inflating to sphere (rms error <
2.00) 000: dt: 0.9000, rms radial error=176.367, avg=0
005/300: dt: 0.9000, rms radial error=176.108, avg=0
010/300: dt: 0.9000, rms radial error=175.552, avg=0
015/300: dt: 0.9000, rms radial error=174.820, avg=0
020/300: dt: 0.9000, rms radial error=173.987, avg=0
025/300: dt: 0.9000, rms radial error=173.098, avg=0
030/300: dt: 0.9000, rms radial error=172.176, avg=0
```



```
035/300: dt: 0.9000, rms radial error=171.238, avg=0
040/300: dt: 0.9000, rms radial error=170.282, avg=0
045/300: dt: 0.9000, rms radial error=169.345, avg=0
050/300: dt: 0.9000, rms radial error=168.400, avg=0
055/300: dt: 0.9000, rms radial error=167.459, avg=0
060/300: dt: 0.9000, rms radial error=166.521, avg=0
065/300: dt: 0.9000, rms radial error=165.588, avg=0
070/300: dt: 0.9000, rms radial error=164.661, avg=0
075/300: dt: 0.9000, rms radial error=163.738, avg=0
080/300: dt: 0.9000, rms radial error=162.821, avg=0
085/300: dt: 0.9000, rms radial error=161.908, avg=0
090/300: dt: 0.9000, rms radial error=161.000, avg=0
095/300: dt: 0.9000, rms radial error=160.097, avg=0
100/300: dt: 0.9000, rms radial error=159.200, avg=0
105/300: dt: 0.9000, rms radial error=158.307, avg=0
110/300: dt: 0.9000, rms radial error=157.419, avg=0
115/300: dt: 0.9000, rms radial error=156.536, avg=0
120/300: dt: 0.9000, rms radial error=155.658, avg=0
125/300: dt: 0.9000, rms radial error=154.784, avg=0
130/300: dt: 0.9000, rms radial error=153.916, avg=0
135/300: dt: 0.9000, rms radial error=153.052, avg=0
140/300: dt: 0.9000, rms radial error=152.193, avg=0
145/300: dt: 0.9000, rms radial error=151.339, avg=0
150/300: dt: 0.9000, rms radial error=150.489, avg=0
155/300: dt: 0.9000, rms radial error=149.643, avg=0
160/300: dt: 0.9000, rms radial error=148.803, avg=0
165/300: dt: 0.9000, rms radial error=147.967, avg=0
170/300: dt: 0.9000, rms radial error=147.135, avg=0
175/300: dt: 0.9000, rms radial error=146.308, avg=0
180/300: dt: 0.9000, rms radial error=145.485, avg=0
185/300: dt: 0.9000, rms radial error=144.667, avg=0
190/300: dt: 0.9000, rms radial error=143.853, avg=0
195/300: dt: 0.9000, rms radial error=143.044, avg=0
200/300: dt: 0.9000, rms radial error=142.239, avg=0
205/300: dt: 0.9000, rms radial error=141.438, avg=0
210/300: dt: 0.9000, rms radial error=140.642, avg=0
215/300: dt: 0.9000, rms radial error=139.850, avg=0
220/300: dt: 0.9000, rms radial error=139.063, avg=0
225/300: dt: 0.9000, rms radial error=138.280, avg=0
230/300: dt: 0.9000, rms radial error=137.501, avg=0
235/300: dt: 0.9000, rms radial error=136.726, avg=0
240/300: dt: 0.9000, rms radial error=135.956, avg=0
245/300: dt: 0.9000, rms radial error=135.190, avg=0
250/300: dt: 0.9000, rms radial error=134.429, avg=0
255/300: dt: 0.9000, rms radial error=133.671, avg=0
260/300: dt: 0.9000, rms radial error=132.918, avg=0
265/300: dt: 0.9000, rms radial error=132.169, avg=0
270/300: dt: 0.9000, rms radial error=131.424, avg=0
275/300: dt: 0.9000, rms radial error=130.684, avg=0
280/300: dt: 0.9000, rms radial error=129.947, avg=0
285/300: dt: 0.9000, rms radial error=129.215, avg=0
290/300: dt: 0.9000, rms radial error=128.487, avg=0
295/300: dt: 0.9000, rms radial error=127.763, avg=0 300/300: dt:
0.9000, rms radial error=127.043, avg=0

spherical inflation complete.
epoch 1 (S=10.0), pass 1, starting sse = 14257.83 taking
momentum steps... taking momentum steps... taking momentum
steps... taking momentum steps... pass 1 complete, delta
sse/iter = 0.01/13 = 0.00044 epoch 2 (S=40.0), pass 1,
starting sse = 3204.21 taking momentum steps... taking
momentum steps... taking momentum steps... taking momentum
steps...
pass 1 complete, delta sse/iter = 0.01/13 = 0.00051 epoch 3
(S=160.0), pass 1, starting sse = 183.78 taking momentum
steps... taking momentum steps... taking momentum steps...
taking momentum steps...
pass 1 complete, delta sse/iter = 0.16/15 = 0.01078 epoch 4
(S=640.0), pass 1, starting sse = 6.12 taking momentum
steps... taking momentum steps... taking momentum steps...
taking momentum steps...
pass 1 complete, delta sse/iter = 0.14/20 = 0.00711 final
distance error %100000.00 writing spherical brain to
./surf/zh.gsphere.norix spherical transformation took
0.0186 hours PSCRIPTING mris sphere. 0.0186 hours 2 threads
RWMPCH mris sphere VhWeak 521720 mris_sphere done
##PSCRIPTING 2024:04:13:11:58:15 mris_sphere N 9 = 70.57 S 11.73 U 102.08 P 161x M 202600 F O R 5736452 M 0 c 299 w 1314 I 0 O 8760 L 2.58 2.20 2.22 ##PFLADPOST 2024:04:13:11:58:25
mris_sphere N 9 2.71 2.32 12.26
## Fix Topology 1h Sat Apr 13 11:58:25 UTC 2024 mris_fix_topology -mgs -sphere gsphere.norix -inflated inflated.norix -orig orig.norix -out orig.premesh

-gs -seed 1234 014_g_4401 1h

reading spherical homeomorphism from 'gsphere.norix' reading
inflated coordinates from 'inflated.norix' reading original
coordinates from 'orig.norix' using genetic algorithm with
optimized parameters setting seed for random number
generator to 1234

***** Topology
Correction Parameters retessellation mode: genetic search
number of patches/generation : 10 number of generations : 10
surface mri loglikelihood coefficient : 1.0 volume mri
loglikelihood coefficient : 10.0 normal dot loglikelihood
coefficient : 1.0 quadratic curvature loglikelihood
coefficient : 1.0 volume resolution : 2
eliminate vertices during search : 1 initial patch
selection : 1 select all defect vertices :
ordering dependant retessellation: 0 use precomputed
edge table : 0 smooth retessellated patch :
2 match retessellated patch : 1 verbose mode :
0

***** INFO: assuming
.mps format
writing corrected surface to 'orig.premesh'
7.4.1 7.4.1 before topology correction, eno=-6 (nv=124696, nf=249404, na=374106,
g=4) using quasi-homeomorphic spherical map to tessellate cortical surface...

Correction of the Topology
Finding true center and radius of Spherical Surface...done Surface
centered at (0,0,0) with radius 100.0 in 7 iterations marking ambiguous
vertices... 909 ambiguous faces found in tessellation segmenting
defects...
13 defects found, arbitrating ambiguous regions...
analyzing neighboring defects...
13 defects to be corrected 0 vertices coincident reading input surface
/home/jalbhata/mri_processed/014_g_4401/surf/1h.gsphere.norix... reading brain volume from brain...
reading wm segmentation from wm... Reading original properties of orig.norix
Reading vertex positions of inflated.norix
Computing Initial Surface Statistics
-face loglikelihood: -9.4408 (-4.7204)
-vertex loglikelihood: -6.8973 (-3.3487)
-normal dot loglikelihood: -3.6722 (-3.6722)
-quad curv loglikelihood: -6.1724 (-3.0862)
Total Loglikelihood: -25.9827
CORRECTING DEFECT 0 (vertices=7, convex hull=73, vo=50908)
After retessellation of defect 0 (vo=50908), euler #=9 (124137,372217,248071) : difference with theory (-10) = -1
CORRECTING DEFECT 1 (vertices=5, convex hull=26, vo=59963)
After retessellation of defect 1 (vo=59963), euler #=-8 (124139,372229,248082) : difference with theory (-9) = -1
CORRECTING DEFECT 2 (vertices=6, convex hull=46, vo=60277)
After retessellation of defect 2 (vo=60277), euler #=-7 (124151,372290,248132) : difference with theory (-8) = -1
CORRECTING DEFECT 3 (vertices=10, convex hull=18, vo=68605)
After retessellation of defect 3 (vo=68605), euler #=-6 (124153,372302,248143) : difference with theory (-7) = -1
CORRECTING DEFECT 4 (vertices=43, convex hull=77, vo=74093)
After retessellation of defect 4 (vo=74093), euler #=-5 (124166,372372,248201) : difference with theory (-6) = -1
CORRECTING DEFECT 5 (vertices=4, convex hull=40, vo=82920)
After retessellation of defect 5 (vo=82920), euler #=-4 (124167,372380,248209) : difference with theory (-5) = -1
CORRECTING DEFECT 6 (vertices=99, convex hull=91, vo=83507)
After retessellation of defect 6 (vo=83507), euler #=-4 (124202,372394,248328) : difference with theory (-4) = 0
CORRECTING DEFECT 7 (vertices=52, convex hull=31, vo=85119)
After retessellation of defect 7 (vo=85119), euler #=-3 (124210,372567,248394) : difference with theory (-3) = 0
CORRECTING DEFECT 8 (vertices=6, convex hull=17, vo=85818)
After retessellation of defect 8 (vo=85818), euler #=-2 (124212,372576,248362) : difference with theory (-2) = 0
CORRECTING DEFECT 9 (vertices=19, convex hull=15, vo=86037)
After retessellation of defect 9 (vo=86037), euler #=-1 (124215,372593,248377) : difference with theory (-1) = 0
CORRECTING DEFECT 10 (vertices=201, convex hull=75, vo=86744)
After retessellation of defect 10 (vo=86744), euler #=0 (124240,372694,248454) : difference with theory (0) = 0
CORRECTING DEFECT 11 (vertices=43, convex hull=34, vo=92455)
After retessellation of defect 11 (vo=92455), euler #=1 (124243,372709,248467) : difference with theory (1) = 0
CORRECTING DEFECT 12 (vertices=24, convex hull=39, vo=93762)
After retessellation of defect 12 (vo=93762), euler #=2 (124246,372732,248488) : difference with theory (2) = 0 computing
original vertex metric properties... storing new metric properties... computing tessellation statistics... vertex spacing 0.88
+- 0.21 (0.15-->0.05) (max 8 vno 85358 --> 86341) face area -nan +- -nan (1000.00-->-1.00) performing snap bubble on
retessellated vertices for 0 iterations... vertex spacing 0.88 +- 0.21 (0.15-->0.05) (max 8 vno 85358 --> 86341) face area -nan
+- -nan (1000.00-->-1.00) tessellation finished, orienting corrected surface...
55 mutations (36.7%), 93 crossovers (63.3%), 17 vertices were eliminated building final
representation...
450 vertices and 0 faces have been removed from triangulation after topology correction, eno=-6 (nv=124246,
nf=248488, na=372732, g=0) writing corrected surface to
/home/jalbhata/mri_processed/014_g_4401/surf/1h.orig.premesh...

0.000 % of the vertices (0 vertices) exhibit an orientation change removing
intersecting faces
000: 49 intersecting 001: 2 intersecting
terminating search with 0 intersecting
topology fixing took 0.6 minutes
PSCRIPTING mris_fix_topology 1h 0.0094 hours 2 threads
RWMPCH mris_fix_topology VhWeak 815224
##PSCRIPTING 2024:04:13:11:58:19 mris_fix_topology N 14 = 33.77 S 0.40 U 55.95 P 167x M 731752 F 17 R 216871 M 0 c 89 w 52 I 2088 O 1672 L 2.71 2.32 2.26
##PFLADPOST 2024:04:13:11:58:19 mris_fix_topology N 14 2.79 2.38 2.29
## Fix Topology 1h Sat Apr 13 11:58:19 UTC 2024 mris_fix_topology -mgs -sphere gsphere.norix -inflated inflated.norix -orig orig.norix -out orig.premesh

-gs -seed 1234 014_g_4401 1h

reading spherical homeomorphism from 'gsphere.norix' reading
inflated coordinates from 'inflated.norix' reading original
coordinates from 'orig.norix' using genetic algorithm with
optimized parameters setting seed for random number
generator to 1234

***** Topology
Correction Parameters retessellation mode: genetic search
number of patches/generation : 10 number of generations : 10
surface mri loglikelihood coefficient : 1.0 volume mri
loglikelihood coefficient : 10.0 normal dot loglikelihood
coefficient : 1.0 quadratic curvature loglikelihood
coefficient : 1.0 volume resolution : 1 initial patch
eliminate vertices during search : 1 select all defect vertices :
selection : 1 select all defect vertices :
ordering dependant retessellation: 0 use
precomputed edge table : 0 smooth
retessellated patch : 2 match
retessellated patch : 1 verbose mode :
0

***** INFO: assuming
.mps format
```

writing corrected surface to 'orig.premesh' 7.4.1 7.4.1 before topology correction,
snow=2 (now=12444, cf=24584, new=373416, g=15) using quasi-homomorphic spherical map
to tessellate cortical surface...

Correction of the Topology

Finding true center and radius of Spherical Surface...done Surface centered
at (0,0,0) with radius 100.0 in 10 iterations marking ambiguous vertices...

1767 ambiguous faces found in tessellation segmenting
defects...

16 defects found, arbitrating ambiguous regions...
analyzing neighboring defects... -merging

segment 21 into 10
23 defects to be corrected 0 vertices coincident reading input surface

/home/jalbhatoa/mri_processed/014_8_4401/surf/rh.sphere.nofix... reading brain volume from brain...

reading um segmentation from wm... Reading original properties of orig.nofix
Reading vertex positions of inflated.nofix

Computing Initial Surface Statistics

-face loglikelihood: -9.2001 (-1.7300)
-vertex loglikelihood: -6.8905 (-3.3452)
-normal dot loglikelihood: -3.6640 (-3.6640)
-quad curv loglikelihood: -6.1418 (-3.0709)
Total Loglikelihood: -25.9983

CORRECTING DEFECT 0 (vertices=36, convex hull=26, v0=38276)
After retessellation of defect 0 (v0=38276), euler #=-20 (123346,369552,246186) : difference with theory (-20) = 0

CORRECTING DEFECT 1 (vertices=23, convex hull=37, v0=41109)
After retessellation of defect 1 (v0=41109), euler #=-19 (123350,369576,246207) : difference with theory (-19) = 0

CORRECTING DEFECT 2 (vertices=04, convex hull=61, v0=45215)
After retessellation of defect 2 (v0=45315), euler #=-18 (123364,369640,246258) : difference with theory (-18) = 0

CORRECTING DEFECT 3 (vertices=6, convex hull=27, v0=54391)
After retessellation of defect 3 (v0=54391), euler #=-17 (123366,369653,246270) : difference with theory (-17) = 0

CORRECTING DEFECT 4 (vertices=7, convex hull=23, v0=56780)
After retessellation of defect 4 (v0=56780), euler #=-16 (123367,369662,246279) : difference with theory (-16) = 0

CORRECTING DEFECT 5 (vertices=7, convex hull=44, v0=78091)
After retessellation of defect 5 (v0=79091), euler #=-15 (123369,369674,246290) : difference with theory (-15) = 0

CORRECTING DEFECT 6 (vertices=71, convex hull=84, v0=82317)
After retessellation of defect 6 (v0=82317), euler #=-14 (123378,369735,246343) : difference with theory (-14) = 0

CORRECTING DEFECT 7 (vertices=97, convex hull=90, v0=82758)
After retessellation of defect 7 (v0=82758), euler #=-13 (123416,369886,246457) : difference with theory (-13) = 0

CORRECTING DEFECT 8 (vertices=13, convex hull=17, v0=84390)
After retessellation of defect 8 (v0=84390), euler #=-12 (123419,369900,246469) : difference with theory (-12) = 0

CORRECTING DEFECT 9 (vertices=109, convex hull=121, v0=84420)
After retessellation of defect 9 (v0=84622), euler #=-11 (123462,370082,246609) : difference with theory (-11) = 0 CORRECTING DEFECT 10

(vertices=38, convex hull=49, v0=87264)
After retessellation of defect 9 (v0=87264), euler #=-10 (123474,370136,246652) : difference with theory (-10) = 0 CORRECTING DEFECT 11

(vertices=43, convex hull=89, v0=89288)
After retessellation of defect 11 (v0=89288), euler #=-9 (123490,370215,246716) : difference with theory (-9) = 0

CORRECTING DEFECT 12 (vertices=8, convex hull=61, v0=89333)
After retessellation of defect 12 (v0=89333), euler #=-8 (123492,370226,246726) : difference with theory (-8) = 0

CORRECTING DEFECT 13 (vertices=60, convex hull=79, v0=90491)
After retessellation of defect 13 (v0=90491), euler #=-7 (123520,370344,246817) : difference with theory (-7) = 0

CORRECTING DEFECT 14 (vertices=195, convex hull=46, v0=91180)
After retessellation of defect 14 (v0=91180), euler #=-7 (123530,370395,246858) : difference with theory (-6) = 1

CORRECTING DEFECT 15 (vertices=66, convex hull=49, v0=91321)
After retessellation of defect 15 (v0=91321), euler #=-6 (123543,370463,246914) : difference with theory (-5) = 1

CORRECTING DEFECT 16 (vertices=17, convex hull=59, v0=92900)
After retessellation of defect 16 (v0=92900), euler #=-5 (123563,370551,246983) : difference with theory (-4) = 1

CORRECTING DEFECT 17 (vertices=30, convex hull=55, v0=94016)
After retessellation of defect 17 (v0=94016), euler #=-4 (123572,370596,247022) : difference with theory (-3) = 1

CORRECTING DEFECT 18 (vertices=20, convex hull=47, v0=95322)
After retessellation of defect 18 (v0=95322), euler #=-3 (123581,370641,247057) : difference with theory (-2) = 1

CORRECTING DEFECT 19 (vertices=2, convex hull=22, v0=96744)
After retessellation of defect 19 (v0=96744), euler #=-2 (123586,370664,247076) : difference with theory (-1) = 1 CORRECTING DEFECT 20

(vertices=53, convex hull=107, v0=98973)
After retessellation of defect 20 (v0=98973), euler #=0 (123615,370794,247179) : difference with theory (0) = 0 CORRECTING DEFECT 21

(vertices=26, convex hull=75, v0=104298)
After retessellation of defect 21 (v0=104298), euler #=1 (123827,370859,247233) : difference with theory (1) = 0

CORRECTING DEFECT 22 (vertices=3, convex hull=44, v0=113265)
After retessellation of defect 22 (v0=113265), euler #=2 (123851,370947,247298) : difference with theory (2) = 0 computing

original vertex metric properties... storing new metric properties... computing tessellation statistics... vertex spacing 0.89 +-
0.21 (0.05--11.09) (max 8 vno 90731 --> 96059) face area -nan +- -nan (1000.00-->1.00) performing seag bubble on retessellated

faces for 0 iterations... vertex spacing 0.89 +- 0.22 (0.05--11.09) (max 8 vno 90731 --> 96059) face area -nan +- -nan
(1000.00-->1.00) tessellate final building orienting corrected surface...

81 mutations (34.3%), 155 crossovers (65.7%), 62 vertices were eliminated building final
representation...

793 vertices and 0 faces have been removed from triangulation after topology correction, snow=2 (now=123651,
nf=247298, new=370947, g=0) writing corrected surface to

/home/jalbhatoa/mri_processed/014_8_4401/surf/rh.orig.premesh...

0.009 % of the vertices (0 vertices) exhibit an orientation change removing
intersecting faces

000: 164 intersecting 001: 3
intersecting

terminating search with 0 intersecting topology fixing
took 0.9 minutes

FININTIME mri_fix_topology rh 0.0148 hours 2 threads

FWMC8 mri_fix_topology Wbmc 815120

##FFSTIME 2024:04:13:11:58:59 mri_fix_topology N 14 e 53.25 S 0.45 U 94.81 P 1789 M 731572 F 0 R 216626 W 0 c 90 W 5 I 0 O 11624 L 2.79 2.38 2.29

##FFSLADPOST 2024:04:13:11:59:52 mri_fix_topology N 14 2.76 2.44 2.31 mri_euler_number

../surf/lh.orig.premesh

euler # = v-e+f = 2g-2: 124246 - 372732 + 248488 = 2 --> 0 holes
F = 2V-4i: 248488 = 248492-4 (0)

2E=3F: 745464 = 745464 (0) total defect

index = 0 mri_euler_number ../surf/rh.orig.premesh

euler # = v-e+f = 2g-2: 123651 - 370947 + 247298 = 2 --> 0 holes
F = 2V-4i: 247298 = 247302-4 (0) 2E=3F:

741894 = 741894 (0)

total defect index = 0 Sat Apr 13
11:59:53 UTC 2024

setenv SUBJECTS_DIR /home/jalbhatoa/mri_processed cd
/home/jalbhatoa/mri_processed/014_8_4401/scripts

/usr/local/freesurfer/7.4.1/bin/defect2seg --s 014_8_4401 --cortex

freesurfer-linux-ubuntu22 x86_64-7.4.1-12023061a-7ab8460 defect2seg 7.4.1

Linux vm4-jb-3d--mri--pre-processing 6.5.0-1016-gcp #16-22.04.1-Ubuntu SMP Sat Mar 9 00:58:37 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux pid 4985 mri_label2label --label=cortex /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig.nofix

/home/jalbhatoa/mri_processed/014_8_4401/mri/aseg-presurf.mgs 0 /home/jalbhatoa/mri_processed/014_8_4401/label/lh.nofix.cortex.label

Generating cortex label... RemoveIphmg=0
NucOkCfMedialWall=0 mri-v-useRealIAB=0

15 non-cortical segments detected only using
segment with 7412 vertices erasing segment 1

(vno[0] = 70495) erasing segment 2 (vno[0] = 74851)
erasing segment 3 (vno[0] = 74441)

erasing segment 4 (vno[0] = 83288) erasing
segment 5 (vno[0] = 86738) erasing segment 6

(vno[0] = 86744) erasing segment 7 (vno[0] =
87728) erasing segment 8 (vno[0] = 87744)

erasing segment 9 (vno[0] = 87819) erasing
segment 10 (vno[0] = 88730) erasing segment 11

(vno[0] = 88939) erasing segment 12
(vno[0] = 89846) erasing segment 13 (vno[0] =

90741) erasing segment 14 (vno[0] = 96946)
mri_label2vol --defects /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig.nofix /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.defect_labels /home/jalbhatoa/mri_processed/014_8_4401/mri/orig.mgs 1000 0 /home/jalbhatoa/mri_processed/014_8_4401/mri/ surface.defects.mgs

/home/jalbhatoa/mri_processed/014_8_4401/label/lh.nofix.cortex.label mri_label2vol supposed to be reproducible but seed not set

Constraining to label /home/jalbhatoa/mri_processed/014_8_4401/label/lh.nofix.cortex.label

Changing input type 0 to MGI_DCT

Converting defects to volume: offset=1000, merge=0

Writing to /home/jalbhatoa/mri_processed/014_8_4401/mri/surface.defects.mgs

mri_defects.pointset -s /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig.nofix -d /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.defect_labels -o /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.defects.pointset --label /home/jalbhatoa/mri_proce

seed/014_8_4401/label/lh.nofix.cortex.label

Reading in surface /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig.nofix

Reading in defect segmentation /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.defect_labels

Reading in label /home/jalbhatoa/mri_processed/014_8_4401/label/lh.nofix.cortex.label

FWMC8 mri_defects.pointset 258792 mri_defects.pointset done

Generating cortex label... RemoveIphmg=0
NucOkCfMedialWall=0 mri-v-useRealIAB=0

16 non-cortical segments detected only using
segment with 7287 vertices erasing segment 1

(vno[0] = 54452) erasing segment 2 (vno[0] =
56813) erasing segment 3 (vno[0] = 57931)

erasing segment 4 (vno[0] = 59959) erasing
segment 5 (vno[0] = 59989) erasing segment 6

(vno[0] = 75844) erasing segment 7 (vno[0] =
79521) erasing segment 8 (vno[0] = 90164)

erasing segment 9 (vno[0] = 91389) erasing
segment 10 (vno[0] = 93748) erasing segment 11

(vno[0] = 93748) erasing segment 12
(vno[0] = 94570) erasing segment 13 (vno[0] =

108123) erasing segment 14 (vno[0] =
109333) erasing segment 15 (vno[0] = 111698)

mri_label2vol --defects /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.orig.nofix /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.defect_labels /home/jalbhatoa/mri_processed/014_8_4401/mri/surface.defects.mgs 2000 1 /home/jalbhatoa/mri_processed/014_8_4401/mri/ surface.defects.mgs

014_8_4401/label/rh.nofix.cortex.label mri_label2vol supposed to be reproducible but seed not set

Constraining to label /home/jalbhatoa/mri_processed/014_8_4401/label/rh.nofix.cortex.label

Converting defects to volume: offset=2000, merge=1

Writing to /home/jalbhatoa/mri_processed/014_8_4401/mri/surface.defects.mgs

mri_defects.pointset -s /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.orig.nofix -d /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.defect_labels -o /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.defects.pointset --label /home/jalbhatoa/mri_proce

seed/014_8_4401/label/rh.nofix.cortex.label

Reading in surface /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.orig.nofix

Reading in defect segmentation /home/jalbhatoa/mri_processed/014_8_4401/surf/rh.defect_labels

Reading in label /home/jalbhatoa/mri_processed/014_8_4401/label/rh.nofix.cortex.label

FWMC8 mri_defects.pointset 258792 mri_defects.pointset done

Started at Sat Apr 13 11:59:53 UTC 2024

Ended at Sat Apr 13 12:00:17 UTC 2024

Defect2seg-Run-Time-Sec 24

Defect2seg-Run-Time-Min 0.48

Defect2seg-Run-Time-Hours 0.01

chmeditv 014_8_4401 brain.finalsurfs.mgs --defect defect2seg Done

##FFSTIME 2024:04:13:12:00:17 mri_remesh N 3 e 24.01 S 0.48 U 25.31 P 1039 M 717368 F 22 R 274683 W 0 c 46 W 32 I 3656 O 9136 L 2.57 2.42 2.31

##FFSLADPOST 2024:04:13:12:00:17 mri_remesh N 3 2.57 2.42 2.31

mri_remesh --remesh -iters 3 --input /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig.premesh --output /home/jalbhatoa/mri_processed/014_8_4401/surf/lh.orig

iters = 3 standard remeshing without target adjusted 1:

0.707462 remeshing to edge length 0.707462 with 3

iterations avg qual before : 0.892656 after: 0.97107

Removing intersections

Remeshed surface quality stats nV0 = 124246 nV = 129904 1.04554

Area 259804 0.30002 0.03351 0.062605 0.5197

Cortex 779412 60.00000 8.81778 13.48787 151.4419

Edge 389706 0.84035 0.08223 0.457902 1.2553 Hinge

389706 9.55024 10.77272 0.00001 130.4315 mri_remesh done

##FFSTIME 2024:04:13:12:00:17 mri_remesh N 7 e 25.04 S 0.48 U 25.31 P 1039 M 717368 F 22 R 274683 W 0 c 46 W 32 I 3656 O 9136 L 2.57 2.42 2.31

##FFSLADPOST 2024:04:13:12:00:17 mri_remesh N 7 2.57 2.42 2.31

../surf/lh.orig.premesh

```
iters = 3 standard remeshing without target    adjusted 1:
0.70275 remeshing to edge length 0.70275 with 3
iterations avg qual before   1 0.892382 after: 0.971326

Removing intersections
Remeshed surface quality stats nV0 = 123651  nv = 129260  1.04536
Area   258516  0.30053  0.03348  0.075541  0.4838
Curves 775548 40.00000  8.77843 17.24923 144.7357
Edges   387774  0.84098  0.98186 1.469073  1.3070 Hinge
387774  9.52231 10.25881 0.000000 147.9457 mris_remove_dome
#####FSTIME 2024:04:13:12:01:09 mris_remove_intersection N 2 e 4.06 S 0.17 U 3.98 P 102% M 74824 F 0 R 270843 W 0 c 9 w 15 I 0 O 9096 L 2.37 2.38 2.30
#####FLGADPOST 2024:04:13:12:01:09 mris_remove_intersection N 7 2.25 2.35 2.29
/home/jalbhatao/mri_processed/014_8_4401/scripts mris_remove_intersection

../surf/lh.orig ../surf/lh.orig

Intersection removal took 0.00 hours Found 0
Intersections
writing corrected surface to ../surf/lh.orig
#####FSTIME 2024:04:13:12:01:09 mris_remove_intersection N 2 e 4.06 S 0.17 U 3.98 P 102% M 323816 F 21 R 93509 W 0 c 9 w 23 I 3952 O 9136 L 2.25 2.35 2.29
#####FLGADPOST 2024:04:13:12:01:13 mris_remove_intersection N 2 2.23 2.35 2.29  rm -f

../surf/lh.inflated

/home/jalbhatao/mri_processed/014_8_4401/scripts mris_remove_intersection

../surf/rh.orig ../surf/rh.orig

Intersection removal took 0.00 hours Found 0
Intersections
writing corrected surface to ../surf/rh.orig
#####FSTIME 2024:04:13:12:01:13 mris_remove_intersection N 2 e 4.09 S 0.19 U 4.02 P 102% M 320624 F 0 R 92697 W 0 c 21 w 6 I 0 O 9096 L 2.23 2.35 2.29
#####FLGADPOST 2024:04:13:12:01:17 mris_remove_intersection N 2 2.21 2.34 2.28  rm -f

../surf/rh.inflated

#####
AutoDetOnWstats lh Sat Apr 13 12:01:17 UTC 2024 cd
/home/jalbhatao/mri_processed/014_8_4401/mri
mris_autodet_gwstats --no ../surf/autodet.gw.stats.lh.dat --i brain.finalsurfs.mgz --vm vm.mgz --surf ../surf/lh.orig.premesh
7.4.1

cd /home/jalbhatao/mri_processed/014_8_4401/mri setenv SUBJECTS_DIR /home/jalbhatao/mri_processed mris_autodet_gwstats --no
../surf/autodet.gw.stats.lh.dat --i brain.finalsurfs.mgz --vm vm.mgz --surf ../surf/lh.orig.premesh

border white: 231730 voxels (1.38%) border gray
259803 voxels (1.55%)
Reading in intensity volume brain.finalsurfs.mgz
Reading in vm volume vm.mgz
Reading in surf ../surf/rh.orig.premesh
Auto detecting stats
MRIClipBrightMM(): nthresh=41599, wmin=5, clip=110 Binarizing
thresholding at 5
computing class statistics... low=30, hi=110.000000
CCS VM (98.0): 97.9 +- 8.8 [70.0 -> 110.0] CCS GM
(73.0) : 72.6 +- 11.1 [30.0 -> 110.0]
white_mean = 97.9439 +/- 8.76123, gray_mean = 72.5759 +/- 11.0839 using
class modes instead of means, discounting robust sigmas...
MRIScomputeClassModes(): mri=0 max=211 mins=222 intensity peaks found at
MM=102%-6.1, CM=69%-7.8 white_mode = 102, gray_mode = 69
std_scale = 1
Applying sanity checks, max_scale_down = 0.2 setting
MIN_GRAY_AT_WHITE_BORDER to 57.9 (was 70.000000) setting
MAX_BORDER_WHITE to 110.8 (was 105.000000) setting
MIN_BORDER_WHITE to 69.0 (was 85.000000) setting MAX_CSP to 46.8
(was 40.000000) setting MAX_GRAY to 93.2 (was 95.000000)
setting MAX_GRAY_AT_CSP_BORDER to 57.9 (was 75.000000) setting
MIN_GRAY_AT_CSP_BORDER to 35.7 (was 40.000000) When placing the
white surface white_border_hl = 110.761; white_border_low
= 69; white_outside_low = 57.9161; white_inside_hl = 120;
white_outside_hl = 110.761; When placing the pial surface
pial_border_hl = 37.9161; pial_border_low = 35.7484;
pial_outside_low = 10; pial_inside_hl = 93.2388;
pial_outside_hl = 52.3742;
FWMCF mris_autodet_gwstats VmPeak 306708 mris_autodet_gwstats done
#####FSTIME 2024:04:13:12:01:17 mris_autodet_gwstats N 8 e 2.83 S 0.14 U 2.94 P 109% M 226100 F 24 R 63976 W 0 c 10 w 27 I 4576 O 8 L 2.21 2.34 2.28
#####FLGADPOST 2024:04:13:12:01:20 mris_autodet_gwstats N 8 2.21 2.34 2.28
#####
AutoDetOnWstats rh Sat Apr 13 12:01:20 UTC 2024 cd
/home/jalbhatao/mri_processed/014_8_4401/mri
mris_autodet_gwstats --no ../surf/autodet.gw.stats.rh.dat --i brain.finalsurfs.mgz --vm vm.mgz --surf ../surf/rh.orig.premesh
7.4.1

cd /home/jalbhatao/mri_processed/014_8_4401/mri setenv SUBJECTS_DIR /home/jalbhatao/mri_processed mris_autodet_gwstats --no
../surf/autodet.gw.stats.rh.dat --i brain.finalsurfs.mgz --vm vm.mgz --surf ../surf/rh.orig.premesh

border white: 231730 voxels (1.38%) border gray
259803 voxels (1.55%)
Reading in intensity volume brain.finalsurfs.mgz
Reading in vm volume vm.mgz
Reading in surf ../surf/rh.orig.premesh
Auto detecting stats
MRIClipBrightMM(): nthresh=41599, wmin=5, clip=110 Binarizing
thresholding at 5
computing class statistics... low=30, hi=110.000000
CCS VM (98.0): 97.9 +- 8.8 [70.0 -> 110.0] CCS GM
(73.0) : 72.6 +- 11.1 [30.0 -> 110.0]
white_mean = 97.9439 +/- 8.76123, gray_mean = 72.5759 +/- 11.0839 using
class modes instead of means, discounting robust sigmas...
MRIScomputeClassModes(): mri=0 max=211 mins=222 intensity peaks found at
MM=103%-7.8, CM=68%-9.6 white_mode = 103, gray_mode = 68
std_scale = 1
Applying sanity checks, max_scale_down = 0.2 setting
MIN_GRAY_AT_WHITE_BORDER to 56.9 (was 70.000000) setting
MAX_BORDER_WHITE to 111.8 (was 105.000000) setting
MIN_BORDER_WHITE to 68.0 (was 85.000000) setting MAX_CSP to 45.8
(was 40.000000) setting MAX_GRAY to 94.2 (was 95.000000)
setting MIN_GRAY_AT_CSP_BORDER to 34.7 (was 40.000000) When placing the
white surface white_border_hl = 111.761; white_border_low
= 69; white_outside_low = 56.9161; white_inside_hl = 120;
white_outside_hl = 111.761; When placing the pial surface
pial_border_hl = 56.9161;
pial_border_low = 34.7484;
pial_outside_low = 10;
pial_inside_hl = 94.2388;
pial_outside_hl = 51.3742;
FWMCF mris_autodet_gwstats VmPeak 306036 mris_autodet_gwstats done
#####FSTIME 2024:04:13:12:01:20 mris_autodet_gwstats N 8 e 2.83 S 0.14 U 2.97 P 110% M 225436 F 0 R 66882 W 0 c 8 w 9 I 0 O 8 L 2.21 2.34 2.28
#####FLGADPOST 2024:04:13:12:01:23 mris_autodet_gwstats N 8 2.19 2.33 2.28
#####
WhitePreaparc lh Sat Apr 13 12:01:23 UTC 2024 cd
/home/jalbhatao/mri_processed/014_8_4401/mri
mris_place_surface --adgs-in ../surf/autodet.gw.stats.lh.dat --vm vm.mgz --threads 2 --invol brain.finalsurfs.mgz --lh --i ../surf/lh.orig --no ../surf/lh.white.preaparc --white --seg aseg.presurf.mgz --nsmooth 5
7.4.1

cd /home/jalbhatao/mri_processed/014_8_4401/mri setenv SUBJECTS_DIR /home/jalbhatao/mri_processed mris_place_surface --adgs-in ../surf/autodet.gw.stats.lh.dat --vm vm.mgz --threads 2 --invol brain.finalsurfs.mgz --lh --i ../surf/lh.orig --no
../surf/lh.white.preaparc --white --seg aseg.presurf.mgz --nsmooth 5

Reading in input surface ../surf/lh.orig
Smoothing surface before ripping with 5 iterations
Area 258504 0.25017 0.06316 0.093038 0.5802
Curves 778412 40.00000 9.63781 10.57782 140.2335
Edges 389706 0.78643 0.11490 0.062018 1.3238
Hinge 389706 6.35424 6.49723 0.000003 131.0557
Not reading in aparc
Reading in input volume brain.finalsurfs.mgz
Reading in seg volume aseg.presurf.mgz
Reading in vm volume vm.mgz
MRIClipBrightMM(): nthresh=41599, wmin=5, clip=110 MRIFindBrightMM(): 995 bright
non-vm voxels segmented.
Masking bright non-vm for white surface
MRImask(): AllowOffGeom = 1
MRImask(): AllowOffGeom = 1
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIRipMidline(): inhibiting deformation at non-cortical midline structures...
which=1, fix_mri=0, using annot = 0 #PML0#
MRIRipMidline(): nripped=0
removing 2 vertices from ripped group in thread0
FWMCF MRIRipMidline(): nmarked=7035, nmarked=0, nripped=7035
Ripping segs (seg, WML0, BG, frozen)
Starting MRIRipSegs() d = (-2 2 0.5) segnos: 247 MRIRipSegs(): -2 2 0.5
ripped 0
vertex 64952: xyz = (-46.7177,-6.81348,-21.4904) oxyx = (-46.7177,-6.81348,-21.4904) wxyz = (-46.7177,-6.81348,-21.4904) pxyz = (0,0,0)
CWFO Creating mask 129904 n_averages 4
Iteration 0 ===== n_averages=4,
current_sigma=2
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIRipMidline(): inhibiting deformation at non-cortical midline structures...
which=1, fix_mri=0, using annot = 0 #PML0#
MRIRipMidline(): nripped=7035
removing 2 vertices from ripped group in thread0
FWMCF MRIRipMidline(): nmarked=7035, nmarked=0, nripped=7035
Ripping segs (seg, WML0, BG, frozen)
Starting MRIRipSegs() d = (-2 2 0.5) segnos: 247 247
MRIRipSegs(): -2 2 0.5 ripped 0
Computing target border values Entering
MRIScomputeBorderValues_new(): inside_hl =
120.000000; border_hl = 110.7612300;
border_low = 69.000000; outside_low =
57.9161340; outside_hl = 110.7612300;
sigma = 7; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 1
thresh = 0.5 flags = 0
CWFFindFirstPeak0=0
CWFFindFirstPeak0=0
invvertices=129904 Odiag_now=1
vmv start=0, stop=129904
Replacing 25% with 9s
R1R sigma=2 had to be increased for 74 vertices, nripped=7035
mean border=73.6, 26 (26) 60 vertices, mean dist 0.2 1.1 0.9 (433.8)-0.9 (866.2)] x32 local
maxima, 943 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeak0 0
MRIScomputeBorderValues_new() finished in 0.0947 min

Finding expansion regions mean absolute
distance = 0.33 +- 1.16
4334 vertices more than 2 sigmas from mean. Averaging target
values for 5 iterations...
Positioning Surface: tagging = 0.3, spring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0
Positioning surface
```

```
Entering MRIPositionSurface()    max_mm =
0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5    parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0, host=wm=-, nav=0, nbres=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
complete_dist_mat 0 rms 0 smooth_averages 0 remove_neg 0 ico_order 0 which_surface 0 target_radius 0.000000 nfields 0 scale 0.000000 desired_rms height
0.000000 momentum 0.000000 min_size 0 max_nbres 0 iterations 100 naurfaces 0 SURFACES 3 flags 0 (0) use curv 0 no snlc 0 no right align 0 nrls=-nrls 2
nrls=-hemisphere 0 randomized 0

000: dt: 0.5000, sse=3610428.0, rms=11.884
001: dt: 0.5000, sse=2004823.6, rms=8.722 (26.606)
002: dt: 0.5000, sse=1239560.5, rms=6.706 (23.118)
003: dt: 0.5000, sse=482521.1, rms=3.366 (13.678)
004: dt: 0.5000, sse=444621.2, rms=4.948 (15.559)
005: dt: 0.5000, sse=339863.6, rms=4.045 (11.054)
006: dt: 0.5000, sse=485043.5, rms=3.773 (6.737)
007: dt: 0.5000, sse=463768.2, rms=3.629 (3.821)
008: dt: 0.5000, sse=451844.0, rms=3.550 (2.167) 009: dt:
0.5000, sse=443425.8, rms=1.489 (1.434)
rms = 3.4673/3.4992, sse=444717.1/443425.8, time step reduction 1 of 3 to 0.250 0 1 1
010: dt: 0.5000, sse=444717.1, rms=1.467 (0.910)
011: dt: 0.2500, sse=762313.7, rms=2.784 (53.855)
012: dt: 0.2500, sse=241374.2, rms=1.959 (14.595)
013: dt: 0.2500, sse=234805.9, rms=1.883 (3.893) 014: dt:
0.2500, sse=229706.5, rms=1.828 (2.911)
rms = 1.8021/1.8282, sse=227850.9/229706.5, time step reduction 2 of 3 to 0.125 0 0 1
015: dt: 0.2500, sse=227850.9, rms=1.802 (1.431) 016: dt:
0.1250, sse=223078.0, rms=1.735 (3.738)
rms = 1.7235/1.7347, sse=222489.7/223078.0, time step reduction 3 of 3 to 0.062 0 0 1
017: dt: 0.1250, sse=222489.7, rms=1.724 (0.644)    maximum number
of reductions reached, breaking from loop positioning took 1.1
minutes    done positioning surface
Iteration 1 ===== n_averages=2,
current_sigma=1
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIStripMidline(): inhibiting deformation at non-cortical midline structures...    which=1,
fix_mtl=0, using annot = 0 #PMLO# MRIStripMidline(): nripped=7035 removing 3 vertices from ripped group
in thread0 removing 2 vertices from ripped group in thread0 removing 4 vertices from ripped group in
thread0 removing 2 vertices from ripped group in thread0
#PMLO# MRIStripMidline(): rmarked=7224, rmarked=3, nripped=7224
Ripping segs (eg, MMSA, BG, frozen)
Starting MRIStripSegs() d = (-2 2 0.5) segnos: 247 247 247
MRIStripSegs(): -2 2 0.5 ripped 0
Computing target border values Entering
MRIComputeBorderValues_new()    inside_hl =
120.000000;    border_hl = 110.7612300;
border_low = 69.0000000;    outside_low =
57.9161340;    outside_hl = 110.7612300;
sigma = 1;    max_thickness = 10;
step_size=0.5;    STEP_SIZE=0.1;    which = 1
thresh = 0.5    flags = 0
CWFindFirstPeakD=0
CWFindFirstPeakD=0
nvertices=129904    Gdiag_no=1
vno start=0, stop=129904
Replacing 255a with 0a
R118 sigma=1 had to be increased for 132 vertices, nripped=7224
mean border=83.3, 60 (1) missing vertices, mean dist -0.3 (473.2)->0.3 (426.8)) 671 local
maxima, 624 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakD1 0
MRIComputeBorderValues_new() finished in 0.0622 min

Finding expansion regions mean absolute
distance = 0.42 +- 0.67
3821 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, 1_surf_repulse = 0, checktol = 0 Positioning
surface Entering MRIPositionSurface()    max_mm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5    parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0, host=wm=-, nav=0, nbres=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.5000, sse=877250.9, rms=5.262 018: dt: 0.5000,
sse=481347.4, rms=3.402 (35.341)
rms = 1.4453/3.4023, sse=481070.1/481347.4, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
019: dt: 0.2500, sse=342771.7, rms=2.595 (23.719)
020: dt: 0.2500, sse=234920.6, rms=1.990 (23.338)
021: dt: 0.2500, sse=248359.8, rms=1.690 (15.038)
022: dt: 0.2500, sse=258573.0, rms=1.564 (7.482) 023: dt:
0.2500, sse=232817.8, rms=1.489 (4.805)
rms = 1.4464/1.4889, sse=250367.3/25267.8, time step reduction 2 of 3 to 0.125 0 0 1
024: dt: 0.2500, sse=250367.3, rms=1.446 (2.851) 025: dt:
0.1250, sse=246467.7, rms=1.383 (4.450)
rms = 1.3732/1.3826, sse=245875.8/246469.7, time step reduction 3 of 3 to 0.062 0 0 1
026: dt: 0.1250, sse=245875.8, rms=1.373 (0.680)    maximum number
of reductions reached, breaking from loop positioning took 0.6
minutes    done positioning surface
Iteration 2 ===== n_averages=1,
current_sigma=0.5
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIStripMidline(): inhibiting deformation at non-cortical midline structures...
which=1, fix_mtl=0, using annot = 0 #PMLO# MRIStripMidline():
4 vertices from ripped group in thread0 removing 4 vertices from ripped group in thread0 removing 4 vertices from ripped group in thread0 removing 3 vertices from ripped group in thread0
removing 2 vertices from ripped group in thread0 #PMLO#
MRIStripMidline(): rmarked=7235, rmarked=1, nripped=7235
Ripping segs (eg, MMSA, BG, frozen)
Starting MRIStripSegs() d = (-2 2 0.5) segnos: 247 247 247 247
MRIStripSegs(): -2 2 0.5 ripped 0
Computing target border values Entering
MRIComputeBorderValues_new()    inside_hl =
120.000000;    border_hl = 110.7612300;
border_low = 69.0000000;    outside_low =
57.9161340;    outside_hl = 110.7612300;
sigma = 0.5;    max_thickness = 10;
step_size=0.5;    STEP_SIZE=0.1;    which = 1
thresh = 0.5    flags = 0
CWFindFirstPeakD=0
CWFindFirstPeakD=0
nvertices=129904    Gdiag_no=1
vno start=0, stop=129904
Replacing 255a with 0a
R118 sigma=0.5 had to be increased for 244 vertices, nripped=7235
mean border=85.1, 67 (0) missing vertices, mean dist -0.2 (0.3 (472.8))->0.2 (427.2)) 485 local
maxima, 510 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakD1 0
MRIComputeBorderValues_new() finished in 0.0332 min

Finding expansion regions mean absolute
distance = 0.27 +- 0.38
3308 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, 1_surf_repulse = 0, checktol = 0 Positioning
surface Entering MRIPositionSurface()    max_mm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5    parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0, host=wm=-, nav=0, nbres=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.5000, sse=74521.2, rms=2.742 021: dt: 0.5000,
sse=42214.8, rms=3.014 (16.920)
rms = 3.2995/3.0142, sse=465060.1/422144.8, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
028: dt: 0.2500, sse=293715.1, rms=1.982 (34.236)
029: dt: 0.2500, sse=250395.4, rms=1.491 (24.784) 030: dt:
0.2500, sse=23956.8, rms=1.341 (10.100)
rms = 1.3055/1.3414, sse=237513.1/23966.7, time step reduction 2 of 3 to 0.125 0 0 1
031: dt: 0.2500, sse=237513.1, rms=1.305 (2.678) 032: dt:
0.1250, sse=231314.6, rms=1.203 (7.878)
rms = 1.1956/1.2026, sse=230721.8/231314.6, time step reduction 3 of 3 to 0.062 0 0 1
033: dt: 0.1250, sse=230721.8, rms=1.196 (0.587)    maximum number
of reductions reached, breaking from loop positioning took 0.5
minutes    done positioning surface
Iteration 3 ===== n_averages=0,
current_sigma=0.25
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIStripMidline(): inhibiting deformation at non-cortical midline structures...
which=1, fix_mtl=0, using annot = 0 #PMLO# MRIStripMidline():
4 vertices from ripped group in thread0 removing 4 vertices from ripped group in thread0 removing 4 vertices from ripped group in thread0 removing 3 vertices from ripped group in thread0
removing 2 vertices from ripped group in thread0 #PMLO#
MRIStripMidline(): rmarked=7290, rmarked=1, nripped=7290
Ripping segs (eg, MMSA, BG, frozen)
Starting MRIStripSegs() d = (-2 2 0.5) segnos: 247 247 247 247
MRIStripSegs(): -2 2 0.5 ripped 0
Computing target border values Entering
MRIComputeBorderValues_new()    inside_hl =
120.000000;    border_hl = 110.7612300;
border_low = 69.0000000;    outside_low =
57.9161340;    outside_hl = 110.7612300;
sigma = 0.25;    max_thickness = 10;
step_size=0.5;    STEP_SIZE=0.1;    which = 1
thresh = 0.5    flags = 0
CWFindFirstPeakD=0
CWFindFirstPeakD=0
nvertices=129904    Gdiag_no=1
vno start=0, stop=129904
Replacing 255a with 0a
R118 sigma=0.25 had to be increased for 300 vertices, nripped=7292
mean border=85.9, 119 (0) missing vertices, mean dist -0.3 (0.2 (456.2))->0.2 (443.8)) 488 local
maxima, 56 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakD1 0
MRIComputeBorderValues_new() finished in 0.0209 min

Finding expansion regions mean absolute
distance = 0.21 +- 0.21
2882 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, 1_surf_repulse = 0, checktol = 0 Positioning
surface Entering MRIPositionSurface()    max_mm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5    parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0.2, host=wm=-, nav=0, nbres=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.5000, sse=29816.8, rms=1.638
rms = 1.8186/1.6359, sse=25617.4/259616.8, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
034: dt: 0.2500, sse=22485.0, rms=1.116 (31.735) 035: dt:
0.2500, sse=213539.7, rms=0.893 (20.948)
rms = 0.8942/0.8925, sse=214461.6/213539.7, time step reduction 2 of 3 to 0.125 0 1 1
RMS
increased, rejecting step
rms = 0.8777/0.8825, sse=213155.6/213539.7, time step reduction 3 of 3 to 0.062 0 0 1
```

```
036: dt: 0.1250, sse=213155.6, rms=0.878 (0.546%) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Removing intersections
RTT9 mri_place_surface 2.73 minutes

Writing output to ../surf/lh.white.prepargc #NMPC#
mri_place_surfaces VmPeak 2166108 mri_place_surface
Done
#####FSTIME 2024:04:13:12:01:23 mri_place_surface N 18 a 169.40 S 1.01 U 239.47 P 1414 M 1866052 F 12 R 513141 W 0 c 340 w 418 I 1944 O 9136 L 2.19 2.33 2.28
#####FSTLOADPOST 2024:04:13:12:04:12 mri_place_surface N 18 2.41 2.37 2.30
#####
### WhitePrepargc rh Sat Apr 13 12:04:12 UTC 2024
cd /home/jaibhata/mri_processed/014_8_4401/mri
mri_place_surface --adgc-in ../surf/autodet.gv.stats.rh.dat --vm vm.mgz --threads 2 --invol brain.finalsurfs.mgz --rh --i ../surf/rh.orig --o ../surf/rh.white.prepargc --white --seg aseg.presurf.mgz --nsmooth 5
7.4.1
7.4.1

cd /home/jaibhata/mri_processed/014_8_4401/mri setenv SUBJECTS_DIR /home/jaibhata/mri_processed mri_place_surface --adgc-in ../surf/autodet.gv.stats.rh.dat --vm vm.mgz --threads 2 --invol brain.finalsurfs.mgz --rh --i ../surf/rh.orig --o
../surf/rh.white.prepargc --white --seg aseg.presurf.mgz --nsmooth 5

Reading in input surface ../surf/rh.orig
Smoothing surface before ripping with 5 iterations
Area 258516 5.26593 0.06319 0.000398 0.4244
Cornerz 775548 60.00000 9.60822 0.382680 178.6506
Edge 387774 0.78747 0.11467 0.049523 1.4034
Ridge 387774 6.31334 6.50209 0.00003 146.7832
Not reading in aparc
Reading in input volume brain.finalsurfs.mgz
Reading in seg volume aseg.presurf.mgz
Reading in vm volume vm.mgz
MRIc1BrightMM(1): nchans=41599, wmin=5, clip=110 MRIfindBrightNonMM(1): 993 bright
non-vm voxels segmented.
Masking bright non-vm for white surface
MRImask(1): AllowOffGcom = 1
MRImask(1): AllowOffGcom = 1
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIripMidline(1): inhibiting deformation at non-cortical midline structures...
which=1, fix_mt=0, using annot = 0
#FMG# MRIripMidline(1): nripped=0
#FMG# MRIripMidline(1): mmark=7247, mmarked=6, nripped=7247
Ripping segs (eg, WMFA, BG, frozen)
Starting MRIripSegs(1) d = (-2 2 0.5) segnos: 247 MRIripSegs(1): -2 2 0.5
ripped 0
vertex 64630: xyz = (12.1638,-10.7793,58.6019) oxyz = (12.1638,-10.7793,58.6019) wxyz = (12.1638,-10.7793,58.6019) pyxz = (0,0,0)
CBVO Creating mask 129260 n_averages 4
Iteration 0 ===== n_averages=4,
current_sigma=2
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIripMidline(1): inhibiting deformation at non-cortical midline structures...
which=1, fix_mt=0, using annot = 0 #FMG#
MRIripMidline(1): nripped=7247
#FMG# MRIripMidline(1): mmark=7247, mmarked=6, nripped=7247
Ripping segs (eg, WMFA, BG, frozen)
Starting MRIripSegs(1) d = (-2 2 0.5) segnos: 247 247
MRIripSegs(1): -2 2 0.5 ripped 0
Computing target border values Entering
MRIcomputeBorderValues_new(1)
inside_h1 = 120.00000000
border_h1 = 111.76123000
border_low = 68.00000000
outside_low = 56.91613400
outside_h1 = 111.76123000
sigma = 2; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 1 thresh = 0.5 flags = 0
CBVfindFirstPeak01=0
CBVfindFirstPeak02=0
nvertices=129260 Gdiag now=1
vno start=0, stop=129260
Replacing 235a with 0a
#S# sigma=2 had to be increased for 90 vertices, nripped=7247
mean border=79.2, 15 (15) missing vertices, mean dist 0.3 [0.9 (932.21)->0.9 (967.8)] 931 local
maxima, 943 large gradients and 9 0 min vals, 0 gradients ignored nfirstPeak01 0
MRIcomputeBorderValues_new(1) finished in 0.0973 min

Finding expansion regions mean absolute
distance = 0.91 -- 1.13
3991 Vertices more than 2 sigmas from mean. Averaging target
values for 5 iterations...
Positioning Surface: taping = 0.3, napping = 0.3, spring = 0, nitars = 100 1_repulse = 5, 1_surf_repulse = 0, checktol = 0
Positioning surface
Entering MRIPositionSurface(1) max_rm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5 params->check_tol = 0,
niterations = 100
tol=1.0e-04, sigma=0, host=vm=, nav=4, nbx=2, 1_repulse=5.000, 1_tspring=0.300, 1_nspring=0.300, 1_intensity=0.200, 1_curv=1.000 mom=0.00, dt=0.50
complete_dists mat 0 rms 0 smooth_averages 0 remove_neg 0 ico_order 0 which_surface 0 target_radius 0.000000 nfields 0 scale 0.000000 desired_rms_height
0.000000 maximum 0.000000 nbx_size 0 max_nbx 0 niterations 100 nsurfaces 0 SURFACES 3 flags 0 (0) use curv 0 no snic 0 no right align 0 mri=-snic 2
mri=-WestSphere 1 randomized 0
000: dt: 0.0000, sse=3469612.9, rms=11.601
001: dt: 0.5000, sse=1929567.1, rms=8.575 (26.590%)
002: dt: 0.5000, sse=1208590.5, rms=6.634 (22.630%) 003: dt: 0.5000, sse=829035.5, rms=4.372 (19.023%)
004: dt: 0.5000, sse=643416.4, rms=4.559 (15.122%)
005: dt: 0.5000, sse=531977.3, rms=4.021 (11.798%)
006: dt: 0.5000, sse=474686.6, rms=3.723 (7.432%)
007: dt: 0.5000, sse=447023.2, rms=3.544 (4.794%)
008: dt: 0.5000, sse=433097.4, rms=3.455 (2.524%) 009: dt: 0.5000, sse=443356.5, rms=3.384 (1.753%)
rms = 3.3603/3.3942, sse=4159971.0/424356.9, time step reduction 1 of 3 to 0.250 0 0 1
010: dt: 0.5000, sse=419971.0, rms=3.360 (0.999%)
011: dt: 0.2500, sse=359041.6, rms=2.241 (33.318%)
012: dt: 0.2500, sse=339223.5, rms=1.943 (13.283%) 013: dt: 0.2500, sse=233418.0, rms=1.879 (1.303%)
rms = 1.8294/1.8789, sse=252027.6/233418.0, time step reduction 2 of 3 to 0.125 0 0 1
014: dt: 0.2500, sse=229207.6, rms=1.829 (2.634%) 015: dt: 0.1250, sse=223657.5, rms=1.762 (3.703%)
rms = 1.7492/1.7616, sse=222778.2/223657.5, time step reduction 3 of 3 to 0.062 0 0 1
016: dt: 0.1250, sse=222778.2, rms=1.749 (0.704%) maximum number
of reductions reached, breaking from loop positioning took 1.1
minutes done positioning surface
Iteration 1 ===== n_averages=2,
current_sigma=1
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIripMidline(1): inhibiting deformation at non-cortical midline structures...
which=1, fix_mt=0, using annot = 0 #FMG#
MRIripMidline(1): nripped=7247
#FMG# MRIripMidline(1): mmark=7309, mmarked=6, nripped=7309
Ripping segs (eg, WMFA, BG, frozen)
Starting MRIripSegs(1) d = (-2 2 0.5) segnos: 247 247 247
MRIripSegs(1): -2 2 0.5 ripped 0
Computing target border values Entering
MRIcomputeBorderValues_new(1) inside_h1 = 120.00000000
border_h1 = 111.76123000
border_low = 68.00000000
outside_low = 56.91613400
outside_h1 = 111.76123000
sigma = 1; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 1 thresh = 0.5 flags = 0
CBVfindFirstPeak01=0
CBVfindFirstPeak02=0
nvertices=129260 Gdiag now=1
vno start=0, stop=129260
Replacing 235a with 0a
#S# sigma=1 had to be increased for 168 vertices, nripped=7309
mean border=82.9, 50 (1) missing vertices, mean dist -0.3 [0.5 (972.6)->0.3 (927.4)] 970 local
maxima, 924 large gradients and 9 0 min vals, 0 gradients ignored nfirstPeak01 0
MRIcomputeBorderValues_new(1) finished in 0.0662 min

Finding expansion regions mean absolute
distance = 0.44 -- 0.70
4098 Vertices more than 2 sigmas from mean. Averaging target
values for 5 iterations...
Positioning Surface: taping = 0.3, napping = 0.3, spring = 0, nitars = 100 1_repulse = 5, 1_surf_repulse = 0, checktol = 0
Positioning surface
Entering MRIPositionSurface(1) max_rm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5
params->check_tol = 0, niterations = 100
tol=1.0e-04, sigma=0, host=vm=, nav=2, nbx=2, 1_repulse=5.000, 1_tspring=0.300, 1_nspring=0.300, 1_intensity=0.200, 1_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=877975.8, rms=1.260
001: dt: 0.5000, sse=488625.9, rms=3.441 (34.576%) 018: dt: 0.5000, sse=475515.0, rms=3.279 (1.807%)
rms = 1.3102/3.3750, sse=468048.5/475515.0, time step reduction 1 of 3 to 0.250 0 0 1
019: dt: 0.5000, sse=468048.6, rms=3.330 (1.451%)
020: dt: 0.2500, sse=298890.9, rms=2.018 (39.409%)
021: dt: 0.2500, sse=265032.4, rms=1.618 (19.819%)
022: dt: 0.2500, sse=268823.6, rms=1.547 (4.367%) 023: dt: 0.2500, sse=233773.2, rms=1.476 (4.588%)
rms = 1.4640/1.4765, sse=253650.7/233773.2, time step reduction 2 of 3 to 0.125 0 0 1
024: dt: 0.2500, sse=233650.7, rms=1.464 (0.843%) 025: dt: 0.1250, sse=248637.0, rms=1.384 (4.815%)
rms = 1.3873/1.3935, sse=248437.0/248637.0, time step reduction 3 of 3 to 0.062 0 0 1
026: dt: 0.1250, sse=248437.0, rms=1.387 (0.445%) maximum number
of reductions reached, breaking from loop positioning took 0.6
minutes done positioning surface
Iteration 2 ===== n_averages=1,
current_sigma=0.5
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIripMidline(1): inhibiting deformation at non-cortical midline structures...
which=1, fix_mt=0, using annot = 0 #FMG# MRIripMidline(1):
nripped=7309 removing 2 vertices from ripped group in thread0 removing
4 vertices from ripped group in thread0 removing 4 vertices from ripped
group in thread0 removing 2 vertices from ripped group in thread0
#FMG# MRIripMidline(1): mmark=7344, mmarked=6, nripped=7344
Ripping segs (eg, WMFA, BG, frozen)
Starting MRIripSegs(1) d = (-2 2 0.5) segnos: 247 247 247 247
MRIripSegs(1): -2 2 0.5 ripped 0
Computing target border values Entering
MRIcomputeBorderValues_new(1)
inside_h1 = 120.00000000
border_h1 = 111.76123000
```

```
border_low = 68.00000000
outside_low = 56.91613400
outside_hi = 111.76123000
sigma = 0.5; max_thickness = 10; step_size=0.5;
STEP_SIZE=0.1; which = 1
thresh = 0.5 flags = 0
CWfindFirstPeakD1=0
CWfindFirstPeakD2=0
invertaxes=129260 Odiag_no=-1
vno start=0, stop=129260
Replacing 255s with 0s
R1E sigma=0.3 had to be increased for 267 vertices, nripped=7344
mean border=85.7, 78 (0) missing vertices, mean dist [-0.2 [0.3 (972.8)->0.2 (827.2)]] 884 local
maxima, 610 large gradients and 8 0 min vals, 0 gradients ignored nFirstPeakD1 0
MRIComputeBorderValues_new() finished in 0.0305 min

Finding expansion regions mean absolute
distance = 0.29 +- 0.41
2587 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0 Positioning
surface Entering MRIPositionSurface() max_m = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5 parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0.5, host=vm4--, nav=0, nbx=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=546043.1, rms=1.786 027: dt: 0.5000,
sae=13623.7, rms=2.958 (21.8698)
rms = 1.1711(1.5078), sse=440415.9/413623.7, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
028: dt: 0.2500, sse=290385.7, rms=2.008 (32.0398)
029: dt: 0.2500, sse=230981.1, rms=1.514 (24.6238) 030: dt:
0.2500, sse=242299.0, rms=1.366 (9.7599)
rms = 1.2855(1.9661), sse=341023.3/242299.0, time step reduction 2 of 3 to 0.125 0 0 1
031: dt: 0.2500, sse=240251.3, rms=1.335 (2.2438) 032: dt:
0.1250, sse=235544.2, rms=1.248 (6.5478)
rms = 1.2401(1.2480), sse=235510.9/235544.2, time step reduction 3 of 3 to 0.062 0 0 1
033: dt: 0.1250, sse=235181.0, rms=1.241 (0.5618) maximum number
of reductions reached, breaking from loop positioning took 0.5
minutes done positioning surface
Iteration 3 ===== n_averages=0,
current_sigma=0.25
Freezing midline and others
Ripping frozen voxels
INFO: rip surface needed but not specified, so using input surface
Freezing midline and others
Entering: MRIripMidline(): inhibiting deformation at non-cortical midline structures...
which=1, fix_mid=0, using annot = 0 #RMC# MRIripMidline():
nripped=7344 removing 3 vertices from ripped group in thread0 removing
3 vertices from ripped group in thread0 removing 2 vertices from ripped
group in thread0 removing 3 vertices from ripped group in thread0
removing 4 vertices from ripped group in thread0 removing 4 vertices
from ripped group in thread0 removing 4 vertices from ripped group in
thread0 removing 2 vertices from ripped group in thread0 RPMC
MRIripMidline(): rmarked=7346, rmarked2=6, nripped=7346
Ripping steps (seg: WMH, SD, frozen)
Starting MRIripsigs() d = (-2 2 0.5) segnos: 247 247 247 247 247
MRIripsigs(): -2 2 0.5 ripped 0
Computing target border values Entering
MRIComputeBorderValues_new()
inside_hi = 120.00000000
border_hi = 111.76123000
border_low = 68.00000000
outside_low = 56.91613400
outside_hi = 111.76123000
sigma = 0.25; max_thickness = 10; step_size=0.5;
STEP_SIZE=0.1; which = 1
thresh = 0.5 flags = 0
CWfindFirstPeakD1=0
CWfindFirstPeakD2=0
invertaxes=129260 Odiag_no=-1
vno start=0, stop=129260
Replacing 255s with 0s
R1E sigma=0.25 had to be increased for 360 vertices, nripped=7346
mean border=81.6, 116 (0) missing vertices, mean dist [-5.1 [0.2 (956.7)->0.2 (443.3)]] 888 local
maxima, 6 large gradients and 8 0 min vals, 0 gradients ignored nFirstPeakD1 0
MRIComputeBorderValues_new() finished in 0.0224 min

Finding expansion regions mean absolute
distance = 0.22 +- 0.32
2752 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0 Positioning
surface Entering MRIPositionSurface() max_m = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5 parms->check_tol = 0,
iterations = 100
tol=1.0e-04, sigma=0.2, host=vm4--, nav=0, nbx=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=287468.9, rms=1.713 027: dt: 0.5000,
sae=283530.7/287468.9, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
028: dt: 0.2500, sse=231054.7, rms=1.398 (30.1438) 035: dt:
0.2500, sse=221662.1, rms=0.925 (22.8028)
rms = 0.9255(0.9248), sse=28200.1/221662.1, time step reduction 2 of 3 to 0.125 0 0 1 RMS
increased, rejecting step
rms = 0.9202(0.9248), sse=219947.7/221662.1, time step reduction 3 of 3 to 0.062 0 0 1
036: dt: 0.1250, sse=219947.7, rms=0.920 (0.4898) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Removing intersections
RPM# mri_place_surface 2.74 minutes

Writing output to ../surf/rh.white.preproc #WMPC#
mri_place_surfaces %mrac 2149664 mri_place_surface
done
##FSTIME 2024:04:13:12:04:12 mri_place_surface N 18 e 170.24 S 0.95 U 238.27 P 140N M 1849484 F 0 R 508935 W 0 c 367 w 404 I 0 O 9096 L 2.41 2.37 2.30
##FSLLOADPOST 2024:04:13:12:07:02 mri_place_surface N 18 2.43 2.40 2.32
#-----### CortexLabel 1h Sat Apr 13 12:07:02 UTC 2024 cd
/home/jalbhata/mri_processed/014_8_4001/mri_label2label --label=cortex ../surf/lh.white.preproc
aseg.presurf.mgz 0 ../label/lh.cortex.label

Generating cortex label... RemoveRipAng=0
NucAct5MedialWall=0 mri->useRealRA=0 9
non-cortical segments detected only using
segment with 6371 vertices erasing segment 1
(vno[0] = 75133) erasing segment 2 (vno[0] =
75197) erasing segment 3 (vno[0] = 75198)
erasing segment 4 (vno[0] = 77741) erasing
segment 5 (vno[0] = 78143) erasing segment 6
(vno[0] = 79213) erasing segment 7 (vno[0] =
109200) erasing segment 8 (vno[0] = 124233)
##FSTIME 2024:04:13:12:07:03 mri_label2label N 5 e 10.55 S 0.18 U 10.64 P 102N M 329892 F 0 R 97491 W 0 c 11 w 6 I 0 O 10504 L 2.45 2.40 2.32 ##FSLLOADPOST 2024:04:13:12:07:13
mri_label2label N 5 2.38 2.39 2.31
#-----### CortexLabel+RipAngy 1h Sat Apr 13 12:07:13 UTC 2024 cd
/home/jalbhata/mri_processed/014_8_4001/mri_label2label --label=cortex ../surf/lh.white.preproc aseg.presurf.mgz 1
../label/lh.cortex+RipAngy.label

Generating cortex label... RemoveRipAngy=1
NucAct5MedialWall=0 mri->useRealRA=0 13
non-cortical segments detected only using
segment with 6472 vertices erasing segment 1
(vno[0] = 40223) erasing segment 2 (vno[0] =
42982) erasing segment 3 (vno[0] = 43874)
erasing segment 4 (vno[0] = 71818) erasing
segment 5 (vno[0] = 75133) erasing segment 6
(vno[0] = 75197) erasing segment 7 (vno[0] =
77741)
erasing segment 8 (vno[0] = 78143) erasing
segment 10 (vno[0] = 79213) erasing segment
11 (vno[0] = 109200) erasing segment 12
(vno[0] = 124233)
##FSTIME 2024:04:13:12:07:13 mri_label2label N 5 e 10.75 S 0.20 U 10.82 P 102N M 348352 F 0 R 102094 W 0 c 28 w 7 I 0 O 10656 L 2.38 2.39 2.31 ##FSLLOADPOST 2024:04:13:12:07:24
mri_label2label N 5 2.32 2.38 2.31
#-----### CortexLabel rh Sat Apr 13 12:07:24 UTC 2024 cd
/home/jalbhata/mri_processed/014_8_4001/mri_label2label --label=cortex ../surf/rh.white.preproc
aseg.presurf.mgz 0 ../label/rh.cortex.label

Generating cortex label... RemoveRipAngy=0
NucAct5MedialWall=0 mri->useRealRA=0 4
non-cortical segments detected only using
segment with 8287 vertices erasing segment 1
(vno[0] = 78073) erasing segment 2 (vno[0] =
83972) erasing segment 3 (vno[0] = 119374)
##FSTIME 2024:04:13:12:07:24 mri_label2label N 5 e 9.94 S 0.20 U 9.99 P 102N M 306344 F 0 R 93660 W 0 c 21 w 7 I 0 O 10216 L 2.32 2.38 2.31
##FSLLOADPOST 2024:04:13:12:07:34 mri_label2label N 5 2.27 2.36 2.31
#-----### CortexLabel+RipAngy rh Sat Apr 13 12:07:34 UTC 2024 cd
/home/jalbhata/mri_processed/014_8_4001/mri_label2label --label=cortex ../surf/rh.white.preproc aseg.presurf.mgz 1
../label/rh.cortex+RipAngy.label

Generating cortex label... RemoveRipAngy=1
NucAct5MedialWall=0 mri->useRealRA=0 9
non-cortical segments detected only using
segment with 6336 vertices erasing segment 1
(vno[0] = 43591) erasing segment 2 (vno[0] =
48784) erasing segment 3 (vno[0] = 54478)
erasing segment 4 (vno[0] = 78073) erasing
segment 5 (vno[0] = 85972) erasing segment 6
(vno[0] = 111880) erasing segment 7 (vno[0] =
118066) erasing segment 8 (vno[0] =
119744)
##FSTIME 2024:04:13:12:07:34 mri_label2label N 5 e 10.11 S 0.23 U 10.13 P 102N M 329092 F 0 R 99396 W 0 c 10 w 6 I 0 O 10416 L 2.27 2.36 2.31 ##FSLLOADPOST 2024:04:13:12:07:44
mri_label2label N 5 2.23 2.35 2.30
#-----### Smooth2 1h Sat Apr 13 12:07:44 UTC 2024
/home/jalbhata/mri_processed/014_8_4001/scripts mri_smooth -n 3 -nw -seed 1234
../surf/lh.white.preproc ../surf/lh.smoothm

smoothing for 3 iterations
setting seed for random number generator to 1234 smoothing surface
tessellation for 3 iterations...
smoothing complete - recomputing first and second fundamental forms...
##FSTIME 2024:04:13:12:07:44 mri_smooth N 7 e 2.42 S 0.13 U 2.54 P 110N M 199780 F 0 R 60242 W 0 c w 7 I 0 O 9144 L 2.23 2.35 2.30 ##FSLLOADPOST 2024:04:13:12:07:46
mri_smooth N 7 2.21 2.34 2.30
#-----
### Smooth2 rh Sat Apr 13 12:07:46 UTC 2024
/home/jalbhata/mri_processed/014_8_4001/scripts mri_smooth -n 3 -nw -seed 1234
../surf/rh.white.preproc ../surf/rh.smoothm

smoothing for 3 iterations
setting seed for random number generator to 1234 smoothing surface tessellation
for 3 iterations... smoothing complete - recomputing first and second fundamental
forms...
##FSTIME 2024:04:13:12:07:46 mri_smooth N 7 e 2.35 S 0.13 U 2.46 P 110N M 198880 F 1 R 59939 W 0 c w 7 I 0 O 9096 L 2.21 2.34 2.30 ##FSLLOADPOST 2024:04:13:12:07:49
mri_smooth N 7 2.21 2.34 2.30
#-----
```

```
### Inflation2 1h Sat Apr 13 12:07:49 UTC 2024
/home/jalbhata/mri_processed/014_g_4401/scripts mri_inflate
../surf/lh.smoothm ../surf/lh.inflated

Reading ../surf/lh.smoothm
avg radius = 46.4 mm, total surface area = 80428 mm^2
step 060: RMS=0.019 (target=0.015) writing inflated surface to ../surf/lh.inflated writing sulcal
depths to ../surf/lh.sulc

inflation complete.
inflation took 0.2 minutes mri_inflate
utimesec 19.793632 mri_inflate
atimesec 0.115974 mri_inflate
ru_maxrss 200872 mri_inflate ru_ixrss 0
0 mri_inflate ru_ixrss 0 mri_inflate
ru_minflt 13804 mri_inflate ru_majflt 1
1 mri_inflate ru_nswap 0
mri_inflate ru_inblock 184
mri_inflate ru_outblock 10160
mri_inflate ru_majflt 0 mri_inflate
ru_majgro 0 mri_inflate ru_nsignals 0
mri_inflate ru_nswap 233
mri_inflate ru_nswap 42
##PSTIME 2024:04:13:12:07:49 mri_inflate M 2 e 12.57 S 0.13 U 19.78 P 158% M 201128 F 1 R 53811 W 0 c 42 w 234 I 184 O 10160 L 2.31 2.34 2.30 ##PFSLOADPOST 2024:04:13:12:08:01
mri_inflate M 2 2.31 2.36 2.31
#-----
### Inflation2 rh Sat Apr 13 12:08:01 UTC 2024
/home/jalbhata/mri_processed/014_g_4401/scripts mri_inflate
../surf/rh.smoothm ../surf/rh.inflated

Reading ../surf/rh.smoothm
avg radius = 46.4 mm, total surface area = 80569 mm^2
step 060: RMS=0.019 (target=0.015) writing inflated surface to ../surf/rh.inflated writing sulcal
depths to ../surf/rh.sulc

inflation complete.
inflation took 0.2 minutes mri_inflate
utimesec 19.717525 mri_inflate
atimesec 1.068082 mri_inflate
ru_maxrss 199180 mri_inflate ru_ixrss 0
0 mri_inflate ru_ixrss 0 mri_inflate
ru_minflt 50123 mri_inflate
ru_majflt 0 mri_inflate ru_nswap 0
mri_inflate ru_inblock 0 mri_inflate
ru_outblock 10112 mri_inflate ru_majgro 0
0 mri_inflate ru_nsignals 0
ru_nswap 248 mri_inflate ru_nswap 78
##PSTIME 2024:04:13:12:08:01 mri_inflate M 2 e 13.29 S 1.07 U 19.71 P 156% M 199180 F 0 R 501108 W 0 c 78 w 249 I 0 O 10112 L 2.31 2.36 2.31
##PFSLOADPOST 2024:04:13:12:08:15 mri_inflate M 2 2.34 2.36 2.31
#-----
### Curv .H and .K 1h Sat Apr 13 12:08:15 UTC 2024
/home/jalbhata/mri_processed/014_g_4401/surf mri_curvature -w
--seed 1234 1h.white.preparc

setting seed for random number generator to 1234 total integrated curvature =
3.8574pi (48.844) --> 3 handles ICI = 133.4, FI = 1438.6, variation=2321.977
writing Gaussian curvature to ./1h.white.preparc.K...done. writing mean
curvature to ./1h.white.preparc.H...mri_curvature done.
##PSTIME 2024:04:13:12:08:15 mri_curvature M 4 e 1.32 S 0.09 U 1.34 P 108% M 148804 F 8 R 40720 W 0 c 4 w 10 I 936 O 2032 L 2.34 2.36 2.31
##PFSLOADPOST 2024:04:13:12:08:16 mri_curvature M 4 2.31 2.36 2.31 rm -f 1h.white.H 1h -s
1h.white.preparc.H 1h.white.K 1h -f 1h.white.K 1h -s 1h.white.preparc.H 1h.white.K

mri_curvature --seed 1234 -thresh .999 -n -a 5 -w -distances 10 10 1h.inflated

setting seed for random number generator to 1234
normalizing curvature values, averaging curvature
patterns 5 times.
sampling 10 neighbors out to a distance of 10 mm
221 vertices thresholded to be in k1 - [-0.20 0.40], k2 - [-0.10 0.04] total integrated
curvature = 0.70374pi (8.829) --> 0 handles
ICI = 1.6, FI = 8.9, variation=154.651 127 vertices
thresholded to be in [-0.01 0.02]
writing Gaussian curvature to ./rh.inflated.K...thresholding curvature at 99.90% level curvature
mean = 0.000, std = 0.001 152 vertices thresholded to be in [-0.12 0.18] done. writing mean
curvature to ./rh.inflated.H...curvature mean = -0.014, std = 0.022 mri_curvature done.
##PSTIME 2024:04:13:12:08:16 mri_curvature M 12 e 41.00 S 0.21 U 40.98 P 100% M 332056 F 0 R 91425 W 0 c 122 e 6 I 0 O 2032 L 2.31 2.36 2.31
##PFSLOADPOST 2024:04:13:12:08:17 mri_curvature M 12 2.16 2.31 2.29
#-----
### Curv .H and .K rh Sat Apr 13 12:08:17 UTC 2024
/home/jalbhata/mri_processed/014_g_4401/surf mri_curvature -w
--seed 1234 rh.white.preparc

setting seed for random number generator to 1234 total integrated curvature =
9.0914pi (114.237) --> 8 handles ICI = 156.3, FI = 1420.7, variation=23062.513
writing Gaussian curvature to ./rh.white.preparc.K...done. writing mean
curvature to ./rh.white.preparc.H...mri_curvature done.
##PSTIME 2024:04:13:12:08:17 mri_curvature M 4 e 1.28 S 0.09 U 1.30 P 108% M 148368 F 8 R 40549 W 0 c 4 w 10 I 0 O 2032 L 2.16 2.31 2.29
##PFSLOADPOST 2024:04:13:12:08:18 mri_curvature M 4 2.16 2.31 2.29 rm -f rh.white.H 1h -s
rh.white.preparc.H rh.white.K 1h -f rh.white.K 1h -s rh.white.preparc.H rh.white.K

mri_curvature --seed 1234 -thresh .999 -n -a 5 -w -distances 10 10 rh.inflated

setting seed for random number generator to 1234
normalizing curvature values, averaging curvature
patterns 5 times, sampling 10 neighbors out to a
distance of 10 mm
147 vertices thresholded to be in k1 - [-0.29 4.36], k2 - [-0.21 0.05] total integrated
curvature = 0.65574pi (8.230) --> 0 handles
ICI = 1.5, FI = 9.1, variation=155.941 95 vertices
thresholded to be in [-0.01 0.03]
writing Gaussian curvature to ./rh.inflated.K...thresholding curvature at 99.90% level curvature
mean = 0.000, std = 0.001 101 vertices thresholded to be in [-0.18 0.91] done. writing mean
curvature to ./rh.inflated.H...curvature mean = -0.014, std = 0.023 mri_curvature done.
##PSTIME 2024:04:13:12:08:19 mri_curvature M 12 e 40.74 S 0.26 U 40.67 P 100% M 350412 F 0 R 91168 W 0 c 104 e 5 I 0 O 2032 L 2.16 2.31 2.29 ##PFSLOADPOST 2024:04:13:12:09:39
mri_curvature M 12 2.08 2.27 2.28
#-----
### Sphere 1h Sat Apr 13
12:09:39 UTC 2024 /home/jalbhata/mri_processed/014_g_4401/scripts
mri_sphere --seed 1234 ../surf/lh.inflated ../surf/lh.sphere

setting seed for random number generator to 1234 version:
7.4.1 available threads: 2 reading original vertex
positions...
projecting onto sphere...
surface projected - minimizing metric distortion...
scaling brain by 0.395... MRISumFold()
max_passes = 1 -----
tol=0.0e-01, sigma=0.0, host=wm--, nav=1024, nbra=2, l_area=1.000, l_dist=1.000 using
quadratic fit line minimization complete dist bet 0 mm 0 smooth_avgresps 0 remove_deg 0
lco_order 0 which surface 0 target_radius 0.000000 nfields 0 scale 1.000000
desired_max_height -1.000000 momentum 0.900000 mhd_size 7 max_nbra 8 iterations 25
surfaces 0 SURFACES 3 flags 0 (0) use curv 0 no sulc 0 no rigid align 0 mri=vasize 2
mri=hemisphere 0 randomSeed 1234

singular matrix in quadratic form
----- mriSphereNegAtVArea()
pass 1: epoch 1 of 1 starting distance error 119.25 pass 1:
epoch 2 of 3 starting distance error 119.25 unfolding
complete - removing small folds... starting distance error
119.24 removing remaining folds... final distance error
119.24 MRISumFold() return, current seed 1234
-01: dt=0.9000, 122 negative triangles VmPeak 577040
096: dt=0.9000, 122 negative triangles
097: dt=0.9000, 40 negative triangles
098: dt=0.9000, 20 negative triangles
099: dt=0.9000, 14 negative triangles
100: dt=0.9000, 9 negative triangles
101: dt=0.9000, 11 negative triangles
102: dt=0.9000, 9 negative triangles
103: dt=0.9000, 9 negative triangles
104: dt=0.9000, 6 negative triangles
105: dt=0.9000, 4 negative triangles
106: dt=0.9000, 1 negative triangles 107: dt=0.9000,
2 negative triangles writing spherical brain to
../surf/lh.sphere spherical transformation took 0.0568
hours PERFORMING mri_sphere 0.0568 hours 2 threads
FNMDC mri_sphere VmPeak 577040 mri_sphere done
##PSTIME 2024:04:13:12:09:39 mri_sphere M 4 e 204.58 S 14.25 U 359.65 P 182% M 267312 F 0 R 6845915 W 0 c 909 w 2101 I 0 O 9144 L 2.08 2.27 2.28
##PFSLOADPOST 2024:04:13:12:13:04 mri_sphere M 4 3.26 2.71 2.44
#-----
### Sphere rh Sat Apr 13 12:13:04 UTC 2024
/home/jalbhata/mri_processed/014_g_4401/scripts mri_sphere --seed
1234 ../surf/rh.inflated ../surf/rh.sphere

setting seed for random number generator to 1234 version:
7.4.1 available threads: 2 reading original vertex
positions...
projecting onto sphere...
surface projected - minimizing metric distortion...
scaling brain by 0.395... MRISumFold()
max_passes = 1 -----
tol=0.0e-01, sigma=0.0, host=wm--, nav=1024, nbra=2, l_area=1.000, l_dist=1.000 using
quadratic fit line minimization complete dist bet 0 mm 0 smooth_avgresps 0 remove_deg 0
lco_order 0 which surface 0 target_radius 0.000000 nfields 0 scale 1.000000
desired_max_height -1.000000 momentum 0.900000 mhd_size 7 max_nbra 8 iterations 25
surfaces 0 SURFACES 3 flags 0 (0) use curv 0 no sulc 0 no rigid align 0 mri=vasize 2
mri=hemisphere 1 randomSeed 1234

singular matrix in quadratic form singular
matrix in quadratic form singular matrix in
quadratic form singular matrix in quadratic form
singular matrix in quadratic form
----- mriSphereNegAtVArea()
pass 1: epoch 1 of 1 starting distance error 120.05 pass 1:
epoch 2 of 3 starting distance error 120.03 unfolding
complete - removing small folds... starting distance error
120.03 removing remaining folds... final distance error
120.03 MRISumFold() return, current seed 1234
-01: dt=0.0000, 19 negative triangles VmPeak 575832
167: dt=0.9000, 19 negative triangles
168: dt=0.9000, 9 negative triangles
169: dt=0.9000, 12 negative triangles
170: dt=0.9000, 9 negative triangles
171: dt=0.9000, 9 negative triangles
172: dt=0.9000, 8 negative triangles
173: dt=0.9000, 12 negative triangles
174: dt=0.9000, 8 negative triangles
175: dt=0.9000, 8 negative triangles
176: dt=0.9000, 8 negative triangles
177: dt=0.9000, 7 negative triangles
178: dt=0.9000, 9 negative triangles
179: dt=0.9000, 9 negative triangles
```



```
tol=5.0e-01, sigma=0.0, host=wm4--, nav=1024, nbra=1, l_external=10000.000, l_parea=0.200, l_nlares=1.000, l_corr=1.000, l_dist=5.000 using quadratic fit line
minimization
-----1
Reading lh.suic
tol=1.0e+00, sigma=0.5, host=wm4--, nav=1024, nbra=1, l_external=10000.000, l_parea=0.200, l_nlares=1.000, l_corr=0.050, l_spring=0.500, l_dist=5.000 using quadratic fit
line minimization curvature mean = 0.000, std = 5.327 curvature mean = 0.032, std = 0.822 curvature mean = 0.013, std = 0.870 Starting MRIRigidBodyAlignGlobal()
Starting new MRIRigidBodyAlignGlobal_findMinDS()
new MRIRigidBodyAlignGlobal_findMinDS min @ (1.50, -6.50, 4.50) sse = 193304.1, elapsed since starting=0.1542 min
MRIRigidBodyAlignGlobal() done 0.15 min
curvature mean = 0.012, std = 0.834 curvature mean
= 0.007, std = 0.950 curvature mean = 0.009, std =
0.844 curvature mean = 0.003, std = 0.980 curvature
mean = 0.008, std = 0.846 curvature mean = 0.001,
std = 0.992
2 Reading smoothen curvature mean = -0.016,
std = 0.274 curvature mean = 0.042, std =
0.251 curvature mean = 0.061, std = 0.349
curvature mean = 0.040, std = 0.309
curvature mean = 0.031, std = 0.548
curvature mean = 0.039, std = 0.337
curvature mean = 0.016, std = 0.489
curvature mean = 0.038, std = 0.350
curvature mean = 0.004, std = 0.800
MRIRegister() return, current seed 0
-01 dt=0.0000, 1 negative triangles VmPeak 571960
103: dt=0.9900, 1 negative triangles expanding nbhd
size to 1
104: dt=0.9900, 1 negative triangles
105: dt=0.9900, 1 negative triangles
106: dt=0.9900, 1 negative triangles 107: dt=0.9900, 1
negative triangles writing registered surface to
./surf/lh.sphere.reg... registration took 0.06 hours #VMPC#
mris_register VmPeak 571960
PROMPTMSG mris_register 0.0646 hours 2 threads
##PSTIME 2024:04:13:12:12:29 mris_register N 4 e 232.58 S 14.36 U 379.32 P 1694 M 252580 F 17 R 7006805 W 0 c 853 v 3398 I 7832 O 9144 L 3.57 3.19 2.74
##PFLGADPOST 2024:04:13:12:12:29 mris_register N 4 3.24 3.28 2.90 ln -sf
lh.sphere.reg lh.fsaverage.sphere.reg
#-----
##M Surf Reg lh Sat Apr 13 12:12:29 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts mris_register -curv ./surf/rh.sphere
/ust/local/freesurfer/7.4.1/average/rh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif ./surf/rh.sphere.reg using smoothen curvature for final alignment
cud /home/jaibhatoa/mri_processed/014_8_4401/scripts cmdline mris_register -curv ./surf/rh.sphere
/ust/local/freesurfer/7.4.1/average/rh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif ./surf/rh.sphere.reg
0 inflated.N
1 suic
2 smoothen (computed)
7.4.1 7.4.1 reading surface from ./surf/rh.sphere... reading template parameterization from
/ust/local/freesurfer/7.4.1/average/rh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif... MRIRegister() -----max_passes = 4 min_degrees =
5.00000 max_degrees = 64.00000 angles = 8
tol=5.0e-01, sigma=0.0, host=wm4--, nav=1024, nbra=1, l_external=10000.000, l_parea=0.200, l_nlares=1.000, l_corr=1.000, l_dist=5.000 using quadratic fit
line minimization completion_dist_mat 0 rms 0 smoothen_averages 0 remove_neg 0 lco_order 0 which surface 0 target_radius 0.000000 nfields 0 scale 0.000000
desired_max_height -1.000000 minhd_size -10 max_nbhd 10 iterations 25 nsurfaces 0 SURFACES 3 flags 16 (10) use curv 16 no suic 0
no rigid align 0 mris-nlares 1 mris-nbhd sphere 1 randomSeed 0
tol=5.0e-01, sigma=0.0, host=wm4--, nav=1024, nbra=1, l_external=10000.000, l_parea=0.200, l_nlares=1.000, l_corr=1.000, l_dist=5.000 using quadratic fit line
minimization
-----1
Reading rh.suic
tol=1.0e+00, sigma=0.5, host=wm4--, nav=1024, nbra=1, l_external=10000.000, l_parea=0.200, l_nlares=1.000, l_corr=0.050, l_spring=0.500, l_dist=5.000 using quadratic fit
line minimization curvature mean = -0.000, std = 5.386 curvature mean = 0.052, std = 0.819 curvature mean = 0.011, std = 0.873 Starting MRIRigidBodyAlignGlobal()
Starting new MRIRigidBodyAlignGlobal_findMinDS()
new MRIRigidBodyAlignGlobal_findMinDS min @ (6.50, -6.00, 6.50) sse = 257710.6, elapsed since starting=0.1478 min
MRIRigidBodyAlignGlobal() done 0.15 min
curvature mean = 0.035, std = 0.833 curvature mean
= 0.004, std = 0.953 curvature mean = 0.031, std =
0.843 curvature mean = 0.002, std = 0.982 curvature
mean = 0.031, std = 0.846 curvature mean = 0.000,
std = 0.993
2 Reading smoothen curvature mean = -0.017,
std = 0.270 curvature mean = 0.043, std =
0.245 curvature mean = 0.064, std = 0.367
curvature mean = 0.036, std = 0.304
curvature mean = 0.029, std = 0.559
curvature mean = 0.035, std = 0.331
curvature mean = 0.015, std = 0.699
curvature mean = 0.035, std = 0.343
curvature mean = 0.004, std = 0.808
MRIRegister() return, current seed 0
-01 dt=0.0000, 14 negative triangles VmPeak 572216
111: dt=0.9900, 14 negative triangles
112: dt=0.9900, 13 negative triangles
113: dt=0.9900, 11 negative triangles
114: dt=0.9900, 11 negative triangles
115: dt=0.9900, 12 negative triangles
116: dt=0.9900, 10 negative triangles
117: dt=0.9900, 10 negative triangles
118: dt=0.9900, 11 negative triangles
119: dt=0.9900, 10 negative triangles
120: dt=0.9900, 11 negative triangles
121: dt=0.9900, 11 negative triangles
122: dt=0.9900, 11 negative triangles
123: dt=0.9900, 11 negative triangles
124: dt=0.9900, 11 negative triangles
125: dt=0.9900, 11 negative triangles
126: dt=0.9405, 11 negative triangles
127: dt=0.9405, 11 negative triangles
128: dt=0.9405, 12 negative triangles
129: dt=0.9405, 11 negative triangles
130: dt=0.9405, 10 negative triangles
131: dt=0.9405, 9 negative triangles
132: dt=0.9405, 9 negative triangles
133: dt=0.9405, 9 negative triangles
134: dt=0.9405, 9 negative triangles
135: dt=0.9405, 9 negative triangles
136: dt=0.9405, 9 negative triangles
137: dt=0.9405, 9 negative triangles
138: dt=0.9405, 9 negative triangles
139: dt=0.9405, 9 negative triangles
140: dt=0.9405, 8 negative triangles
141: dt=0.9405, 8 negative triangles
142: dt=0.9405, 8 negative triangles
143: dt=0.9405, 8 negative triangles
144: dt=0.9405, 8 negative triangles
145: dt=0.9405, 8 negative triangles
146: dt=0.9405, 8 negative triangles
147: dt=0.9405, 8 negative triangles
148: dt=0.9405, 8 negative triangles
149: dt=0.9405, 8 negative triangles
150: dt=0.8935, 8 negative triangles
151: dt=0.8935, 9 negative triangles
152: dt=0.8935, 8 negative triangles
153: dt=0.8935, 6 negative triangles
154: dt=0.8935, 4 negative triangles
155: dt=0.8935, 6 negative triangles
156: dt=0.8935, 4 negative triangles
157: dt=0.8935, 6 negative triangles
158: dt=0.8935, 4 negative triangles
159: dt=0.8935, 5 negative triangles
160: dt=0.8935, 2 negative triangles
161: dt=0.8935, 4 negative triangles
162: dt=0.8935, 2 negative triangles
163: dt=0.8935, 4 negative triangles
164: dt=0.8935, 2 negative triangles
165: dt=0.8935, 2 negative triangles
166: dt=0.8935, 4 negative triangles
167: dt=0.8935, 2 negative triangles
168: dt=0.8935, 2 negative triangles
169: dt=0.8935, 2 negative triangles
170: dt=0.8488, 2 negative triangles
171: dt=0.8488, 4 negative triangles
172: dt=0.8488, 2 negative triangles
173: dt=0.8488, 2 negative triangles
174: dt=0.8488, 1 negative triangles 175: dt=0.8488, 1
negative triangles writing registered surface to
./surf/rh.sphere.reg...
registration took 0.07 hours #VMPC#
mris_register VmPeak 572216
PROMPTMSG mris_register 0.0736 hours 2 threads
##PSTIME 2024:04:13:12:12:29 mris_register N 4 e 265.00 S 17.53 U 433.21 P 1704 M 252904 F 0 R 8349497 W 0 c 984 v 3841 I 5184 O 9086 L 3.24 3.28 2.90
##PFLGADPOST 2024:04:13:12:12:29 mris_register N 4 3.10 3.23 2.99 ln -sf
rh.sphere.reg rh.fsaverage.sphere.reg
#-----
##M Jacobian white lh Sat Apr 13 12:12:54 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts
mris_jacobian ./surf/lh.white.preaparc ./surf/lh.sphere.reg ./surf/lh.jacobian.white
reading surface from ./surf/lh.white.preaparc... writing
curvature file ./surf/lh.jacobian.white
##PSTIME 2024:04:13:12:12:54 mris_jacobian N 3 e 0.74 S 0.15 U 0.83 P 1324 M 199292 F 4 R 60198 W 0 c 7 w 11 I 616 O 1016 L 3.10 3.23 2.99
##PFLGADPOST 2024:04:13:12:12:54 mris_jacobian N 3 3.10 3.23 2.99
#-----
##M Jacobian white rh Sat Apr 13 12:12:54 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts
mris_jacobian ./surf/rh.white.preaparc ./surf/rh.sphere.reg ./surf/rh.jacobian.white
reading surface from ./surf/rh.white.preaparc... writing
curvature file ./surf/rh.jacobian.white
##PSTIME 2024:04:13:12:12:54 mris_jacobian N 3 e 0.69 S 0.12 U 0.79 P 1324 M 198476 F 0 R 59924 W 0 c 8 w 6 I 0 O 1016 L 3.10 3.23 2.99
##PFLGADPOST 2024:04:13:12:12:55 mris_jacobian N 3 3.10 3.23 2.99
#-----
##M AvgCurv lh Sat Apr 13 12:12:55 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts mris_paint -s 5
/ust/local/freesurfer/7.4.1/average/lh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif#6 ./surf/lh.sphere.reg ./surf/lh.avg_curv
averaging curvature patterns 5 times... reading
surface from ./surf/lh.sphere.reg...
reading template parameterization from /ust/local/freesurfer/7.4.1/average/lh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif...
writing curvature file to ./surf/lh.avg_curv...
##PSTIME 2024:04:13:12:12:55 mris_paint N 5 e 0.62 S 0.12 U 0.62 P 1204 M 153916 F 7 R 41992 W 0 c 3 w 10 I 1096 O 1016 L 3.10 3.23 2.99
##PFLGADPOST 2024:04:13:12:12:55 mris_paint N 5 3.10 3.23 2.99
#-----
##M AvgCurv rh Sat Apr 13 12:12:56 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts mris_paint -s 5
/ust/local/freesurfer/7.4.1/average/rh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif#6 ./surf/rh.sphere.reg ./surf/rh.avg_curv
averaging curvature patterns 5 times... reading
surface from ./surf/rh.sphere.reg...
reading template parameterization from /ust/local/freesurfer/7.4.1/average/rh.folding.atlas.acfb40.noaparc.112.2016-08-02.tif... writing curvature file to
./surf/rh.avg_curv...
##PSTIME 2024:04:13:12:12:56 mris_paint N 5 e 0.61 S 0.08 U 0.65 P 1214 M 151100 F 0 R 41803 W 0 c 11 w 5 t 0 O 1016 L 3.10 3.23 2.99
##PFLGADPOST 2024:04:13:12:12:56 mris_paint N 5 3.10 3.23 2.99
#-----
##M Cortical Parc lh Sat Apr 13 12:12:56 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts mris_ca_label -1 ./label/lh.cortex.label -aseg ./mri/aseg.preasurf.mgz -seed 1234 014_8_4401 lh ./surf/lh.sphere.reg
/ust/local/freesurfer/7.4.1/average/lh.dkparc.atlas.acfb40.noaparc.112.2016-08-02.gcs ./label/lh.aparc.annot
```

```

Finding expansion regions mean absolute
distance = 0.41 +- 0.66
3568 vertices more than 2 sigmas from mean. Averaging target
values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0.3, spring = 0, niters = 100 1_repulse = 5, 1_surf_repulse = 0, checktol = 0
Positioning surface
Entering MRISpositionSurface()  max_nm =
0.3

```



```
001: dt: 0.5000, sse=751751.3, rms=4.841 (44.832k)
002: dt: 0.5000, sse=476201.3, rms=3.460 (28.329k)
003: dt: 0.5000, sse=438869.9, rms=3.233 (6.565k) 004: dt:
0.5000, sse=412615.1, rms=3.097 (5.428k)
rms = 1.1695/1.0773, sse=439688.8/412615.1, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
005: dt: 0.2500, sse=307304.6, rms=2.208 (27.779k)
006: dt: 0.2500, sse=409312.3, rms=1.804 (18.318k) 007: dt:
0.2500, sse=259293.7, rms=1.676 (7.044k)
rms = 1.692/1.4765, sse=258093.8/259293.7, time step reduction 2 of 3 to 0.125 0 0 1
008: dt: 0.2500, sse=28093.8, rms=1.650 (1.573k) 009: dt:
0.1250, sse=254520.7, rms=1.596 (3.297k)
rms = 1.5885/1.5957, sse=253638.5/254520.7, time step reduction 3 of 3 to 0.062 0 0 1
010: dt: 0.1250, sse=253638.5, rms=1.589 (0.450k) maximum number
of reductions reached, breaking from loop positioning took 0.7
minutes done positioning surface
Iteration 1 sse===== n_averages=2,
current_sigma=1
Computing target border values Entering
MRIComputeBorderValues_new()
inside_hi = 120.0000000;
border_hi = 111.7612300;
border_low = 68.0000000;
outside_low = 56.9161340;
outside_hi = 111.7612300;
sigma = 1; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1;
which = 1 thresh = 0.5 flags =
0 CWFindFirstPeakDI=0
CWFindFirstPeakDI=0
nvertices=129260 Gdiag_no=1
vno start=0, stop=129260
Replacing 255s with 0s
RST# sigma=1 had to be increased for 168 vertices, nripped=9040
mean border=62.7, 35 (35) missing vertices, mean dist -0.3 (0.3) (871.7)>-0.3 (828.3)) 668 local
maxima, 625 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakDI 0
MRIComputeBorderValues_new() finished in 0.0651 min

Finding expansion regions mean absolute
distance = 0.43 -- 0.48
3889 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0
Positioning surface Entering
MRIPositionSurface() max_mm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0, hstart=0, hstop=0, nbars=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
0001: dt: 0.0000, sse=786223.5, rms=4.927 011: dt: 0.5000,
sse=43262.1, rms=3.165 (35.756k)
rms = 1.1379/1.1652, sse=437379.7/43262.1, time step reduction 1 of 3 to 0.250 0 0 1
012: dt: 0.5000, sse=437379.8, rms=3.138 (0.863k)
013: dt: 0.2500, sse=283919.6, rms=1.819 (42.037k)
014: dt: 0.2500, sse=235901.9, rms=1.486 (18.273k)
015: dt: 0.2500, sse=251716.8, rms=1.420 (4.501k) 016: dt:
0.2500, sse=248286.7, rms=1.362 (4.037k)
rms = 1.3658/1.3823, sse=248862.7/248286.7, time step reduction 2 of 3 to 0.125 0 1 1 RMS
increased, rejecting step
rms = 1.3561/1.3625, sse=248832.3/248286.7, time step reduction 3 of 3 to 0.062 0 0 1
017: dt: 0.1250, sse=246632.5, rms=1.338 (1.918k) maximum number
of reductions reached, breaking from loop positioning took 0.5
minutes done positioning surface
Iteration 2 sse=====
n_averages=1, current_sigma=0.5 Computing target border values
Entering MRIComputeBorderValues_new()
inside_hi = 120.0000000;
border_hi = 111.7612300;
border_low = 68.0000000;
outside_low = 56.9161340;
outside_hi = 111.7612300;
sigma = 0.5; max_thickness =
10; step_size=0.5;
STEP_SIZE=0.1; which = 1
thresh = 0.5 flags = 0
CWFindFirstPeakDI=0
CWFindFirstPeakDI=0
nvertices=129260 Gdiag_no=1
vno start=0, stop=129260
Replacing 255s with 0s
RST# sigma=0.5 had to be increased for 212 vertices, nripped=9040
mean border=83.6, 104 (15) missing vertices, mean dist -0.2 (0.3) (873.3)>-0.2 (826.7)) 693 local
maxima, 610 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakDI 0
MRIComputeBorderValues_new() finished in 0.0353 min

Finding expansion regions mean absolute
distance = 0.29 -- 0.41
3555 vertices more than 2 sigmas from mean.
Averaging target values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0
Positioning surface Entering
MRIPositionSurface() max_mm = 0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0.5, hstart=0, hstop=0, nbars=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
0001: dt: 0.0000, sse=52181.1, rms=1.843 018: dt: 0.5000,
sse=418100.0, rms=2.966 (22.823k)
rms = 1.1407/2.3680, sse=415965.1/418100.0, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
019: dt: 0.2500, sse=295939.6, rms=2.005 (32.397k)
020: dt: 0.2500, sse=254136.0, rms=1.486 (25.868k) 021: dt:
0.2500, sse=242849.5, rms=1.322 (11.064k)
rms = 1.2884/1.3220, sse=241114.1/242849.5, time step reduction 2 of 3 to 0.125 0 0 1
022: dt: 0.2500, sse=241114.1, rms=1.288 (2.541k) 023: dt:
0.1250, sse=235686.3, rms=1.196 (7.199k)
rms = 1.1886/1.1956, sse=235373.4/235686.3, time step reduction 3 of 3 to 0.062 0 0 1
024: dt: 0.1250, sse=235373.4, rms=1.195 (0.587k) maximum number
of reductions reached, breaking from loop positioning took 0.5
minutes done positioning surface
Iteration 3 sse===== n_averages=0,
current_sigma=0.25
Computing target border values Entering
MRIComputeBorderValues_new() inside_hi =
120.0000000; border_hi = 111.7612300;
border_low = 68.0000000; outside_low =
56.9161340; outside_hi = 111.7612300;
sigma = 0.25; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 1
thresh = 0.5 flags = 0
CWFindFirstPeakDI=0
CWFindFirstPeakDI=0
nvertices=129260 Gdiag_no=1 vno start=0,
stop=129260
Replacing 255s with 0s
RST# sigma=0.25 had to be increased for 273 vertices, nripped=9040
mean border=86.9, 161 (12) missing vertices, mean dist -0.1 (0.2) (856.7)>-0.2 (843.3)) 687 local
maxima, 6 large gradients and 9 0 min vals, 0 gradients ignored nFirstPeakDI 0
MRIComputeBorderValues_new() finished in 0.0224 min

Finding expansion regions mean absolute
distance = 0.22 -- 0.32
2524 vertices more than 2 sigmas from mean. Averaging target
values for 5 iterations...
Positioning Surface: tspring = 0.3, nspring = 0.3, spring = 0, niters = 100 l_repulse = 5, l_surf_repulse = 0, checktol = 0
Positioning surface Entering
MRIPositionSurface() max_mm =
0.3
MAX_REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0.2, hstart=0, hstop=0, nbars=2, l_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
0001: dt: 0.0000, sse=266294.2, rms=1.672
rms = 1.8256/1.6720, sse=267849.8/266294.2, time step reduction 1 of 3 to 0.250 0 1 1 RMS
increased, rejecting step
025: dt: 0.2500, sse=232395.7, rms=1.155 (30.899k) 026: dt:
0.2500, sse=221848.4, rms=0.889 (23.013k)
rms = 0.8960/0.8895, sse=228032.8/221848.4, time step reduction 2 of 3 to 0.125 0 1 1 RMS
increased, rejecting step
rms = 0.8839/0.8895, sse=221065.9/221848.4, time step reduction 3 of 3 to 0.062 0 0 1
027: dt: 0.1250, sse=221065.9, rms=0.886 (0.407k) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Removing interactions
RST# mris_place_surface 2.16 minutes

Writing output to ../surf/zh.white #VMPCH
mris_place_surface %bmask 1997996
mris_place_surface done
##PSTIME 2024/04/13 12:29:32 mris_place_surface N 25 x 135.34 S 0.92 U 191.39 P 1423 M 1706564 F 0 R 503246 W 0 c 275 w 354 I 0 O 9096 L 2.89 3.07 2.97
##PDIAGOUT 2024/04/13 12:31:48 mris_place_surface N 25 2.95 2.98 2.95
#-----##
7.4.1
7.4.1
7.4.1
cd /home/jalbhata/mri/processed/G14_8_4401/mri satenv
SUBJECTS_DIR /home/jalbhata/mri/processed
mris_place_surface -aspec-in ../surf/autodet.gv.stats.lh.dat -seg aspec-presurf.mgz -threads 2 -mm vm.mgz --invol brain.finalsurfs.mgz --lh --i ../surf/lh.white --o ../surf/lh.pial.T1 --pial --smooth 0 --rip-label ../label/lh.cortex+hippamy.label --pin-medial-wall
../label/lh.cortex.label --aparc ../label/lh.aparc.annot --repulse-surf ../surf/lh.white --white-surf ../surf/lh.white
7.4.1
7.4.1
cd /home/jalbhata/mri/processed/G14_8_4401/mri satenv
SUBJECTS_DIR /home/jalbhata/mri/processed
mris_place_surface -aspec-in ../surf/autodet.gv.stats.lh.dat -seg aspec-presurf.mgz -threads 2 -mm vm.mgz --invol brain.finalsurfs.mgz --lh --i ../surf/lh.white --o ../surf/lh.pial.T1 --pial --smooth 0 --rip-label ../label/lh.cortex+hippamy.label --pin-medial-wall
../label/lh.cortex.label --aparc ../label/lh.aparc.annot --repulse-surf ../surf/lh.white --white-surf ../surf/lh.white

Reading in input surface ../surf/lh.white
Not smoothing input surface
Area 258904 0.34586 0.14461 0.000105 2.0222
Cortex 778412 60.00000 17.02384 0.013917 379.0081
Edge 389706 0.90954 0.23621 0.019170 3.5121
Ridge 389706 12.64563 13.63772 0.000003 179.9139
Reading white surface coordinates from ../surf/lh.white
Reading repulsion surface coordinates from ../surf/lh.white
Reading in aparc ../label/lh.aparc.annot
(EBSD) CTMReadFromBinary7(ii): ct-v=vertices=36, num_entries_to_read=36
Reading in input volume brain.finalsurfs.mgz
Reading in seg volume aspec-presurf.mgz
Reading in vm volume vm.mgz
MRIclipBrightMM(ii): mthresh=41599, wmin=5, clip=10 MRIFindBrightNonMM(ii): 995 bright
non-vx voxels segmented
Masking bright non-vx for pial surface mid_gray = 64.4936
MRImask(ii): AllowOffGeom = 1
MRImask(ii): AllowOffGeom = 1
MRImask(ii): AllowOffGeom = 1
Ripping frozen voxels
Ripping vertices not in label ../label/lh.cortex+hippamy.label
MRIStripNotLabel(i) ripped 6911/129904 vertices (122993 unripped)
INFO: rip surface needed but not specified, so using input surface
Ripping segs (seg: WMH, Rd, frozen)
```

```
Starting MRIstripSigs() d = (-2 2 0.5) segnos: 247 MRIstripSigs(): -2 2 0.5
rippled 0
vertex 64952: xyz = (-48.4467,-6.37362,-21.8357) wxyz = (-48.4467,-6.37362,-21.8357) pyxz = (-48.4467,-6.37362,-21.8357)
CWD Creating mask 129904 n_averages 16
Iteration 0 ===== n_averages=16,
current_sigma=2
Computing target border values
Entering MRIComputeBorderValues_new()!
inside_hl = 93.2387700; border_hl =
57.9161340; border_low = 35.7484020;
outside_low = 10.0000000; outside_hl =
52.3741990; sigma = 2; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 2
thresh = 0.5 flags = 0
CBVfindFirstPeakID=0
CBVfindFirstPeakID=0
nverticos=129904 Gdiag_now=1
vno start=0, stp=129904
Replacing 255a with 0a
#S18 sigma=2 had to be increased for 202 vertices, nripped=6911
mean border=51.9, 84 (84) missing vertices, mean dist 2.0 [0.3 (10.0)->2.5 (1100.0)]
123 local maxima, 153 large gradients and 119 min vals, 0 gradients ignored nFirstPeakID 0
MRIComputeBorderValues_new() finished in 0.0704 min
```

```
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nsprng = 0.3, spring = 0, niters = 100 l_repulse = 0, l_surf_repulse = 5, checktol = 0
Positioning surface
Entering MRIPositionSurface() max_mm =
0.3
MAX REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0, host=rm4--, nav=8, nbres=2, l_surf_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
complete_dist_mat 0 rms 0 smooth_averages 0 remove_neg 0 ico_order 0 which_surface 0 target_radius 0.000000 nfields 0 scale 0.000000
desired_rms height 0.000000
momentum 0.000000 shhd size 0
max_nhrs 0 iterations 100
naufakes 0 SURFACES 3 flags 0
(0) use curv 0 no sulc 0 no
rigid align 0 mris=>mriize 2
mris->hemisphere 0 randomized 0
```

```
000: dt: 0.0000, sse=25923026.0, rms=32.393
001: dt: 0.5000, sse=17803016.0, rms=26.767 (17.265%)
002: dt: 0.5000, sse=12384352.0, rms=22.269 (16.804%) 003: dt:
0.5000, sse=9350585.0, rms=19.134 (14.081%)
004: dt: 0.5000, sse=7311054.0, rms=17.010 (11.098%)
005: dt: 0.5000, sse=6026782.0, rms=15.395 (9.497%)
006: dt: 0.5000, sse=4893959.0, rms=13.807 (10.314%)
007: dt: 0.5000, sse=3795932.8, rms=12.085 (12.469%)
008: dt: 0.5000, sse=2839135.2, rms=10.346 (14.393%)
009: dt: 0.5000, sse=2077049.2, rms=8.714 (15.703%)
010: dt: 0.5000, sse=1537005.0, rms=7.341 (15.765%)
011: dt: 0.5000, sse=1219003.8, rms=6.393 (12.904%)
012: dt: 0.5000, sse=10232318.0, rms=8.834 (6.744%)
013: dt: 0.5000, sse=978079.6, rms=5.564 (4.629%)
014: dt: 0.5000, sse=936756.8, rms=5.407 (2.821%)
015: dt: 0.5000, sse=914479.4, rms=5.323 (1.552%) 016: dt:
0.5000, sse=897934.4, rms=5.251 (1.359%)
rms = 1.2137/5.2510, sse=889112.1/897934.4, time step reduction 1 of 3 to 0.250 0 0 1
017: dt: 0.5000, sse=889112.1, rms=5.215 (0.873%)
018: dt: 0.2500, sse=599059.0, rms=3.898 (25.269%)
019: dt: 0.2500, sse=534821.7, rms=3.584 (9.074%) 020: dt:
0.2500, sse=523154.7, rms=3.473 (1.954%)
rms = 3.4270/3.4735, sse=51397.6/523154.7, time step reduction 2 of 3 to 0.125 0 0 1
021: dt: 0.2500, sse=523154.7, rms=3.427 (1.337%)
022: dt: 0.1250, sse=459200.9, rms=3.070 (10.423%) 023: dt:
0.1250, sse=451552.9, rms=3.018 (1.687%)
rms = 3.0115/3.0181, sse=45064.6/451552.9, time step reduction 3 of 3 to 0.062 0 0 1
024: dt: 0.1250, sse=450644.8, rms=3.012 (0.215%) maximum number
of reductions reached, breaking from loop positioning took 1.3
minutes done positioning surface
Iteration 1 ===== n_averages=8,
current_sigma=1
Computing target border values
Entering MRIComputeBorderValues_new()!
inside_hl = 93.2387700; border_hl =
57.9161340; border_low = 35.7484020;
outside_low = 10.0000000; outside_hl =
52.3741990; sigma = 1; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 2
thresh = 0.5 flags =
0
CBVfindFirstPeakID=0
CBVfindFirstPeakID=0
nverticos=129904 Gdiag_now=1
vno start=0, stp=129904
Replacing 255a with 0a
#S18 sigma=1 had to be increased for 4925 vertices, nripped=6911
mean border=52.4, 805 (5) missing vertices, mean dist 0.1 [0.1 (139.4)->0.3 (460.6)]
144 local maxima, 134 large gradients and 116 min vals, 0 gradients ignored nFirstPeakID 0
MRIComputeBorderValues_new() finished in 0.0214 min
```

```
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nsprng = 0.3, spring = 0, niters = 100 l_repulse = 0, l_surf_repulse = 5, checktol = 0
Positioning surface
Entering MRIPositionSurface() max_mm =
0.3
MAX REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0, host=rm4--, nav=8, nbres=2, l_surf_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=814420.4, rms=4.686
rms = 4.8550/4.6862, sse=85540.0/814420.4, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
001: dt: 0.2500, sse=83937.1, rms=3.848 (17.866%)
026: dt: 0.2500, sse=551437.2, rms=3.347 (13.030%) 027: dt:
0.2500, sse=528414.1, rms=3.208 (4.152%)
rms = 1.1596/3.2077, sse=527179.0/528414.2, time step reduction 2 of 3 to 0.125 0 0 1
028: dt: 0.2500, sse=527179.0, rms=3.200 (0.251%)
029: dt: 0.1250, sse=482175.3, rms=2.905 (7.341%) 030: dt:
0.1250, sse=484871.6, rms=2.914 (1.701%)
rms = 2.9055/2.9143, sse=483978.6/484871.6, time step reduction 3 of 3 to 0.062 0 0 1
031: dt: 0.1250, sse=483978.6, rms=2.906 (0.269%) maximum number
of reductions reached, breaking from loop positioning took 0.4
minutes done positioning surface
Iteration 2 =====
n_averages=4, current_sigma=0.5 Computing target border values
Entering MRIComputeBorderValues_new()!
inside_hl = 93.2387700;
border_hl = 57.9161340;
border_low = 35.7484020;
outside_low = 10.0000000;
outside_hl = 52.3741990;
sigma = 0.5; max_thickness =
10; step_size=0.5;
STEP_SIZE=0.1; which = 2
thresh = 0.5 flags = 0
CBVfindFirstPeakID=0
CBVfindFirstPeakID=0
nverticos=129904 Gdiag_now=1
vno start=0, stp=129904
Replacing 255a with 0a
#S18 sigma=0.5 had to be increased for 5136 vertices, nripped=6911
mean border=50.6, 996 (0) missing vertices, mean dist 0.1 [0.1 (138.2)->0.3 (461.8)]
159 local maxima, 119 large gradients and 116 min vals, 0 gradients ignored nFirstPeakID 0
MRIComputeBorderValues_new() finished in 0.0124 min
```

```
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nsprng = 0.3, spring = 0, niters = 100 l_repulse = 0, l_surf_repulse = 5, checktol = 0
Positioning surface
Entering MRIPositionSurface() max_mm =
0.3
MAX REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=0, host=rm4--, nav=4, nbres=2, l_surf_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=81811.8, rms=3.785
rms = 3.0310/3.7857, sse=902694.4/81811.8, time step reduction 1 of 3 to 0.250 0 1 1
RMS
increased, rejecting step
032: dt: 0.2500, sse=505164.1, rms=3.163 (16.438%) 033: dt:
0.2500, sse=511585.8, rms=3.067 (3.034%)
rms = 1.0342/3.0674, sse=503838.6/511585.8, time step reduction 2 of 3 to 0.125 0 0 1
034: dt: 0.2500, sse=503838.6, rms=3.034 (1.085%) 035: dt:
0.1250, sse=480714.2, rms=2.858 (5.816%)
rms = 2.8235/2.8077, sse=475869.1/480714.1, time step reduction 3 of 3 to 0.062 0 0 1
036: dt: 0.1250, sse=475869.1, rms=2.824 (1.194%) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Iteration 3 ===== n_averages=2,
current_sigma=0.25
Computing target border values
Entering MRIComputeBorderValues_new()!
inside_hl = 93.2387700; border_hl =
57.9161340; border_low = 35.7484020;
outside_low = 10.0000000; outside_hl =
52.3741990; sigma = 0.25; max_thickness =
10; step_size=0.5; STEP_SIZE=0.1; which
= 2 thresh = 0.5 flags = 0
CBVfindFirstPeakID=0
CBVfindFirstPeakID=0
nverticos=129904 Gdiag_now=1
vno start=0, stp=129904
Replacing 255a with 0a
#S18 sigma=0.25 had to be increased for 4146 vertices, nripped=6911
mean border=49.7, 2248 (0) missing vertices, mean dist 0.0 [0.1 (446.0)->0.2 (554.0)]
162 local maxima, 115 large gradients and 116 min vals, 0 gradients ignored nFirstPeakID 0
MRIComputeBorderValues_new() finished in 0.0083 min
```

```
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nsprng = 0.3, spring = 0, niters = 100 l_repulse = 0, l_surf_repulse = 5, checktol = 0
Positioning surface
Entering MRIPositionSurface() max_mm =
0.3
MAX REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=2, host=rm4--, nav=2, nbres=2, l_surf_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=508802.6, rms=3.048
rms = 4.1118/3.0479, sse=456673.5/508802.6, time step reduction 1 of 3 to 0.250 0 1 1
RMS
increased, rejecting step
037: dt: 0.2500, sse=479706.6, rms=2.851 (6.465%)
037: dt: 0.2500, sse=479706.6, rms=2.851 (6.465%)
038: dt: 0.2500, sse=473428.7, rms=2.811 (1.394%) 039: dt:
0.1250, sse=461379.7, rms=2.721 (1.139%)
rms = 2.6895/2.7213, sse=456909.7/461379.7, time step reduction 3 of 3 to 0.062 0 0 1
040: dt: 0.1250, sse=456909.7, rms=2.690 (1.168%) maximum number
of reductions reached, breaking from loop positioning took 0.2
minutes done positioning surface
```

```
Averaging target values for 5 iterations...
Positioning Surface: tapering = 0.3, nsprng = 0.3, spring = 0, niters = 100 l_repulse = 0, l_surf_repulse = 5, checktol = 0
Positioning surface
Entering MRIPositionSurface() max_mm =
0.3
MAX REDUCTIONS = 2, REDUCTION_PCT = 0.5
parms->check_tol = 0, iterations = 100
tol=1.0e-04, sigma=2, host=rm4--, nav=2, nbres=2, l_surf_repulse=5.000, l_tspring=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
000: dt: 0.0000, sse=508802.6, rms=3.048
rms = 4.1118/3.0479, sse=456673.5/508802.6, time step reduction 1 of 3 to 0.250 0 1 1
RMS
increased, rejecting step
037: dt: 0.2500, sse=479706.6, rms=2.851 (6.465%)
037: dt: 0.2500, sse=479706.6, rms=2.851 (6.465%)
038: dt: 0.2500, sse=473428.7, rms=2.811 (1.394%) 039: dt:
0.1250, sse=461379.7, rms=2.721 (1.139%)
rms = 2.6895/2.7213, sse=456909.7/461379.7, time step reduction 3 of 3 to 0.062 0 0 1
040: dt: 0.1250, sse=456909.7, rms=2.690 (1.168%) maximum number
of reductions reached, breaking from loop positioning took 0.2
minutes done positioning surface
```

Pinning medial wall to white surface
Removing intersections removing
Intersecting faces 000: 21 intersecting
terminating search with 0 intersecting
RTV mris_place_surface 2.49 minutes

Writing output to ../surf/lh.pial.T1 FWHPCF
mris_place_surfaces VmPeak 1370088
mris_place_surface

##FSLLOADPOST 2024:04:13:12:13:48 mris_place_surface N 28 a 155.14 S 0.54 U 226.03 P 146h M 1069788 F 0 R 295410 W 0 c 421 w 382 I 0 O 9136 L 2.95 2.98 2.95
#-----##
TIP:lsburr fh Sat Apr 13 12:13:42 UTC 2024 cd
../surf/lh.pial.T1 processed/014_S_4401/mri
mris_place_surface --nodata --gstats.gstats.rh.dat --seg aseg-presurf.mgz --threads 2 --wm vm.mgz --invol brain.finaisurfs.mgz --rh -r1 ../surf/rh.white --o ../surf/rh.pial.T1 --pial --smooth 0 --rip-label ../label/rh.cortex+hippamy.label -pin-medial-wall
../label/rh.cortex.label --aparc ../label/rh.aparc.annot --repulse-surf ../surf/rh.white --white-surf ../surf/rh.white
7.4-1
7.4-1

cd ../surf/lh.pial.T1 processed/014_S_4401/mri setenv
SUBJECTS_DIR ../surf/lh.pial.T1 processed
mris_place_surface --seg-in ../surf/autodet.gstats.rh.dat --seg aseg-presurf.mgz --threads 2 --wm vm.mgz --invol brain.finaisurfs.mgz --rh -r1 ../surf/rh.white --o ../surf/rh.pial.T1 --pial --smooth 0 --rip-label ../label/rh.cortex+hippamy.label -pin-medial-wall
../label/rh.cortex.label --aparc ../label/rh.aparc.annot --repulse-surf ../surf/rh.white --white-surf ../surf/rh.white

Reading in input surface ../surf/rh.white
Not smoothing input surface
Area 258516 0.35007 0.14862 0.00098 2.0937
Corner 775548 60.00000 17.06422 0.018041 179.8958
Edge 387774 0.31215 0.24049 0.012198 2.2385
Hinge 387774 12.70256 13.51658 0.000015 179.9393
Reading white surface coordinates from ../surf/rh.white
Reading repulsion surface coordinates from ../surf/rh.white
Reading in aparc ../label/rh.aparc.annot
[DEBLOG] CTABreadFromBinaryV2(): ct->nentries=36, num_entries_to_read=36
Reading in input volume brain.finaisurfs.mgz
Reading in seg volume aseg-presurf.mgz
Reading in vm volume vm.mgz
MRIclipBrightWM(): nbxmask=4199, wmin=5, clip=110 MRIfindBrightNonWM(): 995 bright
non-wm voxels segmented.
Masking bright non-wm for pial surface mid_gray = 64.4936
MRImask(): AllowedDiffGeom = 1
MRImask(): AllowedDiffGeom = 1
MRImask(): AllowedDiffGeom = 1
Ripping frozen voxels
Ripping vertices not in label ../label/rh.cortex+hippamy.label
MRIrip(oriLabel()) ripped 6448/12360 vertices (12362 unripped)
INFO: rip surface needed but not specified, so using input surface
Ripping segs (seg, WMNA, BG, frozen)
Starting MRIripSegs() d = (-2 2 0.3) segnos: 247 MRIripSegs() -2 2 0.3
ripped 0
vertex 44630: xyz = (12.468,-11.006,58.2678) oxzy = (12.468,-11.006,58.2678) wxyz = (12.468,-11.006,58.2678) payx = (12.468,-11.006,58.2678)
CWD Creating mask 12360 n_averages 16
Iteration 0 ===== n_averages=16,
current_sigma=2
Computing target border values Entering
MRIComputeBorderValues_new() inside_hi =
34.2387700; border_hi = 56.9161340;
border_low = 34.7484020; outside_low =
10.0000000; outside_hi = 51.3741990;
sigma = 2; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 2
thresh = 0.5 flags = 0
CBVfindFirstPeakD=0 CBVfindFirstPeakKD=0
nvertices=129260 Gdiag_no=-1 vno start=0,
stop=129260
Replacing 25s with 0s
R181 sigma=2 had to be increased for 267 vertices, nripped=6648
mean border=51.2, 127 (127) missing vertices, mean dist 2.0 (2.6 (10.0)->2.6 (100.0)) 120 local
maxima, 154 large gradients and 120 min vals, 0 gradients ignored nFirstPeakD 0
MRIComputeBorderValues_new() finished in 0.0716 min

Averaging target values for 5 iterations...
Positioning Surface: taping= 0.3, nspring= 0.3, spring= 0, niters= 100 l_repulse= 0, l_surf_repulse= 5, checktol= 0 Positioning
surface Entering MRIPositionSurface() max_mm= 0.3
MAX_REDUCTION= 2, REDUCTION_PCT= 0.5
parms->checktol= 0, iterations= 100
parms->checktol= 0, iterations= 100
tol=1.0e-04, sigma=2.0, host=vm4--, nav=6, nbra=2, l_surf_repulse=5.000, l_taping=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mm=0.00, dt=0.50
complete_dist_max 0 rms 0 smooth_averages 0 remove_seg 0 lco_order 0 which_surface 0 target_radius 0.000000 fields 0 scale 0.000000 desired rms height 0.000000
momentum 0.000000 nbnd_size 0 max_nbs 0 iterations 100 nsurfaces 0 NFWPCF 3 flags 0 (0) use curv 0 no suite 0 no rigid align 0 mris-nvase 0 mris-hemisphere
1 randomSeed 0
000: dt: 0.0000, sse=26454248.0, rms=32.741
001: dt: 0.5000, sse=18531400.0, rms=27.359 (16.4378)
002: dt: 0.5000, sse=1314141.0, rms=22.988 (15.9774)
003: dt: 0.5000, sse=8864892.0, rms=19.865 (13.5874)
004: dt: 0.5000, sse=7383843.0, rms=17.652 (11.1398)
005: dt: 0.5000, sse=376017.5, rms=13.874 (10.0744)
006: dt: 0.5000, sse=5080773.5, rms=14.107 (11.1314)
007: dt: 0.5000, sse=3893589.8, rms=12.266 (13.0528)
008: dt: 0.5000, sse=2825209.8, rms=10.463 (14.6928)
009: dt: 0.5000, sse=2128467.8, rms=8.843 (15.4833)
010: dt: 0.5000, sse=1591254.0, rms=7.496 (15.2388)
011: dt: 0.5000, sse=1271702.5, rms=6.562 (12.4523)
012: dt: 0.5000, sse=1092620.0, rms=5.973 (8.9855)
013: dt: 0.5000, sse=100373.5, rms=4.657 (5.2844)
014: dt: 0.5000, sse=84474.7, rms=4.435 (3.3238)
015: dt: 0.5000, sse=817646.8, rms=5.330 (1.9424) 016: dt:
0.5000, sse=89165.2, rms=4.224 (1.3638)
rms = 5.1908/5.2241, sse=883416.3/891169.2, time step reduction 1 of 3 to 0.250 0 0 1
017: dt: 0.5000, sse=883416.2, rms=5.193 (0.638)
018: dt: 0.2500, sse=601037.0, rms=3.900 (24.8698) 019: dt:
0.2500, sse=539974.6, rms=3.563 (8.6344)
rms = 3.5022/3.5632, sse=53035.8/539974.6, time step reduction 2 of 3 to 0.125 0 0 1
020: dt: 0.2500, sse=230303.9, rms=3.520 (1.2038)
021: dt: 0.1250, sse=475036.6, rms=3.161 (10.2144) 022: dt:
0.1250, sse=487006.6, rms=3.108 (1.6763)
rms = 3.0887/3.1077, sse=465776.2/487006.6, time step reduction 3 of 3 to 0.062 0 0 1
023: dt: 0.1250, sse=465776.2, rms=3.099 (0.2844) maximum number
of reductions reached, breaking from loop positioning took 1.3
minutes done positioning surface
Iteration 1 ===== n_averages=8,
current_sigma=1
Computing target border values Entering
MRIComputeBorderValues_new() inside_hi =
34.2387700; border_hi =
56.9161340; border_low =
34.7484020; outside_low =
10.0000000; outside_hi =
51.3741990;
sigma = 1; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1;
which = 2 thresh = 0.5 flags =
0 CBVfindFirstPeakD=0
CBVfindFirstPeakKD=0
nvertices=129260 Gdiag_no=-1
vno start=0, stop=129260
Replacing 25s with 0s
R181 sigma=1 had to be increased for 5016 vertices, nripped=6648
mean border=51.3, 314 (14) missing vertices, mean dist 0.1 (0.1 (140.2)->0.4 (859.81)) 142 local
maxima, 135 large gradients and 117 min vals, 0 gradients ignored nFirstPeakD 0
MRIComputeBorderValues_new() finished in 0.0224 min

Averaging target values for 5 iterations...
Positioning Surface: taping= 0.3, nspring= 0.3, spring= 0, niters= 100 l_repulse= 0, l_surf_repulse= 5, checktol= 0
Positioning surface Entering MRIPositionSurface() max_mm= 0.3
MAX_REDUCTION= 2, REDUCTION_PCT= 0.5
parms->checktol= 0, iterations= 100
parms->checktol= 0, iterations= 100
tol=1.0e-04, sigma=1.0, host=vm4--, nav=8, nbra=2, l_surf_repulse=5.000, l_taping=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mm=0.00, dt=0.50
000: dt: 0.0000, sse=792629.0, rms=4.584
rms = 4.7241/4.5842, sse=821481.7/792629.0, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
024: dt: 0.2500, sse=466037.3, rms=3.874 (15.5028)
025: dt: 0.2500, sse=565222.2, rms=3.418 (11.7608) 026: dt:
0.2500, sse=42833.8, rms=1.285 (15.8988)
rms = 3.2655/3.2848, sse=539621.0/542833.8, time step reduction 2 of 3 to 0.125 0 0 1
027: dt: 0.2500, sse=339621.1, rms=3.265 (0.5878) 028: dt:
0.1250, sse=509357.4, rms=3.067 (6.0878)
rms = 3.0195/3.0647, sse=502315.0/509357.4, time step reduction 3 of 3 to 0.062 0 0 1
029: dt: 0.1250, sse=502315.0, rms=3.019 (1.5408) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Iteration 2 =====
n_averages=4, current_sigma=0.5 Computing target border values Entering
MRIComputeBorderValues_new() inside_hi =
34.2387700; border_hi = 56.9161340; border_low =
34.7484020; outside_low = 10.0000000; outside_hi =
51.3741990; sigma = 0.5; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 2 thresh = 0.5
flags = 0 CBVfindFirstPeakD=0 CBVfindFirstPeakKD=0
nvertices=129260 Gdiag_no=-1 vno start=0, stop=129260
Replacing 25s with 0s
R181 sigma=0.5 had to be increased for 5317 vertices, nripped=6648
mean border=51.4, 120 (14) missing vertices, mean dist 0.1 (0.1 (140.2)->0.3 (859.81)) 158 local
maxima, 119 large gradients and 117 min vals, 0 gradients ignored nFirstPeakD 0
MRIComputeBorderValues_new() finished in 0.0130 min

Averaging target values for 5 iterations...
Positioning Surface: taping= 0.3, nspring= 0.3, spring= 0, niters= 100 l_repulse= 0, l_surf_repulse= 5, checktol= 0
Positioning surface Entering MRIPositionSurface() max_mm= 0.3
MAX_REDUCTION= 2, REDUCTION_PCT= 0.5
parms->checktol= 0, iterations= 100
parms->checktol= 0, iterations= 100
tol=1.0e-04, sigma=0.5, host=vm4--, nav=4, nbra=2, l_surf_repulse=5.000, l_taping=0.300, l_nspring=0.300, l_intensity=0.200, l_curv=1.000 mm=0.00, dt=0.50
000: dt: 0.0000, sse=23635.1, rms=1.731 731
rms = 4.8190/3.7309, sse=85602.4/23635.1, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
030: dt: 0.2500, sse=53357.5, rms=3.196 (14.3404) 031: dt:
0.2500, sse=517828.0, rms=3.093 (3.2124)
rms = 3.0407/3.0932, sse=531032.5/517828.0, time step reduction 2 of 3 to 0.125 0 0 1
032: dt: 0.2500, sse=512032.4, rms=3.061 (1.0533) 033: dt:
0.1250, sse=489304.1, rms=2.903 (5.1628)
rms = 2.8679/2.9027, sse=484301.8/489304.1, time step reduction 3 of 3 to 0.062 0 0 1
034: dt: 0.1250, sse=484301.8, rms=2.868 (1.1988) maximum number
of reductions reached, breaking from loop positioning took 0.3
minutes done positioning surface
Iteration 3 ===== n_averages=2,
current_sigma=0.25
Computing target border values Entering
MRIComputeBorderValues_new() inside_hi =
34.2387700; border_hi = 56.9161340;
border_low = 34.7484020; outside_low =
10.0000000; outside_hi = 51.3741990;
sigma = 0.25; max_thickness = 10;
step_size=0.5; STEP_SIZE=0.1; which = 2

```
thread = 0.5 flags = 0
CWFindFirstPeakCmd CWFindFirstPeakCmd
nvertices=129260 Gdiag_no=-1 vno start=0,
stop=129260
Repeating 235x with 0s
RST# sigma=0.25 had to be increased for 4400 vertices, stripped=6648
mean border=49.3, 2413 (6 missing vertices, mean dist 0.0 [0.1: (847.2):>0.2: (932.8):]) 161 local
maxima, 116 large gradients and 116 min vals, 0 gradients ignored afterPeak0
MRIComputeBorderValues_new() finished in 0.0085 min

Averaging target values for 5 iterations...
Positioning Surface: sagittal=0.3, napping = 0.3, spring = 0, nitars = 100 l_regulise = 0, l_surf_regulise = 5, checktol = 0 Positioning
Surface Entering MRIPositionedSurface() max_mm = 0.3
MAX REDUCTIONS = 2, REDUCTION PCT = 0.5
param-check_tol = 0, oiterations = 100
tol=1.0e-04, sigma=2, host=rm4--, nave2, nbars2, l_surf_regulise=5.000, l_napping=0.300, l_intensity=0.200, l_curv=1.000 mom=0.00, dt=0.50
0001 dt: 0.0000, ssa=610043.7, rma=3.080
rma = 6.0297/1.0004, ssa=679358.6/310603.7, time step reduction 1 of 3 to 0.250 0 1 1
RMS increased, rejecting step
035: dt: 0.2500, ssa=487179.5, rma=2.888 (6.2468)
rma = 2.8462/1.8880, ssa=480579.2/487179.5, time step reduction 2 of 3 to 0.125 0 0 1
036: dt: 0.2500, ssa=480579.2, rma=2.846 (1.4478) 037: dt:
1.1250, ssa=489262.6, rma=2.763 (2.9288)
rma = 2.7266/2.7629, ssa=484140.5/489262.6, time step reduction 3 of 3 to 0.062 0 0 1
038: dt: 0.1250, ssa=484140.5, rma=2.727 (1.3124) maximum number
of reductions reached, breaking from loop positioning took 0.2
minutes done positioning surface Pinning medial wall to white
surface Removing intersections removing intersecting faces 000: 43
intersecting 001: 15 intersecting terminating search with 0
intersecting
RST# mri_place_surface 2.40 minutes
```

```
Writing output to ../surf/rh.pial.T1 #WMDCA
mri_place_surface Vbmask 119332
mri_place_surface done
##PSTIME 2024:04:13:12:36:52 mri_place_surface N 28 e 149.84 S 0.85 U 218.16 P 1468 M 1059444 F 0 R 292919 W 0 c 428 w 391 I 0 O 8096 L 3.11 3.05 2.99
##PFLDLOADPOST 2024:04:13:12:36:52 mri_place_surface N 28 2.93 3.03 2.99
##M white curv lh Sat Apr 13 12:36:52 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri mri_place_surface --curv-map
../surf/lh.white 2 10 ../surf/lh.curv insurf ../surf/lh.white, nbars 2,
curvature_avg 10 writing curvature file ../surf/lh.curv
##PSTIME 2024:04:13:12:36:53 mri_place_surface N 5 e 1.47 S 0.13 U 1.32 P 1124 M 179152 F 0 R 48256 W 0 c 5 w 5 I 0 O 1016 L 2.93 3.03 2.99 ##PFLDLOADPOST 2024:04:13:12:36:54
mri_place_surface N 5 2.93 3.03 2.99
##M white area lh Sat Apr 13 12:36:54 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri mri_place_surface
--area-map ../surf/lh.white ../surf/lh.area writing curvature file
../surf/lh.area
##PSTIME 2024:04:13:12:36:54 mri_place_surface N 3 e 0.59 S 0.11 U 0.66 P 1294 M 179056 F 0 R 48283 W 0 c 15 w 6 I 0 O 1016 L 2.93 3.03 2.99 ##PFLDLOADPOST 2024:04:13:12:36:55
mri_place_surface N 3 2.93 3.03 2.99
##M pial curv lh Sat Apr 13 12:36:55 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --curv-map ../surf/rh.pial 2 10 ../surf/lh.curv.pial insurf
../surf/rh.pial, nbars 2, curvature_avg 10 writing curvature file
../surf/lh.curv.pial
##PSTIME 2024:04:13:12:36:55 mri_place_surface N 5 e 1.48 S 0.12 U 1.49 P 1124 M 179020 F 0 R 48279 W 0 c 6 w 5 I 0 O 1016 L 2.93 3.03 2.99
##PFLDLOADPOST 2024:04:13:12:36:55 mri_place_surface N 5 2.93 3.03 2.99
##M pial area lh Sat Apr 13 12:36:55 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri mri_place_surface --area-map
../surf/lh.pial ../surf/lh.area.pial writing curvature file
../surf/lh.area.pial
##PSTIME 2024:04:13:12:36:55 mri_place_surface N 3 e 0.61 S 0.09 U 0.70 P 1294 M 179140 F 0 R 48280 W 0 c 4 w 5 I 0 O 1016 L 2.93 3.03 2.99
##PFLDLOADPOST 2024:04:13:12:36:57 mri_place_surface N 3 2.93 3.03 2.99
##M thickness lh Sat Apr 13 12:36:57 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --thickness ../surf/lh.white ../surf/lh.pial 20 5 ../surf/lh.thickness
0 of 129904 vertices processed
25000 of 129904 vertices processed
50000 of 129904 vertices processed
75000 of 129904 vertices processed
100000 of 129904 vertices processed
125000 of 129904 vertices processed
0 of 129904 vertices processed
25000 of 129904 vertices processed
50000 of 129904 vertices processed
75000 of 129904 vertices processed
100000 of 129904 vertices processed
125000 of 129904 vertices processed
vertices processed thickness calculation complete, 921438
truncations.
61590 vertices at 0 distance
118572 vertices at 1 distance
16275 vertices at 2 distance
15446 vertices at 3 distance
3968 vertices at 4 distance
1181 vertices at 5 distance
387 vertices at 6 distance
120 vertices at 7 distance
66 vertices at 8 distance
49 vertices at 9 distance
25 vertices at 10 distance
21 vertices at 11 distance
24 vertices at 12 distance
23 vertices at 13 distance
10 vertices at 14 distance
5 vertices at 15 distance
10 vertices at 16 distance
7 vertices at 17 distance
10 vertices at 18 distance
7 vertices at 19 distance 6
vertices at 20 distance
writing curvature file ../surf/lh.thickness
##PSTIME 2024:04:13:12:36:57 mri_place_surface N 6 e 25.53 S 0.14 U 25.65 P 1014 M 178904 F 0 R 55136 W 0 c 28 w 8 I 0 O 1016 L 2.93 3.03 2.99
##PFLDLOADPOST 2024:04:13:12:37:02 mri_place_surface N 6 2.86 3.01 2.99
##M area and vertex vol lh Sat Apr 13 12:37:02 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --thickness ../surf/lh.white ../surf/lh.pial 20 5 ../surf/lh.thickness
/home/jalbhata/mri_processed/014_g_4401/surf mri_place_surface
lh.area.mid lh.area add lh.area.pial
Saving result to 'lh.area.mid' (type = MRI_CURV_FILE) [ ok ] mri_calc -o
lh.area.mid lh.area.mid div 2
Saving result to 'lh.area.mid' (type = MRI_CURV_FILE) [ ok ] mri_convert --volume
014_g_4401 lh /home/jalbhata/mri_processed/014_g_4401/surf/lh.volume
masking with /home/jalbhata/mri_processed/014_g_4401/label/rh.cortex.label
Total face volume 230126
Total vertex volume 229882 (mask=0)
##M 014_g_4401 lh 229882
vertexvol Done
##PSTIME 2024:04:13:12:37:02 vertexvol N 4 e 1.24 S 0.20 U 1.29 P 1204 M 1787408 F 0 R 84481 W 0 c 5 w 33 I 1080 O 3048 L 2.86 3.01 2.99
##PFLDLOADPOST 2024:04:13:12:37:24 vertexvol N 4 2.79 2.99 2.99
##M white curv rh Sat Apr 13 12:37:24 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri mri_place_surface --curv-map
../surf/rh.white 2 10 ../surf/rh.curv insurf ../surf/rh.white, nbars 2,
curvature_avg 10 writing curvature file ../surf/rh.curv
##PSTIME 2024:04:13:12:37:24 mri_place_surface N 5 e 1.45 S 0.09 U 1.54 P 1124 M 177952 F 0 R 48012 W 0 c 17 w 5 I 0 O 1016 L 2.79 2.99 2.98
##PFLDLOADPOST 2024:04:13:12:37:25 mri_place_surface N 5 2.79 2.99 2.98
##M white area rh Sat Apr 13 12:37:25 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri mri_place_surface
--area-map ../surf/rh.white ../surf/rh.area writing curvature file
../surf/rh.area
##PSTIME 2024:04:13:12:37:25 mri_place_surface N 3 e 0.59 S 0.08 U 0.68 P 1284 M 178048 F 0 R 48031 W 0 c 3 w 5 I 0 O 1016 L 2.79 2.99 2.98
##PFLDLOADPOST 2024:04:13:12:37:26 mri_place_surface N 3 2.79 2.99 2.98
##M pial curv rh Sat Apr 13 12:37:26 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --curv-map ../surf/rh.pial 2 10 ../surf/rh.curv.pial insurf
../surf/rh.pial, nbars 2, curvature_avg 10 writing curvature file
../surf/rh.curv.pial
##PSTIME 2024:04:13:12:37:26 mri_place_surface N 5 e 1.41 S 0.12 U 1.46 P 1124 M 177816 F 0 R 48027 W 0 c 9 w 5 I 0 O 1016 L 2.79 2.99 2.98
##PFLDLOADPOST 2024:04:13:12:37:27 mri_place_surface N 5 2.79 2.99 2.98
##M pial area rh Sat Apr 13 12:37:27 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --area-map ../surf/rh.pial ../surf/rh.area.pial writing curvature
file ../surf/rh.area.pial
##PSTIME 2024:04:13:12:37:27 mri_place_surface N 3 e 0.57 S 0.08 U 0.65 P 1294 M 177952 F 0 R 48032 W 0 c 4 w 5 I 0 O 1016 L 2.79 2.99 2.98
##PFLDLOADPOST 2024:04:13:12:37:28 mri_place_surface N 3 2.81 3.00 2.98
##M thickness rh Sat Apr 13 12:37:28 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --thickness ../surf/rh.white ../surf/rh.pial 20 5 ../surf/rh.thickness
0 of 129260 vertices processed
25000 of 129260 vertices processed
50000 of 129260 vertices processed
75000 of 129260 vertices processed
100000 of 129260 vertices processed
125000 of 129260 vertices processed
0 of 129260 vertices processed
25000 of 129260 vertices processed
50000 of 129260 vertices processed
75000 of 129260 vertices processed
100000 of 129260 vertices processed
125000 of 129260 vertices processed
vertices processed thickness calculation complete, 79:541
truncations.
60355 vertices at 0 distance
114649 vertices at 1 distance
60062 vertices at 2 distance
16585 vertices at 3 distance
4077 vertices at 4 distance
1423 vertices at 5 distance
451 vertices at 6 distance
194 vertices at 7 distance
69 vertices at 8 distance
39 vertices at 9 distance
23 vertices at 10 distance
12 vertices at 11 distance
13 vertices at 12 distance
12 vertices at 13 distance
12 vertices at 14 distance
10 vertices at 15 distance
5 vertices at 16 distance
6 vertices at 17 distance
7 vertices at 18 distance
7 vertices at 19 distance 4
vertices at 20 distance
writing curvature file ../surf/rh.thickness
##PSTIME 2024:04:13:12:37:28 mri_place_surface N 6 e 25.00 S 0.15 U 25.07 P 1004 M 178072 F 0 R 54845 W 0 c 37 w 7 I 0 O 1016 L 2.81 3.00 2.98
##PFLDLOADPOST 2024:04:13:12:37:53 mri_place_surface N 6 2.93 2.91 2.96
##M area and vertex vol rh Sat Apr 13 12:37:53 UTC 2024 cd
/home/jalbhata/mri_processed/014_g_4401/mri
mri_place_surface --thickness ../surf/rh.white ../surf/rh.pial 20 5 ../surf/rh.thickness
/home/jalbhata/mri_processed/014_g_4401/surf mri_place_surface
rh.area.mid rh.area add rh.area.pial
Saving result to 'rh.area.mid' (type = MRI_CURV_FILE) [ ok ] mri_calc -o
rh.area.mid rh.area.mid div 2
Saving result to 'rh.area.mid' (type = MRI_CURV_FILE) [ ok ] mri_convert --volume
014_g_4401 rh /home/jalbhata/mri_processed/014_g_4401/surf/rh.volume masking with
/home/jalbhata/mri_processed/014_g_4401/label/rh.cortex.label Total face volume 234921
Total vertex volume 234712 (mask=0)
##M 014_g_4401 rh 234712
vertexvol Done
##PSTIME 2024:04:13:12:37:53 vertexvol N 4 e 1.22 S 0.20 U 1.27 P 1204 M 295828 F 0 R 84100 W 0 c 12 w 28 I 0 O 3048 L 2.53 2.91 2.96
```

```
##FSLGADPOST 2024:04:13:12:37:54 vertexvol N 4 2.53 2.91 2.96
#-----
## Curvature Stats 1h Sat Apr 13 12:37:54 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/surf mris_curvature_stats -m
--writeCurvatureFiles -G -o ../stats/1h.curv.stats -F smoothm 014_8_4401 1h curv sulc

    Toggling save flag on curvature files [ ok ]
    Outputting results using filestem [ ../stats/1h.curv.stats ]
    Toggling save flag on curvature files [ ok ]
    Setting surface [ 014_8_4401/1h.smoothm ]
    Reading surface... [ ok ]
    Setting texture [ curv ]
    Reading texture... [ ok ]
    Setting texture [ sulc ]
    Reading texture...Gh_filter = 0

    [ ok ]
    Calculating Discrete Principal Curvatures...
    Determining geometric order for vno faces... [#####] [ ok ]
    Determining KH curvatures... [#####] [ ok ]
    Determining K1K2 curvatures... [#####] [ ok ]
    DeltaViolations [ 222 | Gh_filter = 0

WARN: S lookup min: -0.373363
WARN: S explicit min: 0.000000 vertex = 460
##FSLTIME 2024:04:13:12:37:54 mris_curvature_stats N 11 e 1.82 S 0.13 U 1.90 P 1111 N 178944 F 13 R 48463 W 0 c 11 w 13 I 1464 O 8168 L 2.53 2.91 2.96
##FSLGADPOST 2024:04:13:12:37:56 Mris_curvature_stats N 11 2.53 2.91 2.96
#-----
## Curvature Stats rh Sat Apr 13 12:37:56 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/surf mris_curvature_stats -m
--writeCurvatureFiles -G -o ../stats/rh.curv.stats -F smoothm 014_8_4401 rh curv sulc

    Toggling save flag on curvature files [ ok ]
    Outputting results using filestem [ ../stats/rh.curv.stats ]
    Toggling save flag on curvature files [ ok ]
    Setting surface [ 014_8_4401/rh.smoothm ]
    Reading surface... [ ok ]
    Setting texture [ curv ]
    Reading texture... [ ok ]
    Setting texture [ sulc ]
    Reading texture...Gh_filter = 0

    [ ok ]
    Calculating Discrete Principal Curvatures...
    Determining geometric order for vno faces... [#####] [ ok ]
    Determining KH curvatures... [#####] [ ok ]
    Determining K1K2 curvatures... [#####] [ ok ]
    DeltaViolations [ 208 | Gh_filter = 0

WARN: S lookup min: -0.164557
WARN: S explicit min: 0.000000 vertex = 1056
##FSLTIME 2024:04:13:12:37:56 mris_curvature_stats N 11 e 1.82 S 0.13 U 1.92 P 1121 N 177920 F 0 R 48246 W 0 c 7 w 6 I 0 O 8168 L 2.53 2.91 2.96
##FSLGADPOST 2024:04:13:12:37:58 mris_curvature_stats N 11 2.57 2.92 2.96
#-----
## Cortical ribbon mask Sat Apr 13 12:37:58 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/mri mris_volmask --aseg_name aseg-presurf --label_left_white 2
--label_left_ribbon 3 --label_right_white 41 --label_right_ribbon 42 --save_ribbon 014_8_4401

SUBJECTS DIR is /home/jalbhata/mri_processed loading
input data... Running hemis serially Processing left
hemi
computing distance to left white surface computing distance
to left pial surface Processing right hemi
computing distance to right white surface computing
distance to right pial surface hemi masks overlap
volumes = 107
writing volume /home/jalbhata/mri_processed/014_8_4401/mri/ribbon.mgz
mris_volmask took 3.49 minutes writing ribbon files
##FSLTIME 2024:04:13:12:37:58 mris_volmask N 12 e 209.17 S 0.36 U 208.78 P 1004 N 967648 F 8 R 516877 W 0 c 166 w 20 I 920 O 856 L 2.57 2.92 2.96
##FSLGADPOST 2024:04:13:12:41:27 Mris_volmask N 12 2.33 2.56 2.80
#-----
## Cortical Parc 2 1h Sat Apr 13 12:41:27 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/scripts mris_ca_label -1 ../label/1h.cortex.label -aseg ../mri/aseg-presurf.mgz --seed 1234 014_8_4401 1h ../surf/1h.sphere.reg
./usr/local/freesurfer/7.4.1/average/1h.CDparc.atlas.acftb40.noaparc.112.2016-08-02.gcs ../label/1h.aparc.a2009s.annot

setting seed for random number generator to 1234
using ../mri/aseg-presurf.mgz aseg volume to correct midline
7.4.1 7.4.1 reading atlas from /usr/local/freesurfer/7.4.1/average/1h.CDparc.atlas.acftb40.noaparc.112.2016-08-02.gcs...
reading color table from GCSA file...
average std = 3.0 using min determinant for regularization = 0.088 0 singular and 0
111-conditioned covariance matrices regularized reading surface from
/home/jalbhata/mri_processed/014_8_4401/surf/1h.smoothm... GCSA:load_default_data():
singupt=1 sulc_only=0 which_norm=0 Labeling surface...
24 labels changed using aseg relabeling using
globe priors...
000: 9044 changed, 129904 examined...
001: 2035 changed, 34647 examined...
002: 584 changed, 10414 examined...
003: 278 changed, 3374 examined...
004: 136 changed, 1599 examined...
005: 71 changed, 792 examined...
006: 38 changed, 430 examined...
007: 21 changed, 219 examined...
008: 16 changed, 113 examined...
009: 10 changed, 83 examined...
010: 6 changed, 48 examined...
011: 4 changed, 35 examined...
012: 3 changed, 18 examined...
013: 1 changed, 17 examined...
014: 0 changed, 7 examined...
13 labels changed using aseg
000: 235 total segments, 153 labels (2414 vertices) changed
001: 91 total segments, 11 labels (29 vertices) changed
002: 83 total segments, 1 labels (2 vertices) changed
003: 82 total segments, 0 labels (0 vertices) changed 10 filter
iterations complete (10 requested, 33 changed) rationalizing
unknown annotations with cortex label relabeling Medial_wall
label... relabeling unknown label...
1254 vertices marked for relabeling... 1254 labels changed
in reclassification. writing output to
../label/1h.aparc.a2009s.annot...
classification took 0 minutes and 12 seconds.
##FSLTIME 2024:04:13:12:41:27 mris_ca_label N 11 e 11.84 S 1.38 U 10.82 P 1031 N 1756040 F 0 R 764355 W 0 c 25 w 12 I 42432 O 2040 L 2.33 2.56 2.80
##FSLGADPOST 2024:04:13:12:41:39 Mris_ca_label N 11 2.33 2.56 2.80
#-----
## Cortical Parc 2 1h Sat Apr 13 12:41:39 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/scripts mris_ca_label -1 ../label/rh.cortex.label -aseg ../mri/aseg-presurf.mgz --seed 1234 014_8_4401 rh ../surf/rh.sphere.reg
./usr/local/freesurfer/7.4.1/average/rh.CDparc.atlas.acftb40.noaparc.112.2016-08-02.gcs ../label/rh.aparc.a2009s.annot

setting seed for random number generator to 1234
using ../mri/aseg-presurf.mgz aseg volume to correct midline
7.4.1 7.4.1 reading atlas from /usr/local/freesurfer/7.4.1/average/rh.CDparc.atlas.acftb40.noaparc.112.2016-08-02.gcs...
reading color table from GCSA file...
average std = 1.4 using min determinant for regularization = 0.021 0 singular and 0
111-conditioned covariance matrices regularized reading surface from
/home/jalbhata/mri_processed/014_8_4401/surf/rh.smoothm... GCSA:load_default_data():
singupt=1 sulc_only=0 which_norm=0 Labeling surface...
27 labels changed using aseg relabeling using
globe priors...
000: 8554 changed, 129260 examined...
001: 1950 changed, 33261 examined...
002: 564 changed, 10455 examined...
003: 278 changed, 3339 examined...
004: 112 changed, 1581 examined...
005: 55 changed, 658 examined...
006: 30 changed, 314 examined...
007: 14 changed, 174 examined...
008: 8 changed, 81 examined...
009: 4 changed, 52 examined...
010: 5 changed, 23 examined...
011: 0 changed, 28 examined...
39 labels changed using aseg
000: 214 total segments, 151 labels (2083 vertices) changed
001: 91 total segments, 9 labels (58 vertices) changed
002: 82 total segments, 0 labels (0 vertices) changed 10 filter
iterations complete (10 requested, 28 changed) rationalizing
unknown annotations with cortex label relabeling Medial_wall
label... relabeling unknown label...
1059 vertices marked for relabeling... 1059 labels changed
in reclassification. writing output to
../label/rh.aparc.a2009s.annot... classification took 0
minutes and 11 seconds.
##FSLTIME 2024:04:13:12:41:39 mris_ca_label N 11 e 11.39 S 1.20 U 10.55 P 1031 N 1655412 F 0 R 636954 W 0 c 23 w 15 I 42776 O 2032 L 2.33 2.55 2.80
##FSLGADPOST 2024:04:13:12:41:50 mris_ca_label N 11 2.43 2.57 2.80
#-----
## Cortical Parc 3 1h Sat Apr 13 12:41:50 UTC 2024 /home/jalbhata/mri_processed/014_8_4401/scripts mris_ca_label -1 ../label/1h.cortex.label -aseg ../mri/aseg-presurf.mgz --seed 1234 014_8_4401 1h ../surf/1h.sphere.reg
./usr/local/freesurfer/7.4.1/average/1h.DKTparc.atlas.acftb40.noaparc.112.2016-08-02.gcs ../label/1h.aparc.DKTatlas.annot

setting seed for random number generator to 1234
using ../mri/aseg-presurf.mgz aseg volume to correct midline
7.4.1 7.4.1 reading atlas from
./usr/local/freesurfer/7.4.1/average/1h.DKTparc.atlas.acftb40.noaparc.112.2016-08-02.gcs... reading color table from GCSA
file... average std = 1.4 using min determinant for regularization = 0.020 0 singular and 383 111-conditioned covariance
matrices regularized reading surface from /home/jalbhata/mri_processed/014_8_4401/surf/1h.smoothm...
GCSA:load_default_data(): singupt=1 sulc_only=0 which_norm=0 Labeling surface...
2154 labels changed using aseg relabeling using
globe priors...
000: 1863 changed, 129904 examined...
001: 419 changed, 8751 examined...
002: 131 changed, 2416 examined...
003: 64 changed, 750 examined...
004: 30 changed, 365 examined...
005: 14 changed, 149 examined...
006: 13 changed, 72 examined...
007: 8 changed, 77 examined...
008: 5 changed, 48 examined...
009: 2 changed, 31 examined...
010: 3 changed, 14 examined...
011: 2 changed, 19 examined...
012: 1 changed, 12 examined...
013: 1 changed, 7 examined...
014: 1 changed, 6 examined...
015: 1 changed, 8 examined...
016: 1 changed, 7 examined...
017: 1 changed, 7 examined...
018: 0 changed, 7 examined...
271 labels changed using aseg
000: 41 total segments, 8 labels (155 vertices) changed
001: 34 total segments, 1 labels (1 vertices) changed
002: 33 total segments, 0 labels (0 vertices) changed 10 filter
iterations complete (10 requested, 1 changed) rationalizing
unknown annotations with cortex label relabeling unknown
label... relabeling corpuscallosum label...
826 vertices marked for relabeling... 826 labels changed in
reclassification. writing output to
../label/1h.aparc.DKTatlas.annot...
classification took 0 minutes and 8 seconds.
##FSLTIME 2024:04:13:12:41:50 mris_ca_label N 11 e 8.47 S 0.59 U 8.23 P 1041 N 863476 F 0 R 322247 W 0 c 15 w 13 I 42976 O 2040 L 2.43 2.57 2.80
##FSLGADPOST 2024:04:13:12:41:59 mris_ca_label N 11 2.37 2.55 2.79
#-----
```



```
### Cortical Parc 3 rh Sat Apr 13 12:41:59 UTC 2024 /home/jaibhatoa/mri_processed/014_g_4401/scripts mris_ca_label -1 ../label/rh.cortex.label -aseg ../mri/aseg.pesurf.mgz -seed 1234 014_g_4401 rh ../surf/rh.sphere.reg
/usr/local/freesurfer/7.4.1/average/rh.DKTaparc.atlas.acf040.noaparc.112.2016-08-02.gcs ../label/rh.aparc.DKTatlas.annot

setting seed for random number generator to 1234
using ../mri/aseg.pesurf.mgz aseg volume to correct midline 7.4.1 7.4.1 reading atlas from
/usr/local/freesurfer/7.4.1/average/rh.DKTaparc.atlas.acf040.noaparc.112.2016-08-02.gcs... reading color table from GCSA
file....
average mid = 0.9 using min determinant for regularization = 0.009 0 singular and 325
11-conditioned covariance matrices regularized reading surface from
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.smoothm... GCSA:load_default_data():
input=1 suit_only=0 which rh_norm=0 labeling surface...
2296 labels changed using aseg relabeling using
gibbs priors...
000: 1381 changed, 129260 examined...
001: 504 changed, 9189 examined...
002: 163 changed, 2719 examined...
003: 81 changed, 950 examined...
004: 47 changed, 454 examined...
005: 21 changed, 245 examined...
006: 20 changed, 129 examined...
007: 12 changed, 108 examined...
008: 12 changed, 71 examined...
009: 9 changed, 58 examined...
010: 5 changed, 42 examined...
011: 3 changed, 27 examined...
012: 3 changed, 19 examined...
013: 3 changed, 16 examined...
014: 3 changed, 16 examined...
015: 7 changed, 21 examined...
016: 4 changed, 28 examined...
017: 4 changed, 21 examined...
018: 2 changed, 15 examined...
019: 3 changed, 15 examined...
020: 3 changed, 14 examined...
021: 3 changed, 15 examined...
022: 3 changed, 19 examined...
023: 3 changed, 20 examined...
024: 2 changed, 20 examined...
025: 0 changed, 8 examined...
469 labels changed using aseg
000: 58 total segments, 25 labels (267 vertices) changed
001: 33 total segments, 0 labels (0 vertices) changed 10 filter
iterations complete (10 requested, 1 changed) rationalizing
unknown annotations with cortex label relabeling unknown
label...
relabeling corpuscallosum label...
798 vertices marked for relabeling... 798 labels changed in
reclassification. writing output to
../label/rh.aparc.DKTatlas.annot... classification took 0
minutes and 8 seconds
###FPTIME 2024:04:13:12:41:59 mris_ca_label N 11 = 8.43 8 0.57 U 8.23 P 1048 M 938748 F 0 R 301215 W 0 c 20 w 12 I 42952 O 2024 L 2.37 2.55 2.79
###FSLOADPOST 2024:04:13:12:42:07 mris_ca_label N 11 2.42 2.55 2.79
#-----
### WM/GM Contrast 1h Sat Apr 13 12:42:07 UTC 2024
/home/jaibhatoa/mri_processed/014_g_4401/scripts pctxsurfcon --s
014_g_4401 --rh-only

Log file is /home/jaibhatoa/mri_processed/014_g_4401/scripts/pctxsurfcon.log Sat Apr 13
12:42:07 UTC 2024
setenv SUBJECTS_DIR /home/jaibhatoa/mri_processed cd
/home/jaibhatoa/mri_processed/014_g_4401/scripts
/usr/local/freesurfer/7.4.1/bin/pctxsurfcon
pctxsurfcon 7.4.1
Linux vm4-jb-3d-mri-pcp-processing 6.5.0-1016-gcp #16-22.04.1-Ubuntu SMP Sat Mar 9 00:58:37 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux FREESURFER_HOME
/usr/local/freesurfer/7.4.1
mri_vol2surf --mov /home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz --hemi lh --noreshape --interp trilinear --projdist -1 --o /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.wm.mgh --regheader 014_g_4401 --cortex sctvol =
/home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz sctreg unspecified sctregold = 0 sctwarp unspecified surf = white hemi = lh ProjDist = -1 reshape = 0 interp = trilinear float2int = round
float2int = round
GetProjMax = 0
INFO: float2int code = 0
INFO: changing type to float
Done loading volume
Computing registration from header.
Using /home/jaibhatoa/mri_processed/014_g_4401/mri/orig.mgz as target reference. ----- original
matrix -----
1.00000 0.00000 0.00000 -0.00001; 0.00000
0.00000 1.00000 0.00000; 0.00000 -1.00000
0.00000 0.00000;
0.00000 0.00000 0.00000 1.00000;
----- original matrix -----
Loading label /home/jaibhatoa/mri_processed/014_g_4401/label/lh.cortex.label
Reading surface /home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white
Done reading source surface
Mapping Source Volume onto Source Subject Surface
Projecting -1 -1 1 1
-1 -1 using old
Done mapping volume to surface
Number of source voxels hit = 76070
Masking with /home/jaibhatoa/mri_processed/014_g_4401/label/lh.cortex.label
Writing to /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.wm.mgh Din: 129904
1 1 mri_vol2surf done
mri_vol2surf --mov /home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz --hemi lh --noreshape --interp trilinear --o /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.gm.mgh --projfrac 0.3 --regheader 014_g_4401 --cortex sctvol =
/home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz sctreg unspecified sctregold = 0 sctwarp unspecified surf = white hemi = lh ProjFrac = 0.3 thickness = thickness reshape = 0 interp = trilinear float2int = round
GetProjMax = 0
INFO: float2int code = 0
INFO: changing type to float
Done loading volume
Computing registration from header.
Using /home/jaibhatoa/mri_processed/014_g_4401/mri/orig.mgz as target reference. ----- original
matrix -----
1.00000 0.00000 0.00000 -0.00001; 0.00000
0.00000 1.00000 0.00000; 0.00000 -1.00000
0.00000 0.00000;
0.00000 0.00000 0.00000 1.00000;
----- original matrix -----
Loading label /home/jaibhatoa/mri_processed/014_g_4401/label/lh.cortex.label
Reading surface /home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white Done reading
source surface
Reading thickness /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.thickness Done
Mapping Source Volume onto Source Subject Surface
Projecting 0.3 0.3 1 1
0.3 0.3 0.3 using old
Done mapping volume to surface
Number of source voxels hit = 90636
Masking with /home/jaibhatoa/mri_processed/014_g_4401/label/lh.cortex.label
Writing to /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.gm.mgh Din: 129904 1 1 mri_vol2surf done mri_concat /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.wm.mgh /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7820/lh.gm.mgh
--paired-diff=on --mri 100 --o /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.w-g-pct.
mgh inputs = 2
Checking inputs
nframes=0 = 2
Allocating output
Done allocating Combining
pairs nframes = 1
Multiplying by 100.000000
Writing to /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.w-g-pct.mgh mri_segstats --in /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.w-g-pct.mgh --annot 014_g_4401 lh.aparc --sum
/home/jaibhatoa/mri_processed/014_g_4401/stats/lh.w-g-pct.stats --snr

7.4.1 cwd
cmdline mri_segstats --in /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.w-g-pct.mgh --annot 014_g_4401 lh.aparc --sum /home/jaibhatoa/mri_processed/014_g_4401/stats/lh.w-g-pct.stats --snr sysname Linux
hostname vm4-jb-3d-mri-pcp-processing
uname -m x86_64 user jaibhatoa whitesurfname
white
Usehdbust 0
Constructing seg from annotation
Reading annotation /home/jaibhatoa/mri_processed/014_g_4401/label/lh.aparc.annot Seg base 1000
MRISegment2seg(): nhits = 121208
Loading /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.w-g-pct.mgh
Vertex Area is 0.63178 mm^3
Generating list of segmentation ids
Found 36 segmentations
Computing statistics for each segmentation
Reporting on 35 segmentations
Using PrintSegStat mri_segstats done
Cleaning up
###FPTIME 2024:04:13:12:42:07 pctxsurfcon M 3 = 2.69 8 0.43 U 2.62 P 1158 M 262556 F 17 R 184877 W 0 c 13 w 86 I 2176 O 3176 L 2.42 2.55 2.79
###FSLOADPOST 2024:04:13:12:42:10 pctxsurfcon M 3 2.38 2.55 2.79
#-----
### WM/GM Contrast rh Sat Apr 13 12:42:10 UTC 2024
/home/jaibhatoa/mri_processed/014_g_4401/scripts pctxsurfcon --s
014_g_4401 --rh-only

Log file is /home/jaibhatoa/mri_processed/014_g_4401/scripts/pctxsurfcon.log Sat Apr 13
12:42:10 UTC 2024
setenv SUBJECTS_DIR /home/jaibhatoa/mri_processed cd
/home/jaibhatoa/mri_processed/014_g_4401/scripts
/usr/local/freesurfer/7.4.1/bin/pctxsurfcon
pctxsurfcon 7.4.1
Linux vm4-jb-3d-mri-pcp-processing 6.5.0-1016-gcp #16-22.04.1-Ubuntu SMP Sat Mar 9 00:58:37 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux FREESURFER_HOME
/usr/local/freesurfer/7.4.1
mri_vol2surf --mov /home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz --hemi rh --noreshape --interp trilinear --o /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7886/rh.wm.mgh --regheader 014_g_4401 --cortex sctvol =
/home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz sctreg unspecified sctregold = 0 sctwarp unspecified surf = white hemi = rh ProjDist = -1 reshape = 0 interp = trilinear float2int = round
GetProjMax = 0
INFO: float2int code = 0
INFO: changing type to float
Done loading volume
Computing registration from header.
Using /home/jaibhatoa/mri_processed/014_g_4401/mri/orig.mgz as target reference. ----- original
matrix -----
1.00000 0.00000 0.00000 -0.00001; 0.00000
0.00000 1.00000 0.00000; 0.00000 -1.00000
0.00000 0.00000;
0.00000 0.00000 0.00000 1.00000;
----- original matrix -----
Loading label /home/jaibhatoa/mri_processed/014_g_4401/label/rh.cortex.label
Reading surface /home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white Done reading
source surface
Mapping Source Volume onto Source Subject Surface
Projecting -1 -1 1 1
-1 -1 using old
Done mapping volume to surface
Number of source voxels hit = 75987
Masking with /home/jaibhatoa/mri_processed/014_g_4401/label/rh.cortex.label
Writing to /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7886/rh.wm.mgh Din: 129260
1 1 mri_vol2surf done
mri_vol2surf --mov /home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz --hemi rh --noreshape --interp trilinear --o /home/jaibhatoa/mri_processed/014_g_4401/surf/tmp.pctxsurfcon.7886/rh.gm.mgh --projfrac 0.3 --regheader 014_g_4401 --cortex sctvol =
/home/jaibhatoa/mri_processed/014_g_4401/mri/rawavg.mgz sctreg unspecified sctregold = 0 sctwarp unspecified surf = white hemi = rh ProjFrac = 0.3 thickness = thickness reshape = 0 interp = trilinear float2int = round
GetProjMax = 0
INFO: float2int code = 0
INFO: changing type to float
Done loading volume
Computing registration from header.
Using /home/jaibhatoa/mri_processed/014_g_4401/mri/orig.mgz as target reference. ----- original
matrix -----
```

```
1.00000 0.00000 0.00000 -0.0000i 0.00000
0.00000 1.00000 0.00000i 0.00000 -i.00000
0.00000 0.00000i
0.00000 0.00000i
0.00000 0.00000i
----- original matrix -----
Loading label /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Reading surface /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Done reading source surface
Reading thickness /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.thickness.Done
Mapping Source Volume onto Source Subject Surface
Projecting 0.3 0.3 1
1 0.3 0.3 0.3 using
old
Done mapping volume to surface
Number of source voxels hit = 90252
Masking with /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Writing to /home/jaibhatoa/mri_processed/014_8_4401/surf/tmp.potsurfcon.7886/rh.gm.mgh.Dim: 129260 1 1 mri_volzsurf done mri_concat /home/jaibhatoa/mri_processed/014_8_4401/surf/tmp.potsurfcon.7886/rh.wm.mgh /home/jaibhatoa/mri_processed/014_8_4401/surf/tmp.potsurfcon.7886/rh.gm.mgh
--paired-diff-norm --mut 100 --o /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.w-g.pct.
mgh_singula = 2
Checking inputs
nframestot = 2
Allocating output
Done allocating Combining
pairs nframes = 1
Multiplying by 100.000000
Writing to /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.w-g.pct.mgh mri_segstats --in /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.w-g.pct.mgh --annot 014_8_4401 rh.aparc --sum
/home/jaibhatoa/mri_processed/014_8_4401/stats/rh.w-g.pct.stats --sum

7.4.1 cwd
Outline mri_segstats --in /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.w-g.pct.mgh --annot 014_8_4401 rh.aparc --sum /home/jaibhatoa/mri_processed/014_8_4401/stats/rh.w-g.pct.stats --syr sysname Linux
hostname vmf--jy-3d-mri-pre-processing
machine x86_64 user jaibhatoa whitesurfname
white
UseRobust 0
Constructing seg from annotation

Reading annotation /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.annot Seg base 2000
MRIFormat2seg(): white = 129725
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.w-g.pct.mgh
Vertex Area is 0.705134 mm^3
Generating list of segmentation ids
Found 36 segmentations
Computing statistics for each segmentation

Reporting on 35 segmentations
Using PrintSegStat mri_segstats done
Cleaning up
#####FSTIME 2024:04:13:12:42:10 potsurfcon N 3 e 2.64 S 0.41 U 2.64 P 1163 M 261876 F 0 R 190744 W 0 c 16 w 79 I 0 O 3152 L 2.38 2.55 2.79
#####FSLLOADPOST 2024:04:13:12:42:13 potsurfcon N 3 2.38 2.55 2.79
#-----
## Relabel Hypointensities Sat Apr 13 12:42:13 UTC 2024
/home/jaibhatoa/mri_processed/014_8_4401/mri_mri_relabel_hypointensities

aseg.prsurf.mgz ../surf/aseg.prsurf.hypox.mgz

reading input surface ../surf/lh.white...
relabeling lh hypointensities... 1279 voxels
changed to hypointensity... reading input
surface ../surf/rh.white...
relabeling rh hypointensities... 1635 voxels
changed to hypointensity...
2908 hypointense voxels neighboring cortex changed
#####FSTIME 2024:04:13:12:42:13 mri_relabel_hypointensities N 3 e 11.75 S 0.51 U 11.66 P 1044 M 466176 F 11 R 332240 W 0 c 26 w 20 I 1848 O 672 L 2.38 2.55 2.79
#####FSLLOADPOST 2024:04:13:12:42:14 mri_relabel_hypointensities N 3 2.30 2.52 2.77
#-----
## APARC-to-Aseg Sat Apr 13 12:42:14 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/mri
mri_surfvolseg --o aseg.mgz --i aseg.prsurf.hypox.mgz --fix-prsurf-with-ribbon /home/jaibhatoa/mri_processed/014_8_4401/mri/ribbon.mgz --threads 2 --lh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label --lh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white --lh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial --rh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label --rh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
--rh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial

SUBJECTS DIR /home/jaibhatoa/mri_processed/outvol
aseg.mgz
8 avail.processors, using 2
Loading aseg.prsurf.hypox.mgz
Loading /home/jaibhatoa/mri_processed/014_8_4401/mri/ribbon.mgz
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Done loading
0 128 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 129 17 18 19
20 21 22 23 24 25 26 27 28 29 30 31 32 130 33 34 35 36 37 38 39
40 41 42 43 131 44 45 46 47 48 49 50 51 52 53 54 55 132 56 57 58 59
60 61 62 63 64 65 133 66 67 68 69 70 134 71 72 73 135 74 75 136 76 137 77 78 138 79
80 139
81 82 140 83 141 84 85 142 86 87 143 88 144 89 145 90 146 147 91 148 92 149 150 93 151 94 152 95 153 96 154 97 155 98 156 157 99
158 100 159
101 160 161 162 163 103 164 165 166 167 168 169 169 169 170 170 171 172 111 173 174 112 175 176 113 177 178 179
180 181 182 183 184 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199
200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219
220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 217 236 237 238 239
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 127 nrelabeled = 0
Starting SurfVolSeg free free
done
#####FSTIME 2024:04:13:12:42:30 mri_surfvolseg N 20 e 5.79 S 0.54 U 7.42 P 1378 M 872644 F 8 R 246273 W 0 c 59 w 23 I 1424 O 704 L 2.30 2.52 2.77
#####FSLLOADPOST 2024:04:13:12:42:30 mri_surfvolseg N 20 2.43 2.54 2.78 mri_brainvol_stats --subject

014_8_4401

ComputeBrainVolumeStats2 VoxelVol=1, KeepCDF=1
#CBV02 MaskVol 1491153.0
#CBV02 BrainSegVol 1106350.0
#CBV02 BrainSegVolNotVent 1074945.0
#CBV02 SupratentVol 987547.0
#CBV02 SupratentVolNotVent 956142.0
#CBV02 IICtGM 238477.7
#CBV02 rICtGM 234939.5
#CBV02 rICwArealWM 219845.5
#CBV02 rICwArealWM 219161.5
#CBV02 SubCortGMVol 53449.0
#CBV02 CerebellumVol 118803.0
#CBV02 CerebellumGMVol 96875.0
#CBV02 VentCharVol 27337.0
#CBV02 JsdArealHCHSF 4068.0
#CBV02 AIIICSF 31405.0
#CBV02 CVOl 4831.0
#####FSTIME 2024:04:13:12:42:30 mri_brainvol_stats N 2 e 2.64 S 0.23 U 3.11 P 1264 M 222796 F 25 R 111577 W 0 c 5 w 36 I 4312 O 8 L 2.43 2.54 2.78
#####FSLLOADPOST 2024:04:13:12:42:33 mri_brainvol_stats N 2 2.48 2.55 2.78
#-----
## APARC-to-Aseg aparc Sat Apr 13 12:42:33 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/mri
mri_surfvolseg --o aparc.aseg.mgz --i-label-cortex --i aseg.mgz --threads 2 --lh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.annot 1000 --lh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label --lh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white --lh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial --rh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.annot 2000 --rh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label --rh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial

SUBJECTS DIR /home/jaibhatoa/mri_processed/outvol
aparc.aseg.mgz 8 avail.processors, using 2
Loading aseg.mgz
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label
Ripping lh vertices labeled not in lh.cortex.label ripped 8696
vertices from lh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.annot
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Ripping rh vertices labeled not in rh.cortex.label ripped 8535
vertices from rh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.annot
Done loading
0 128 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
60 61 62 63 64 65 66 67 68 69 129 70 71 72 130 73 131 74 75 132 76 133 77 134 78 135 136 79
137 80 138 81 139
82 140 83 141 142 84 143 85 144 86 145 146 87 147 88 148 149 89 150 90 151 91 152 153 92 154 93 155 94 156 95 157 96 158 97 159
98 160 99
161 100 161 162 163 103 164 165 166 107 166 108 167 109 110 168 111 112 169 113 170 114 171 115 172 116 173 117 174 118 175 176 119 177 178 120 179
121 180 181 122 182 123 183 184 124 185 186 125 187 188 189 190 191 192 193 194 195 196 197 198 199
200 201 202 203 204 205 126 206 207 208 209 210 211 212 213 214 215 216 217 218 219
220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 127 nrelabeled = 0
Starting SurfVolSeg free free done
#####FSTIME 2024:04:13:12:42:33 mri_surfvolseg N 25 e 43.24 S 0.46 U 81.91 P 1508 M 853892 F 0 R 238875 W 0 c 106 w 16 I 0 O 808 L 2.48 2.55 2.78
#####FSLLOADPOST 2024:04:13:12:43:16 mri_surfvolseg N 25 2.79 2.62 2.80
#-----
## APARC-to-Aseg aparc.a2009 Sat Apr 13 12:43:16 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/mri
mri_surfvolseg --o aparc.a2009.aseg.mgz --i-label-cortex --i aseg.mgz --threads 2 --lh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.a2009.annot 11000 --lh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label --lh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white --lh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial --rh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.a2009.annot 12100 --rh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label --rh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial

SUBJECTS DIR /home/jaibhatoa/mri_processed/outvol
aparc.a2009.aseg.mgz 8 avail.processors, using 2
Loading aseg.mgz
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label
Ripping lh vertices labeled not in lh.cortex.label ripped 8696
vertices from lh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.a2009.annot
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Ripping rh vertices labeled not in rh.cortex.label ripped 8535
vertices from rh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.a2009.annot Done loading
0 128 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
60 61 62 63 64 65 66 67 68 69 129 70 71 72 130 73 131 74 75 132 76 133 77 134 78 135 136 79
137 80 138 81 139
82 140 83 141 142 84 143 85 144 86 145 146 87 147 88 148 149 89 150 90 151 91 152 153 92 154 93 155 94 156 95 157 96 158 97 159
98 99
160 100 161 162 163 103 164 165 166 107 166 108 169 169 169 170 170 171 172 116 173 117 174 118 175 176 119 177 178 120 179
121 180 181 122 182 123 183 184 124 185 186 125 187 188 189 190 191 192 193 194 195 196 197 198 199
200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219
220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239
```

```
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 127 nrelabeled
= 0 ndotcheck = 16341 Starting Surf2Volseg free free done
#WMPCH mri_surf2volseg VmPeak 906196 mri_surf2volseg done
##FFSTIME 2024:04:13:12:43:16 mri_surf2volseg N 25 w 43.52 0 5.47 U 82.39 P 1908 M 855764 F O R 242165 W O c 181 w 16 I O O 872 L 2.79 2.62 2.80
##FFSLCAPOST 2024:04:13:12:44:00 mri_surf2volseg N 25 w 2.86 2.66 2.81
#-----
## $Aparco-to-Aseg aparc.DKTatlas.aparc Sat Apr 13 12:44:00 UTC 2024
/home/jaibhatoa/mri_processed/014_8_4401/mri

mri_surf2volseg --aparc.DKTatlas.aparc.mrg --label-cortex --l1.aparc.mrg --threads 2 --lh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.DKTatlas.annot 1000 --lh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label --lh-white
/home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white --lh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial --rh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.DKTatlas.annot 2000 --rh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
--rh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white --rh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial

SUBJECTS_DIR /home/jaibhatoa/mri_processed/outvol
aparc.DKTatlas.aparc.mrg
8 avail.processors, using 2
Loading aseg.mrg
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label
Ripping lh vertices labeled not in lh.cortex.label ripped 8696
vertices from lh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.DKTatlas.annot
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Ripping rh vertices labeled not in rh.cortex.label ripped 8535
vertices from rh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.DKTatlas.annot Done loading
0 128 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79
136 137 80 138 81 139
82 140 83 141 84 142 143 85 144 86 145 87 146 147 88 148 89 149 90 150 151 91 152 92 153 93 154 94 155 95 156 96 157 97 158 98 99
159
100 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179
180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199
200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219
220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255
unrelabeled = 0 ndotcheck = 16341 Starting Surf2Volseg free free done
#WMPCH mri_surf2volseg VmPeak 906196 mri_surf2volseg done
##FFSTIME 2024:04:13:12:44:00 mri_surf2volseg N 25 w 42.60 0 5.44 U 81.75 P 1928 M 855908 F O R 238918 W O c 99 w 16 I O O 800 L 2.86 2.66 2.81
##FFSLCAPOST 2024:04:13:12:44:42 mri_surf2volseg N 25 w 3.04 2.74 2.83
#-----
## $WMPCH Sat Apr 13 12:44:42 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/mri

mri_surf2volseg --wmparc.mrg --label=wm --l1.aparc=aseg.mrg --threads 2 --lh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.annot 3000 --lh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label --lh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white --lh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial --rh-annot /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.annot 4000 --rh-cortex-mask /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label --rh-white /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white --rh-pial /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial

SUBJECTS_DIR /home/jaibhatoa/mri_processed/outvol
wmparc.mrg
8 avail.processors, using 2
Loading aparc=aseg.mrg
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.cortex.label
Ripping lh vertices labeled not in lh.cortex.label ripped 8696
vertices from lh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/lh.aparc.annot
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.white
Loading /home/jaibhatoa/mri_processed/014_8_4401/surf/rh.pial
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.cortex.label
Ripping rh vertices labeled not in rh.cortex.label ripped 8535
vertices from rh hemi
Loading /home/jaibhatoa/mri_processed/014_8_4401/label/rh.aparc.annot Done loading
0 128 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82
136 137 84 137 85 86 137 87 139
89 90 140 91 92 141 93 94 142 95 143 96 144 97 98 145 99
146 100 147 102 103 148 104 149 105 106 151 107 152 108 153 109 154 110 155 111 156 112 157 113 158 114 155 115 159 116 160 117 161 118
119
162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179
180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199
200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219
220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255
unrelabeled = 0 ndotcheck = 4485
Starting Surf2Volseg free free
Done
#WMPCH mri_surf2volseg VmPeak 906100 mri_surf2volseg done
##FFSTIME 2024:04:13:12:44:42 mri_surf2volseg N 25 w 20.46 0 5.54 U 34.68 P 1719 M 855744 F O R 236785 W O c 55 w 16 I O O 896 L 3.04 2.74 2.83
##FFSLCAPOST 2024:04:13:12:45:03 mri_surf2volseg N 25 w 3.08 2.78 2.84

mri_segstats --seed 1234 --seg mri/wmparc.mrg --sum stats/wmparc.stats --pv mri/norm.mrg --excluded 0 --brainmask mri/brainmask.mrg --in mri/norm.mrg --in-intensity-name norm --in-intensity-units MR --subject 014_8_4401 --surf-wm-vol --ctab /usr/local
/freesurfer/7.4.1/WMParcStatsUT.txt --ctv active seed

for random number generator to 1234

7.4.1 cmd
cmdline mri_segstats --seed 1234 --seg mri/wmparc.mrg --sum stats/wmparc.stats --pv mri/norm.mrg --excluded 0 --brainmask mri/brainmask.mrg --in mri/norm.mrg --in-intensity-name norm --in-intensity-units MR --subject 014_8_4401 --surf-wm-vol --ctab /usr
/r/local/freesurfer/7.4.1/WMParcStatsUT.txt --ctv active seed
hostname vmf--lh-3d-mri-pre-processing
machine x86_64 user jaibhatoa whitesurfname
white Dashboard 0
atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102)
Loading mri/wmparc.mrg
Getting Brain Volume Statistics
Loading mri/norm.mrg
Loading mri/norm.mrg
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found 190 segmentations
Computing statistics for each segmentation

Reporting on 70 segmentations
Using PrintSegStat mri_segstats done
##FFSTIME 2024:04:13:12:45:03 mri_segstats N 24 w 360.40 8 1.03 U 374.00 P 1044 M 239972 F O R 1206939 W O c 739 w 7 I 56 O 24 L 3.08 2.78 2.84
##FFSLCAPOST 2024:04:13:12:45:03 mri_segstats N 24 w 3.00 2.70 2.76
#-----
## $Parcellation Stats lh Sat Apr 13 12:51:03 UTC 2024 /home/jaibhatoa/mri_processed/014_8_4401/scripts mris_anatomical_stats -th3 -mrg -cortex ../label/lh.cortex.label -f ../stats/lh.aparc.stats
-b -a ../label/lh.aparc.annot -c ../label/aparc.annot.ctab 014_8_4401 lh white

computing statistics for each annotation in ../label/lh.aparc.annot. reading volume
/home/jaibhatoa/mri_processed/014_8_4401/mri/wm.mrg... reading input surface
/home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white... reading input pial surface
/home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial... reading input white surface
/home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white...
INFO: using TR3 volume calc
INFO: assuming MNI format for volumes.
INFO: using ../label/lh.cortex.label as mask to calc cortex HuvWvert, SurfArea and MeanThickness. Using TR3 vertex
volume calc
Total Face Volume 230126
Total Vertex Volume 229882 (mask=0)
Saving annotation colorable ../label/aparc.annot.ctab

table columns are:
number of vertices total surface
area (mm^2) total gray matter volume
(mm^3)

average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name
atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102)
1586 1062 2455 2.476 0.313 0.100 0.018 9 1.3 banksta
1020 456 1620 2.403 0.440 0.120 0.024 12 1.0 caudalmidlineofrontal
3127 2167 5784 2.393 0.416 0.109 0.024 25 3.0 caudalmidlineofrontal
2593 1741 3852 2.028 0.478 0.132 0.033 29 3.2 cuneus
459 444 1506 1.117 0.118 0.029 4 0.8 entorhinal 4073 2897
8954 2.713 0.554 0.130 0.034 57 4.9 fusiform
6304 4463 11268 2.288 0.414 0.120 0.024 69 6.4 inferiorparietal
5032 3744 11426 1.592 0.428 0.129 0.032 71 6.4 inferiorparietal
1504 1033 2426 2.143 0.748 0.125 0.035 20 1.9 isthmuscingulate
7720 5281 13548 2.250 0.487 0.132 0.032 103 9.2 lateraloccipital
4132 3016 8071 2.484 0.307 0.141 0.039 60 6.4 lateralmidlineofrontal 4638 3196
7585 2.147 0.599 0.134 0.035 59 6.5 lingual
3049 2140 947 2.273 0.548 0.127 0.035 43 4.1 medialisorbitofrontal
5025 3661 12389 2.788 0.311 0.123 0.028 63 5.3 middletemporal
949 635 1870 2.567 0.549 0.097 0.023 6 0.8 parahippocampal
2182 1361 3559 2.380 0.497 0.109 0.035 22 2.8 paracentral
1977 1359 3855 2.500 0.361 0.112 0.025 20 2.0 paracentral 989 758
2480 2.599 0.509 0.135 0.029 13 1.1 paracentral
1613 1129 2845 2.123 0.429 0.114 0.034 14 1.4 parastriangularis 1531 1754
2704 1.687 0.427 0.140 0.040 32 4.0 pericalcarine 5831 3871 9042 2.069 0.336
0.109 0.027 55 5.8 postcentral
1768 1215 3212 2.351 0.401 0.119 0.028 21 2.0 posteriorcingulate
7934 5167 14120 2.529 0.528 0.110 0.028 61 9.0 precentral
5022 3538 8844 2.298 0.477 0.123 0.028 59 5.4 precuneus
1978 778 2409 1.666 0.636 0.125 0.028 14 1.1 rostralmidlineofrontal
7752 5834 15441 2.299 0.492 0.133 0.030 110 8.8 rostralmidlineofrontal
9241 6553 20045 2.631 0.526 0.120 0.030 92 10.8 superiorfrontal
6003 4155 10026 1.893 0.415 0.113 0.024 57 5.7 superiorparietal
6127 4065 12596 2.701 0.555 0.101 0.023 51 5.4 superiortemporal 4814 3385
873 2.348 0.427 0.120 0.027 65 5.0 supramarginal 306 264 894 2.378
0.433 0.187 0.030 9 0.4 frontopole
553 428 2495 4.025 0.743 0.147 0.045 9 0.9 temporalpole
459 402 501 2.504 0.352 0.113 0.027 6 0.6 transversetemporal
3497 2425 7047 2.719 0.709 0.125 0.038 36 5.4 insula
##FFSTIME 2024:04:13:12:51:03 mris_anatomical_stats N 14 w 8.05 9 0.31 U 8.43 P 1088 M 461084 F R 129727 W O c 18 w 24 I 1448 O 24 L 3.00 2.70 2.76
##FFSLCAPOST 2024:04:13:12:51:11 mris_anatomical_stats N 14 w 3.00 2.70 2.76 mris_anatomical_stats -th3 -mrg -cortex ../label/lh.cortex.label -f ../stats/lh.aparc.pial.stats -b -a
../label/lh.aparc.annot -c ../label/aparc.annot.ctab 014_8_4401 lh pial

computing statistics for each annotation in ../label/lh.aparc.annot. reading volume
/home/jaibhatoa/mri_processed/014_8_4401/mri/wm.mrg...
reading input surface /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial... reading input pial
surface /home/jaibhatoa/mri_processed/014_8_4401/surf/lh.pial... reading input white surface
/home/jaibhatoa/mri_processed/014_8_4401/surf/lh.white...
INFO: using TR3 volume calc
INFO: assuming MNI format for volumes.
INFO: using ../label/lh.cortex.label as mask to calc cortex HuvWvert, SurfArea and MeanThickness.
Using TR3 vertex volume calc
Total Face Volume 230126
Total Vertex Volume 229882 (mask=0)
Saving annotation colorable ../label/aparc.annot.ctab

table columns are:
number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
```

```
Gaussian curvature      Folding index      Intrinsic curvature index
structure name

atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1598  821  2453  2.476 0.313  0.108  0.029  24  1.6  banksta
1020  722  1620  2.403 0.440  0.138  0.042  36  1.5  caudalanteriorcingulate
3127  2522  5734  2.393 0.416  0.121  0.022  33  2.9  caudalmiddlefrontal
2593  2142  3852  2.143 0.478  0.141  0.034  33  3.5  cuneus
609  793  1906  3.117 0.723  0.270  0.076  28  2.1  entorhinal 4073 3669
8954  2.713 0.534  0.172 0.049  93  7.7  fusiform
4304  5342  11268  2.288 0.414  0.141  0.028  86  7.2  inferiorparietal
5032  4860  11426  2.592 0.428  0.172  0.044  140  9.0  inferiortemporal
1504  1315  2426  2.143 0.748  0.190  0.066  53  4.3  isthmuscingulate
1720  6680  13548  2.250 0.487  0.149  0.034  171  11.0  lateraloccipital
4132  3471  8071  2.484 0.527  0.161  0.045  95  7.3  lateralorbitofrontal 4638 4025
7585  2.147 0.599  0.150 0.045  96  7.8  lingual
3069  2664  5451  2.273 0.548  0.153  0.041  56  4.4  medialorbitofrontal 5025 5182
1269  2758  5.511  0.170  0.037  90  7.0  middletemporal
849  856  1870  2.587 0.549  0.174  0.049  15  1.9  parahippocampal
2182  1552  3559  2.380 0.497  0.098  0.020  15  1.7  paracentral
1977  1726  3855  2.500 0.361  0.140  0.029  19  2.5  paraspersularis
989  1128  2480  2.599 0.509  0.178  0.037  12  1.7  parosubthalis
1613  1303  2845  2.323 0.409  0.143  0.031  25  2.0  parstriangularis
2531  1500  2704  1.887 0.427  0.123  0.034  55  2.4  pericalcarine
5831  4790  9042  2.089 0.536  0.119  0.021  50  4.9  postcentral
1768  1520  3212  2.351 0.401  0.156  0.046  25  3.2  posteriorscingulate
7924  5847  14120  2.529 0.528  0.102  0.019  65  5.7  precentral
5022  4066  8844  2.298 0.477  0.144  0.032  82  6.5  precuneus
1078  1063  2409  2.666 0.536  0.200  0.061  55  2.3  rostralanteriorcingulate
7752  7250  15443  2.259 0.592  0.165  0.035  140  11.0  rostralmiddlefrontal 5241 8260
20045  2.431 0.526  0.141  0.031  113  11.0  superiorfrontal
6003  4963  10026  2.183 0.415  0.133  0.025  68  5.8  superiorparietal
6177  5102  12396  2.701 0.555  0.132  0.031  69  7.6  superiortemporal
4814  3957  8753  2.348 0.427  0.136  0.028  57  5.5  supramarginal
306  438  894  2.578 0.433  0.226  0.034  4  0.5  frontalpole
553  810  2495  0.025 0.743  0.177  0.069  16  1.8  temporalpole
609  459  981  2.304 0.352  0.127  0.025  5  0.7  transversetemporal
3487  2603  7047  2.719 0.709  0.168  0.050  87  7.3  insula
#####PTDME 2024:04:13:12:15:11 mris_anatomical_stats M 14 e 8.10 8.0 3.0 0.12 0.8 32 0.109 M 461040 F 0 R 12945 M 0 c 26 w 18 t 0 o 24 L 3.00 2.70 2.76
#####LOADPOST 2024:04:13:12:15:11 mris_anatomical_stats M 14 3.08 2.73 2.77
#####
### Parcellation Stats rh Sat Apr 13 12:51:19 UTC 2024 /home/jaibhatoa/mri_processed/014_g_4401/scripts mris_anatomical_stats -th3 -mgs -cortex ../label/rh.cortex.label -f ../stats/rh.aparc.stats
-b -a ../label/rh.aparc.annot -c ../label/aparc.annot.ctab 014_g_4401 rh white

computing statistics for each annotation in ../label/rh.aparc.annot. reading volume
/home/jaibhatoa/mri_processed/014_g_4401/mri/mr.mgs... reading input surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white... reading input pial surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.pial... reading input white surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white...
INFO: using T3 volume calc
INFO: assuming MGS format for volumes.
INFO: using ../label/rh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness. Using T3 vertex
volume calc
Total face volume 234921
Total vertex volume 234712 (mask=0)
Saving annotation colortable ../label/aparc.annot.ctab

table columns are: number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name

atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1467  884  2358  2.552 0.349  0.090  0.016  7  1.1  banksta
1111  805  1929  2.320 0.517  0.163  0.037  30  1.5  caudalanteriorcingulate
3059  2167  6060  2.480 0.473  0.121  0.028  29  3.4  caudalmiddlefrontal
2649  1777  4178  2.085 0.501  0.133  0.034  33  3.8  cuneus
461  341  1589  3.058 0.887  0.130  0.035  4  0.7  entorhinal
3899  2830  9163  2.769 0.637  0.128  0.033  49  5.1  fusiform
7442  5383  14140  2.468 0.417  0.118  0.024  81  6.9  inferiorparietal
4224  3155  10194  2.786 0.537  0.131  0.033  50  5.8  inferiortemporal
1539  1080  2451  2.029 0.750  0.122  0.034  22  1.8  isthmuscingulate
7414  5129  13200  2.301 0.532  0.138  0.034  100  9.9  lateraloccipital
3663  2825  7734  2.488 0.444  0.149  0.040  57  5.8  lateralorbitofrontal 4943 3581
8393  2.100 0.625  0.148  0.041  66  7.9  lingual
2762  1885  5082  2.266 0.533  0.154  0.039  39  3.4  medialorbitofrontal
5302  4002  13968  2.873 0.531  0.131  0.030  66  6.5  middletemporal
891  800  1817  2.616 0.584  0.107  0.025  7  0.8  parahippocampal
2449  1536  4110  2.420 0.495  0.110  0.030  20  2.5  paracentral
1695  1287  3790  2.594 0.455  0.139  0.032  22  2.1  parasperscularis
1145  889  2736  2.532 0.554  0.139  0.029  14  1.3  parosubthalis
1831  1394  3840  2.434 0.439  0.127  0.031  21  2.1  parstriangularis
2736  1863  3114  1.802 0.447  0.132  0.036  27  4.2  pericalcarine
5235  3370  7645  2.059 0.569  0.106  0.025  44  5.2  postcentral
1983  1375  3468  2.300 0.586  0.128  0.030  25  2.3  posteriorscingulate
7199  5195  13770  2.448 0.513  0.117  0.031  65  10.1  precentral
5370  3709  9555  2.425 0.485  0.116  0.026  54  5.4  precuneus
1058  748  2064  2.579 0.354  0.130  0.031  21  1.3  rostralanteriorcingulate
7231  5479  14574  2.334 0.499  0.133  0.031  96  8.9  rostralmiddlefrontal
9103  6437  15062  2.542 0.475  0.119  0.028  105  10.7  superiorfrontal
7275  6040  12113  2.186 0.402  0.109  0.022  74  6.2  superiorparietal
5587  3809  11890  2.734 0.518  0.106  0.026  47  5.6  superiortemporal 4607 3727
8563  2.406 0.440  0.118  0.026  49  4.7  supramarginal 352 495 1038 2.715
0.467  0.174  0.043  9  0.7  frontalpole
632  540  2881  3.407 0.762  0.161  0.042  11  1.1  temporalpole
547  134  886  2.309 0.372  0.110  0.029  6  0.5  transversetemporal
3264  2300  7157  2.948 0.558  0.129  0.041  35  5.3  insula
#####PTDME 2024:04:13:12:15:11 mris_anatomical_stats M 14 e 8.10 8.0 3.0 0.12 0.8 32 0.109 M 458820 F 0 R 12916 M 0 c 38 w 20 t 0 o 24 L 2.99 2.72 2.77
#####LOADPOST 2024:04:13:12:15:11 mris_anatomical_stats M 14 2.99 2.72 2.76 mris_anatomical_stats -th3 -mgs -cortex ../label/rh.cortex.label -f ../stats/rh.aparc.pial.stats -b -a
#####
../label/rh.aparc.annot -c ../label/aparc.annot.ctab 014_g_4401 rh pial

computing statistics for each annotation in ../label/rh.aparc.annot. reading volume
/home/jaibhatoa/mri_processed/014_g_4401/mri/mr.mgs... reading input surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.pial... reading input pial surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.pial... reading input white surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/rh.white...
INFO: using T3 volume calc
INFO: assuming MGS format for volumes.
INFO: using ../label/rh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness.
Using T3 vertex volume calc
Total face volume 234921
Total vertex volume 234712 (mask=0)
Saving annotation colortable ../label/aparc.annot.ctab table columns
are:
number of vertices total surface
area (mm^2) total gray matter volume
(mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name

atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1467  847  2358  2.552 0.349  0.095  0.024  15  1.2  banksta
1111  902  1929  2.320 0.517  0.178  0.055  68  2.3  caudalanteriorcingulate
3059  2131  6060  2.480 0.473  0.132  0.028  38  3.3  caudalmiddlefrontal
2649  2331  4178  2.085 0.501  0.149  0.037  83  4.0  cuneus
461  678  1589  3.058 0.887  0.295  0.078  36  1.6  entorhinal
3899  3678  9163  2.769 0.637  0.170  0.046  86  5.1  fusiform
7442  6521  14140  2.348 0.417  0.141  0.027  114  8.7  inferiorparietal
4224  3995  10194  2.786 0.537  0.170  0.044  104  7.5  inferiortemporal
1539  1142  2451  2.029 0.750  0.184  0.062  82  4.0  isthmuscingulate
7414  6270  13200  2.301 0.532  0.158  0.044  387  12.2  lateraloccipital
3663  2622  7734  2.488 0.444  0.176  0.047  82  6.9  lateralorbitofrontal 4943 4567
8393  2.100 0.625  0.164  0.044  136  8.7  lingual
2762  2496  5082  2.266 0.533  0.154  0.039  45  4.3  medialorbitofrontal
5302  5612  13968  2.873 0.531  0.173  0.038  106  9.2  middletemporal
891  802  1817  2.616 0.584  0.183  0.052  15  2.4  parahippocampal
2449  1794  4110  2.420 0.495  0.107  0.019  27  2.0  paracentral
1695  1586  3790  2.594 0.455  0.158  0.038  30  2.3  parasperscularis 1145 1211
2736  2.532 0.554  0.188  0.038  24  1.9  parosubthalis
1831  1764  3840  2.434 0.439  0.158  0.032  22  2.6  parstriangularis 2736 1622
5235  1.802 0.447  0.101 0.025  33  2.6  pericalcarine 5235 4120 7645 2.045 0.569
0.110  0.019  56  4.1  postcentral
1983  1626  3468  2.300 0.586  0.160  0.043  51  3.4  posteriorscingulate
7199  3899  13770  2.448 0.513  0.108  0.021  83  6.8  precentral
5370  4018  9555  2.425 0.485  0.129  0.028  105  6.0  precuneus
1058  950  2064  2.579 0.354  0.170  0.045  52  1.8  rostralanteriorcingulate
7231  6792  14574  2.334 0.499  0.164  0.034  130  10.4  rostralmiddlefrontal
9103  8266  15062  2.542 0.375  0.145  0.031  123  11.2  superiorfrontal
7275  6040  12113  2.186 0.402  0.129  0.022  69  6.5  superiorparietal
5587  4711  11890  2.734 0.518  0.137  0.033  83  7.4  superiortemporal 4607 3748
8563  2.406 0.440  0.132  0.028  53  5.1  supramarginal 352 495 1038 2.715
0.467  0.224  0.039  5  0.5  frontalpole
632  1110  2881  3.407 0.762  0.271  0.055  12  1.6  temporalpole
547  428  886  2.309 0.372  0.113  0.021  4  0.5  transversetemporal
3264  2314  7157  2.948 0.558  0.138  0.053  126  7.6  insula
#####PTDME 2024:04:13:12:15:11 mris_anatomical_stats M 14 e 8.12 8.0 3.0 0.12 0.8 32 0.109 M 458820 F 0 R 12916 M 0 c 38 w 20 t 0 o 24 L 2.99 2.72 2.76
#####LOADPOST 2024:04:13:12:15:11 mris_anatomical_stats M 14 3.06 2.74 2.77
#####
### Parcellation Stats Lh Sat Apr 13 12:51:16 UTC 2024 /home/jaibhatoa/mri_processed/014_g_4401/scripts mris_anatomical_stats -th3 -mgs -cortex ../label/lh.cortex.label -f ../stats/lh.aparc.a2009s.stats -b -a
../label/lh.aparc.a2009s.annot -c ../label/aparc.annot.a2009s.ctab 014_g_4401 lh white

computing statistics for each annotation in ../label/lh.aparc.a2009s.annot.
reading volume /home/jaibhatoa/mri_processed/014_g_4401/mri/mr.mgs...
reading input surface /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.white... reading input pial
surface /home/jaibhatoa/mri_processed/014_g_4401/surf/lh.pial... reading input white surface
/home/jaibhatoa/mri_processed/014_g_4401/surf/lh.white...
INFO: using T3 volume calc
INFO: assuming MGS format for volumes.
INFO: using ../label/lh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness.
Using T3 vertex volume calc
Total face volume 230126
Total vertex volume 229882 (mask=0)
Saving annotation colortable ../label/aparc.annot.a2009s.ctab

table columns are: number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name

atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1283  933  2380  2.260 0.502  0.141  0.031  18  1.6  G_and_S_frontomargin
1524  1068  3348  2.526 0.599  0.130  0.029  20  1.7  G_and_S_occipital_inf
1778  1134  3151  2.343 0.501  0.119  0.036  20  2.5  G_and_S_paracentral 1540 1062
3143  2.527 0.450  0.125 0.031  19  1.6  G_and_S_subcentral
572  471  1476  2.515 0.459  0.169  0.037  17  0.9  G_and_S_transv_frontopol
2074  1448  3821  2.479 0.456  0.115  0.025  19  2.1  G_and_S_cingul-Ant
```

```
1366 921 2198 2.360 0.384 0.101 0.020 8 1.2 G_and_s_cingul-Mid-Ant
1445 894 2140 2.336 0.141 0.107 0.023 11 1.4 G_and_s_cingul-Mid-Post
603 423 1480 2.712 0.535 0.143 0.042 10 0.9 G_cingul-Post-dorsal
324 237 641 2.176 0.898 0.146 0.050 7 0.5 G_cingul-Post-ventral
2432 1603 3623 1.956 0.147 0.137 0.036 31 3.3 G_cuneus
1281 886 2562 2.517 0.373 0.118 0.029 16 1.3 G_front_inf-Opercular 370 282
1142 2.912 0.443 0.152 0.039 8 0.5 G_front_inf-Orbital
744 538 1775 2.481 0.348 0.124 0.039 10 0.7 G_front_inf-Triangul
3788 2819 8607 2.453 0.478 0.131 0.031 53 4.1 G_front-middle
6455 4588 14019 7.38 0.336 0.132 0.037 88 7.7 G_front-sup
749 516 1674 2.907 0.875 0.132 0.049 12 1.1 G_ins_ig_and_s_cent_ins
655 486 2190 3.176 0.840 0.143 0.046 11 1.2 G_insular_short
2193 1520 4734 2.444 0.439 0.127 0.028 32 2.4 G_occipital-middle 1286 896
2289 2.170 0.381 0.134 0.036 19 1.6 G_occipital-sup
1607 1095 4313 2.976 0.510 0.129 0.032 28 1.9 G_occ-temp_inf-tusior
3359 2291 6040 2.06 0.136 0.152 0.044 16 1.6 G_occ-temp-med-Lingual
1271 923 3676 2.893 0.686 0.124 0.039 16 1.8 G_occ-temp-med-Parahip 2416 1842
4043 2.591 0.372 0.152 0.046 50 4.0 G_orbital
2165 1641 5205 2.430 0.451 0.144 0.04 11 2.6 G_pariet_inf-Angular
2341 1683 5173 2.510 0.436 0.135 0.031 37 2.7 G_pariet_inf-Supramar
1989 1443 4112 2.298 0.413 0.119 0.024 23 2.0 G_parietal_sup
2109 1339 3834 2.230 0.332 0.118 0.033 26 2.3 G_postcentral
2922 1744 6419 2.829 0.473 0.109 0.032 26 3.3 G_precentral 2236 1633
5187 2.472 0.494 0.134 0.032 2.6 G_precentral 869 646 2106 2.424
0.571 0.133 0.043 17 1.1 G_rectus
819 565 1368 2.353 0.697 0.133 0.048 9 1.7 G_subcallosal
450 297 654 2.358 0.108 0.102 0.029 5 0.3 G_temp_sup-c_T_transv
2191 1479 6250 3.012 0.503 0.124 0.033 33 2.4 G_temp_sup-Lateral
740 496 1933 3.291 0.775 0.084 0.021 3 0.6 G_temp_sup-Plan_polar
843 611 1774 3.336 0.601 0.098 0.021 6 0.7 G_temp_sup-Plan_tempo
6795 2.675 0.674 0.144 0.039 49 3.7 G_temporal_inf
2749 2107 8473 2.946 0.487 0.141 0.037 50 3.3 G_temporal-middle
283 193 447 3.61 0.143 0.103 0.019 2 0.2 Lat_Fis-ant-Horizont
199 143 320 2.258 0.416 0.102 0.013 1 0.1 Lat_Fis-ant-Vertical
1095 745 1331 2.142 0.396 0.102 0.020 5 1.1 Lat_Fis-post
1971 1339 3020 2.959 0.447 0.145 0.040 31 2.7 Pole_occipital
1446 1165 5141 3.339 0.782 0.149 0.040 23 2.2 Pole_temporal 3152 2192
3981 1.804 0.444 0.124 0.032 30 4.0 S_calcarine
3380 2180 4586 2.027 0.350 0.109 0.026 20 4.0 S_central
1073 705 1405 2.150 0.476 0.088 0.014 4 0.7 S_cingul-Marginalis
611 423 819 2.483 0.416 0.115 0.027 4 0.7 S_circular_insula_ant
1408 809 2026 2.539 0.494 0.088 0.018 6 1.2 S_circular_insula_inf
1853 1211 2547 2.450 0.405 0.103 0.023 8 1.9 S_circular_insula_sup
912 642 1515 4.664 0.58 0.127 0.031 9 1.3 S_coliat_transv_ant
310 215 454 2.178 0.325 0.130 0.028 4 0.4 S_coliat_transv_post
1941 1347 2985 2.224 0.348 0.108 0.022 13 1.8 S_front_inf
1740 1394 3931 2.214 0.306 0.141 0.033 29 2.2 S_front-middle
2736 1877 4553 2.424 0.452 0.101 0.020 19 2.4 S_front-sup
305 210 357 1.991 0.289 0.118 0.022 2 0.4 S_intern_prim-Jensen
2516 1497 3342 2.955 0.381 0.101 0.020 15 2.3 S_intrapariet_and_P_trans
1561 1072 2037 2.138 0.344 0.123 0.026 13 1.7 S_oc-middle_and_Lunatus
1100 736 1457 2.145 0.324 0.105 0.019 6 0.9 S_oc-sup_and_transversal
988 666 1515 2.400 0.440 0.117 0.026 10 1.0 S_occipital_ant
838 587 1345 2.540 0.386 0.124 0.031 7 0.9 S_occ-temp_inf
2075 1403 2974 2.335 0.426 0.102 0.019 11 1.7 S_occ-temp-med_and_Lingual
375 260 439 3.021 0.263 0.114 0.016 2 0.3 S_orbital_lateral
741 506 948 2.244 0.595 0.115 0.024 5 0.9 S_orbital_med-olact
1358 1113 2691 2.400 0.410 0.116 0.032 16 2.2 S_orbital-H_Shaped
2290 1561 3125 1.531 0.370 0.110 0.022 17 2.1 S_parietis_occipital
1346 840 1351 1.935 0.665 0.120 0.030 19 1.4 S_pericallosal
2219 1502 2761 2.015 0.187 0.106 0.022 14 2.2 S_postcentral
1497 993 2342 2.338 0.377 0.094 0.019 8 1.3 S_precentral-inf-part
1439 953 1977 2.299 0.429 0.093 0.019 6 1.3 S_precentral-sup-part
572 427 786 2.069 0.403 0.142 0.028 7 0.7 S_suborbital
977 705 1524 2.317 0.401 0.134 0.031 9 1.3 S_subparietal
1821 1231 2466 2.285 0.343 0.102 0.018 9 1.6 S_temporal_inf
6441 4328 9603 3.86 0.184 0.101 0.019 39 5.5 S_temporal_sup
393 263 539 2.191 0.363 0.094 0.017 1 0.3 S_temporal_transverse
##PSTFDMG 2024:04:13:12:51:16 mrIs_anatomical_states W 14 e 8.40 S 0.279 0.85 P 1088 M 460836 F O R 129745 W O c 30 W 2 I 0 O 40 L 3.06 2.74 2.77
##PSTLADPOST 2024:04:13:12:51:14 mrIs_anatomical_states W 14 3.05 2.75 2.77
-----
##P Parcellation State 2 rh Sat Apr 13 12:51:14 UTC 2024 /home/jalibhaca/mri_processed/014_5401/scripts mrIs_anatomical_states -th3 -mrg -cortex ../label/rh.cortex.label -f - /stats/rh.aparc.a2009s.stats -b -a
../label/rh.aparc.a2009s.annot -c - /label/aparc.annot.a2009s.ctab 014_5401 rh white
-----
```

```
computing statistics for each annotation in ../label/rh.aparc.a2009s.annot.
reading volume /home/jalibhaca/mri_processed/014_5401/mri/m.mrg... reading input surface
/home/jalibhaca/mri_processed/014_5401/surf/rh.white... reading input pial surface
/home/jalibhaca/mri_processed/014_5401/surf/rh.pial... reading input white surface
/home/jalibhaca/mri_processed/014_5401/surf/rh.white...
INFO: using TR3 volume calc
INFO: assuming MGI format for volumes.
INFO: using ../label/rh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness.
Using TR3 vertex volume calc
Total face volume 234921
Total vertex volume 234712 (mask=0)
Saving annotation colortable ../label/aparc.annot.a2009s.ctab

table columns are: number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name atlas (eTIV) = 1431271 mm^3 (det: 1.361102 )
776 635 1705 2.356 0.549 0.155 0.037 12 1.4 G_and_s_frontomargin
1498 1026 3314 3.732 0.584 0.135 0.030 20 1.9 G_and_s_cingul_inf 1534 938
2778 2.430 0.491 0.109 0.030 15 1.5 C_and_s_paracentral
1454 1014 2791 2.504 0.522 0.136 0.035 16 2.1 C_and_s_subcallosal
872 691 2118 4.516 0.577 0.145 0.031 17 1.2 C_and_s_transv-frontopol 2687 1900
4602 2.353 0.421 0.112 0.026 31 2.9 G_and_s_cingul-Ant
1475 998 2399 2.379 0.370 0.118 0.025 21 1.4 G_and_s_cingul-Mid-Ant
1625 1080 2693 2.417 0.399 0.113 0.026 13 1.7 G_and_s_cingul-Mid-Post 646 472
1611 2.694 0.517 0.154 0.044 13 1.0 G_cingul-Post-dorsal
320 248 763 2.255 0.152 0.144 0.042 8 0.5 G_cingul-Post-ventral
2521 1669 3799 1.992 0.509 0.137 0.039 34 3.9 G_cuneus
1196 977 3442 2.729 0.414 0.161 0.039 23 1.6 G_front_inf-Opercular 419 340
1157 2.565 0.404 0.130 0.038 8 0.5 G_front_inf-Orbital
696 568 1831 2.591 0.370 0.152 0.039 12 1.0 G_front_inf-Triangul
3506 2731 8972 2.550 0.517 0.147 0.038 60 4.8 G_front-middle
5731 4102 14421 7.159 0.399 0.132 0.035 88 8.0 G_front-sup
589 402 1712 3.676 0.792 0.115 0.033 6 0.7 G_ins_ig_and_s_cent_ins 782 628
2484 3.134 1.005 0.175 0.060 14 2.0 G_insular_short
2379 1744 5331 2.403 0.427 0.132 0.031 32 2.6 G_occipital-middle 1531 1050
2737 2.224 0.395 0.124 0.026 20 1.5 G_occipital-sup
1875 1183 4851 3.059 0.427 0.135 0.039 30 2.2 G_occ-temp_inf-tusior
3129 2266 5628 2.096 0.664 0.154 0.045 47 5.3 G_occ-temp-med-Lingual
1076 783 3407 2.952 0.807 0.134 0.040 13 1.6 G_occ-temp-med-Parahip
2435 2031 6858 2.444 0.468 0.159 0.042 49 3.8 G_orbital
2408 1845 6222 2.553 0.426 0.136 0.029 37 2.7 G_pariet_inf-Angular
2055 1485 4775 2.594 0.395 0.136 0.032 31 2.5 G_pariet_inf-Supramar
2085 1467 4224 2.883 0.167 0.113 0.033 30 1.7 G_parietal_sup
1784 1046 2828 2.094 0.509 0.105 0.027 20 1.7 G_precentral 2926 1847
6453 2.679 0.470 0.131 0.044 35 5.0 G_precentral 1918 1346 4482 2.580
0.432 0.132 0.033 31 2.2 G_precentral 848 704 2386 2.527 0.536
0.157 0.046 23 1.6 G_rectus
588 422 979 2.254 0.647 0.142 0.049 11 1.3 G_subcallosal
408 245 787 2.488 0.397 0.116 0.031 5 0.4 G_temp_sup-c_T_transv
1858 1316 5527 3.045 0.502 0.129 0.041 27 2.4 G_temp_sup-Lateral
782 543 1508 2.853 0.624 0.099 0.029 4 0.9 G_temp_sup-Plan_polar
904 620 1574 4.29 0.345 0.091 0.015 4 0.6 G_temp_sup-Plan_tempo
2039 1655 6747 2.869 0.558 0.151 0.040 37 3.2 G_temporal_inf
2849 2276 9623 3.641 0.198 0.143 0.035 47 3.8 G_temporal-middle
264 184 331 2.094 0.274 0.086 0.014 1 0.1 Lat_Fis-ant-Horizont
189 145 399 2.925 0.486 0.122 0.029 1 0.2 Lat_Fis-ant-Vertical
1426 943 1882 3.023 0.413 0.095 0.020 6 1.2 Lat_Fis-post
3407 2401 5743 2.054 0.568 0.155 0.045 56 5.6 Pole_occipital 1567 1315
6165 3.326 0.662 0.159 0.047 27 3.4 Pole_temporal 2746 1916 3389 1.992 0.473
0.119 0.027 18 3.4 S_calcarine
2936 2050 3375 1.896 0.546 0.104 0.023 14 3.2 S_central
1333 906 1967 2.187 0.401 0.101 0.021 10 1.1 S_cingul-Marginalis
637 455 1027 2.622 0.321 0.119 0.031 4 0.9 S_circular_insula_ant
1266 802 1755 2.579 0.540 0.076 0.014 4 0.8 S_circular_insula_inf
1331 894 1862 2.437 0.440 0.114 0.027 7 1.7 S_circular_insula_sup
894 609 1381 1.498 0.456 0.101 0.018 5 0.7 S_coliat_transv_ant
404 280 534 2.165 0.370 0.121 0.025 2 0.5 S_coliat_transv_post
1871 1240 2659 2.289 0.374 0.106 0.022 11 1.8 S_front_inf
1873 1352 3143 2.219 0.424 0.113 0.023 15 1.7 S_front-middle
2872 2022 4780 2.327 0.457 0.106 0.021 21 2.7 S_front-sup
477 322 526 2.004 0.316 0.110 0.032 3 0.6 S_intern_prim-Jensen
3156 2139 4341 2.117 0.364 0.101 0.018 19 2.5 S_intrapariet_and_P_trans 1027 702 1230
2.138 0.425 0.128 0.028 9 1.3 S_oc-middle_and_Lunatus
1323 1044 2071 2.0 0.306 0.14 0.022 8 1.4 S_oc-sup_and_transversal
1108 792 1863 2.422 0.419 0.130 0.028 11 1.5 S_occipital_ant
1041 710 1534 2.494 0.465 0.102 0.019 5 0.9 S_occ-temp_inf
1762 1229 2694 2.448 0.417 0.111 0.022 12 1.7 S_occ-temp-med_and_Lingual
433 320 588 1.881 0.331 0.118 0.020 3 0.4 S_orbital_lateral
791 548 1082 2.205 0.492 0.117 0.028 6 0.9 S_orbital_med-olact
1283 831 2207 2.381 0.124 0.132 0.030 12 1.6 S_orbital-H_Shaped
2512 1678 3505 2.310 0.456 0.113 0.023 20 2.6 S_parietis_occipital
1548 1026 1481 1.752 0.661 0.137 0.033 27 1.7 S_pericallosal
2177 1411 2515 1.008 0.392 0.092 0.017 10 1.7 S_postcentral
1387 925 1946 2.355 0.390 0.102 0.019 7 1.3 S_precentral-inf-part
1545 1019 2089 2.300 0.19 0.099 0.021 7 1.4 S_precentral-sup-part
330 250 534 2.071 0.500 0.153 0.031 5 0.4 S_suborbital
1020 880 2044 2.354 0.460 0.121 0.024 9 1.3 S_subparietal
1763 1138 2352 3.184 0.190 0.112 0.025 10 1.8 S_temporal_inf
6392 4338 9687 2.448 0.400 0.102 0.020 40 5.4 S_temporal_sup
232 171 311 2.210 0.266 0.130 0.025 1 0.3 S_temporal_transverse
##PSTFDMG 2024:04:13:12:51:16 mrIs_anatomical_states W 14 e 8.20 S 0.27 0.85 P 1088 M 458944 F O R 129126 W O c 21 W 18 I 0 O 40 L 3.05 2.75 2.77
##PSTLADPOST 2024:04:13:12:51:15 mrIs_anatomical_states W 14 3.05 2.75 2.78
-----
##P Parcellation State 2 rh Sat Apr 13 12:51:15 UTC 2024 /home/jalibhaca/mri_processed/014_5401/scripts mrIs_anatomical_states -th3 -mrg -cortex ../label/lh.cortex.label -f - /stats/lh.aparc.DKTatlas.stats -b -a
../label/lh.aparc.DKTatlas.annot -c - /label/aparc.annot.DKTatlas.ctab 014_5401 lh white
-----
```

```
computing statistics for each annotation in ../label/lh.aparc.DKTatlas.annot.
reading volume /home/jalibhaca/mri_processed/014_5401/mri/m.mrg... reading input surface
/home/jalibhaca/mri_processed/014_5401/surf/lh.white... reading input pial surface
/home/jalibhaca/mri_processed/014_5401/surf/lh.pial... reading input white surface
/home/jalibhaca/mri_processed/014_5401/surf/lh.white...
INFO: using TR3 volume calc
INFO: assuming MGI format for volumes.
INFO: using ../label/lh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness. Using TR3 vertex
volume calc
Total face volume 230126
Total vertex volume 229882 (mask=0)
Saving annotation colortable ../label/aparc.annot.DKTatlas.ctab

table columns are: number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name
atlas_lcv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1716 1099 2879 2.440 0.446 0.112 0.024 19 1.6 caudalanteriorcingulate
```

```
3470 2402 6437 2.412 0.419 0.109 0.024 29 3.3 caudalmiddlefrontal
3414 2300 5118 2.057 0.470 0.127 0.030 36 3.9 cuneus
538 392 1667 3.071 0.679 0.111 0.028 4 0.6 entorhinal
3696 2595 8010 2.713 0.542 0.128 0.032 52 4.4 fusiform
6257 4435 11183 2.86 0.413 0.122 0.025 72 6.5 inferiorparietal
4968 3735 11718 2.627 0.657 0.134 0.034 73 6.6 inferiortemporal
1504 1537 2440 2.153 0.742 0.125 0.033 19 1.9 isthmuscingulate
7695 5275 13399 2.38 0.480 0.132 0.032 102 9.2 lateraloccipital
4527 3332 9043 2.462 0.553 0.147 0.042 71 7.7 lateralorbitofrontal
4749 3275 7762 2.142 0.977 0.134 0.035 61 6.8 lingual
2547 1835 4851 2.294 0.551 0.128 0.036 40 3.4 medialorbitofrontal
6737 4820 15064 2.674 0.502 0.117 0.026 74 6.7 middletemporal
1051 677 2021 2.574 0.385 0.101 0.025 8 0.9 parahippocampal
2597 1628 4335 2.411 0.515 0.108 0.034 26 3.3 paracentral
1811 1244 3481 2.505 0.369 0.111 0.025 17 1.8 parapericulus
1015 746 2328 2.963 0.530 0.127 0.026 12 1.1 parosubthalis
1883 1309 3198 2.295 0.385 0.115 0.024 17 1.7 parstriangularis
2485 1715 2688 1.701 0.429 0.140 0.040 32 3.9 pericalcarine
4541 4154 12023 2.987 0.529 0.110 0.026 60 6.5 postcentral
1971 1353 3450 2.325 0.613 0.119 0.028 22 2.2 posteriorcingulate
7810 5072 13833 2.534 0.524 0.110 0.028 59 8.8 precentral
4798 3392 8705 2.313 0.481 0.123 0.028 59 1.1 precuneus
1533 1064 2919 2.538 0.572 0.124 0.028 18 1.6 rostralanteriorcingulate
5864 4699 12724 2.355 0.494 0.133 0.030 82 6.7 rostralmiddlefrontal
9811 7098 20899 2.555 0.551 0.125 0.030 111 11.9 superiorfrontal
4693 3252 7685 2.168 0.409 0.111 0.023 44 4.5 superiorparietal
7752 5215 16544 2.779 0.659 0.107 0.025 67 7.6 superiortemporal
4393 3105 8012 2.344 0.447 0.119 0.026 49 4.5 supramarginal
597 398 965 2.294 0.348 0.114 0.028 6 0.6 transversestemporal
2845 1844 5942 2.811 0.658 0.116 0.035 28 3.6 insula
#####
##FSLQADPOT 2024:04:13:12:52:01 mri_anatomical_stats N 14 4 8.19 S 0.29 D 8.63 P 1098 M 460912 F O R 129751 W O c 22 w 18 I O 24 L 3.05 2.75 2.78
##FSLQADPOT 2024:04:13:12:52:01 mri_anatomical_stats N 14 3.04 2.76 2.78
#####
##F Parcellation Stats 3 rh Sat Apr 13 12:52:01 UTC 2024 /home/jalbhatoa/mri_processed/014_g_4401/scripts mri_anatomical_stats -th3 -mrg -cortex ../label/rh.cortex.label -f ../stats/rh.aparc.DKTatlas.stats -b a
../label/rh.aparc.DKTatlas.annot -c ../label/aparc.annot.DKTatlas.ctab 014_g_4401 rh white
computing statistics for each annotation in ../label/rh.aparc.DKTatlas.annot.
reading volume /home/jalbhatoa/mri_processed/014_g_4401/mri/wm.mrg... reading input surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white... reading input pial surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.pial... reading input pial surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white...
INFO: using TH3 volume calc
INFO: assuming MNI format for volumes.
INFO: using ../label/rh.cortex.label as mask to calc cortex NumVert, SurfArea and MeanThickness. Using TH3 vertex
volume calc
Total face volume 234921
Total vertex volume 234712 (mask=0)
Saving annotation colormap ../label/aparc.annot.DKTatlas.ctab
Table columns are: number of vertices
total surface area (mm^2) total gray
matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature integrated rectified
Gaussian curvature folding index intrinsic curvature index
structure name
atlas (cv (eTV)) = 1431271 mm^3 (det: 1.361102 )
1256 854 2068 2.328 0.517 0.160 0.036 31 1.6 caudalanteriorcingulate
3162 2233 6257 2.495 0.468 0.122 0.029 30 3.5 caudalmiddlefrontal
3159 2132 4961 2.095 0.490 0.130 0.032 36 4.3 cuneus
443 328 1533 3.042 0.598 0.133 0.035 4 0.7 entorhinal
3614 2567 7881 2.735 0.618 0.123 0.031 42 4.1 fusiform
7321 5291 13804 2.343 0.413 0.118 0.024 81 6.9 inferiorparietal
4678 3545 11916 2.617 0.578 0.134 0.034 59 6.9 inferiortemporal
1499 1053 2413 2.043 0.748 0.122 0.034 21 1.7 isthmuscingulate
7365 5100 12881 2.273 0.514 0.138 0.034 99 9.8 lateraloccipital
3966 3103 8661 2.479 0.476 0.152 0.043 66 6.6 lateralorbitofrontal
4810 3485 8163 2.102 0.625 0.149 0.041 64 7.8 lingual
2285 1600 4459 2.300 0.579 0.139 0.039 41 3.6 medialorbitofrontal
6436 4766 15920 2.822 0.520 0.125 0.028 73 7.4 middletemporal
941 638 1921 2.616 0.603 0.109 0.025 7 0.9 parahippocampal
2359 1807 4316 2.420 0.491 0.112 0.030 22 2.6 paracentral
1883 1420 4171 2.621 0.460 0.137 0.033 23 2.3 parapericulus 1062 815
2468 2.576 0.458 0.129 0.030 11 1.2 parosubthalis
1854 1385 3554 2.318 0.426 0.124 0.028 20 2.0 parstriangularis
2756 1863 3134 1.806 0.447 0.130 0.037 27 4.0 pericalcarine
5824 3760 8449 2.046 0.563 0.107 0.024 50 5.8 postcentral
2183 1494 3809 2.912 0.584 0.126 0.030 27 2.6 posteriorcingulate
7483 5000 13291 2.443 0.514 0.119 0.032 63 9.9 precentral
5398 3750 9841 2.433 0.482 0.115 0.026 56 5.3 precuneus
1387 889 2713 2.515 0.382 0.120 0.028 23 1.6 rostralanteriorcingulate
5413 4116 11138 2.351 0.505 0.135 0.031 73 6.6 rostralmiddlefrontal 11170 7992 23082
2.495 0.549 0.120 0.028 129 13.1 superiorfrontal
6059 4128 10542 2.182 0.456 0.109 0.021 62 5.1 superiorparietal
7156 4959 16158 2.771 0.568 0.111 0.027 64 7.6 superiortemporal
4387 3592 8222 2.418 0.425 0.117 0.028 45 4.6 supramarginal
536 328 873 2.319 0.359 0.111 0.028 6 0.5 transversestemporal
1719 1905 6416 3.072 0.834 0.121 0.033 24 3.8 insula
#####
##FSLQADPOT 2024:04:13:12:52:01 mri_anatomical_stats N 14 4 8.17 S 0.23 D 8.68 P 1098 M 468864 F O R 129125 W O c 17 w 18 I O 24 L 3.04 2.76 2.78
##FSLQADPOT 2024:04:13:12:52:09 mri_anatomical_stats N 14 2.95 2.75 2.78
#####
##F Aseg Stats Sat Apr 13 12:52:09 UTC 2024 /home/jalbhatoa/mri_processed/014_g_4401
mri_segstats --seed 1234 --seg mri/aseg.mrg --sum stats/aseg.stats --pv mri/norm.mrg --empty --brainmask mri/brainmask.mrg --brain-vol-from-seg --excluid 0 --excl-ctagnum --supratent --subcortgray --in mri/norm.mrg --in-intensity-name norm --in-inten sity-units MR --etiv --surf-wm-vol
--surf-ctx-vol --totalgray --euler --ctab /usr/local/freesurfer/7.4.1/AsegStats.txt --subject 014_g_4401 setting seed for random number generator to 1234
7.4.1 cmd cmdline mri_segstats --seed 1234 --seg mri/aseg.mrg --sum stats/aseg.stats --empty --brainmask mri/brainmask.mrg --brain-vol-from-seg --excluid 0 --excl-ctagnum --supratent --subcortgray --in mri/norm.mrg --in-intensity-name norm --i n-intensity-units MR
--etiv --surf-wm-vol --surf-ctx-vol --totalgray --euler --ctab /usr/local/freesurfer/7.4.1/AsegStats.txt --subject 014_g_4401 sysname Linux
hostname vst-3h-3d mri-gpu-processing
machine x86_64 user jalbhatoa whitesurfname
white Gsubcort 0
atlas (cv (eTV)) = 1431271 mm^3 (det: 1.361102 ) computing euler
number
orig.mefis lbno = -5, rhno = -28 orig.nofix
lbholes = 4, rhholes = 15
Loading mri/aseg.mrg
Getting Brain Volume Statistics
Loading mri/norm.mrg
Loading mri/norm.mrg
Voxel Volume is 1 mm^3
Generating list of segmentation ids
Found 50 segmentations
Computing statistics for each segmentation
Reporting on 45 segmentations
Using PrintSegStat
mri_segstats done
##FSLQADPOT 2024:04:13:12:52:09 mri_segstats N 32 4 110.17 S 0.79 U 209.62 P 1905 M 290612 F O R 751079 W O c 416 w 13 I O 24 L 2.95 2.75 2.78
##FSLQADPOT 2024:04:13:12:53:59 mri_segstats N 32 3.23 2.96 2.85
/home/jalbhatoa/mri_processed/014_g_4401/label
#####
##F BA_xavivo Labels 1h Sat Apr 13 12:53:59 UTC 2024
mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA1_xavivo.label --trgsuject 014_g_4401 --trglabel ./1h.BA1_xavivo.label --hemi lh --regmethod surface
srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA1_xavivo.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./1h.BA1_xavivo.label
regmethod = surface
srchem = lh
trghem = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usebask = 1
Use ProjJbks = 0, 0
Use ProjFrac = 0, 0
Dofaint 0
SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4129 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4129 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 91
Checking for and removing duplicates
Writing label file ./1h.BA1_xavivo.label 4220
mri_label2label: Done
#####
##FSLQADPOT 2024:04:13:12:53:59 mri_label2label N 12 4 1.1 S 0.31 U 4.22 P 1109 M 543496 F O R 156136 W O c 14 w 56 I 16464 O 248 L 3.23 2.96 2.85
##FSLQADPOT 2024:04:13:12:54:03 mri_label2label N 12 3.21 2.96 2.86
mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA2_xavivo.label --trgsuject 014_g_4401 --trglabel ./1h.BA2_xavivo.label --hemi lh --regmethod surface
srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA2_xavivo.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./1h.BA2_xavivo.label
regmethod = surface
srchem = lh
trghem = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usebask = 1
Use ProjJbks = 0, 0
Use ProjFrac = 0, 0
Dofaint 0
SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 7909 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 7909 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 58
Checking for and removing duplicates
Writing label file ./1h.BA2_xavivo.label 7967
mri_label2label: Done
```

```
##### 2024:04:13:12:54:03 mri_label2label N 12 w 4.82 S 0.33 U 4.96 P 109h M 543596 F O R 156196 W 0 c 12 w 17 I 432 O 392 L 3.21 2.96 2.86
##### 2024:04:13:12:54:08 mri_label2label N 12 3.21 2.96 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3a_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA3a_xvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3a_xvivo.label
srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./1h.BA3a_xvivo.label
regmethod = surface

src hemi = lh
trg hemi = lh
trg surface = white
src surf reg = sphere.reg
trg surf reg = sphere.reg
use hash = 1
Use ProjMds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4077 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4077 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 66
Checking for and removing duplicates
Writing label file ./1h.BA3a_xvivo.label 4143
mri_label2label: Done

##### 2024:04:13:12:54:08 mri_label2label N 12 w 4.12 S 0.35 U 4.19 P 110h M 543344 F O R 156120 W 0 c 12 w 14 I 320 O 232 L 3.21 2.96 2.86
##### 2024:04:13:12:54:12 mri_label2label N 12 3.20 2.97 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3b_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA3b_xvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3b_xvivo.label
srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./1h.BA3b_xvivo.label
regmethod = surface

src hemi = lh
trg hemi = lh
trg surface = white
src surf reg = sphere.reg
trg surf reg = sphere.reg
use hash = 1
Use ProjMds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 5983 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 5983 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 112
Checking for and removing duplicates
Writing label file ./1h.BA3b_xvivo.label 6095
mri_label2label: Done

##### 2024:04:13:12:54:12 mri_label2label N 12 w 4.35 S 0.34 U 4.42 P 109h M 543792 F O R 156168 W 0 c 13 w 14 I 472 O 344 L 3.20 2.97 2.86
##### 2024:04:13:12:54:17 mri_label2label N 12 3.10 2.97 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4a_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA4a_xvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4a_xvivo.label
srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./1h.BA4a_xvivo.label
regmethod = surface

src hemi = lh
trg hemi = lh
trg surface = white
src surf reg = sphere.reg
trg surf reg = sphere.reg
use hash = 1
Use ProjMds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 5784 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 5784 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 339
Checking for and removing duplicates
Writing label file ./1h.BA4a_xvivo.label 6123
mri_label2label: Done

##### 2024:04:13:12:54:17 mri_label2label N 12 w 4.65 S 0.35 U 4.75 P 109h M 543712 F O R 156160 W 0 c 12 w 15 I 456 O 400 L 3.10 2.95 2.85
##### 2024:04:13:12:54:23 mri_label2label N 12 3.09 2.95 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4p_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA4p_xvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4p_xvivo.label
srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./1h.BA4p_xvivo.label
regmethod = surface

src hemi = lh
trg hemi = lh
trg surface = white
src surf reg = sphere.reg
trg surf reg = sphere.reg
use hash = 1
Use ProjMds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4070 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4070 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 232
Checking for and removing duplicates
Writing label file ./1h.BA4p_xvivo.label 4302
mri_label2label: Done

##### 2024:04:13:12:54:21 mri_label2label N 12 w 4.01 S 0.31 U 4.14 P 111h M 543536 F O R 156132 W 0 c 13 w 14 I 320 O 272 L 3.09 2.95 2.85
##### 2024:04:13:12:54:25 mri_label2label N 12 3.08 2.95 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA6_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA6_xvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA6_xvivo.label
srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./1h.BA6_xvivo.label
regmethod = surface

src hemi = lh
trg hemi = lh
trg surface = white
src surf reg = sphere.reg
trg surf reg = sphere.reg
use hash = 1
Use ProjMds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 13589 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 13589 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 500
Checking for and removing duplicates
Writing label file ./1h.BA6_xvivo.label 14089
mri_label2label: Done

##### 2024:04:13:12:54:25 mri_label2label N 12 w 3.84 S 0.33 U 5.97 P 107h M 544136 F O R 156299 W 0 c 16 w 14 I 1056 O 888 L 3.08 2.95 2.85
##### 2024:04:13:12:54:31 mri_label2label N 12 3.08 2.95 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA44_xvivo.label --trgsbjeet 014_g_4401 --trglabel ./1h.BA44_xvivo.label --hemi lh --regmethod surface
```

```
srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA44_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.BA44_exvivo.label
regmethod = surface

srcname = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4181 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4181 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 87
Checking for and removing duplicates
Writing label file ./1h.BA44_exvivo.label 4268
mri_label2label: Done

##FSTIME 2024:04:13:12:54:31 mri_label2label N 12 w 4.15 S 0.33 U 4.27 P 110V M 543552 F 0 R 156130 W 0 c 11 w 14 I 328 O 240 L 3.08 2.95 2.85
##FSLGADPOST 2024:04:13:12:54:35 mri_label2label N 12 3.07 2.95 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA45_exvivo.label --trgsbjsbct 014_S_4401 --trglblabel ./1h.BA45_exvivo.label --hami 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA45_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.BA45_exvivo.label
regmethod = surface

srcname = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3422 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 3422 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 165
Checking for and removing duplicates
Writing label file ./1h.BA45_exvivo.label 3587
mri_label2label: Done

##FSTIME 2024:04:13:12:54:35 mri_label2label N 12 w 4.01 S 0.38 U 4.07 P 111V M 543948 F 0 R 159376 W 0 c 14 w 15 I 272 O 234 L 3.07 2.95 2.86
##FSLGADPOST 2024:04:13:12:54:39 mri_label2label N 12 3.06 2.95 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.V1_exvivo.label --trgsbjsbct 014_S_4401 --trglblabel ./1h.V1_exvivo.label --hami 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.V1_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.V1_exvivo.label
regmethod = surface

srcname = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4641 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4641 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 1605
Checking for and removing duplicates
Writing label file ./1h.V1_exvivo.label 6246
mri_label2label: Done

##FSTIME 2024:04:13:12:54:39 mri_label2label N 12 w 4.30 S 0.35 U 4.40 P 110V M 543988 F 0 R 156147 W 0 c 12 w 15 I 376 O 512 L 3.06 2.95 2.86
##FSLGADPOST 2024:04:13:12:54:44 mri_label2label N 12 3.06 2.95 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.V2_exvivo.label --trgsbjsbct 014_S_4401 --trglblabel ./1h.V2_exvivo.label --hami 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.V2_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.V2_exvivo.label
regmethod = surface

srcname = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 6114 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 6114 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 2622
Checking for and removing duplicates
Writing label file ./1h.V2_exvivo.label 10736
mri_label2label: Done

##FSTIME 2024:04:13:12:54:46 mri_label2label N 12 w 5.09 S 0.35 U 5.17 P 108V M 543892 F 0 R 156216 W 0 c 17 w 14 I 664 O 872 L 3.06 2.95 2.86
##FSLGADPOST 2024:04:13:12:54:49 mri_label2label N 12 2.97 2.94 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.MT_exvivo.label --trgsbjsbct 014_S_4401 --trglblabel ./1h.MT_exvivo.label --hami 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.MT_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.MT_exvivo.label
regmethod = surface

srcname = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 2018 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2018 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 412
Checking for and removing duplicates
Writing label file ./1h.MT_exvivo.label 2430
mri_label2label: Done

##FSTIME 2024:04:13:12:54:49 mri_label2label N 12 w 3.58 S 0.29 U 3.72 P 112V M 543224 F 0 R 156088 W 0 c 10 w 17 I 168 O 200 L 2.97 2.94 2.85
##FSLGADPOST 2024:04:13:12:54:53 mri_label2label N 12 2.97 2.94 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.entorhinal_exvivo.label --trgsbjsbct 014_S_4401 --trglblabel ./1h.entorhinal_exvivo.label --hami 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.entorhinal_exvivo.label
srcsubject = fsaverage
trgsbjsbct = 014_S_4401
trglblabel = ./1h.entorhinal_exvivo.label
regmethod = surface
```



```
srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESUBFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1290 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1290 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 49
Checking for and removing duplicates
Writing label file ./lh.entorhinal_gxvivo.label 1339
mri_label2label: Done

##FSTIME 2024:04:13:12:54:53 mri_label2label N 12 w 3.47 S 0.32 U 3.58 P 112h M 543436 F 1 R 156076 W 0 c 14 w 17 I 120 O 88 L 2.97 2.94 2.85
##FSLGADPOST 2024:04:13:12:54:56 mri_label2label N 12 2.98 2.98 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.perirhinal_gxvivo.label --trgsurface 014_g_4401 --trglabel ./lh.perirhinal_gxvivo.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.perirhinal_gxvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./lh.perirhinal_gxvivo.label
regmethod = surface

srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESUBFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1199 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1199 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 51
Checking for and removing duplicates
Writing label file ./lh.perirhinal_gxvivo.label 1290
mri_label2label: Done

##FSTIME 2024:04:13:12:54:55 mri_label2label N 12 w 3.42 S 0.31 U 3.54 P 112h M 543364 F 0 R 159396 W 0 c 13 w 14 I 112 O 80 L 2.98 2.94 2.85
##FSLGADPOST 2024:04:13:12:54:59 mri_label2label N 12 2.90 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG1.mgm.vpn1.label --trgsurface 014_g_4401 --trglabel ./lh.FG1.mgm.vpn1.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG1.mgm.vpn1.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./lh.FG1.mgm.vpn1.label
regmethod = surface

srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESUBFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 114 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 114 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 63
Checking for and removing duplicates
Writing label file ./lh.FG2.mgm.vpn1.label 477
mri_label2label: Done

##FSTIME 2024:04:13:12:54:59 mri_label2label N 12 w 3.27 S 0.36 U 3.36 P 113h M 543000 F 0 R 159385 W 0 c 10 w 14 I 40 O 40 L 2.90 2.92 2.85
##FSLGADPOST 2024:04:13:12:55:03 mri_label2label N 12 2.90 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG2.mgm.vpn1.label --trgsurface 014_g_4401 --trglabel ./lh.FG2.mgm.vpn1.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG2.mgm.vpn1.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./lh.FG2.mgm.vpn1.label
regmethod = surface

srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESUBFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 793 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 793 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 59
Checking for and removing duplicates
Writing label file ./lh.FG3.mgm.vpn1.label 762
mri_label2label: Done

##FSTIME 2024:04:13:12:55:03 mri_label2label N 12 w 3.36 S 0.32 U 3.49 P 113h M 543392 F 0 R 156065 W 0 c 14 w 15 I 72 O 64 L 2.90 2.92 2.85
##FSLGADPOST 2024:04:13:12:55:06 mri_label2label N 12 2.91 2.93 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG3.mgm.vpn1.label --trgsurface 014_g_4401 --trglabel ./lh.FG3.mgm.vpn1.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG3.mgm.vpn1.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./lh.FG3.mgm.vpn1.label
regmethod = surface

srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESUBFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1873 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1873 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 131
Checking for and removing duplicates
Writing label file ./lh.FG4.mgm.vpn1.label 2004
mri_label2label: Done

##FSTIME 2024:04:13:12:55:06 mri_label2label N 12 w 3.58 S 0.32 U 3.72 P 112h M 543300 F 0 R 156041 W 0 c 9 w 14 I 176 O 144 L 2.91 2.93 2.85
##FSLGADPOST 2024:04:13:12:55:10 mri_label2label N 12 2.83 2.91 2.84

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG4.mgm.vpn1.label --trgsurface 014_g_4401 --trglabel ./lh.FG4.mgm.vpn1.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.FG4.mgm.vpn1.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./lh.FG4.mgm.vpn1.label
regmethod = surface

srcmask = 1h
trghem = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
```

```
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1101 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2101 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 276
Checking for and removing duplicates
Writing label file ./1h.F01.mgm.vpn1.label 2377
mri_label2label: Done

##FSTIME 2024:04:13:12:55:10 mri_label2label N 12 w 3.66 S 0.32 U 3.78 P 112% M 543144 F 0 R 156001 W 0 c 16 w 15 I 200 O 184 L 2.83 2.91 2.84
##FSLGADPOST 2024:04:13:12:55:13 mri_label2label N 12 2.85 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C1.mgm.vpn1.label --trgsbject 014_g_4401 --trglabel ./1h.h0C1.mgm.vpn1.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C1.mgm.vpn1.label
srcsubject = fsaverage
trgsbject = 014_g_4401
trglabel = ./1h.h0C1.mgm.vpn1.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
arcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3877 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 3877 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 1366
Checking for and removing duplicates
Writing label file ./1h.h0C2.mgm.vpn1.label 5243
mri_label2label: Done

##FSTIME 2024:04:13:12:55:13 mri_label2label N 12 w 4.15 S 0.39 U 4.21 P 110% M 543460 F 0 R 156134 W 0 c 15 w 14 I 360 O 432 L 2.85 2.91 2.85
##FSLGADPOST 2024:04:13:12:55:16 mri_label2label N 12 2.85 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C2.mgm.vpn1.label --trgsbject 014_g_4401 --trglabel ./1h.h0C2.mgm.vpn1.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C2.mgm.vpn1.label
srcsubject = fsaverage
trgsbject = 014_g_4401
trglabel = ./1h.h0C2.mgm.vpn1.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
arcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 2919 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2919 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 1124
Checking for and removing duplicates
Writing label file ./1h.h0C3.mgm.vpn1.label 4043
mri_label2label: Done

##FSTIME 2024:04:13:12:55:18 mri_label2label N 12 w 4.32 S 0.34 U 4.42 P 110% M 543416 F 0 R 156122 W 0 c 14 w 14 I 272 O 336 L 2.85 2.91 2.85
##FSLGADPOST 2024:04:13:12:55:22 mri_label2label N 12 2.84 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C3.mgm.vpn1.label --trgsbject 014_g_4401 --trglabel ./1h.h0C3.mgm.vpn1.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C3.mgm.vpn1.label
srcsubject = fsaverage
trgsbject = 014_g_4401
trglabel = ./1h.h0C3.mgm.vpn1.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
arcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1286 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1286 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 381
Checking for and removing duplicates
Writing label file ./1h.h0C4.mgm.vpn1.label 1667
mri_label2label: Done

##FSTIME 2024:04:13:12:55:22 mri_label2label N 12 w 3.30 S 0.30 U 3.66 P 113% M 543208 F 0 R 155994 W 0 c 11 w 16 I 128 O 144 L 2.94 2.93 2.85
##FSLGADPOST 2024:04:13:12:55:25 mri_label2label N 12 2.94 2.93 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C4.mgm.vpn1.label --trgsbject 014_g_4401 --trglabel ./1h.h0C4.mgm.vpn1.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.h0C4.mgm.vpn1.label
srcsubject = fsaverage
trgsbject = 014_g_4401
trglabel = ./1h.h0C4.mgm.vpn1.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
arcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1006 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1006 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 237
Checking for and removing duplicates
Writing label file ./1h.h0C5.mgm.vpn1.label 1243
mri_label2label: Done

##FSTIME 2024:04:13:12:55:26 mri_label2label N 12 w 3.40 S 0.34 U 3.51 P 113% M 543360 F 0 R 156062 W 0 c 7 w 16 I 96 O 104 L 2.94 2.93 2.85
##FSLGADPOST 2024:04:13:12:55:29 mri_label2label N 12 2.87 2.92 2.85

mri_label2label --src 014_g_4401 --ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt --hemi 1h --a.mgm.vpn1 --maxatwinner --noverbose --1 1h.F01.mgm.vpn1.label --1 1h.F02.mgm.vpn1.label --1 1h.F03.mgm.vpn1.label --1 1h.F04.mgm.vpn1.label --1 1h.h0C1.mgm.vpn1.label --1 1h.h0C2.mgm.vpn1.label --1 1h.h0C3.mgm.vpn1.label --1 1h.h0C4.mgm.vpn1.label --1 1h.h0C5.mgm.vpn1.label
Reading ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt
Number of ctab entries 9

7.4.1
cwt /home/jalbhatoa/mri_processed/014_g_4401/label
cmdline mri_label2label --s 014_g_4401 --ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt --hemi 1h --a.mgm.vpn1 --maxatwinner --noverbose --1 1h.F01.mgm.vpn1.label --1 1h.F02.mgm.vpn1.label --1 1h.F03.mgm.vpn1.label --1 1h.F04.mgm.vpn1.label --1 1h.h0C1.mgm.vpn1.label --1 1h.h0C2.mgm.vpn1.label --1 1h.h0C3.mgm.vpn1.label --1 1h.h0C4.mgm.vpn1.label
syname Linux
hostname vml-1h-3d-mri-pre-processing
machine x86_64
user jalbhatoa
subject 014_g_4401
hemi 1h
SUBJECTS DIR /home/jalbhatoa/mri_processed
Colortable /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt
AnnotName mgm.vpn1
```

```
nlabies 8
LabelThresh 0 0.000000
Loading /home/jalbhatoa/mri_processed/014_s_4401/surf/1h.orig
Index Offset 0
0 reading 1h.PG1.mgm.vpn1.label
1 1376057 PG1
1 reading 1h.PG2.mgm.vpn1.label
2 16711935 PG2
2 reading 1h.PG3.mgm.vpn1.label
3 16711680 PG3
3 reading 1h.PG4.mgm.vpn1.label
4 1705837 PG4
4 reading 1h.h0c1.mgm.vpn1.label
5 25600 h0c1
5 reading 1h.h0c2.mgm.vpn1.label
6 255 h0c2
6 reading 1h.h0c3v.mgm.vpn1.label
7 16778962 h0c3v
7 reading 1h.h0c4v.mgm.vpn1.label
8 65535 h0c4v
Mapping unhit to unknown
Found 11587 unhit vertices
Writing annot to /home/jalbhatoa/mri_processed/014_s_4401/label/1h.mgm.vpn1.annot
##PSTIME 2024:04:13:12:55:29 mri_label2label M 26 e 0.56 S 0.09 U 0.59 P 1228 M 150968 F 7 R 41341 M 0 c 4 w 8 I 1304 O 2032 L 2.87 2.92 2.85
##PFLGADPOST 2024:04:13:12:55:30 mri_label2label M 26 e 0.57 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA1_xvivo.thresh.label --trgsuject 014_s_4401 --trglabel ./1h.BA1_xvivo.thresh.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA1_xvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_s_4401
trglabel = ./1h.BA1_xvivo.thresh.label
regmethod = surface

srcsemi = lh
trghemi = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1014 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1014 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 37
Checking for and removing duplicates
Writing label file ./1h.BA1_xvivo.thresh.label 1051
mri_label2label: Done

##PSTIME 2024:04:13:12:55:30 mri_label2label M 12 e 3.44 S 0.30 U 3.59 P 1138 M 543292 F 0 R 156074 M 0 c 12 w 14 I 96 O 72 L 2.87 2.92 2.85
##PFLGADPOST 2024:04:13:12:55:33 mri_label2label M 12 2.87 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA2_xvivo.thresh.label --trgsuject 014_s_4401 --trglabel ./1h.BA2_xvivo.thresh.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA2_xvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_s_4401
trglabel = ./1h.BA2_xvivo.thresh.label
regmethod = surface

srcsemi = lh
trghemi = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 2092 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2092 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 14
Checking for and removing duplicates
Writing label file ./1h.BA2_xvivo.thresh.label 2106
mri_label2label: Done

##PSTIME 2024:04:13:12:55:33 mri_label2label M 12 e 3.70 S 0.32 U 3.80 P 1118 M 543416 F 0 R 156084 M 0 c 16 w 14 I 192 O 120 L 2.87 2.92 2.85
##PFLGADPOST 2024:04:13:12:55:37 mri_label2label M 12 2.89 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3a_xvivo.thresh.label --trgsuject 014_s_4401 --trglabel ./1h.BA3a_xvivo.thresh.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3a_xvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_s_4401
trglabel = ./1h.BA3a_xvivo.thresh.label
regmethod = surface

srcsemi = lh
trghemi = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1504 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1504 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 7
Checking for and removing duplicates
Writing label file ./1h.BA3a_xvivo.thresh.label 1511
mri_label2label: Done

##PSTIME 2024:04:13:12:55:37 mri_label2label M 12 e 3.42 S 0.34 U 3.50 P 1128 M 543316 F 0 R 156079 M 0 c 9 w 14 I 136 O 80 L 2.88 2.92 2.85
##PFLGADPOST 2024:04:13:12:55:40 mri_label2label M 12 2.89 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3b_xvivo.thresh.label --trgsuject 014_s_4401 --trglabel ./1h.BA3b_xvivo.thresh.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA3b_xvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_s_4401
trglabel = ./1h.BA3b_xvivo.thresh.label
regmethod = surface

srcsemi = lh
trghemi = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1996 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_s_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1996 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 11
Checking for and removing duplicates
Writing label file ./1h.BA3b_xvivo.thresh.label 2047
mri_label2label: Done

##PSTIME 2024:04:13:12:55:40 mri_label2label M 12 e 3.62 S 0.32 U 3.73 P 1128 M 543112 F 0 R 156074 M 0 c 10 w 14 I 184 O 136 L 2.89 2.92 2.85
##PFLGADPOST 2024:04:13:12:55:44 mri_label2label M 12 2.90 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4a_xvivo.thresh.label --trgsuject 014_s_4401 --trglabel ./1h.BA4a_xvivo.thresh.label --hemi lh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4a_xvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_s_4401
trglabel = ./1h.BA4a_xvivo.thresh.label
regmethod = surface

srcsemi = lh
trghemi = lh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 2319 points in source label.
Starting surface-based mapping
```

```
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 2313 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 207
Checking for and removing duplicates
Writing label file ./lh.BA4a_exvivo.thresh.label 2526
mri_label2label: Done

####PSTIME 2024:04:13:12:55:44 mri_label2label N 12 e 3.68 S 0.35 U 3.76 P 111h M 543424 F 0 R 156102 W 0 c 12 w 14 I 208 O 176 L 2.90 2.92 2.85
####PSLOADPOST 2024:04:13:12:55:47 mri_label2label N 12 2.90 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4p_exvivo.thresh.label --trgsuject 014_g_4401 --trglabel ./lh.BA4p_exvivo.thresh.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA4p_exvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./lh.BA4p_exvivo.thresh.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1549 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1549 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 96
Checking for and removing duplicates
Writing label file ./lh.BA4p_exvivo.thresh.label 1643
mri_label2label: Done

####PSTIME 2024:04:13:12:55:48 mri_label2label N 12 e 3.54 S 0.38 U 3.63 P 113h M 543552 F 0 R 159408 W 0 c 17 w 14 I 144 O 112 L 2.90 2.92 2.85
####PSLOADPOST 2024:04:13:12:55:51 mri_label2label N 12 2.91 2.92 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA5_exvivo.thresh.label --trgsuject 014_g_4401 --trglabel ./lh.BA5_exvivo.thresh.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA5_exvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./lh.BA5_exvivo.thresh.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 7035 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 7035 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 216
Checking for and removing duplicates
Writing label file ./lh.BA4_exvivo.thresh.label 7251
mri_label2label: Done

####PSTIME 2024:04:13:12:55:51 mri_label2label N 12 e 4.60 S 0.33 U 4.71 P 109h M 543720 F 0 R 159511 W 0 c 11 w 14 I 616 O 448 L 2.91 2.92 2.85
####PSLOADPOST 2024:04:13:12:55:56 mri_label2label N 12 2.83 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA44_exvivo.thresh.label --trgsuject 014_g_4401 --trglabel ./lh.BA44_exvivo.thresh.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA44_exvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./lh.BA44_exvivo.thresh.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1912 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1912 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 31
Checking for and removing duplicates
Writing label file ./lh.BA45_exvivo.thresh.label 1943
mri_label2label: Done

####PSTIME 2024:04:13:12:55:56 mri_label2label N 12 e 3.73 S 0.29 U 3.89 P 111h M 543380 F 0 R 156008 W 0 c 12 w 14 I 168 O 112 L 2.83 2.91 2.85
####PSLOADPOST 2024:04:13:12:55:59 mri_label2label N 12 2.85 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA45_exvivo.thresh.label --trgsuject 014_g_4401 --trglabel ./lh.BA45_exvivo.thresh.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.BA45_exvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./lh.BA45_exvivo.thresh.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1151 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1151 label points
Performing mapping from target back to the source label 129904
Number of reverse mapping hits = 39
Checking for and removing duplicates
Writing label file ./lh.BA45_exvivo.thresh.label 1190
mri_label2label: Done

####PSTIME 2024:04:13:12:55:59 mri_label2label N 12 e 3.38 S 0.34 U 3.48 P 113h M 543224 F 0 R 156065 W 0 c 9 w 14 I 104 O 80 L 2.85 2.85 2.85
####PSLOADPOST 2024:04:13:12:56:03 mri_label2label N 12 2.85 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/1h.V1_exvivo.thresh.label --trgsuject 014_g_4401 --trglabel ./lh.V1_exvivo.thresh.label --hemi 1h --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/1h.V1_exvivo.thresh.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./lh.V1_exvivo.thresh.label
regmethod = surface

srcsemi = 1h
trghemi = 1h
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjAbs = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3405 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/1h.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/1h.white
Reading target registration
```



```
6 reading lh.BA6_exvivo.label
7 10018777 BA6_exvivo
7 reading lh.BA44_exvivo.label
8 2490521 BA44_exvivo
8 reading lh.BA45_exvivo.label
9 39283 BA45_exvivo
9 reading lh.V1_exvivo.label
10 3993 V1_exvivo
10 reading lh.V2_exvivo.label
11 8508928 V2_exvivo
11 reading lh.MT_exvivo.label
12 10027163 MT_exvivo
12 reading lh.perirhinal_exvivo.label
13 16422433 perirhinal_exvivo
13 reading lh.entorhinal_exvivo.label
14 16302598 entorhinal_exvivo
Mapping unit to unknown
Found 19367 unit vertices
Writing annot to /home/jalbhatoa/mri_processed/014_S_4401/label/lh.BA_exvivo.annot
##PSTIME 2024:04:13:12:15:12 mri_label2annot 8 35 e 0.35 0 0.08 U 0.53 P 1233 M 151336 F O R 41450 M 0 c 5 w 1 I 0 2012 L 2.81 2.90 2.85
##PFLGADPOST 2024:04:13:12:15:12 mri_label2annot M 38 2.81 2.90 2.85

mri_label2annot --o 014_S_4401 --hemi lh --ctab /usr/local/freesurfer/7.4.1/average/colortable_BA.txt --1 lh.BA1_exvivo.thresh.label --1 lh.BA2_exvivo.thresh.label --1 lh.BA3a_exvivo.thresh.label --1 lh.BA3b_exvivo.thresh.label --1 lh.BA4a_exvivo.thresh.label --1
lh.BA4b_exvivo.thresh.label --1 lh.BA4c_exvivo.thresh.label --1 lh.BA4d_exvivo.thresh.label --1 lh.BA4e_exvivo.thresh.label --1 lh.BA4f_exvivo.thresh.label --1 lh.BA4g_exvivo.thresh.label --1 lh.BA4h_exvivo.thresh.label --1 lh.BA4i_exvivo.thresh.label --1
lh.BA4j_exvivo.thresh --mask2volume --noverbose

Reading ctab /usr/local/freesurfer/7.4.1/average/colortable_BA.txt
Number of ctab entries 15

7.4.1
cwd /home/jalbhatoa/mri_processed/014_S_4401/label
cmdline mri_label2annot --o 014_S_4401 --hemi lh --ctab /usr/local/freesurfer/7.4.1/average/colortable_BA.txt --1 lh.BA1_exvivo.thresh.label --1 lh.BA2_exvivo.thresh.label --1 lh.BA3a_exvivo.thresh.label --1 lh.BA3b_exvivo.thresh.label --1 lh.BA4a_exvivo.thresh.label --1
lh.BA4b_exvivo.thresh.label --1 lh.BA4c_exvivo.thresh.label --1 lh.BA4d_exvivo.thresh.label --1 lh.BA4e_exvivo.thresh.label --1 lh.BA4f_exvivo.thresh.label --1 lh.BA4g_exvivo.thresh.label --1 lh.BA4h_exvivo.thresh.label --1 lh.BA4i_exvivo.thresh.label --1
lh.BA4j_exvivo.thresh --mask2volume --noverbose
systemd Linux
hostname cmd --h 3d --mri --pre-processing
machine x86_64
user jalbhatoa

subject 014_S_4401
hemi lh
SUBJECTS_DIR /home/jalbhatoa/mri_processed
ColorTable /usr/local/freesurfer/7.4.1/average/colortable_BA.txt
AnnotName BA_exvivo.thresh
nlabies 14
LabelsThresh 0 0.00000
Loading /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.orig
Index offset 0
0 reading lh.BA1_exvivo.thresh.label
1 1330880 BA1_exvivo
1 reading lh.BA2_exvivo.thresh.label
2 1676989 BA2_exvivo
2 reading lh.BA3a_exvivo.thresh.label
3 16711680 BA3a_exvivo
3 reading lh.BA3b_exvivo.thresh.label
4 3368703 BA3b_exvivo
4 reading lh.BA3c_exvivo.thresh.label
5 1376196 BA3c_exvivo
5 reading lh.BA3d_exvivo.thresh.label
6 13382655 BA3d_exvivo
6 reading lh.BA3e_exvivo.thresh.label
7 10018777 BA6_exvivo
7 reading lh.BA44_exvivo.thresh.label
8 2490521 BA44_exvivo
8 reading lh.BA45_exvivo.thresh.label
9 39283 BA45_exvivo
9 reading lh.V1_exvivo.thresh.label
10 3993 V1_exvivo
10 reading lh.V2_exvivo.thresh.label
11 8508928 V2_exvivo
11 reading lh.MT_exvivo.thresh.label
12 10027163 MT_exvivo
12 reading lh.perirhinal_exvivo.thresh.label
13 16422433 perirhinal_exvivo
13 reading lh.entorhinal_exvivo.thresh.label
14 16302598 entorhinal_exvivo
Mapping unit to unknown
Found 193120 unit vertices
Writing annot to /home/jalbhatoa/mri_processed/014_S_4401/label/lh.BA_exvivo.thresh.annot
##PSTIME 2024:04:13:12:15:12 mri_label2annot 8 35 e 0.35 0 0.08 U 0.53 P 1233 M 151264 F O R 41395 M 0 c 4 w 1 I 0 2012 L 2.81 2.90 2.85
##PFLGADPOST 2024:04:13:12:15:12 mri_label2annot M 38 2.81 2.90 2.85

mri_anatomical_stats -th3 -mgz -f ../states/lh.BA_exvivo.states -b -a ./lh.BA_exvivo.annot -c ./BA_exvivo.ctab 014_S_4401 lh.white

computing statistics for each annotation in ./lh.BA_exvivo.annot.
reading volume /home/jalbhatoa/mri_processed/014_S_4401/mri/wm.mgz...
reading input surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.white...
reading input pial surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.pial...
reading input white surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.white...
INFO: using TB3 volume calc
INFO: assuming MNI format for volumes.
Using TB3 vertex volume calc
Total face volume 230126
Total vertex volume 229882 (mask=0)
Saving annotation colortable ./BA_exvivo.ctab

table columns are:
number of vertices
total surface area (mm^2)
total gray matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature
integrated rectified Gaussian curvature
folding index
intrinsic curvature index
structure name
atlas_icv (eTIV) = 1431271 mm^3 (det: 1.361102 )
1093 671 2089 2.335 0.480 0.122 0.037 15 1.2 BA1_exvivo
2933 2028 4562 2.139 0.453 0.114 0.028 16 3.0 BA2_exvivo
1003 771 1071 1.771 0.301 0.132 0.029 7 1.4 BA3a_exvivo
2158 1516 2068 2.867 0.502 0.104 0.025 19 2.0 BA3b_exvivo
1896 1124 3532 2.618 0.502 0.113 0.043 21 2.8 BA4a_exvivo
1390 985 2639 2.627 0.571 0.112 0.024 13 2.4 BA4b_exvivo
9032 6148 18822 2.601 0.522 0.111 0.028 76 9.9 BA4c_exvivo
1987 1382 3890 2.517 0.397 0.118 0.028 22 2.0 BA4d_exvivo
2340 1666 4307 2.294 0.372 0.117 0.026 23 2.2 BA4e_exvivo
4199 2878 4949 1.717 0.485 0.137 0.039 56 6.5 V1_exvivo
8436 5791 13929 2.156 0.485 0.140 0.036 117 11.3 V2_exvivo
2189 1515 4452 2.437 0.152 0.126 0.028 26 2.5 MT_exvivo
452 491 1570 2.454 0.490 0.122 0.036 8 0.8 perirhinal_exvivo
534 373 1832 3.163 0.897 0.109 0.028 4 0.6 entorhinal_exvivo
##PSTIME 2024:04:13:12:15:12 mri_anatomical_stats M 12 e 3.09 S 0.30 F 1233 M 456748 F O R 128679 M 0 c 21 w 17 I 0 20 L 2.81 2.90 2.85
##PFLGADPOST 2024:04:13:12:15:12 mri_anatomical_stats M 12 2.83 2.90 2.85

mri_anatomical_stats -th3 -mgz -f ../states/lh.BA_exvivo.thresh.states -b -a ./lh.BA_exvivo.thresh.annot -c ./BA_exvivo.thresh.ctab 014_S_4401 lh.white

computing statistics for each annotation in ./lh.BA_exvivo.thresh.annot.
reading volume /home/jalbhatoa/mri_processed/014_S_4401/mri/wm.mgz...
reading input surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.white...
reading input pial surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.pial...
reading input white surface /home/jalbhatoa/mri_processed/014_S_4401/surf/lh.white...
INFO: using TB3 volume calc
INFO: assuming MNI format for volumes.
Using TB3 vertex volume calc
Total face volume 230126
Total vertex volume 229882 (mask=0)
Saving annotation colortable ./BA_exvivo.thresh.ctab

table columns are:
number of vertices
total surface area (mm^2)
total gray matter volume (mm^3)
average cortical thickness +- standard deviation (mm)
integrated rectified mean curvature
integrated rectified Gaussian curvature
folding index
intrinsic curvature index
structure name
atlas_icv (eTIV) = 1431271 mm^3 (det: 1.361102 )
740 449 1467 2.406 0.453 0.131 0.041 11 0.9 BA1_exvivo
1282 854 1998 2.096 0.494 0.098 0.021 10 1.1 BA2_exvivo
844 658 899 1.767 0.307 0.136 0.033 6 1.2 BA3a_exvivo
1478 993 1652 1.634 0.317 0.095 0.021 9 1.5 BA3b_exvivo
1977 1124 3437 2.678 0.518 0.111 0.042 21 3.0 BA3c_exvivo
1246 794 1899 2.516 0.563 0.114 0.034 9 1.8 BA4a_exvivo
2170 2452 10754 2.620 0.529 0.114 0.030 46 9.9 BA4b_exvivo
1217 864 2437 2.477 0.376 0.121 0.029 15 1.3 BA4c_exvivo
813 650 1897 2.459 0.313 0.122 0.028 10 6.9 BA4d_exvivo
4427 3034 5434 1.742 0.508 0.136 0.039 58 6.7 V1_exvivo
4234 2982 6670 2.041 0.473 0.145 0.039 62 6.2 V2_exvivo
373 386 874 2.235 0.421 0.140 0.032 9 7.7 MT_exvivo
291 227 697 2.821 0.499 0.131 0.035 4 0.3 perirhinal_exvivo
340 236 1139 3.120 0.475 0.095 0.020 2 0.2 entorhinal_exvivo
##PSTIME 2024:04:13:12:15:12 mri_anatomical_stats M 12 e 3.12 S 0.32 F 1233 M 456704 F O R 128681 M 0 c 13 w 20 I 0 20 L 2.83 2.90 2.85
##PFLGADPOST 2024:04:13:12:15:12 mri_anatomical_stats M 12 2.83 2.90 2.85
f-----
## BA_exvivo.labels rh Sat Apr 13 12:15:12 UTC 2024

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA1_exvivo.label --trgsuject 014_S_4401 --trglabel ./rh.BA1_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA1_exvivo.label
srcsubject = fsaverage
trgsuject = 014_S_4401
trglabel = ./rh.BA1_exvivo.label
regmethod = surface

srchem = rh
trghem = rh
trgsurface = white
accsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJas = 0, 0
Use ProjFac = 0, 0
Dofaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PREFIXES_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3962 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 3962 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 37
Checking for and removing duplicates
Writing label file ./rh.BA1_exvivo.label 3999
mri_label2label: Done

##PSTIME 2024:04:13:12:15:12 mri_label2label M 12 e 4.02 S 0.33 U 0.14 P 1113 M 541828 F O R 158983 M 0 c 13 w 44 I 16160 U 216 L 2.84 2.90 2.85
##PFLGADPOST 2024:04:13:12:15:12 mri_label2label M 12 2.84 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA2_exvivo.label --trgsuject 014_S_4401 --trglabel ./rh.BA2_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA2_exvivo.label
srcsubject = fsaverage
trgsuject = 014_S_4401
trglabel = ./rh.BA2_exvivo.label
regmethod = surface

srchem = rh
trghem = rh
trgsurface = white
```

```
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 6687 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 6687 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 36
Checking for and removing duplicates
Writing label file ./rh.BA2_exvivo.label 6743
mri_label2label: Done

##PSTIME 2024:04:13:12:56:32 mri_label2label N 12 w 4.45 S 0.35 U 4.50 P 109h M 542036 F 0 R 159093 W 0 c 11 w 14 I 520 O 336 L 2.84 2.90 2.85
##PFLGADPOST 2024:04:13:12:56:37 mri_label2label N 12 2.85 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3a_exvivo.label --trgsurface 014_g_4401 --trglabel ./rh.BA3a_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3a_exvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./rh.BA3a_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1980 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1980 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 47
Checking for and removing duplicates
Writing label file ./rh.BA3b_exvivo.label 4027
mri_label2label: Done

##PSTIME 2024:04:13:12:56:37 mri_label2label N 12 w 4.10 S 0.34 U 4.21 P 111h M 542156 F 0 R 159043 W 0 c 16 w 16 I 312 O 208 L 2.85 2.90 2.85
##PFLGADPOST 2024:04:13:12:56:41 mri_label2label N 12 2.90 2.90 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3b_exvivo.label --trgsurface 014_g_4401 --trglabel ./rh.BA3b_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3b_exvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./rh.BA3b_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4522 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4522 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 40
Checking for and removing duplicates
Writing label file ./rh.BA4_exvivo.label 4562
mri_label2label: Done

##PSTIME 2024:04:13:12:56:41 mri_label2label N 12 w 4.18 S 0.29 U 4.34 P 111h M 542368 F 0 R 159061 W 0 c 8 w 14 I 352 O 240 L 2.95 2.92 2.86
##PFLGADPOST 2024:04:13:12:56:45 mri_label2label N 12 2.95 2.92 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4a_exvivo.label --trgsurface 014_g_4401 --trglabel ./rh.BA4a_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4a_exvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./rh.BA4a_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 5747 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 5747 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 198
Checking for and removing duplicates
Writing label file ./rh.BA4b_exvivo.label 5945
mri_label2label: Done

##PSTIME 2024:04:13:12:56:45 mri_label2label N 12 w 4.52 S 0.16 U 4.63 P 110h M 542264 F 0 R 159072 W 0 c 18 w 14 I 440 O 360 L 2.95 2.92 2.86
##PFLGADPOST 2024:04:13:12:56:50 mri_label2label N 12 2.95 2.93 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4p_exvivo.label --trgsurface 014_g_4401 --trglabel ./rh.BA4p_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4p_exvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./rh.BA4p_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4473 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4473 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 161
Checking for and removing duplicates
Writing label file ./rh.BA4p_exvivo.label 4634
mri_label2label: Done

##PSTIME 2024:04:13:12:56:50 mri_label2label N 12 w 4.14 S 0.36 U 4.23 P 111h M 542016 F 0 R 159061 W 0 c 19 w 14 I 344 O 272 L 2.95 2.93 2.86
##PFLGADPOST 2024:04:13:12:56:54 mri_label2label N 12 2.96 2.93 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA5_exvivo.label --trgsurface 014_g_4401 --trglabel ./rh.BA5_exvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA5_exvivo.label
srcsubject = fsaverage
trgsurface = 014_g_4401
trglabel = ./rh.BA5_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
useshash = 1
Use ProjJds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0
```

```
SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 12256 points in source label.
Starting surface-based mapping
Heading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Heading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Heading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 12256 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 515
Checking for and removing duplicates
Writing label file ./rh.BA4_exvivo.label 12771
mri_label2label: Done

##PFTIME 2024:04:13:12:56:54 mri_label2label N 12 w 5.52 S 0.31 U 5.65 P 108M 542504 F 0 R 159190 W 0 c 17 w 14 I 936 O 776 L 2.96 2.93 2.86
##PFLGADPOST 2024:04:13:12:56:55 mri_label2label N 12 2.88 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4_exvivo.label --trgsbjeet 014_g_4401 --trglabel ./rh.BA4_exvivo.label --hemi rh --regmethod surface

srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./rh.BA4_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 6912 points in source label.
Starting surface-based mapping
Heading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Heading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Heading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 6912 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 213
Checking for and removing duplicates
Writing label file ./rh.BA4_exvivo.label 7125
mri_label2label: Done

##PFTIME 2024:04:13:12:56:59 mri_label2label N 12 w 4.32 S 0.37 U 4.60 P 110M 542232 F 0 R 159098 W 0 c 18 w 14 I 528 O 424 L 2.88 2.91 2.85
##PFLGADPOST 2024:04:13:12:57:04 mri_label2label N 12 2.81 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA5_exvivo.label --trgsbjeet 014_g_4401 --trglabel ./rh.BA5_exvivo.label --hemi rh --regmethod surface

srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./rh.BA5_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1335 points in source label.
Starting surface-based mapping
Heading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Heading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Heading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1335 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 426
Checking for and removing duplicates
Writing label file ./rh.BA5_exvivo.label 5781
mri_label2label: Done

##PFTIME 2024:04:13:12:57:04 mri_label2label N 12 w 4.28 S 0.35 U 4.36 P 110M 542188 F 0 R 159060 W 0 c 16 w 14 I 416 O 376 L 2.81 2.90 2.85
##PFLGADPOST 2024:04:13:12:57:08 mri_label2label N 12 2.81 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.V1_exvivo.label --trgsbjeet 014_g_4401 --trglabel ./rh.V1_exvivo.label --hemi rh --regmethod surface

srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./rh.V1_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 4727 points in source label.
Starting surface-based mapping
Heading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Heading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Heading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 4727 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 1643
Checking for and removing duplicates
Writing label file ./rh.V1_exvivo.label 6570
mri_label2label: Done

##PFTIME 2024:04:13:12:57:08 mri_label2label N 12 w 4.42 S 0.35 U 4.50 P 109M 542124 F 0 R 159062 W 0 c 11 w 15 I 376 O 520 L 2.81 2.90 2.85
##PFLGADPOST 2024:04:13:12:57:13 mri_label2label N 12 2.75 2.88 2.84

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.V2_exvivo.label --trgsbjeet 014_g_4401 --trglabel ./rh.V2_exvivo.label --hemi rh --regmethod surface

srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./rh.V2_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 8016 points in source label.
Starting surface-based mapping
Heading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Heading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Heading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 8016 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 2340
Checking for and removing duplicates
Writing label file ./rh.V2_exvivo.label 10356
mri_label2label: Done

##PFTIME 2024:04:13:12:57:13 mri_label2label N 12 w 4.95 S 0.35 U 5.06 P 109M 542440 F 0 R 159124 W 0 c 17 w 14 I 640 O 800 L 2.75 2.88 2.84
##PFLGADPOST 2024:04:13:12:57:18 mri_label2label N 12 2.77 2.88 2.84

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.MT_exvivo.label --trgsbjeet 014_g_4401 --trglabel ./rh.MT_exvivo.label --hemi rh --regmethod surface

srcsubject = fsaverage
trgsbjeet = 014_g_4401
trglabel = ./rh.MT_exvivo.label
regmethod = surface

srcsemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
PRESUPPER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1335 points in source label.
Starting surface-based mapping
```



```
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1332 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 709
Checking for and removing duplicates
Writing label file ./rh.MT_oxvivo.label 2641
mri_label2label: Done

####PSTIME 2024:04:13:12:57:18 mri_label2label N 12 e 3.69 S 0.33 U 3.82 P 112% M 542080 F 0 R 155701 W 0 c 14 w 15 I 160 O 224 L 2.77 2.88 2.84
####PSLOADPOST 2024:04:13:12:57:21 mri_label2label N 12 2.79 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.entorhinal_oxvivo.label --trgsuject 014_g_4401 --trglabel ./rh.entorhinal_oxvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.entorhinal_oxvivo.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./rh.entorhinal_oxvivo.label
regmethod = surface

src hemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1038 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 1038 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 22
Checking for and removing duplicates
Writing label file ./rh.entorhinal_oxvivo.label 1060
mri_label2label: Done

####PSTIME 2024:04:13:12:57:21 mri_label2label N 12 e 3.32 S 0.31 U 3.44 P 113% M 541740 F 0 R 155672 W 0 c 13 w 14 I 96 O 64 L 2.79 2.89 2.85
####PSLOADPOST 2024:04:13:12:57:25 mri_label2label N 12 2.80 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.perirhinal_oxvivo.label --trgsuject 014_g_4401 --trglabel ./rh.perirhinal_oxvivo.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.perirhinal_oxvivo.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./rh.perirhinal_oxvivo.label
regmethod = surface

src hemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 732 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 732 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 10
Checking for and removing duplicates
Writing label file ./rh.perirhinal_oxvivo.label 762
mri_label2label: Done

####PSTIME 2024:04:13:12:57:25 mri_label2label N 12 e 3.41 S 0.37 U 3.49 P 113% M 542024 F 0 R 158985 W 0 c 13 w 14 I 72 O 48 L 2.80 2.89 2.85
####PSLOADPOST 2024:04:13:12:57:28 mri_label2label N 12 2.80 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG1.mpm.vpn1.label --trgsuject 014_g_4401 --trglabel ./rh.FG1.mpm.vpn1.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG1.mpm.vpn1.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./rh.FG1.mpm.vpn1.label
regmethod = surface

src hemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 541 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 541 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 148
Checking for and removing duplicates
Writing label file ./rh.FG2.mpm.vpn1.label 689
mri_label2label: Done

####PSTIME 2024:04:13:12:57:28 mri_label2label N 12 e 3.36 S 0.34 U 3.49 P 113% M 541736 F 0 R 158976 W 0 c 10 w 16 I 56 O 56 L 2.80 2.89 2.85
####PSLOADPOST 2024:04:13:12:57:32 mri_label2label N 12 2.82 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG2.mpm.vpn1.label --trgsuject 014_g_4401 --trglabel ./rh.FG2.mpm.vpn1.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG2.mpm.vpn1.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./rh.FG2.mpm.vpn1.label
regmethod = surface

src hemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 721 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: found 721 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 236
Checking for and removing duplicates
Writing label file ./rh.FG2.mpm.vpn1.label 957
mri_label2label: Done

####PSTIME 2024:04:13:12:57:32 mri_label2label N 12 e 3.32 S 0.36 U 3.39 P 113% M 541700 F 1 R 158992 W 0 c 13 w 15 I 72 O 80 L 2.82 2.89 2.85
####PSLOADPOST 2024:04:13:12:57:35 mri_label2label N 12 2.83 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG3.mpm.vpn1.label --trgsuject 014_g_4401 --trglabel ./rh.FG3.mpm.vpn1.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.FG3.mpm.vpn1.label
srcsubject = fsaverage
trgsuject = 014_g_4401
trglabel = ./rh.FG3.mpm.vpn1.label
regmethod = surface

src hemi = rh
trghemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1523 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
```

```
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 1523 nlabel points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 97
Checking for and removing duplicates
Writing label file ./rh.FG4.mgm.vpmi.label 1620
mri_label2label: Done

##FSTIME 2024:04:13:12:57:39 mri_label2label N 12 = 3.59 S 0.33 U 3.72 P 1125 M 541860 F 0 R 162306 W 0 c 12 w 14 I 144 0 112 L 2.83 2.89 2.85
##FSLCANDPOST 2024:04:13:12:57:39 mri_label2label N 12 2.85 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel ./home/jalbhatoa/mri_processed/fsaverage/label/rh.FG4.mgm.vpmi.label --trgsubject 014_g_4401 --trgliabel ./rh.FG4.mgm.vpmi.label --hemi rh --regmethod surface

srclabel = ./home/jalbhatoa/mri_processed/fsaverage/label/rh.FG4.mgm.vpmi.label
srcsubject = fsaverage
trgsubject = 014_g_4401
trgliabel = ./rh.FG4.mgm.vpmi.label
regmethod = surface

srcsemi = rh
trgsemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use Proj3ds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR ./home/jalbhatoa/mri_processed
PRESUPFER_HOME ./usr/local/freesurfer/7.4.1
Loading source label.
Found 1586 points in source label.
Starting surface-based mapping
Reading source registration
./home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 1588 nlabel points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 248
Checking for and removing duplicates
Writing label file ./rh.FG4.mgm.vpmi.label 1834
mri_label2label: Done

##FSTIME 2024:04:13:12:57:39 mri_label2label N 12 = 3.57 S 0.36 U 3.66 P 1125 M 541752 F 0 R 158949 W 0 c 9 w 15 I 152 0 144 L 2.85 2.89 2.85
##FSLCANDPOST 2024:04:13:12:57:40 mri_label2label N 12 2.85 2.89 2.85

mri_label2label --srcsubject fsaverage --srclabel ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C1.mgm.vpmi.label --trgsubject 014_g_4401 --trgliabel ./rh.H0C1.mgm.vpmi.label --hemi rh --regmethod surface

srclabel = ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C1.mgm.vpmi.label
srcsubject = fsaverage
trgsubject = 014_g_4401
trgliabel = ./rh.H0C1.mgm.vpmi.label
regmethod = surface

srcsemi = rh
trgsemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use Proj3ds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR ./home/jalbhatoa/mri_processed
PRESUPFER_HOME ./usr/local/freesurfer/7.4.1
Loading source label.
Found 3667 points in source label.
Starting surface-based mapping
Reading source registration
./home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 3667 nlabel points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 1552
Checking for and removing duplicates
Writing label file ./rh.H0C1.mgm.vpmi.label 5219
mri_label2label: Done

##FSTIME 2024:04:13:12:57:42 mri_label2label N 12 = 4.13 S 0.31 U 4.26 P 1105 M 542088 F 0 R 159061 W 0 c 14 w 16 I 328 0 424 L 2.85 2.89 2.85
##FSLCANDPOST 2024:04:13:12:57:46 mri_label2label N 12 2.88 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C2.mgm.vpmi.label --trgsubject 014_g_4401 --trgliabel ./rh.H0C2.mgm.vpmi.label --hemi rh --regmethod surface

srclabel = ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C2.mgm.vpmi.label
srcsubject = fsaverage
trgsubject = 014_g_4401
trgliabel = ./rh.H0C2.mgm.vpmi.label
regmethod = surface

srcsemi = rh
trgsemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use Proj3ds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR ./home/jalbhatoa/mri_processed
PRESUPFER_HOME ./usr/local/freesurfer/7.4.1
Loading source label.
Found 2719 points in source label.
Starting surface-based mapping
Reading source registration
./home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 2719 nlabel points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 886
Checking for and removing duplicates
Writing label file ./rh.H0C2.mgm.vpmi.label 3605
mri_label2label: Done

##FSTIME 2024:04:13:12:57:46 mri_label2label N 12 = 3.90 S 0.33 U 4.00 P 1114 M 541820 F 0 R 155700 W 0 c 13 w 14 I 248 0 288 L 2.86 2.89 2.85
##FSLCANDPOST 2024:04:13:12:57:50 mri_label2label N 12 2.79 2.88 2.85

mri_label2label --srcsubject fsaverage --srclabel ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C3v.mgm.vpmi.label --trgsubject 014_g_4401 --trgliabel ./rh.H0C3v.mgm.vpmi.label --hemi rh --regmethod surface

srclabel = ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C3v.mgm.vpmi.label
srcsubject = fsaverage
trgsubject = 014_g_4401
trgliabel = ./rh.H0C3v.mgm.vpmi.label
regmethod = surface

srcsemi = rh
trgsemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use Proj3ds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR ./home/jalbhatoa/mri_processed
PRESUPFER_HOME ./usr/local/freesurfer/7.4.1
Loading source label.
Found 1228 points in source label.
Starting surface-based mapping
Reading source registration
./home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 1228 nlabel points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 420
Checking for and removing duplicates
Writing label file ./rh.H0C3v.mgm.vpmi.label 1648
mri_label2label: Done

##FSTIME 2024:04:13:12:57:50 mri_label2label N 12 = 3.38 S 0.28 U 3.54 P 1135 M 541624 F 0 R 155690 W 0 c 14 w 14 I 112 0 136 L 2.79 2.88 2.85
##FSLCANDPOST 2024:04:13:12:57:54 mri_label2label N 12 2.81 2.88 2.85

mri_label2label --srcsubject fsaverage --srclabel ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C4v.mgm.vpmi.label --trgsubject 014_g_4401 --trgliabel ./rh.H0C4v.mgm.vpmi.label --hemi rh --regmethod surface

srclabel = ./home/jalbhatoa/mri_processed/fsaverage/label/rh.H0C4v.mgm.vpmi.label
srcsubject = fsaverage
trgsubject = 014_g_4401
trgliabel = ./rh.H0C4v.mgm.vpmi.label
regmethod = surface

srcsemi = rh
trgsemi = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use Proj3ds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR ./home/jalbhatoa/mri_processed
PRESUPFER_HOME ./usr/local/freesurfer/7.4.1
Loading source label.
Found 1023 points in source label.
Starting surface-based mapping
Reading source registration
./home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
./home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (rsa=16).
Building source registration hash (rsa=16).
INFO: Found 1023 nlabel points
Performing mapping from target back to the source label 129260
```

```
Number of reverse mapping hits = 355
Checking for and removing duplicates
Writing label file ./rh.h0c4v.mgm.vpn1.label.1380
mri_label2label: Done

####FSTIME 2024:04:13:12:57:58 mri_label2label N 12 w 3.30 S 0.34 U 3.38 P 112N M 541720 F 0 R 155682 W 0 c 13 w 14 I 96 O 120 L 2.81 2.88 2.85
####FSLADPOST 2024:04:13:12:57:57 mri_label2label N 12 2.81 2.88 2.85

mris_label2annot --s 014_S_4401 --ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt --hemi rh --s mgm.vpn1 --maxstatwinner --noverbose --l rh.FG1.mgm.vpn1.label --l rh.FG2.mgm.vpn1.label --l rh.FG3.mgm.vpn1.label --l rh.FG4.mgm.vpn1.label --l rh.h0c1.mgm.vpn1.label --l rh.h0c2.mgm.vpn1.label --l rh.h0c3v.mgm.vpn1.label --l rh.h0c4v.mgm.vpn1.label
Reading ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt
Number of ctab entries 9

7.4.1
Use /home/jalbhatoa/mri_processed/014_S_4401/label
cmdline mris_label2annot --s 014_S_4401 --ctab /usr/local/freesurfer/7.4.1/average/colortable_vpn1.txt --hemi rh --s mgm.vpn1 --maxstatwinner --noverbose --l rh.FG1.mgm.vpn1.label --l rh.FG2.mgm.vpn1.label --l rh.FG3.mgm.vpn1.label --l rh.FG4.mgm.vpn1.label --l rh.h0c1.mgm.vpn1.label --l rh.h0c2.mgm.vpn1.label --l rh.h0c3v.mgm.vpn1.label --l rh.h0c4v.mgm.vpn1.label
system Linux
hostname vnf-j3--3d--mri--pre-processing
machine x86_64
user jalbhatoa

subject 014_S_4401
hemi rh
SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 876 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.orig
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 876 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 21
Checking for and removing duplicates
Writing label file ./rh.BA1_xavivo.thresh.label 897
mri_label2label: Done

####FSTIME 2024:04:13:12:57:58 mri_label2label N 12 w 3.22 S 0.30 U 3.37 P 113N M 541736 F 0 R 155665 W 0 c 13 w 14 I 80 O 56 L 2.81 2.88 2.85
####FSLADPOST 2024:04:13:12:57:58 mri_label2label N 12 2.81 2.88 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA1_xavivo.thresh.label --trgsbsubject 014_S_4401 --trglabel ./rh.BA1_xavivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA1_xavivo.thresh.label
srcsubject = fsaverage
trgsbsubject = 014_S_4401
trglabel = ./rh.BA1_xavivo.thresh.label
regmethod = surface

src hemi = rh
trg hemi = rh
trg surface = white
src surfreg = sphere.reg
trg surfreg = sphere.reg
usehash = 1
Use ProjJacc = 0, 0
Use ProjFrac = 0, 0
DoPrint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 876 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 876 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 21
Checking for and removing duplicates
Writing label file ./rh.BA2_xavivo.thresh.label 897
mri_label2label: Done

####FSTIME 2024:04:13:12:57:58 mri_label2label N 12 w 3.22 S 0.30 U 3.37 P 113N M 541736 F 0 R 155665 W 0 c 13 w 14 I 80 O 56 L 2.81 2.88 2.85
####FSLADPOST 2024:04:13:12:58:01 mri_label2label N 12 2.90 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA2_xavivo.thresh.label --trgsbsubject 014_S_4401 --trglabel ./rh.BA2_xavivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA2_xavivo.thresh.label
srcsubject = fsaverage
trgsbsubject = 014_S_4401
trglabel = ./rh.BA2_xavivo.thresh.label
regmethod = surface

src hemi = rh
trg hemi = rh
trg surface = white
src surfreg = sphere.reg
trg surfreg = sphere.reg
usehash = 1
Use ProjJacc = 0, 0
Use ProjFrac = 0, 0
DoPrint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 888 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2488 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 7
Checking for and removing duplicates
Writing label file ./rh.BA3_xavivo.thresh.label 2695
mri_label2label: Done

####FSTIME 2024:04:13:12:58:01 mri_label2label N 12 w 3.75 S 0.36 U 3.82 P 111N M 541896 F 0 R 155710 W 0 c 13 w 14 I 240 O 128 L 2.90 2.90 2.85
####FSLADPOST 2024:04:13:12:58:05 mri_label2label N 12 2.91 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3a_xavivo.thresh.label --trgsbsubject 014_S_4401 --trglabel ./rh.BA3a_xavivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3a_xavivo.thresh.label
srcsubject = fsaverage
trgsbsubject = 014_S_4401
trglabel = ./rh.BA3a_xavivo.thresh.label
regmethod = surface

src hemi = rh
trg hemi = rh
trg surface = white
src surfreg = sphere.reg
trg surfreg = sphere.reg
usehash = 1
Use ProjJacc = 0, 0
Use ProjFrac = 0, 0
DoPrint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1698 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1698 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 8
Checking for and removing duplicates
Writing label file ./rh.BA3b_xavivo.thresh.label 1706
mri_label2label: Done

####FSTIME 2024:04:13:12:58:05 mri_label2label N 12 w 3.55 S 0.34 U 3.65 P 112N M 541948 F 0 R 159001 W 0 c 13 w 15 I 152 O 88 L 2.91 2.90 2.85
####FSLADPOST 2024:04:13:12:58:08 mri_label2label N 12 2.91 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3b_xavivo.thresh.label --trgsbsubject 014_S_4401 --trglabel ./rh.BA3b_xavivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA3b_xavivo.thresh.label
srcsubject = fsaverage
trgsbsubject = 014_S_4401
trglabel = ./rh.BA3b_xavivo.thresh.label
regmethod = surface

src hemi = rh
trg hemi = rh
trg surface = white
src surfreg = sphere.reg
trg surfreg = sphere.reg
usehash = 1
Use ProjJacc = 0, 0
Use ProjFrac = 0, 0
DoPrint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
PRESURFEN_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 2183 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 2183 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 10
Checking for and removing duplicates
Writing label file ./rh.BA3b_xavivo.thresh.label 2193
mri_label2label: Done
```

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##FFETIME 2024:04:13:12:58:08 mri_label2label N 12 w 3.65 S 0.36 U 3.74 P 112h M 541936 F 0 R 155699 W 0 c 7 w 14 I 192 O 120 L 2.91 2.90 2.85
##FFELGADPOST 2024:04:13:12:58:12 mri_label2label N 12 2.92 2.91 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4a_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.BA4a_xvivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4a_xvivo.thresh.label
srcsubject = fsaverage
trgsobject = 014_g_4401
trglabel = ./rh.BA4a_xvivo.thresh.label
regmethod = surface

src hemi = rh
trghem = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjXds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1398 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1388 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 30
Checking for and removing duplicates
Writing label file ./rh.BA4a_xvivo.thresh.label 1418
mri_label2label: Done

##FFETIME 2024:04:13:12:58:12 mri_label2label N 12 w 3.31 S 0.31 U 3.41 P 112h M 541732 F 0 R 155683 W 0 c 13 w 14 I 120 O 88 L 2.92 2.91 2.85
##FFELGADPOST 2024:04:13:12:58:15 mri_label2label N 12 3.01 2.92 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4p_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.BA4p_xvivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA4p_xvivo.thresh.label
srcsubject = fsaverage
trgsobject = 014_g_4401
trglabel = ./rh.BA4p_xvivo.thresh.label
regmethod = surface

src hemi = rh
trghem = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjXds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1489 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1489 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 78
Checking for and removing duplicates
Writing label file ./rh.BA4p_xvivo.thresh.label 1565
mri_label2label: Done

##FFETIME 2024:04:13:12:58:15 mri_label2label N 12 w 3.56 S 0.34 U 3.69 P 113h M 541872 F 0 R 155684 W 0 c 11 w 14 I 136 O 104 L 3.01 2.92 2.86
##FFELGADPOST 2024:04:13:12:58:19 mri_label2label N 12 3.00 2.93 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA6_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.BA6_xvivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA6_xvivo.thresh.label
srcsubject = fsaverage
trgsobject = 014_g_4401
trglabel = ./rh.BA6_xvivo.thresh.label
regmethod = surface

src hemi = rh
trghem = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjXds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 6959 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 6959 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 280
Checking for and removing duplicates
Writing label file ./rh.BA6_xvivo.thresh.label 7239
mri_label2label: Done

##FFETIME 2024:04:13:12:58:19 mri_label2label N 12 w 4.66 S 0.34 U 4.76 P 109h M 542208 F 0 R 155794 W 0 c 19 w 16 I 592 O 440 L 3.00 2.93 2.86
##FFELGADPOST 2024:04:13:12:58:23 mri_label2label N 12 3.00 2.93 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA44_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.BA44_xvivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA44_xvivo.thresh.label
srcsubject = fsaverage
trgsobject = 014_g_4401
trglabel = ./rh.BA44_xvivo.thresh.label
regmethod = surface

src hemi = rh
trghem = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjXds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1012 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1012 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 39
Checking for and removing duplicates
Writing label file ./rh.BA44_xvivo.thresh.label 1051
mri_label2label: Done

##FFETIME 2024:04:13:12:58:23 mri_label2label N 12 w 3.28 S 0.31 U 3.40 P 113h M 541836 F 0 R 155674 W 0 c 15 w 15 I 88 O 72 L 3.00 2.93 2.86
##FFELGADPOST 2024:04:13:12:58:27 mri_label2label N 12 3.00 2.91 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA45_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.BA45_xvivo.thresh.label --hemi rh --regmethod surface

srclabel = /home/jalbhatoa/mri_processed/fsaverage/label/rh.BA45_xvivo.thresh.label
srcsubject = fsaverage
trgsobject = 014_g_4401
trglabel = ./rh.BA45_xvivo.thresh.label
regmethod = surface

src hemi = rh
trghem = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjXds = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jalbhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 1178 points in source label.
Starting surface-based mapping
Reading source registration
/home/jalbhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.white
Reading target registration
/home/jalbhatoa/mri_processed/014_g_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 1178 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 31
Checking for and removing duplicates
Writing label file ./rh.BA45_xvivo.thresh.label 1209
mri_label2label: Done

##FFETIME 2024:04:13:12:58:27 mri_label2label N 12 w 3.27 S 0.30 U 3.34 P 113h M 542000 F 0 R 158966 W 0 c 9 w 14 I 104 O 72 L 3.00 2.93 2.86
##FFELGADPOST 2024:04:13:12:58:30 mri_label2label N 12 2.92 2.91 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jalbhatoa/mri_processed/fsaverage/label/rh.V1_xvivo.thresh.label --trgsobject 014_g_4401 --trglabel ./rh.V1_xvivo.thresh.label --hemi rh --regmethod surface
```

```
srclabel = /home/jaibhatoa/mri_processed/fsaverage/label/rh.V1_avivo.thresh.label
srcsubject = fsaverage
trgsbjsct = 014_S_4401
trglbnel = ./rh.V1_avivo.thresh.label
regmethod = surface

srcbnel = rh
trgbnel = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jaibhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3232 points in source label.
Starting surface-based mapping
Reading source registration
/home/jaibhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 3232 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 1365
Checking for and removing duplicates
Writing label file ./rh.V1_avivo.thresh.label 4597
mri_label2label: Done

##FSTIME 2024:04:13:12:58:30 mri_label2label N 12 w 3.82 S 0.29 U 9.95 P 1114 M 542244 F 0 R 155734 W 0 c 11 w 15 I 280 O 368 L 2.92 2.91 2.86
##FSLCQPOST 2024:04:13:12:58:34 mri_label2label N 12 2.85 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jaibhatoa/mri_processed/fsaverage/label/rh.V2_avivo.thresh.label --trgsbjsct 014_S_4401 --trglbnel ./rh.V2_avivo.thresh.label --bnel rh --regmethod surface

srclabel = /home/jaibhatoa/mri_processed/fsaverage/label/rh.V2_avivo.thresh.label
srcsubject = fsaverage
trgsbjsct = 014_S_4401
trglbnel = ./rh.V2_avivo.thresh.label
regmethod = surface

srcbnel = rh
trgbnel = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jaibhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 3437 points in source label.
Starting surface-based mapping
Reading source registration
/home/jaibhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 3437 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 1158
Checking for and removing duplicates
Writing label file ./rh.V2_avivo.thresh.label 4595
mri_label2label: Done

##FSTIME 2024:04:13:12:58:34 mri_label2label N 12 w 3.89 S 0.32 U 4.01 P 1114 M 542080 F 1 R 159043 W 0 c 15 w 14 I 296 O 368 L 2.85 2.90 2.85
##FSLCQPOST 2024:04:13:12:58:38 mri_label2label N 12 2.85 2.90 2.85

mri_label2label --srcsubject fsaverage --srclabel /home/jaibhatoa/mri_processed/fsaverage/label/rh.MT_avivo.thresh.label --trgsbjsct 014_S_4401 --trglbnel ./rh.MT_avivo.thresh.label --bnel rh --regmethod surface

srclabel = /home/jaibhatoa/mri_processed/fsaverage/label/rh.MT_avivo.thresh.label
srcsubject = fsaverage
trgsbjsct = 014_S_4401
trglbnel = ./rh.MT_avivo.thresh.label
regmethod = surface

srcbnel = rh
trgbnel = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jaibhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 268 points in source label.
Starting surface-based mapping
Reading source registration
/home/jaibhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 268 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 122
Checking for and removing duplicates
Writing label file ./rh.MT_avivo.thresh.label 390
mri_label2label: Done

##FSTIME 2024:04:13:12:58:38 mri_label2label N 12 w 3.27 S 0.35 U 3.39 P 1144 M 541884 F 0 R 155648 W 0 c 7 w 13 I 24 O 40 L 2.85 2.90 2.85
##FSLCQPOST 2024:04:13:12:58:41 mri_label2label N 12 2.94 2.92 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jaibhatoa/mri_processed/fsaverage/label/rh.entorhinal_avivo.thresh.label --trgsbjsct 014_S_4401 --trglbnel ./rh.entorhinal_avivo.thresh.label --bnel rh --regmethod surface

srclabel = /home/jaibhatoa/mri_processed/fsaverage/label/rh.entorhinal_avivo.thresh.label
srcsubject = fsaverage
trgsbjsct = 014_S_4401
trglbnel = ./rh.entorhinal_avivo.thresh.label
regmethod = surface

srcbnel = rh
trgbnel = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jaibhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 494 points in source label.
Starting surface-based mapping
Reading source registration
/home/jaibhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 494 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 12
Checking for and removing duplicates
Writing label file ./rh.entorhinal_avivo.thresh.label 706
mri_label2label: Done

##FSTIME 2024:04:13:12:58:41 mri_label2label N 12 w 3.41 S 0.36 U 3.50 P 1138 M 541384 F 0 R 155670 W 0 c 14 w 14 I 64 O 48 L 2.94 2.91 2.86
##FSLCQPOST 2024:04:13:12:58:45 mri_label2label N 12 2.95 2.92 2.86

mri_label2label --srcsubject fsaverage --srclabel /home/jaibhatoa/mri_processed/fsaverage/label/rh.perirhinal_avivo.thresh.label --trgsbjsct 014_S_4401 --trglbnel ./rh.perirhinal_avivo.thresh.label --bnel rh --regmethod surface

srclabel = /home/jaibhatoa/mri_processed/fsaverage/label/rh.perirhinal_avivo.thresh.label
srcsubject = fsaverage
trgsbjsct = 014_S_4401
trglbnel = ./rh.perirhinal_avivo.thresh.label
regmethod = surface

srcbnel = rh
trgbnel = rh
trgsurface = white
srcsurfreg = sphere.reg
trgsurfreg = sphere.reg
usehash = 1
Use ProjJbns = 0, 0
Use ProjFrac = 0, 0
DoPaint 0

SUBJECTS_DIR /home/jaibhatoa/mri_processed
FREESURFER_HOME /usr/local/freesurfer/7.4.1
Loading source label.
Found 291 points in source label.
Starting surface-based mapping
Reading source registration
/home/jaibhatoa/mri_processed/fsaverage/surf/rh.sphere.reg
Rescaling ... original radius = 100
Reading target surface
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.white
Reading target registration
/home/jaibhatoa/mri_processed/014_S_4401/surf/rh.sphere.reg
Rescaling ... original radius = 100
Building target registration hash (res=16).
Building source registration hash (res=16).
INFO: Found 291 label points
Performing mapping from target back to the source label 129260
Number of reverse mapping hits = 2
Checking for and removing duplicates
Writing label file ./rh.perirhinal_avivo.thresh.label 293
mri_label2label: Done

##FSTIME 2024:04:13:12:58:45 mri_label2label N 12 w 3.13 S 0.36 U 3.17 P 1138 M 541712 F 0 R 155648 W 0 c 10 w 13 I 32 O 24 L 2.95 2.92 2.86
##FSLCQPOST 2024:04:13:12:58:48 mri_label2label N 12 2.95 2.92 2.86

mri_label2label --s 014_S_4401 --bnel rh --ctab /usr/local/freesurfer/7.4.1/average/colortable_BA.txt --l rh.BA1_avivo.label --l rh.BA2_avivo.label --l rh.BA3_avivo.label --l rh.BA4_avivo.label --l rh.BA5_avivo.label --l rh.BA6_avivo.label --l rh.BA7_avivo.label --l rh.BA8_avivo.label --l rh.BA9_avivo.label --l rh.BA10_avivo.label --l rh.V1_avivo.label --l rh.V2_avivo.label --l rh.MT_avivo.label --l rh.perirhinal_avivo.label --l rh.entorhinal_avivo.label --s BA_avivo --maxstatinex --novotune
Reading ctab /usr/local/freesurfer/7.4.1/average/colortable_BA.txt
Number of ctab entries 15

7.4.1
cwd /home/jaibhatoa/mri_processed/014_S_4401/label
```

```
jaibhatoa@vm4--jb--3d-mri--pre-processing:~$ ls -R ~/mri_processed/014_S_4401
/home/jaibhatoa/mri_processed/014_S_4401: label mri
scripts stats surf tmp touch trash
```


