

## Release notes for MNE Version 2.7

Note: This document contains Chapter and Section references to the MNE Manual, version 2.7.

### 1. Software engineering

There have been two significant changes in the software engineering since MNE Version 2.6:

- \* CMake is now used in building the software package and
- \* Subversion (SVN) is now used for revision control instead of Concurrent Versions System (CVS).
- \* The use of shared libraries has been minimized.

These changes have the following effects on the distribution of the MNE software and setup for individual users:

- \* There is now a separate software package for each of the platforms supported.
- \* The software is now organized completely under standard directories (bin, lib, and share). In particular, the directory setup/mne has been moved to share/mne and the directories app-defaults and doc are now under share. All files under share are platform independent.
- \* Minimal use of shared libraries alleviates compatibility problems across operating system variants.
- \* The setup scripts have changed.
- \* All binaries now reside in \$MNE\_ROOT/bin. There are no separate bin/mne and bin/admin directories.

The installation and user-level effects of the new software organization are discussed in Chapter 2 and Appendix C. In addition, several minor bugs have been fixed in the source code. Most relevant changes visible to the user are listed below.

### 2. Matlab tools

- \* The performance of the fiff I/O routines has been significantly improved thanks to the contributions of François Tadel at USC.
- \* Label file I/O routines `mne_read_label_file` and `mne_write_label_file` as well as a routine to extract time courses corresponding to a label from an stc file (`mne_label_time_courses`) have been added.
- \* The patch information is now read from the source space file and included in the source space data structure.

### 3. `mne_browse_raw`

- \* Rejection criteria to detect flat channels have been added, see Sections 4.13.2 and 4.14.2.
- \* Possibility to detect temporal skew between trigger input lines has been added, see Sections 4.13.2 and 4.14.2.
- \* `--allowmaxshield` option now works in the batch mode as well.
- \* Added the `--projevent` option to batch mode.
- \* It is now possible to compute an SSP operator for EEG, see Section 4.6.4.

### 4. `mne_analyze`

- \* Both hemispheres can now be displayed simultaneously, see Section 7.8.3.

- \* If the source space was created with `mne_make_source_space` version 2.3 or later, the subject's surface data are automatically loaded after loading the data and the inverse operator.

## 5. Miscellaneous

- \* `mne_smooth_w` was renamed to `mne_smooth` and can now handle both `w` and `stc` files. Say `mne_smooth --help` to find the options.
- \* `mne_anonymize` now has the `--his` option to remove the HIS ID of the subject, see Section 11.4.7,
- \* `mne_check_surface` now has the `--bem` and `--id` options to check surfaces from a BEM `fif` file. For details, try `mne_check_surface --help`.
- \* `mne_compute_raw_inverse` now has the `--orignames` option, see Section 6.6.1.
- \* Added `--headcoord` option to `mne_convert_dig_data`, see Section 9.3.
- \* Added `--talairach` option to `mne_make_cor_set`, see Section 9.8.
- \* Added the `--morph` option to `mne_setup_source_space` and `mne_make_source_space`, see Sections 3.5 and 5.4, respectively.
- \* Added the `--prefix` option to `mne_morph_labels`, see Section 8.5.
- \* Added the `--blocks` and `--indent` options to `mne_show_fiff`, see Section 11.3.
- \* Added the `--proj` option as well as map types 5 and 6 to `mne_sensitivity_map`, see Section 11.10.
- \* Fixed a bug in `mne_inverse_operator` which caused erroneous calculation of EEG-only source estimates if the data were processed with Maxfilter software and sometimes caused similar behavior on MEG/EEG source estimates.