

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

1. PURPOSE

This document is specific to the released software and should contain the software name and version in the title, e.g., "Curry 7 Release Notes". It is written for the end user's benefit, and contains the following information:

2. SUMMARY OF CHANGES SINCE LAST RELEASE

This is an overview of the most significant changes and bug fixes that were made to the current software release compared with the last release, Curry 7.0.5. Important changes with respect to previous versions of Curry follow at the end of each section.

2.1. Highlights

- Option to cluster source results while scanning through epochs.
- Improved study synchronization with time/frequency and 3D cursor synchronization.
- Option to duplicate a study for synchronization.
- Option for blocked and overlapping in-place averaging of events.
- Statistics can now access individual epochs when "x Epochs" is not checked.
- Statistics can now compute consistency tests for only one condition.
- Option to detect local peaks in single channels for manual event cursor alignment.
- Creation of cortical lamina along with cortical triangle mesh in BEM Geometry for improved brain visualization.
- New "Use same folder" option for better file selector folder presets.
- New database options to load all results and to load a single result by double-clicking.
- Improved impedance calculation for SynampsRT/2 and NuAmps
- Added support for Cedrus StimTracker.
- Added support for ProFusion PSG3 studies
- Added support for video in ProFusion studies
- ProFusion readers don't interfere with local ProFusion installation(s) any more.
- Improved touchscreen support (pinch-to-zoom).

For Curry 7.0.5:

- Option to perform and display channelwise STFFT/wavelet analysis
- Option for weighted artifact subtraction (linear detrending) added (improves fMRI artifact reduction during acquisition in certain cases)
- Option to load and save SCAN event file format (extension .ev2)
- Option to merge event information from STIM-file
- Option to specify any channel as a (binary) "Trigger" channel on page one of Data Parameters. Configuration file "Trigger.cfg" controls how the bits in a trigger channel are interpreted.
- In Image Data, electrodes are now colored according to their voltages if a color scale is selected
- Option to export cursor location to Localize by CTRL-clicking in an Image Data view
- Option to export Scan results as SPM-format files

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Improved update rate of Impedance Test when using monopolar channels only (applies to Synamps2/RT)
- Enabled response bits on NuAmps trigger channel
- New 'Plausibility Check' option in Acquisition Digitizer Dialog
- Option to add comments to acquired file before or during recording
- Option in the Window menu to synchronize display pages and time cursors across (matching) studies
- Option to download tutorial data files via the Help menu
- New "Windows 8" visual style with higher contrast for flat UI elements available via Edit > Options. This style is automatically selected under Windows 8

For Curry 7.0.4:

- New digitizer hardware supported: NDI Polaris, Polhemus FasTrak III
- Option to enable Voltage Output on Synamps2/RT High-Level connector
- Option to rotate and scale electrodes in the Sensor Placement dialog
- Option to apply a Constant Baseline Correction during acquisition
- Option to apply a Linear Derivation File during acquisition
- New amplifier configuration options
- Improved Synamps2/RT impedance test
- Improved video synchronization
- Frame-by-frame video navigation
- Added "trigger" channel type
- Montages may span over multiple groups
- File name and folder suggestion when saving data files
- File format and options are now remembered for next data file save
- Source results now include event name or data file name in their description
- CDR dipoles and coherence now include type in their description
- Option to use MATLAB to compute lead fields
- Option to export Scan results to Excel and MATLAB
- Improved macro usability
- Improved MATLAB support
- Curry now silently checks for updates every week
- Updated Manuals

For Curry 7.0.3:

- Digitizer module with Polhemus Fastrak support.
- Video module for recording synchronized EEG and video.
- "Auto-detect bipolar channels" functionality for NuAmps amplifiers.
- White list to identify bipolar (non-EEG) channels.
- Nicolet file format reader (requires Nicolet reader or better installation).
- EDF / EDF+ file export.
- Neuroscan EEG file export.
- Simultaneous time & frequency display.
- Scan data forward/backward with adjustable stepsize.
- Ripple and fast ripple filter frequencies added.
- Epoch labels for saved / averaged events added.
- Save channel as wavefile.
- Modify selected event types.
- SubSampleCorrection functionality for artifact correction implemented.

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Multiple epoch types for averaging implemented.
- Five sequences for template matching implemented.
- Contour lines and maps in frequency mode enabled.
- Enabled colored electrodes (contour lines and maps off).
- Time range and Ellipsoid display mode toolbar buttons work faster.
- Electrode label names are now displayed in image data tooltips.
- Intensity differences between left and right hemisphere are now shown in image data tooltips.
- When using the mouse wheel in the Segmentation Result display, segmentation results update to reflect the changed threshold.
- Standard skin, skull, and brain are now always available for display.
- Points are now offered for 3D display even if they are not loaded yet.
- Option to only show coherence arrows for certain regions only. Extensive coherence region output.
- New dipole color type "Auto" which switches between "Time" and "Dipole index" depending on dipole type and number of samples.
- Improved workflow for "Adjust Sensor Positions" in Localize.
- Automatic 10-20 system setup creates all 160 10-5 system positions.
- Macro support for Localize interactions in 3D View.
- Parameter panel switches are now recorded to macro.
- Improved study selection when running macro on database entries.
- Updated Manuals

For Curry 7.0.2:

- Updated Manuals
- Noise estimation: Auto mode added and made the default (defaults to Percentile 20 for continuous files, else Pretrigger is used)
- Baseline correction: Constant Pretrigger added
- Display insignificant statistics result time ranges using gray backdrops
- Option to merge several dipole results into one as an alternative to "Keep Results"
- Added Graef support
- Acquisition now supports PCA filtering (from file)
- Acquisition now supports MATLAB plugins
- Acquisition now supports STFFT display
- Option to review from recorded file during acquisition

For Curry 7.0:

- Acquisition module
- Transforms for artifact detection and reduction
- Sensor and source coherence
- Frequency domain source analysis
- ICA-based dipole fits
- PCA/ICA-based current density analysis
- eLORETA current density method
- ECoG grid placement planning
- Fiber orientation visualization based on DTI FA images
- Statistics module
- MATLAB APIs
- Automation and batch processing

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

2.2. User Interface

- New "Use same folder" option for better file selector folder presets.
- Expanding rollups and "Advanced" buttons scrolls dialog page "to top".
- Channel selection window opens in currently selected channel group.
- Ask for overwrite popup dialog text now conforms with Microsoft conventions.
- "Open File Location" options now select (highlight) the file name.
- Renamed "3D View Safe Mode" to "3D View Compatibility Mode" in title bar.
- Ensure view gets keyboard focus when studies are opened without database.
- When pressing the Ctrl key while starting an "eternal" movie or rotation, replay doesn't stop when Curry loses the focus (use Esc key to stop).
- Fixed a bug in channel selection that displayed "more" token as selected.
- LDR, Derive, Integrate, Rectify moved to Baseline section.

For Curry 7.0.5:

- New "Windows 8" visual style with higher contrast for flat UI elements available via Edit > Options. This style is automatically selected under Windows 8
- Option in the Window menu to synchronize display pages and time cursors across studies
- Option to download tutorial data files via the Help menu
- Changed "overwrite" notification text for Save Movie As dialog
- Updating views now addresses the correct childframe, even if it has not the focus
- Bug fixes

For Curry 7.0.4:

- Modify event type extended for bad blocks
- Show event list with valid events only (wrt bad blocks and conditions)
- Always display event type on top of waveform-display
- Disable Show Timedomain for loaded spectral data
- Save all three time-cursors (macro and parameters)
- Kept waveforms from position plot keep their colors
- Keep time-cursor distance when scrolling through the data
- Selected artifact sequence tab saved in parameters
- Added 'Help' button to Conditions dialog
- Hardcopy image file format is now remembered between calls
- Increased size of small Image Data cross-sections for the "All" display mode
- Maximum number of open studies is now dynamically detected
- Removed driver install entries from start menu as this is now offered in Acquisition
- Option to specify Database, Parameter heading, Output font via a Fonts.txt file
- Bug fixes

For Curry 7.0.3:

- Set pre- and post-latencies for R5 events automatically.
- Pre-trigger baseline correction for in-place averaged events.
- Sum of all valid events in valid event display.
- Checkbox for other channels included in artifact reduction.
- Reset button for individual channel color restores actual color.
- Waveboard with vertical 0.0 ms line (dotted).
- Reset all parameters (factory defaults) from macro.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Save all montage names to study parameters.
- Average all event groups / revert to continuous improved (toggle button).
- First channel (vertical scrollbar) -> study parameters.
- Zoom and cursors kept when going through the eventlist / deleting events / averaging in-place.
- Artifact PCA (show) displays five leading components.
- Larger font for time-cursor, collision detection improved.
- Don't display others with PCA/ICA filtering.
- Update event-list scan-button after filter changes.
- Move cursor in waveboard (event analyses) to next / previous event.
- Keyboard selection (left/right/return) of events in waveboard.
- Keep average of selected time/frequency range.
- Page up/down enabled for concatenated continuous files.
- Pensize, cursorlinewidth, and plus-is-up kept for in-place-averages.
- Modify first displayed channel Alt & mousewheel.
- Frequency tick distances saved / restored.
- New checkbox: Show Other Channels.
- Butterfly plot includes others if selected.
- Delete select event directly from event list.
- Longer label-length possible (20->40).
- Changed right hand border for amplitude values.
- Scan data movie implemented.
- Epoch label shown for single group average.
- Switched the positions of the "Time Range Display Mode" and the "Ellipsoid Display Mode" toolbar buttons.
- Added a "Play after save" checkbox to the save avi file selection.
- Added an option in the Troubleshooting section of Edit > Options to limit the frame rate for viewing movies within Curry (via the "Play Movie" toolbar button).
- Changed the number of color transitions in the Colors section of Edit > Options from 7 to 8.
- Added explanatory tooltips to more Edit > Options parameters.
- Several popup windows with questions now have custom button texts instead of the previously used Yes/No/Yes to All etc which was not always appropriate.
- Changed the Red..Yellow..Green colorscale to Green..Yellow..Red. This colorscale is suggested for impedance display, unless user is color-blind.
- Changed the Red..Yellow colorscale to Yellow..Red.
- Changed the Green..Yellow colorscale to Yellow..Green.
- Changed the Blue..Cyan colorscale to Cyan..Blue.
- Added a rainbow color scale. This color scale is suggested for PET/SPECT images.
- Added tabs "Acq, FD", "Acq, FD H", and "Acq, FD, Maps, 3D" to Curry X versions.
- "Enlarge" buttons will be hidden even after rapid mouse movements.
- Replaced the macro toolbar icon for "loop over files" with an icon that shows a datafile symbol and a play macro symbol.
- Moved the macro "Playback options" heading into the macro toolbar.
- Rollup- / parameter dialog switching can now be recorded for macro replay.
- The verbosity submenu of the Output context menu now shows the same options as the Edit > Options dialog.
- Bug fixes

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

For Curry 7.0.2:

- Bad Blocks appear as gray areas in the scrollbar
- Hide scrollbar in frequency mode
- Montage editor is now also available in Curry 7 S and Curry 7 SB

For Curry 7.0:

- Navigation area comprising workflow, database, events, display parameters
- Macro-enabled workflow sidebar
- Options window
- Adjustable hardcopy / movie size
- Maximize icons for data displays and selection grids
- Detachable parameter dialogs
- Extensive Online (F1) Help
- Additional color scales

2.3. Database

- Added "Insert Result File" to database menus.
- Double-clicking a result stored in the database now loads the result.
- New context menu option to load all results in a study.
- "Split Recordings" are now displayed with the correct icon.
- If adding entries to a (read-only) database fails, there is now an error message.
- Improved detection of image data files if .imd file is entered in database.
- New padlock icon indicates a locked study (during in-place averaging).
- New toned-down parameter icon indicates that a functional data file is reusing Curry Parameters from a file in the same study.
- Pressing the "return" key now modifies database properties.
- Speedup when adding/removing files to/from an open study.
- Fixed potential crash reading subjects with "empty" label.
- Fixed a bug that displayed an empty title for "unfiled" studies.
- Fixed a bug that prevented reordering files in subjects' default study.
- Fixed a bug where an error message appeared if built-in image data were added to a closed study.

For Curry 7.0.5:

- Added sampling rate to "file" tooltip
- When opening study, missing files will be removed from list and user will be notified
- Bug fixes

For Curry 7.0.4:

- Resorting files in study can now be done without pressing "Ctrl" key
- Prevent dropping studies in an "Unfiled" study
- Added context menu item to edit Macro (and Study Parameter) files.
- Font of database tree is now consistent to rest of Curry UI
- Prompts now for saving modifications (of open studies) when closing / switching database
- Bug fixes

For Curry 7.0.3:

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Display gauge when reading large databases.
- Auto-scroll when dragging items.
- Added "Open File Location" for database root item.

For Curry 7.0.2:

- Bug Fixes

For Curry 7.0:

- Toolbar
- Drag-and-drop support
- Nested folder support
- Experiment support
- Parameter and data file inheritance
- Relocation options (relative paths, change paths)

2.4. EEG and MEG Data Import

- Support for "TTL" trigger channels.
- New "trigger" logic for negative (absolute) flanks: generated type is now "target" sample (e.g. 5 -> 4 generates "n4", not "n5").
- "Trigger channel" defaults are now: "absolute mode", "react on both flanks".
- Added support for reading "raw double" files.
- Added support for reading ProFusion PSG3 file format.
- Wizard now switches to "leave positions as they are" when reading *.pom files.
- Wizard: Lowest supported sample frequency is now 1 Hz.
- Wizard: "Load digitizer file" dialogs now initially start in functional data file's folder.
- Wizard will now prompt to overwrite obsolete *.cef files if user has modified "Trigger" channel settings.
- Added "parameterized" icon for wizard (to distinguish auto-detected files).
- Added "default channels" and "auto-save *.cef" to trigger configuration file.
- ASCII reader: "comma" is now a valid decimal separator
- ProFusion PSG2, EEG3, and EEG4 readers now don't interfere with local ProFusion installation(s) any more.
- BDF reader: added optional "sloppy" reading ("off" by default).
- BrainVision: channel "resolution" is now applied for integer formats.
- Neuromag reader now discards (0, 0, 0) when counting "valid" electrode positions.
- Neuromag reader now compensates "initial skip" when reading events.
- Neuroscan reader now reads events generated by "manual hotkeys" in continuous data files.
- Neuromag reader now refuses to load "SmartShield" data (can be re-enabled by editing SessionDefaults.cfg).
- Neuromag reader now extracts "start of recording" (incl. "first sample" offset)
- Neuromag reader: increased performance for reading electrode positions.
- Nicolet reader now supports channel interpolation.
- Nihon Kohen *.21E (label) reader now also imports channels found in [REFERENCE] section.
- Stellate reader now supports per-channel sampling rate.
- Fixed a crash when overriding original sampling rate in Nicolet data files.
- Fixed a bug when changing the session for an already parameterized Neuromag file.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Fixed truncated radio button text in "Raw Digitizer" wizard.
- Fixed bugs related to parameterized and un-parameterized files in same study.
- Fixed "skipping" groups in wizard.
- Fixed reading legacy Neuroscan Contiguous Files with block size other than 40 ms.
- Fixed typo in FiffLabels.txt override file (PF2 -> FP2).

For Curry 7.0.5:

- 3D preview selection is now correctly updated when user changes channel type from "other" to "EEG" group
- Option to specify any channel as a (binary) "Trigger" channel on page one of Data Parameters. Configuration file "Trigger.cfg" controls how the bits in a trigger channel are interpreted.
- Improved group study parameterization by reusing any data file's parameters, not only the first
- Brainvision event types are now mapped to annotations
- For 4DNI and CTF MEG formats, the channel type of MEG channels cannot be changed to "other" or "EEG" group any more. Such channels can still be deselected in Functional Data.
- Neuromag channels of type "STIM" are not scaled to " μ V" any more so that they can be used as trigger channels
- When exporting data, the start sample is now added to "start of session" time
- "Disabled" channels are now skipped correctly on data import
- Bug fixes

For Curry 7.0.4:

- When fitting a sphere to sensors, (0,0,0) and very large coordinates are now ignored
- Parameterization feedback dialog for digitizer files is now easier to understand
- Support for BTi data exported to CD (numbers-only filenames)
- Added "left/right periauricular point" to list of recognized landmark labels
- Improved "raw float" autodetection
- Legacy EGI reader now supports events
- XLTek-reader: "table of contents" file (*.etc) file is now optional
- Sensor positions on wizard's "general" page are now read-only
- Added (faked) landmarks for 128- and 256-channel EGI caps
- Bug fixes

For Curry 7.0.3:

- Nicolet file format reader (requires Nicolet reader or better installation).
- EDF / EDF+ file export.
- Neuroscan EEG file export.
- Support for Yokogawa .con files.
- Yokogawa reader now assigns (zero based) channel index for empty labels.
- PAN landmarks are correctly extracted from Yokogawa files.
- Support for Micromed 8 and 32 bit files.
- Support for (binary) BrainVision .eeg files.
- Neuromag EEG labels can be "remapped" to 10-20 labels.
- BESA format .elp files can be used as anatomical landmarks.

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- A folder containing libraries for reading ProFusion format files is now created by the installer. This folder contains a registration script. Only register and use these libraries if ProFusion proper is not installed on that specific computer.
- Label-matching locations CB1 and CB2 are now equal to I1 and I2; added location CBz which co-localizes with Iz.
- Label-matching locations M1 and M2 are now located at the actual mastoid positions. When using a cap with drop-leads, make sure M1 and M2 are correctly localized.
- White-list for labels that identify channels in the "Others" group (bipolar channels): VEO, VEOL/U, VEO+/-, HEO..., EKG..., ECG..., X1..9, ROC, LOC, IO1/2, SO1/2, LO1/2.
- When identifying labels for label-matching, first, full matches with the built-in table are sought, then partial matches where the actual label contains a label in the built-in table as a sub-string.
- Channel labels are now made unique during import to prevent ambiguous macro recording / replay.
- Raw digitizer files be "re-parameterized" in the wizard.
- Display coupled magnetometers as "sensors / channels" in wizard.
- Automatically separate planar gradiometers in "longitude" / "latitude" groups.
- Bug fixes

For Curry 7.0.2:

- In the import wizard, enabled the use of an additional "reference" channel
- Neuroscan *.cnt reader now supports files larger than 2 GB
- Neuromag reader now imports events
- "Gap events" (between data segments) have now the type "br0" and "br1"

For Curry 7.0:

- New EEG and MEG data import wizard
- Continuous support for changed and new file formats

2.5. Signal Processing

- Option to keep (accumulate) source results while scanning through epochs.
- Option to detect local peaks in single channels for manual event cursor alignment.
- Added a longitudinal referential montage for Yokogawa MEGs.
- In the FD, Maps display, maps now use up less space.
- Added support for displaying video in ProFusion studies
- In horizontal scrollbar use Ctrl + doubleclick to jump to data page/epoch
- Show event list when there is no horizontal scrollbar
- Added "Save Area" option to "save" dialogs.
- Hide tooltip if data block was not read successfully.
- Added show and save minimum / maximum peaks for MGFP.
- Added context menu for event list:
 - show event-lengths / differences, show enumerators.
- Added 10 custom frequency bands.
- Improved compatibility for Curry 6 parameter files for concatenated epochs.
- Improved handling of epoched and back-2-back splitted files.
- Improved memory handling for beamformer scans.
- Center event if it's not completely on current display page.

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Change event annotations when manual events are modified.
- Improved PCA and ICA artifact reduction and display of components (group-wise).
- Modified LDR file handling, LDR is now applied before baseline correction.
- Event list is now deleted after reverting "concatenate".
- Changing individual channel filter settings resets 'Scan' button (artifact reduction).
- Added in-place averaging of events with definable block- and step-size.
- Fixed loading / saving "$\sqrt{2}$" reference channel in parameter files.
- Fixed a bug where deselected groups were not shown in "Add Noise" user interface.
- Fixed a bug that prevented updating montage channels when groups are switched off.
- Fixed a bug where folder modification data was not shown in File Information window.
- Fixed a bug where wrong event list file name was suggested if name contained a dot.
- Fixed a bug where canceling the manual annotation dialog would still insert an event.
- Fixed a bug in applying event conditions on the very last event.
- Fixed a bug that prevented saving epoch information for multiple files.
- Fixed a crash on closing a study.
- Maximum number of displayed channels fixed for montages.
- Fixed a bug where the filename suggested for saving data was not a functional data file name but a file name from the parent study/subject.
- Fixed a crash when trying to save non-existing positions.
- Fixed a bug that prevented highlighting waveforms when zoomed in.

For Curry 7.0.5:

- Repaint if template matching switched off
- Refractory period disabled for bad block detection
- UI logic for epoch selection improved (voltage/frequency checkboxes and channel selection)
- Repaints added when changing rejection parameters
- Output averaged MGFP per device if data are averaged
- Disable Select All Epochs if already selected
- Overwrite epochinfo during epoch scan only
- Display averaged channel and MGFP values if time or frequency range averaged
- Increments epoch statistics: 0.1 -> 1.0
- Avoid collision of event type info and min/max voltages
- Separate noise time-ranges for noise estimation and event/epoch statistics
- Noise timerange start/end added for event/epoch statistics
- FSP Off-button for viewing waveboard added
- StopSample set when loading parameters
- Warning removed if artifact file does not yet exist
- Weighting for artifact subtraction (linear detrending) added
- Detrending (artifact reduction) for even number of averages only
- Zero line in waveboard improved
- Artifacts averaging (for All) improved
- Save show sensors (map option) to parameters
- Labels for STFFT channels added
- Display of channelwise STFFT improved
- Do not show mixed waveforms from time and frequency domain in waveboard
- Reset bad blocks updates manually set bad block correction and workflow

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- No negative peaks in frequency domain displayed
- Clipping of waveforms in waveboard improved
- Font for event type and vertical time-lines modified
- Event type of artifact sequences set on initialization
- Added event type 0 for change event type
- Set 'Include Others' and 'Use Unfiltered Data' automatically for event type R5
- Added timerange selection by dragging with Ctrl-key pressed
- Baseline correction options shown as radio buttons
- Option to close parent study when saving a file and opening it as a new study is initiated by macro, in order to keep number of open studies low
- "Last used" parameters are not saved in "averaged" mode any more
- Don't draw event bars (duration from event file) for deselected events
- Modified default annotations
- Added "Advanced" button for Functional Data "Options"
- Noise estimation: disable "Get" button for non-timerange modes
- Added tooltip for "Get" buttons.
- Added "peaks" file dialog
- Added "Merge Behavioral Data" button to Event List and corresponding workflow item
- Added progress bar when opening studies containing multiple data files
- Bug fixes

For Curry 7.0.4:

- Frame-by-frame video navigation
- Video in concatenated files
- Color events in scrollbar
- Added <All> token to Conditions dialog
- Added 'Help' button to Conditions dialog
- Manual event class implemented
- Linear derivation implemented
- Concatenate selected epochs only
- Don't delete artifact file after revert to continuous
- Minimum pagesize warning when scanning artifacts
- Scan only selected epochs (first, interleave, last) for SNR and Noise
- Support for epoched data with events
- Use All (overlay) for frequency domain data
- Merging of MEG and EEG from two different data files
- Realign template events to maximum MGFP (in-place-average or export)
- Artifact reduction even if there is overlap with bad blocks
- Colored events in scrollbar
- Added <All> token to Conditions dialog
- File name and folder suggestion when saving data files
- File format and options are now remembered for next data file save
- Frame-by-frame video navigation
- Video in concatenated files
- Bug fixes

For Curry 7.0.3:

- Simultaneous time & frequency display.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Scan data forward/backward with adjustable stepsize.
- Ripple and fast ripple filter frequencies added.
- Epoch labels for saved / averaged events added.
- Save channel as wavefile.
- Modify selected event types.
- SubSampleCorrection functionality for artifact correction implemented.
- Multiple epoch types for averaging implemented.
- Five sequences for template matching implemented.
- Don't forward data for post-processing during video-replay
- Lower threshold for template matching amplitude 50 -> 30%.
- Scan epoch voltages without other channels (when All is selected).
- Single channel -> reference off.
- Reference channel(s) from old parameter files -> CAR for EEG, NONE for MEG.
- Added Elekta (Neuromag) MEG-specific referential montage for channel array subsampling .
- When saving a channel as a wave file (.wav), it is now possible to choose whether the file shall be replayed after saving, and if replay speed should be increased by a factor of 10 (useful for listening to EEG).
- Scan templates and artifacts ignore breaks and bad blocks.
- Save artifacts to disk if > 100MB
- Ctrl + click now deselects all other groups in the modality UI.
- Channel selector: improved handling of "others" channels.
- Bug fixes

For Curry 7.0.2:

- Baseline correction: Constant Pretrigger added
- Reset all manually set bad blocks
- Noise estimation: Auto mode added (defaults to Percentile 20 for continuous files, else Pretrigger is used)
- All and Global in artifact reduction can be set before scanning the data
- Covariance artifact reduction for template matching
- Refractory period '0': pre + post
- Save events from all selected event groups
- Save events from concatenated files
- Number of valid events in event counter display
- Two digits for SNRs in waveboard display
- Bug fixes

For Curry 7.0:

- Transforms for artifact detection and reduction
- Selective averaging of epoched data or events
- Epoch overlay mode
- Waveboard
- Frequency Domain: new filters, display modes
- Wavelets
- MATLAB plugin support for signal processing

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

2.6. Maps

- CDR strength display is now always available and shows the maximum strength per sample, if CDR dipoles are unavailable.
- Fixed hardcopy of single timepoint contour map.

For Curry 7.0.5:

- Remove sensor coherence results if coherence is deselected in 2D View
- Disabled deselection of channels in statistics mode

For Curry 7.0.4:

- Modify contour line increment by mouse wheel only when mouse over contours
- Bug fixes

For Curry 7.0.3:

- Contour lines and maps in frequency mode enabled.
- Display normalized time or frequency maps in 2DView/Maps.
- Contour lines (MouseOverSensor) with multiple EEG devices fixed.
- 2D View / Maps tooltip-units for frequency & power fixed.
- Enabled colored electrodes (contour lines and maps off): Amplitude-colored electrodes with line color from device color.
- Option to display deviations (goodness-of-fit) as a function of time for CDRs.
- Bug Fixes

For Curry 7.0.2:

- Headshapes are now displayed together with "Maps"
- Improved display of statistics result labels
- Improved display of insignificant statistics result time ranges using gray backdrops
- Bug Fixes

For Curry 7.0:

- Sensor Coherence
- Voltage and field maps (in addition to contour lines)
- Laplacian maps
- Statistics result display
- Improved dipole result display (ellipsoid ratio, χ^2 , simulated dipoles)

2.7. Source Reconstruction

- For fixed/regional dipoles, now largest value is positive, not integral.
- After a moving dipole fit, 3D cursor now moves to dipole for current display timepoint.
- For dipole simulation, additional metrics (such as ellipsoid containment) are not computed any more.
- Fixed a bug where volume points could not be used for source analysis if source results were displayed with inflation.

For Curry 7.0.5:

- Calculation of scan currents (beamformer) initially switched off to save memory.
- Create output text for both scans and scan dipoles/currents.
- Improved stability of sLORETA when the norm p is equal to 1.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Improved determination of lambda when norm $p < 2$.
- Improved computation times for Minimum Norm and eLORETA when norm $p < 2$.
- Improved output text for situation where lambda is zero or infinity.
- Bug fixes

For Curry 7.0.4:

- Source results now include event name or data file name in their description
- CDR dipoles and coherence now include type in their description
- Scan type is now switched to "Off" after exporting lead field as a file
- Speedup for moving dipole fits with BEM head models
- Source surface, BEM model can now be stored in study parameters
- Option to let MATLAB compute the lead field, with "Infinite homogeneous" as example
- Scan and Scan CDR meshes can now be inflated
- Decreased resolution of "Standard Brain" for easier use as source locations
- Standard Skin and Skull do not appear as source location options any more
- Bug fixes

For Curry 7.0.3:

- Bug fixes

For Curry 7.0.2:

- None

For Curry 7.0:

- Frequency domain source analysis
- ICA-based dipole fits
- PCA/ICA-based current density analysis
- eLORETA current density method
- sLORETA reformulated as linear method
- Choice of overlays, markers, segmentation for fMRI weighting
- Option to exclude stop markers from source locations
- Smart un-plot of underlying source location surface
- Source Coherence
- MATLAB plugin support for source analysis

2.8. Image Data Import

- Opening image data now triggers autodetection to determine the original extension.
- When specifying the midsagittal (MS) landmark, the second view option is now the coronal view.
- Fixed a bug where "hot" colorscale was not reverted to grayscale when changing modality to MRI or CT.
- Fixed a bug where automatically selected colorscales were not correctly updated when changing the order of image data files in the database.
- Fixed a bug that caused a crash when switching from RGB to Grayscale.
- Fixed a bug that could lead to a crash if number of slices was larger than 2048.

For Curry 7.0.5:

- Landmarks below a surface are now shown as stippled

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Improved handling of DICOM folders with number of frames equal to 1 in each file
- Improved convergence and stability of landmark autodetection (co-registration)
- DICOM files with incorrect (same) image numbers are now sorted by image position, if possible, before defaulting to sorting by file name
- Bug fixes

For Curry 7.0.4:

- DICOM images with non-existent dimensions are now ignored
- fMRI images are now automatically displayed with a hot color scale
- Bug fixes

For Curry 7.0.3:

- Added support for CTF .mri file format.
- Added support for reading landmark locations from image data header for CTF .mri and .svi (SAM) file formats. As a result, .svi files are now automatically co-registered.
- Added axis orientation autodetection from nifti files.
- Added a "Modality" (MRI, CT, etc.) parameter to the import user interface.
- Improved detection of wrong DICOM group length tags to avoid read errors for incorrect DICOM files. As a fallback, group is not skipped but all tags in that group are read.
- When trying to load an image data set with titled slices (not stacked perpendicularly) a warning now pops up.
- Changed the default "intensity" scaling for floating-point and 8-bit image data files to 100%.
- Made "Skip Talairach Definition" the default.
- Changed text in landmark autodetection popup window to make it easier to understand.
- Use a false color scale for .svi (SAM) images.
- When using built-in image data, an image parameter file is created in the user's Application Data folder and, if present, loaded. Editing this parameter file makes it possible to change properties of built-in image data.
- Added the option to control (by editing the global parameters file), which built-in MRI to use per default. This makes it possible to always use the Asian MRI without having to explicitly switch for each new study.
- Added an option the the Troubleshooting section of Edit > Options that disables "Move Unknown Labels to Others".
- Bug fixes

For Curry 7.0.2:

- None

For Curry 7.0:

- Digital Photography (2D image) support
- Pediatric averaged MRI built-in
- Asian averaged MRI built-in
- Individual MRI built-in
- JPEG, BMP, PNG, GIF, TIFF image data support
- RGB image data support
- DTI Fractional Anisotropy (FA) support

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Continuous support for changed and new file formats

2.9. Image Processing

- Creation of cortical lamina along with cortical triangle mesh in BEM Geometry for improved brain visualization.
- When synchronizing studies, 3D cursor is now also synchronized.
- Pinch-to-zoom support in orthogonal views.
- When setting the reference, information about segmented volume is now written to Output window, including mean intensity of segmented volume.
- Improved default voxel mesh display settings for DTI data.
- Added a tooltip window for the “Show segmentation results” toolbar button.
- Fixed a bug where slice reversal parameter was not set correctly in image data parameters for image data saved in “Raw Slices” mode.
- Fixed a bug that could lead to a crash when preparing inflation and export for meshes with large triangle sizes.
- Fixed a bug where “vertical” and “stroke” markers were not vertical to slice if Reslice option was activated.
- Fixed a bug where beamformer and kurtosis results were not plotted correctly.

For Curry 7.0.5:

- Electrodes are now colored according to their voltages if a color scale is selected
- Option to export cursor location to Localize by CTRL-clicking in an Image Data view
- Option to close parent study when saving a file and opening it as a new study is initiated by macro, in order to keep number of open studies low
- Bug fixes

For Curry 7.0.4:

- Automatic BEM geometry setup now prepares inflation and export for BEM surfaces
- Bug fixes

For Curry 7.0.3:

- Electrode label names are now displayed in image data tooltips.
- Intensity differences between left and right hemisphere are now shown in the tooltip.
- Added text at the top of the image data slice displays that indicates if Marker editing is active in that particular view.
- When using the mouse wheel in the Segmentation Result display, thresholds are changed and a new segmentation using the changed threshold starts.
- In the segmentation Preview display, made “Omit Stop Markers” the default.
- Added a Segmentation Result sub-menu to the slice display context menu to make more options available.
- Option to specify labels for skin and cortex in BEM geometry setup.
- When creating a BEM model with an already existing name, [1] etc is automatically appended.
- When voxel points are created based on (RGB) DTI FA data for 3D display, ellipsoids now scale with the overall voxel intensity, making low-intensity ellipsoids less visible.
- When “Thresholded Image Data” is added to the display and the dataset in question is an RGB (color) dataset, it is now displayed in color.
- When “Thresholded Image Data” is added to the display and the dataset in question is interpolated, it is now displayed as interpolated.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Removed Maximize button in histogram slider display.
- Changed the cortex threshold for built-in dataset "colin27" to 120.
- When starting a segmentation, the cursor location does not change anymore to reflect the actually used seedpoint. This change was necessary to enable correct macro recording of segmentation.
- Option to include Scan results when saving image data.
- Exported DICOM files are now fully standard compliant.
- When exporting slices as a movie file and writing a raw format file instead of an avi file, an image parameter file is now written that allows to open the "movie" file as an RGB image dataset in Curry.
- Bug fixes

For Curry 7.0.2:

- Increased maximum possible symbol size when including dipoles/electrodes/Localize locations in saved image data
- Option to include Currents in saved image data
- Option to not include image intensities in saved image data (makes it possible to save results only)
- Added an Advanced button in the BEM Geometry setup parameters
- Added the option to create a raw 3-D color image data set by saving slices from the hardcopy menu and selecting "Raw" as the file type. Such a 3-D color image can contain results, atlas data, etc.
- Changed default of this symbol size to 2 which is a 3-D crosshair

For Curry 7.0:

- Result display in MIP view
- ECoG/MEG BEM creation
- Triangle mesh merging
- Improved voxel mesh creation (no segmentation necessary)
- DTI FA visualization as voxel points (ellipsoids)
- Image data averaging
- MATLAB plugin support for image processing

2.10. 3D View

- Camera settings (perspective) are now stored in study parameters.
- Cutplanes' manual offset is now inverted in "flip" mode.
- Doubleclicking a dipole in a cluster created by scanning through epochs now switches to corresponding epoch in Functional Data.
- Dipole ellipsoids cannot be selected any more (too confusing for clusters).
- When transparent maps and contour lines are overlaid, lines are opaque.
- Improved resolution for contour lines.
- Fixed a bug that prevented clipping if unit is [mm] (eg, distances).
- Fixed a crash when re-enabling channels with color-coded electrodes.
- Fixed 2D font rendering for higher DPIs (> 96).
- Fixed CDR's "maximum" modes for kept results.
- Fixed loading "foreign" dipole results (with non-overlapping time range).

For Curry 7.0.5:

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Coils' label color can now be adjusted
- Added "time-independent" nets (e.g. beamformer metric)
- Sensor coherence: "source" and "sink" channel labels are now displayed in tooltip
- Default cutplane "through" mode is now "Origin"
- Dipole symbol increment is now 1 mm
- "Z rotation" can now be performed with Ctrl + mouse wheel
- Removed "ghost" images when creating rotation movies
- Bug fixes

For Curry 7.0.4:

- Added manual scaling for Maps (and Electrodes)
- Viewing direction (and zoom) can now be controlled via macro
- Removed anti-aliasing artifacts with 2D objects
- Bug fixes

For Curry 7.0.3:

- A standard skin, skull, and brain are now always available for display. These surfaces are scaled as to best match the electrodes. As a consequence, surfaces 98..100 (file extensions s97..99) are not available anymore.
- Points are now offered for display even if they are not loaded yet.
- Option to only show coherence arrows for certain regions.
- Output number of coherence arrows displayed (total and per region).
- New dipole color type "Auto" which switches between "Time" and "Dipole index" depending on dipole type and number of samples.
- Scan dipoles now have a Cyan..Blue colorscale instead of monochrome Cyan in order to benefit from the new "Auto" dipole color type.
- Changed the default color of Localize and Points labels to white.
- Changed the default size of Localize symbols to 5mm.
- Removed the "Rotate and play movie (eternal)" context menu option as it distracted from the more important "Play movie (eternal)" option in the View menu.
- Added an option in the Troubleshooting section of Edit > Options to enable anti-aliasing. This option may be overridden by a respective setting in the graphics driver control panel and will then have no effect. Anti-aliasing will only work if supported by the graphics card and if no transparent objects are visible.
- Added "electrode" color scale.
- Added "power frequency", "averaged", and "normalized" 3D maps.
- Added units for "electrode" tooltips.
- Added cutplanes for electrodes and coils.
- Bug fixes

For Curry 7.0.2:

- Line width of confidence ellipsoids can now be adjusted
- Renamed "Color Coding" in the statistics display parameters to "Display"
- Changed minimum inflation required for offering to save inflations as avi from 1 to 3
- Bug fixes

For Curry 7.0:

- Option to load surfaces etc. directly from 3D View
- Digital Photography (2D image) display

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Coherence display
- Projected electrode display
- Voltage-colored electrode display
- Voltage and field maps display
- Improved location rendering (shapes, labels, color scales)
- Full-screen 3D Mode (experimental)

2.11. Localize

- Support for location files with "label, x, y, z" column ordering.
- Support for location files with [m] and [cm] units.
- Remember selected file format used for saving.
- Fixed a bug where tooltips did not appear if a location was in the image background.
- Fixed a bug where location files were transformed when loading (files are read according to current display coordinate system).

For Curry 7.0.5:

- Option to remove Localize locations outside of segmentation result
- Option to cancel out of 10-20 system creation
- Improved import of landmark .pom files created while reading .fif format files

For Curry 7.0.4:

- Localize labels are now displayed as numbers only ("##" instead of "Entry ##").

For Curry 7.0.3:

- Localize labels are now displayed as numbers only ("##" instead of "Entry ##").
- Improved the workflow for "Adjust Sensor Positions": there are no file selection and no data import tool popup windows any more, and less questions appear. Furthermore, sensors are automatically displayed in 3D View and the display switches to 3D View (6).
- Added macro support to the Localize 3D View display.
- Automatic 10-20 system setup now creates all 160 electrode positions from the 10-5 electrode system.
- Automatic 10-20 system setup now uses Iz label instead of INI and I1/2 labels instead of O9/10.
- Automatic 10-20 setup is now more robust and proceeds even if some electrode locations cannot be determined.
- When saving locations as digitizer file and there is more than one electric channel group, user is asked which channel group to use these locations for.
- New option to "Import Sensor Landmarks". The existing "Import Landmarks" was renamed to "Import Image Data Landmarks".
- New option to "Make Locations Symmetric". This can be used to convert an individual electrode layout into a generic one.
- After dragging a location, edit mode switches back to append mode.
- List of localize locations now auto-scrolls to the active location.
- Default grid electrode labels are now consecutively numbered; do not contain row/column any more.
- When trying to create a grid on a cortical surface (as opposed to the smoothed surface of the brain), a warning now appears.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- In the 3D View display, the catch radius that determines if an existing location shall be moved or a new location shall be added is now expressed as screen pixels not as mm any more. This makes it easier to add nearby locations when the display is magnified.

For Curry 7.0.2:

- Option to relabel Localize locations based on nearest locations stored as Points
- Bug fixes

For Curry 7.0:

- ECoG grid placement planning
- Dipole Simulation UI
- Integration of Localize functionality into 3D View
- Undo support

2.12. Results

- When saving results, a meaningful and available filename is now suggested.
- Statistics can now access individual epochs when "x Epochs" is not checked.
- Statistics can now compute consistency tests for only one condition.
- Shortcut key Ctrl+Shift+A for appending results.
- Append results can now append more different dipole types.
- Fixed a bug where cortical inflation was reset when keeping results.
- Fixed a bug where, after loading a result from database, it appeared twice in the tree display.
- Fixed a bug where appending results increased the next used kept results number.

For Curry 7.0.5:

- Option to export Scan results as SPM-format files
- Bug fixes

For Curry 7.0.4:

- Added Excel and MATLAB export for Scan results
- m-files created when saving results now have MATLAB-compatible file names
- improved m-file for saved dipole results to always display visible dipole symbols
- Statistics data sources adjusted in grid can now be stored in study parameters
- Statistics data source grid now displays epoch names not just numbers
- Changed colors for „Keep Results" to improve contrast; no gray colors
- Bug fixes

For Curry 7.0.3:

- Time range and Ellipsoid display mode toolbar buttons now work faster.
- A progress bar appears now when a study is closed and unsaved results are written to disk.
- Bug fixes

For Curry 7.0.2:

- Option to merge several dipole results into one as an alternative to "Keep Results"
- Increased the maximum number of cells in the statistics data grid to 256

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Removed the option to “Mark Results” in statistics because now a gray backdrop is used for insignificant latencies
- When creating averages in statistics, the grand average is now created as well
- Improved the wording for output of significant segments in statistics
- Option to expand analysis timerange to whole data window from the statistics module
- Added Excel export for statistics results
- Added Excel export for Points
- Bug fixes

For Curry 7.0:

- Statistics module
- MATLAB plugin support for statistics calculation

2.13. Workflow

- Add Image Data workflow item is now removed while study is locked during in-place averaging.

For Curry 7.0.5:

- New Signal Processing workflow item for Statistics

For Curry 7.0.4:

- “<CAR> referencing” has now a green checkmark

For Curry 7.0.3:

- Added digitizer item

For Curry 7.0.2:

- Added the state (in parentheses) to several workflow labels in the Signal Processing section
- Hide items that apply to epoched data in non-epoched mode and vice versa

For Curry 7.0:

- Macro-enabled workflow sidebar

2.14. Automation

- The currently selected “3D object” is now recorded.
- Temporary macros (via database or “Select and Play”) are now displayed first.
- Improved temporary macro icon.
- File list view mode (list/details) is now remembered across sessions.
- New option to append regional coherence table to a text file.
- Fixed a bug where file names obtained the fallback extension when read from macro.
- Fixed a bug that prevented recording text-to-speech without an associated delay.
- Fixed a bug that allowed to record banners or macro delays without entering a delay.
- Fixed a bug that prevented “pause” symbol in cursor when macro was paused.
- Fixed a bug that prevented canceling out of “Select and Play Macro File”.

For Curry 7.0.5:

- Option to close a study from a macro

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Option to edit, erase, rename macros in non-standard folders
- Changed macro "Record" toolbar button tooltip to "Record Macro (Append)" in order to make clear that existing macros are not overwritten by pressing Record.
- Bug fixes

For Curry 7.0.4:

- When saving a file to a non-existent folder, folder is automatically created
- New toolbar button to run a macro file from any folder
- Macro is now paused not stopped when study changes
- Macro filenames can now be edited (files will be renamed)
- Macros that automatically run when a study is opened are now called "study macros"
- *DB is now expanded to be the path of the database archive
- New macro function to delete a file
- Text and button labels for Macro pause dialog revised
- Explanation tooltip for "Reset" in macro dialog
- Bug fixes

For Curry 7.0.3:

- Parameter panel switches are now recorded to a macro and can also be replayed.
- When running a macro on selected database entries, a depth selection windows now appears. This makes it possible to restrict macro execution to e.g. only the children or grandchildren of selected studies.
- Option to access several recent popup window / banner texts.
- The toolbar button that used to bring up the "Pause" popup now creates a "Pause or Continue" popup because this is the more frequently needed one. The "Pause" popup is still accessible from the "Tools" toolbar button.
- Option to actually pause recording after recording a "Pause or Continue" Popup. New text to explain what the respective buttons (Ok, Pause, Cancel) actually do.
- Filenames in macro files may now be edited to contain the same wildcards that are also used for the "Save As" filename. This allows to create macros that employ more specific result file naming schemes.
- Made sure that the scrollbar that appears at the bottom of the macro file display when it is in "List View" mode is visible even if part of the macro UI is hidden because of insufficient vertical space.
- File name feedback for the "Save As" filename now appears below the edit field.
- Improved detection of <ESC> key presses to stop macro replay. More detailed feedback mentioning that results from last processing step might be invalid only if this might really be the case.
- Bug fixes

For Curry 7.0.2:

- None

For Curry 7.0:

- Macro recorder
- Batch functionality (run macro on selected files)
- Database automation (run macro on selected studies)

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

2.15. Report

- Fixed a bug where maps were invisible when inserting them into the report.

For Curry 7.0.5:

- Bug fixes

For Curry 7.0.4:

- none

For Curry 7.0.3:

- Text is now copied to the Report in Unicode, preserving special symbols.
- Bug fixes

For Curry 7.0.2:

- None

For Curry 7.0:

- Adjustable hardcopy size

2.16. Acquisition

- Added Support for Cedrus StimTracker.
- Added automatic "Split File" option that creates new files after exceeding a definable file size.
- Added "Ripples" and "Fast Ripples" to filter presets.
- Added macro actions for amplifier control buttons.
- Added 200ms ticks to waveform display.
- Added configuration for SynampsRT MicroMagLink 64 channel cap.
- Automatically split recordings when file systems maximum file size has been reached.
- Added a security feature that continues recording to a default folder when writing to the current destination fails (for example when losing connection to a network folder).
- Added hidden option to change the software aliasing filter properties for SynampsRT recordings (ask Curry Helpdesk for details).
- Store name of used configuration in recorded file.
- Improved performance of filtering short data segments.
- Improved performance of waveform drawing and position plot.
- Improved stability of search routine for network amplifiers.
- Improved event conditions checking for timerange (less waiting time).
- Improved SynampsRT/2 impedance calculation (much less prone to external noise) and inject test signal in phase on banks of 32 channels.
- Revised NuAmps Impedance calculation method (more accurate estimation of GND impedance).
- Filter out NuAmps false "r15" events.
- Fixed occasional switching into pause-mode when changing layout.
- Fixed application of filter order/shape.
- Fixed a problem with filenames that contain "%".
- Fixed mapping of NuAmps impedances when there are disabled channels.
- Fixed a bug when connecting to an amplifier after closing other studies.
- Fixed a bug when sending online averages that are saved to disk to Functional Data.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Fixed a bug when autoscaling channels in live view.
- Fixed a crash when setting invalid filter frequencies.
- Fixed STFFT display.
- Fixed a crash when closing an acquisition.

For Curry 7.0.5:

- Added impedance options to temporarily disable bipolar or monopolar channels which greatly increases update rate of impedance values of monopolar channels (Synamps2/RT only)
- Enabled response bits on NuAmps trigger channel
- Added 'All' and 'Global' options to Artifact Reduction Dialog
- Added 'Detrend' option to Artifact Reduction Dialog (improves fMRI artifact reduction in certain cases)
- Added 'Plausibility Check' option to Digitizer Dialog
- Added option to add comments to acquired file
- Added simulated impedance test for Amplifier-Simulator
- Added active view information to Filter Parameters-, Options- and Frequency Domain-Dialog
- Added debugging output when using Video
- Use mouse wheel to change upper impedance threshold in impedance display
- Use +/- keys to scale waveforms
- Use left/right arrow keys to move time cursor
- Store "Sync" option when saving parameters
- Store epoch info with saved averages
- Apply baseline when using "unfiltered data" for artifact reduction
- New FSP default values
- Always ask to save changes when changing read only configurations, montages or placements
- 'Others' channels are automatically added to study placement of the current device and thus are directly available in the Montage Editor
- Removed obsolete Montage color selector from Colors Dialog
- Updated Polhemus PDI
- Improved delay of data display when Artifact reduction is enabled
- Improved layout of channels in butterfly plot when there are 'Others' or MGFP
- Improved digitizer gesture detection when digitizing landmarks
- Modified event status indicator (accepted events no longer carry a green indicator)
- Modified default annotations
- Bug fixes

For Curry 7.0.4:

- Added NDI Polaris and Polhemus FasTrak III digitizer support
- Improved setup procedure and error handling for Online Video
- More accurate video synchronization
- Option to rotate and scale electrodes in the Sensor Placement dialog
- Added background brain images to Sensor Placement dialog
- Option to apply a "Constant Baseline Correction"
- Option to use a Linear Derivation File
- Option to "Optimize Position Plot Layout" and "Enlarge Window Size And Optimize Layout" to Position Plot views

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Added Numpad accelerators for creating annotations
- Added <All> token to Conditions dialog
- Added 'Help' button to Conditions dialog
- Added possibility to measure position of Reference electrode
- Added more visual feedback to impedance test
- Added "Allow Impedance Test" option to Amplifier Configurations to prevent impedance tests during intracranial recordings
- Option to handle bipolar channels like monopolar channels
- Option to add positions to Amplifier Configurations
- Added Hi-Level channel scaling factor setting to Synamps Amplifier Configuration
- Added Hi-Level voltage output to Synamps Amplifier Configuration
- Added NuAmps 36 channel cap configuration
- Added option to define the number of blocks per second sent by Synamps2/RT
- Added option to chose between ScanLT and NuAmps channel mapping
- Added info about used amplifier to report and recorded files
- Option to revert to original electrode positions after digitization
- Added speech recognition for Polaris Vicra digitizer
- Added several debugging outputs (when Debugging is on) for troubleshooting
- Added ScanLT 40 channel configuration
- Added several cap configurations for Neuvo
- Amplifier Hardware info (serial- and partnumbers, firmware revision) from NuAmps and Synamps2/RT amplifiers are stored in the recorded file
- Exclude "Others" channels from auto-deselect with Bad Impedances
- Show labels in Bad Impedances message box.
- Add break events when recording pauses
- Force stopping digitization of an electrode after 50 collected points
- Polhemus Digitizer now also works with just one additional reference coil
- Automatically create a .pom file when non-eeeg positions have been digitized
- New digitizer sounds
- Added advanced AUTO_MOVE_NUMBERED_CHANNELS_TO_EEG option to SessionDefaults.cfg
- Removed obsolete USB/Serial Port settings from Digitizer dialog
- Automatically move numbered channels to EEG group only when majority of channels already are EEG channels
- Improved usability of the Montage Editor
- Improved initial layout of Position Plot views
- Improved layout of impedance view for better readability
- Improved bar-graph and switching between time and frequency domain
- Improved memory efficiency of Online Artifact Reduction
- More accurate drawing of online waveforms and event blocks
- DF/DN/IF/IN filename shortcuts are not offered for data file name any more
- Bug fixes

For Curry 7.0.3:

- Digitizer module with Polhemus Fastrak support.
- Video module for recording synchronized EEG and video.
- "Auto-detect bipolar channels" functionality for NuAmps amplifiers.
- Load positions from pom file for running acquisition.
- More precise timing of drawing ongoing data.

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

- Added "Siesta PSG" configuration.
- Amplifier configurations can store alternative labels and electrode positions.
- Added positions and alternative labels to default "QuikCap 128" and "MagLink 128" configurations.
- Increased performance of starting an acquisition.
- SSC (Sub Sample Correction) for online artifact reduction.
- Option to include/exclude "Others" channels from artifact reduction.
- The "sparse" option now always displays all visible channels and never hides the MGFP.
- Show "Acquisition running in another study" warning when pressing connect in a second study.
- Changed default impedance threshold to 100 kOhm.
- Modified workflow items for different licenses.
- Modified range values for "64channels" configuration.
- Average files are written as raw float .dat files (no longer .avg files).
- Added "Data/3DView" tab.
- New amplifier control buttons.
- Improved stability of "Quick impedance test" results.
- Added "Open" button to montage editor (to import .xml and .mnt montage files).
- Added option to save montages in .mnt format.
- Bug fixes

For Curry 7.0.2:

- Dialog for configuration of the trigger channel (also works with the simulator)
- Interleave and update options for online averaging
- Increased performance for averaging fast events
- Online PCA filtering (from file)
- Online MATLAB support
- Parameter to change size of online data buffer (not in UI)
- Parameter to change the artifact detection block size (not in UI)
- Added placement XMLs for caps: NuAmps 40, Quik-Cap 32, Quik-Cap 64, Quik-Cap 128, Quik-Cap 64 MagLink, Quik-Cap 128 Maglink
- Added possibility to review from recorded file during acquisition
- Added algorithm to "Optimize Position Plot Layout"
- Online STFFT display
- Added dedicated "Disconnect" button
- Added Graef support
- +/- keys can be used to scale waveforms
- Display threshold lines during online artifact reduction
- Removed Siesta and Graef EEG from list of supported amplifiers
- Underline captions of overlaid averages and channels in the color of their waveforms
- Changed display of overlaid averages and differences
- "Save as" buttons in Editor dialogs allows to overwrite existing files
- Improved performance of impedance dialog
- Write dap/rs3 on disconnect to store impedance results after recording was stopped
- NuAmps automatically restores synch when packets were lost
- "Re-Sync" button to manual re-synch the amplifier (for troubleshooting)
- Refractory period is set automatically when it is set to 0
- Bug fixes

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

For Curry 7.0:

- Acquiring EEG data with Synamps2, SynampsRT, Synamps Wireless, NuAmps (no 64 bit Windows versions), Neuvo, Grail, Grail EEG, Siesta and E-Series
- Reviewing of live EEG Data in multiple individually configurable views
- Online Data Processing, including filtering, template matching and artifact reduction
- Analyzing data pages using all offline features of Curry during acquisition
- Create, store and review up to 100 averages
- Extensive average conditions

2.17. Miscellaneous

- Updated manuals, new Micro Maglink manual.
- Added "Duplicate Study and Synchronize" functionality.
- Added option to re-size video window to the size of the replayed video (Zoom 100%).
- Store video player settings in Study Parameter files.
- Improved video file handling (consider overlapping video parts).
- Improved montage editor (remove empty montages; improved layout of current study placement; improved handling when canceling out).
- Option to prevent escape/break/pause keys from stopping ongoing computations.
- Now all registry setting are stored below a single folder ("Curry 7").
- Ensure first visible view gets keyboard focus when opening studies without database.
- Fixed timing when replaying video of studies with other than 1kHz sampling rate.
- Fixed a bug where the current montage was set to <None> after closing the montage editor.
- Fixed a bug where "Video" license was claimed without "Acquisition" license.
- Fixed a bug where parameter files could not be written due to timing issues.

For Curry 7.0.5:

- Option to disable Progress bar for troubleshooting
- Integer values in Curry parameter files can now be specified in hex (0xff) and octal (077) notation
- Improved compatibility with existing surfaces etc with active cutplanes
- Removed text output when writing dap/rs3 files (now debug output only)
- Bug fixes

For Curry 7.0.4:

- More detailed MATLAB-related error messages for easier m-file debugging
- Maximum number of threads increased to 32
- Maximum number of windows registry entry is set to 15000 for Vista and higher
- Curry now silently checks for updates every week
- Firewall exceptions for Curry, and Netbeacon created during install
- Ensure "query number of CPU cores" returns a positive value

For Curry 7.0.3:

- Updated Manuals.
- New skin and cortex triangle meshes in Epileptic spike example data.
- Option to install Polhemus Fastrak drivers from Start menu.
- 3D Space shortcut removed from Start menu.

Compumedics USA, Ltd.

Title: CURRY 7.0.6 Release Notes
Document Number: 6418 Revision: F
Revised By: JK Rev. Date: 07/12/2013
Written By: MXW Original Release: 04/01/2011
Procedure Format 3090 Rev F

- Updated version of Sentinel LDK (HASP) dongle drivers.
- If Curry is uninstalled while still running, files are now deleted upon reboot.
- Names of files attached to helpdesk emails now start with "Curry", so that they can easier be found on the desktop (which is where they are placed, so that the user can review them before sending the email).
- When creating a screenshot of the full data display (from the Edit menu), the tab headings are not included in the screenshot any more.
- Option to run a Curry Express Edition as part of the NuAmps Express package.
- Bug fixes

For Curry 7.0.2:

- Updated Manuals
- Running on a time-limited license does not add watermarks to screenshots any more
- Bug fixes

For Curry 7.0:

- New installer
- New patch and hotfix technology
- New dongle technology (HASP)
- Registration / notification system (installation, up/downgrade)

3. SUMMARY OF KNOWN ISSUES

These are the known issues with the current release:

- On some machines Curry can crash when playing movie (eternal). This seems to be a graphics driver issue.

4. RECOMMENDATIONS FOR USERS IN THE MIDST OF A STUDY

If you are in the midst of a study and consider upgrading from an earlier version of Curry 7 to Curry 7.0.6, you are advised to do so.

5. OBTAINING SUPPORT, REPORTING PROBLEMS, AND REQUESTING FEATURES

A procedure for obtaining support, reporting problems, or requesting features for this software release

5.1. Obtaining Support

Send an email to curry7help@neuroscan.com.

This can be done via *Help > Send Email to Helpdesk*.

Compumedics USA, Ltd.

Title:	CURRY 7.0.6 Release Notes		
Document Number:	6418	Revision:	F
Revised By:	JK	Rev. Date:	07/12/2013
Written By:	MXW	Original Release:	04/01/2011

Procedure Format 3090 Rev F

5.2. Reporting Problems

5.2.1. Curry Produces a Warning

If you are suspicious about a certain warning (error message):

- *Edit > Options > Troubleshooting > Enable Debug Mode*
- Reproduce the error message as straightforward as possible
- In Output, right-click and select *Open in Editor*
- Save the log file and mail its contents to curry7help@neuroscan.com

5.2.2. Curry Crashes

1. *Edit > Options > Troubleshooting > Enable Debug Mode*
2. In Output, right-click and select *Open File Location*.
3. An Explorer window opens.
4. Reproduce the crash as straightforward as possible
5. In the Explorer window just opened, locate the most recent log file and email it to curry7help@neuroscan.com

5.3. Requesting Features

Send an email to curry7help@neuroscan.com.