

# readme\_EN (Sequoia 15)

## 07/28/2020 Sequoia 15 - Version 15.4.1.644

- several problems with automation preview mode - fixed
- Blackmagic video recording stopped in case of drift between audio and video clock - fixed
- crashes in surround projects with effects requiring latency compensation - fixed
- surround pan matrix / Downmix dialog: problems with editing values by keyboard - fixed
- wrong preset display in FFT Filter subdialog of Room simulation - fixed
- automation ending node was sometimes inserted with wrong value - fixed
- problems with writing AUX automation - fixed

## 07/01/2020 Sequoia 15 - Version 15.4.0.642

- maintenance contract only: advanced batch processing
  - batch processing with transfer of media files via command line
  - new error message for processing video files without sound
- automation
  - maintenance contract only: Preview automation
    - for all touched parameters
      - creates a new curve
      - read mode is disabled for those parameters
      - "P" displays preview mode in automation lane
    - works also when changing presets in VST plug-in
      - this may create a lot of unnecessary curves: these can be removed by using command "remove unused curves"
    - with glide / jump commands complex scene changes can be made
      - only changed parameters are used by these commands
  - "Set parameter values" - commands and (especially glide pan only) works for dual pan and surround
  - "Set parameter values" commands moved one menu level up and is easier to reach
  - glide / jump commands can be used with ranges now
  - Automation lanes
    - improved display of parameter name
  - Track delay automation
    - Track delay can be adjusted by automating the delay time of the track delay effect
    - For this, a fade-out and subsequent fade-in are computed; should therefore be used during a time without audio material
  - new automation command: remove unused curves
  - object editor
    - display of current automation value underneath the parameter selection
    - object automation menu is not shown in main menu anymore, only in object editor
      - thereby inconsistencies are avoided when working with automation lanes
  - when an automation curve is written initially, nodes are created at start and end of a project to make sure that the parameter values can't change outside of the automation range unintended
  - bugfixes
    - missing refresh of lanes after removing plugins - fixed
    - 'select next/previous curve' didn't work with lanes - fixed
    - automation off state was displayed as on state - fixed
    - track editor automation fader didn't work for automation lanes - fixed
    - Copy of object to track automation
      - Lanes for new curves are created
      - Wrong text in message box when overwriting curves - fixed
- monitoring section
  - design update
  - new default shortcut to open and close the monitor section shift + M (available after reset of shortcuts)
  - shortcuts within monitoring section
    - 1 / 2 toggles monitor bus 1 / 2
    - T Talkback (activ as long as key is pressed)
    - shift + T enables talkback
    - B Plugin Browser
    - M mono
    - H inverts phase
    - P bypasses plugins
    - D dim
    - = transfers volume value to another bus
    - L link with other bus
  - new menu commands, that can be used from sequoia surface (playback monitor section)
    - monitor bus 1 / 2
    - talkback
    - shortcuts can be assigned to menu and commands (menu works only in arranger, mixer and monitor section)
  - 4 Sources for monitoring selectable
    - busses / project master

- inputs
  - additional gain for each source
  - busses and masters which aren't part of the project are displayed in red
- Surround monitoring
  - Surround setup choosable for monitoring path
  - Surround master/busses routed 1:1 in this situation
  - Stereo to L/R
  - Phase/Mono without function in this context, i.e. deactivated
- Message displayed, if monitoring section is used without Hybrid Engine
- PFL only considered for solo'd tracks, master and selected sources are always AFL
- dim affects both monitor busses
- Bugfixes
  - issues with HWC control when monitoring section is enabled - fixed
  - talkback button always enabled talkback tab - fixed
- clipstore
  - new option to disable renaming of clip objects with clip name
    - usable for multi object clips
    - **replaces old ini entry: DontRenameClipstoreObjectNames**
  - "smart" ripple can be disabled
    - default: when inserting objects from clipstore objects are only moved when they would overlap
    - via CustomizeWorkflow\_NoSmartRipple.INZ the behaviour can be changed to move following objects always
  - clips can be played during VIP playback
  - drag'n drop into empty space underneath tracks creates new track
- Eucon S6
  - works with firmware 19.x now
  - monitoring section usable
    - switch monitoring bus (with keys MainSpkrs / Alt 1 Spkrs)
    - monitoring level
    - dim + talkback
  - dual pan settings controllable
  - button next to EQ fader toggles EQ filter type
  - Surround control via knob or 2D touch display
  - scrubbing improvements (see below)
- Video export
  - added MP4 to the format selection
- Login dialog is displayed always on top (also on top on other running programs)
  - avoids problems when starting Sequoia from databases
- Manual Declicker
  - Shortcut Ctrl+Shift+D for opening and closing
  - Shortcut Alt+D: to apply the function when window is open even if it's not in focus
- AAF import / export
  - option to adjust track automation to Pro Tools standard for export
    - temporary conversion into object/clip automation
    - with this option projects with volume automation can be loaded in Pro Tools
    - object and track automation can't exist at the same time, otherwise an error will occur
  - issues with custom chunk sizes in some wave files in Pro Tools - fixed
  - Avoiding of german umlauts in file names for improved compatibility
- Playback
  - fadeouts during playstop weren't calculated sometimes - fixed
  - scrubbing / varispeed - playback
    - Accelerated direction change when scrubbing with keyboard or hardware controller (e.g. Eucon)
    - HQ resampling settings had no effect - fixed
    - hardware controller
      - scrub presets can be selected in scrub dialog (right click on scrub controller in transport window)
      - 4 provided presets for Eucon
        - improved stop response time and interpolation between speed levels
    - Mouse mode is not switched by hardware controller scrubbing
    - Scrubbing is enabled automatically when scrub wheel is used during playback (for Eucon)
    - Direct playback after scrubbing after single press with hardware controller
- Mixer
  - pan / surround
    - pan and dual pan automation can be written and seen in pan dialog
    - new button in stereo pan dialog of a track "affects primary output only"
      - pan processing only for primary stereo output of this track
      - "aux follows track pan" can be used for post AUX sends too
      - improves simultaneously mixing from one track to stereo and surround or to several stereo outputs
      - several stereo outputs of one track can be panned together or seperatly, surround outputs remain unaffected
      - attention: peakmeter don't show actual panning with this option activated
    - hard panned tracks and objects to left or right are shown as "L" or "R" instead of -/+ 91 dB
    - Primary Output of track is indicated in outputs menu
  - Plug-in browser
    - Favorites folder opens collapsed
    - Position and size of the dialog is remembered
    - Shows track name in title bar
  - post state of plug-ins is shown in mixer and object editor slots with '
    -

- master fader in mixer, arranger and track editor now colored red for surround masters, too
- bugfixes
  - AUX reset deletes all outputs (including multiple outputs and side chains) - fixed
  - transfer of EQ116 changes out of object EQ dialog - fixed
  - VST3 dialog appeared black when reopening - fixed
  - slow opening of VST dialogs when plugin has too many parameters - fixed
  - post state of plugins or plugin chains was lost after copy and paste - fixed
  - easy learn for HWC didn't work in plugin menu - fixed
  - phase invert sync didn't work between mixer and track editor when dual pan is enabled - fixed
  - dual pan automation in track editor didn't work - fixed
  - Crashes with iZotope Trash 2 - fixed
  - Offset of 1 ASIO buffer when recording return of external effects - fixed
  - Update between track editor / arranger fader for master track and master volume didn't work – fixed
  - Update between track editor / arranger fader and Mixer didn't work for surround tracks und busses - fixed
  - additional instances of object volume and -pan have been created by loading of FX presets -fixed
- ARA / Melodyne
  - automatic freeze when using Melodyne on a particular part of a audio file
  - this reduces the analysis length and improves the VIP performance especially with bigger files
- MIDI /VSTi
  - Plug-in browser shows instruments by default when opened on a MIDI track without a VSTi
  - Bugfixes
    - For some VST3 instruments, sending of common controller changes and pitchbend did not work – fixed
    - Problems with loading state of VST3 instruments by ROLI - fixed
    - MIDI send to VST3 effects didn't work - fixed (MIDI routing to VST effects may have to be adjusted for projects saved with older versions)
- Arranger
  - tempo marker are displayed on second ruler if enabled
  - Increased area for snapping at the end of objects
  - drag & drop from file manager and object manager into empty space underneath tracks creates new tracks
  - Bugfixes
    - Fade form changes with mouse from version 15.3
      - issues when changing fades in LR mouse mode - fixed
      - when changing shape of a curve length of a fade could be changed accidentally too - fixed
      - after choice of horizontal changes it was switched to vertical changes - fixed
    - issues with zoom presets and track heights - fixed
    - Wrong display of "&" in track and object names - fixed
- General
  - routing manager
    - track name remains visible when scrolling horizontally
  - Marker manager
    - New command in context menu of the selected markers to copy to object audio marker
  - FLAC and OGG meta data extension
    - more fields like ALBUMARTIST, GENRE, COMPOSER are supported
  - Strip silence
    - Previous "FastAlgorithm" can be deactivated to work in sample-space
- Bugfixes
  - playback issues with MP4 video - fixed
  - crossfade editor: step size for volume changes is 0.1 dB again, instead of 1 dB
  - possible clicks when batch processing MXF video - fixed
  - issues when inserting surround masters or surround busses when first track has already been a surround master in project - fixed
  - crossfade editor: snapshots could be used only once - fixed
  - analog video recording didn't work - fixed
  - slip left: problems when deleting objects - fixed
  - Waves sample instruments didn't work due to DLL conflict - fixed
  - takes could get lost in old projects when moving tracks - fixed
  - object manager: update of title bar didn't work when object editor was not docked - fixed
  - edit toolbar: command display for custom tool bar icons didn't work - fixed
  - menu Hybrid Engine / Hardware Monitoring was not available in main menu - fixed
  - improved text display for strip silence
  - problems with SRC in batchprocessing of 24 bit WAV files - fixed
  - Sync record with open record dialog worked only once - fixed
  - Various crash fixes e.g.
    - With ARA plugins
    - During toggling of engine/monitoring mode
    - While using object surround

## 12/11/2019 Sequoia 15 - Version 15.3.0.471

- batch processing
  - maintenance contract only
    - batch jobs can be used via command line on single files
    - processing of video files, remuxing inclusive (stereo sound only)
  - adjustable bitrate for MP3 export in batch processing
  - file ending in XML adjustable
- "number of selected objects" available for display in arranger and time display (maintenance contract only)
- monitoring section reworked
  - solo switched tracks are audible on second monitoring path
    - AUX monitoring section in mixer is obsolete and completely removed
  - monitoring paths are toggled exclusively
    - tab of activated section is enabled automatically
    - alt + switch can be used to avoid this
  - output menu of tracks shows monitoring outputs: "Monitor Bus 1" and "Monitor Bus 2"
  - status indication in mixer
    - monitor output indication is active as soon as monitor way 1 or 2 is enabled
  - smaller steps for monitor volume in fader mode
  - crackling when changing monitor volume - fixed
  - link between monitor way 1 and 2 was not considered when changing the monitor volume in mixer - fixed
  - monitoring section remained in focus while minimizing Sequoia - fixed
- video
  - several videos without sound after import - fixed
  - several playback issues (e.g. interlaced MP4 h.264) - fixed
  - several video format fixes
- surround
  - 16 channel setup (e.g. for Fraunhofer MPEG-H authoring plug-in)
    - 1:1 assignment of channels for VST plug-ins
  - 8 channel setup
    - circular arrangement for channels in sound field mode
  - 3D pan display
    - support for horizontal panning in 3D display
      - can be disabled by holding shift
    - showed 2 sources for mono - fixed
  - VST stereo plugins can be used for "panning" to surround L/R channel
  - wider display of mixer peakmeters in surround setups with less channels
  - surround panner
    - window position and size will be saved
    - higher resolution when dragging the mouse in value boxes
    - surround panner matrix reworked
  - command to create sub tracks for surround busses / master
  - object surround didn't work for objects which are placed directly on a surround bus
  - plug-ins for surround tracks or busses can be added in arranger
- mixer / effects
  - advanced dual panning
    - 2 knobs in arranger, mixer and track editor for tracks when dual pan / dual volume is enabled
    - support for automation in tracks and objects
  - plug-in handling
    - quick access to AUX track effects via context menu of AUX-sends
    - new command "Add Plug-in as favorite" in context menu of plug-in slots
    - new commands to copy and paste a whole plug-in chain between tracks, master and objects
    - plug-in browser
      - ctrl + tab to switch between tabs
      - tab can be changed via arrows + return key when tab buttons are in focus
  - track delay
    - restore of track delay after undo and mixer snapshots
    - shifting of automation for negative track delay
    - track delay is displayed in mixer
  - macros
    - mixer.screen command to load mixer screenshots (e.g. mixer.screen 3), also for keyboard shortcuts
      - up to 32 snapshots can be used
    - save parameter to save mixer snapshots and mixer screen snapshots
      - e.g. mixer.snapshot 2 save
      - mixer.screen 15 save

- bugfixes
  - crashes while removing some VST3 plug-ins (e.g. BlueCat) - fixed
  - several fixes for VST3 plug-ins (e.g. fabFilter)
    - issues regarding VST3 compatibility are displayed as a status message
  - multiple outputs of a track weren't restored while loading mixer snapshots - fixed
  - edit boxes for equalizer frequency couldn't be selected - fixed
  - issues with writing automation for VST plug-ins (e.g. when automating several parameters at once) - fixed
  - inconsistent deactivation of command "insert plug-in" - fixed
  - AUX sends to same AUX bus are disabled automatically in mixer
  - problems with "Dual Row Recording Mixer" - fixed
- object editor
  - edit box for equalizer frequency
  - plugin routing dialog always shows selected object (only when object editor is open)
  - default shortcut is shift + B to open plug-in browser (only when object editor is open)
  - bug fixes
    - EQ116 wasn't transferred with EQ settings (same for insert and reset) - fixed
    - object comments had been deleted after object freeze - fixed
    - object comments had not been copied to other objects multi selection - fixed
- MIDI / VSTi
  - VSTi plug-ins can be renamed in VSTi manager e.g. to distinguish different instances of the same VSTi
    - via menu (Functions), double click or F2
    - there is a new drop down icon to open the menu for an item
  - bugfixes
    - issues while loading take manager entries for MIDI objects when switching between 32 and 64 bit version - fixed
    - muted notes got lost after gluing and trimming MIDI objects - fixed
    - issues with MIDI Editor undo (e.g. when drawing note patterns) - fixed
- arranger
  - fade curve shape can be changed by dragging the fade handle vertically
    - can be enabled/disabled via context menu
    - combined functionality via holding Ctrl
  - vertical zoom: function "show all" includes empty space beneath the tracks
  - bigger default height for automation lanes
  - object lock icon is displayed always (also for small objects instead of diagonal line for locked object)
  - when changing track size, all selected tracks are changed too (can be disabled via pressing "Alt" while changing the track size)
  - Canis Skin: optimized range color
- general
  - ctrl + tab to switch tabs in batch processing and visualization setup
  - sessions
    - project path is used by default when saving session
    - sessions are loaded correctly after moving vips and sessions to another folder
    - a loading dialog is displayed if projects can't be found
  - improved split of source and destination after return key (=Window tile)
    - **doesn't work after loading of old sessions! Those have to be saved once more**
  - support for LNK shortcut files to directories using preset menu for
    - track/master FX presets
    - object editor presets
    - presets in monitoring section
    - as a consequence network paths can be referred for preset handling
  - info about used dongle is displayed in status bar when program starts

- bugfixes
  - program didn't start with some license.ini entries - fixed
  - take composer: time signature of source project wasn't used - fixed
  - takes couldn't be found after moving the wave folder manually - fixed
  - time stretch initialization was enabled on disabled tracks after play start - fixed
  - some issues when scrubbing with hardware controller - fixed
  - redraw issues for automation lanes - fixed
  - sometimes no automation writing during high CPU load (e.g. projects with video files) - fixed
  - undo improvements
    - a new undo step is created on next play stop after automation data was written
    - improved handling of changes in the object editor
    - mixer changes are collected by track
    - tracks were hidden by undo, if they were following an already hidden track in arranger - fixed
    - inconsistent master volume after undo - fixed
  - economy engine: surround peakmeters didn't reset after play stop - fixed
  - object manager: missing update of selection status after using object lasso - fixed
  - track manager: missing update after deleting tracks - fixed
  - permanent track grouping via "group selected controls" often didn't work - fixed
  - track resizing could cause accidentally changing track selection - fixed
  - issues with L&R files when copying, moving, path display, file size display, loading with HDP - fixed
  - play cursor in take composer was not visible - fixed
  - track speed information have been invisible always - fixed
  - marker names had been truncated in projects with 128 characters while loading / saving - fixed (now 255 characters can be used)
  - batch processing: issues with saving some job parameter - fixed
  - dragging of tempo curve didn't change the tempo correctly - fixed
  - click track was not created when project sample rate  $\geq 192$  kHz - fixed
  - grid wasn't displayed in automation lanes - fixed
  - several crash fixes

## 09/24/2019 Sequoia 15 - Version 15.2.2.388 - Patch

- bugfixes
  - Spectral Cleaning
    - inverse status was not remembered in multi track editing - fixed
  - issues with loading of MuSyC sessions - fixed
  - issues with loading of sessions with WAV projects - fixed
  - issues with loading / saving of a session from start dialog - fixed
  - saving of workspaces didn't work correctly - fixed
  - issues with internal effects (e.g. EQ116) while cut & paste of objects - fixed
  - crash while enabling destructive mode - fixed
  - 2 channel surround could not be disabled in panning dialog - fixed
  - ini entry [Factors] VstProjectCompatibilityOptions=1 to force old channel setup behaviour (< Version 15.2) for VST3 plug-ins

## 08/22/2019 Sequoia 15 - Version 15.2.1.387

- bugfixes
  - maintenance contract only: new object mode "link one track to the left": problems when deleting grouped objects - fixed
  - monitor section: problems with visualization - fixed
  - toolbar quantisation menu didn't work correctly - fixed
  - accessibility setup: problems with clip store - fixed
  - dialog "Sampling rate adaption" was not made visible again with option for resetting all dialogs - fixed
  - some missing translations - fixed
  - several crash fixes

## 07/24/2019 Sequoia 15 - Version 15.2.0.382

- New object mode "link one track to the left" (maintenance contract only)
  - automation data included
  - warning in status bar if objects are stopped at project start
  - can be temporarily disabled by pressing "K"
- Monitoring section
  - open via right click on monitoring knob in mixer or new command in view menu
  - enable by choosing a monitoring output either in mixer or in monitoring section
  - functions / FX
    - plug-ins
    - mono / phase inverting (right click on phase buttons opens monitor stereo editor)
    - dim function
    - talkback function
    - L and R channels are audible for surround tracks/busses
    - presets
    - volume transfer between channels or link button
  - second monitoring channel
    - settings can be changed in AUX section of the mixer after switching to "show monitoring"
  - continued special features of first monitoring channel
    - on first channel solo buttons are triggered automatically, these buttons can still be used for controlling monitoring
    - automatic monitoring of stereo master, if no track is set to solo
    - monitor volume in mixer adjusts first monitoring channel directly
    - solo volume is applied additionally if tracks are set to solo
    - AFL/PFL only applies to first monitoring channel
- Automation
  - glide automation
    - new command in: automation / edit selected curve / set parameter value
      - jump to current value
        - adjusts the current value at the current position with a jump from the previous value
      - jump to current value (selected track)
        - adjusts the current values at the current position for all selected tracks with jump from previous values
      - glide to current value
        - adjusts the current value at the current position with glide from previous value
      - glide to current value (panorama only)
        - adjusts the current value at the current position with glide from previous values for panorama and surround curves
      - glide to current value (selected tracks)
        - adjusts the current value at the current position for all selected tracks with glide from previous values
    - default shortcut ctrl+alt+# gives direct access to the menu
  - write to start / end
    - new commands in automation mode menu
    - only active in latch / overwrite mode
    - during automation the changed curves are written to start or end of project
  - commands for "edit selected curve" are available now in automation lanes menu
  - wrong start values for surround automation - fixed
- Surround
  - select and enable surround masters in surround panner dialog if more than one surround master in project is available
  - creating a new surround master gets suffix if there is already a surround master present with same configuration
  - error when creating surround channels for recording in surround master - fixed
  - issues with VBAP panning - fixed
- Clip store
  - subdirectories can be created and sorted via drag & drop
  - volume fader snapping at 0dB
- Keyboard shortcuts for sub menus of main menu
  - a shortcut can be assigned to a sub menu
  - with less shortcuts more functions are easier and faster accessible this way
  - in case that there is no (underlined) shortcut for a command in a sub menu, a shortcut will be assigned automatically
  - examples
    - glide automation menu can be reached via ctrl+alt+#
    - automation mode: just one shortcut to switch between all automation modes
    - grid menu: missing entries from grid toolbar menu are available from main menu now and can be reached with this new function

- Import / export / load / save
  - realtime bouncing for surround available
  - loading of 32 bit wave files with WAVE\_FORMAT\_EXTENSIBLE
  - AAF
    - problems with importing object gain (including automation) - fixed
    - problems with certain (non ASCII compatible) file names - fixed
    - improved multichannel file import
    - sometimes wrong object lengths after AAF export - fixed
    - support for logarithmical fades
  - crash when opening from Video Pro X - fixed
  - error when writing umlauts or other special characters in ID3 editor in AAC, FLAC and OGG files
  - issues when importing soundpools from Music Maker (e.g. 60s - Revolution) - fixed
- Track Delay handling
  - beginning of tracks with positive track delay is no longer truncated during bounce
  - playcursor / peakmeter are now synced to undelayed audio
- Performance
  - performance display maximum value considers anticipatory calculation
  - problems with playback stop at range border - fixed
  - crashes during change of ASIO buffersize (especially in surround projects) - fixed
- Mixer / FX
  - primary track output can now be deactivated in aux section
  - ARA
    - new memory consumption display and ARA-file-flushing function in project status info
    - object fades are calculated after ARA by default
    - issues with freeze after unfreeze - fixed
  - Plug-in browser
    - text filter considers folder (meaning e.g. categories can be searched now in category mode)
    - Surround
      - internal surround effects are additionally available in "surround" category
      - fallback without plug-in browser didn't work properly - fixed
    - categories are now sorted in alphabetic order
    - issues with plug-in browser while wave editing - fixed
  - Object editor
    - volume fader jumped with first click - fixed
  - VST
    - no mono configuration in mono tracks - fixed
    - VST3
      - missing surround format transmission to VST3 plug-ins - fixed
      - correct stereo initialization was missing for certain plug-ins - fixed
      - offline processing mode was not transferred to plug-ins - fixed
      - issues with sidechain handling for VST3 Plug-ins - fixed
    - **Attention: these changes may cause audible sound changes when loading older projects.**
    - VST surround panner
      - plug-in-Browser is now available for VST surround panner
      - surround panner plug-in is now displayed directly in mixer panner and not in plug-in slot anymore
    - diverse performance optimisations
- Routing manager
  - optimizations regarding surround
  - active track is highlighted
- Visualization
  - switching between stereo and surround master(s) possible
  - peakhold time for spectroscope is adjustable
- MIDI
  - MIDI Editor
    - missing refresh of PPQ format after changing it in project options - fixed
    - duplicating MIDI notes now including linked CC automation
    - improved selection controller for small horizontal sizes
  - mouse wheel support for MIDI controls in trackhead
  - when adding multi channel VSTi new tracks are always inserted directly below current track
  - improved handling for extending the left object edge (e.g. improved undo)
- Docking
  - shortcut handling improved for closing docked windows
- Arranger
  - more consistent behavior of volume/pan controller compared to mixer
    - value boxes in arranger can be adjusted by long left or right click
    - missing update of Vol/Pan value boxes in arranger during automation - fixed
    - missing MIDI volume functionality in track editor and mixer - fixed
  - access to fadeout curve shape when right click on fade out handle
  - selecting objects of a track could accidentally select objects of another track - fixed
  - when inserting new tracks, an unused recording device will be assigned if available
  - Append track: routing of existing tracks is applied now
  - Take manger entries are transferred when copying objects to another project



- Bug fixes
  - issues with column width in track manager - fixed
  - track manager: missing updates after sorting tracks - fixed
  - EN: german texts of invisible dialogs have been audible with screen reader - fixed
  - TS/PS crashes - fixed
  - toolbar button for old realtime mode has been removed
  - crash when closing the program - fixed
  - additional record offset of one ASIO buffer - fixed
  - issues with folder handling of recorded objects in interleaved files (grouped editing, take management) - fixed
  - problems during attempt to rename files in object editor - fixed
  - asynchronous looped playback of video files - fixed

## 04/09/2019 Sequoia 15 - Version 15.1.1.236

- Multitrack recording into one file (Interleaved recording)
  - based on folder tracks
  - tracks contained in a folder can be recorded as one interleaved file
  - option "interleaved (folder track)" is also available in audio tracks (switches mode for whole folder)
  - new tracks will be created after setting a surround track on rec arm (after message box)
- Surround
  - CPU optimization for anticipatory calculation of tracks didn't work for surround projects - fixed
  - diverse solo/mute fixes
  - additional surround panners of a track were not automatable - fixed
- Video
  - new Decklink record module for Blackmagic cards
    - several fixes
  - new video reader
    - sometimes asynchronous video playback - fixed
- Mixer / effects
  - melodyne docking issue - fixed
  - new option in panning dialog for pre AUX
    - "follow track panorama setting": track panning is used for pre and direct AUX sends and outputs (automation inclusive)
    - this option is grayed out for post AUX sends because in this case the panning is usually already calculated
  - AUX sends have been displayed incorrectly in mixer when scaling - fixed
  - plug-in routing dialog
    - delete key caused deleting objects in arranger and couldn't be used to delete plug-ins - fixed
  - copy & paste commands in plug-in slots available
    - this way copying of effects can be done between objects, tracks and master
- Automation
  - new command "Expand Automation Lanes"
    - default shortcut Ctrl+Alt+Enter (only available after resetting shortcuts)
- MIDI
  - MIDI editor
    - display of new midi events while recording
    - undo
      - separate undo / redo buttons in MIDI editor
      - selecting a MIDI object again in arranger does not delete MIDI editor undo anymore
      - undo remains when moving objects and after overdub recording
  - crash when importing a damaged MIDI file - fixed
- Hardware controller
  - plug'n'play of MIDI devices is supported
- More:
  - track manager checkbox to select track
    - multi selection (including keyboard handling, pressing "Enter" (de-)selects tracks)
  - Track Head: New MIDI-Controls when MIDI is activated
    - MIDI Output device
    - MIDI Channel configuration
    - MIDI Transpose configuration
  - new commands to create lyrics marker
  - improved display of empty object editor
  - Bug fixes
    - conflict between new context menu for mouse modes and LR mouse mode - fixed
    - mouse wheel didn't work in plug-in browser when started from VSTi manager - fixed
    - issues with interleaved files and "Save complete VIP..." - fixed
    - issues with interleaved files in clipstore manager - fixed
    - problems with solo in place and PFL on mono tracks - fixed
    - Insert new tracks in folder track didn't add tracks to folder - fixed

## 03/13/2019 Sequoia 15.1.0.215 (DVD release version)

### Surround

- up to 32 surround channels in one track including 22.2 preset
- surround tracks / busses / master
  - surround peakmeters are visible in arranger and in collapsed mixer channel
  - surround channels are now linked after being created
  - mixer monitoring volume is used for surround outputs
- Import of multichannel files creates surround tracks
  - work similar to folder track: individual channels can be expanded
  - audio material can be handled with objects in one single track
  - import in stereo project asks for optional creation of surround master
  - option to create foldertracks while loading interleaved files
- Support for more than 1 surround format in project
  - new command "Add Surround master" asks for new surround format
  - Solo switch for stereo master and surround masters
- parallel panning of one track to different surround masters
  - insert a new surround master
  - add additional output in the tracks output menu with ctrl + click
  - switch AUX section to "outputs"
  - open an output surround panner with shift + right click (or select surround editor in dropdown menu)
- surround panner
  - 3D display for 3D pan modes
    - control of z-coordinate for audio-source directly in 3D view
  - peakmeter display is available for 32 channels, hence horizontal layout of input and output peakmeter
  - label of axes x, y & z
- surround export
  - new command to open the track bouncing dialogue with preselected surround export
  - selection of surround master for export available
  - advanced format specification for export of interleaved files
  - warning for unused stereo master now also available for surround + stereo bouncing
- downmix handling
  - mixes from one surround master to another surround master or to stereo master (only the primary surround master could be mixed to the stereo master before)  
creating downmixes by selecting the corresponding master in output menu of the surround master
    - no exclusive handling (as opposed to other tracks)
    - downmix dialog opens automatically
  - if AUX section is switched to „outputs“, downmix routing is visible and adjustable
    - downmix dialog can be quickly opened via shift + right click on corresponding AUX (or select surround editor in its dropdown menu)
  - disabling a downmix also possible with ctrl + menu selection in output menu of surround master
  - presets with subdirectory structure can be saved and loaded

### Advanced video format support

- new video reader with improved compatibility
- new remux option for many video formats
  - audio will be replaced, without encoding the video again
  - only one video object is supported, remuxing of cutted or more video objects is not possible
- new decklink record modul for Backmagic cards
- workarounds for known issues with black magic audio driver and MAGIX Lola driver

### Sequoia 14 maintenance contract features now available for all users

- 3D surround support
- multi format export
- Eucon S6 wave shape display
- Clip store
  - fader to adjust preview volume and position
- crossfade editor
  - crossfade stays visible after relocating even when autozoom is disabled
  - when opening the editor and autozoom is enabled, in or out point are centered on screen. Hence zooming will be more like zooming in arranger (can be disabled with ini entry [Factors] CFEditorCenterPoint=0)
- new command line option -relocate : to relocate all references of a VIP to a new directory (e.g. for database migration to a new server)

## Plug-in browser

- Plug-ins can be added via plug-in browser after click on empty plug-in slot
  - VSTi or Rewire instruments can be added on a track, too
  - the browser can also be opened from main menu
  - available as menu entry for VSTi manager and MIDI out menu
- Functions
  - view by location / vendor / category
  - search function
  - favorite function
    - double click on "+ new folder" creates a new folder
    - plugins can be moved into new folder via drag'n'drop
  - recently used
- Plug-in slot menu
  - 'favorites' and 'recently used' entries can be accessed via menu
  - commands to replace or delete the existing plug-in
  - old plugin menu via ini entry available [Factors] FxBrowserOptions=1
- Keyboard handling
  - default shortcut: B
  - search: Ctrl+F
  - arrow down in search box enables plug-in list
  - extend / collapse current folder: cursor left / right or return key
  - extend / collapse all entries: Ctrl + cursor left / right
  - keyboard shortcuts for tabs
  - 'favorites' and 'recently used' entries can be deleted by pressing del key

## Automation

- Automation lanes
  - new automation display mode "Lane and object automation" displays additional lanes for track automation, while object automation is still visible and editable in original tracks
  - automation parameters and values are displayed in track head
  - automation points can be selected via lasso from left to right (not reversed as in audio tracks)
  - automation points of several lanes can be moved together
  - lanes are created automatically while writing automation data
- Automation Editing
  - special key can be configured for temporary change to automation drawing mode
  - automation points react to mouse movements, even after leaving the track
  - automation points can be moved beyond neighbours (there's a snap range for creating automation jumps)
  - lines between automation points can be moved vertically. Doing this inside a range moves the automation data of the whole range vertically (creates new nodes at the edges)
  - New option: "Thin out automatically" for automatic optimization after drawing or writing automation data

## Performance

- "ASIO priority boost" option now also available for current Windows operating systems (uses MMCSS)
- multi core handling with increased ASIO stability and reduced CPU load by calculating non-monitoring tracks and VSTi in advance
- support for up to 32 CPU cores

## Arranger

- no automatic fade in/out after loading objects anymore, automatic crossfades are created when putting objects together
- quick access to mouse mode menu via Shift+right mouse click, right + left mouse click or Shift + context menu key in arranger
- new option implemented as menu command: auto track maximize
  - working when clicking into track head or activating via track manager
  - size of maximized track can be changed and is used for any other tracks
- skins
  - Samplitude default skin changed to "Carbon"
  - new skin features
    - improved display of lasso and range (semi transparent)
    - new object handles
    - anti-aliased fade display
- multiselection of tracks by clicking in "empty space" available, not only on track name
- improved lasso function in empty space underneath last track + improved vertical scrolling up and down
- accelerated drawing when a lot of small objects are displayed
- new commands for extending / reducing a range vertically

- Folder tracks
  - linked recording in folder tracks (also for surround)
  - advanced displaying of Solo / Mute / Record state, if they are not activated in all contained tracks

## Mixer / Effects

- VST setup
  - support for more than one VST folder
  - display of system paths in directory tree
  - accelerated VST scanning with crash protection
  - option to abort scanning (e.g. for hanging plug-ins)
- silence truncation to avoid denormalisation
  - before and after effect computation, audio material with a level below -180 db or -280 db was set to zero to avoid performance issues with several processors. Treshhold was dependent on effect.
  - Treshhold now is -280 dB for all real time effects
  - no more silence truncation is used with offline processing of plugins (this can be useful for handling impulse responses)
- 'outputs' display in AUX section
  - send level of primary track output can now be adjusted
- copy and paste of plugin slots from and to master is possible via ctrl + C/V

## MIDI / Instruments

- additional Vita Solo Instruments (instruments of former versions can be used as well)
  - Analog Synths 2
  - Century Keys
  - Grand Piano
  - Orchestral Ensemble
  - Power Guitar
  - Sansula
  - Pro X4 Suite only
    - Concert Guitar
    - Pop Brass
    - Upright Bass
- Revolta update with several new presets
- MIDI Editor
  - Controller
    - improved velocity handling when notes are overlapped (e.g. chords)
    - selection based on horizontal and vertical range now
    - handle to relocate und change a CC value simultaneously
    - new tool for scaling and moving selected controllers
      - new option: use CC selection controller
    - new command for smoothing / available via MIDI Editor toolbar and menu
    - drawing now also works from right to left
    - duplicate (ctrl + D) available for controller data
    - mouse modes in MIDI editor und controller area are now linked
  - more than 1 note can be deselected via Ctrl + mouse drawing
  - copied MIDI data can be inserted into arranger as new object
  - improved undo handling inside velocity dynamics dialog (triggered with Ctrl-Z)
  - object borders can be changed in MIDI editor
  - zoom with arrow up/down if no notes are selected
  - ctrl + shift + alt + arrow up/down: changes pitch level (analogues to object commands in arranger)
  - ctrl + arrow up/down: changes pitch level by 1 octave
  - new command: select all events in range
- Plug and Play detection of MIDI devices
- MIDI objects can be extended to the left in arranger
- accelerated repeated display of VST preset menus (concerning all output menus e.g. mute/solo)
- MIDI record: object name includes track name
- MIDI export uses object name as default file name (only works correctly with new projects / objects)
- support for PPQ > 999

## Lyrics marker

- new marker type, which can be switched in marker manager
- current and next marker event can be selected in time display
- can be imported from / exported as text / lyrics events in MIDI / Karaoke files
- display in MIDI editor score (use 'score properties' in Program Preferences and 'page settings' to switch on/off)
- lyrics marker can be displayed in arranger (use 'view options' in Score Properties and 'VIP' to switch on/off)
- use "+" at the beginning of marker text to combine several texts

## Import / Export / Load / Save

- option "ignore track effects" can be used in general now, not only with "replace objects"
- load/save sessions remembers window positions and docking configuration
  - new format is used for that \*.samx
- filemenu
  - "clean up " was renamed to "clean up & backup"
  - save as EDL, template, object and save session was relocated to submenu "More"
- no more file conversions when loading MPEG2, BWF and MUS files

## More

- default usage of all available ASIO channels, no initial restriction to 8 anymore
- ASIO device names supplied by driver are used, e.g. for mono handling in surround setup dialog
- new project length for projects based on templates can be adjusted
- improved scrubbing for Eucon protocol
- new option: auto save after record stop
- new time display:
  - position relative to file / timestamp of selected object
- keyboard handling
  - 2 new default shortcuts
    - Shift + - : range over all selected objects
    - Strg + # : metronome on/off
  - improved keyboard handling in system settings
  - system settings: device list for audio and MIDI devices can be used consistently
    - space enables checkbox
    - ctrl + shift + arrow up/down: relocate entry
    - F2 : rename, arrow keys changes to next/ previous entry during renaming
  - same shortcuts can be used in following lists
    - setup for external effects
    - surround setup dialog
    - drum map editor
    - plugin routing dialog (only checkbox and relocate)
  - improved keyboard handling in mixer: after inserting and closing effects, focus remains on mixer
- bug fixes
  - Arranger
    - Takes in take manager were lost after moving tracks e.g. into folders - fixed
    - Changing track color of multiple tracks didn't work via track properties dialog - fixed
    - flickering while drawing playback cursor - fixed
    - lasso selection underneath a track used to zoom instead of select objects - fixed
    - renaming: "select to previous object" changed to "add previous" (same for "select next ...")
    - temporary mouse modes haven't been reset in some cases - fixed
    - during keyboard handling beat grid was used, although object grid was enabled - fixed
    - time edit boxes: -1 Frame was automatically changed to +1 - fixed
    - corrupt display of "lock marker" buttons in WAV projects - fixed
  - Automation
    - Bug fix: flickering, if more than 1 parameter was written by effect - fixed
    - problems with plugin automation due to too small release time in automation settings - fixed
  - Mixer / Effects
    - Memory problems when using many MAGIX plug-ins - fixed
    - problems with bit quantisation in some VariVerb presets - fixed
    - some internal FX didn't adapt immediately on switching mono button - fixed
    - project hasn't been tagged as changed after taking changes in VST plug-ins - fixed
    - problems with loading of ARA-projects - fixed
    - incorrect handoff of project samplerate to VST plug-ins during offline processing - fixed
    - issues during repeated using of offline VST plug-ins - fixed
  - Surround
    - wrong surround format communication to VST2 plugins (e.g. Altiverb) - fixed
    - surround AUX sends have always been sent pre fader - fixed
    - freezing effect dialogs when switching channels - fixed
    - improved display of non existing outputs in surround dialog setup
    - in economy mode, master peakmeter were showing level of the surround master if devices have been shared - fixed
    - issues with interleaved export of surround and stereo - fixed
    - problems with EQ link in surround busses - fixed
    - mixed surround/stereo setups are not changed anymore with leaving system options or mixer setup
  - MIDI
    - MIDI Editor: Zoom tool didn't work for score
    - possibly delayed playback start if external MIDI device could not be opened - fixed
    - MIDI out Routing to effects has been changed while inserting and deleting effects/tracks - fixed
    - VST3 - MIDI out from plug-ins was not supported - fixed
    - MIDI out from plug-ins to external MIDI devices didn't work - fixed

- CC07 hasn't been send to external devices while project wasn't playing
- in some cases missing break in MIDI out menu - fixed
- in some cases crashes after MID file import - fixed
- command "Trim MIDI Objects" was missing in context menu - fixed
- MIDI Editor: crash after changing an event state to sysex - fixed
- MIDI record didn't work with enabled option "Retrospective Midi Recording" - fixed
- MIDI Editor: sometimes "\$" was display in tooltips instead of the shortcut - fixed
- SpectralLayers: corrupt display of waveforms during editing in external program - fixed
- SpetraLayers and SoundForge 11 will be found automatically after subsequent installation
- opening the taskmanager by pressing ctrl + shift + esc did stop recording - fixed
- object editor: umissing ndo after releasing volume fader - fixed
- crash while quitting Sequoia/Samplitude directly after start - fixed
- keyboard focus was lost after opening ID3 editor in export dialogs - fixed
- TBX2 files were missing in scripts for remote login - fixed
- adjustment of loudness output files to msxml6 (maybe further adjustments in used XSLT files are required, provided files already have been adjusted)
- problems with renaming a file in filemanager, when it's already opened by program - fixed
- time stamp in file explorer hasn't been refreshed after bouncing - fixed
- AAF import/export: object names haven't been handled properly - fixed