

12.4.1
(14/12/2016)

Additions and changes

Transistor Bass: warning message when selecting "Clear"

Bugfixes

Crash clicking on channel rack filter combo
DirectWave: crash after sampling VST (64bit)
FPC: crash importing DW program (64bit)
Patcher: crash when deleted
Patcher: note off messages not always sent to plugins

12.4.1 RC1
(08/12/2016)

Additions and changes

FPC can save and load pad presets again
Keyboard focus button on title bar for Slicex, Convolver and VST plugins
"Reset plugins on transport" is now off by default
New "Focus selected channel on playback" in channel rack
Transistor Bass: click and drag to draw notes/accents/slides/...
Transistor Bass: rotate notes with shift + ctrl + arrows
Wave Traveller is now thread safe
Wrapper keyboard focus is now on by default
ZGE Visualizer: added audio rate selector in export options

Bugfixes

Access violation recording multiple mixer inserts to PL
Active voices increase while playing loop
AIFF file with reverse byte order fails to load
Automation recording in PL doesn't record when area is selected
Auto unarm doesn't work when rendering mixer tracks
Channel rack scrolls up when play button is pushed
Clip continues playback after releasing playback tool
Freeze on startup when samplerate is reset by the audio device
Maschine Jam: 8th column incorrectly stops clip
Menu and picker fadeout leaves visible box in Windows 7
Menus show up on wrong screen
Merge pattern clips isn't undoable
Overlapping audio clip plays twice
Rendering mixer tracks doesn't put them in project folder
Rendering mixer tracks uses incorrect filenames
Username not shown in FL title bar
Bass Boost: doesn't load in 32bit
Beepmap: only outputs on right channel
Beepmap: sound is different than in old versions
Dashboard: spin controls aren't scaled properly
Dashboard: spin control move speed is reset on import from text file
DirectWave: loop points for ogg encoded waves aren't read
Formula Controller: used variables are greyed out
Gross Beat: missing knobs in Create Sequence tool window
Gross Beat: step buttons in "Create sequence" tool don't draw all states correctly
Newtone: variation control is inverted
Parametric EQ 2: band selection is wrong
Parametric EQ 2: maximize button missing
Patcher: crash replacing Patcher with preset from plugin inside that Patcher instance
Patcher: no preset selector for Dashboard
Patcher: crash cycling through plugin presets
Patcher: double-click on Control Surface module doesn't open its editor tab
Patcher: notes from MIDI Out cut in DirectWave
Plugin Manager: doesn't save state of "Verify" checkbox
Razer Chroma: causes audio breakups in 32bit
Slicex: no undo popup menu on deck B
Slicex: access violation in 64bit using "Layer selections in both decks"
Sytrus: operator volume knob is not bipolar
Sytrus: won't always retrieve output buffer
Transient Processor: output muted after adjusting parameters

Transistor Bass: pan control is inverted
Wave Candy: visual glitch in meter mode
Wave Candy: OSD window doesn't scale properly
Wave Traveller: helper lines aren't shown
Wrapper: Melodo crashes when bridged
Wrapper: further fix for hidden VST3 plugins to respond to automation
Wrapper: Tls Pocket Limiter crashes when bridged
Wrapper: Fabfilter plugins have wrong size window when scaled
Wrapper: freeze with bridged SynthEdit-made plugin during keyboard input
Wrapper: negative mixer track offset outputs to track 103
Wrapper: Waves IDR360 VST3 crashes during processing
ZGE Visualizer: error using Peak Effects > Polar on empty layer
ZGE Visualizer: video export problems

12.4
(04/11/2016)

Additions and changes

Added FL Studio Mobile plugin
Rotate left/right in channel rack no longer opens the piano roll
Newtone: added buttons for pitch and warp modes
Razer Chrome: support for Naga Chroma mouse
Visualizer: now supports h264 video export (mp4) and FLAC audio
Visualizer: two new effects in new "Internal controllers" effect category
Visualizer: custom layer names are now used for parameter names
Visualizer: drag/drop to rearrange layers
Visualizer: support "side by side full" and "side by side half stereoscopic" modes

Bugfixes

Crash when a plugin stretches samples
Plugin window positions are incorrect when loading project at different PPI
Stretch mode causes sample to be played at root pitch
FPC: doesn't remember full size when editor is collapsed
Newtone: crash when a sample is dragged to the plugin (x64)
Newtone: sample doesn't load
Panomatic: dB hint inaccuracy
Patcher: fixed crash when module window is open and Patcher window isn't
Transistor Bass: sequence changes when clicking above the area
Visualizer: using 10k lines as html doesn't reload correctly
Visualizer: internal controller knob settings are not persisted
Wrapper: fixed sending VST3 automation to UI when editor is hidden

12.3.1 (boxed)
(21/10/2016)

Additions and changes

Don't snap recorded audio when snap is set to "Line"
Removed "while you're rendering" panel from render window

Bugfixes

No channel created after recording when "Auto create audio clips" is off
New channel has step sequencer view instead of mini PR view after recording
Taskbar remains hidden when FL is full screen and then minimized
Harmless: hz/osc selectors have no effect
Panomatic: dB hint inaccurate
Plugin Manager: "always on top" causes problems during plugin scan
Sytrus: alignment of FM tab and matrix is off
Wrapper: fixed some crashes when changing fixed size buffers settings

12.3.1 RC 3
(11/10/2016)

Additions and changes

Maschine JAM support: added undo/redo, step seq mode and swing jogwheel mode

Bugfixes

Crash when browser is moved to the left of the workspace
Crash when Plugin Picker is opened immediately after loading a project
Mixer track not selected when changing channel destination with "Type in value"

DrumSynth Live: scaling issues
Wrapper: freeze changing latency in Meldaproduction plugins

12.3.1 RC 2
(07/10/2016)

Additions and changes

Native Instruments Machine JAM controller support
New command line options to bulk render audio and convert .fsc to MIDI
Patcher: 37 new presets by Youlean
Transistor Bass: popup menus for bank and pattern selectors
Wrapper: added button to refresh inputs and outputs after a change in the plugin
Wrapper: threaded processing is now on by default
ZGE Visualizer now publishes internal controllers
ZGE Visualizer can now use various FL windows as textures (experimental!)
ZGE Visualizer: 4 new presets

Bugfixes

Continuous scrolling breaks performance mode
Event playback bug when relocating song position
No undo on automation clip paste
No undo for "Type in value"
Realtime stretch time mul not applied when time is zero
Recording to playlist adds step sequencer channel even in PR mode
Right-click on "Save as" button doesn't default to .wav file extension
Song position can go off screen when zoomed into PR with continuous scrolling
Control Creator: most demo knobs are invisible
Edison / Convolver / Slicex: can drag empty sample to playlist
EQUO: glitch with hidden settings
Beepmap: crash when moving other windows over Beepmap window
DrumSynth Live: audio sent to incorrect tracks
DrumSynth Live: notes aren't cut properly
FPC: UI is a mess at 125% scaling
Maximus and Fruity Limiter: initial latency isn't reported
Parametric EQ2: crash when resizing
Patcher: crash when saving
Patcher: stack overflow error minimizing and restoring DirectWave window
Sytrus: middle-mouse zoom on OSC scrollbar doesn't work well
Sytrus: hot zone to edit harmonic is wrong
Transistor Bass: auto-follow doesn't work
Transistor Bass: "Type in value" is broken
Transistor Bass: crash loading some demo projects
Transistor Bass: note names don't update when loading a preset
Vocodex: visual artifacts in env editor when scaled
Vocodex: error closing plugin
Wave Candy: crash with extreme audio data
Wrapper: Waves plugins crash on close
ZGE Visualizer: wallpaper doesn't show when plugin is hidden on project load
ZGE Visualizer: critical error when changing presets

12.3.1 RC 1
(23/09/2016)

Additions and changes

Right-click on render toolbar button to render to MP3 instead of WAV
Fruity Slicer: removed "Open in BeatSlicer" option
Default bit rate for MP3 and OGG export set to 192Kbps
Newtone: option to include regions when saving a sample in pitch correction mode

Bugfixes

Audio clips aren't updated when the channel's sample changes
Automation clips play section after loop point
Chinese characters not shown correctly
Crash creating a new pattern after audio recording
Freeze adding step during playback
Markers from WavPack files aren't loaded

MIDI notes can't go past loop recording's end point
 Mixer window moves in front of plugins after Plugin Picker but doesn't have focus
 Missing text and glyphs in FL and plugins because of incorrect font
 New plugin channel name set to "Sampler" when "Auto name channels" is off
 REX files sometimes don't load
 Slowness dragging preset from Plugin Picker
 Strange behaviour for detached windows on multi monitor setups with different DPI
 Unicode characters in track name cause error creating the recorded wave file
 Various issues related to "Host priority for keystrokes" Wrapper option
 Control Surface: knob presets don't have pause marker when they should
 Convolver, Edison & Slicex: use friendlier filename for untitled samples
 Convolver, Edison & Slicex: empty samples can be dragged to playlist
 DirectWave: crash loading .instr file
 Fruity Send: adjusting and resetting "Send to" causes louder audio
 Fruity Slicer: "Open in Edison" option doesn't work
 Slicex: right-click on save as button doesn't use .wav file extension
 Wrapper: incorrect display for sliders in interfaceless plugins (64bit)
 Wrapper: Serum crashes when loaded
 ZGE Visualizer: crash when changing presets

12.3.1 beta 2
(16/09/2016)

Additions and changes

Added .instr as recognized file extension in the sample browser
 There's now a warning when loading a project with an invalid audio output selected
 Changes to contrasting text colors in channel rack, mixer and playlist
 List view mode in piano roll is now less confusing
 Renamed "saved arrangement" to "custom"
 Custom layout is now remembered even when selecting other layout
 Added new recording quantize options (right-click the Record button)
 Improved overall audio loop recording performance

Bugfixes

Crash making plugin thumbnail
 Detached windows resize incorrectly on differently scaled screen
 Escape key doesn't close VST window when "host priority" wrapper option is on
 Freeze when adding step during high cpu load
 Loop recording:
 Audio dropouts when looping back to start point during audio loop recording
 Audio recording sometimes being shifted from the loop's start point
 Audio recording sometimes not taking correctly latency into account
 Automations being shifted in the pattern in some cases
 Downbeat not being played at the next loop right after recording
 MIDI notes sometimes being quantized to a very short length
 MIDI notes being cut off when changing channel rack selection while recording
 Missed downbeat during midi loop recording
 Precount not ignoring notes in some cases
 Recorded midi notes sometimes being shifted in the pattern
 No sound when insertion of playlist track has failed
 Piano roll zoom changes when hiding and showing the window
 Boobass: crash playing notes (64bit)
 Convolver: undo button has popup menu on left click instead of right click
 Drum Synth Live: crash playing notes (64bit)
 Gross Beat: per-tab reset button in Create Sequence tool resets all tabs
 Love Philter: doesn't remember size of hidden part of UI
 Parametric EQ2: band types and orders change too quickly
 Patcher: VFX plugins crash when playing notes (64bit)
 Slicex: missing hints for some knobs
 Wrapper: text shown behind small plugin editors

12.3.1 beta 1
(09/09/2016)

Additions and changes:

Added Transistor Bass plugin

Vectorized UI: FPC, Harmless, Ogun, Parametric EQ 2, SimSynth, Slicex, Vocodex
Custom mapping formulas for controller links
Browser: restored option to open samples in Fruity Slicer
New "Alternative mixer highlighting" option to work with very bright or dark colors
Dashboard can now be resized from the window border
"Optimize for" now always defaults to multi-button mouse on install
Plugin Manager: window can now be set to remain on top of other windows
Improved support for command-line rendering
Improvements to loop recording

Bugfixes:

64bit related crashes in:

- Boobass
- DirectWave
- FL Slayer
- Fruity Scratcher
- Patcher
- Soundgoodizer
- VFX Key Mapper
- VFX Keyboard Splitter
- Wave Traveller

+ label in color menu isn't scaled

"Arrange windows into workspace" problem with certain monitor layouts

"Auto select linked modules" doesn't work on playlist audio clips

Black rectangle when selecting item from menu

Channel names inconstent when Auto name channels is off

Channel rack doesn't resize properly when FL is started

Corrupted audio when rendering

Crash closing MIDI devices (64bit)

Crash using "Open shell menu" in browser (64bit)

Drop Patcher on channel without holding shift doesn't replace the existing plugin

Empty filename can be added to sample history in channel settings

File save dialog doesn't add default file extension when necessary

Generic links for mixer track controls only work when plugin in first slot is focused

Hyphen at start of automation clip name makes it unselectable

Incremental scrolling doesn't work with small scrollbars

Incorrect alignment of mute/solo buttons in mixer plugin slots

"Invalid midi out handle" error (64bit)

Multiple selected mixer tracks can only be renamed and colored once

Noise when loop recording

Ogg Vorbis codec crashes (64bit)

Peaks in mixer's Current track are not aligned properly in Extra Wide mode

"Remove sample" in channel settings doesn't work

Selecting a different channel while recording will mute voices

"Type in value" doesn't work for interfaceless VST plugins

Wavpack files don't load (64bit)

BooBass: high cpu usage when multithreaded

Control Surface: color picker is transparent

Dashboard: scaling problems

Dashboard: font name garbage when exporting to text

Dashboard: font size saved with more precision

EQUO: responds to clicks below graph area

Fruity Slicer: stretch options are not correct

Fruity Vibrator: crash on close (64bit)

Gross Beat: scratch wheel doesn't hide in some cases

Maximus: missing compression indicator switch

Patcher: window closes when selected from Plugin Picker

Patcher: doesn't show message when hybrid plugin is loaded

Plugin Manager: some shell plugins detected as effect instead of generator

Plugin Manager: plugin list scrolls too fast

Plugin Manager: some VST3 plugins fail to scan

Plugin Manager: doesn't show vendor name for FL plugins

Plugin Manager: doesn't show plugin list
Plugin Manager: deletes directory junction when favorite is deselected
Plugin Manager: shows effect and generator favorite of plugins with same name
Plugin Picker: fades out when "don't distract me" is selected
Plugin Picker: black window when fading out and desktop composition is disabled
Razer Chroma: doesn't work when window is hidden or minimized
Sytrus: doesn't save the state of the preview keyboard
Sytrus: OSC harmonics hidden when zooming
Sytrus: OSC harmonic editor extends below the scroll bar
Sytrus: missing Inactive feedback when operator is in Pluck mode
Wrapper: VST3 plugins don't load
Wrapper: BreakTweaker crashes when loading project
Wrapper: drop preset for VST plugin on that plugin doesn't change its settings
Wrapper: FL doesn't receive key strokes when plugin UI is focused
Wrapper: can't replace one Waves plugins with another
ZGE Visualizer: doesn't load in Patcher

12.3
(02/08/2016)

Additions and changes:

Convolver now has a vector GUI
Razer Chroma: support for Naga Epic Chroma, Diamondback Chroma
Razer Chroma: updated metronome effect for Orb Weaver
New NewStuff demo: nucleon - Transient Processor
New demo project: Ephixa - Club Penguin
Four new demo projects for ZGE Visualizer
Three new Wiselabs Patcher presets, others updated
Transient Processor: no more nag silence in demo mode
Video Player: new "Delay playback by" option
ZGE Visualizer: updated MIDI effects
"Save acidized" render option is now disabled by default
New option to disable menu transparency
New menu item to load previously saved window arrangement while FL is running

Bugfixes:

Access violation when normalizing large audio files
Alt+B doesn't toggle scale highlighting on and off
Black notes not highlighted correctly
Crash dragging MIDI from Kontakt 5 to FL
Dragging (none) preset from picker to channel or mixer creates new preset
Dragging (none) preset from picker to channel doesn't rename it
Full screen mode not remembered when restarting FL
Incremental scrolling doesn't always work
Missing plugin dialog not shown
Mute audio clip doesn't take effect immediately during playback
Recorded loop doesn't show up when loop recording
Right-click on bottom panel of piano roll doesn't work
Underruns and high cpu usage when opening popup menus and plugin picker
Wrong channel name when "auto name channels" is disabled
Dashboard: font import from old projects is wrong
EQUO: font size wrong when scaled
HTML Notebook: doesn't find html file saved in project
Love Philter: orange ring around led controls
Maximus: font size wrong when scaled
Maximus: crash moving mouse over editor window
Plugin Manager: FL VST path is added to search path list for every installed FL
Razer Chroma: various fixes
Sytrus: crash on load because of invalid settings
Transient Processor: various fixes
Wrapper: bar start position reported to plugins is not updated every bar
Wrapper: Nave VST3 crashes when user changes waveform
Wrapper: Sforzando opens as 32bit plugin in FL 64bit
ZGE Visualizer: various fixes

12.3 beta 5
(28/06/2016)

Additions and changes:

Parametric EQ 2: added key selection for nodes
New option to disengage the record button when recording stops
Removed automatic "envelope" and "LFO" text on clips
Improvements to "Align all channel editors" option
IL Remote feedback is now always on
New option to move all windows to visible positions
Transient Processor: no more silence in demo mode

Bugfixes:

Auto-unarm displays unarmed tracks as still armed
Can't favorite some VST3 plugins
Channel rack: automatic resizing problems
Error selecting multiple samples in open dialog
Import of old tempo automation isn't always correct
Loop recording doesn't mute recorded clips
Love Philter steals note messages for devices locked to channels
Multi-threaded processing off after FL installation
Piano roll: slide and poly disappear sometimes
Piano roll: automatic key style changes are saved over user chosen one
Play truncated notes not active until disabled and re-enabled
Recorded loop doesn't show up in some cases
State of mute and sync checkboxes in tempo tapper isn't remembered
Time hint always shown when scroll lock is on
Delay Bank: orange ring around checkboxes
FPC: ghost image on GUI
Granulizer: custom channel name lost on song reload
Maximus: crash with multiple instances
Patcher: controls don't respond to controller input when tweaked with mouse
Razer Chroma: various bugs
Sytrus: info text for Gasmotron preset has X and Y reversed
Sytrus: wrong labels on chorus panel
Transient Processor, EQUO, Maximus: font scaling issues
Wrapper: fix for lost connection in plugin bridge is not always on
Wrapper: crashes when parameters in bridged plugins are automated

12.3 beta 4
(31/05/2016)

Additions and changes:

ZGE Visualizer version 2.0
New Transient Processor plugin
Changed name of "None" scale highlight mode to "Default"
Remember the "custom" size of channel rack buttons when selecting a preset size
Fruity Limiter: don't animate knobs when switching tabs and animations are off
FL ReWire: application window is now scaled
Razer Chroma: 4 new color presets
Razer Chroma: support for latest Blade laptop
New and updated presets for VGX Key Mapper, Convolver and Patcher
New Razer Chroma demo project

Bugfixes:

Alt+B doesn't toggle scale highlighting on and off
Assign free mixer track skips first insert
Auto name option doesn't do anything when using plugin window preset buttons
Crash dragging plugin preset from Patcher to its own channel or effect slot
Clicking on lower part of "Current" track's dB meter doesn't select the track
Channel rack gradient coloring doesn't work in 64bit
Channel rack too high with maximum height resizing on
Event data lost when swapping effect slots
FL window's "normal" size is too big initially on scaled displays
Gross Beat window doesn't maximize when double-clicking its caption

Mixer track color wrong after use of "assign channel to empty mixer track"
Piano roll and event editor don't load state of "incremental scrolling" option
Piano roll visible but not usable after events have been turned into automation clip
"Play truncated notes" option is active when it's off
Toggling effect windows switches inserts when mixer is detached
Edison: doesn't use correct file type when omitting file extension
Control Creator: freeze when using extreme cog size for knobs
Razer Chroma: fixes for Stealth laptop support
Stereo Enhance: wrong hint on separation knob
Wasp XT: velocity filter and velocity amp controls are switched
Wrapper: Waldorf Nave plugin crashes on load
Wrapper: can't load VST plugins from some old presets
Wrapper: disconnected message when disabling bridge
X-Y Controller: joystick support is disabled

12.3 beta 3
(12/05/2016)

Additions and changes:

Razer Chroma plugin
The names of existing channels aren't changed when dropping presets on them and the "Auto name" option is off
"Type in value" for tempo and mixer track selectors now accepts actual values
Fruity Limiter: comp/limiter selector is now two tabs instead
Renamed mono brush to "Paint"
Renamed poly brush to "Paint in drum sequencer mode"
Reverted "Paint" brush functionality to FL10's (FL11's behavior with shift modifier)
Don't close event editor when effect slot changes
Added size to fit option to channel rack button size menu
In the piano roll, the shortcut keys G, H, J and K will now go to the previous or next channel. H and J go to a used channel, G and K also go to unused ones.
Use "safe" color picker for channel gradient colors
Scale highlights is now set to "black notes" by default
Play truncated notes on transport is now on by default

Bugfixes:

Access violation when mouse hovers over the color picker window
Access violation when moving the mouse over the playlist and piano roll
All solo lights on MCU light up on start
Changing from solo to alt solo in the mixer doesn't work
Channel rack becomes sluggish when adding lots of channels
Ctrl, Shift and Alt buttons on the toolbar can get stuck
Master volume slider misaligned
Most recently used colors not added to color picker when it's opened directly
Rescan MIDI devices can stop playback in some cases
Show scale highlights option in PR doesn't have any effect
Size of some plugin windows increases when maximized and then normalized
Typing keyboard layout "FPC (C4)" is not correct
Unknown omni events in some templates
Velocity label in PR event editor scrolls when it should stay in place
Wrong pitch with RT stretch macro
Big Clock: integer pointer cast (potential crash)
Big Clock: preset arrows shouldn't be present
Edison: changed unique name generated when dragging an unnamed sample
Edison: "failed saving" error message in some cases
IL Remote: mixer mute states not updating
IL Remote: XY feedback not working
VFX Keyboard Splitter: wrong data read from default preset
Wrapper: effect plugins open as synths in some cases
Wrapper: fails to locate plugins in some cases
Wrapper: IQ-EQ plugin doesn't make sound until input is disabled and enabled again

12.3 beta 2

Additions and changes:

(26/04/2016)

Channels are shown more prominently in the Add menu
Incremental scrolling in playlist, piano roll and event editor
Added macro to set all audio clips to RT stretching mode
Playlist: ctrl+left click toggles solo
Playlist: place recorded audio clips in first (visible) empty track
Added shortcut to unsolo and unmute all tracks (ctrl + key above tab)
Added "midi channel through" option
Improvements to IL Remote feedback (also enabled by default)
Added option to control remembering previous state when using solo
Solo mode is auto-detected again

Bugfixes:

Automation clip name error
"Auto unarm" option in mixer resets when recording to playlist starts
Can't drag tools from bottom toolbar
Crash clicking around in SH-1 - Perseverance song (64bit)
Cut in channel rack cuts selection in playlist
Browser resizes on minimize / restore
"Make unique as sample" doesn't remember stretch mode
Piano roll view style is messed up when switching between channels
Plugin added from Add > Channel goes to mixer instead of Channel Rack
Polyphony bug with realtime stretching
Problem moving FL window after changing main screen in Windows
Problem resizing playlist track height
Problem with time setting with RT stretched samples and "make unique as sample"
Remember sort column for plugin list in Plugin Manager and More plugins window
Routing control in channel rack not updated when recording audio clip to playlist
Some maximized plugins don't keep minimized window position
Target control in event editor window is missing
Toggling effect windows with detached mixer switches mixer inserts
Various fixes to channel rack sorting
Various fixes to new open and save dialogs
Control Surface: shows incomplete control names when loading settings
Control Surface: not repainted properly on load
dB Meter: window buttons are in wrong order after maximize
DirectWave: name of some mod matrix entries doesn't match parameters
DirectWave: show specific message when loading VST plugins with wrong bit size
Edison: detect pitch regions crash in 64bit
FL Keys: typo in label
FPC: time slider mouse handling isn't scaled along with UI
Gross Beat: scaling and resizing issues
Patcher: parameters for plugins aren't updated when Patcher window is closed
Patcher: preset loads with wrong window size at 200% scaling
Patcher: flickering when resizing with Control Surface tab visible
Plugin Manager: plugin list isn't visible
Sytrus: resize moves text field over other panels
Vocoder: spin controls have ugly black borders when scaled
Wrapper: crash on preset change
Wrapper: indicates it wants midi input even when the input port is not set
Wrapper: plugin bridge loses connection to plugin in various situations

12.3 beta 1
(25/03/2016)

Additions and changes:

Real-time audio stretching
Lock channels to midi device (for note input)
Options for keyboard style in piano roll
Continuous scrolling in event editors
Plugin Manager and "More plugins" window GUI updated
Vector GUI for Sytrus, Fruity Limiter, Fruity Love Philter, Gross Beat, Maximus
Added Transient Processor plugin
Per-note event selector moved to editor at bottom of piano roll
Open and save dialogs are now more modern

Added "Project tempo" option to time wheel popup
Drag FL window from empty area of toolbar
IL Remote controller feedback
Channel rack: mute button shift+click changed to alt+click
Channel rack: resizeable channel buttons
Channel rack: option to sort channels
Mixer: re-arranged some controls for "current" track in wide modes
Rearranged Add menu contents
Wrapper: Presonus extensions for VST2 (high-dpi support, param context menus)
Wrapper: IK Multimedia plugins no longer default to using fixed size buffers

Bugfixes:

Access violation in browser when using left/right keys on plugin parameters
Black outline on pan wheel after loading NewStuff
Can't load mixer track presets with unicode characters in the name
Change color for multiple tracks changes icon if the first selected track has one
Change icon only works for initially selected mixer track
Channel rack resizes when using pattern selector
Channel rack won't copy and paste when detached
Clips don't trigger after vertical scroll in performance mode
Disappearing preset selectors on captionized windows
"Don't distract me" disables scrolling in mixer
FLAC export disk space is reported as 0KB
FLAC export freezes for 24bit files in 64bit
FLAC files don't have "open in editor" options in browser
Invalid event id error
Help file doesn't open to title page
Last node of automation clip is ignored when manually setting playlist position
Make unique as sample doesn't work in all cases
Maschine Mikro MK2 jog wheel doesn't work properly
Multiple "demo" messages to click away when autosave is active and FL is demo
No animation for internal controller selector control in "Link to controller" window
Ogg metadata doesn't export correctly
Overlapping clips cause playback issues
Override generic links crash
Override generic links doesn't work in mixer
Pattern selection reverts on its own
Pattern selector > Open in browser doesn't show patterns
Plugin slot color doesn't update when loading a plugin preset
Pressing ctrl+e in the mixer doesn't work
Replacing plugin keeps maximized state of previous plugin
Some FL 11 projects don't load correctly
Step sequencer resizes when tweaking "small scrollbars" option
Stuck note when opening popup menu
Undo insert playlist track also undoes the action before that
Wrong pattern painted in playlist
Wrong activity led color after changing a channel's color
Control Surface: control labels are wrong when loading a preset
Control Surface: "show buttons" state not saved in presets
Dashboard: access violation editing page names
DirectWave: memory leak loading some soundfont banks
EQUO: resizing one instance affects all instances
FPC: output selector doesn't go up to 103
Fruity Fast Dist: graphical distortion
Fruity HTML Notebook: can't locate image file
Fruity Soft Limiter: graphical distortion
Fruity Squeeze: pre/post switches not working
Fruity Squeeze: filter position disconnected
Fruity Vibrator: doesn't follow legacy scaling option
Newtone: snap setting not loaded correctly
Patcher: plugin editor not closed by pressing escape key
Patcher: processing mode isn't forwarded to plugins

Patcher: hanging notes sending midi to plugins
Slicex: higher up slices aren't dumped to piano roll
Soundfont Player: output selector doesn't allow negative offsets
Sytrus: export differences in 64bit
Wrapper: access violation changing presets for legacy plugins in 64bit
Wrapper: bridged plugin can't send midi to FL
Wrapper: escape key doesn't close some VST3 plugins
Wrapper: EZ Drummer and EZ Keys don't play along with FL when recording
Wrapper: FabFilter plugins crash
Wrapper: GUI distortion when minimizing some plugins
Wrapper: FL responds to key events after plugin has used them
Wrapper: legacy plugins sometimes show "loading" while going through presets
Wrapper: mixer track name sometimes doesn't change when switching plugins
Wrapper: potential freeze showing a message from a plugin
Wrapper: real plugin name is not saved
Wrapper: settings panel not shown correctly after captionizing plugin
Wrapper: Slate VMR doesn't repaint properly in 64bit
Wrapper: Auto-Tune EFX VST3 outputs mono sound

12.2 (15/12/2015)

Additions and changes:

Vectorized UI for DrumSynth Live and X-Y Controller
Type to piano scripts updated
Fruity Delay Bank: right-click to solo a bank (instead of popup menu)

Bugfixes:

Crash when changing input
Reverted to ogg codec to load ogg-encoded wave files
Ogg file export crashes
Preset selectors disappear when plugin window is captionized
Freeze changing mixer track assignment
DirectWave: ogg encoded wave files have clicks
Edison: keyboard shortcuts don't work
FPC: incorrect pad name in "Change name" window
Fruity dB Meter: meter scale is wrong when plugin is resized
Fruity DrumSynth Live: scales with legacy scaling option

12.1.6 (26/11/2015) (FL 12.2 beta 1)

Additions and changes:

FLAC file export
Ogg files are now loaded without the vorbis acm codec
Added direct menu items to change color and icon of channels, patterns and plugins
Implemented Presonus "high-dpi" notification support for VST 2 and 3 plugins
Renamed "Flat display" option in plugin menu to "Simple list"
Manage Plugins menu item moved from Tools to Options menu
Replaced "Jap" in score preset names with "Japanese"
Added 3 Harmor template presets
Vectorized UI for multiple plugins

Bugfixes:

Fine tempo not loading
Arrows of track selectors aren't scaled
Right-click outside render window cancels rendering
Sampler paste values do not apply
Color correction only applied to first track when multiple tracks are selected
Stuck note when selecting active channel
Automation clip affects song when it's not active
Typing keyboard notes sometimes hang
Code execution vulnerabilities when loading certain .flp files
Crashes exporting to mp3 in 64bit
Create sequence from env editor doesn't reset properly after a few times
Can't open project from Windows in FL while another project is loaded in FL

Associate FL 64bit with .flp files
 Mixer track presets include docked state
 Unicode issues when exporting to project bones
 Unicode issue with recent project menu
 Unicode issue loading mp3 files
 Unicode issue with progress when loading samples
 Unicode issue when arming a track for recording
 File settings access violation when adding a folder
 Crash when rendering to .wav file
 Empty browser snapshot
 Error when exporting project data files and project bones
 Issue when FL is on screen with different scaling than main screen
 Audio Clips stretch without Stretch selected
 3xOsc: different sound in 32bit and 64bit
 DirectWave: crash with "auto normalize samples"
 Edison: Javascript script error
 Edison: crash in "FindInDll" script in 64bit
 Edison: crash when acquiring noise profile in 64bit
 Edison: crash closing FL while Edison is recording
 Patcher: hung notes with VST plugins
 Patcher: Harmor cuts audio
 Patcher: freeze triggering notes on VFX plugins
 Slicex: tune loop crash
 Slicex: recoloring channel changes piano roll view mode
 Vocodex: noise when project is loaded
 WaveShaper: no controls inside Patcher when scaled
 Wrapper: load correct version for more plugins with different names of 32bit & 64bit
 Wrapper: default "notify about rendering mode" to on for VST 3 plugins
 Wrapper: Slate VMR doesn't paint entire UI in 64bit
 Wrapper: send automation and param changes to VST 3 editors when UI is hidden

12.1.3 (25/08/2015)

Bugfixes:

Fixed deleting existing steps when using the 'add steps' feature
 Newtone: fixed critical error loading project settings
 Plugin Manager: fixed some plugins failing when verified
 Plugin Manager: fixed naming of Waveshell presets

12.1.2 (12/08/2015)

Additions and changes:

New and improved Video Player plugin
 Update main window caption when project title is edited
 Launchpad MK2 support
 Shortcut for stretch on/off in playlist is now Shift+M instead of Shift+S

Bugfixes:

Fixed cursor for slip tool - when not over a clip - from "brush" to "pen"
 Ignore search paths that have been disabled in Plugin Manager
 Cloned channels no longer cut themselves (if the original channel didn't either)
 Fixed loading generator from "more plugins" window after fast scan
 Fixed updating mixer track selectors when moving tracks
 3xOsc: fixed sound of analogue saw shape (64bit)
 Control Surface: fixed scaling of controls
 Newtone: fixed crash getting date from file
 Sytrus: fix for crash with LP2 filter
 Sytrus: fixed waveshaper sound (64bit)
 Video Player: fixed playback when FL counts down before playing

12.1.1 (31/07/2015) (public beta)

Additions and changes:

Notes over 120 (10th octave) now do various actions in live mode
 Removed Steinway Grand instrument

Added new instruments: Close Grand and Stage Grand
Renamed "flat database" to "alphabetical"
Added FL executables that are scaled by Windows

Bugfixes:

Rename window empty for FX plugins
Effect names too long in extra wide view in mixer
Zipped channels cut off when resizing in mini PR view
Added track name and/or plugin name to automation clip names
Don't allow adding a track if there's anything on track 199 of the playlist
Fixed resizing of step sequencer when hiding/showing mixer track selectors
Fixed default filter in sample open dialogs
Dashboard: removed mixer track selector in channel rack
Delay Bank: Param reset on load
Edison: doesn't save sample filename as unicode
Fruity Send: fixed threading issue
Fruity Slicer: crash when trying to use elastique
Keyboard Splitter: velocity not correct for VST plugins
Keyboard Splitter: removed popup from manual mapping button
Newtone: abstract error when resizing editor
Patcher: "midi in" plugins now receive untranslated midi data as sent by other plugin
Patcher: pitch applied twice to VST plugins
Patcher: pitch difference when played through Flowstone
Patcher: can't drop channel preset
Vocodex: crash when selecting "Machine 2" synthesizer preset
Wave Traveller: crash changing preset from preview keyboard (x64)
Wrapper: sometimes shows editor with size of options window

12.1.0 (16/07/2015)
(public beta)

Additions and changes:

FLAC import support
VFX Key Splitter plugin
Fruity X-Y-Z Controller plugin
Added "More plugins" window back
Launchpad Pro support
4 high quality FPC drum kits
Steinway piano preset for DW
Show random (fairly recent) news item
Periodically show different news item
Changed various defaults
Update reminder window
Mixer track assignments for channels in the channel rack
Full colorization of mixer tracks (and other visual enhancements)
Option to delete steps instead of muting them
Re-implemented sample history in channel settings window
Ctrl+S saves project even when mixer has focus
Now uses modern version of open and save windows
Plugin Scanner is now called "Plugin Manager"
Plugin Manager: new plugin info tab

Bugfixes:

Format panel in render window is open by default
Fixed disappearing ADD > Effect menu
Improved unicode filename support
Fixed dropping automation clips on playlist
Updated ogg/vorbis libraries to latest versions
Re-implemented popup menu for LFO editor for events
Fixed failure to unlock FL from about window
Fixed crash editing automation (64bit)
Fixed freeze when song reaches end of playlist (64bit)
Changed some label colors in mixer
Override generic links now works in mixer again

Fixed export crash (64bit)
Fix for hint bar not showing up when scaling is above 100%
Fix for browser not focusing dropped item but parent folder instead
Fix for automation presets not being droppable to the playlist
"Delete file" menu entry won't appear anymore on "(none)" presets
BooBass: fixed crackles
Convolver, Dance, Harmor, Slicex: fixed truncated filenames when saving
Edison: new preset, default recording time = 30 minutes
Edison, Slicex: support loading and saving samples with unicode names
Edison, Slicex, Convolver: fixed spectrum display bug
FPC: better unicode string support (filenames mostly)
FPC: import of DW programs tried to read unicode strings instead of ansi
Patcher: no voice kill when FL jumps position
Patcher: fixed sending midi cc to plugins on port that's not zero
Wrapper: interfaceless param update doesn't update visuals
Wrapper: fixed random interfaceless param value reset when changing them
Wrapper: fixed "TODO 3" message
Patcher: fixed crash dragging plugin "save preset as" to Patcher's channel button
Patcher: fixed crash loading Patcher state

12.0.2 (12/05/2015) **Additions:**

Wrapper: new option to determine what bit size to load for a plugin
FL Studio ASIO: added "clip" option

Bugfixes:

Fixed crash in about window
Fixed generic links behaviour for effect plugins
Fixed loading 64bit plugins in FL 64bit
Fixed jpg support in FL 64bit
Fixed MRU color system in rename window
Fixed Fruity Slicer preset in plugin database
Fixed key value on export of score pdf
Fixed event recording bug
Fixed "item menu button" bug in 64bit
Plugin Scanner: various bugfixes
Control Surface: button saves/loads wrong state
Convolver, Slicex: fixed popup menu bug
Dashboard: fixed crash when exporting as text
DirectWave: fixed import of 3rd party sound banks
Download Manager: doesn't remove "downloaded" (link) folders anymore
Edison, Slicex, Convolver: fixed noise profile doesn't work right in 64bit
Harmor: fixed GUI glitch
Newtone: fixed sample properties window
Parametric EQ2: bugfix
Patcher: fixed bug loading newtone
Patcher: fixed missing preset arrows
Scratcher: fixed crash on right click
Sytrus: fixed X/Y control over other controls
Sytrus: fixed black rectangle bug
Wrapper: fixed problem loading wrapper options
Wrapper: fixed crash loading MrRay73 plugin in FL 64bit
Wrapper: fixed reset of parameters of interfaceless plugins
Wrapper: fixed behaviour of parameters for Fruity Compressor (FL 64bit)

12.0.1 (21/04/2015) **Additions:**

Plugin scanner combines presets for separate versions of a plugin
FL Studio ASIO driver

Bugfixes:

Fixed freeze exporting NewStuff song

Fixed crash on processors with 3DNow! support
DrumSynth Live: fixed distortion with multiple instances
Patcher: fixed hidden latency labels
Plugin scanner: various fixes
Wrapper: fixed crash with two Fruity Balance instances (64bit)
Wrapper: fixed freeze with bridged FabFilter Pro-Q
Wrapper: fixed crash closing detached bridged window

12.0.0 (12/03/2015)

Additions:

New impulse samples by SoundIron
Updated Elastique stretching engine
UI updates for some plugins
Control Surface: touch support
Control Surface: controls are freely sizeable
Plugins are found by ID as well as by filename
Plugin scanner: can now use custom VST search paths
Plugin scanner: drag plugin from list to FL to open it
Plugin scanner: add or remove favorite plugin in FL
Plugin scanner: shows previously scanned plugin on startup

Bugfixes:

Crash on load in Windows XP
Generic links issues
Bug exporting split tracks
Various 64bit bugs
Control Surface: behaviour of button control
DrumSynth Live: sound glitch when root key is changed
DW: crash loading song in 64bit
Edison: crash in limiter script (64bit)
FL ReWire: several crashes
FPC: import from DW is faulty
FPC: access violation using "Save kit as presets"
FPC: doesn't load LudwigCS kit
Fruity Love Philter: freeze
Fruity LSD: playing notes from wrong midi port
Fruity Scratcher: freeze when mouse button is down and space is pressed
Patcher: Control Surface editor disappears
Patcher: knob won't move after renaming it
Patcher: knob disappears
Patcher: bugs in plugin window
Patcher: record automation for plugin leads to wrong values
Patcher: midi not sent correctly
Patcher: doesn't collect files from all plugins
Patcher: plugin exported from Flowstone freezes
Patcher: freeze when window is closed
Patcher: implemented key and mouse wheel support in plugin window
Patcher: update of automated parameter in Fruity Send
Patcher: output names for VFX Color Mapper
Speech synth: various fixes
Soundfont Player: freeze on close
Wrapper: plugin editors open in separate window
Wrapper: no sound with fixed size buffers
Wrapper: VST3 plugins update wrong parameters
Wrapper: crash opening placeholder window for bridged plugins
Wrapper: crash selecting presets in various NI plugins
Wrapper: preset change in Fruity Compressor doesn't update controls (64bit)
Wrapper: GrooveAgent 4 VST3 crashes
Wrapper: "send mod x as poly aftertouch" is now off by default

11.5.13 (17/01/2015)

Additions:

More scaled plugins

11.5.13 (07/11/2014)

Additions:

64bit version of FL Slayer
New UI for lots of plugins
Improved threading

Bugfixes:

Improved plugin bridge

11.1.1 (02/09/2014)

Additions:

64bit version of speech engine
Added support for Novation Launch Control XL, Launchkey (performance)
Added support for Nektar Impact series

Bugfixes:

Fixed filenames of samples used by "Dance with me" project
Fixed crash stretching big audio clips
Fixed loading settings for some VST plugins (64bit)
DirectWave: fixed bugs exporting to FLM .instr files
DirectWave: fixed trigger group behaviour across programs
DirectWave: fixed temp folder usage when importing external formats
Patcher: fixed deletion of dropped files
Wrapper: fixed binary message data handling in VST3
Wrapper: fixed crash of bridged Play VST plugin
Wrapper: fixed volume of stereo to mono conversion
Wrapper: fix loading 32bit VST plugins
Wave Candy: fixed crash when using some metering modes
Wave Traveller: fixed loading settings (64bit)
ZGameEditor Visualizer: fixed visual issue + other minor bugs
Updated BassDrum, Drumaxx, DrumPad, Effector, GMS, Hardcore, MiniSynth, Pitcher, PoiZone, Sakura, Sawyer and Toxic Biohazard
Updated FlowStone/SynthMaker to version 3.0.5

11.1 x64 (14/07/2014)

Additions:

64bit version of FL and most plugins

Bugfixes:

Dashboard: fixed range issues for selector controls
DW: added "Create program from samples" menu option
FL VSTi: fixed bug sending midi events to host
Patcher: fixed crash loading plugin when using a lot of memory
Wrapper: plugin state is remembered even when plugin couldn't be loaded
Wrapper: fixed stuck "ilbridge.exe" instances in Task Manager

11.1 (25/03/2013)

Additions:

MiniSynth generator plugin
Agnivesh demo song updated
new "Repeater" Gross Beat preset
updated Launchpad support
imports FLM zip files directly now
FLM project import updated for FLM v2.4

Bugfixes:

fixed crash moving mixer tracks
fixed detached window focus problem
fixed quantize bug
Convolver: fixed freezing bug
DW: fixed saving of current zone / global switch
DW: fixed dropping samples on zone list
DW: disable "delete zones" menu item when no zones are selected
DW: fixed loading some 20 and 24 bit samples
Flowstone: fixed crash on right-click of "wireless" modules

Flowstone: drag .fsm to plugin title bar to load it now works
Flowstone: use custom path to export FL plugin now works
Flowstone: swap links command works correctly
Flowstone: no longer empty after reload of FL project
Flowstone: now has midi output node in Patcher
FPC: updated presets
Newtone: fixed crash while playing a sample and resizing it time warp mode
Patcher: fixed crash loading plugins
Wrapper: fixed UI glitch loading preset with options window visible for some plugins
Wrapper: changes to the way some editors are handled
Wrapper: fixed CC parameter event values for a bridged plugins when loading song
Drummaxx, GMS, PoiZone, Sakura, Sawyer, Toxic Biohazard: bugfixes and updates

11.0.4 (25/11/2013)

Additions:

Added several supported controllers
Updated "Sacco - Goldener Schnitt.flp"
IL Remote support
Novation Launch Control support
DJ TechTools Midi Fighter 3D support
Electrix Tweaker support
Livid CNTRL-R support
Livid BASE support

Bugfixes:

Fixed creation of extra row when starting to drag main toolbar
Fixed string comparison in browser for unicode characters
Fixes in controller support
Fixed loading some data from FL Studio Mobile projects
Control Surface: fixed oversized sliders after saving and loading a preset or song
Control Surface: fixed label width when loading settings
DrumSynth Live: fixed saving of "auto" option
Edison: fixed drag/drop to FL browser
FPC: fixed import of newer DW programs
Harmor: fixed crash moving points in envelope
Newtone: fixed wav save bug (only 1-1.5 seconds exported)
Newtone: updated engine (bugfixes, works more like FL playlist)
Newtone: move around with arrow keys
Newtone: fixed bug restoring some settings
Patcher: fixed incorrect gui size showing plugin editors after loading old settings
Patcher: removed "notes" node from FL input module in effect version
Patcher: fixed handling of midi note on/off for effect plugins
Patcher: fixed next/prev preset buttons not showing for some plugins
Patcher: fixed loading of SimSynth in saved songs/presets
Patcher: fixed samplerate related problem with Synth1 presets
ReWired: fixed bug hiding plugin editor
ReWired: fix for device enumeration
Wave Traveller: fixed invisible editor bug the first time it's shown in Patcher
Wrapper: fixed keyboard input in some VST3 plugins
Wrapper: added context menu support for (some) VST 3.5 plugins
Wrapper: fixed crash with MeldaProduction MCompressor param changes (VST3)
Wrapper: fixed potential memory leak for VST3 plugins
Wrapper: improved forwarding keyboard messages from plugin to host (VST2)
Wrapper: fixed bug updating parameter display for interfaceless editors (VST2)

11.0.3 (20/08/2013)

Additions:

ReWired: added CC parameters
New CoolStuff demo songs:
 "RadioactiveSandwich - Homunculus",
 "Fuego96 - SayWhat", "Fuego96 - TimeFlies"
Support for Midi Fighter 3D.
Support for Electrix Tweaker.
Support for Novation Launch Control.

Partial support for Livid CNTRL-R.
Right ctrl+click on some knobs & faders for immediate jump.
Click&hold on note edges to snap them (or glue contiguous).
Touch: double-tap titlebars to maximize, double-pan titlebars to move or resize.
Touch: undo/redo/cut/move notes using press & tap gestures.
Added + one channel button to step sequencer.
Added support for drop of multiple audio files in playlist.
Updated triangle panning law not to sound louder (uncompatible).
New mouse wheel support to PR/PL channel/clip selectors.
New support for ctrl+middle mouse button zoom in PR/PL.
New realtime swing that applies to piano roll as well, with swing mix in channel settings.
New marker support in piano roll.
Improved selection of random notes and new selection of notes at odd step times.
Replaced chord tool by stamp tool in piano roll.
Scale levels tool now applies to velocities as well.
Improved tempo tapper.
Can now drag over the mixer button to bring up the mixer.
"Init song with these positions" added to multilink popup.
Added big control popup to control the last tweaked parameter, also in browser.
Ctrl+F11 to hide toolbars.
Optimized lists of remote controls

Bugfixes:

Fixed color change of "remove conflicts" label when linking conflicting controllers
Fixed "next by char" in browser
Fixed running FL as other user than the one it was installed as
Updated url used by "Register access to website" Help menu item
Re-implemented installation of ogg vorbis codec for both 32bit and 64bit
Small fix in event editor
Most templates now have 'Play truncated notes in clips' on
Fixed freeze changing samplerate with NI ASIO driver
Fixed imprecision in automation clips.
Harmor: fixed bug related to ribbon saturation.
 IMPORTANT: the sound will be different now if you use ribbon saturation!
Wrapper: fixed access violation loading WaveShellVST in Patcher
Wrapper: fixed bug loading bridged plugins from FL10 as bridged
Fixed crash after deleting a second instance for these plugins:
 Convolver, Granulizer, Edison, Fruity Slicer, Harmor and Slicex
Newtone: jump to last start position upon stop
Newtone: disappearing selected regions when zooming out fixed
Newtone: changed glue mode to ALT
Newtone: new Snap Downbeat command (warp mode only)
Newtone: lowered precision of tempo display in wave properties window
FPC: random trigger option is now saved in pad preset
FPC: fixed 'save all samples'
FPC: fixed plugin database preset
Video Player: fixed visibility of start and end handles
Video Player: fixed video position when starting from random position in playlist
ReWired, FL ReWire: fixed location that ReWire dll is loaded from
DrumSynth Live: fixed default patch indication in key popup menu
Wave Traveller: improvements in Windows XP compatibility
Patcher: don't show module connection popup if all items are disabled
Patcher: fixed label position jitter
Patcher: fixed loading VST3 effect plugin from favorite list
Patcher: fixed latency label positions
Patcher: fixed song position for plugins after relocating to random position
Control Surface: fixed import of old floating point values
Control Surface: fixed slider size when pasting colors
Control Surface: fixed control position when loading settings (mostly XY)
DirectWave: fixed export of 16bit int sample to FLM .instr file
DirectWave: fixed import of sustain loop from FLM .instr file
DirectWave: now sets multitimbral flag in exported FLM .instr file

GMS: fixed Dirty Horse TE preset
Drummaxx: fixed freeze at 100% when rendering

11.0.2 (21/05/2013)

Additions:

Support for Livid OhmRGB.
Support for Behringer CMD LC-1

Bugfixes:

Fixed hint for time stretch wheel (low values)
Fixed slow rendering bugs
Fixed PPQ change bug
Remembers the state of the PR random tool's "patterns" checkbox
Fixed channel settings window showing up when loading projects
Patcher: fixed editor focus on double-click
Patcher: connection settings are now when an effect is dropped on a connection
Patcher: fixed request by plugin to load sample
DW 1.5.4: fixed import of FLM .instr files
Newtone: fixed passing strings with "foreign" characters to the engine
Newtone: fixed zooming modifiers (alt+scroll wheel)
Newtone: show param value popup when multiple items are selected
Newtone: new "Use beat marks" option for warp mode
Newtone: save .zpa and .zpw files to zipped loops
Wrapper: fixed relative knob behaviour for bridged plugins
Wrapper: fixed loading multiple instances of Waves VST3
Vocoder: fixed loading state of threaded checkbox
EQUO: fixed restoring state of Morph knob
Drummaxx: fixed changing assigned note for pads
BassDrum and GMS: various bug fixes
ZGEViz: updated/added some presets
Wave Traveller: fixed crash when loading a sample
Updated NewStuff & Zircon-Just hold on

11.0.1 (06/05/2013)

Bugfixes:

bugfixes in pianoroll and playlist
change to sysex for Panorama device
Patcher: fixed bug loading old VST plugin settings
Patcher: fixed bug adding (sub) Patcher preset with open surface tab
Control Surface: fixed loading back links to controllers in FL
Control Surface: fixed response to automation from other internal controller
Control Surface: fixed reporting XY control changes to host
Control Surface: fixed slider handle size when pasting colors
Control Surface: fixed saving/loading XY color
Control Surface: fixed adjusting slider properties to slider size
fixes to Seamless songs
Wrapper: fixed plugin bridge
GMS: fixed various crashing bugs
Effector: small fix
fix to Akai APC support

11.0 (22/04/2013)

Bugfixes:

Wrapper: small bugfixes
Fruity X-Y controller: fixed joystick names

Additions:

Updated Patcher
New Control Surface plugin
Drumpad presets added
Updated Synthmaker/Flowstone

10.10 (28/02/2013)

Bugfixes:

Important GUI-related bugfix.

Sending from browser to a focused attach plugin window now works.
Little bugfix in Vocodex (when band levels are zero).
Patcher: lots of changes and bugfixes

Additions:

Support for Novation Launchpad S & basic support for Launchkey.
VFX Color Mapper plugin (Patcher only).
VFX Key Mapper plugin (Patcher only).
Gross Beat: Click reduction feature enhanced to 3 states.
Improved speed of sinc interpolator.
Synthmaker updated to Flowstone
Newtone: added warp mode

10.9 (12/12/2012)

Bugfixes:

Lots of small and bigger fixes
FPC: fixed threading bugs
DirectWave: fixed garbage in sample start/end strings
Patcher: fixed cpu usage

Additions:

Page Up/Down cycles through the current mixer track's plugin windows
Support for Panorama P4 & QuNeo controllers
Can now drop Patcher presets from browser/picker onto generators/effects to "Patcherize" them.
Double-clicking plugins in a picker called from Patcher, opens them in the caller.
Clicking a clip once (but not moving it) now also selects it (even when not playing).
FPC: option to reset all outputs
Newtone: changed implementation of "tempo sync" checkbox
Patcher: support for VFX plugins, rewrite of "map" tab
Wrapper: load 64bit plugin if 32bit isn't installed and vice versa

10.8 (30/09/2012)

Bugfixes:

Lots of small and bigger fixes
Fixed filter automation import from .flm file
Soundfont Player: fixed loading of soundfonts (some problems with EnsurePAnsiChar)
Wrapper: fixed sending tempo to newly loaded plugin
Synthmaker: version 2.0.11
Video Player: fixed no playback/sound in some videos (alien song.mpeg)
Video Player: now remembers window size when no video is loaded
Patcher: fixed initialization of wavetables
Patcher: fixed XY control paint bug
Patcher: fixed loading sidechain output for some plugins
Patcher: fixed updating controls from mixer thread
DirectWave: changed FLM exported category (chromatic, so the icon is correct)
DirectWave: fixed start of wave file when imported from FLM .instr filr
Downloader: fixed crash when looking for missing samples in FL
Downloader: show real download size if it's bigger than the "fake" one
Downloader: fixed freeze if you close content lib in FL while it's scanning, then click elsewhere
Downloader: fixed seeing new lists after downloading list updates

Additions:

New font rasterizer
Using AGG for drawing
Patcher: experimental voice effect support
DirectWave: support for new chunk based FLM .instr file format (import)
FPC: support for new chunk based FLM .instr file format (import)
Downloader: group all items with the same download filename, not just those with a download caption
Downloader: added option to "download all" (click on subcategory/cd captions in online list)
Downloader: captions in online section are collapsible now

Downloader: content lib window is now (also) embedded in the Download Manager window
Downloader: added option to always start content lib in Download Manager (allows it to stay open)
Animation selector in general settings

10.6.1 (16/07/2012)

Bugfixes & additions:

Bugfix in channel settings after loading channel state.
Fixed restoration of plugin detached state in some cases, & now remembers maximized plugins.
Improved GUI engine in many ways.
A lot !

10.6.0 (2/07/2012)

Bugfixes:

Fixed a long list of big & small bugs as well as memory leaks, in FL & plugins.

Fixed bug in endless knob control of VST plugins.
Fixed debug log window not scrolling anymore.
Fixed crash when browser sorts by file type.
Changed font charset in numerous places, for foreign users.
Fixed little alignment error in pattern clips.
Fixed tempo-related stretching error when loading 10.5 projects.
Fixed problem with omni MIDI control linking.
Made ctrl+right click to zoom out on performance/song sections (like middle-click&hold).
Fixed little mixer menu annoyance.
Fixed small bug in PR zoom.
Workaround for Windows touch keyboard sending return twice.
Browser position restored better.
Fixed bug in arp tool.
Newtone: send to playlist when no wave is loaded no longer results in a file with empty name
Patcher: fixed plugin name when dropping VST .fst preset
Patcher: fixed crash trying to load unavailable plugin
Patcher: fixed two crashes in effect version
Wrapper: don't kill automation when loading presets
Wrapper: Waves 9 x64 now shows shell plugin list
Updated Drummaxx, PoiZone, Sawyer, Sakura and Toxic Biohazard plugins

Additions:

Partial support for multi-touch monitors in FL & some plugins.

Added warning when attempting to save inside the backup/autosave folder.
Automation of MIDI out knobs now only destroyed when changing range.
Added support for nankKONTROL2.
Harmor: added import (drag&drop) for Komplexer WT wavetable files.
Harmor: added "Map audio regions to keys" with auto-dump to score, for Slicex-like drumloop handling.
Support for Windows "app commands".
Plugin picker: right click to open plugin + its presets folder in the browser.
New View->Arrange windows->Tablet.
FL Mobile: updated file format support
FL Mobile import now looks for instruments in shared data path too
DirectX plugin scanning has been removed
DirectWave: resample loop points on FLM export, improved interpolation
Wrapper: bridge now uses FL's processing thread priority for its processing
Added BassDrum synth plugin

10.5.0 (13/04/2012)

Bugfixes:

Fixed wrong song time displayed on Mackie CU.
Fixed harmless glitch in multilink window.
Fixed rare crash when reloading projects.
Fixed bug for slots in 1-shot mode in Gross Beat.
Fixed problem with Fruity Slicer & other hybrid plugins.
Fixed bug in automation of automation clip's speed control.
Fixed little bug in multipoint LFOs in synths, when LFOs have a predelay.

Fixed many bugs related to closing FL or reloading projects.
Fixed crashing bug in Harmless related to legato in some cases.
Fixed minor bug in F2 picking random color in name edits.
Fixed several browser scrolling problems.
Harmor: fixed tiny bug in image menu.
Gross Beat: several fixes, improved resampling & less clicking.
Fixed little handle leak.
Fixed rare crash when pressing ALT on some systems.
Fixed error after recording audio in some cases.
Dashboard: fixed crash loading an instrument file with a reference to a non-existent patch
Dashboard: fixed double items in instrument list
Dashboard: fixed showing & character in instrument combos
DirectWave: fixed importing .sfz files
DrumSynth Live: fixed pitch problem at 96KHz
FPC: fixed freeze when changing midi loop file
FPC: fixed crash dropping sample on a pad that's playing
FPC: fixed cut/cut by valves in "empty" preset
FPC: pad preset export now sets file extension (when necessary)
FPC: fixed releasing samples when exporting a pad preset
FPC: fixed pad preset default folders
FPC: fixed crash opening "save entire kit as pad presets" window
Synthmaker: various bugfixes (resizing)
Patcher: fixed update of XY control when automated
Patcher: fixed crash loading 2 instances and starting a new song
Patcher: fixed hint message flicker
Patcher: fixed crash deleting Patcher instance
Patcher: fixed freeze when deleting SF Player
Patcher: fixed (re)size of SynthMaker UI
Patcher: fixed use of mouse wheel over plugin UI
ReWired: fixed time calculation
Wrapper: fixed reset of Fruity Compressor settings after saving
Wrapper: fixed saving settings of The Grand 3 x64
Wrapper: various changes/fixes for bridged plugins
Wrapper: various fixes for VST3 plugins
Wrapper: added parameter index check for automation from VST plugins
Wrapper: fixed loading x64 Play from song
Wrapper: fixed some flicker in interfaceless UI
Wrapper: fixed loading shell plugin names from registry
Wrapper: fixed crash when dragging preset over existing wrapper that didn't have a plugin loaded
Wrapper: fixed loading saved bridged VST3 plugin
Wrapper: fixed crash opening and closing bridged plugin editor
Wrapper: got rid of "no disk in drive" error message when opening plugin from saved settings
Harmor: fixed small bug when copying bitmap.
Fixed tiny bug when MIDI controller out port set to zero.

Additions:

New performance mode.

Little change in MIDI message delivery engine.
Controllers: enhanced the behavior of jogs in piano roll and browser.
Remote control: can now assign notes/buttons to parameters in several modes.
New graphics for clips in playlist, improved graphics in piano roll.
MIDI inputs now have a port as well, and control surfaces are now linked by port, for feedback.
Plugins can also get & filter direct MIDI input from controllers before FL processes it.
Links are now using MIDI ports, so no more conflict between controllers is possible, especially 2 controllers of the same type.
Added support for APC20/40, Launchpad, Block, MASCHINE / MASCHINE MIKRO, padKONTROL controllers.
Piano roll: brush tool changed behavior to monophonic step mode (shift for old behavior).
Piano roll: click-&-hold resizing on 2 neighbor notes glues them.
Some new graphics for the step sequencer.
Ctrl+mouse wheel on channel button to change its mixer track.

Added visual feedback for free controls on the MCU controller.
Harmor: 2 new distortion modes.
Harmor: tempo-synced envelopes follow tempo changes better.
Fine tempo control merged with tempo selector.
Improved tempo tapping, & implemented tapping for some MIDI controllers.
Added "Chop chords" option to piano roll Strum & Articulate tools.
Can now right click to check several menu items without closing it, in some popup menus.
New simple playlist track folders/groups.
Can type in names (full or partial) in plugin/project picker.
Added type-in editor to parameter popup (formatted as absolute normalized value).
Improved function of Home/Ctrl+Home/Alt+Home in piano roll/playlist (handy for previewing scores).
New auto-refreshing of USB MIDI devices.
PR/PL: hold SHIFT & CTRL to lock horizontally or vertically when moving items.
PR: use mouse wheel while holding notes to change velocity. Also change tools while holding right click.
Articulator tools now available to automation clips (see channel settings menu).
Improved conversion of automation events into automation clip.
New downloader / content library
Dashboard: made midi reset message optional
DirectWave: select program with midi note
Fruity Squeeze: enabled mouse wheel for controls
Patcher: ask confirmation when deactivating a plugin param
Patcher: drop fxp/afxp/other files on plugin to load it
Wrapper: linked voice slides to poly aftertouch
Wrapper: implemented loading plugin presets from various default locations
ZGEViz: new version
Harmor: new "Image selected column" envelope.

10.0.9 (19/10/2011)

Bugfixes:

Fixed rare APDC bug.
Harmor: fixed absolute ramp speed+high quality bug.
Harmor: fixed bug in max height check for imported images.
Harmor: fixed bug in image sharpening.
Fixed playlist bug when accessing tracks over 99.
Fixed tiny problem in envelope editor hint.

Additions:

Harmor: Mod XYZ smoothing now controls filter freq smoothing as well.

10.0.8 (5/09/2011)

Bugfixes:

Fixed bug in automation of channel arpeggiator chord selector.
Fixed rare bug in Maximus.
Fixed bug in conversion of step seq to piano roll while playing in song mode.
Fixed some possible problems with extended memory in plugins.
DirectWave: Fixed bug loading some samples from FL Mobile in player mode
DirectWave: Fixed crash loading specific .sfz files
Wrapper: Fixed disconnecting some plugin parts when deleting VST3 plugins
Patcher: Fixed bug increasing GDI object count
ReWired: Fixed problem loading plugin with "smart disable"
ZGE: Some bugfixes

Additions:

Env editor: envelope loops don't need a sustain point anymore.
Smooth point modes now in all plugins.
New "Song start" marker type.
DirectWave: Import and export FL Mobile .instr files
FPC: Export FL Mobile .instr files

10.0.5 (21/06/2011)

Bugfixes:

Fixed crash when trying to automate all parameters of a plugin that has no named parameter (like Patcher).

Slicex: Fixed bug in drum replacer tool.

Fixed bug in loop recording (result ending at the wrong time in the playlist).

Fixed little bug in step editing when piano roll is visible.

Fixed Edison's "Acquire noise threshold" broken for 16bit samples.

DirectWave: Fixed small bug with finding missing samples

Slicex: Fixed possible case where deck B's associated file wasn't collected in zips.

Additions:

Added "Recording starts playback" option for pressing record to start playing/pressing stop to stop recording.

New "Gap" knob in PR articulator tool, to ensure a gap between notes.

New "Smooth" point mode in envelope editor (plugins & FL).

Env editor: adding a point near the existing segment (with snap off) inserts that point precisely on the segment.

Env editor: panning (middle button) also displays envelope without points (freeze).

FL Mobile file import

10.0.2 (17/05/2011)

Bugfixes:

Fixed minor bug in playlist clip preview.

Fixed note properties not always selected when clicking on notes.

Fixed filenames in DW presets in Patches\Packs

DirectWave: fixed freeze when sliding notes for "bounce" looped layers

Downloader: fixed bug finding installed path

Downloader: use correct user folder for refreshed lists

FPC: fixed unmuting pads in some cases

Newtone: fixed undo crash

Patcher: fixed Y knob automation for XY controller

Patcher: fixed crash when pasting control/param values

Patcher: fixed update problem when pasting value for activated param

Patcher: fixed crash when clearing

Patcher: removed Granulizer from plugin list

Patcher: read thumbnails from plugin database in addition to plugin thumbnail list

Patcher: fixed unlink velocity behaviour

Patcher: fixed sending midi pitch to VST plugins

Patcher: fixed midi out from some plugins

Patcher: fixed freeze using Absynth 5 x64

Patcher: fixed SF Player freeze

Patcher: fixed lock request from plugin

Patcher: fixed transpose implementation

Patcher: fixed crash in effect version when not enough audio outputs are available

Fixed possible hang in undo when using interfaceless VST1 plugins

Fixed wrong tempo exported in rendered projects after messing with steps per beat setting.

FL VSTi: fixed freeze on export in Cubase

Additions:

Wrapper: added IAudioPresentationLatency support for VST 3 plugins

Reversed behavior when left/right clicking on mixer arming button.

10.0.0 (29/03/2011)

Bugfixes:

Fixed problem with sidechain selectors in Vocoder.

Fixed tiny bug in envelope filter tool.

Fixed rendering start time problem.

Fixed small bug on playlist loop marker deletion.

Fixed bug when deleting playlist clips through their menu.

Fixed bug when undoing recording of audio+piano roll when there were no notes yet.

Fixed crash when sending presets directly to plugin window in some rare cases.

Fixed bug in Fruity Love Philter's waveshaper.

Fixed sample browser's hot hint minor bug.

Fixed bug in Fruity Convolver's own smart disabling.

Slicex & Fruity Convolver now store local filenames (avoiding searching).
Audio clip positions now snapped to samples (better for linear interpolator).
FL VSTi: fixed crash on close in other hosts.
DirectWave: improved sfz import.
Fixed bug in playlist song loop marker when piano roll pops up.
Bugfix in Riff Machine's randomization.

Additions:

New project browser.
Patcher plugin.
ZGameEditor Visualizer plugin.

9.9.0 (28/02/2011)
(public beta)

Bugfixes:

Fixed problem when relocating effect plugin slots.
Fixed time signature in exported midi files.
Edison: fixed javascript using pascal unit.
DirectWave: fixed freeze when opening project and switch to other application.
FL VSTi: fixed editor size reported to host.
Newtone: fixed crash on file > new.
Wrapper: fixed bridge timeout.
Wrapper: endless knob support for bridged plugins.
Wrapper: fixed crash with Slim Slow Slider's Sidechain Comp.
Wrapper: fixed saving of settings.

9.8.0 (11/01/2011)
(public beta)

Bugfixes:

Fixed piano roll zoom bug.
Bugfix in Vocodex's sidechain selector.
DirectWave: fixed "random" rename of DW channel on reload
Newtone: reset playback position when stopping playback in FL
Newtone: fixed crash copying notes
Newtone: fixed clicks/pops on audio export
Newtone: made sample loading safer
Newtone: changed note center behaviour
Newtone: fixed display of bars when time signature changes
Newtone: fixed midi timing issue
Soundfont Player: disabled threaded processing
Wrapper: fixed buffer crash in bridged effects
Wrapper: fixed initial i/o assignment for bridged plugins
Wrapper: avoid division by zero errors in bridge
Wrapper: fixed crash on exit for bridged plugins in some circumstances
Wrapper: fixed detection of 64bit dlls
Wrapper: other changes and fixes for bridge

Additions:

Alt key flips snapping instead of forcing it off.
New "Frozen LFO" option in envelopes.
"Multilink to controllers" 's popup now features single last tweaked parameter as well.
Score export to PDF file.

9.7.0 (22/11/2010)
(public beta)

Bugfixes:

Fixed crash when "Split by channel" while PR is open.
Fixed vel mapping not updating when "resetting" it.
Fixed broken View->Browser menu items.
Fixed stuff related to song loop marker.
Fixed bug in playlist's merge pattern clips.
Fixed right-clicking on pattern selector in step seq.
Changed behavior of right-clicking on playlist's scroller.
Autoscrolling disabled when adding markers.
Fixed held click on clips using pencil.
Fixed wrong cursor when shift+add note in PR.

Maximus: fixed bug when envelope is set to flat centered.
Fixed 2 little browser autohide bugs.
Fixed reset values in channel settings knobs for automation clips.
Improved keyboard focus in FL plugins.
Fixed sorting of channels in piano roll's list.
Fixed case sensitivity in plugin picker key search.
Opening a plugin doesn't keep the previous sample loaded into the channel in some cases.
Added workaround for graphic driver bug on titlebars in some cases.
Little bugfix in envelope editor.
Fixed bug in PR's vertical zoom.
Fixed APDC bug when disabling plugins.

Additions:

New playback/preview tool in playlist (alt+right click).
New "New pattern" button in step seq.
Ctrl+middle click on playlist tracks to resize them.
New "Small scrollbars in editors" option.
Playlist: left shift flips pencil/brush.
Added beats to time segment options in PR/PL.
Piano roll: (shift+)H or J cycles through filled channels.
"Make unique" now warns if the clip is already unique in the playlist.
Alt+click on ghost notes becomes double-right click (and still X1 button).
Filenames stored in project files now packed using known local data paths and system ones, for better shareability.

9.6.0 (30/09/2010)
(public beta)

Bugfixes:

Fixed bug when pressing F2/F3 in name edits without color selection.
Fixed bug relocating in a piano roll in song mode.
Fixed new bug in Harmless'es self-osc.
Fixed long pause when relocating mixer tracks on dual cores.
Wrapper: Fixed info flags bug that caused shell plugins to fail to load
Wrapper: Removed some log entries that caused slowdowns
Wrapper: Fixed loading/saving settings when switching to and from bridged mode
Wrapper: Various fixes loading plugin settings
Wrapper: Fixed crash with bridged Crystal VST
Wrapper: Fixed loading Waves plugins from settings
Wrapper: Support interfaceless VST3 plugins
Wrapper: Properly set plugin name when loading a VST3 subplugin
Wrapper: Fixed freeze in BitterSweet II
Wrapper: Various changes in bridge to prevent freezes
Wrapper: Hide editor windows when showing options window instead of closing them
Wrapper: Fixed some memory leaks
Wrapper: Fixed note velocity for VST 3 plugins
Wrapper: Fixed locating a 64bit plugin from settings
Downloader: Fixed crash when using prev preset function
Downloader: Fixed installation "error [0]"
Downloader: Fixed update of list from within plugin
Downloader: Fixed listing user items
Downloader: Fixed showing unrelated paths for lists that had "FL" download location
FL Studio VSTi: Fixed "no audio" bug when loading FL VSTi from file in Studio One
DirectWave: Fixed loading of compressed wave files
FPC: Notify FL of changed semitone names when loading a mapping

Additions:

Reworked piano roll (vertical zoom).
Mute tool now flips mute state on a whole row when used on side keyboard in piano roll.
Pause key now pauses playback (like ctrl+space).
Added basic support (transport controls) for Kontrolux keyboard.
Added "remember seek time" option (right-click stop button).
Improved deleting of overlapping notes/clips (now only deletes the top one).
Added waveform display helper (Alt+N) to piano roll/event editor (drop sample onto them).

Improved zooming from side keyboard in piano roll.
 Added optional more precise playback indicator in PR/PL/EE (view menu).
 Alt+click or X2 button on ghosted notes switches to the note's channel.
 Shift+wheel now moves channels, mixer tracks, playlist tracks & patterns (in step seq selector) around.
 Improved autoscrolling when moving events around.
 Song loop marker becomes song loop mode for normal markers, right click freed on time bar.
 New handle to rescale scores.
 PR's note hint now also adds key name & MIDI note #.
 Added "Assign all to->MPC/Trigger Finger/padKontrol pads" option in Slicex.
 Improved zooming/scrolling/grids in FL (no more zoom selector) & several plugins.
 Improved right-shift+click on markers in audio editors.
 Double-right click in PR now mutes (but still selects in stylus mode).
 Middle click on PR keyboard to resize it.
 New click-free "magic lasso" experimental feature (works well enough in PR, not so much in crowded PL).
 X1 mouse button on existing notes starts a selection.
 Added "Quick quantize start times" tool.
 Changed Caps Lock to allow resizing notes from left to Ctrl+Home (see Edit menu).
 Line snap=tick snap at max zoom level.
 Browser can be set to auto-hide (docked or floating).
 Fixed multithreading bug with adjacent mixer tracks routed to the same hardware outputs.
 Updated mouse cursors.
 New autobackup/autosave system (that also includes the old trash bin folder).
 "Close all windows" doesn't hide floating toolbars anymore.
 Project browser: "Automation" renamed to "Patterns", patterns in them have proper pattern popup that allow renaming & relocating, patterns have proper colors, and extra mouse buttons move through patterns.
 Added "Lock to most used clip" feature to playlist tracks, to mimmic playlist block behavior.
 Fixed note lengths being off by 1 tick.
 Fixed mouse wheel bug (Delphi's fault).
 Removed old "Main automation" named pattern from (minimal) templates.
 Optimized size of near-empty FLPs a little.
 Middle-clicking <> preset selector brings presets in the browser.
 In pattern mode, single-clicking on clips jumps to patterns or channels.
 Project browser now lists patterns that have steps in the step seq.
 Fixed lots of mem leaks.
 Rendering & loading progress now shows in Windows 7 taskbar button.
 Improved channel's "assign free mixer track".
 Fixed weird escape key problem.
 New vertical zoom in envelope editor (shift or alt+wheel, double middle click, etc).
 Wrapper: Can now load VST3 and 64bit plugins by dragging the .dll/.vst3 file to the wrapper
 Wrapper: Added extra options for fixed size buffers for special cases (mostly hardware-accelerated plugins)
 FPC: Pads can have empty names now
 FPC: Added wheel support and level zooming for env editor
 Fruity Envelope Controller: Added level zooming for env editor
 Newtone plugin
 Pitcher plugin

9.5.0 (7/07/2010)
 (public beta)

Bugfixes:

Little modification in loop recording.
 Fixed memory leak in spectral display.
 Harmless: little bugfix in oscillator import.
 Maximus: fixed bug in oversampling (all times were doubled).
 Fixed "black note=hold, white note=toggle in remote control" that was broken for lower octaves.
 Playlist: marker relocation now undoable.
 Fruity WaveShaper: switching to bipolar behaves better when alt curve point mode is used.
 Fixed bug in playlist clip merging.

Fixed various redrawing oddities.
Fixed adapting automation events when changing PPQ.
Fixed window size bug in Slicex.
Fixed minor inaccuracy in automation clips timing.
Fixed EQ mix knob bug in Fruity Convolver when opening it from menu.
Fixed little drag/drop mistake in Harmless.
Fixed odd bug with effect sidechaining when loading specific projects.
Ogun: fixed tiny memory leak.
Fixed little bug in envelope editor open dialog.
Fixed rare visual bug in env editor.
Fixed slight loop recording problem.
Wrapper: fixed initial size of some VST 3 plugins
Wrapper: fixed mouse wheel speed for VST 3 plugins
Wrapper: fixed issue listing plugin i/o after a change initiated by the plugin
Wrapper: fixed knob mode setting for VST 2 plugins
Wrapper: fixed stack overflow when activating plugin
Wrapper: fixed potential crash while loading plugin
Wrapper: fixed problem for some VST 3 plugins
Wrapper: fixed mixing of multiple outputs to plugin track when fixed size buffers are used
DirectWave: fixed reliance on MS runtime dlls
DirectWave: fixed resizing of options dialog when fonts are scaled
Envelopes: fixed neverending envelopes with unconventional arp setups.

Additions:

Much improved "keep on disk" option.
Piano roll/playlist/event editor: removed "Delete all", cut/copy/delete now applies to all if no (events and time) selection.
Inverted behavior when resizing clips from left side with slip editing.
Prevents early recorded notes when "wait for input" is on but "recording precount" is off.
Improved auto placement of recorded clips in the playlist.
Automation clips & envelope editors: left alt bypasses snap while editing, right alt (& also alt+right click) deletes points, improved step editing (post decimation).
Improved piano roll note display (faster & looks slightly different), ghost notes now really ghosted.
ASIO: now avoids buzzing while lots of underruns occur.
Playlist: tracks can now be resized individually.
F3 in name editor picks last used color.
Added offset feature for better (less bad) DirectSound performances under Vista.
Added new alternate playback tracking mode that doesn't rely on driver, as well as offset.
Added option to mix directly in ASIO's bufferswitch.
New playlist marker options.
Playlist now showing bar #s after 999.
Playlist/piano roll: can now display time segments other than 4 bars (View->Time segments).
Can now relocate project in song mode from piano roll.
Slightly less clicking when switching presets.
Less clicking when relocating songs with audio clips (& granular effect on clips when declipping is generic or above).
Option to move playlist marker content left & right.
Option to play notes crossing playback start position.
Better sorting of MRU colors in name edit.
Improved autoscrolling for some editing features.
Improved playlist Edit->Merge pattern clips.
Piano roll delete/mute doesn't create undo level before actually deleting/muting.
Manual (de)selection now creates undo level.
Shift+up/down now works in playlist too.
New "Merge similar pattern clips" editing feature to merge selected patterns & all their clones.
Playlist: option to disable track grid.
Speeded up playlist display, some new display options.
Time markers now displayed as ticks in main song position slider + their names in its hint.
New "copy/paste value" for envelope (& automation clips) points, compatible with parameter's "copy/paste value".
New "duplicate" (ctrl+B) option in piano roll & playlist.

Event ID ranges are now cached (for speed).
 Improved scrolling & optimized refreshes in PR/PL/EE.
 "Select time around selection" now selects the zoomed part when no selection.
 Activity indicators for playlist tracks.
 PR/PL: Insert now cuts events at mouse cursor position.
 New "wide tracks" mixer view.
 Added support for Cakewalk A-Series controllers.
 Added support for M-Audio Oxygen controllers.
 Left shift+resize now move splits in piano roll & playlist.
 Right shift+resize now rescales events in playlist as well (slightly differently).
 Changed "Make unique" and added "Make unique as sample" for audio clips.
 Home (begin) key now relocates to the bar that's the nearest to the beginning of the view
 (ctrl+home starts from zero) in PR/PL.
 Improved meters everywhere.
 Automation clips & internal controllers don't prevent using event automation for the same
 parameter anymore.
 Changed way channel pitch bend is automated, to allow proper use of link smoothing.
 When an automation clip is created for tempo or channel pitch bend, a default "sane" range is
 assigned to the clip.
 Little speedup in Fruity Limiter, Maximus, Vocodex.
 Edison/Slicex/Fruity Convolver: holding shift while dropping files appends audio to the existing
 data (ctrl still replaces regions).
 Markers now imported from MIDI files to the playlist.
 Little improvements in step edit mode (inserted notes are selected, can now relocate using
 time bar in PR).
 New waveform (peak tracking) view for mixer meters.
 Added "Current clip source" list in playlist track menu (listing the clips sources used in the
 track).
 New triple buffering ASIO mode.
 Wrapper: added messages while plugin is loading and when it's failed to load
 Wrapper: added 32bit bridged mode to run VST 1, 2 and 3 plugins in a separate process, to
 let them use more memory (not supported for DirectX plugins)
 Wrapper: added support for 64bit VST 1, 2 and 3 plugins (not supported for DirectX plugins)
 FPC: small changes to saving/loading
 Maximus: improved crossover.

9.1.0 (2/02/2010)

Bugfixes:

Fixed wrongly reported latency in Vocodex.
 Fixed broken filter tool in envelope editor (in all plugins).
 Fixed little bug in playlist "merge pattern clips".
 Fixed crash in some rare cases when replacing & plugin that has an event being edited in a
 piano roll.
 DirectWave: fixed loading old states saved with total recall
 DirectWave: save wave files before saving the .dwp file
 DirectWave: now responds to FL max polyphony value
 DirectWave: no more drag and drop of foreign formats in DW Player
 DirectWave: "Save program" now shows a dialog window if the filename isn't valid
 DirectWave: minimize lock when loading of settings
 DirectWave: update browser after saving a program or bank
 Downloader: works correctly with unicode characters in filenames
 FL ReWire: fixed crash when closing ProTools with FL loaded
 FPC: show options menu when you click on the pad name label
 FPC: selected layer is now remembered when window is hidden, shown and resized
 FPC: fixed root path for loop files
 Fruity Envelope Controller: small fix in envelope editor
 Wrapper: adjusted pitch bend range selector
 Wrapper: pitch bend range is now saved with other plugin options
 Wrapper: rescan plugin properties after loading settings
 Wrapper: fixed freeze with Fruity Delay
 Wrapper: re-implemented loop position calculation

Additions:

Added "realtime" flag support (useful for hardware-supported plugins).
Browser's F5/F6 (or extra mouse buttons, or ENTER or middle click) now sends to the focused plugin (or the selected channel if there's none) (handy for testing files in effects).
Edison/Slicex: original sample filename now stored in states/projects (to remember the last file loaded).
MIDI import dialog doesn't show for MIDI files with only 1 track & 1 channel.
Right-clicking piano roll's channel selector brings the channel settings and plugin editor.
Added MP3 export to Edison.
Edison (paxCompiler-powered) scripts now support Javascript & Basic.
Changed 'Select' to 'Replace' in effect plugin menu when there's already an effect loaded.
Improved tempo fitting dialog in playlist.
Edison: added "send to playlist as audio clip" shortcut button.
An empty name in the channel grouping edit now sends to the unsorted group.
Changed the method used by assisted PDC a little.
New "PDC for all tracks" helper for PDC.
Improved hovering of contiguous piano roll notes/playlist clips that are grouped or selected.
F2 in name editor cycles through random colors.
New Harmless synthesizer.
New Fruity Convolver effect.
Piano roll note color selector can show special color names for some generators.
FPC: added "Show in browser" option to loop menu
Wrapper: added button to update plugin properties
Wrapper: indicate if note message is realtime or not (VST & VST3)
Wrapper: some more speed when copying interleaved to separated buffers and back
Wrapper: store plugin filename, use it to find the plugin when loading settings

9.0.3 (24/11/2009)**Bugfixes:**

Fixed window focus problem when dropping MIDI files onto a piano roll from an external source.
Fixed problem when creating automation clips for channel parameters in some cases.
Fixed patterns listed in inverted order in the step sequencer.
Fixed slight browser flicker in some rare case.
Fixed open dialog not defaulting to all types problem in WinXP.

Downloader: fixed showing downloader for effect plugins

Downloader: fixed update process

Synthmaker: corrected an issue with exported FL plugins where the plugin wasn't fully instantiated until the GUI was opened

Synthmaker: fixed a bug that prevented sysex from being received from an external MIDI device

Additions:

VST3 plugin support

Dashboard: added "send pitch bend range" option

Wrapper: added pitch bend range selection field

Wrapper: added support for Presonus parameter menu interface (VST3 only)

9.0.1 (26/10/2009)**Bugfixes:**

Fixed minor bug when right-clicking mini piano roll view for immediate jump in some cases.

Fixed minor browser bug.

Kb preview now works better as notes are released when you select another channel.

Changed priority stuff when background rendering.

Fixed bug loading old projects with internal controllers in sends.

Fixed crash in Edison's scratching tool.

Fixed possible hang when using remote control with smoothing enabled.

FPC: fixed issue cutting preview voices

Wrapper: don't respond to "update display" messages during saving

Wrapper: input names were sometimes shortened

Wrapper: fixed deadlock when i/o changed

Fixed little Delphi memory leak.

Fixed crash in Fruity Stereo Shaper when both delay & phase were in use.
Wrapper: rewrote small part of DX plugin initialization
Wrapper: fixed loading old DX plugin state if plugin wasn't found
FPC: pad volume wheel resets to 100% instead of 0%
FPC: mute button now works correctly if there are multiple pads triggered by the same semitone
FPC: deleting a layer would delete two instead of one
Downloader: custom download location wasn't used in some situations
Video Player: fixed "Ignore tempo changes"

Additions:

Added 'Sidechain to this track only' option in mixer.
Added 'Create submix to' option in mixer.
Added 'Override generic link...' to knob popup menu.
Slightly improved Sytrus rendering quality.
Double-clicking a playlist track edits its mostly used clip.
Speeded up refresh of multidirectional playlist scrolling.
Wrapper: added option to disable threaded processing for a specific plugin, applies to any new instance of that plugin
FPC: added random triggering of overlapping layers
FPC: added DW program file import
DirectWave: added trigger groups
DirectWave: searches for samples in subfolder with the program's name when loading a .dwp

9.0.0 (10/09/2009)

Bugfixes:

Fixed dropping mixer presets onto mixer tracks failing to select the right mixer track when shown at the bottom.
Fixed crash when closing FL when playlist was shown & toolbars were detached.
Fixed undocking annoyances in the browser.
Fixed slow undocking of toolbars in Vista.
Fixed Vista blur visible when hiding Wave Candy windows.
Fixed OS error when song was running and returning from Vista's logging window or screensaver, while autoscrolling was on.
Fixed hang when opening FL's main menu while holding accelerator keys in Vista.
Fixed bug in Flangus & Flangus in Sytrus.
Added workaround for missing characters in font used to display old GUI-less VST's.
Updated timers to Vista-preferred ones.
Fixed erratic cursor visible for a short time after dragging from browser in Vista.
CPU meter no longer shows 99% when audio is temporarily suspended (was often reported as a bug).
Fixed visual bug when detaching windows in Vista.
Fixed crash when reloading projects through ALT+x shortcut, while a plugin is detached & focused.
Fixed bug in multipoint envelope processing.
Fixed crash through weird mouse click combo on the plugin preset buttons.
Fixed annoyance in browser's 'show only one folder content'.
Fixed problem when loading Maximus presets made with a specific version.
Fixed some playlist key combo weirdnesses.
Fixed not release defaulted to zero for some functions (step edit, piano roll dumps, etc).
Fixed piano roll flam tool that wasn't starting with the right settings.
Improved piano roll playback tool (can't miss tiny notes with fast mouse slides anymore).
Fixed little thing in mixer's menu.
Step edit mode: improved behavior when going backwards while holding notes.
EQUO: fixed wrong FX send track display when reloading projects.
Fixed possible hang in playlist Insert space/Delete space functions.
Wrapper: fixed chunk size loading and saving bugs
Wrapper: fixed updating the preset list for Attack when loading a Cubase preset
Wrapper: don't save parameters if plugin has chunks but returns 0 for its chunk size
Wrapper: small fix for interfaceless plugin labels
Wrapper: fixed sysex implementation
DirectWave: fixed crash when cancelling "Browse" button

DirectWave: fixed sample loading from absolute paths
DirectWave: more robust external bank import
DirectWave: avoid "no disk in drive" message when loading samples
DirectWave: small improvement to drag and drop
DirectWave: fixed event handling for hosted VST plugin
DirectWave: fixed browser update after clicking "Browse..." button
FL ReWire: now uses tick position for ppq calculations instead of sample position
Cancelling audio clip's "fit to tempo" detection dialog now cancels the fitting.
Edison: snapping to zero-crossing (improved for mono samples) now allows to select edges of sample.
Maximus: fixed display glitch for bands that are switched off.
Sytrus: mouse wheel on pitch ratio selectors now behaves better.
Edison: no more pops in sample playback when selecting.
Edison: fixed tempo set to 120 when undoing in some rare cases.
Edison: hint for tempo grid now properly follows downbeat marker.
No more problem locating project files over networks.
FPC: fixed pause point for layer pan and tune knobs
Wrapper: update interfaceless parameters in the GUI thread instead of the mixer thread
Wrapper: dropping fxb and fxp files on the title bar of the plugin window and on the step sequencer button now works
Edison: changed file-based audio undo system (standalone versions were conflicting).
Fixed playlist automation clip display bug.
Slicex: fixed little declicking glitch for specific cases.
Slicex: fixed little region-related bug when undoing.
Fixed problem with hint system in plugins.
Fixed little stretching glitch in some cases when a downbeat marker is present.
Fruity Reverb: store parameter changes in selected program instead of the first one
Video Player: fixed loading some settings
Downloader: fixed crashes starting a download
Downloader: fixed incorrect "last selected" item
Wrapper: fixed infinite loop when an effect's inputs were inactive
Wrapper: switched off scaling of options window
Wrapper: send special tempo message to old FL VST plugins (mostly for Fruity Delay)
Wrapper: prevent crash when changing parameters on interfaceless plugins
Wrapper: initialize input buffers to zero every time (gets rid of noise in Zebra2)
Wrapper: don't show editor window above options window when opening saved project
Wrapper: sidechain inputs now work correctly (instead of all routed to the track of the first input)
Wrapper: send parameter changes with float value instead of integer (fixes automation recording)
Wrapper: midi in and out ports are remembered
Multiband Compressor: fixed crash related to MS runtime
Wave Candy: Auto visual mode state now properly restored, some other bugfixes.
Slit pattern by channel now preserves pattern's beats per bar setting.
Fixed some common window-related weirdness (windows covering others while they shouldn't, etc).
Fixed troubles with snapping grid with specific PPQ settings.
Fixed minor bug in envelope smoothing tool.
Edison: fixed problem when reloading a state that had envelopes not mixed down.
Fixed problem with FL's hint bar sometimes not refreshing when loading things.
DirectWave: flush plugin if a sampled note didn't reach silence
DirectWave: all zone parameters are now changed for all selected zones, when "current selection" switch is on
DirectWave: mod reset now works for multiple selected zones
DirectWave: fixed the way a soundfont property was counted on import
DirectWave: overwrite existing wave files when sampling a vst (but only .wav files)
DirectWave: make sure the samplerate is sent to the plugin before processing a vst plugin
DirectWave: DW no longer steals keyboard focus, except for edit controls
DirectWave: Loading a DWB file now tries to load a sample from file if it's not in the DWB
DirectWave: DWB files now save a reference to the file instead of the sample data when total recall is off
DirectWave: fixed acm import - sample length wasn't adjusted after conversion (was

sometimes less than predicted)

DirectWave: Fixed mouse position inaccuracy for pitch bend and mod sliders (multi tab)

DirectWave: put critical section for sample preview slightly earlier

Downloader: store location in global registry during installation, instead of just in local registry

Downloader: fixed some crashes when the downloader couldn't find the download dll

Downloader: selection window now has minimum size

Downloader: fixed bug that caused downloads to start again after being finished

Downloader: fixed download location calculation in manager

Wrapper: Ampersand was shown as a shortcut underline in the options window (info section)

Wrapper: fixed a bug loading Arturia AnalogFactory settings

Wrapper: midi port changes after a plugin was dragged didn't make the wrapper ask the host to enable midi input

Wrapper: Added code to load shell plugins from different filename than when they were saved

Wrapper: use different way to determine if a plugin is VST1 or not

Wrapper: removed first check for value of FruityPlug in UpdateSize to make sure editor size is updated when loading the plugin fails

Wrapper: don't get parameter labels and value for shell plugin (waveshell) to prevent crash

Wrapper: fixed buffer (effect version) now doesn't zero output buffer and takes into account plugins without inputs

Wrapper: fixed assumption that an effect would have inputs

Wrapper: "onlysavefirstprogram" workaround for Blood Overdrive and Compressor is now used for all VST1 plugins

FL Keys: high notes are now always decayed on release, instead of released immediately

Fixed minor automation bug in Slicex.

Fixed minor graphical mistake in mixer skin.

Up/down controls should now have no more problem with multiple monitors of different sizes.

Downloader: fixed prev preset selection

Downloader: fixed focus bug related to modal content selector

Downloader: fixed bug executing items after download, wrong list was used

Downloader: paused downloads are now added at the top of the list

Downloader: tree will refresh less frequently

Downloader: now deletes all relevant .info files when removing waiting or finished downloads; tp get rid of multiples

Downloader: tree won't jump back to top when refreshing in response to finished download

DirectWave: made sure soundfonts load even though a (previously mandatory) chunk is missing

DirectWave: added support for 24bit and 32bit aiff files

DirectWave: fixed loading soundfonts with multiple banks/presets when those were resorted

DirectWave: continue to load soundfont even if it doesn't have the "isng" chunk

Wasp XT: fixed graphical glitch in slider button

Wasp XT: parameters past unison had the wrong index when sent to the engine

Wrapper: calculate new sample position when plugin is processed, instead of when wrapper is processed

Wrapper: decreased max value of interfaceless wheels to prevent weird behaviour

Fixed memory leak in browser.

FL Studio ReWire: fixed bus enumeration bug

Wasp, Wasp XT: fixes related to parameter handling

Wrapper: Check if current program index is valid when loading

Wrapper: Check if the current program index is valid when saving

DirectWave: can hear hosted VST plugin again (to preview sound)

DirectWave: 440Hz tone works again in FL version

FPC: some gui tweaks

FPC: assign entire font instead of just color and style in SetComponentProps

FPC: selected layer is no longer reset when resetting an automatable param

Downloader: files would keep coming back if deleted with right-click

DirectWave: fixed loading (not loading) settings in player and demo mode for FL version

DirectWave: fixed product code communication in FL version

Wrapper: note on/off messages to DX plugins now work again

Wrapper: don't show hints for parameter changes while a parameter is being changed from the host

Wrapper: inputs and outputs were set to inactive for old settings

Additions:

Wave Candy: added rounded corners size selector, made Vista blur look better, made preset switching faster.

Improved multithreaded generator performances.

Improved audio performances in Windows Vista.

No one really asked, but auto scrolling state is now saved & restored.

Updated compiler (D2007), drag&drop component, IPP library to latest versions.

Added Janko layout to typing-to-piano keyboard option.

Maximus now significantly faster.

Plugin picker: thumbnail hint now shows all of the plugin's categories (also selected through arrows or mouse wheel), + other improvements.

Added multithreaded mixer tracks processing, and moved CPU settings to the audio panel.

Added global smart disable checkbox & new aligned tick lengths checkbox.

New debug log in settings window.

Can now double-click on effects in plugin picker.

Added multithreading to effects processing.

Can now drop effect presets onto mixer tracks & channels, mixer track presets onto effect slots and channels, channel & generator presets onto mixer tracks & effect slots.

Shift+F8 now brings plugin database.

Automation and Humanizing presets folders relocated to the Scores folder.

Can now drop automation FSC's onto piano roll (when a controller is selected).

Added access to Windows file shell menu from browser item menu.

Added new browser folder icons & new 'Recent files' browser folder.

Added starting & (approximate) working time information in project info window.

Controls (in FL & FL plugins) now properly support Vista's window rescaling (font size).

FL now accepts file drops in copy, move & link modes.

Alt+drag from browser = force drag in 'link' mode.

Edison now drags files in move mode, to avoid extra temporary files (when dragging from an Edison/Slicex/Sytrus to another, or between Slicex decks).

Dropping file onto the 'Open audio editor' shortcut button now opens it in a new audio editor.

Dropping file in 'move' mode (e.g. from Edison/Slicex/Sytrus) onto browser moves file to browser folder it's dropped on.

Wave Candy now behaves better when 'Stay on top' & 'On desktop' are off: both off = normal floating window, Stay on top on / On desktop off = will be hidden when popup dialogs appear.

Added scrollbar for zooming to Fruity Envelope Controller in key & vel mapping modes.

New browser 'Sort by -> Group' option to put most important folders on top (sort group in .nfo files).

Song info window now shows up while loading project.

New (optional) big hint bar, showing progress more clearly when loading projects or processing lengthy stuff.

Edison/Slicex: new 'Export regions->For sampler use...' that exports with marker middle notes, and improved export.

Improved envelope point decimation (used in automation-to-automation clip & Sytrus/Ogun).

Can now drop audio files onto most envelope editors (does same as audio analysis).

Playlist now sticks to right edge when browser is resized.

'Close all windows' now closes detached windows too, and added 'Close all unfocused windows' option, to keep the focused one open.

Missing plugin warning (now only once per plugin type) now the same for wrapped VST's.

Added browser hovering helper for too large items.

Envelope step editing now works with snap off, with point decimation.

Edison can now be maximized (double-click titlebar or press enter).

Added level scaling & point decimation tools to envelope editor (in plugins).

Shift+mouse wheel to quickly zoom browser.

Extended browser extra search folders to 30 entries.

New (fortunately optional) project data folder setting.

Fruity WaveShaper: gutter is now clickable.

Playlist Edit->Insert / Delete space now cuts through playlist clips.

Plugin picker now features categories.

Enlarged playlist & piano roll time bar, playlist panels are not swappable anymore.

Piano roll / playlist local menu (F3 or extra mouse button 2) now lists editing modes.

FL's audio displays now show proper region purpose colors.

Playlist: extra mouse button brings clip source selection popup.

Fixed (I think) infamous invalid playlist clips bug.
Added random color option for patterns, made playlist clip focus selector update along with default item.
Added useful colors menu to name edit dialog (right-click color button for random color).
Audio clips are auto-colored when dropped (& playlist track is auto-colored when clip is dropped on it).
Added 'Select by selected source' in playlist, to select clips of patterns or channels that are selected.
Brand new playlist track naming & tools for better song organization.
Mixer icons now available to channels (& playlist tracks).
New playlist 'behind clips' modes (& old bevelled mode is gone).
Playlist auto-focuses clip type when current clip source changes.
Improved playlist clips display at small sizes.
Added 'Deselect' & handy 'Select time around selection' option.
Added a couple of new mixer icons.
Improved 'Best fit' & 'On selection' zoom presets (will zoom on selected items if no time selection exists).
Improved note & clip deletion (won't miss events when rapidly deleting) & fixed little bug in note deletion from note properties.
Added note & clip muting.
Improved note & clip moving/resizing detection.
Added note & playlist clip grouping (works on selecting, moving, resizing, deletion, muting, shifting using mouse wheel).
Recorded audio clips in loop recording mode are now muted, instead of the associated channel.
Added 'group notes' option to piano roll chop, arp & flam tools.
Improved vertical scrollings in event editor / piano roll / playlist.
Middle click now works as panning & works vertically as well in piano roll / playlist, and made it work in event editor as well. Shift+middle click or shift+right click works as old (inverted) bidirectional scrolling.
Alt+mouse wheel on playlist now vertically zooms in-place (like ctrl+wheel on time).
Added support for Korg nanoKEY, nanoPAD & nanoKONTROL controllers.
Added button for portamento (just like for slide) to piano roll.
Piano roll / playlist: right alt + right click to quick quantize a single note / clip start position, end position, or both (works in slip edit mode too).
Piano roll / playlist brush mode now works better for note / clip lengths that aren't quantized.
Improved Edison's resampling (for even better prefilter transition).
Added 'Only with selection' & random seed options to PR articulate tool.
Added 'Center' knob to piano roll / event editor level scaling tool.
FL built-in tempo detector changed to alternate (constant tempo) one.
Edison: new Regions->Detect beats option.
Edison / Sytrus / others: added new envelope point modes.
'Make unique' on automation clips now copies (preserves) the link to the control(s).
Right-clicking the piano roll 'select' button brings the select menu.
Ctrl+Shift+right click in playlist zooms on a single clip (handy to edit automation clips).
Improved oversampling quality & speed (Sytrus, Fruity WaveShaper, etc).
Groove quantizer: can now delete notes too (by just setting velocity to 0 in templates).
New 'Riff machine' piano-roll tool (see Tools in main menu as well) to create riffs by blending various templates & settings.
Sytrus: added new 'improved', 'even' & 'blurred' unison distribution modes (see options menu).
MIDI input messages are now logged (only when log window is visible).
Number of insert tracks upgraded to 99, for a total of 105 mixer tracks.
Slicex: right-clicking slice output selector now brings a popup listing mixer track names.
New Fruity Stereo Shaper plugin (for stereo splitting and effects).
Edison: new 'Lossy normalize' option to maximize short samples without audible loss.
Edison: setting sample to tempo-synced defaults the tempo (if not set yet) to the one of the host.
Audio files recorded from FL's mixer now embed tempo information (the tempo at the time of recording, for audio clip's 'Fit to tempo' to work without having to guess the tempo).
Last tweaked parameter menu moved from plugins to FL's Tools menu.
New 'Tools->Last tweaked->Override volatile link...' to set up a MIDI knob that always controls the last tweaked parameter.

Multilink to controller's LED popup now applies to the last 2 tweaked params if the list is empty.

Wave Candy / Fruity Dance: anim window popup now features 'View settings' to bring up the actual plugin editor.

Fruity Dance can load user sprite sheets.

New 'Claw machine' score tool in piano roll (works well along with Slicex).

Edison: right shift + mouse for tempo fine tuning.

PR/PL/EE, and Edison/envelope editors: new autoscrolling when hitting edges while editing.

PR/PL: new "snap to other events" mode (also works with ghosted notes).

Event editor can now be aware of which plugin parameters appear 'centered' (supported by Sytrus so far).

Some menu items (save plugin preset & score) can now be dragged around (like browser files).

Added option to invert piano roll grid colors (for improved readability).

Wave Candy: added new metering modes for loudness visualization, and new vectorscope visualization, also mouse X1/X2 buttons switch mode.

Can now drop channel data (samples, etc) onto piano roll (more intuitive for Slicex).

Holding ALT while SHIFT-rescaling piano roll scores snaps rescaling ratio to 25%.

Missing project samples now located first in project folder, then only in last folder where previous missing data was found.

Loading a project with missing samples now asks for the content downloader to locate them.

Right-clicking the 'enable effect slots' mixer buttons now shows or hides editors of all plugins for that track.

Fixed little Slicex resizing glitch.

Slicex: improved realtime & offline in/out declicking.

Incoming MIDI notes now have their MIDI channel mapped to the corresponding selected channel in FL (MIDI channel 1 controls first selected channel, MIDI channel 2 controls second selected channel, etc).

Edison: added new spectrum display gradients.

Audio clips (& sampler channels): added various declicking modes in channel settings window.

Envelope editor: improved tools.

Ogun: new Create pad harmonics tool.

Newbie enhancement: 'Start on input' feature is not saved/restored anymore.

Can now export a piano roll to a MIDI file (notes only).

Dropping audio clips onto playlist aligns them properly according to the downbeat marker (if present).

FruityLoops Edition users who have purchased Edison VST can now use the FL version in FL.

Updated to LAME 3.98.2.

Improved playlist mouse wheel scrolling.

Right-clicking the playlist clip focus button brings a list of either audio, automation or pattern clip sources.

Improved "split mixer tracks" rendering filename management.

Edison: new "natural weighting" & improved "natural scale" for better spectral display, as well as new (slow) high quality mode that brings both time & frequency accuracy (especially in natural scale mode).

PEQ2, Wave Candy & FL now use natural weighting for their spectral display.

Added note helping lines in piano roll when notes are played.

Improve envelope editor's envelope smoothing tool & decimation tool.

New envelope filter tool in envelope editor.

Wave Candy: improved scale feature, and added piano kb helper to spectral display.

Fruity Reeverb 2: added option to process side.

Improved mixer's input "automap" feature (doesn't map mono inputs, and doesn't route them to master to avoid feedback).

Updated scripting engine used by Edison scripts (should allow VB scripts now).

Updated score logger to work better with tempo changes (works a little differently now).

Can now delete playlist clips from their menu (handy for overlapping clips).

Added note preview when changing velocity (or other properties) in piano roll using ALT+mouse wheel on nearest note.

Edison: improved loop tuner (new tension feature).

Change: audio tracks are no longer set to "cut themselves".

Slicex: new attempt at auto-naming regions (only kick, snare & hi-hat for now).

Removed RBS file import (not much useful anymore).

Added option to open Fruity LSD in MIDI import dialog.
Added support for sample preview in browser & plugin picker using NFO files using "Preview=SampleFileName".
Browser now lists DWB files.
Edison can now export to OGG files.
'Waiting for input' feature now 600% noob-proofed.
Support for WavPack files in FL, Edison & Slicex, preserving original WAV info.
Plugin picker now answers to alphanumeric keys.
Added glow/shadow border option to Wave Candy.
Speed up in sinc interpolator.

Wrapper: added option to steal keyboard focus from the plugin
Wrapper: adapted to new drag and drop implementation
Wrapper: buffers are now aligned better
Wrapper: adapted effect version to be threadeable
Wrapper: added "Record parameter changes" option
Wrapper: added options screen to replace options menu
Wrapper: implemented multiple inputs and outputs for effects
Wrapper: multiple inputs and outputs now works with the "Use fixed size buffers" option
Wrapper: can now load new "shell" plugins (WaveShell v5 and newer, mostly)
Wrapper: minimize locked time when loading a plugin
Wrapper: re-implemented saving and loading of settings to be more future proof
Wrapper: optimized most buffer operations (copy/add/interlace/deinterlace)
Wrapper: new look for interfaceless editor
Wrapper: now loads VST 1 and DX plugins automatically, instead of FL's internal host
Wrapper: fixes to save/load settings for Fruity Compressor and Fruity Blood Overdrive
Dashboard: send controller values on playback start
Fruity Squeeze: adapted to be threadeable
Fruity Multiband Compressor: adapted to be threadeable
Fruity Scratcher: adapted to be threadeable
Fruity Video Player: adapted to be threadeable
FL Studio VSTi: added tray icon to easily show/hide FL window
FPC: pad now triggers different velocity depending on vertical position of the mouse cursor
FPC: added "Show GM note names" option to show/hide names in the note selection menu
FPC: adapted to new drag and drop implementation
FPC: added popup menu with mixer track names to output selector
DirectWave: increased maximum polyphony from 64 to 512 voices
DirectWave: added browser preview volume control
DirectWave: added home button in browser
DirectWave: browser paths are shortened when they're inside the content library folder
DirectWave: added option to copy imported dwp and its samples to the content library folder
DirectWave: re-arranged options window
DirectWave: new import dll
Downloader: bring selection window to front when it's opened again (from FL's news toolbar or from plugin)
Video Player: load video when file is dropped on title bar or step sequencer button
Wrapper: load VST plugin when dll file is dropped on title bar or step sequencer button
DirectWave: added control to set maximum release time for sampled notes
DirectWave: implemented new downloader interface, modeless
DirectWave: click on empty area in scrollbar(s) to go to that position
DirectWave: Updated CT dll
DirectWave: Reduced max polyphony to 256 to reduce cpu usage when idle
Downloader: cache results of product code registration check to speed it up a bit
Downloader: implemented ilreg system
Downloader: improved filter speed
Downloader: only filter when filter text is at least 3 characters
Downloader: Implemented delete, move up and move down for items in manager's list
Downloader: ToxicBio, Sawyer and Morphine downloads can now also be downloaded from the selector (if the plugin is installed!)
Downloader: improved "last view" behaviour a little bit
Wrapper: now reports the sound device's i/o latency to the plugin
FPC: layer shows newly added item (i.e. scrolls to it)

Downloader: added buy button
Downloader: Changed status bar message for failed downloads, when the user is boxed
Downloader: option to load regcode from file now also works in Windows
Downloader: added "download regcode" menu item in manager
Downloader: added possibility for web link items
Downloader: double-clicking a failed item will go to the registration page (boxed) or retrieve regcode page (online users)
Downloader: changed text for boxed registration popup menu item
DirectWave: added "copy to all zones" options for a number of zone properties
FPC: added some more locks when creating layers
FPC: new skin, some more changes
FPC: added possibility to "spread even" on a logarithmic scale
FPC: locking layers doesn't automatically spread them even anymore
FPC: now remembers the midi loop name when preset/file is loaded back
Wrapper: cleaned up error message when DX plugin isn't found
Diagnostic: changed "fruity fonts" font to "tahoma"
Wasp: decided on a volume log scale to get the new Wasp engine as close to the old one as possible
Downloader: changed buy and info links
Downloader: use image-line.com for redirect link instead of flstudio.com
DirectWave: implemented ilreg protection
DirectWave: added wavpack support
Downloader: set on top if modal
FPC: implemented .padpreset loading in FPD_LoadFile
Wrapper: added "Reset plugin" button to Info page of Options window

New plugins:

Ogun: synthesizer specialized in metallic timbres.
Gross Beat: beat rearranger effect.
New Autogun synthesizer based on Ogun.
Vocodex: vocoder effect.

Implemented & removed:

Right-clicking playlist items no longer deletes them (hold halt to do so). (thrown, user complaints)
Can now middle-click working area to "pan" plugin windows (ONLY plugins, as it's designed for oversized VST's). (thrown, too many annoyances)

8.0.2 (05/06/2008)

Bugfixes:

Fixed rare crash when loading new project while playlist is visible.

Additions:

Added preview to Edison & Slicex tools.
Added knob for note release in step sequencer & piano roll randomizer tool.
Implemented new audio clipboard format to counter Windows'es inability to handle long bits of audio.

DirectWave:

Fixed vst rendering if a plugin reports zero programs
Fixed window resize (window kept getting bigger)
Fixed memory leak when loading external banks
Create Temp folder before import of external banks
Browser is refreshed when the lib path changes
Fixed crash when importing samples with long filenames (longer than 31 characters)
Fixed a mouse capture issue
Fixed bug exporting waves for VSTi programs that start or end with spaces
Fixed some small visual glitches
Fixed filename extension extraction bug
Increased browser button size
Removed mouse wheel velocity sensitivity
Added tablet pc / stylus option for controls

FPC:

Fixed crash when sample is used normal and reversed
Doesn't load the midi loop into the pianoroll anymore when changing preset

Fruity Wrapper:

Fixed glitch when changing "bottom toolbar" setting
"Send pitch bend range" is now off by default
Fixed buffer size communication bug on plugin initialization

8.0.1 (21/04/2008)**Bugfixes:**

Added missing folders in the Patches folder.
Fixed hints on renderer's bit depth selector.
Fixed misaligned browser thumbnails when file extensions are shown.
Fixed very rare browser bug.
Fixed bug in multipoint envelope release when release time was zero.
Fixed little Slicex bug.
FPC: doesn't load the midi loop into the pianoroll anymore when changing preset.
Wrapper: fixed bottom toolbar behaviour.
Wrapper: "Send pitch bend range" is now off by default.
Wrapper: fixed buffer size in some cases.

Additions:

Right-clicking browser button now brings plugin picker.
Made Edison & Slicex load associated ZGR files.
Gave ZGR files less priority than built-in WAV slicing information.

**8.0.0 (09/02/2008)
10 years****Additions:**

anniversary! New **Slicex** drumloop slicing generator plugin.
New **SynthMaker** modular environment.
FL finally supports MIDI SysEx input, and handles basic MMC functions.
Added error message at startup when MMX or SSE1 is not found.
Cleartype not forced on anymore for mixer labels for Win9X platforms.
Right-clicking splitters (browser, piano roll, playlist) for spare position.
Project browser: can show/hide plugin editors from the generators/effects folders.
Generator smart disable is now compatible with threaded rendering.
Added mouse wheel support to popup menus & combo selectors.
Added some extra mouse buttons support.
Added (manual) plugin editor thumbnails to project browser.
Sinc interpolator now faster (64point sinc now usable realtime).
New slope modes for LP/HP/LS/Peak/HS bands in Parametric EQ 2 plugin.
New 'multilink' option for quicker remote control assignment, creation of multiple automation clips, etc.
Added 'Edit whole mapping' to Remote control part of the project browser.
Optional stereo waveform display in playlist.
Re-implemented CME UF keyboard support (although MIDI feedback sometimes makes no sense).
Parameter smoothing now works for relative knobs or other incremental MIDI controls too.
Improved parameter smoothing.
Can now define absolute increment steps in MIDI remote control window.
Playlist->Edit->Shift left/right now works for audio clips too (including using control surface jogs).
Added full support for the Mackie Control Universal.
Improved support for some controllers.
Improved 'undo knob tweaks' to support tweaking several parameters at once without slowing down.
Love Philter: piano keys assigned to patterns.
Tweaking controls on VST(i)s now show a hint message in FL's hint bar (when possible).
Wave Candy: fixed some bugs & added Vista window background blur.
Updated to LAME 3.97.

Improved latency compensation 'Set from' option.
Rendering with latency compensation.
Added slip editing in playlist clips, as well as little changes in resizing tools.
Improved accuracy of MIDI input recording under high GUI CPU load.
Can now move effect slots around using the mouse wheel.
FL (& some FL plugins) now support .ogg format.
Introducing 'Selected' mixer track, to which the selected mixer track is routed, and in which you place visual effects or a recording Edison.
Ctrl+E to quickly open an audio editor in a mixer track, or Shift+E to open an audio logger.
Added score logging feature, not to miss scored played while testing.
Piano roll: added 'Select at random' to select 10% random notes, for variations.
Playlist: clip source selection now in titlebar, and clips panel now on top by default.
One-click audio recording now prompts to record in Edison.
Improved RAM usage meter for some systems.
Can now resize multiple playlist clips at once.
Caps lock function changed to allow resizing of notes from left side in piano roll.
Added recording filter (right-click record button).
Newbie enhancement: snapping is on by default.
Newbie enhancement: browser snapshot now defaults to slot 1.
Newbie enhancement: window menu icons replaced by holly down arrows.
New spectral view in monitor panel.
DrumSynth: added call to SendPatchToEngine to Voice_Release, to temporarily fix a release problem when multiple voices are active
Automation now displayed in pattern clips, improved event editor display.
Channels in piano roll channel selector are now sorted by channel group.
New list of available patterns when right-clicking the pattern selector.
Patterns named '-pattern name' now act as separators in lists.
Added OGG Vorbis rendering target.
Added randomize & humanize to multilink menu.
Default audio device changed to ASIO4ALL.
Newly-recorded patterns now added as pattern clips (when in song mode).
Fruity DX10: mod init and sustain calculations now also take samplerate into account
Changed piano roll keyboard modifiers a little (see help file) to add a new SHIFT+click to add note in resize mode.
Added 'Send previous/next to selected channel' option in browser. Works well with extra mouse buttons too.
Default peak meters scale bottom changed to -70dB, alternate scale down to -50dB.
Introducing FL-chan in wallpapers.
Newbie enhancement: 'save as' icon blinks once 5min after the last save, then each 30sec after 10min.
Changed generator multithreaded processing method a little.
Adapted wav file loader for more bad interpretations of a bad format.
Mapped incoming "all notes off" MIDI message to panic.
Removed obsolete '16.8' version of the 32Bit wav rendering.

Edison:

EQ, blur & reverb tools now remember their envelope editor settings.
unselects when live selection is too short (<150ms), and added live selection as published parameter.
new fancy waveform display mode, and option to export display to bitmap file.
added stereo waveform display.
new slave sync, pause button, transport active when not playing, support for control surfaces and keyboard input (to slice or for sampler preview).
can now link notes to markers/regions (for use in Fruity Slicer).
added "Undo mix (spectral)" and "Paste mix (spectral)" features.
added keyboard (to note or to slice) preview.
added 'quick rename (all)' option to rename all regions to drum names.
Edison & Sytrus now captionize themselves when starting a sample drag.
new Tools->Send to playlist as audio clip, to send the clip to the playlist at selection, linked to the same mixer track as Edison.

new drum(loop) stretching tool (& paste replace (drum)), with improved gaps filling.
CTRL+DRAG drums from one instance to another, to replace drums in a loop with drums from another loop.
slide option now works on markers/regions too.
hold right-shift to move markers more accurately (temporary zoom).
New phase editing feature in Edison's EQ.
Added middle note & score detection
Improved smoothness when recording for several minutes
new 'dual view' mode showing both waveform & spectrum.
added tools->sequencing->send to selected channel, to quickly send audio to the selected channel without dragging (mainly for Fruity Slicer).
Changed spectral display's windowing to Kaiser.
new support for region types, and grid aligned to first downbeat marker.
new tempo detector that gives better results for fixed-tempo songs.
added 'Time format' menu to display time regardless of the grid mode.

Dashboard:

fixed scroller freeze issue
edit string dialog now pops up on correct screen
"send value" for patch control no longer generates an exception
messages are no longer added to a buffer to be sent during processing

FPC:

invalidate synthpanel on resize, to avoid graphical glitch when resizing the editor with "Show window contents while dragging" off in Windows
mouse wheel now changes pad
some cosmetic changes
pan envelope is now bipolar
fixed some save dialog glitches.
fixed envelope handling.
added wave preview in open dialog.
small UI changes
better behaviour when samples are missing
changed direction for changing pads from mouse wheel
fixed midi loop loading, it now takes into accounts the steps per beat

Video Player:

do nothing in TVideoViewer.AcceptMediaSample to prevent creeping cpu usage
moved position updates from Process to Idle function, to save some cpu usage
detached video will now keep playing if the plugin editor window is hidden
added "Ignore tempo changes" option
fix to prevent rising cpu usage.
"render fast" is now the default

Fruity Wrapper:

"Export all programs as Cubase presets" saved the current program in every file
fixed new implementation of ProcessParam to avoid "integer overflow" exception when adding an automation clip
added hint when plugin parameter changes
some fixes in ProcessParam
now flushes plugin (inactive/active) in the PlugIOChanged callback
don't send "all note off" message for effects
the fixed size output buffer for effects are now initialized to zero before processing
now call AllocBuffers when the blocksize changes
renamed menu items for saving/loading fst and fxb files to "VST" instead of "Cubase"

added "Send note off velocity" option
implemented support for sysex messages sent by the plugin (untested)
let FL re-read key names when updateDisplay message is received from VST plugin

DirectWave:

fixed bug showing save program dialogs
added file compatibility options to (global) options dialog
"gain" control on zone tab now defaults to 0.0dB again
"gain" control on zone tab is now multiplied to the volume instead of added
updated downloader implementation
double-click on zone (or zone index) now opens sample tab
now need to right-click on sample scroll bar to zoom
fixed drag&drop crash
made library scan (for popup menu) a lot faster
fixed browser resizing from config dlg
fixed behaviour of browser expansion with multiple instances
changed volume and velocity implementation
re-implemented soundfont support, now supports 24bit soundfonts
fixed resizing in FL version, made it more spec-compliant in VSTi version
some VST specific improvements
fixed crash in VSTi when opening/closing browser because of incorrect FL version check
effect switches on the zone page now also act according to the "global" switch
improved demo mode save/restore for VSTi version
fixed window size bug (browser open/closed) when opening editor
fixed ogg import, made it use 32bit float samples instead of 16bit int
restructured files, recompiled
fixed "full range" behaviour for selectors

(Bug)fixes :

Bugfix in envelope point snapping.
Bugfix in Sytrus unison sub.
Little bugfix in Edison's looping tool & trimming option.
Bugfix in stretching engine.
Bugfix in monophonic mode combined with Fruity Slicer plugin.
Fixed weird bug importing corrupted playlist data from FL6 projects.
Fixed keystrokes not getting to FL when mixer was detached & focused.
Fixed strange bug with ASIO.
Fixed little bug when reordering mixer tracks.
Fixed crash when closing FL while project browser was open.
Fixed tiny browser bug.
Fixed bug in WaveShaper & Sytrus bipolar to unipolar mapping conversion.
Fixed thread-locking issue with multiple smoothed up remote control combined with visible project browser and knob tweak undo enabled.
Bugfix: quick quantize no longer resizes playlist clips.
Fixed rare arpeggiator bug.
Fixed problem loading some VST 2.4 plugins.
Little bugfix in Sytrus envelope release combined with sustain level.
Fixed crash in Vista when Data Execution Prevention is on
Fixed some possible deadlocks when MIDI-controlling parameters.
Fixed little bug in Fruity Slicer's note dump.
Fixed little problem in MIDI input window.
Fixed big bug in wav file loader when regions have comments.
Changing MP3 bitrate in renderer now doesn't reset all plugins anymore (was slow for some plugins).
Fixed browser not restoring top item in some cases when switching snapshots.

7.0.0 (03/01/2007)

Little GUI redesign.
Sytrus: hint in harmonics editor not lagging anymore.
Sytrus / envelope editor: ctrl+shift to bypass point snapping.

Sytrus / envelope editor: multilevel undo & display updates.
Fixed little memory leak in browser's history.
Fixed wrong displayed hint for automation clips.
No more flicker when resizing plugin windows.
New resampling engine, support for mono & 32bit wav.
Mapped scroll-lock key to FL's autoscrolling.
Switched to Delphi 2006.
Fixed tiny glitch with mixer icons.
BeepMap: can now drop bitmaps onto channel buttons.
Improved audio recording to disk (no more crackles when recording lots of mixer tracks).
Reworked toolbars, with CPU usage graph and RAM meter.
Can now edit samples from the browser item popup.
Can now drop any file onto the browser to get the folder added to the extra folders (handy when using the browser to preview sounds).
Added large browser aspect.
Fixed minor bug in multiband compressor (master meter was all mono).
Fixed crashing bug in granulizer.
Little bugfix in Fruity Delay Bank.
Small UI changes & optimizations in Sytrus.
New Fruity Love Philter effect plugin.
Sytrus: little speed improvement when processing arpeggiated/gated presets.
Audio device now stored by name rather than by index.
New Edison audio editor.
Right-shift in piano roll & playlist to pan the editor (same as in Edison).
Support for 16bit integer/32bit float/mono/stereo samples inside FL, Fruity Granulizer & Fruity Slicer.
Faster slicing in FL, Fruity Slicer, Fruity Granulizer and Edison.
Added spectral view in Fruity Slicer.
Sytrus: several speedups when triggering voices, computing & importing shapes.
Fixed crashing project browser when a mixer control was linked in omni mode.
Sytrus: slightly improved plucked string generator.
Fruity wrapper: added "Invalidate editor window" option (on by default)
Fruity wrapper: fixed bug in preset names that start with "-"
Fruity wrapper: bugfix: effect version copies input to output when no plugin is loaded
Fruity wrapper: bugfix: "fixed size buffers" option is now saved for each plugin
FPC: added popup menu for sample displays
FPC: middle-click on a sample display now opens that sample in Edison
FPC: fixed layer display after dropping a wave
FPC: fixed a crashing bug with empty layers
FPC: reimplemented resampling
FPC: re-implemented sample loading, it's now independent of FL's sample loading and loads mono and 32bit samples faster
FPC: fixed two bugs importing midi files and other minor bugfixes
ReWired: added selection of bus and channel for the ReWired channel to send its notes to (midi options window)
FL DXi: updated calculation of time information to prevent continuous resynchronizing in Sonar versions 4.04 and up
Edison: much improved spectrum display.
Sytrus: little speed & quality enhancement and now up to 256 harmonics per operator.
Sytrus: fixed rare crash when editing waveshaper envelope.
Added new stretching methods to FL & Fruity Slicer.
Added stretching tool to Edison.
Mono ASIO inputs now listed in the mixer's input list, so that you can record from mono sources.
Fixed little bug in mixer state loading.
Added 'stairs' line mode to envelope editor.
Some generators can now be threaded for some CPU gain on dual cores.
Introducing smart disable mode for generators as well.
Improved fading/declicking in Edison, Fruity Slicer and FL.
Fixed rare mixer track relocation bug.
Fixed unreleased notes when using sustain in recording mode.
Linked sustain pedal to step jump in step editing mode.

Sytrus: unison panning, volume and pitch now update running voices when automated.
Sytrus: added 'bipolar LFO tension' option to LFO's.
Sytrus: added cherry phaser filter.
Browser now previews the sample's root note.
Added more safety checks for bad wav samples.
Plugin windows & mixer can now be detached from the main window.
Fixed tiny keyboard problem with detached windows.
Added pattern clips to the playlist.
Improved zoom tool in playlist tracks.
Ctrl+right click = zoom in playlist & piano roll.
Undo for automation clips, and more meaningful undo names.
Can now turn event automation into automation clips.
Double-click pattern clips to edit its contents.
Spectrum can now be displayed in channel settings & audio clips.
Support for AIFF files in sampler channels & Edison.
Support for Apple Loops AIFF extensions.
Updated zipping DLL.
Dashboard: added "Send all values" option
Dashboard: fixed sending values of switches and patch selectors
Dashboard: updates for note off velocity support and note on velocity calculation
DirectWave: now loads AIFF samples
DirectWave: VST preset file loader in autosampler
DirectWave: lots of bugfixes
FL Keys: fixed loading of some 16bit waves
FPC: reimplemented voice and envelope processing
FPC: now loads AIFF, MP3 and REX files
FPC: now exports to SFZ format
FPC: preview notes now also trigger cut groups
FPC: fixed layer tune
FPC: allow selection of regions in a wave for start/end points
FPC: added possibility to keep current note layout when changing presets
FPC: added option to map every pad to a note one by one (per bank)
FPC: the pan envelope can't cut a voice anymore
Edison: new click-free editing.
Added 32Bit stream option to DirectSound output.
FL is now optimized for ClearType.
Fixed 2 minor glitches in PR.
Escape to abort file searching is now more responsive.
Added 'huge' to browser size modes.
Playlist clips can now be smaller.
Fixed occasional crash when assigning hardware XY controllers to params.
Assigning notes to slices made easier in Fruity Slicer plugin ("Last hit key" in menu).
Double-clicking a pattern clip opens the piano roll/event editor at the time it was clicked.
Added support for Novation ReMOTE SL controller.
New velocity & release mapping curves in the MIDI settings.
Support for note off velocity in piano roll, imported MIDI files, MIDI out & Sytrus plugins.
Sytrus: unlink velocity from volume, link velocity & release to attack & release.
New online news & events toolbar.
Fruity Slicer: can assign a slice to the last hit key.
Fixed MIDI file import bug.
Little fix in wav file loader.
Video Player: fixed time calculation for steps per beat other than 4
Wrapper: added "Save all programs" option
Wrapper: several bugfixes
Wrapper: added "MIDI Channel Aftertouch" special parameter to control aftertouch in a plugin
'Set smart disable for all effects' changed to 'Set smart disable for all plugins' (now including generators).
New Fruity Parametric EQ 2 plugin.
Fixed crash when deleting channels while project browser was open.
Fixed old bug in audio clips.
Fixed threading problem with smart disable.

6.0.8 (13/01/2006)
(bugfixes!)

Fixed the wrapper crashing when it receives information from a plugin that it's removing.
Fixed FPC crash when changing pad names from the Pads tab.
Fixed tempo bug in envelope controller.
Fixed bug saving adsr wheels in Envelope Controller.
Fixed decimal point bug in Formula Controller.
Little bugfix in Fruity Slicer.
Fixed wet level in Fruity Squeeze.
Tiny bugfix in sampler envelope display.
Updated ASIO host.
Updated DirectWave to version 1.03.
Updated Chrome with tester application.

6.0.4 (28/12/2005)
(bugfixes!)

Fixed non-working shortcut in playlist.
Fixed built-in sustain support.
Fixed crash while detecting sample tempo.
Fixed wrong reloading of sample loop type.
Fixed bug in audio clips volume envelopes.
Fixed patch selector in Dashboard.
Fixed score selection in FPC when an empty folder is selected.
Fixed bug in FPC and Fruity wrapper that caused drag and drop to stop working.
Fixed bug in Fruity Wrapper showing the selection menu when loading songs with a Waveshell plugin.
Fixed dual screen bug showing all menus on the wrong screen when the primary screen was on the right side of another screen.
Fixed bug with echo delay presets in channel settings.
Rare bug fixed in Sytrus delay line.
Fixed browser being able to be resized when docked.
Fixed mixer send knobs animated when the wrong track was selected.
Added option to disable smooth scrolling (in FL, not plugins).
Added warning when loading projects made with a more recent version of FL.
Made overload-safety feature in audio settings optional (for those who have ASIO troubles).
Fixed bug in EQUO when processing was skipped.
Middle click to load projects from browser now prompts for saving.
Fixed looping and song position in FL DXi when used in Sonar 4.0.3 or later.
Fixed rendering bug in Fruity Squeeze.
Fixed bug that caused some DXi plugins to ignore note messages.
Fixed EQ slider hint.
Fixed Fruity Fast Dist bug when rendering.
Fixed bug when moving plugin racks while event editor was open for one of their parameters.

6.0.1 (08/12/2005)

FL now compiled with Delphi 2005.
New popup menu engine.
New scale-detecting helper in piano roll.
Multiple MIDI input devices are now accepted.
MIDI clock sync can now be sent to multiple MIDI devices.
All control events can now be edited in the piano roll.
Edited events are now stored in a most recently used list.
Piano roll now offers 16 note colors (that can be seen as MIDI channels).
Piano roll helpers also mark notes that have names (useful with Fruity Slicer).
Can now drag individual slices from the Fruity Slicer onto channels (or the explorer), and copy them to the Windows audio clipboard.
Revamped mixer with enhanced free track routing (all tracks can now be sends).
Piano kb keys now accepted in the MIDI remote control box (white = toggle, black = latch).
'New 'Link all parameters' option in plugins & mixer'
Can now move mixer tracks around.
New glue tool in piano roll, to glue contiguous notes.
Can now replace a channel type by another (was already doable through presets).
Various other enhancements in the piano roll.
Support for MIDI hold & sostenuto with result directly in piano roll.
Minor usability improvements.

Ctrl+mouse wheel to center-zoom at the mouse position in event editors, piano roll & playlist.
Improved stability/safety for ASIO devices.
Little bugfix in automation clips.
Drag/drop now works on detached playlist.
Speed improvements.
Knobs animation is now smoother (for those who can notice).
Browser revamped visually, with various little enhancements.
Browser smart search feature, allowing things like <sytrus or sims?nth or wav and "rev* bongo">.
Browser updated to remember its last state, visual drag/drop.
Browser now monitors FL's data folder to refresh itself.
Browser can show all file types & their extension.
Added browser snapshots.
Dropping a file onto the browser jumps to that file (providing it's available somewhere in the browser).
Sytrus: arpeggiator built in envelopes, audio file to envelope analyzer, envelope vertical flipping.
Sytrus: can now drag/drop single-cycle shapes onto harmonics editor, or channel button.
Sytrus: waveforms can now be saved to (32bit) WAV files.
Sytrus: enhanced waveform editing tools.
Sytrus: added 4 new filter types.
Sytrus: can now lock harmonics individually.
Sytrus: can now drag waveforms (click big waveform or ctrl+click small one) onto other synthesizers.
Small mini-piano roll update bugfix when project browser is open.
"Typing kb to piano" feature now works from the browser window as well (accel chars now only work in the tree when the feature is off).
Bugfix in level scaling event editor tool.
New EQUO automatable equalizer plugin.
New Fruity Reeverb 2 plugin.
Fruity Slicer: loading/slicing drumloops doesn't break audio engine anymore.
Live mode: song relocation is bar-synchronized.
Alt+/* and Ctrl+Alt+/* to jump to/select next/previous song markers.
Misc little enhancements: middle mouse button in browser, mouse wheel working in some new places, etc.
Added support for some more hardware controllers.
Ultrasmooth visual feedback now off by default and sets a higher smoothness, and also now applies to fruity plugins.
Playlist pattern lane gets a popup menu, and selected patterns can be renamed all at once.
Added option to split (explode) a pattern by channel.
Shift+piano roll/playlist cut tool now selects a column.
Alt+click in piano roll/playlist/event editor bypasses the current snap (very handy).
Shift+left/right or Alt+left/right shifts (nudges) selected notes in piano roll/playlist.
Bugfix in audio recording undo, and also made it clearer (tells which files are gonna be undone).
Can now edit note properties to change a note into a slide.
Added workaround for minor Windows graphic bug in the playlist.
Added CC standard names to popup in MIDI remote control box.
Shift+mouse wheel to scroll playlist, shift+right click for playback tool in piano roll, and various similar little enhancements.
Can now jump to song markers using MIDI input, and create them on the fly.
Wrappers publish 128 extra parameters for CC's, so that you can control a VSTi without using a MIDI out channel in most cases.
FL can now send MTC as well as MIDI clock for output synchronization.
Support for multimedia keyboards (play/pause/stop/prev/next/browser keys, etc).
Newbie enhancement: long audio files are not kept on disk by default anymore.
Option to save audio & MIDI clipboard data to files (see tools menu).
Double-right-click piano roll & playlist brings the options menu.
Better support for the Korg MS20 controller: cable in/out are mapped to CC to work as switches.
Enhancement for tablet PC's: most forms states are saved per screen resolution (handy when switching from landscape to portrait mode).

Enhancement for tablet PC's: stylus mode that allows easier tweaking of knobs as well as several little usability improvements for pencil use.
 App includes a 128x128 icon size for application bars (ObjectDock, etc).
 LAME DLL now loaded dynamically (to avoid problems when FL is used as a plugin).
 Little fix for piano roll splitter losing its aspect ratio when resizing the window.
 Less flicker when resizing some windows (unless detached).
 New 'one-click recording' option for dummies (in the tools menu).
 Added auto-map all ASIO inputs (just like outputs), to monitor all inputs.
 New Fruity Squeeze sound degradation plugin.
 FPC: volume and pan envelopes per pad.
 FPC: pad presets and note layouts.
 New Wasp XT synth plugin.
 Wrappers now automatically save plugin specific settings (optional).
 Video player now has an option to disable rendering audio.
 New GM preset for DrumSynth Live.
 Added support for Frontier Design's TranzPort controller.
 Piano roll note properties can now show note lengths (optional).
 Alt+mouse wheel to change note properties (of the closest note, or the selected ones) in piano roll & SHIFT+mouse wheel to move them around.
 Caps lock to move notes without changing their ending times in piano roll.
 More accuracy in the drawing of events in the piano roll.
 Browser now shows .FNV (envelopes), .DWP (DirectWave) and .FXP/.FXB (VSTi patches).
 New Fruity Envelope Controller plugin.
 New DirectWave sampler plugin.
 New Chrome visualization plugin.
 Fruity Slicer can now export sliced sample.
 New sample and preset downloader for FPC and DirectWave plugins.
 Existing automation clips are now adapted when the PPQ settings have changed.
 Added workaround for UAD-1 plugins to work.
 Cue points are not turned into regions anymore.

5.0.2 (26/01/2005)

New key limiter tool in piano roll.
 New score flipper tool in piano roll.
 New level scaling tool in piano roll & event editor.
 Little bugfix in note legato tool.
 Right-click piano roll options button for direct access to tools.
 New 'Arrange windows' item to leave room for the bottom taskbar (handy under Windows XP).
 Keyboard shortcuts now work for detached windows.
 Updated to LAME 3.96.1.
 Fixed XI file loading bug.
 Added per-editor snap override.
 Minor UI enhancements.
 Slightly improved 'prepare for MIDI output'.
 MIDI remote control window now shows a list of all controllers linked to a parameter.

5.0.1 (20/12/04) (bugfixes!)

Fixed 'Add pitch to key' for plugins.
 Fixed crashing bug in Fruity Granulizer.
 Fixed 2 minor bugs in Sytrus.
 Fixed problem with MIDI input in FL VSTi versions.
 Fixed little problem after dismissing the piano roll note properties box.
 Fixed disabled automation clips processed when relocating the song.
 Disabled looping for sample preview in browser (too many bad loop points in samples out there).
 Auto-scrolling doesn't switch off anymore when editing and the song is not playing.
 Fixed problems with dual monitors: FL can now be maximized on second monitor and will remember the monitor it's on when maximized.
 Fixed little playlist shortcut problem.
 Added option to detach playlist, piano roll and event editors from the working area (can be maximized on a second monitor).
 Changed the default wallpaper to a newbie one.
 Newbie enhancement: MIDI settings window doesn't show up anymore to let the user select a

MIDI input device.

Newbie enhancement: "Enable MIDI input/output" switches itself on when you select MIDI devices.

5.0 (20/11/04)

New automation clips in playlist.

New powerful arpeggiator tool in piano roll.

New Fruity WaveShaper effect plugin.

New option to render audio files with slice markers (regions) built-in (regions are defined as beat markers for Adobe Audition).

Fruity Slicer now gets slices from audio file cue points as well (as well as trigger key #). Much improved Fruity Slicer, with stretching and REX loops support, and enhanced fill gaps.

New 'make unique' option for audio clips to sever parts.

New time-stretching and pitch-shifting in audio tracks (with several modes, including the Elastique engine).

Tempo-synced preview of stretched samples.

Added author & genre to song properties, saved inside WAV files and MP3 tags.

Added tempo detector to audio tracks to align project tempo to song clips.

New drum flam tool in piano roll.

DrumSynth Live now supports 120 patches.

Enhanced Fruity Granulizer with transient-alignment and new skin.

Audio recording can now be undone, and mixer track arming button can be right-clicked not to prompt for a filename.

Added note legato and articulation tool in piano roll.

Basic loop recording.

Added tempo tapping feature.

New FPC drumkit plugin.

New Collab tool to work on shared projects.

Added better automation smoothing to MIDI remote control (knob works as 1 pole or 3 poles).

Can now load MP3's into sampler channels and audio clips.

Setting for steps per beat now adjust tempo as well (no need for tempo-doubling tricks anymore).

Fruity Slicer note dumping is now done in piano roll selection (if any).

New slicing engine in Fruity Slicer and FL (audio clips).

Stacked notes in piano roll randomizer now work better.

Made brush default tool in event editor.

Little bugfix for monophonic mode in step sequencer.

Restyled Fruity HTML NoteBook plugin.

Background wallpaper can now be HTML pages.

Bugfix in Sytrus (making it a little faster).

Added copy/paste preset to Sytrus, to share presets between all plugin versions of it.

Added global envelope mode to Sytrus (version 1.2), for perfect gated presets.

Fixed crash when deleting MIDI out channels sometimes.

Song markers now properly stored in rendered waves even with tempo changes.

Fixed memory leak in Fruity Slicer plugin.

Updated drum list in the MIDI out plugin to the GM2 standard.

Made channel resampling option always enabled.

'Keep on disk' samples can now be modified (loaded from disk when needed).

Can now check 'keep on disk', 'resample' & other options even when not possible.

Newbie enhancement: snapping is off by default.

Can now drop samples onto the channel settings window.

Preview now only loads the few first seconds (for MP3's to preview faster).

XY controller now supports multiple joysticks.

Right-clicking the recording disk to arm a mixer track won't prompt for a filename.

Added option not to auto-unarm mixer tracks.

Selecting an ASIO input now arms the mixer track automatically.

Added option to trim audio clip parts outside playlist selection.

Auto-envelope cleaning in step edit mode in Sytrus & Fruity Waveshaper envelopes.

Remove transposing from quantization tool - quantization scores can now safely contain notes other than C5.

Toolbars can now be locked.

Replace 'Ignore velocity' option by 'Velocity link', to control per-note filter using velocity.

Can now shift+click note events to unselect them.
Can now set one of the external audio editors to replace the default one.
Added support for Hercules DJ Console (when set in MIDI mode, endless knobs, coupled switches, special switches & middle jog work).
Added sampler interpolation method selector for realtime playback (audio settings).
Removed obsolete 1..9 pattern selector.
FST and FSC file extensions are now associated with the app (and loaded in new channels).
Auto-scrolling switch now in the main part of the UI, and auto-disabled.
Song selection now shown in the transport slider as well.
Minor cosmetic changes and new wallpapers.
Shift disables 'typing keyboard to piano' feature, handy to access shortcuts such as R for record.
BkSp shortcut for quick snap switch.
Fixed problem with incoming MIDI note off messages too quickly after note on.
Minor fix in Fruity Vocoder.
Removed (abused) live loop, in favor of Collab.

4.5.2 (4/03/04)

Upgraded plugin menus: easier way to browse/automate parameters.
Added 3 band equalizer and soft mode option in Sytrus.
Added option to use mixer position as playback position, for those who have crappy sound drivers and experience jerky playback cursors.
Small bugfix in event editor zoom/select.
Small bugfix in effect preset selector.
Bugfix in Sytrus (was unstable).
Little glitch fix in Sytrus.
Changed scale for harmonics level editing in Sytrus.
Fixed problem with some ZIP files not created (really this time).
Small bugfix in automation recording.
Fixed arp/slide last bugs (I hope).
Fixed tiny visual glitch in browser.
Notes in step seq now restricted to the channel's keyzone.
Added repeat mode to arpeggiator.
Sytrus presets are now compressed (was needed for the VSTi version).

4.5.1 (29/12/03)

New Sytrus generator!
New 'auto' mode in arpeggiator (finally works like a classic arp now).
New playback function in piano roll.
New strum tool in piano roll.
New Fruity Flangus effect plugin.
New ReWire (host & client) support.
Playlist / piano roll selection now updated when changing PPQ.
Added ASIO clock source selector (for compatibility with the Tascam US-122)
Added ASIO CPU check for more stability (prevents freezing GUI).
Removed the obsolete 'tiny slices' rendering setting & improved rendering.
Added beep metronome sound.
Bugfix in Fruity Slicer plugin.
Bugfix in channel grouping while loading songs.
Little bugfix in playlist.
Little bugfix in preset switching.

4.5 (3/11/03) (boxed release)

Bugfix in FL Keys & dashboard plugins.
Added support for the Edirol PCR-30/50 controllers (see \System\Hardware specific).
Little bugfix in layer loading.
Little bugfix in automation smoothing.
Added warning when saving to a protected MIDI file.
Inserting space in playlist now moves markers as well.
Editing playlist markers is now undoable.
Bugfix in 'zoom on selection' in piano roll.
Alt+click to default note levels in piano roll.
Small bugfix in PPQ changing.
Bugfix in playback indicators in piano roll.

New free Slayer & FL Keys plugins (actually were in 4.1.2).
Improvement: arpeggiator now works fine with short single-hits.
Don't ask why it's a 4.5 version already :)

4.1.2 (1/07/03)

Added automation smoothing feature.

Added Fruity Keyboard Controller plugin.

New undo history in project browser.

Added 'insert/delete space' in playlist, piano roll & event editor.

Now showing plugins & their parameters in the project browser.

Added output visual to Fruity Formula Controller plugin.

Improved internal controller handling.

Improved pattern merging.

Fixed rare automation problem.

Fixed handling of special audio input format.

Event editor LFO tool can now be cancelled.

Bugfix in MIDI file import for controllers.

Small bugfix in Boobass plugin.

Sampler channels now load 24Bit integer wave files.

Fixed small bug in Fruity Slicer.

Fixed small weird bug in plugins.

Fixed sampler channel filters consistency accross sample rates. Projects not made at 44100Hz might sound a little different!

Small fix in Fruity Parametric EQ at 22000Hz.

Small fix in filter for Fruity Delay 2.

Small visual fix in Fruity Slicer.

Bugfix in Fruity Phaser plugin.

DS script loading bug (on some systems) finally fixed.

4.1.0 (7/04/03)

(bugfixes!)

Many bugfixes.

New cool (and free) vocoder plugin!

Added CTRL+N shortcut for 'Save new version'.

Added 'Link selected channels -> Starting from this track' to easily auto-assign mixer tracks to existing channels.

4.0 (5/03/03)

(FL Studio)

Brand new playlist.

FX window becomes a mixer.

Audio clips can now be added to the playlist.

Fruity Slicer now auto-slices without the need for a registered BeatSlicer. Same for the 'File->Import->Beat to slice' feature.

Added audio input (ASIO only) to the mixer.

Added direct-to-disk recording & offline rendering of mixer tracks.

FL Studio now available as a DXi plugin (FL Studio DXi, FL Studio VSTi, 1 & 16 out versions).

New Wave Traveller generator plugin.

New BooBass generator plugin.

Revamped randomizer, now also available in piano roll.

New integrated wave editor for channel samples.

Fixed minor TS404 preset problem.

New cutting tool to piano roll & playlist.

Small bugfix in SimSynth Live.

Mixer now has 64 insert tracks.

Mixer tracks can route to other mixer tracks, allowing groups & sub-groups.

Effects now have automated mute & mix level.

Can now save mixer track presets.

Patterns can now have different lengths.

Can now set pattern color.

New black note display mode in piano roll.

New brush mode in playlist and piano roll.

New time scaling in piano roll (hold shift & resize notes).

Various improvements in piano roll.

Right-clicking the mini piano roll jumps to the clicked position.

New time markers in playlist (numpad . to jump to the next one).
Time markers are saved in rendered waves as cue points.
Reworked & added some new artwork.
Fixed small bug in envelope display.
Fixed small bug in event editor line tool.
Fixed MIDI sync output device not remembered.
MIDI sync device is now shared with MIDI output devices.
Can now record in song mode into a pattern that hasn't been triggered (pattern is then added to the playlist).
Can open the project browser from the playlist.
Added some 3DNow! optimization (Fruity Parametric EQ & various internal things now 2x faster on AMD's).
Added graph in remote control mapping window.
Fixed precomputed effects at other sample rates.
Fixed FX send automation bug.
Added phase randomness option to 3xOsc plugin.
Added autoscrolling in playlist.
Added some usability improvements.
Omni mode also works for mixer in remote control window.
Changed the way some plugins work with timers.
Can now set the track in which preview & metronome are mixed.
Fixed bug with GDI in browser.
Fixed window visibility bug.
Added live mode to playlist.
Fixed invalid automation problem after loading presets over a TS404 channel.
Fixed rare bug with event editor's line tool.
Slightly updated look of the Fruity Slicer.
Old precomputed effects are now hidden by default.
Rendered wave files now have loop points, useful when rendering using the leave remainder option.
'Save modified sample as...' now saves loop points.
Audio clips can be chopped up into regions (cue points stored in wave files or slices stored in ZGR's).
Pattern cloning now clones automation.
Fixed GDI leak in Fruity NoteBook.
Updated LAME mp3 encoder to version 3.93.1.
Various bugfixes in FL VSTi.
Support for multiout VSTi plugins (generators only).
New wave editor.
Small improvement in BeepMap plugin.
Step sequencer editing is now undoable.
Fixed rare note-dragging crash in piano roll.
Fixed glitch in sampler channels.

3.5.6 (29/07/02)
(more bugfixes!)

Support for Tascam US-428 controller.
Formula in MIDI remote control box can now modify increment step (for endless knobs).
Can now select rows of notes in piano roll.
Added 'fit to time' option to Fruity granulizer.
Fixed weird rare automation bug.
Improved wrappers & fixed timing info.
Added 'pausing steps' in some knobs & sliders.
New user interface for SimSynth Live.
VSTi version now renders properly in Cubase.
New clock toolbar.
Changed tempo & pattern selectors.
Fixed Wasp's envelope link problem.
Fixed small playlist selection bug.
Fixed various minor bugs.

3.5.5 (4/07/02)
(bugfixes!)

Bugfixed DrumSynth Live.
Time hint in step sequencer.

Added support for Peavey StudioMix controller (knobs, sliders, switches & jog).
Added support for StudioMix switches.
Added support for 'endless' hardware controllers (Doepfer Pocket Dial).
Setup now warns about logging as administrator.
Various other bugfixes.
Formula presets in MIDI remote control box.

3.5.4 (19/06/02)

Can now copy, paste, save & restore automation.
FruityLoops now available as a VSTi plugin.
Multi ASIO output added.
New advanced quantization in piano roll.
New advanced pattern-based chopper in piano roll.
Improved channel envelopes (tension).
Added batch export of FX tracks into separate wave files.
New Fruity fast dist plugin (same dist as for the TS404).
New Fruity soft clipper plugin.
Improved Fruity slicer plugin (added 'fill gaps' option & slice reversing).
Improved global beat slicing (layering).
Improved Fruity wrapper plugins.
Added recording precount.
Support for speech synthesis (.speech files).
Added sample start to Fruity granulizer plugin.
New step edit mode.
Much improved (but not compatible) TS404.
Fruity wrappers now support DXi2 plugins.
New kick synthesizer plugin.
Improved (but slower) sinc interpolation (thx to arguru).
Improved hermite interpolation (now 6 points) (thx to Yehar).
Right click metronome for another tick sound.
Right click wait for input to allow it only when recording.
MIDI activity LED now blinks yellow if the MIDI message wasn't handled (assigned to nothing).
Master sync now sends MIDI continue message instead of MIDI start.
Time in seconds now displayed by the playlist in the hint bar.
Project bones now includes automation as well.
Fine time offset knob now automatable (can now do shuffle using internal controllers).
Peak meters optionally in dB format (see general settings).
Tiny bugfix in envelope processing.
MIDI out plugin now supports channel aftertouch (& also redesigned visually).
Removed unuseful auto maximize & stop at bottom options.
MIDI remote control window redesigned a little.
Added quick preset randomizing & hybridize mode for plugins.
Slightly improved pattern humanizer.
Fruity soundfont player now searches for the first valid patch after a soundfont is loaded.
Added 'explore' menu item to browser.
Added 'Select linked channels' option & FX track renaming (effects window).
Bugfix in soundfont player & improved HQ rendering.
Bugfix in echo delay combined with the time shift.
Bugfixes in Fruity reverb (now works fine at any mixing rate).
Small bugfix in channel muting.
Small bugfix in layer channels.
Small bugfix in Fruity slicer (sample rate conversion).
Small bugfix in step seq vol knob's gauge.
Color=\$BBGGRR now recognized in browser info files.
Fixed two bad memory leaks.
Bugfix in DrumSynth patch loader.
Improved step sequencer.
Mouse wheel now scrolls step seq keyboard edit.

3.4.0 (19/12/01)

Added fat mode to channels (echo delay tab).
New input to output mapping formula in remote control linking.
Added Fruity formula (internal) controller plugin.

New Export->Project bones (exports all channel & effect presets + scores, to merge projects easier).

Introducing channel filtering for easier reading of the step sequencer.

Introducing layer channels, to control several channels at once.

Fixed the freezing on some systems with the MIDI output enabled.

Added activity meter to channels.

New Fruity chorus plugin.

New Fruity DX10 & SoundFont player plugins.

Can now move patterns (or blocks of patterns) up/down (see playlist menu).

New 'save new version' option.

Note properties editing in the piano roll now works only for selected notes, if any.

View all channels (ghost) mode in piano roll.

Added vertical zoom in event editor.

Added tempo fine tuning (song settings).

Reloaked testing kb, now with visual feedback & layer key zones.

Removed 'shuffled' option in channel's echo delay.

Added 'Play to end' option to Fruity slicer plugin.

Arpeggiator time to max = holding.

Added 'add root note to key' feature (useful for Fruity slicer & Fruity soundfont player).

Fixed patch not restored by the MIDI out.

Fixed last MIDI device not working for MIDI output sync.

Samples with loop points stored in wrong order are now loaded properly.

Little startup things are now set to better default values.

Removed raster visual effect in event editor.

Removed random association, replaced by the channel layering, better but incompatible.

Channel aftertouch now mapped to #253 in MIDI input mapping (key aftertouch=#254, pitch bend=#255).

3.3.0 (16/10/01)

Multiple MIDI devices can now be controlled at once.

Introducing internal controllers.

New Fruity stereo enhancer plugin.

New Fruity delay 2 plugin.

Added 2 FX send tracks & up to 8 plugins per track.

Better plugin lister, now verifies & sorts plugins.

New, rather accurate, global (multichannel) MIDI file import.

Added portamento to all channels.

Added velocity & kb tracking to all channels.

Added ASIO output (no multichannel output, will be done, don't ask).

Fruity wrapper can now read *.FXB files.

Added portamento's in step sequencer & per-channel gating.

Added Fruity Slicer, Fruity Granulizer, Fruity Big Clock, Fruity dB meter plugins.

Added Buzz machines wrapper (generator & effect) plugins.

Added levels adjustment per channel, for easier automation & preamp.

Added pitch per note in the piano roll.

Effect plugins can now be named.

Changed knobs popup menu (added 'Copy value' & 'Paste value')

Got rid of the 'filenames with spaces in them loaded as several files' problem.

Improved sample view in channel settings.

Bugfix in plugins custom shapes.

Fixed minor bug in FX sends.

Remote control mapping now updated when modules change.

Remote control mapping now saved in FLP's, not as a general config anymore.

Bugfix in channel FX track # automation.

Bugfix in channel settings repaint (very rare & harmless bug).

Fixed thing in levels ramping (rendering with 'tiny slices' on is now perfect).

Added a wallpaper (Title.jpg).

Minor bugfix in mixer.

Removed Export->Click marked samples option (hello alt+s freaks).

Fixed rare bug in mixer.

Fruity plugins own data can now be collected & included in zipped loops.

Small bugfix in plugin preset selector.

Added a couple of new 3xOsc presets.

Fixed some disappearing cursor problems.
Fixed bug in sampler channels envelopes & MIDI remote control.
Note properties box now also works on selected notes in piano roll.
Added features to the 3xOsc.
Added automatable gate time in channels (FUNC tab, mainly for the step seq).
Little bugfix in volume envelope attack.
In pattern mode, the whole pattern is now rendered, not just the first bar.
Remote control mapping now listed in the project browser.
New, better set of fonts.
Updated LAME mp3 encoder to version 3.89.
New bugfixed Fruity Scratcher, WASP & Fruity phaser plugins.
Fruity Spectroman can now display in stereo.

3.1.1 (3/05/01)

Bugfix in song relocation.
Small bugfix in project browser.
Small bugfix in 'Go to next empty pattern'.
Added Fruity LSD & Fruity Spectroman plugins (reg. only).
Added log decay switch to envelopes.
Changed sliders a bit.
Updated Fruity plug SDK.

3.1.0 (11/09/02) (boxed version)

Project (automation) browser.
Now supporting DXi plugins!
Piano roll data can now be copied from the step sequencer.
Added 'Init with current position' in event editor.
Added right click on snap selector for stock note lengths.
Fixed Jedi mode :) disappearing mouse cursor problem.
Wrapped VST plugins now save their state into chunks (useful for the BS-1).
Bugfix in Fruity Mute 2.
Harmless bug when closing 2 event editors at once fixed.
Removed background wallpaper centering.
Favorites now available to channels as well.
MIDI input now handles start / stop / continue messages.
Added (dirty) workaround for taskbar covering problem.
Cyrix problem finally fixed!
Minor bugfixes.
Added project uploading feature.
New user-made MIDI out presets.
Turned auto snap into auto smoothing in event editor.

3.0.1 (26/02/01)

Arpeggiator for each channel.
Exporting to MIDI file now works.
Small bugfix in mixer & pattern playing.
Effect version of Fruity wrapper plugin now properly listed.
Minor bugfix in channel's edit menu.
Bugfix in closing piano roll.
Minor bugfix in MIDI out plugin.
Various bugfixes in wav renderer (can now render a playlist selection properly).
New user-made MIDI out presets.
Improved dropping of audio tracks into the playlist.
Improved auto channel naming.
Introducing *.FSC FruityLoops score (piano roll) presets.
Minimized mode in piano roll.
MIDI files now appear in the browser (to be dropped onto piano rolls) as well.
Plucked! & 3xOsc plugins now support custom shapes.
Pattern (visual) length now saved in projects.
Various other improvements.

3.0.0 (25/01/01)

New layout.
Piano roll.
Event track now per pattern.

New FX tracks (now 16 inserts + 2 sends)

Centered views for some controllers in event editor.
Optimized song positioning.
Typing keyboard to MIDI option.
Added metronome.
Updated to new DrumSynth renderer.
Added custom controls for DrumSynth presets.
Channel mute switch & FX track # are now automated.
MIDI controllers can now control several channels at once.
Fixed syncing problem.
New MIDI output plugin & much better MIDI support.
New plugin system (effects & generators).
New plugins: 3x Osc, BeepMap (image synth), Fruity PanOMatic, Fruity NoteBook, MIDI out, etc.
Slight optimization in TS404.
Added MIDI kb to mute/solo mapping.
Peak meter now shows clipping.
Knobs should work better under Win2k.
Added new filter types.
New, better pattern randomizer.
Fixed ugliness with system fonts set to large.
Added 'smart disable' feature in effects.
Added antialiasing to TS404 (rendering only).
Much more...

2.7.1 (25/09/00)**Small bugfix release:**

Fixed problem with some Win2k configs & registration.
Fixed small problem with multiple monitors (again).
Fixed little bug in TS404 starting note.
Fixed minor bug in event editor.
Fixed right click on loop icon in playlist.
Fixed minor visual bug in title bars.
Fixed minor bug in sample display.
Fixed bug in playlist hint.
Bug in 3DFX display drivers avoided (they've fixed it too).
Improved Fruity reverb plugin (no more slowing down).
Much faster sample locating.

Added Fruity phaser plugin by Smart Electron:x.**2.7.0 (22/07/00)****LP x2 filter added to channels.****Global channel LFO added, handy for basslines.**

Beatslicer standalone editor added.
Alternate B-splines interpolator in event editor (right click).
Snap mode (with interpolation) in event editor.
Added presets to envelope time wheels.
Added a couple of great instrument presets.
Added dithering to 16Bit option (rendering only).
Improved SS2 preset renderer.
Updated LAME mp3 encoder to version 3.84
Surround effect removed, added 'Fruity phase inverter' to replace it.
Fruity Fast LP plugin added (the main filter will disappear in a future release).
ZIP & RBS ext added to sample browser, & FLP's are shown in all folders.
Fixed envelope LFO shape not saved in FLP's.
Bugfix & slight optimization in TS404.
Had to remove bitmaps from song info edit, too much buggy :(
Bugfix in filter section (was always on... eating unneeded CPU).
Fixed 2 bugs in TS404 preset loading.
Bugfix in pattern rendering when playlist has a selection.
Bugfix in main oscilloscope.
Fixed random association not saved properly.
Added 'Don't limit windows to screen' option for multimonitor support.

More safety checks for 'altered project' flag.
Graphic engine changed, now eats a lot less graphic resources.

2.5.4 (6/05/00)

Added LP, BP, HP & Notch to channel filter.
Support for plugin presets (sample browser).
Bugfix in sample loading.
Wide skin script fixed.
Fixed filter bitmap in TS404 interface.
Better (typing) kb mapping for testing (channel settings kb).
Updated LAME mp3 encoder to version 3.70
Fixed linking of envelope wheels to MIDI controller.
Improved SimSynth 2 renderer DLL.
New instrument patches by BSB.
Win2k compatibility: RichEdit crash fixed, selector display fixed.
Fixed fine tuning not saved in FLP's.
Fixed recorded sample saving.
Fixed big samples always set as keep on disk samples.
Fixed old bug in playlist.
Fixed bug in sampler envelopes.
New SimSynth 2.7 patches! (/SS2_Extra/2.7)
New humanize presets.

2.5.0 (13/04/00)

Full envelopes & LFO (pan, vol, filter & pitch)!
New *.FST 'channel state' files (instruments - replaces *.404 files).
New design for the TS404 (also added triangle LFO shape).
Tempo is now sample-accurate (useful when you render a lot of bars).
Channel settings window redesigned.
Partial import of ReBirth 338 song files.
New impressive reverb plugin by Ultrafunk.
Fixed bug in rendering of TS404 (distortion).
Fixed bugs in ZIP export.
Minor bugfix in changing PPQ.
Timing is all new inside & more accurate.
Rendering changed & bugfixed (tempo changes).
DirectX filters support updated.
Added 'live loop'.
Autostretch follows tempo changes.
Old crap trashed out: mix feature (graph edit) & vol/pan/pitch/mix wheels.
FX in the graph edit reordered.
Fixed small problem in level ramping.
Echo delay now linked to the channel.
Added presets to event editor LFO (speed wheel popup).
Now TS404 sustain max = infinite.
User skins will have to be slightly adjusted to work with this release.
Minor bugfix in pattern editor.
Fixed rare click problem with resonant filter.
Fixed crash when setting tool launched at startup with channel sample.
Added sinc interpolation (very slow - rendering only) because cubic is sometimes noisy.
Now 1000 bars in playlist.
Rearranged plugins list (too many on screen) + favorites.
Background process for long renderings.
Added keep on disk samples.
Added option not to resample waves (better for looped stuff).
Added support for pyramid panning shape (circular is good but can generate clipping).
Added 'keep notes continuous' tool (handy for TS404 without gate).
Fixed rare crash with channel settings form & channel cloning.
Added handy 'clone pattern' macro (tools).
Mapped key aftertouch into controller 254.
Pitch bend now supported.
Removed click removal option (always on).
Filter now automated.

Graph edit now allows offset of the filter.
Added precalc DC offset removal.
Now renders playlist selection, if any.
Can now re-read the sample browser without collapsing everything.
Improved beat slicing (merging, shifting all the notes, checking for 'groups').

2.1.1 (19/01/00)

Now using the LAME MP3 encoder for the best quality!
Tempo changes now recorded too (with some limitations).

Added LFO tool in event editor.

Can now slice up beats thx to the BeatSlicer engine.

Fixed minor visual bug in event editor.
More space around wheels (TS404 & VST plugins) not to miss them anymore.
Pattern autoscroll now optional.
Event editor enhanced.
Random tool now affects notes & slides for TS404 channels.
Fixed bug with the piano kb & TS404 user shapes.
Fixed something with TS404 & patterns.
Fixed bug with channel mix/random.
Fixed click bug in fake surround effect.
Fixed bug in VST plugins handling.
Fixed note range in TS404 (some notes were clipped).
Prevents nasty slow FPU denormalization also in TS404 delay line & volume ramping.
Redesigned humanize box.
Removed 'update on each n ticks' option (I had to).
Better distortion on the TS404 when rendering (too slow).
Changed limitations of demo version.
Added about box to Fruity plugins.
Added 'Fruity center' plugin.
Switched default ticks per beat (PPQ) to 96.
Switched most time values (shift, delay) to a 192PPQ accuracy.
Mapped pitch bend into controller 255 for remote controlling.
Main cutoff now ramped.
Fixed small bug in window arrangement.
Fixed slave sync bug.
Fixed small bug in wav looping.
Improved support for DirectX filters.

2.0.1 (21/11/99)

Problem with background wallpaper covering some windows fixed. Also redraws smoother.
Crash with default skin in palettized mode fixed.
Scrollbars can be moved another way (right click).
Support for middle mouse button (to reset wheels & scroll windows).
Added FLP file format description (beta).
Added plugin editors in view menu.
Added 'arrange windows' in view menu.
Removed the 'auto arrange windows' option in settings.
Removed 'insert pattern in playlist' (not useful).
Internal sync has changed a lot & visuals are smoother.
Can now drop sound files on the playlist (very quick for effects on a song).
No more flicker on some controls.
Basic MIDI input added (see ReadMe.doc).
Added record button, mainly for keyboard input for now.
Autoscroll patterns when playing.
Added new tips, read them!
Can now move channels up/down.
Main reso filter now applied after the master plugins (better).
Can now render to 32Bit float wavs (for use in CoolEdit Pro).
Song settings separated from environment settings (more logical).
Right click a FX track button to pop up the list of plugins.
New default basic drumkit (Club basic).
No more pattern & playlist clipboards filled at the same time to avoid mistakes.
Added 'captionnizing' to event editor.

Now supports DirectX plugins (crashes to be expected:).
Added 'Twice slower' in the tempo menu, for easier recordings.
Added pan wheels to the main window.
Scans VST plugs in both user & Fruity directories.
TS404 LFO now adjusted correctly when changing song position.
Added balance custom plugin.
Added FruityPro /Reset to make a config reset in case you're in trouble.
Put the check for another instance back (this time only when there's a command line param) (hope crashes won't be reported this time).
Added 'Open with FruityLoops' in popup menu associated with FLP files.
Fixed small bug in my use of the TS404.
TS404 rewritten internally, using floats, no more clipping & more stable filter. Even slightly faster. User shape is back.
Adjusted range of the filter in the TS404.
Adjusted the range of all the reso filters.
Rearranged main sliders.
Fixed glitch in cubic interpolation.
Skins now in /Skins subdir. No need to move your old ones, they're not compatible anyway.
Main, channel & delay line pan/volume tweakings interpolated to avoid pops.
Channel volume can now be tweaked on the fly (needed for the live recording).
MIDI remote controlling of most controls!
Removed 'ahead duration' mixer setting & added polling & hardware buffer settings for down to a 5ms latency on a SB Live!
Finished new playlist look! (still same features for now)
FX tracks redesigned, now up to 8 tracks available.
Live recording!
Integrated event editor!
Option for more realistic logarithmic levels (song settings).

1.7.6 (bugfixes!)

small visual bugfixes.
Prob with SimSynth note fixed.
Prob when mixing 2 TS404 fixed.
Prob with dots window fixed.
Prob with saving of wav files fixed.
Bugfix in scope.
Bugfix in the disk renderer.
Internal sync small bugfix.
Replaced SHIFT by G to pop up the graph edit (I had to free SHIFT for shortcuts).
Some shortcuts changed/added (SHIFT instead of ALT for shifting left/right, shortcut for Save as...).

Now renders Acidized wav files.
Added clone option to the channel pop up too.
Added cool (but slow) light show (not totally finished).
Added export to MP3 thx to BladeEnc.
Can now load SimSynth 2 presets thx to David Billen.
Extended params for SimSynth 2 presets (riff, tempo).
Installer now adds shortcut icon & stuff.
Keyboard autoscroll when notes are out of range (autocentering would not be a good idea).
Added 'auto zip empty channels' (general settings) for those who prefer to work this way.
Problem with last opened projects menu fixed.
Adjustable fade out (when cut) for better strings.
Added note fine tuning for samples which don't match.
Added 'Go to next empty pattern' tool.
Added 'Select unused channels' tool (to delete them to clean up your song).
Added useful 'insert & remove pattern' tools.
No more preview on right click in the sample browser (was annoying).
Plugin wheels now have a default value.
More minor enhancements.
Added ping pong delay.
Added favorites to more dialogs (useful when exporting to wave file).
Fine tuning is read from WAV files (middle note isn't - too many C4 by default where it should be C5).

Added 'Hermite curve' interpolation (even better than linear) on stretching for sample loading & rendering (too slow for realtime).
Improved sample locating (as Sam wanted).
Main volume can be raised to 125%.
VST plugins which have their own editor no longer have built-in wheels. Many are badly written & some crash because of this...
FX3 is now interpolated (much less noisy).
Middle mouse button used to reset wheels.

1.6.5 (20/06/99)

Added support for SimSynth files.

Can also set the middle note of SimSynth files.

Added 4 effect tracks (+master) supporting up to 4 plugins each.

Now support all plugins type.

Plugin stuff saved inside the FLP.

Now eats less Windows graphic resources.

Note deletion (right click) bugfix.

Prob with background picture fixed.

Probs with Win98 fixed: the RTF format has slightly changed in Win98 & caused crash problems!

'Reload sample' bugfix.

More checks for 'bad' wavs (there are).

Some more minor bugfixes.

Can now drop TS404 presets to create TS404 channels.

Inverted the shuffle slider (more logical).

Basic pack now included in the install package.

Added 'shift delay' to the graph edit.

Added graph edit presets in the sample browser (text files to edit manually for now).

1.5.23 (3/05/99)

Changed stuff in the main menu.

Minor visual bugfix.

Ping pong loop available even when not looped.

Added stuff in the channel settings sample menu.

Added the recording box.

Removed the check for another instance (crash reports).

Added the TS404 beta!

New cool splash screen.

Added background tiled bitmap.

Added cool 'shade' scope mode.

No more temp directory (uses the windows\temp instead).

Added zip/unzip support for samples & FLP in one single ZIP package.

Support for more extra sample directories. Also try to locate missing samples in these dirs.

Added clone channel option.

Added true delay line for the TS404.

Remove mute checkbox in the channel settings (not useful).

TS404 presets in the sample browser.

Can now act as master clock for sync! (read the ReadMe.doc file for limitations). Sends start / stop / clock / SPP. Should also follow tempo changes. Added sync delay too.

Removed the channel settings unuseful pan & vol menus.

Use of devices cleaned a bit. MIDI not opened if disabled. DirectSound not opened if disabled.

Changed the mixer engine from 32bit int to 32bit floats. Shouldn't alter the sound in any way. Even faster (maybe unless you've got an AMD processor).

Removed support for WinAMP DSP plugins (they're all shit).

Playlist now starts from 1 instead of 0 (nicer).

VST plugins support beta.

Channel settings form shown unactivated to avoid mistakes.

1.4.3 (13/03/99)

Minor bugfix in loop files from sample browser.

Rendering & click removal bugfix.

1.4.2 (9/03/99)

Default values for all sliders (right click).

Max tempo raised to 999 (don't tell me you need more).

Added cut/copy/paste in the playlist.
Added pattern naming (right click the top row in the playlist).
Removed the loop selection & replaced it by looping the cut/copy selection.
Looped strings (using loop points defined inside the WAV file).
Better 'stop at screen bottom' (takes care of the task bar).
Added handy 'Always full height' option.
Added translation (for DSC) (french & nederlands).
Tips made external (translation).
Removed unuseful 'Export loop to clipboard' (now exports according to the loop state).
Now looks a bit better under weird Windows color schemes.
Autostretch now up to 512 (but not compatible with old versions of FL).
Auto detects email in URL box.
Nasty click removal (have a low bass cutting itself to see the difference).
Added FastTracker 2 XI instruments support (import only).
DS & XI files now in sample browser too.
Wide skin now for reg. only :(
Alt+click on knobs for quick note off (for strings) (just set volume to zero).
Changed the wheels to flat wheels in the default skin.

1.4.0 (16/12/98)

Last rendered wav path bug corrected.
Added stereo & 'flower' scope (right click the scope).
Small bug in the piano keyboard corrected.
Linked windows (sample list window, piano window) move smoother.
Little anim on the sample browser.
Bugfix in autostretch & ending silence trimming (sorry for incompatibilities).
Added precalc reverb.
Added loops in the sample browser.
Bugfix in the loop info stuff (!@#! RichEdit control).
'crash on exit' bugfix.
Scope crash bugfix.
Dynamic sample browser (faster).
Another bugfix again (when loading old loops).
MultiPlugin crash bugfix (but still a prob here).
DrumSynth DS files support.
Added tools to the 'sample scope' popup menu (so you can edit DS files directly with DrumSynth).
Added 'repeat block length' (just visual).
ALT+click on a wheel to reset it.
Zipped channels bugfix.
Added 256 colors warning message.
Added some tips.
Finally up to 64 notes per pattern.
Patterns take less memory (but who cares).
Added 'Fill each x notes' to channel menu.
The prog now takes a bit less graphic resources (but still too much).

1.3.8 (27/10/98)

Added quick 'Load sample...' in the channel context menu.
Added a small starting 4 channels kit in the package.
Added auto-scroll to the selected channel (arrow keys).
Main window never goes below screen bottom.
Math copro related bugfix.
Drag/drop small bugfix.
Added background wallpaper (for those who don't like to have the desktop behind).
Loop selection in the playlist (right click+drag down).
More hints on the wheels (numeric value).
Faster stretching.
Added linear interpolation to realtime stretching (optional).
Added interpolation to imported wave files under 44Khz.
Output scope has a faster response.
Added 'Big Scope' skin.
Saves *.nfo file on rendering (for FruityTracks/DMM).

Added quick 'copy whole pattern'.
Added drumkits.
More compatibility with compressed wav formats (ADPCM & mu-LAW can now be loaded using the installed ACM codecs several times).
Save modified sample (right click the scope in the channel settings).
Can now render to mono.
Finally added pattern length (set globally).
Added integrated FastWAV-like sample browser (CTRL+B).
Changed the ugly Windows scrollbar.

1.3.72 (01/09/98) Checks for another instance & asks to have it closed.
MIDI tempo now updated when synchronized.
Another (old) MIDI related bug corrected.

1.3.67 (28/08/98) Bug in the MIDI rendering/export corrected.

1.3.66 (26/08/98) Avoid old ComCtl32.DLL bug by loading bullets & slider knobs externally.
Added 'shift delay' trick so that 32nd notes can be achieved (using another channel).

FruityLoops Pro
1.3.56 (01/08/98) Stretching now in realtime.
Pitch for each dot added.
Added bottom status/resize bar.
Edit mode buttons added (Pan/vol & Keyboard modes).
Main pitch slider added.
Old way to set dot volume removed.
Added channel selection.
Added piano keyboard.
Added graph edit.
Humanize on pitch & mix.
Script to customize the skin (colors, holes & positions).
CTRL+left click on any set button for a quick preview of the sample.
Added a BW skin that looks good & works almost well with palettized systems.
CTRL to transpose (keyboard mode).
Dots window added.
Shows CPU usage (sample settings).
Replaced the old echo by a useful one.
Inverted the pattern numpad to match the keyboard one.
Preview in wave open dialog.
The selected channel gets the sample directly from FastWAV (double click).
PlayList window can now be resized. Also the /* keys change the playing pattern.
Dot pan, dot note, mix effect & random now work with MIDI too.
Corrected bug in the precalc resonant filter.
New playlist that allows multiple patterns at the same time.
Stereo delay & phaser effect added.
Wider range for the delay volume wheel.
Auto trim silence at the end of samples not to have to mix it (faster).
Realtime resonant filter added.
Starting sound.
Various bugs corrected.

1.2.13 (not released) Attack added.
Favorites in wave open dialog.
MIDI bank selection stuff corrected.
Added MIDI controller settings.
Auto-close FastWAV.

1.2.12 (01/06/98) Bug that caused the echo to cut the sample itself corrected.
Added Ins/Del buttons in playlist. Also right clicking on the left part selects the pattern too.
Bug with the 6 numeric key sending minus corrected.
Added preamp & decay precalc effects.

- Sample settings window rearranged.
MP3 decoding added then removed (see below)...
- 1.2.11 (20/05/98)** WinAMP DSP plugins support (registered only).
Unregistered version now limited to 4 channels.
Humanize now in percents.
Panning for each dot.
New way of setting dot pan & vol (SHIFT).
Humanize pan too.
- 1.2.10 (02/05/98)** Will loop the existing patterns if playlist empty instead of playing the first one.
Right clicking a channel mute button for 'solo'.
Loop comments are now in Rich Text format (RTF).
Warning message when no output driver selected.
Minor bugs corrected. Should be more stable. I hope.
Close DirectSound when loosing focus so most wave editors can run.
Added preview in the settings form.
Stretching to fit the pattern. Precalculated & rather slow.
CTRL key to adjust the volume of a whole line.
Note window has merged with the channel settings form.
More accurate wheel movement (right click).
Samples now support panning.
- 1.2.9 (19/04/98)** Minor bug on the small volume wheel corrected.
Tried to 'attach' FastWAV to the main window.
Main window position saved & restored.
Keyboard keys to mute channels.
Scope mute button bitmap now loaded (skins).
Corrected another bug that made samples not to be found sometimes.
Added tips of the day. Hope they will be read :)
- 1.2.8 (15/04/98)** Can now drop FLP files on the main window.
Bugs corrected in the saving of FLP files.
Humanize added.
Sync to input bug corrected.
MIDI/Samples menu option added.
Settings box shown when no output selected.
- 1.2.7** Channels volume/mute & main volume/shuffle now in the main window.
Loop settings menu removed.

(previous versions were MIDI only beta releases)