

CinePlex Change Log (Last updated 3/15/10)

Version 3.0.1

CinePlex Studio

New Features:

- Angles are now definable as wedges around the target angle – whether an absolute or a relative defined direction. All angles are now computed within a range +/- 180 degrees
- An option to change an object's track color to the color of the static zone

Minor Changes:

- Many sliders and other adjust mechanisms for cameras have been changed to make them more user friendly
- An option has been added to File Mode allowing the playback of recorded data from the file itself

Bug Fixes:

- Approximately 90 minor changes have been made to correct small errors, typos, usability issues, and other items resulting from internal testing

CinePlex Editor

New Features:

- None

Version 3.0.0

CinePlex Studio

New Features:

- Is a normal Windows application and can run on a standard Windows PC with or without a network
- Can run on a regular PC in offline mode
- Has video capture capability, which can be synchronized with neural recording from the Plexon Multichannel Acquisition Processor (MAP), or Plexon Recorder
- Produces standard video AVI files in MPEG format
- Allows user-specified prefixes for filenames
- Has essentially unlimited AVI file size (Microsoft extension to NTFS format eliminates the 4 GB file size limit)
- Has selectable image quality settings by changing nominal bit rate
- Records directly to internal hard drive
- Has all-digital imaging with one or two Stingray cameras (640x480 resolution, up to 80 frames per second)
- Can perform near IR (infrared) tracking
- Features Smart Tracking that uses robust algorithms for LED tracking, object contour tracking, and reflective color tracking
- Uses strobed words to deliver tracking coordinates directly to the digital input (DI) or a Plexon MAP system
- Records position and time data in text files
- Analyzes contour motion across adjacent video frames to detect freezing behavior in fear-conditioning experiments
- Monitors animal speeds to create digital events when over/under threshold
- Monitors vectors between objects to create digital events when within/outside of an angle and tolerance
- Allows user to define static and dynamic zones of interest and zone sequences
- Monitors objects traversing zones and sequences to generate logical and digital events
- Allows user to define combinations of events from one or two cameras to generate digital events

CinePlex Editor

New Features:

- Allows integrated viewing of neural data files (Plexon PLX, NEX) and AVI files
- Displays tracking position data overlaid on video
- Can seek and search based on event markers
- Has full digital video recorder (DVR) playback capabilities

- Has video-aided insertion of event markers and intervals
- Allows removal of temporal segments of neural data during artifact-generating behaviors (chewing, grooming, etc.)
- Has the ability to enter and edit position coordinate data from CinePlex Studio
- Has the ability to play a sound (standard or user-selected) when event markers or neural spikes occur during playback
- Supports Microsoft's extension to NTFS file format to be able to utilize AVI files larger than 4GB
- Saves neural data to Plexon (PLX) and NeuroExplorer (NEX) files, or exports to Excel, MATLAB, or text files

CinePlex Extractor

New Features:

- Provides offline extraction of selected static and dynamic data from CinePlex video files
- Reads any MPEG file created by CinePlex Version 3 or later
- Allows selection of a time range or all of the file to be extracted
- Allows selection of tab or comma delimited output files with or without header row
- Allows selection of desired static data columns
- Allows selection of dynamic data columns
- Writes text file with selections implemented

Version 2.0.0

CinePlex Capture

New Features:

- Capture is now normal Windows application and can run on a standard Windows PC.
- Plexon User Interface implemented.
- Output file naming convention now complies with the one used by RASPUTIN SortClient (user-specified prefixes (up to three characters) and date in the filename)
- User-selectable frame rate decimation for recording AVI files. This is also known as Nth frame recording
- Near IR (infra-red) recording and tracking is now an option with suitable cameras and lenses
- Many more warning and explanation messages added to help the user with operational knowledge, current status and in making decisions
- Message logging files are created and kept for the three latest times Capture has been started.

CinePlex Markup

New Features:

- The latest 7.4.0 Sentinel Drivers are included.

Improvements:

- Corrected export of trodal data to PLX and NEX files

Version 1.4.0

CinePlex Capture

New Features:

- Worked out procedure to eliminate video freezing and tearing on the shuttle by switching display to 70 Hz.
- Added capability to delete arena and clear track by right clicking on the video image and selecting an option.
- Changed interface with remote control device so that recording cannot be started when certain error conditions, such as "Objects too large", are present.

Bug Fixes:

- Settings file fixes for arena transparency, image quality, points to show, filter details.
- Minor cosmetic fixes to the GUI.
- Corrected several errors that resulted in an object's track being erased, obscured, or left around incorrectly.

- Fixed error causing the first timestamp in a DVT file recorded remotely to have a very large positive number.
- Fixed error causing an object leaving the arena under certain conditions to be tracked.
- Fixed frame count discrepancy - AVI file showed one more frame than DVT file.
- Improved contour tracking algorithm to be more sensitive to color contrasts.