

Eye and Pen underwent modernization.
The new version 4 has several novelties,
presented here, sorted by category.



A more flexible application

- Windows 10/11 compatible.
- Unicode compatible.
- Support hi-res displays (2k, 4k).
- Menus and options reorganization.
- Supports Drag'n'drop of Tab files.

New means for acquisition

- Records 3D data (Z, Azimuth, Altitude and Twist) for tablet pencils providing this information.
- Records angular coordinates and pupil size from eyetrackers providing this information.
- Supports OpenGL for a better control of display timing: source of randomness in reaction time measurement is reduced to tablet driver, display lag is stable (measured with external electronic device – BBTK v2).
- Enhanced performance test report for tablets and eyetrackers.
- Added support for Sierra-Neurovision “Eya” eyetracker (<https://sierra-neurovision.com/>)

New script commands

- ActivateOpenGL
- SetAudioRecording
- StartRecording
- InsertIntoList
- SaveItemsListToText / ShowItemList
- WriteUntilKeyPress
- %D% and %T% allows to retrieve date and time

New tools for analysis

- Tunable moving average filtering option and Savitzky-Golay filtering.
- Productions bursts segmentation.

- Stroke segmentation.
- New data visualizations options.
- Eyetracker and tablet samples can be associated (tagged) with an AOI.
- Tab files can be merged.
- Tablet data can be rotated in analysis.
- Tool to correct data timestamps (provided by inaccurate tablet driver, for example).

New data extractions

- Movements data when pen is up (above the tablet).
- Number of Inversions in Velocity (NIV).
- Strokes information.
- Chronology of eye and pen movements in AOI.

A number of options allows to better tune data extraction of visualization: for example, the ability to exclude the pre-writing pause from graphs or tracing dynamics

Productivity enhancement

- New command line format conversions (Eye and Pen 3, full samples in text)
- EPKeys can modify “on the fly” a number of Eye and Pen specific options, providing a better experience for massive extractions. It is also able to cope with classic processing failure, such as empty data files, etc.