Contribution ID: **488** Type: **not specified**

VISPA - Visual Physics Analysis on Linux, Mac OS X and Windows

Modern physics analysis is an iterative task consisting of prototyping, executing and verifying the analysis procedure. For supporting scientists in each step of this process, we developed VISPA: a toolkit based on graphical and textual elements for visual physics analysis. Unlike many other analysis frameworks VISPA runs on Linux, Windows and Mac OS X.

VISPA can be used in any experiment with serial data flow. In particular, VISPA can be connected to any high energy physics experiment. Furthermore, datatypes for the usage in astroparticle physics have recently been successfully included.

An analysis on the data is performed in several steps, each represented by an individual module. While modules e.g. for file input and output are already provided, additional modules can be written by the user with C++ or the Python language. From individual modules, the analysis is designed by graphical connections representing the data flow. This modular concept assists the user in fast prototyping of the analysis and improves the reusability of written source code.

The execution of the analysis can be performed directly from the GUI, or on any supported computer in batch mode. Therefore the analysis can be transported from the laptop to other machines.

The recently improved GUI of VISPA is based on a plug-in mechanism. Besides components for the development and execution of physics analysis, additional plug-ins are available for the visualization of e.g. the structure of high energy physics events or the properties of cosmic rays in an astroparticle physics analysis. Furthermore plug-ins have been developed to display and edit configuration files of individual experiments from within the VISPA GUI.

Primary authors: HINZMANN, Andreas (III. Physikalisches Institut A, RWTH Aachen University, Germany); MÜLLER, Gero (III. Physikalisches Institut A, RWTH Aachen University, Germany); STEGGEMANN, Jan (III. Physikalisches Institut A, RWTH Aachen University, Germany); ERDMANN, Martin (III. Physikalisches Institut A, RWTH Aachen University, Germany); BRODSKI, Michael (III. Physikalisches Institut A, RWTH Aachen University, Germany); FISCHER, Robert (III. Physikalisches Institut A, RWTH Aachen University, Germany); KLIMKOVICH, Tatsiana (III. Physikalisches Institut A, RWTH Aachen University, Germany); MÜNZER, Thomas (III. Physikalisches Institut A, RWTH Aachen University, Germany); WINCHEN, Tobias (III. Physikalisches Institut A, RWTH Aachen University, Germany)

Presenter: WINCHEN, Tobias (III. Physikalisches Institut A, RWTH Aachen University, Germany)

Track Classification: Poster session