

DPP-PHA Control Software

**Software interface
for DPP-PHA
management**

DPP-PHA Control

Software

Features

- Demo software for the handling of digitizers running **DPP-PHA** firmware
- Supported by 724 digitizer family and DT5780 MCA
- Java GUI interface
- Two operating modes (Oscilloscope and Histogram)
- Configurable Basic and Advanced PHA parameters
- Real time plotting of Waveforms and Histograms (Energy and Time)
- Import / Export of customized parameter settings
- Data saving in Waveforms, Histograms and List mode

Description

DPP-PHA Control Software has being replaced by MC²Analyzer and CoMPASS software. This SW doesn't support DPP-PHA firmware for the 730 digitizer family and 781 MCA family.

DPP-PHA Control Software

(1) is a demo application introducing the user to understand the principle of operation of the Digital Pulse Processing for the Pulse Height Analysis (**DPP-PHA**). It can manage single-board communication and acquisition of CAEN **724 Digitizer** running DPP-PHA firmware and **780 MCA series**.

DPP-PHA Control Software is based on a Java Graphical User Interface for the parameters setting (connection, DPP algorithm, acquisition, etc.), a C console application working as an acquisition engine (DPPRunner) and a third-party graphing utility (Gnuplot: www.gnuplot.info). The GUI directly handles the acquisition engine through run time commands and generates also a textual configuration file that contains all the selected parameters values. This file is read by DPPRunner, which programs the Digitizer according to the parameters, starts the acquisition and manages the data readout.

The software can operate in the Oscilloscope mode, where digitized input waveforms and digital signals from the internal filters are monitored in order to better tune the DPP parameters, and in the Histogram mode, where energy (i.e. height) and time histograms (built by the software) can be monitored.

According to the operating mode, raw data like waveforms or energy and time stamp lists, as well as energy or time histograms can be saved to output files for off-line analysis.

This software is not provided with data analysis features.

DPP-PHA Control Software Supported Boards⁽²⁾:

- Mod **V1724** - 8 Channel 14 bit 100 MS/s Digitizer - VME 6U module
- Mod **VX1724** - 8 Channel 14 bit 100 MS/s Digitizer - VME64X 6U module
- Mod **DT5724** - 4/2 Channel 14 bit 100 MS/s Digitizer - Desktop module
- Mod **N6724** - 4/2 Channel 14 bit 100 MS/s Digitizer - NIM module
- Mod **DT5780** - Dual Digital Multi Channel Analyzer (HV & Preamplifier PS) - Desktop module

(2) The indication "size 1/ size 2" denotes different model versions.

System Requirements:

- Windows OS (32 and 64-bit)
- Linux OS (32 and 64-bit)
- Java Runtime Environment 6 (or later)

(1) Note: DPP-PHA Control Software is developed to work only with 724 digitizer series running DPP-PHA firmware and **DT5780** MCA.

**DPP-PHA Control Software has being replaced by
MC²Analyzer and CoMPASS software.
This SW doesn't support DPP-PHA firmware for the
730 digitizer family and 781 MCA family.**

Related Firmware

DPP-PHA



Digital Pulse Processing for the Pulse Height Analysis

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