Software used to acquire and process data, as well as to allow the user to have control over research and development testing is provided by a graphical user interface driven by virtual instrumentation. The virtual instrumentation software is Laboratory Virtual Instrumentation Engineering Workbench (LabVIEW) and consists of two major components: a user panel and a programming window.

“A virtual instrument consists of an industry-standard computer or workstation equipped with powerful application software, cost-effective hardware such as plug-in boards, and driver software, which together perform the functions of traditional instruments.”

“Virtual instruments represent a fundamental shift from traditional hardware-centered instrumentation systems to software-centered systems that exploit the computing power, productivity, display, and connectivity capabilities of popular desktop computers and workstations.”