

INTEGRATED SOFTWARE FOR A FULLY AUTOMATED STR ANALYSIS SYSTEM

Roger McIntosh and Richard Belcinski
IntegenX Inc., Pleasanton, CA, USA

The IntegenX RapidHIT™ 200 System is a fully automated human identification system for Rapid DNA analysis. The system uses the Promega® PowerPlex®16 HS kit for CODIS-compatible STR analysis in the United States, and the Promega ESI kit for compatibility with the common European STR analysis format.

IntegenX has developed comprehensive software to support the instrument, hosted by an embedded Windows® 7 computer (based on the Intel® Core™ i5 processor). A simple graphical user interface (GUI) runs on an integrated 10-inch touchscreen in the front of the instrument; no keyboard or mouse is required to operate the system.

The GUI guides users through the entire process of loading the system (using prepackaged cartridges), inserting sample swabs, and starting the automated control system. Ninety minutes after the start of a run, the software initiates analysis of the separation data and displays the profile results in a concise format that minimally trained operators can readily understand. For advanced users (e.g., forensic scientists), more detail such as allelic trace data is instantly at hand. The system includes features that ensure high reliability. Output from the system is fully compatible with national human identification databases. ☞