



The design and development of automated test equipment (ATE) presents a host of challenges, from initial planning through hardware and software development to final integration.

At each stage of the process, changes become more difficult and costly to implement. Furthermore, because software typically follows hardware in the development cycle, many open-ended items are left for the software engineer to handle.

As products get more complex, so do the systems required to test them.

Rather than employing device-specific code modules in a test sequence, abstraction layers give you the ability to decouple test features, measurement types and instrument-specific drivers from the test sequence.

## TEST EXECUTIVE TF: Teststand Framework ABSTRACTION LAYER CONFIGURATION AND CALLBACKS PLUGIN & USER MANAGER RUNTIME ERROR AND STEP FAIL MANAGEMENT MAL: Measurement Abstraction Layer MAL: Measurement Abstraction Layer HAL: Hardware Abstraction Layer 1. SWITCH: ENERGIZE MUX CHANNEL 7 2. DMM: MEASURE VOLTAGE AT 100V RANGE 3. SWITCH: DE-ENERGIZE MUX CHANNEL 7 INSTRUMENTATION

## **Component highlight:**

- Custom Step Types A simple and easy but yet highly configurable way of making custom plugins
- Operator Interface Build one UI and reuse it for all your test applications without modifications
- CATS Audio Test Software for productions testing of headset, hearing aid and smart speakers
- TRACKS Synchronize user management and user responsibility with Active Directory
- FACTS Production test data management & analysis with one button click applying a broad range of algorithms from SPC to Gauge R&R

## **Benefits:**

- Using National Instrument standard process models for robustness and backwards compatibility
- Easy start up for automated tests for PCBAs, subassemblies and final assemblies
- Increase efficiency of test operations
- Reduce test development effort
- Decrease Total Cost of test
- Instrument Simulation run your test sequences without hardware
- Diversities control your variant information in a database





