

# APPLICATION BRIEF

## 2020

### TEST SYSTEM CONTROL CONSOLE

#### Brief Description:

Emerging Technologies, LLC. was called upon to design and build a custom control console to control a medium voltage test system. The power system and DUT Fixturing was provided by the customer.

The control program was written using Microsoft Visual Basic 6. The operator starts the process by scanning the bar code on the customer part (DUT). Based on the scanned part number the system queries a user modifiable database for the required system settings. The system then prompts the operator to enable the automatically selected voltage range (4160 Vac or 2300 Vac). The system will verify the correct voltage has been enabled and then prompts the operator to begin the 43-step test sequence. The results of the operations are appended to a CSV (comma separated value) file.

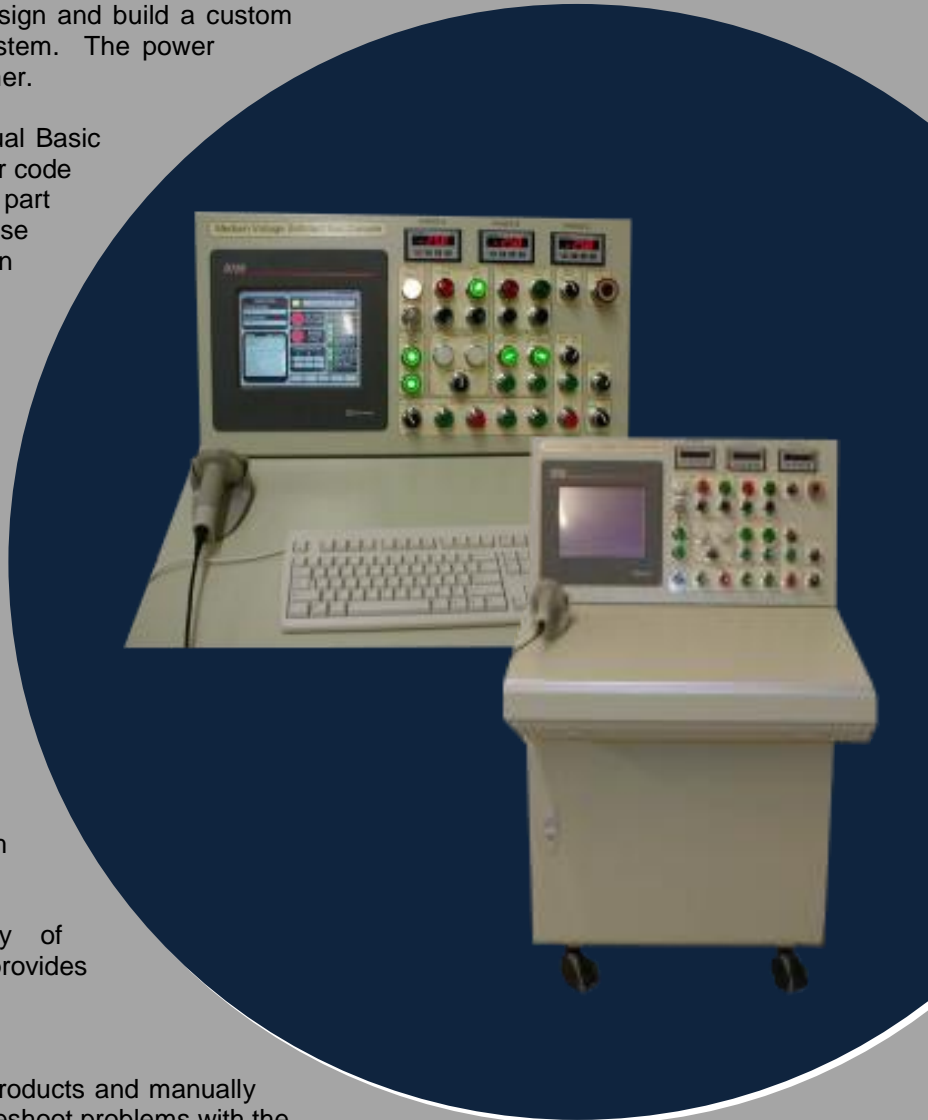
The system provides test information such as; test status, select I/O indication, and test flow to the operator. The operator is required to press the sequence buttons on the cabinet to continue to the next step after operator actions are performed. Additional information is available via the computer screen under warning and fault conditions.

This system provides an automated test with operator acknowledgement yet allows the operator to perform manual operations under special analysis conditions.

Emerging Technologies integration of a variety of components specifically selected for this test system provides excellent functionality at an attractive system price.

#### Customer Benefit:

The customer is able to automatically test standard products and manually test non-standard products, as well as manually troubleshoot problems with the device under test using this custom test system. The results of each passed test are recorded for future reference.



#### ET Responsibilities:

- Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- Programming – Firmware
- Field Installation
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

#### Technologies:

- Embedded Computers
- Microcontrollers
- ✓ Visual Software
- ✓ Control Software
- ✓ Data Acquisition
- ✓ Computer Based Control
- ✓ Communications – RS232, RS-485
- ✓ System Integration
- ✓ Other - System fab
- ✓ Other – Graphic Overlay Design

#### Customer Category:

- ✓ OEM
- Custom Equipment
- Utility
- R&D