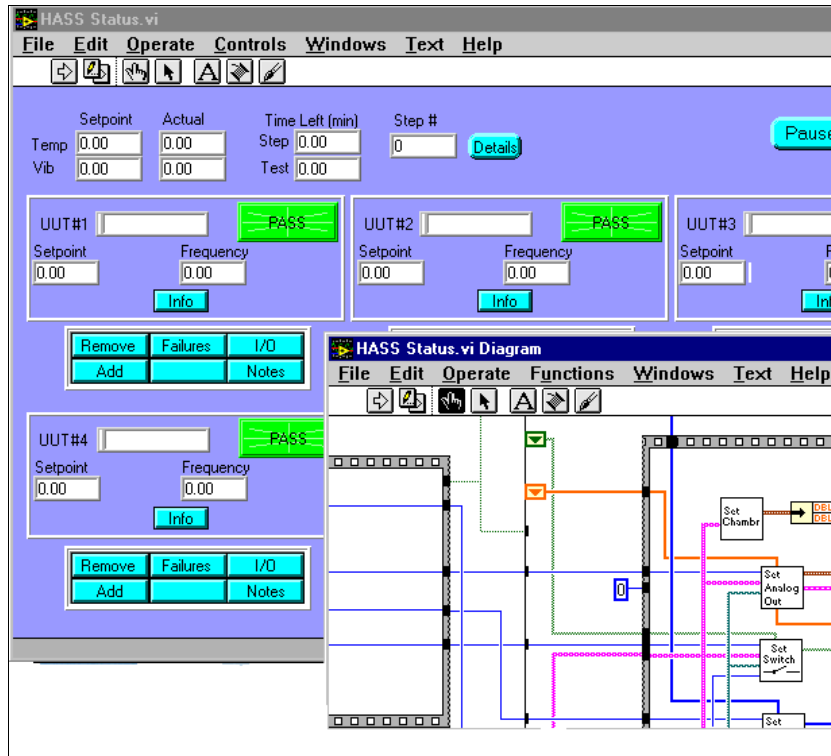


The Problem:

Many companies are adding HASS (Highly Accelerated Stress Screening) to their manufacturing process. This technique adds vibration and temperature stresses to a product as it undergoes functional tests. This is done to reduce the failure rate of products once they have been shipped. The customer needed software to control the temperature/vibration chamber, the instruments performing the functional tests, and a quick and easy way to create and modify test sequences of vibration, temperature, stimulus, and measurement.

The Solution:

National Instruments LabVIEW software was ideal for the control functions. The manufacturer of the temperature/vibration chamber had as an option a GPIB interface and the VXI instruments has existing drivers or new drivers could be quickly developed. It was decided to create the test sequences (or recipes as they were called) in a relational data base. The relational data base allowed recipes to be shared between different products and a non-programmer could easily create new ones. A LabVIEW add-on set of VIs called the SQL Toolkit provided the interface between the relational database and the LabVIEW control software.



Hardware Used:

Hewlett-Packard E1406A
Hewlett-Packard E1463A
Hewlett-Packard Z2309A
Tektronix VX4286
Tektronix VX4730

Software Used:

National Instruments LabVIEW
National Instruments LabVIEW SQL Toolkit
Microsoft Access