Keithley 2602 Demo Program: Resistor Component Test Example

This example program demonstrates the Model 2602 using Keithley's embedded Test Script Processor™ technology to perform a component test on a resistor. This version of the program runs slowly with cues on the Model 2602 front panel so the test can be easily followed.

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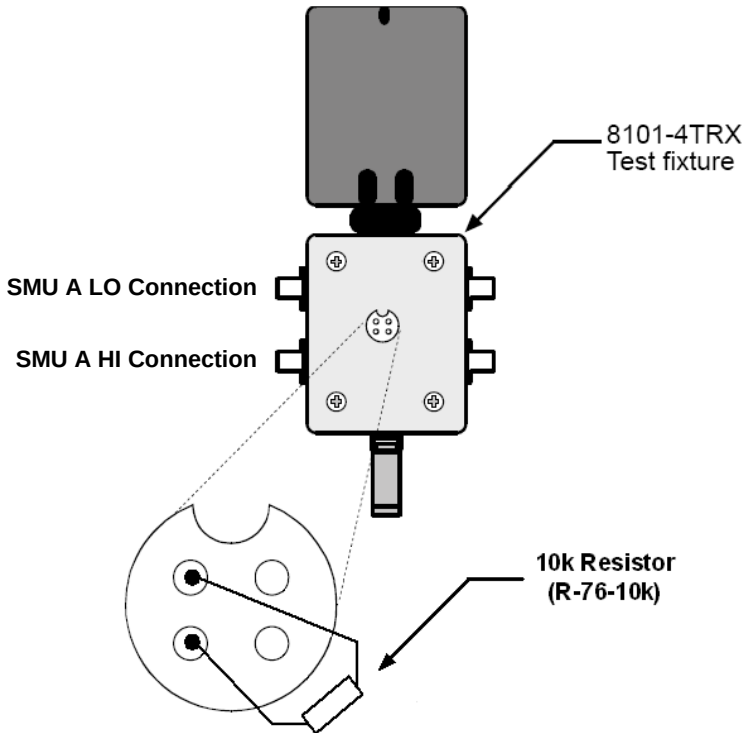
Physical Connections

Parts needed:

- 1 Model 8101- 4TRX Test Fixture
- 2 Model 2600-Demo-TRX Cables
- 1 10k resistor (R-76-10k)

Connections:



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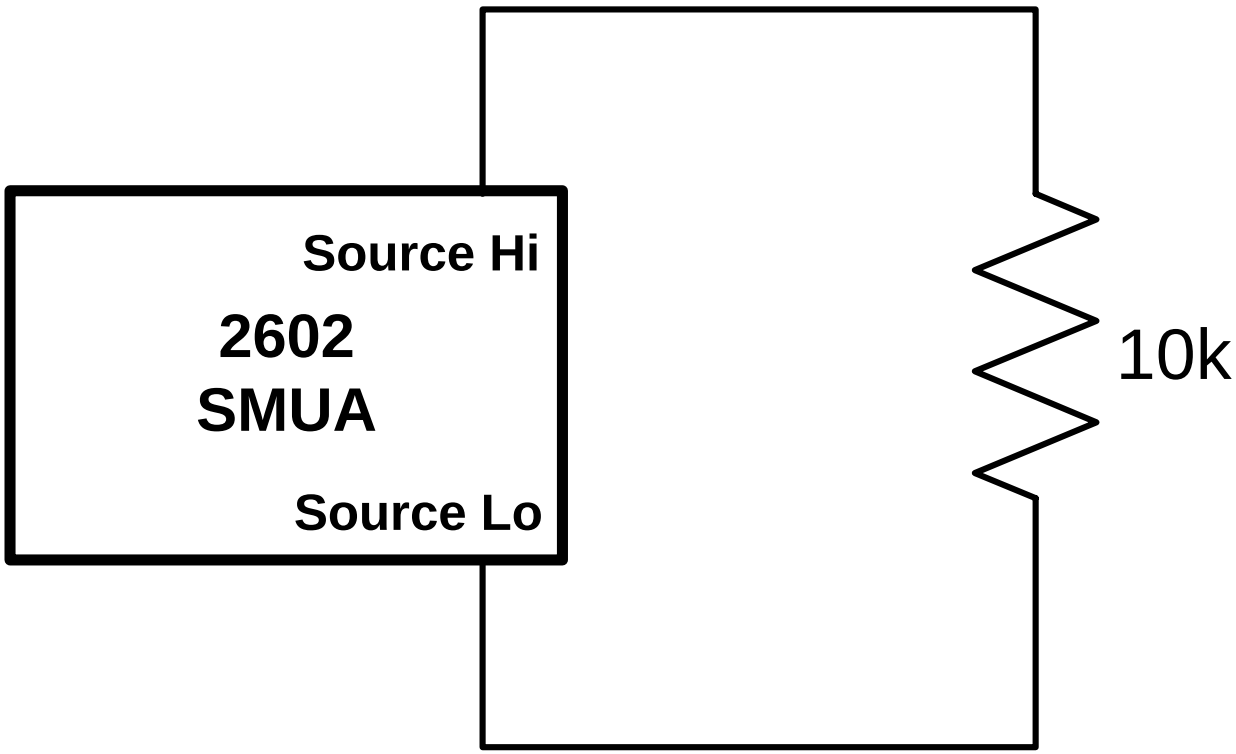
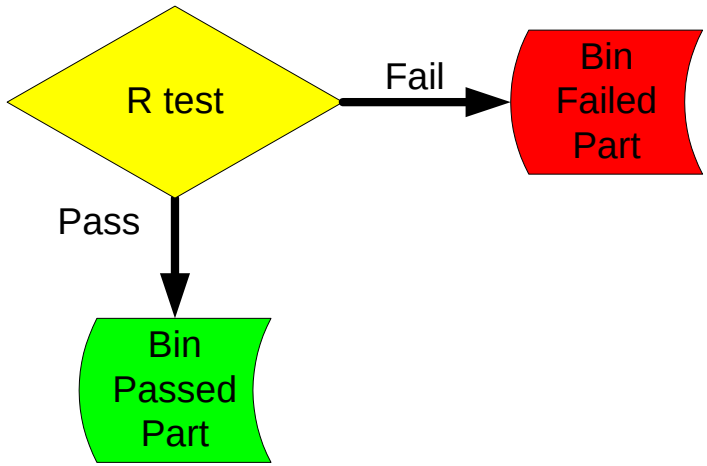
Test Schematic



Simple Component Test Overview

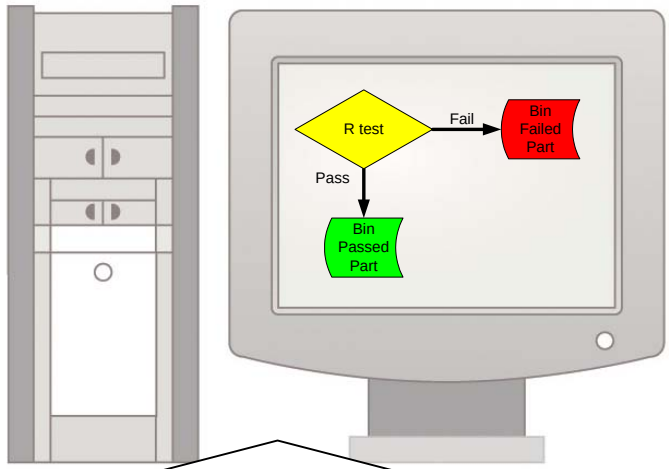
- **R test:**
  - Resistance measurement
  - Procedure
    - Source test current
    - Measure voltage and current simultaneously, calculate resistance, evaluate pass / fail

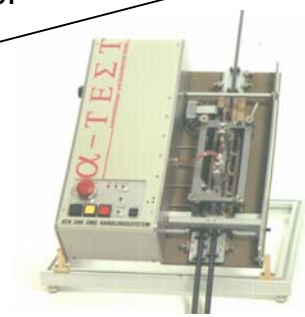
Simple Component Test Sequence



The Traditional Test System

- Full test sequence is controlled in the PC
- PC sends many low level source and measure commands to control SMU instruments
- Data must be sent to the PC to perform pass / fail decisions
- Excessive communications between the PC and instruments result in poor test speed
- The 2600 Series SourceMeters are compatible with traditional test systems using basic instrument control commands
- BUT…For dramatically faster test times, use Keithley's Test Script Processor (TSP)





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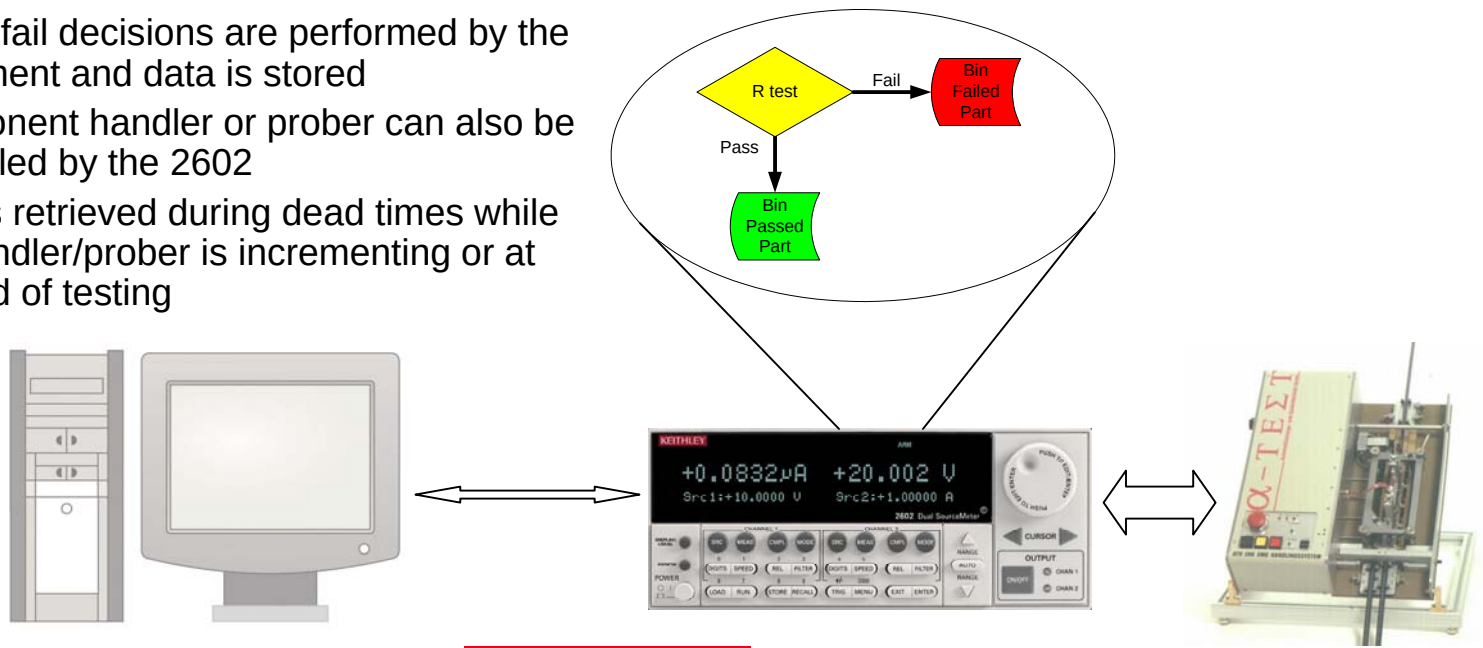
Faster Test Times With Embedded Test Script Processor!

- With Keithley's Test Script Processor:
  - The full diode test sequence runs inside Model 2602 System SourceMeter instead of on the PC
  - PC initiates all testing with a single instrument command
  - Pass / fail decisions are performed by the instrument and data is stored
  - Component handler or prober can also be controlled by the 2602
  - Data is retrieved during dead times while the handler/prober is incrementing or at the end of testing

- Elimination of excessive communication and PC delays results in up to 10X faster test times



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