Reflex 51 - a flexible solution to high-power life-testing.

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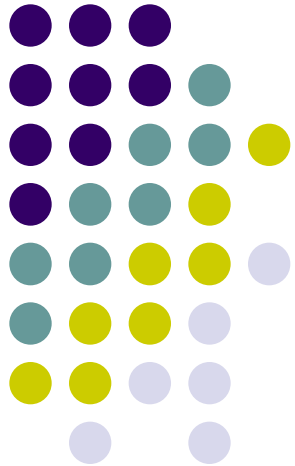

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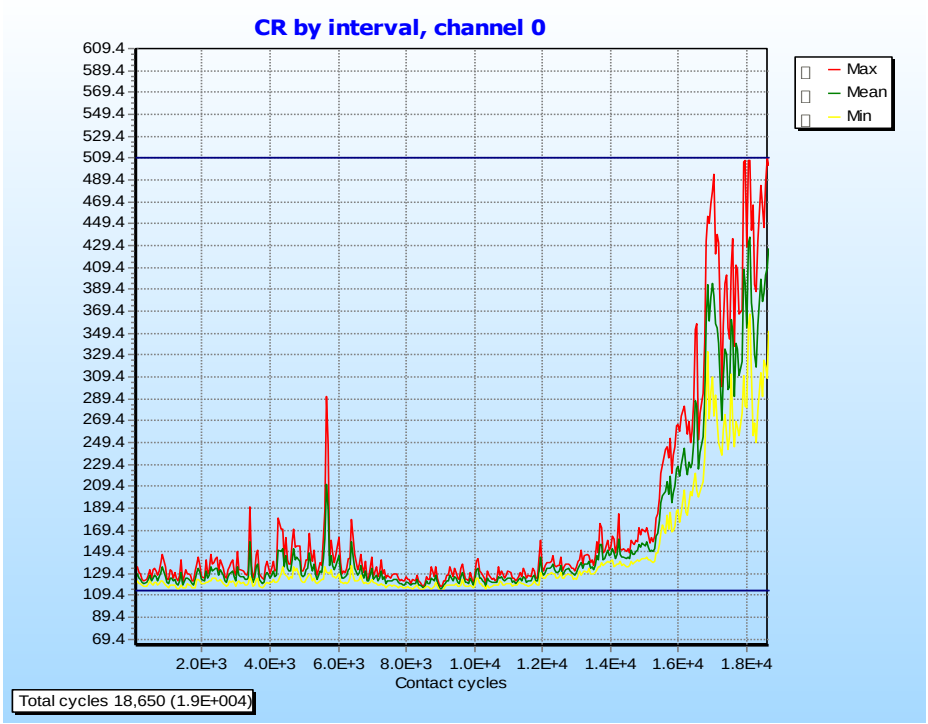
REFLEX 51
Power Relay Life Test System

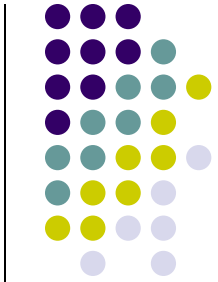


Monitors & collects contact behaviour - Contact Voltage Drop, CR, Stick etc. on EVERY cycle

Power relay life testers present some difficult design challenges…

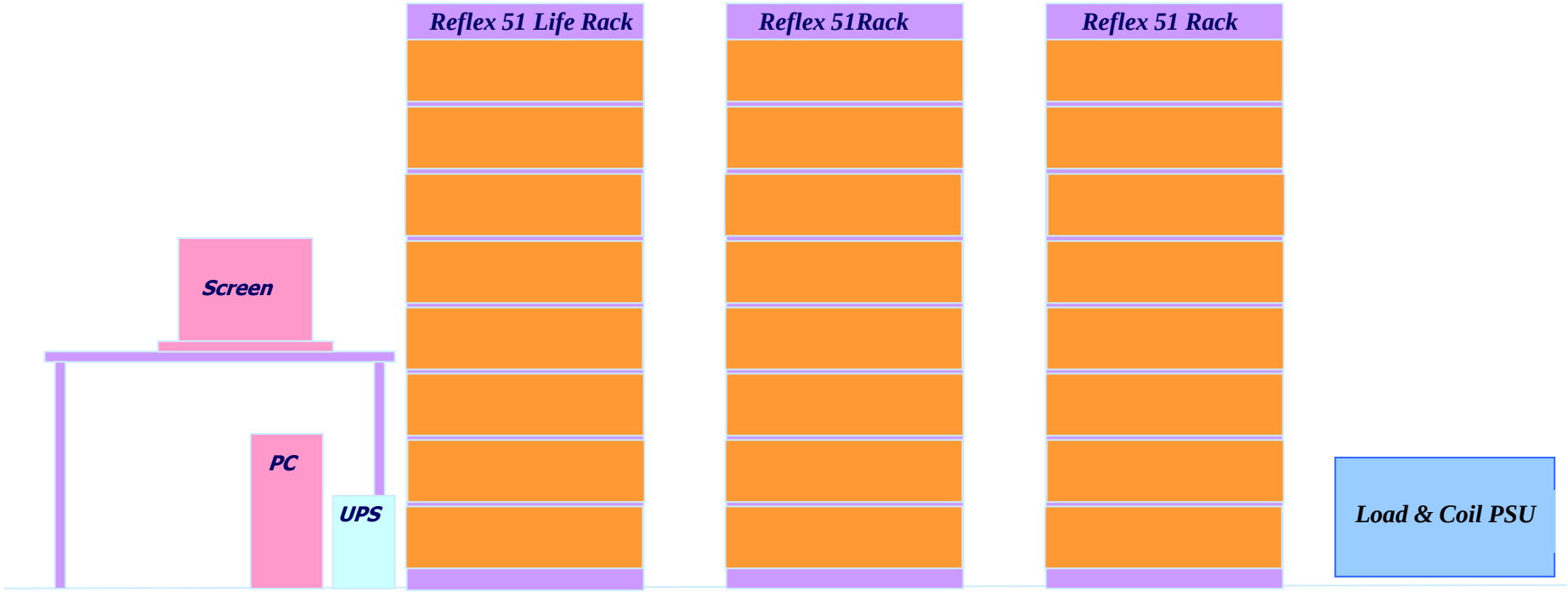
- Systems are often physically & electrically large
- Often requiring large numbers of relays & contacts to be tested e.g Automotive relays > 100 relays
- Wide range of load types, e.g. inrush, motor etc, not always known at time of equipment purchase.
- Power loads are often complex with high voltages & currents. Heat dissipation can be significant (kW)
- Flexible load-circuit configuration, easy to construct, easy to change, depending on application

Reflex 51 Offers a highly flexible ground-up approach to life test…

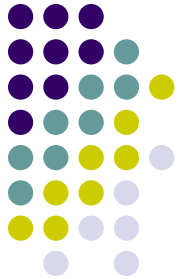


- Select from a collection of simple modular Life Test System components, available individually or as a turnkey package
- Build up a SINGLE power life test chassis to do exactly what you want for life testing one relay
- Then ADD more chassis for the relays to be tested
- Maximise the system flexibility & capability with software

Larger systems can easily be built using the flexibility of Ethernet to interconnect individual chassis

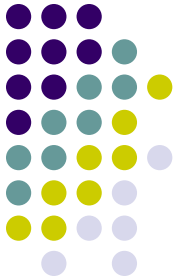


Display & Control Module Provides…



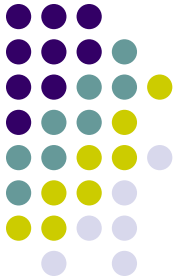
- Essential front panel display of chassis status
- Providing information on CR & Stick,Load Current, Load Voltage
- Communications to host PC Controller
- Control of measurement & Switching modules

Measurement Module Provides…



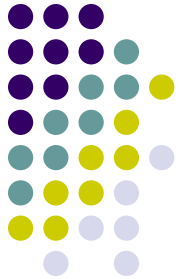
- 4 independent ADC measurement channels
- Used for measurement of Contact Voltage Drop (CR), Stick, Load Current, Load Voltage
- Multiple Modules can be configured per chassis

Power Switching Module Provides…



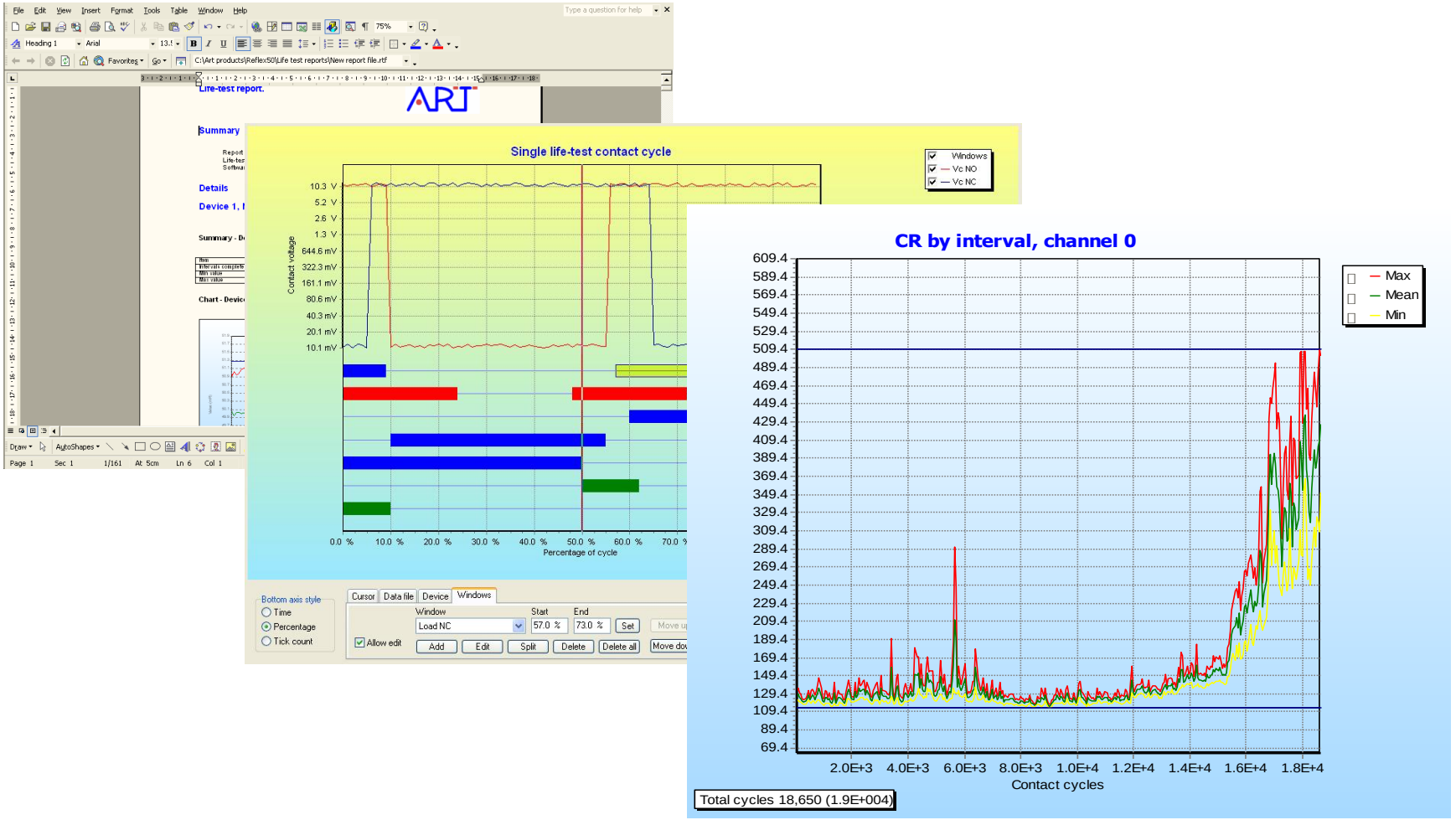
- Power switching for loads or load power
- Power switching for coil drive and coil power
- Multiple modules can be configured per chassis
- Each module provides two high-power solid state switches

Benefits of a modular Ethernet based architecture…



- Solutions can be quickly built from standard Reflex51 component parts for a rapid engineering response focused tightly on cost.
- Using Ethernet, systems can be easily cascaded to create large distributed power relay life-test systems
- Chassis can be updated or reconfigured & modules re-used when test requirements change.
- Reflex51 measurement and control could easily be added to existing customer load investment or load circuitry.

Modern Modular Architecture - Software



Reflex 51 software – a detailed look.

Brian Frost

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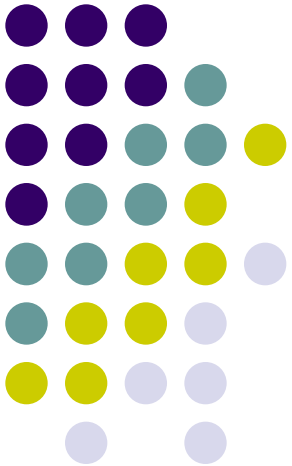

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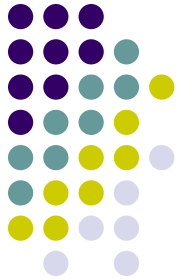
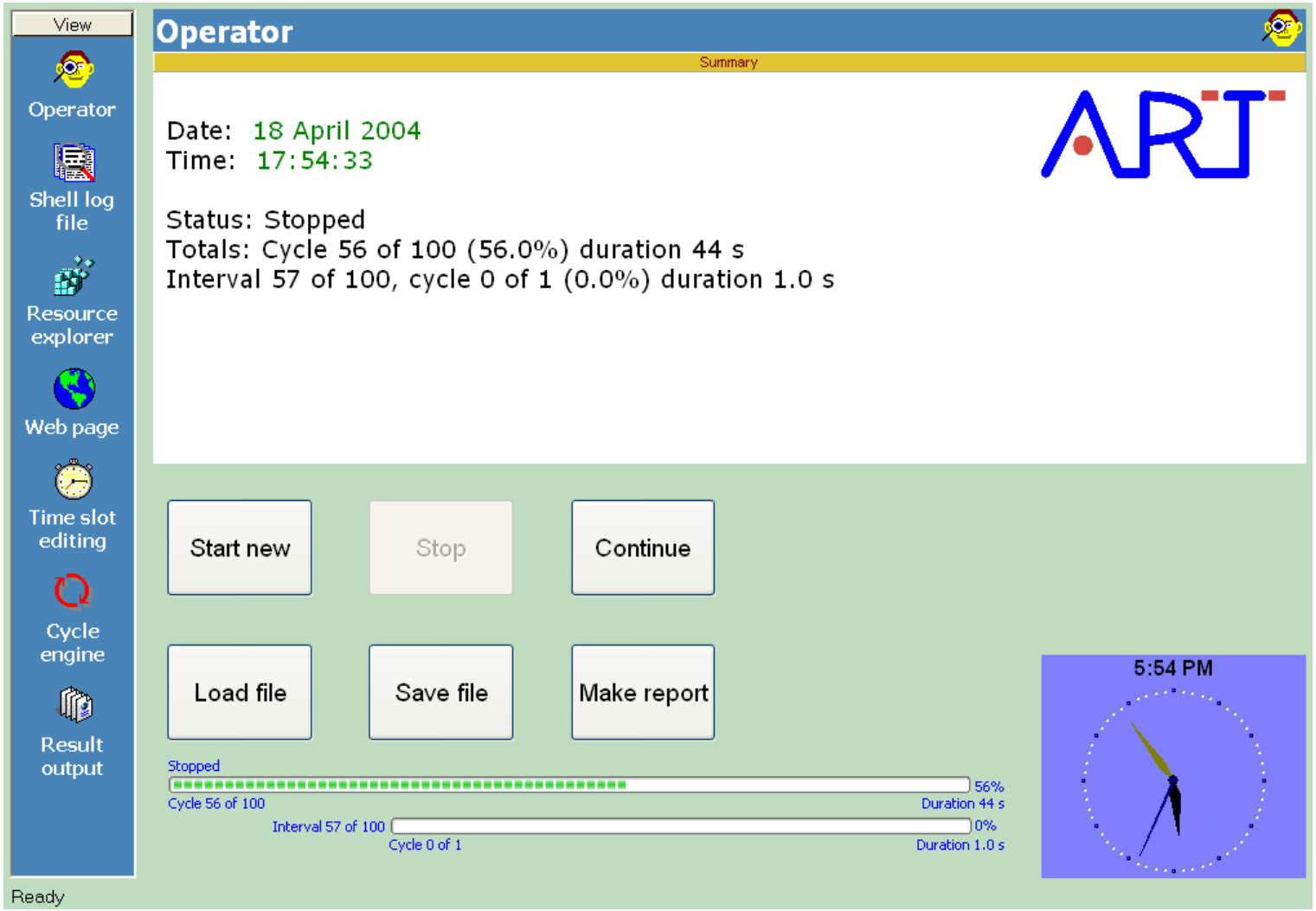
Reflex 51 is based on hardware ‘components’

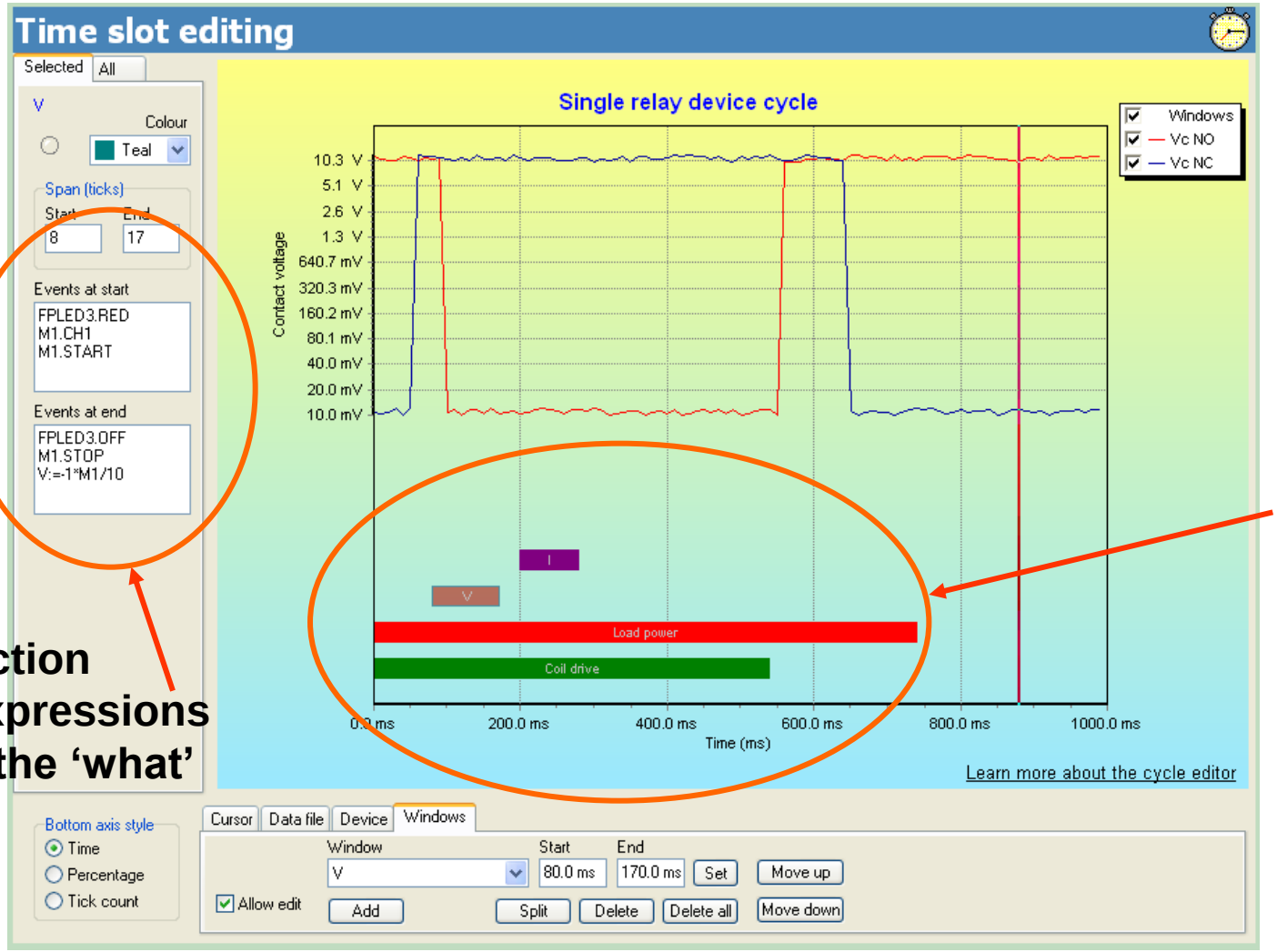


- Main components are power switching and voltage measurement.
- You program the switching activity.
- You program the measurement points.

Simple, customisable web format Operator screen



Cycle programming is easy yet flexible like a PLC

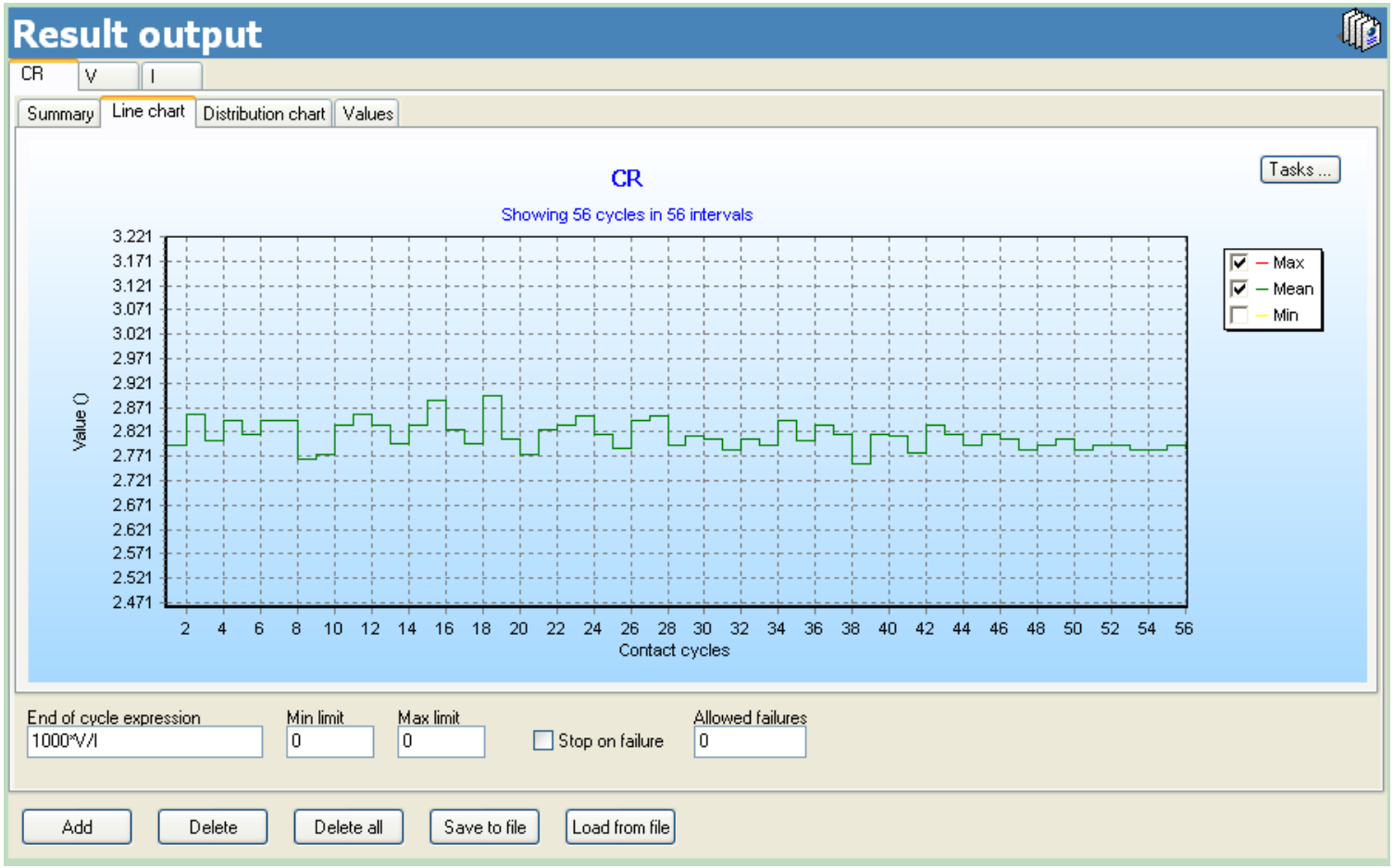


Action expressions – the 'what'

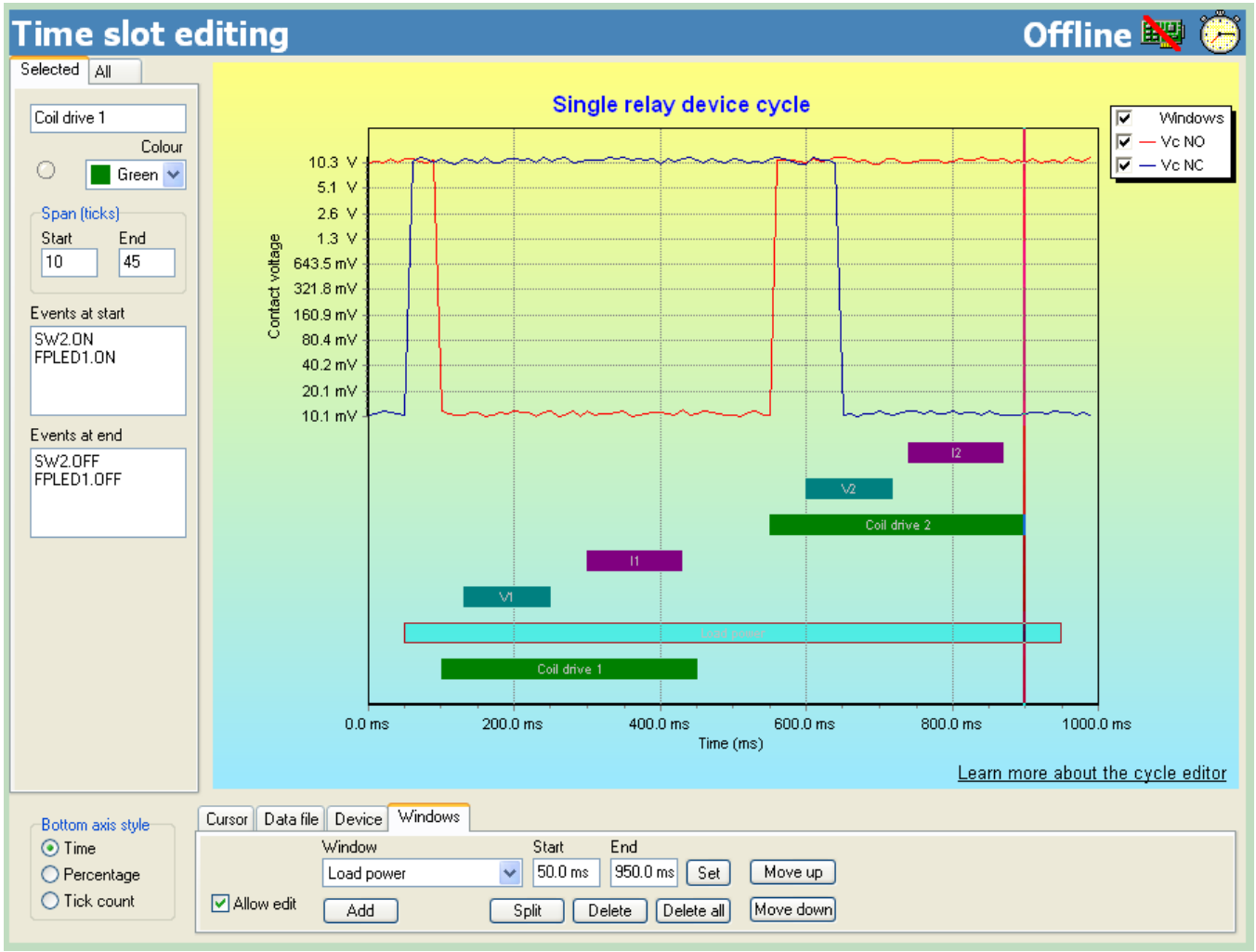
Action timing – the 'when'

Fully graphical results, for example this Vcontact result

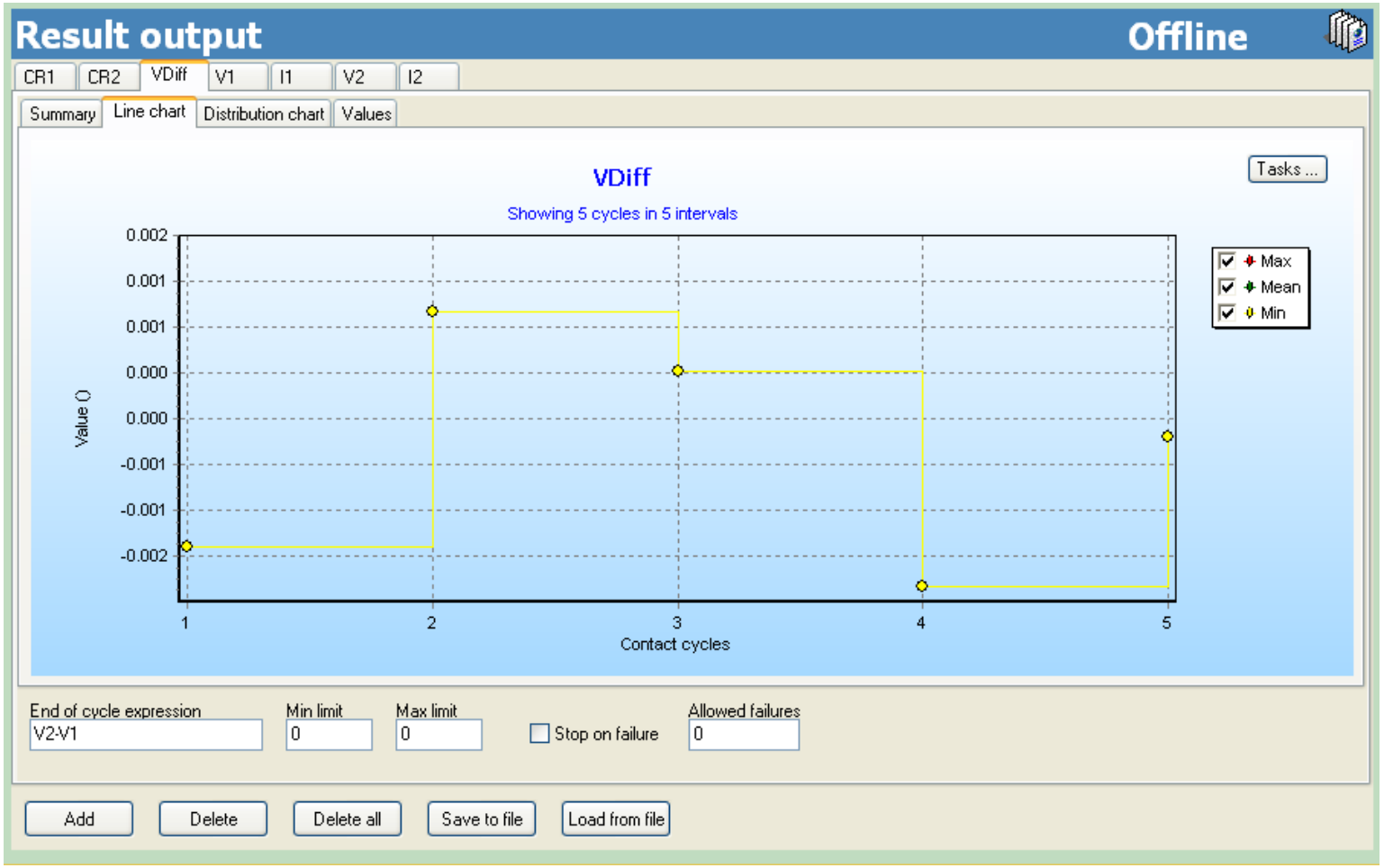
Any number of derived results can be added, e.g. this CR result



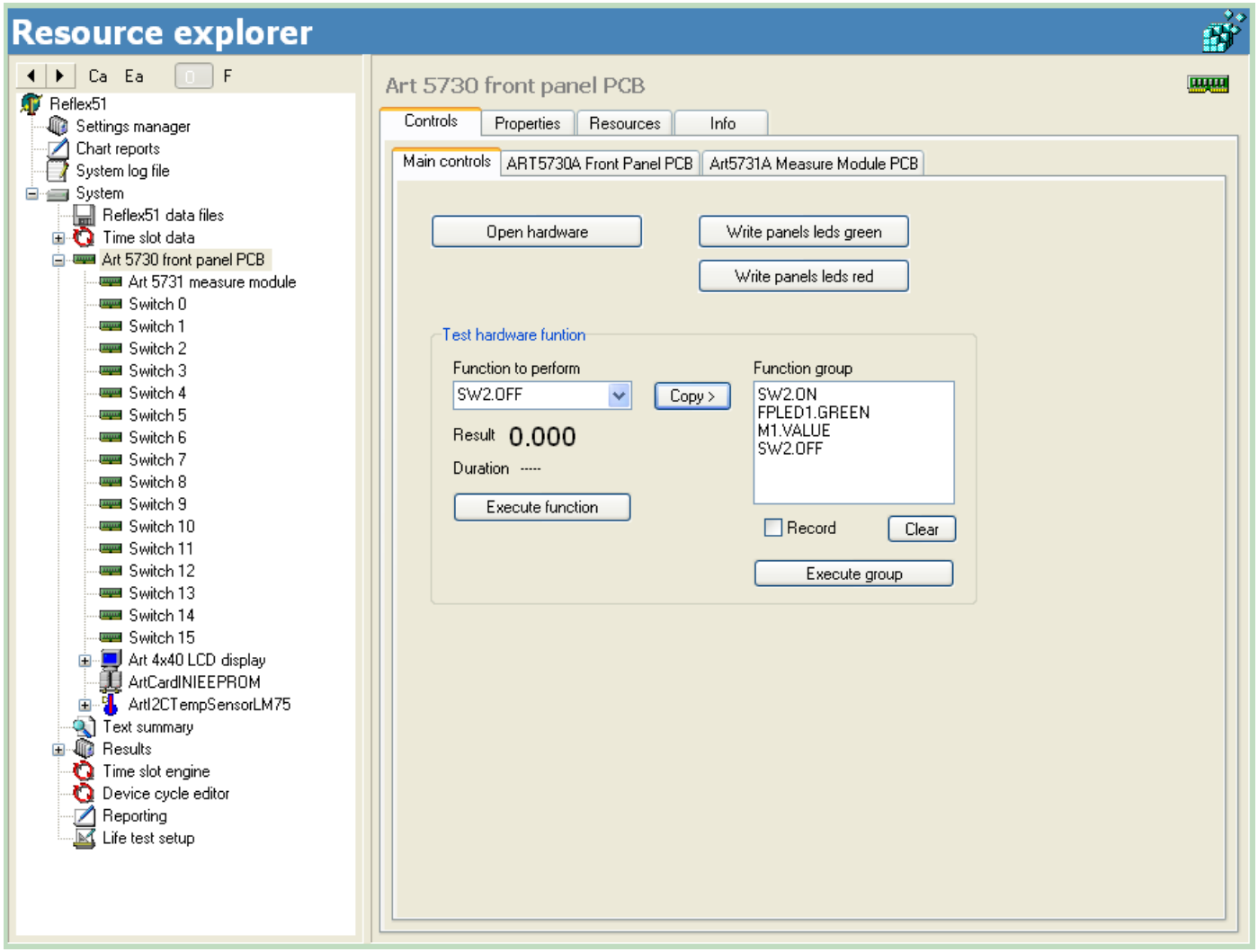
Use the same concept for a special dual-relay for example



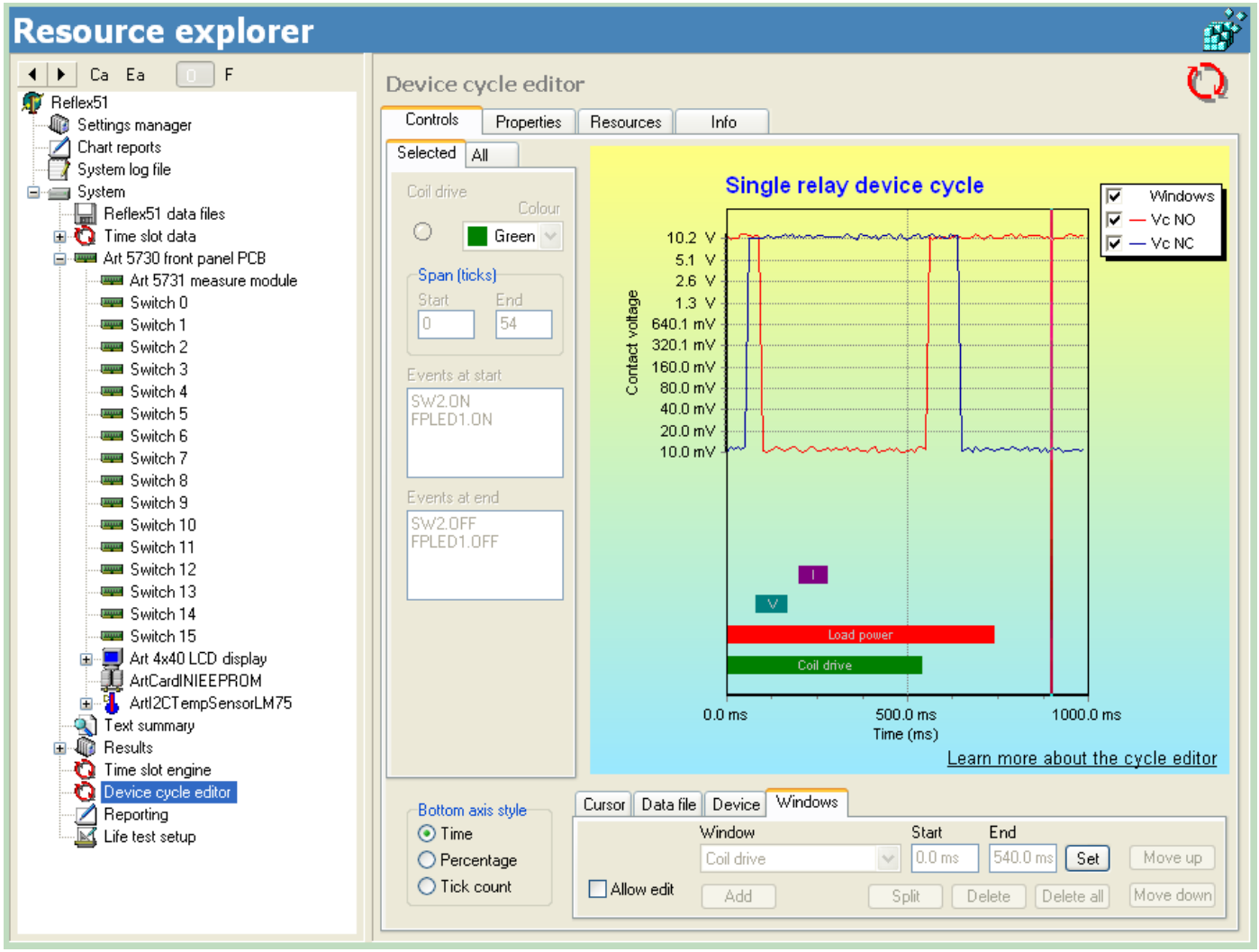
When run, the dual-relay results are comprehensive



Load-circuit can be debugged directly using an ‘Explorer’



Entire system view provides full control even at low level



In summary

- The Reflex 51 provides a high-power life-test system that has uniquely flexible hardware and software.
- Its design for high-power makes it ideal for automotive and high power AC line testing.

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Thank you.