

## System automation:

- Fully automatic cool-down/warm-up routines
- Fully automatic pre-cooling/mixture collection
- Sample change wizard for systems with load-locks
- Fully integrated magnet control, including vector rotate magnet software

## Triton command interface:

- Platform-independent remote scripting interface
- Standard internet (TCP/IP) protocol
- Compatible with any programming language that can access the TCP port e.g. LabVIEW / Matlab / Python / C / C++ / C# / Visual Basic / HP VEE etc.
- Monitoring and control of automatic software routines and system parameters
- Definable access levels (read only/read write etc) with security

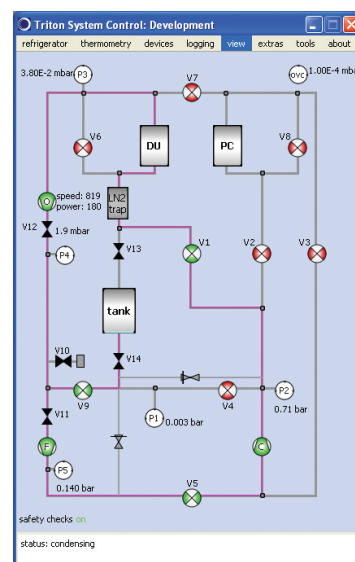


## Experimental control:

- Programmable temperature and field sequences
- Programming library supplied with example LabVIEW VIs
- Integration of dilution refrigerator/magnet control and experimental data acquisition

## In-built safety features:

- Continuous monitoring of all pressure gauges
- System automatically enters "safe state" if necessary
- Automatic software intervention in case of overpressure with fail-safe in-line pressure relief valves protecting the mixture and dilution refrigerator in the event of extended power failures
- UPS option – automatic alert emails can be sent to user in the event of a power failure
- Monitoring of magnet temperature during field sweep, high temperature control, sample loading
- Automatic magnet de-energization in event of power cut, pulse tube cooler failure, excessive heat load on cooler second stage



## System logging:

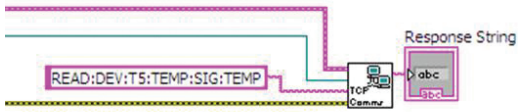
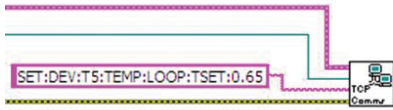
- Automatic logging of system parameters (temperature, sensor resistances, pressure readings, magnetic field and current, pump speed, <sup>3</sup>He flow etc)
- Data can be exported as an ASCII text file, compatible with Excel
- User-initiated and software-controlled events are logged

## User support:

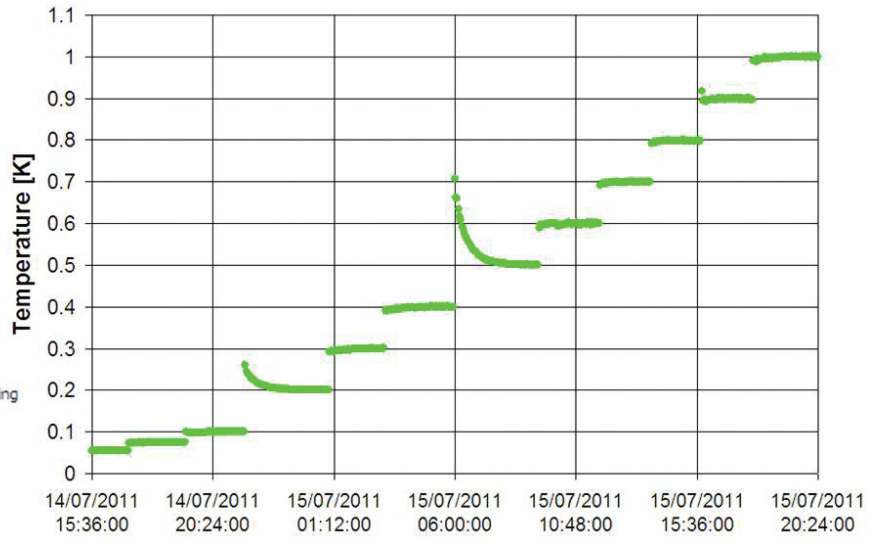
- Detailed remote interface programming manual
- Remote system access by Oxford Instruments support staff can be enabled to aid system diagnostics
- Free software upgrades available for download from Oxford Instruments' website
- All system settings are backed up prior to shipping from the factory



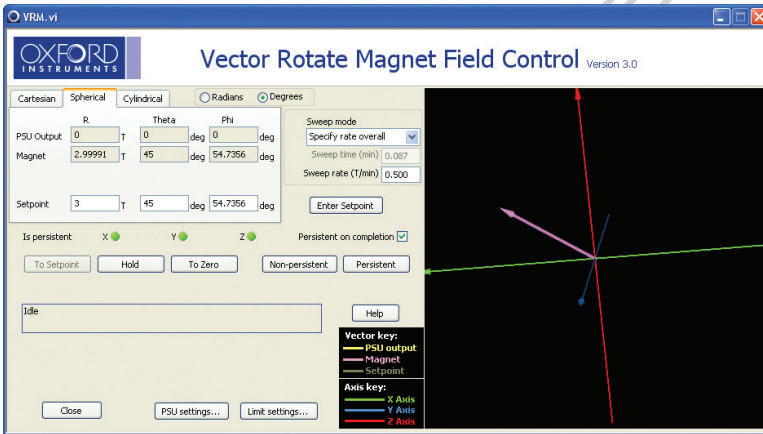
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Automation of temperature control set-points using the remote interface.



Time



Vector rotate magnet field control software.