Pulse

5.9 – 9.4 T
(250 – 400 MHz)

RS²D
REINVENT
SYSTEMS
FOR SCIENCE
& DISCOVERY

POWERED BY CAM4

SEE THE DIFFERENCE.

Hardware specifications

Compact electronic design powered by the Cameleon4™

A highly configurable, and flexible console compatible with magnets and probes from various manufacturers.

Cameleon4

- Latest FPGA SoC technology
- Embedded Linux on dual core ARM processor

Transmitter

- 120 dB amplitude control
- 63 dB attenuation
- Amplitude and phase modulation with 102 ns delay

GPIOs

- 5 General purpose input/output for blanking, coil controls, sequence triggering, etc.

Receiver

- 60 dB gain control
- Simultaneous (^{1}H and X nucleus) multi-channel observation

Gradient

- 24-bit amplitude resolution
- 5.4 µs time resolution
- Analog gradient channels
- Eddy current compensation
- 20 A

Configuration

- 2 Transmitters (Tx) + Lock + LO
- 2 Receivers (Rx) 5 - 400 MHz
- 1 Gradient Z + B0

Sample and temperature unit

- Spin and lift control
- BACS & Sample Xpress sample changer control
- 0.1 °C sample temperature regulation
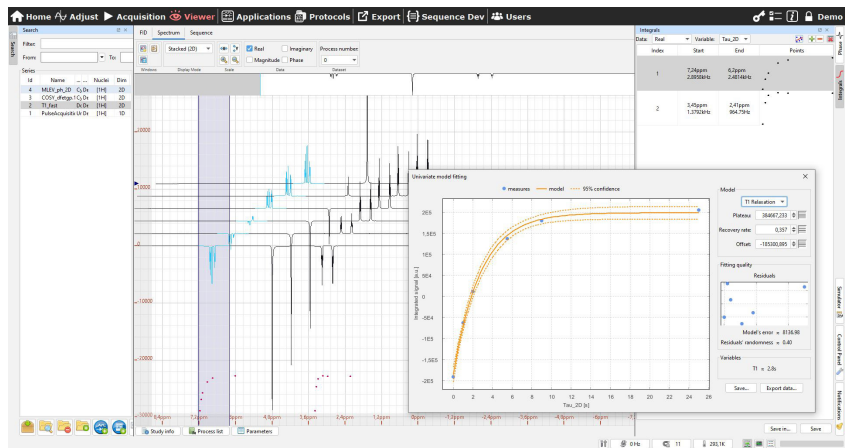- Magnet helium level measurement

Preamplifier

- Preamp board 3 channels

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NMR software

All-in-one software

- Spectrometer management
- Acquisition
- Processing
- Data management
- Sequence development
- New Pulse Solver
- NMRFx integrated

1D & 2D options

- Standard processing tools
- T1 and T2 automatic calculations
- Nutation calculation
- Deconvolution tool
- Report edition
- Setup and plugins

Sequence development

- Graphical and intuitive sequence editor
- Java code for advance calculations
- Compatible with common integrated development environment (IDE)
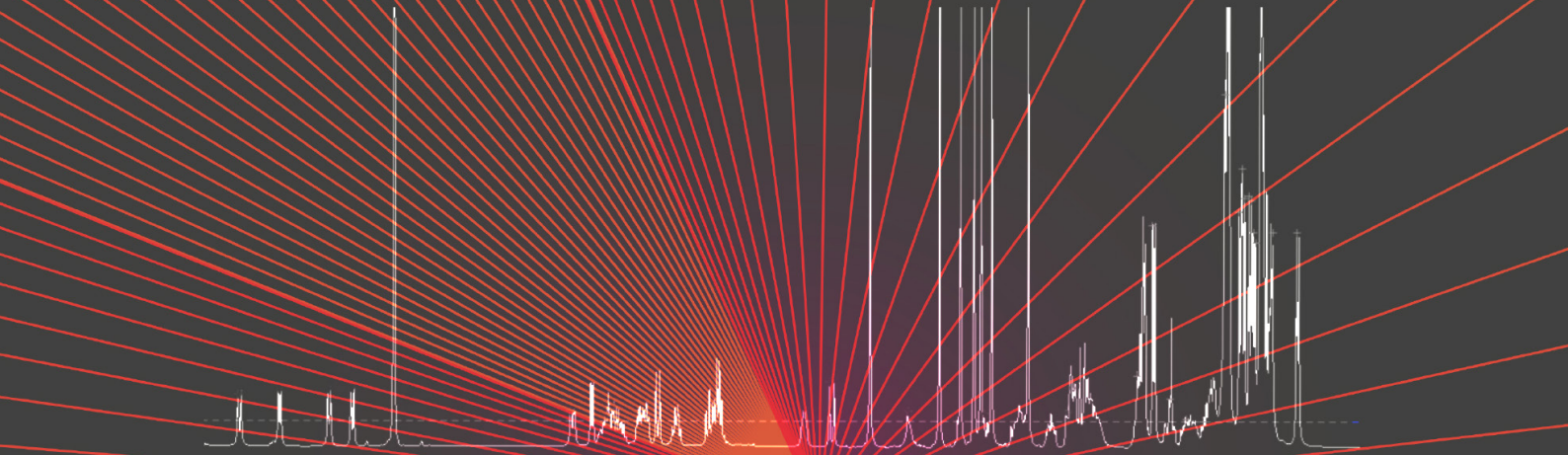- One-click acquisition and raw data visualization
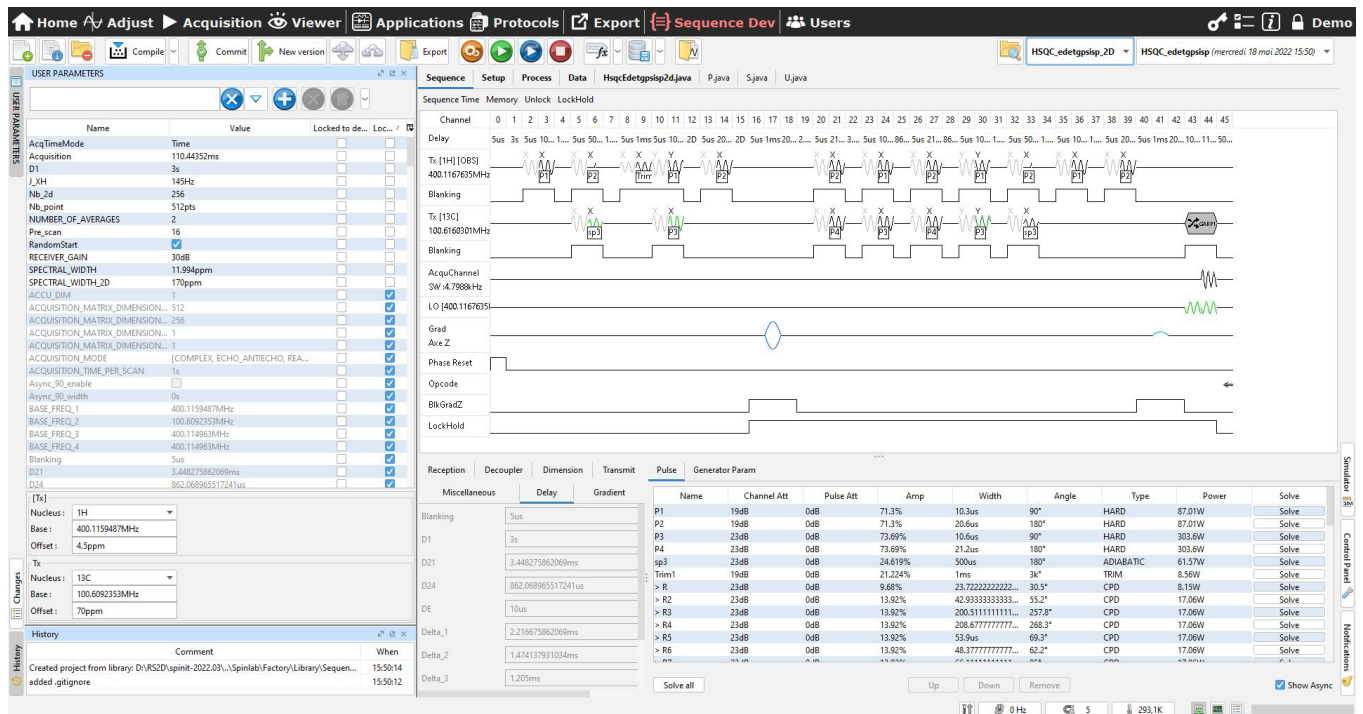
3 Programming levels

- Diagram-only pulse sequence
- Pulse sequence with graphics and Java
- Pulse sequence with advanced Java calculation

Sequence versioning

- Integrated viewer for version comparison
- Based on Git and compatible with common Git versioning software
- Share sequences on server or on the cloud

Compatible with magnets and probes from various manufacturers, the **Pulse™** is a compact and configurable NMR system. The compacity of the system makes it the smallest NMR console worldwide.

Third-party software integration tools and the list of NMR pulse sequences are available upon request.

RS²D proposes services and solutions for developing pulse sequences, NMR architecture designs, and complete systems.

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