RTAC real-time acquisition and control software is a SCADA system consisting of standard modules for interfacing with Schlumberger downhole tools and other equipment; it can be customized to provide fit-for-purpose solutions.

RTAC software can be used to download firmware to subsea interface cards or downhole tools and reconfigure them as needed over the life of the well. The system architecture can expand to handle additional wells that may be tied back to the production system.

**Proficy iFIX embedded SCADA software**

RTAC software is based on Proficy® iFIX embedded SCADA software, which is widely deployed in many different industries worldwide. iFIX software offers a robust SCADA engine, a rich set of connectivity options, open architecture, and a highly scalable and distributed networking model. It is well supported and mature, and it meets the robustness and long-term sustainability requirements of successful SCADA systems.

**Communication protocols and drivers**

Usually connected to remote-terminal units (RTUs), surface equipment, or external SCADA systems, RTAC software uses Modbus® serial, Modbus TCP, and Open Platform Communications (OPC) communications protocols. It can also send and receive wellsite information transfer specifications (WITS) data. Industry-standard drivers are available when a new RTU needs to be connected to the RTAC software.

**APPLICATIONS**

- Real-time monitoring and control of downhole tools and equipment
- Full visibility of reservoir and production parameters in real time
- Real-time diagnosis of events that require intervention

**BENEFITS**

- Cost savings from fixed, one-time licenses
- Increased safety through user-controlled data management and security

**FEATURES**

- Remote monitoring through a web interface
- Remote operation from operation support centers
- Standard modules and fit-for-purpose solutions

Typical RTAC real-time acquisition and control software overview screen for five wells, with four hydraulic inflow control valves and eight pressure-temperature gauges per well.
RTAC

Data security
For remote operations or data transmission over LAN or WAN networks, the RTAC software uses the Secure Socket Layer (SSL) security protocol. Data can be sent or received in wellsite information transfer standard markup language (WITSML), using the Web; the InterACT® global connectivity, collaboration, and information service; or any other customized real-time production infrastructure.

Standardized user interface
RTAC modules have been developed to standardize the user interface of Schlumberger tools and RTUs, enabling them to be reused from one project to another. Currently, 40 standard modules are available. These modules include three main software components:

- an interface driver for acquiring data from the tool at the correct rate, using a specific communication protocol
- a data- and event-processing component to manage the data acquired in real time by the interface driver, allowing for alarm detection, data compression, and the generation of export files
- a human-machine interface.