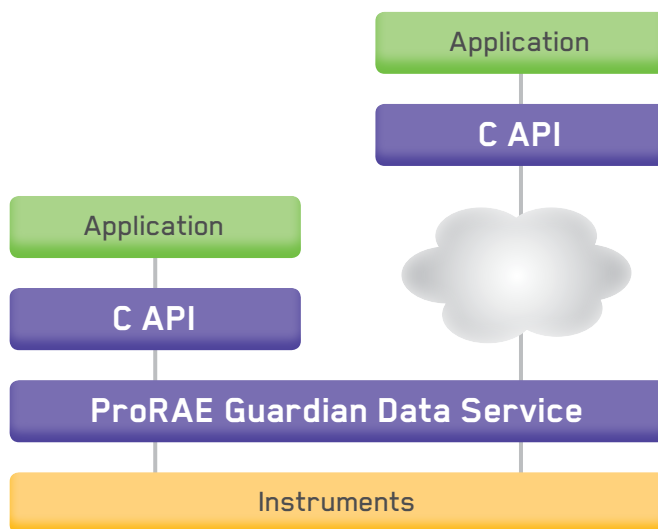# ProRAE Guardian SDK

ProRAE Guardian software integration development tool

ProRAE Guardian helps incident commanders and safety managers improve safety through real-time remote monitoring of wireless gas and radiation-detector networks. ProRAE Guardian™ SDK (Software Development Kit) provides third-party product vendors and systems integrators the ability to integrate real-time data from ProRAE Guardian with external networks such as SCADA (Supervisory Control And Data Acquisition), public warning, and predictive analytics systems.

The SDK includes a C API (Application Programming Interface) functions library, a Test Harness tool, and sample programs.

The C API functions internally communicate with the ProRAE Guardian Data Service program, which runs in the background and directly interfaces with the instruments using lower-level communication protocols. The common high-level C API functions and XML for data exchange insulate third-party applications from future changes in the communication protocol with instruments, including the addition of new instruments.

- **Easily build custom monitoring and control Solutions**
- **Broaden capabilities of existing applications and systems by including real-time gas and radiation data**
- **Rapid and cost-effective integration**
- **Open platform for future expansion**

KEY FEATURES

- Simple and easy-to-use high-level C APIs
- Rich interface to request filtered real-time data
- Common XML structure for data exchange
- Support for Common Alerting Protocol (CAP 1.2)
- Remote connection support over TCP/IP
- Test Harness for rapid development
- Supports all RAE Systems wirelessly enabled products

DESIGNED FOR:

- Third-party product developers and vendors
- Systems and applications Integrators
- Enterprise customers in oil and gas, chemical, pharmaceutical, and other industries
- Homeland security, HazMat, emergency response, and fire service

ProRAE Guardian SDK integrates real-time data from ProRAE Guardian with external customized applications and networks using the C API.

ProRAE Guardian SDK

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SPECIFICATIONS

Minimum Hardware Requirements

CPU	86x (or compatible) CPU, 1.0 GHz or better
Display	VGA monitor (at least 1024 x 768 resolution, 16-bit color) for Test Harness
Hard Drive	100MB of free hard disk space
Port	Serial port (RS-232/USB COM port) for instrument/modem connection
Network	LAN connection for network-connected devices

Minimum Software Requirements

Operating System	Microsoft Windows (XP SP3, Vista, Windows 7, Windows 8)
License	- ProRAE Guardian Instrument Monitoring License - ProRAE Guardian SDK License

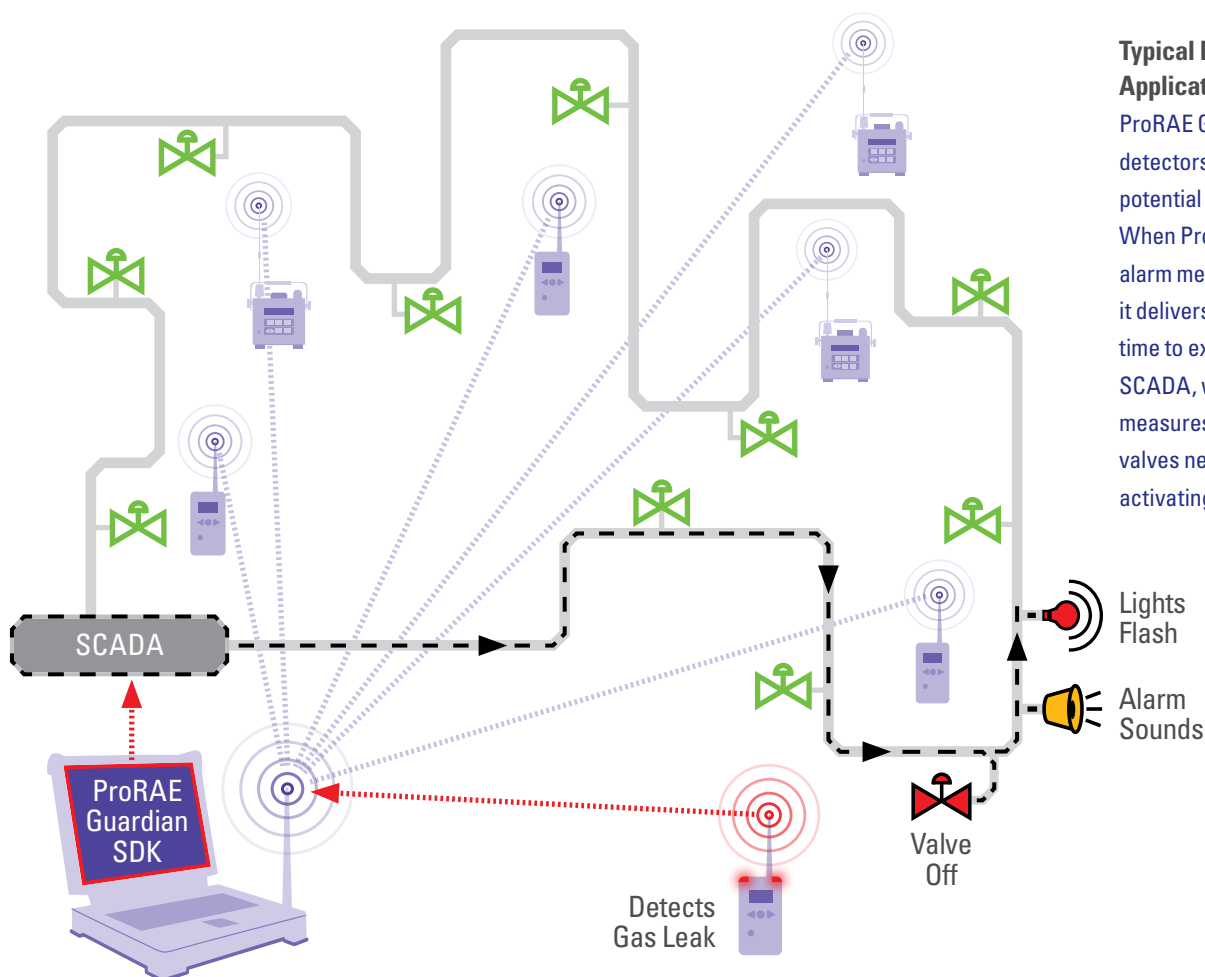Specifications subject to change without notice

ORDERING OPTIONS

The SDK license requires an existing ProRAE Guardian Instrument Monitoring License. Customers can order an SDK license by providing the Product Key for their ProRAE Guardian license. Contact your local RAE Systems regional manager for more information on license options.

ORDERING INFORMATION

Description	Part Number
ProRAE Guardian SDK License*	S01-0001-000

* Requires existing ProRAE Guardian Instrument Monitoring License

Typical ProRAE Guardian SDK Application:
ProRAE Guardian oversees gas detectors that monitor a facility for potential gas and radiation leaks. When ProRAE Guardian receives an alarm message from a gas detector, it delivers that information in real time to external networks such as SCADA, which exercise control measures such as shutting down valves nearest the detector and activating light and sound alarms.

SCADA

ProRAE Guardian SDK

Lights Flash

Alarm Sounds

Valve Off

Detects Gas Leak