

INTRODUCTION

Supervisory Control And Data Acquisition Software is used to provide an easy way for operators to remotely monitor and control their Assets. ICS uses industry standard, commercially available software packages to provide high quality, modern, Internet of Things (IoT) remote monitoring and control software solutions for our clients.

APPROACH

We build our SCADA applications using open architecture platforms to allow us to ensure each application is suitable for both the current and future needs of the client. Typical options include:

- **Integration of various assets** including automatic gates, flow meters, pumps, farm offtakes, level sensors and more.
- **Focus on long term sustainability**, both technically and economically.
- **Open Database** - Once the asset is connected to SCADA all of the operational data is stored in an open and accessible database to allow easy integration with other business systems.
- **Industry Standard Communications** – Our SCADA solutions are compatible with all industry standard communication protocols such as Modbus, OPC, MQTT, RS-232 and more .

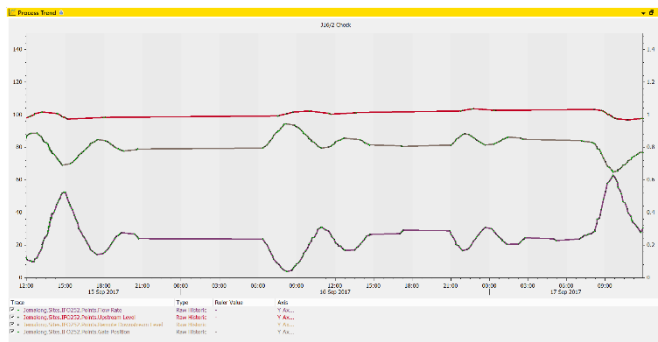
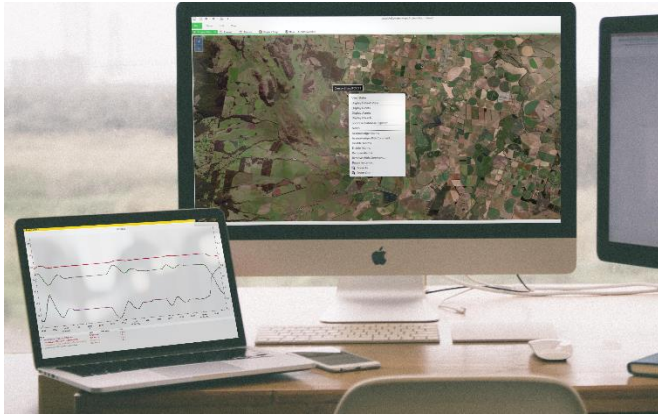
BENEFITS

The ICS approach of using well known, industry standard packages provides a number of benefits for our clients:

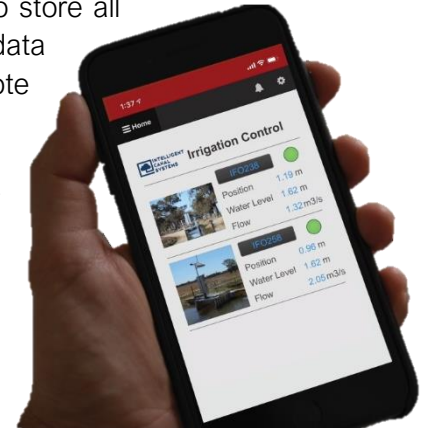
- **Easy integration** of existing and future remote assets.
- **Tailored to channel irrigation** to provide an application that meets the unique demands of the channel irrigation systems.
- **Suitable for radio and mobile networks**
- **Proven, bug-free operation** compared with new/custom or proprietary solutions.
- **Included ongoing development** to ensure the SCADA solution remains compatible with wider industry developments over the long term.
- **Non-proprietary** platform so the client can choose who maintains, supports and upgrades their SCADA application to help control the cost of ownership.

REMOTE MONITORING AND CONTROL

FEATURES



- User friendly web based, PC or APP application to suit each operators preferences.
- Cloud based or physical on-premise server options.
- Custom screens to suit each clients preferences and needs.
- Inbuilt historian database to store all of the time series data generated by the remote assets.
- Generate SMS or email alerts and alarms to notify the operators of changes in the system.
- Generate custom reports to highlight critical KPIs or other information in easy to read and analyse formats.
- Produce standard and custom interactive graphs and tables to allow for easy data analysis.
- GIS compatible to generate spatial data displays to assist with optimisation based on location.



SPECIFICATIONS

Item	Specification
Supported User Devices	Windows PC Android and iOS phones and tablets Web Interface
Server/Database location	Cloud or on-premises
Number of concurrent users	1-100+
Security	Username/Password User access limits
Number of Sites/Assets	1-10,000+
Number of points/tags	1,000,000+
Typical Poll time	Normal Operation: 5min Live Request: 5s
Alarms/Alerts	Yes, based on change of state, high/low limits, time limit elapsed, failed communication, outside dead band and more

Item	Specification
Alarm/Alert Redirection	SMS, email, phone notification
Alarm/Alert Redirection Schedule?	Yes, can sync with operator roster
Historical Trends	Standard and Custom Interactive interrogation
Custom Reporting	Yes, including data analysis/calculations as required
Report Formats	PDF, Excel
Database format	SQL (standard)
Communication Protocols	OPC, MQTT, FTP, ODBC + more
Historical data storage	Yes, indefinite storage limit
GIS/GPS functionality?	Yes
Redundant Server/Database	Optional