

## R-Win Product Description

One way of looking at a SCADA/DCS system is to define the control center as the “brain” of the system. This brain, controls multiple tasks and processes.

A modern way to upgrade systems performance is to make remote nodes “intelligent”; this allows them to operate like local mini-brains, which results in a smarter control system.

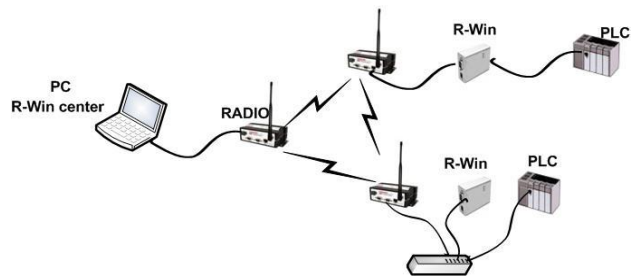
With R-Win installed, a single node (remote pumping unit, power sub-station, telemetry station, oil rig, etc.), within this kind of distributed brain system is equipped with the control and communication capabilities it needs to manage local processes, along with an alternate communication routing map.

This kind of high level networking and dynamic communication architecture is the preferred method for achieving redundancy and resilience solution today; it also substantially improves overall system efficiency.

Another valuable smart feature that results from this R-Win MESH feature is the ability for a node to command controlled PID-like processes between nodes, without the participation of the control center, as long as all processes are performing within preset parameters.

R-Win (Radio Wireless Internet Networking) is AGM’s solution to the above challenging requirements. It features:

- PLC and radio modem intelligent interface
- MESH (Multipoint Enhanced Signal Handling)
- System-wide communication management
- Remote setup
- Routing and Bridging data comm
- Store & Forward data comm
- System security
- System redundancy
- System resilience



R-Win includes intelligent management software, imbedded on a microcontroller. Its compact and rugged package, is installed between the PLC and the wireless IP Radio-Modem at the remote station, and connects to the Ethernet in the Control Center.

R-Win serves as a smart networking manager and multi-gateway device.

A SCADA/DCS system is about input, decision-making, and output instructions. It must have 100% connectivity reliability, in real or near-real time.

AGM’s wireless networking solutions for distributed control management include;

- Use of public RF frequencies for cost effectiveness
- Use of Modbus, TCP/IP, and other standard protocols
- “Unmanned Control Center” concept option
- COTS approach, using local Commercial-Off-The-Shelf equipment for projects
- Advanced security and encryption designed to meet FIPS 140-2

[R-Win Technical Review document](#)

Sincerely yours,

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