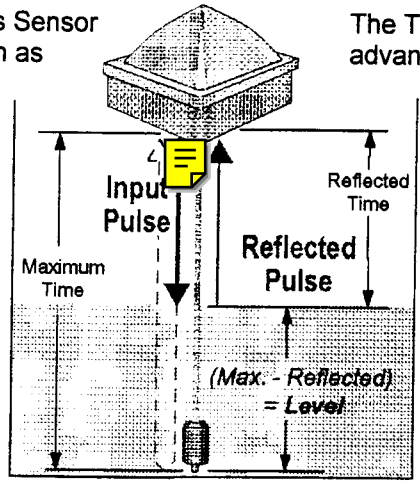
MIR Level Principle of Operation

The principle behind the WL-2 monitor's Sensor is based on a novel form of radar known as Ultra Wide Band (UWB)Impulse Radar.
In operation,a very short,very low energy electromagnetic impulse is propagated from the top mounted sensor down along a thin waveguide (probe) that is immersed in the measured fluid.
The sudden change in the dielectric at the fluid surface cause some of the impulse energy to be reflected back up the wave guide.The time difference between pulse reflections and the maximum calibrated time delay is proportional to the level of the fluid.



Wireless Local Network

The TankScan W-series employs a highly advanced bi-directional RF network operating in a license-free band. Since the field units operate at a very low power, and a choice of frequencies are available within each band, you may deploy your units in any application regardless of location or proximity to other radio based devices.
Through an innovative multiplexing scheme, the TankScan W-series devices can exchange information with the controller securely and efficiently. The local network can also automatically recover from power losses.
Each local network is preconfigured centrally using Barton software. The configuration information is downloaded to the WC controller at startup via phone link or serial port. Armed with this information, the controller is now available to communicate with its assigned field instruments based on serial number designations. As those field instruments are powered, the RF link is established and the network is available for data exchange.
Periodic time synchronization and status messages assure that all local devices are continually monitored for optimal network performance.
Up to 30 monitors or overfill indicators can be simultaneously linked to one WC-2 controller.

Applications

✓ Liquid Products Distribution

From a few tanks to several thousands, TankScan's simple architecture makes it ideal for monitoring inventories throughout your supply chain.

✓ Vendor Managed Inventory

TankScan's economical, integrated solution reduces the cost of establishing a VMI program through lower capital costs, minimal maintenance and flexible data exchange.

✓ Feedstock Usage Monitoring

Users can economically monitor their process feedstock supply and provide information directly to their suppliers to reduce expensive run-outs and process stoppages.

System Features

✓ Built-in Security

The W-series can be readily deployed to any number of sites, no matter their geographic location. Since each controller's configuration is centrally managed there is no chance that unrecognized monitors can be polled for information. This built-in security feature eliminates the potential for competitor eavesdropping on your tank inventory data.

✓ Central Data Management

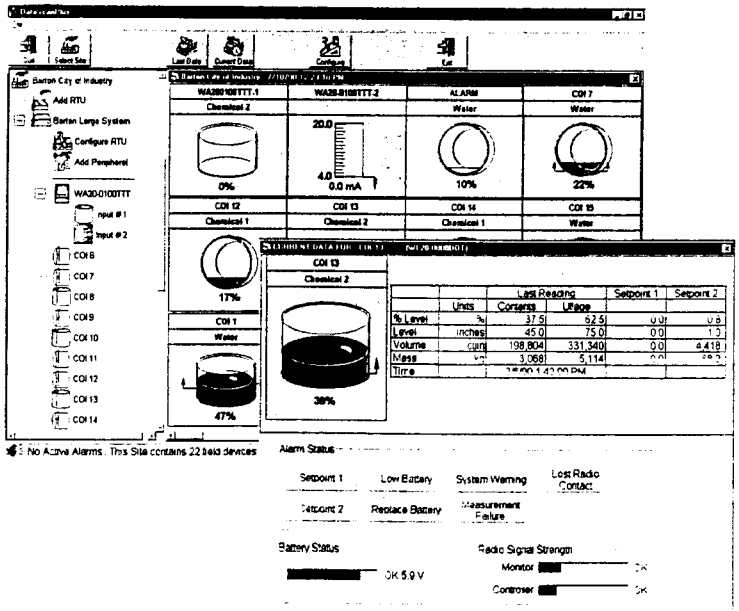
The W-series central configuration control also simplifies system maintenance. New tanks, or local tank farm changes can be readily adjusted from your operator workstation. You only have to maintain one database.

✓ Multiple Host Access

Each controller can be set up to dial multiple host systems with multiple retries. This ensures that your data will get through to the host. Pager numbers can also be dialed by the controller on emergencies.

✓ Diagnostics

Each part of the system reports internal status, including monitor battery level, controller loss of power and other system checks.



These screen shots from Barton's DataScan Plus PC software depict some of the TankScan W-Series information available. The software is simple and intuitive, featuring an easy to use icon-based interface.