CIMScan provides an ideal platform to build an easy to use and maintain SCADA system for water/wastewater monitoring and control. Remote Terminal Units (RTU’s) can continuously feed real-time information such as tank levels, pumping rates, and pump run time, to the CIMScan host running on a standard PC.

The entire system, from the RTU’s to the host software, is fully user-configurable. Each remote unit has a local array that is mirrored in the CIMScan database. Whenever an RTU channel changes outside a specified range, the databases are synchronized. It is then a simple matter to display, chart, or log the data as desired.

The RTU’s are housed in small, rugged aluminum enclosures that can be DIN-rail mounted in a NEMA enclosure.

### HOW RTU DATAPoints LINK TO THE CENTRAL DATABASE

#### CIMScan Host
Running on Windows-based PC

- **Radio Modem**
- **Real-Time Database**
- **Alarm Processing**

#### Remote Terminal Units (RTU)
Each Independent Station Linked to CIMScan

- **Radio Modem**
- **RTU #1 Local Data**
- **Repeaters**
- **I/O Pod**

**Thermocouple**

**Radio Modem**

**VFD**

**CIMScan Host**

**CIMScan**

**HOW RTU DATAPoints LINK TO THE CENTRAL DATABASE**

1. An acoustic level sensor measures the height of the liquid in the wet well.
2. The Lift Station Control function calculates the percent to a full well and stores it in the value in the local database.
3. The Pump Control Function uses the sump volume and its rate of change to control a variable frequency drive and therefore, the pumping rate.
4. Tank level is transmitted to CIMScan when RTU #2 is next polled.
5. The repeater receives the level from RTU #2 and retransmits it to the radio modem at the CIMScan host.
6. The well level at RTU #2 is stored in the real-time database in the South St. Lift Station group.
7. The wet well level is updated on the South St. value list if it is displayed.
8. The level is compared against the alarm limits and the alarm indicator changed.
9. The status indicator reflects the current alarm condition.

Alarm conditions can trigger messages that can be printed or sent via e-mail, telephone, pager, or even spoken over a PA system.