Dedicated to Improving Your Business Results

Case Study: **Wireless Transmitters**

Application: **Alcohol Tank Level Indication**
Ethanol Plant

Problem	Current tanks have only visual level indication. If the tank is read wrong and overflows occurs, it creates costly issues. Ethanol cleanup can be messy, isn't safe for operators, and can result in large fines from the EPA if not completed in a proper, timely manner. If levels are too low, it could result in a weakness in providing adequate product to their customer. Either way, bad readings are costly, but then again, so is the traditional solution.
Current Business Result	The cost of wiring to 70 tanks at an estimated $23.00/ft would result in more than $197,000 for the wiring alone. This does not include power supplies, conditioners, and transmitters. By the time the project is completed, total cost was estimated to be around $350,000.
Solution	The survey was run using a Bushnell laser range-finder [800yd(+) ± 1 yd.], tripod, graph paper, list of "attenuators in area to look for", and the demo survey model. The demo unit was set to communicate at a 19.2K baud rate, to ensure that the transmitter would meet all application needs. Even in the most remote locations of the three-room tank farm, the RF signal stayed strong. The wireless transmitter passed the second test: a range shot at 80 yards, through three brick walls, two cement walls, and behind a cooling tower that sits between the tank farm and the control room. The customer was on hand throughout the course of the survey, and after seeing the results, has placed his order. He will roll out the full project solution for a cost less than $100,000 – a potential savings of a quarter of a million dollars!