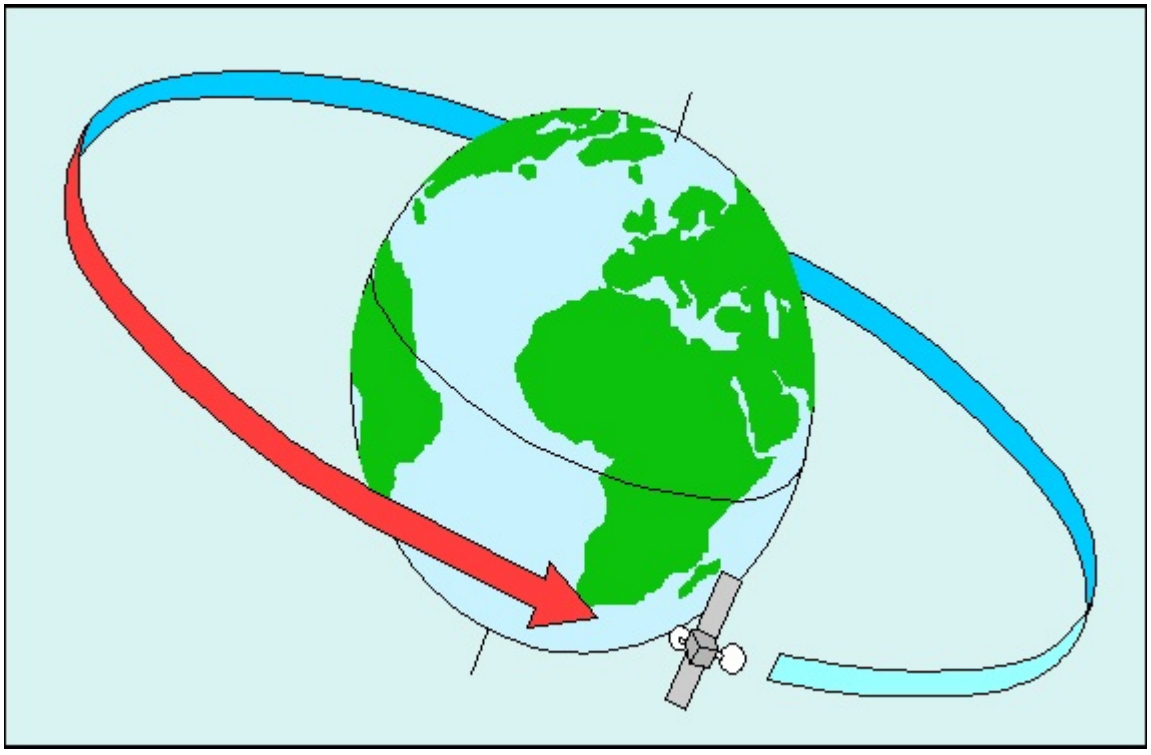
Project Profiles

Remote Monitoring



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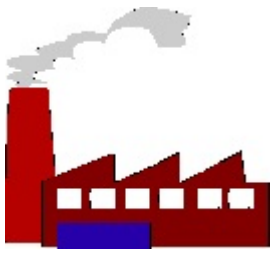
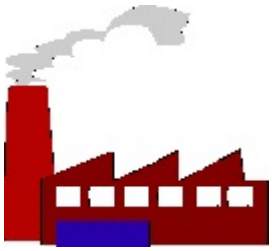
Metal Recycling Remote Monitoring

Description:	This system monitors three facilities spread out through the United States and Canada.
Hardware:	Each facility is supplied with a VPN/Firewall that acts as a gateway to the Control Ethernet network. Our server (located in Moraga) connects over the VPN and acquires data that is then stored in a SQL database. The system is configured only to read data so plant operations can not be affected. The SQL database is maintained in Moraga.
Operator Interface:	Data can be viewed (by authorized personnel) from any computer with Internet Explorer (or any other compatible browser) that has an internet connection. The system utilizes a Java Plug-In module. The users and passwords are administered from our site in Moraga. This utilizes a connection to a different server located in our office. This system uses Inductive Automation FactorySQL and FactoryPMI.
Engineering Activities:	Custom Programming, SQL Server Administration, and Hosting.
System Documentation:	System Network Drawings, and Program Documentation.



Recycling Plant Remote Monitoring

Description:	This plant separates shredded waste material so that it can be recycled. The plant is located in Europe.
Hardware:	The plant SCADA System utilizes RS View to gather and display data. The acquired data is sent through a Gateway computer to our facility in Moraga. The data is sent in an encrypted format. Our site contains the SQL Server and the Application Server for Inductive Automation's Factory PMI.
Operator Interface:	Data can be viewed (by authorized personnel) from any computer with Internet Explorer (or any other compatible browser) that has an internet connection. The system utilizes a Java Plug-In module. Users and passwords are administered from our site in Moraga. Over 1000 items are monitored and data is updated every five minutes.
Engineering Activities:	Custom Programming, SQL Server Administration, and Hosting.
System Documentation:	System Network Drawings, and Program Documentation.



Batch Reporting for Filling Machine

Description:	This machine automatically dispenses a controlled dosage of a drug in a batch process. When the batch is complete a Batch report is prepared as part of the FDA validation procedure.
Hardware:	The system utilized redundant fault-tolerant servers. One set acts as an application server for the Wonderware human machine interface (HMI) software. The other set acts as an SQL server. Wonderware In-SQL was used to acquire information for the SQL databases.
Operator Interface:	At the completion of the batch the Wonderware application triggered a Microsoft Access program that acquired data from the SQL databases, and prepared a report. This report included all of the samples used in the SPC calculations and the SPC charts.
Engineering Activities:	Wonderware Application and SPC set up, InSQL and SQL queries and Access Program.
System Documentation:	Control Description, Testing Procedure, Drawings, Programs and computer configuration information. We also assisted with the preparation of the Validation documentation.