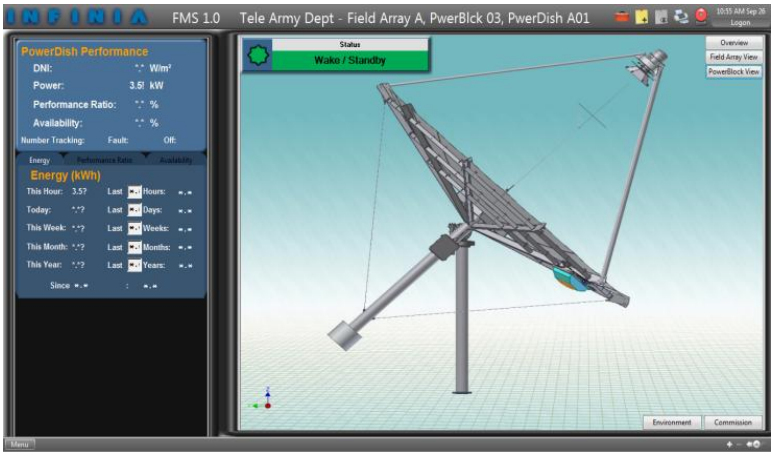
VTScada
Software for Monitoring & Control

Infinia® Adopts VTScada™ Software for Large PowerDish™

Solar Energy Solution



Infinia Corporation, manufacturer of Stirling power generator applications, is nearing completion of the first of many large-scale solar concentrated energy projects. To monitor the performance and efficiency of hundreds of state-of-the-art reflector dishes, Infinia selected VTScada SCADA software from Trihedral. In addition to integrated reporting tools, VTScada's unique parent/child tag architecture helps to quickly generate new PowerDish arrays as future customers install this turn-key solution around the world.

A unique alternative energy source

In this proprietary approach to solar power generation, large fields of automated mirrors called PowerDishes generate electricity by focusing sunlight onto a high-efficiency Stirling generator. The result is clean silent energy that reduces reliance on fossil fuels and provides energy self-sufficiency to remote locations.

The need for SCADA

A typical Infinia concentrator field contains hundreds of PowerDishes each reporting approximately 150 data points per PowerDish. The system requires a supervisory control and data acquisition (SCADA) application capable of logging this massive amount of information into a single historical database where it can be used for reports and data analysis. Infinia selected VTScada software based on its integrated SCADA tool set, its open communication architecture, and its parent/child tag architecture. For 27 years, VTScada has been a trusted component in a wide variety of energy systems including generation, transmission, and distribution of fossil-fuel, hydro, nuclear, wind, tidal, bio-fuels, and cogeneration.

After attending a training course, Infinia developers created two VTScada applications to be used at each customer site. The PowerDish Field Control (PFC) application polls each dish every two seconds to check its health and to collect readings such as current, voltage, and power. Operators minimize downtime by using integrated VTScada reporting and diagnostic tools to identify faults and track gradual power loss due to buildup on dishes. Additionally, operators can use the application to easily enable and disable the entire array. The PowerDish Service Application (PSA) uses the same historical database as the PFC to help Infinia developers continually fine tune this evolving technology to provide the maximum return on investment for their customers.

A replicable solution

A typical PowerDish array includes between four to forty PowerBlocks each made up of 64 dishes which themselves include 150 data points. VTScada's hierarchical tag architecture simplifies integration by allowing developers to create reusable tag structures that represent real-world components and model how they relate to each other. Infinia used these 'parent tags' with the native VTScada scripting language to automate SCADA configuration. The application discovers each field, block, and dish then generates the required tags and screens. Each dish is drawn to a map page based on its latitude and longitude. This reduces integration time for each PowerDish array from weeks to minutes.

The future

Infinia is scheduled to complete its first large-scale PowerDish installation at the Tooele Army Depot in Utah in March 2013.

About Infinia: **www.infiniacorp.com**

TRY IT FOR YOURSELF

Download the 90-day Trial
Trihedral.com/demo

Trihedral

Trihedral Engineering Limited, Bedford, Canada
Trihedral, Inc., Orlando, Florida
Trihedral UK Limited, Aberdeen, Scotland

1.902.835.1575
1.407.888.8203
+44 (0) 1224 258910

info@trihedral.com / www.trihedral.com
1.800.463.2783 (North America)