The Activelogix WT Dashboard provides a unified view of all connected wind turbine generation stations across the Enterprise. Configurable as either a standalone application or integrated with the acclaimed Periscope™ Enterprise Dashboard, this system enables an economical, subscriptionfree, standardized view of all online wind turbine stations, regardless of manufacturer.

Applications

With the increasing evolution of renewable energy technology, end users are seeking ways to both manage and publish wind turbine status and performance across their user base while minimizing long term operational costs and support services. Given the rapidly evolving WT technology, standards and features, discerning users are standardizing on device-agnostic visualization technology.

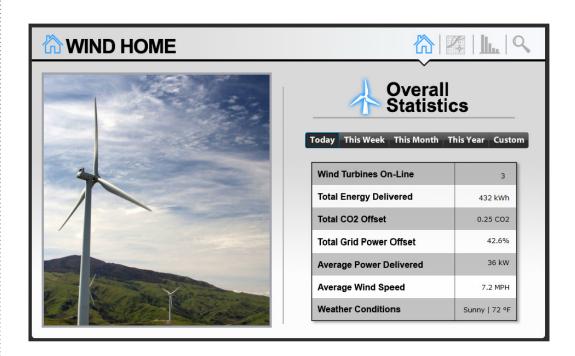
The WT Universal Dashboard from Activelogix allows end users the freedom to choose and grow with the best-of-breed station manufacturers and not be handicapped by a single manufacturer or prior purchase.

WIND TURBINE UNIVERSAL DASHBOARD

Unified Network Management for Wind Turbine Power Stations

Overview

The Periscope™ Wind Turbine Universal Dashboard from Activelogix enables the unprecedented ability to view and manage a hybrid network of wind turbine stations, regardless of their manufacturer or type. Traditional approaches often require the owner to subscribe to each manufacturer's "in-house" cloud network, which can be expensive and duplicative for a diverse network of systems acquired over time. With the Periscope WT Universal Dashboard, all station data streams are presented equally, allowing for clear, intuitive analysis and management. WT information includes total network performance, a map-based visualization of individual station status, as well as detailed metrics showing station usage, output and other critical parameters.



The main page of the WT Dashboard shows high level information aggregated across the entire WT network of stations, including the number of stations "on-line", total delivered energy (kWh), along with other desirable information such as CO2 offset, grid power offset, average power delivered, average wind speed, and the current weather conditions. This information is user-selectable for a variety of time ranges.







Station Ranking for Power Delivery and Utilization Management.



Integrated Google™
Maps and Station
Status.



Drill Down to Individual Stations for Detailed Analysis.



The Wind Turbine Universal Dashboard provides the user with a comprehensive array of features detailing every aspect of their use and status, regardless of manufacturer:

- WT Network Status at a glance Shows which stations are online, out of service, or will be online soon
- Site Specific Customizable moving picture display of client WT sites
- Kiosk Capability Ability to run in unattended "Kiosk" mode when utilized with Periscope
- · Map-Based Navigation View all stations or just those of specific interest
- · Statistical Ranking Determine which stations are most utilized based on: Power Delivered, and Station Uptime
- Detailed Station-by-Station Analysis for User-Selectable Time Periods including: Status (Online, Out of Service, Future Location), Power Delivered, Time-of-Generation
- Industry Proven Utilizes the Tridium-based Niagara^{AX} Framework for security, interoperability, and reliability

Requirements

The Wind Turbine Universal Dashboard can access, organize and display a comprehensive set of information from a hybrid array of WT generation stations. The connected stations must support industry communications standards such as Modbus®, and in select cases, basic serial interfaces can be used to source the data. Contact Activelogix to verify integration options. The connected stations must be capable of supplying basic register information, including:

- · Connection Status (Online, Generating)
- Generated Power (or real-time Output Current and Voltage)
- Wind Speed



Periscope[™] by Activelogix is a configurable, browser-based dashboard application that provides identification of real-time data and historical trends in the rapidly changing environments of multi-facility operations. Periscope reduces volumes of data from disparate systems into visual knowledge, providing the opportunity for users to quickly identify issues, access relationships, and take action in order to optimize resource efficiencies. Visit us at www.periscopedashboard.com.

activel<mark>óg</mark>ix

Activelogix, LLC is a leading provider of internet-based enterprise automation solutions for building intelligence. By utilizing design services, consulting, custom applications and technologies, Activelogix supports the management and optimization of intelligent, sustainable, and secure facilities in a multi-vendor, cross-platform environment. Our software and hardware solutions are distributed through a growing channel of national accounts, systems integrators and original equipment manufacturers. Additional information about Activelogix and all available products and services can be found at www.activelogix.com, or by contacting Activelogix at 1-704-553-8510 or 1-800-670-5977.

www.activelogix.com

