

Bluefairy Computing Engine

Bluefairy[™] Computing Engine is the core of the **nano**Edge[™]Tracking System.

This software enables authorized users to carry out system-level configurations and diagnostics. It provides simple, yet powerful, tools to let anyone with limited engineering and IT knowledge to install and configure an enterprise-wide real-time location system.

The **Bluefairy**™ Computing Engine serves as an intermediate layer, interpreting and computing the location data it gathers from Purelink's PLK-TR015-10 Tracking Receiver and PLK-VRF015-10 Visibility Receiver. It is designed for maximum robustness and accuracy, even in highly multipath environments such as refineries, manufacturing plants, airport baggage rooms and other industrial environments.

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The user-friendly interface makes configuring a nanoEdge[™] Tracking System simple and effortless. Bluefairy[™] Computing Engine provides intuitive tools for creating and managing site, importing floor or site maps and creating preliminary zones, as well as setting up the types of location services needed and adjusting the location algorithms. Using these tools, users can rapidly implement their



nanoEdge[™]Tracking System.

The Computing Engine's Site Manager module allows you to divide your site into zones

Making sure everything is working correctly is also very simple. **Blue**fairy $^{\text{TM}}$ Computing Engine provides a wide range of diagnostics tools to help monitor the status of **nano**Edge $^{\text{TM}}$ Receivers as well as the blink rates and RF power levels of **nano**Edge $^{\text{TM}}$ Tags and Badges. Users can also monitor, in real-time, the accuracy and performance of the system, as well as the efficiency of the location algorithms, which allows for instant feedback as to the consistency and quality of the location data.



Bluefairy[™] Computing Engine offers 3 types of location services for greater flexibility, enabling users to adjust the level of accuracy as needed for various enterprise applications. The location services provided are:

Real-Time Location Service. This is a GPS-like service that provides high-granularity positional data for maximum spatial accuracy (±2 meters). This mode is useful when an accurate position

is required.

Visibility Service. This service provides a presence in a zone and offers an accuracy similar to Wifi-based location systems (±25 meters). This mode is useful for applications that require low

spatial accuracy such as inventories or mustering reports.

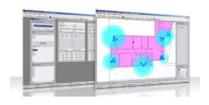
Checkpoint Service. A checkpoint can be thought of being like a wireless gate or door. It is defined as a limited area much like a real door or gate. When the system detects a badge or tag

passing through a checkpoint, it automatically triggers user-defined events or alarms.

At the heart of the Computing Engine are 3 location algorithms: Time Difference of Arrival (TDoA), Received signal Strength (RSS) and radio frequency Fingerprinting (FP). $\textbf{Blue} fairy^{TM}$ Computing

Engine is designed to extract and take advantage of the highly granular location data provided by the $nanoEdge^{TM}$ Tracking System. With an auto-fallback mechanism, $Bluefairy^{TM}$ Computing Engine offers a multi-level redundancy scheme to ensure consistent, reliable data that will continue to provide vital location information in harsh environments, even in situations of hardware failure.

Purelink's **Blue**fairy[™] Computing Engine processes thousands of positional data every second. This processing power ensures that the positions of all badge-wearing personnel and tagged assets are known at all times. This is why we qualify it as being a true real-time location engine.



The Hardware Diagnostics module allows you to easily very the status of the hardware

System Requirements

Operating System: Microsoft® Windows 7, XP® SP2 or Vista®

Microsoft® Windows Server® 2003 or 2008

Processor: Intel® Pentium 4® 2.8GHz or greater

Memory: 512 MB RAM minimum



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