



ESSENSIUM

# EPS™ Evaluation Kit

- ❑ EPS is a unique **real time positioning** solution for **indoor and outdoor** applications.
- ❑ EPS combines **sub-meter accuracy** with **low infrastructure cost**.
- ❑ EPS enables **reliable supply chain management** and **efficient asset and goods tracking**.

## Overview

The EPS™ Evaluation Kit gives the opportunity for hands-on experience of the accuracy, range and robustness of the LOST Real Time Locating System.

The kit includes all software, Infrastructure Nodes and Mobile Nodes required for setup of an RTLS installation which can be fully operational within minutes. The software GUI provides a real-time display of the positions and movements of the Mobile Nodes.

The Evaluation Kit can be used for test and demonstration of the solution performance, and as a platform for developing end applications.

## Operation

The EPS™ Evaluation Kit operates in an area within a perimeter formed by the 6 Reference Nodes, with dimensions up to 400m X 200m.

Each Mobile Node is ranged (distance measurement) by the Reference Nodes.

The ranging data are sent to the Gateway Node which is connected via USB to a PC running the EPS™ Tracker Server and Client software applications.

The EPS™ Tracker Server calculates the positions of the Mobile Nodes which are then displayed with the supplied GUI application.



Figure 1: Kit Contents

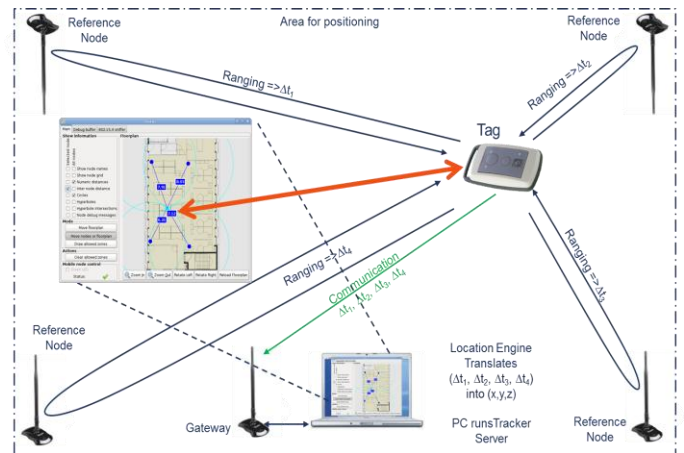


Figure 2: Typical EPS Setup

## Usage and Benefits

The Evaluation Kit is a valuable tool for our partners, enabling them to:

- Verify the range and accuracy performance of the system, with sub-meter accuracy and both indoor and outdoor operation, in their specific target deployment areas.
- Run demonstrations for their end customers.
- Integrate EPS™ position information into their existing software solutions.
- Develop and demonstrate new market-specific software applications using position information from the EPS™ Tracker Server.
- Demonstrate the real time tracking of moving targets.
- Experience the ease to set-up a configuration, underlining the "without calibration" process and the ease of the graphical user interface.
- The EPS™ robustness against interferences and multipath issues.

## Evaluation Kit Contents

- 6 Indoor Reference Nodes with mains-USB power converter.
- 1 Indoor Gateway Node with USB-PC connection.
- 2 Basic Mobile Nodes, battery powered, with mains-USB power converter for charging.
- Evaluation version of the EPS™ Tracker Server software platform.
  - Includes GUI and example software source code.
- User Guide and EPS\_IF™ software documentation.





ESSENSIUM

# EPS™ Evaluation Kit

## Graphical User Interface

The supplied GUI provides an easy to use PC interface for the users to manage the sophisticated functions of the LOST Tracker Server software platform.

The main features are:

- Graphical tools to set-up the floor plan:
  - A layout can be defined rapidly using a dimensional raster with fixed distances to ease implantation with limited on-site measurements.
  - Imported floor plan can be moved, zoomed and rotated allowing manipulations for a quick import of the floor plan image to fit the user interface and the acquisition area.
- Definition of allowed zones: by eliminating unreasonable zones (for instance to avoid ranging a mobile outside of a building at the level of the 10th floor).
- The definition of named zones for the demonstration of location based events such as warnings for safety applications.
- A Mobile Node display tab showing the current speed, push-button status, and presence in any user-defined zones of each Mobile Node.
- Showing parameters and data: a broad set of data is available about the hardware nodes.
  - Distances from Mobile Nodes to Reference Nodes.
  - Node names for ease of identification.
  - Communication exchanges and their associated contents.
- EPS™ Tracker Software Platform visualization: displaying the results of the computation of crossing circles during the ranging measurements to positioning conversion, thus showing the real time behavior of the system.

## Example Software and Documentation

The Evaluation Kit includes source code example software to assist partners in developing client applications which interface with the EPS™ Tracker Server. This interface is documented in the supplied EPS\_IF™ Guide.

Using the example source code and the interface documentation, partners can develop end client applications which control and configure the behavior of the Reference Nodes and Mobile Nodes in the network and track the Mobile Node positions and status. The ability to monitor the Mobile Node push buttons and remotely control the LEDs on those nodes supports the development of solutions with end-user interactivity as required.

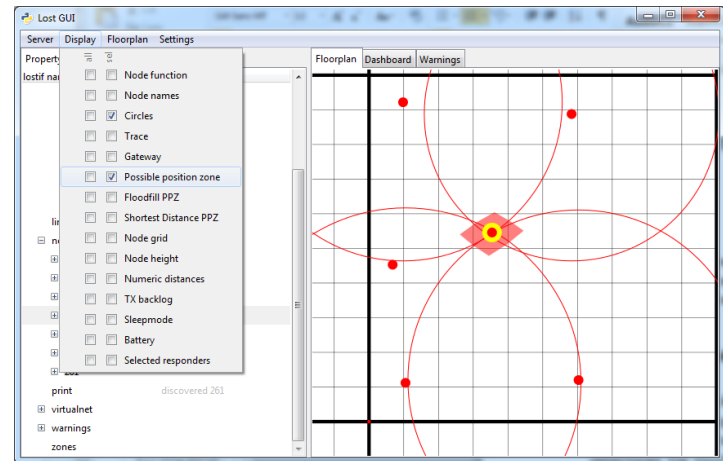


Fig 3: Graphical User Interface

**In short, the Evaluation Kit provides everything needed to evaluate and demonstrate the performance of the EPS™ RTLS solution and to develop applications for specific target markets.**

## PC Minimum Requirements

To run the EPS™ software platform with its GUI, the requirements are as follows:

- Core 2 Duo class Intel Processor
- 512MB of RAM memory
- About 200MB of HDD free space

## For more information

### ESSENSIUM NV

<http://www.essensium.com>

[info@essensium.com](mailto:info@essensium.com)

Tel: +32 16 28 65 00

Fax: +32 16 28 65 01

Gaston Geenslaan, 9 - 3001 Leuven - Belgium

All information provided is subject to change at any time, without notice. ESSENSIUM may make changes to manufacturing life cycle, specifications, and product descriptions at any time, without notice. ESSENSIUM assumes no liability whatsoever, and ESSENSIUM disclaims any express or implied warranty, relating to sale and/or use of ESSENSIUM products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right.

EPS and EPS\_IF are Trademarks of Essensium N.V.  
Copyright © 2014 ESSENSIUM N.V. All rights reserved.

