Indoor/outdoor location and asset management through open geodata (i-locate)

TRAINING MODULES

Background Knowledge

- Introduction to INSPIRE
- Indoor Location Technologies
- Security, Privacy, Ethics
- Basic concepts of XML and GML
- OGC indoor GML
- Routing and graph theory
- Introduction to licensing agreements
- Indoor OSM

Technical Modules

- i-locate Toolkit
- Data acquisition pipeline
- Indoor graph management within IndoorGML
- Asset management through extension of IndoorGML
- i-locate portal installation
- Routing and graph theory: Advanced Module

The i-locate Pilot applications

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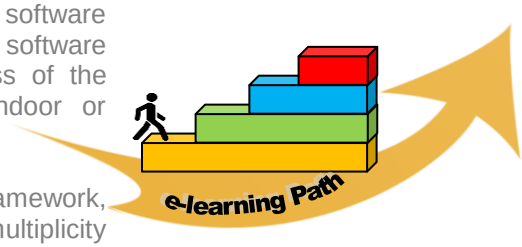
Nowadays, increasingly accurate indoor localisation technologies, based on innovative technologies, have expanded the scope of Location-Based Services (LBS) from outdoor spaces to indoor places. The variety of technologies available is currently not addressed by existing software frameworks. i-locate has developed an extendible software "toolkit" that allows users to create LBS regardless of the underlying technologies and of the context (if indoor or outdoor).



The project provides access to a training support framework, based on eLearning platform, addressed to a wide multiplicity of stakeholders -managers, technicians, domain experts, but also citizens- who would like to know the main issues of this new ICT field. Training contents are organized in three sections: the background knowledge one, that offer an introduction to the main topics on this matter; the Technical Modules, devoted to the description of the i-locate technological solution; the i-locate Pilot applications, a gallery of possible indoor LBS applications, within of various contexts: eHealth, public & private services and cultural heritage.

Background Knowledge

Introduction to INSPIRE
Deals with the main elements of the INSPIRE Directive: its context and background, the scope and major chapters of the Directive, an overview of the related implementing rules

Indoor Location Technologies
An overview of the available indoor location technologies

Security, Privacy, Ethics
Simple introductions to the core concepts

Basic concepts of XML and GML
Concepts of XML, GML and UML class diagrams and how they are related to each other

OGC indoor GML
Simple introductions to the core concepts

Routing and graph theory
This module explores the concepts of a navigation graph and shortest-path routines

Introduction to licensing agreements
This module provides the partners and other interested organisations with an overview of the technology licensing options available in the context i-locate

Indoor OSM
This module provides an overview of the indoorOSM standard used for indoor mapping and includes a practical example.

Technical Modules

i-locate Toolkit
This module describes the structure of the i-locate toolkit and introduces the basics of its components

Data acquisition pipeline
This module describes the process to be followed for capturing and converting indoor maps data (floor plans) to the i-locate supported format.

Indoor graph management within IndoorGML
This module describes the basic concepts of the IndoorGML OGC standard that are needed for the correct creation of Indoor graphs for the i-locate framework

Asset management through extension of IndoorGML
This is a new proposal for an extension of IndoorGML on Asset Management. We built the data model and the connections to the IndoorGML core schema

i-locate portal installation
This video demonstrates the installation procedure for the i-locate portal. The installation is demonstrated using the command-line on a linux operating system

Routing and Graph Theory: advanced module
The module introduces a methodology for indoor navigation graphs, together with a short description of the technologies supporting the routing: the OpenTripPlanner and The General Transit Feed Specification (GTFS)

The i-locate Pilot applications

The i-locate Pilot applications
A set of Modules to transfer the results of the i-locate Pilot applications. The following i-locate Pilot are available:

- Rovereto Hospital, Italy
- St James Hospital, Malta
- Mitera Hospital in Athens, Greece
- Alba Iulia Emergency Hospital, Romania
- Eindhoven Uiversity, NL
- Elder Nursing Homes in Baia Sprie, RO
- University of Applied Sciences Dresden, D
- Municipality of Rijeka, Croatia
- Municipality of Brasov, Romania
- Municipality of Genova, Italy
- Technoport, Luxembourg
- Brukenthal National Museum, Romania
- Municipality of Velletri
- Municipality of Tremosine

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More info at:
www.i-locate.eu