

Project title: Collaborative Business Items

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Duration : 30 months
of Partners : 7

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Partners (Industrial, SME, Institutes):

SAP AG (Germany), Infineon Technologies Austria (Austria), Ambient Systems (Netherlands), BP International Ltd. (United Kingdom), Universität Karlsruhe (Germany), Lancaster University (United Kingdom), University of Twente (Netherlands).

Project objectives:

The core objective is to provide the technical foundation to make the benefits of embedded and wireless sensor network technology available to enterprise systems, particularly in industrial environments:

1. Apply wireless networked (sensor) systems to embed business logic in physical entities
2. Holistic service-oriented architecture covering all layers from hardware to business application
3. Develop the collaborative and technological frameworks for CoBIs with necessary system management

Project description:

Knowing the exact whereabouts of physical objects such as goods or tools in enterprise environments to optimize business processes has been a long-standing desire of several industries.. The Collaborative Business Items (CoBIs) project develops a new approach to business processes involving physical objects. We embed business logic directly into the physical entities, therefore making it possible to relate more closely the state of an enterprise as represented in business processes to what is actually happening in the real world and furthermore extending the business process to the "point of action". CoBIs has developed an open platform based on a service-oriented architecture (SOA) that makes it possible to apply networked embedded systems technologies in large-scale business processes and enterprise systems. CoBIs evaluates its approach in real world application trials in the oil and gas industry.

Items have a unique digital identity, embody sensors to monitor their state and environmental conditions, communicate peer-to-peer and collaborate in order to fulfill collective services (such as observation of conditions that no single item could obtain independently). Interface backend systems make their service integral with overarching business processes.

Field of Application:

Tracking and tracing, industrial monitoring, process management, process industries.