

Vision

Creation of a new visual programming environment following a user-centric approach that will facilitate the development of complex front-end gadgets, involving the execution of relatively complex business processes that rely on back-end Semantic Services.

Objectives

New visual programming environment for the development of complex front-end gadgets

- Involves the modeling and execution of relatively complex business processes
- Relies on back-end Semantic Web Services
- Agile software development from a top-down perspective













Exploitation of the full power of **semantics for integrating back-end with front-end** (user-centric)

- Developers will start from the front-end gadgets that the user will see and interact with
- Connection to back-end Web Services going through business execution flows if necessary

Plugin Tool for Enterprise Mashup Platforms

- Conceived as a tool that can be compatible with existing and future Enterprise Mashup Platforms
- Tool that enables to develop Mashup-able gadgets which rely on screen-flow Resources and Semantic Web Services stored in a (semantically enriched) catalogue

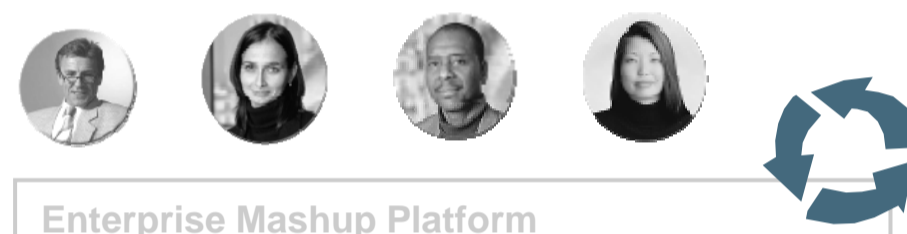
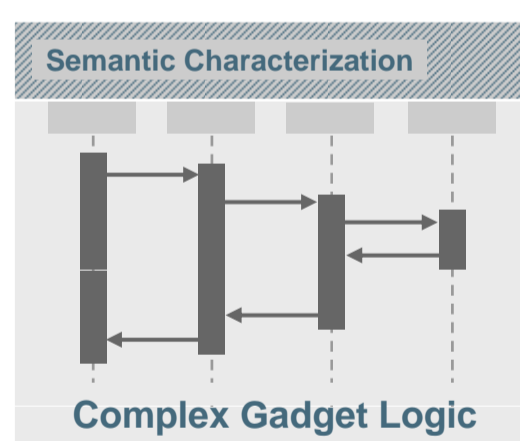
Consortium

	Telefónica Investigación y Desarrollo (Coordinator) Telecommunication Provider	
	SAP AG World's leading Enterprise Application Provider	
	University of Ireland, Galway Leading research institution in Semantic Web	
	University of Kassel Research experience in scenario-based methodologies	
	Cyntelix Corporation Semantic Web technology and collaboration platform	
	Universidad Politécnica de Madrid Semantic Web and Web 2.0-based technologies	

Architecture and Components

Conceptual Model

- Conceptualization of complex gadgets having an associated workflow and possibly human interaction
- Specification of a new ontology to conceptually model to specialise their development to solve concrete user problems
- Definition of screen flows and gadget templates in a visual way
- Definition of mechanisms generating automatically new gadgets from previously developed ones or parts of them



User-Centric Collaboration

- Agile software development from a top-down perspective
- Highly visual integrated development environment
- Continuous improvement

Visual Design of Complex front-end Gadgets

- Tools for the development of complex gadgets (ISO 9000 compatibility)
- Build the different screens composing the gadgets
- Design and implement the flow between these screens
- Define directives and specifications that assure the development and compatibility of the gadget developed in any „gadget enabled“ platform

Visual Composition of screen-flow Resources and Interoperability with back-end Web Services

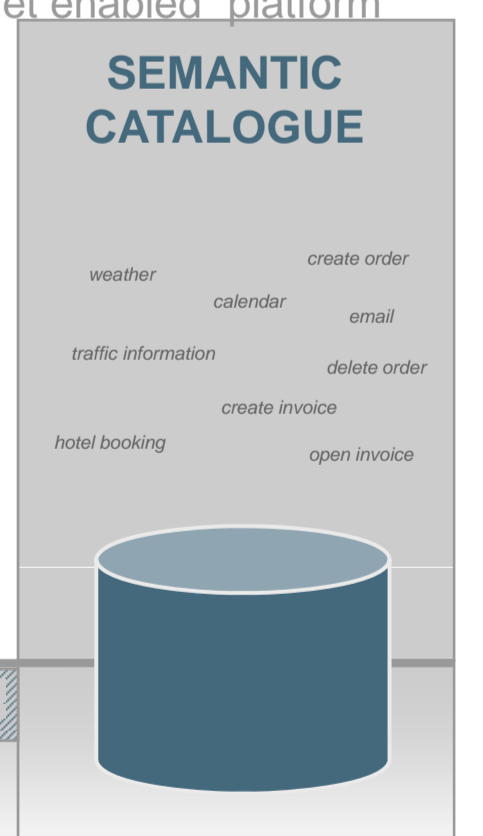
- Bridge the gap between the ideas managed by user at a user-oriented level on the screen-flow and the underlying resource available in the back-end as Web Services and Resources
- Allow the automatic discovery of services and their friendly use in the visual tool

BACK-END

Service-Oriented Architecture (SOA)

Semantic Characterization

Services



Benefits

Bridging the gap between Business and IT

- Putting a visual face to Service-Oriented Architectures (SOA)
- Lightweight service consumption

Covering the profitable “Long Tail” in Enterprise Applications

- User empowerment from service consumer to producer („prosumer“)
- Development of individual gadgets according to user requirements

Software Industrialization

- Faster time to market
- Cost-effectiveness of application development

Semantic Catalogue of screen-flow Resources and back-end Web Services

- Definition of mechanisms to connect gadgets to Semantic Web Services
- Mediation between gadgets ontology and other Semantic Web Services ontologies
- Discovery of Semantic Web Services based on user requirements and capabilities
- Automatically endow gadgets with desired data and functionality

The outcome of the project will be released as Open Source in the context of the Morfeo Community.

<http://fast.morfeo-project.eu/>