



OpenInterface Interaction Development Environment (OpenInterface IDE / OIDE)



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Content

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The SIMILAR NoE
Summer Workshop
on Multimodal Interfaces



- **OIDE General Description**
- Demo
- Objectives and constraints
- Identified Users
- Interaction Modalities
- Roadmap
 - Multimodal Conceptual Model
 - Enterface
 - OpenInterface Project
- Conclusion

OIDE General Description

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- Tool for enabling the graphical manipulation and assembling of OI components
- Tool useful for a User Centered Design as it allows rapid development of design options

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Demo



- 1) Create assembly
 - Import components into assembly panel
 - Create connections between components
- 2) Export Pipe
- 3) Build and Compile
- 4) Run the Assembly

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Objectives and constraints

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- Rapid development of multimodal applications using several components
- Rapid modification of existing multimodal based applications by changing the assembling of components
- Share components and pipelines using the OI Component Repository
- Free and open source editor
- Improve open source community participation

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Identified Users

- **Component Programmer**
 - Implements a new interaction modality, a new fusion algorithm, a new device...
 - Creates an OI Component from his code
- **Pipeline Programmer**
 - Makes the assembly of components in order to create the multimodal interaction of the application
- **Designer**
 - Wants to test different modalities in the multimodal application
 - Collaborates with the Pipeline Programmer

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Interaction Modalities

- Face detection
- Finger tracking
- Tilt-based navigation
- SHAKE map navigator
- Logging components
- ...

- We need your input...
 - Share techniques with the OI OpenSource Community

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Roadmap: Multimodal Conceptual Model

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- Link editor to Conceptual Model
 - Multimodal interaction

- Think about editor usage according to this conceptual model
 - Fusion and Fission components (Composition)
 - Use conceptual model in the editor usage
 - Proactive feedback
 - Usage data capture:
 - Validate conceptual model
 - Multimodal application

- Apply UJF experience on multimodal interaction
 - CARE properties

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Roadmap: eNTERFACE

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- Dynamic assembly of components
- Connectors in the assembly
 - Fusion/fission
- Integrate OI Component Creator in OIDE
 - One unique tool
- Different OS support
 - Windows
 - Linux
 - MacOs

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Roadmap: OI Project

- Add other midlewares to the editor
 - OSGi
 - Corba
- Introspection
 - See ports characteristics
 - Need for information we do not have
 - description extensions
- Manage external files:
 - Information not included in the current description but needed to run a component

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Conclusion



- Create OpenSource Community
- Need for your feedback
 - Bugs, comments
 - New modalities for the community
- Download from OpenInterface Forge:
 - <http://www.openinterface.org/>



Thanks for your attention