OpenInterface Interaction Development Environment (OpenInterface IDE / OIDE)

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Content

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

- 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

- 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

- 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

- 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