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AMIRE Components

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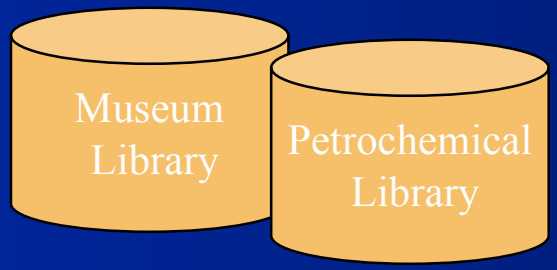
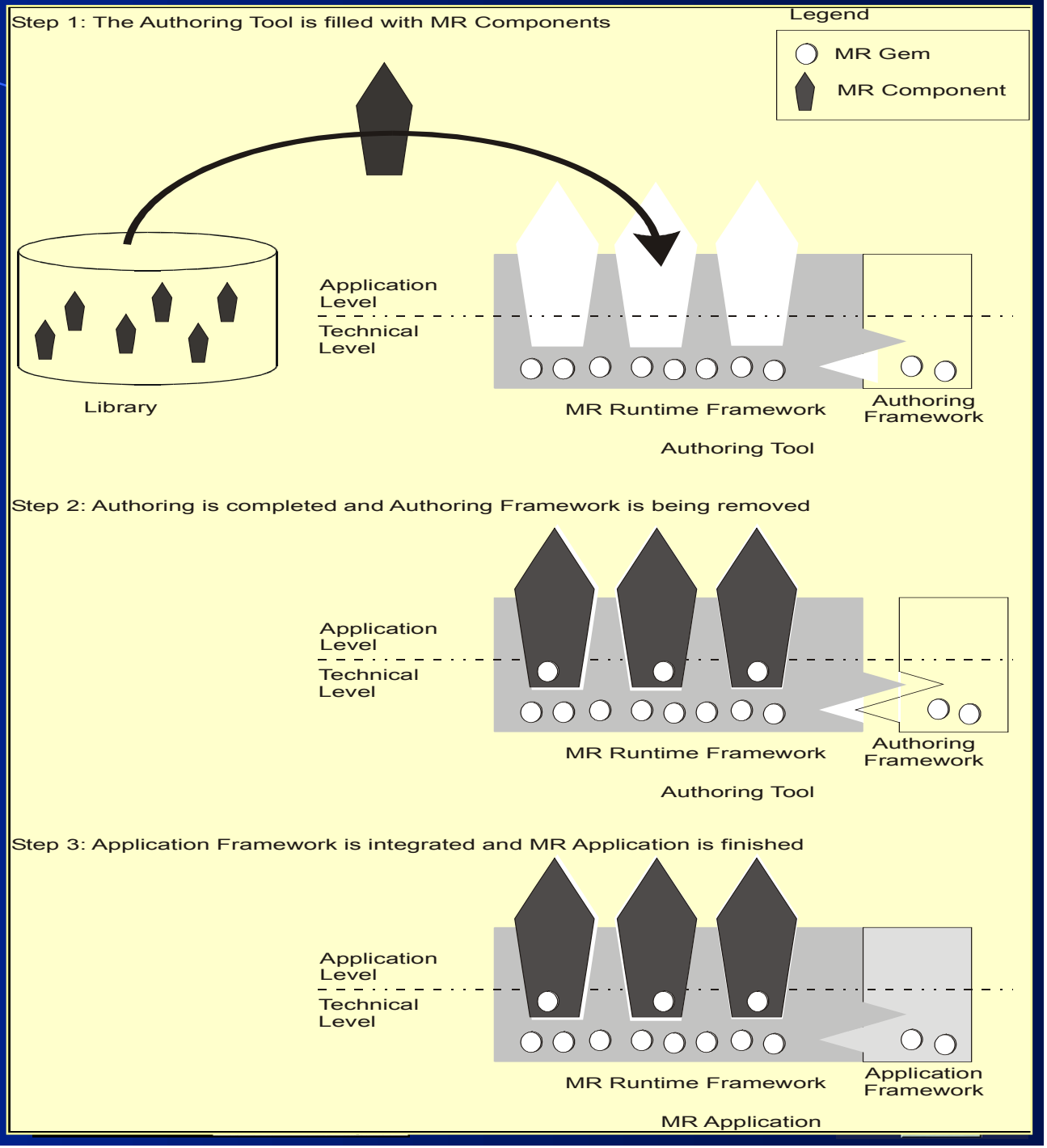
Components: Expected Result



MR components for application-level authoring, according interface specifications and software implementation

AMIRE ‘s Technology



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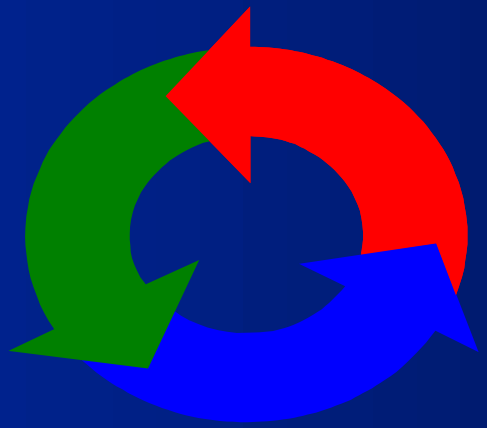
Base Development Coordination

MR Gems Development

MR Components Development

WP4.1 WP4.2

WP4.4 WP4.3



MR Framework Development

MR Authoring Development

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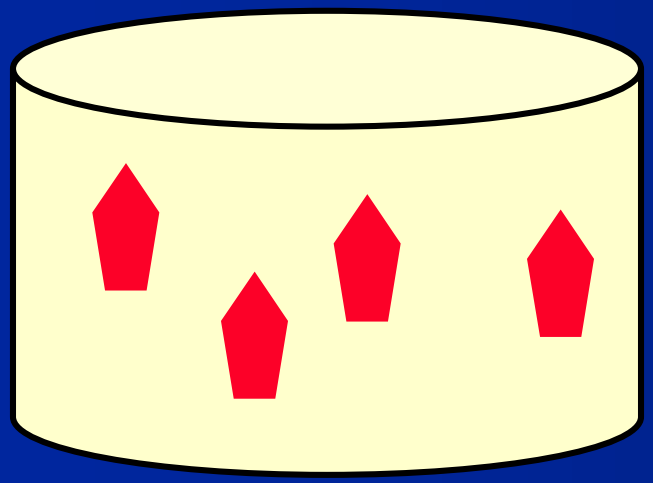
MR Components Features



MR High level Component Library

- Domain Specific
- Accessible through dedicated authoring tools
- Structured
- Reusable in modified versions
- Reusable in different application
- Extensible
- Flexible

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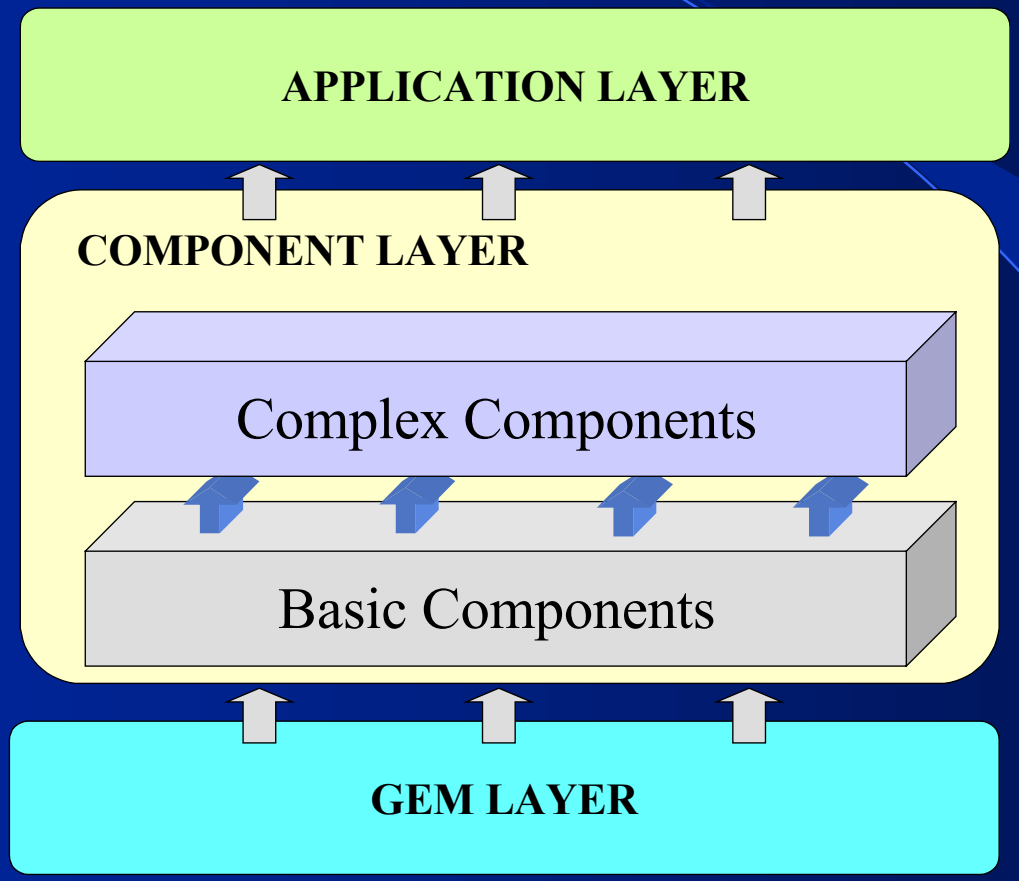
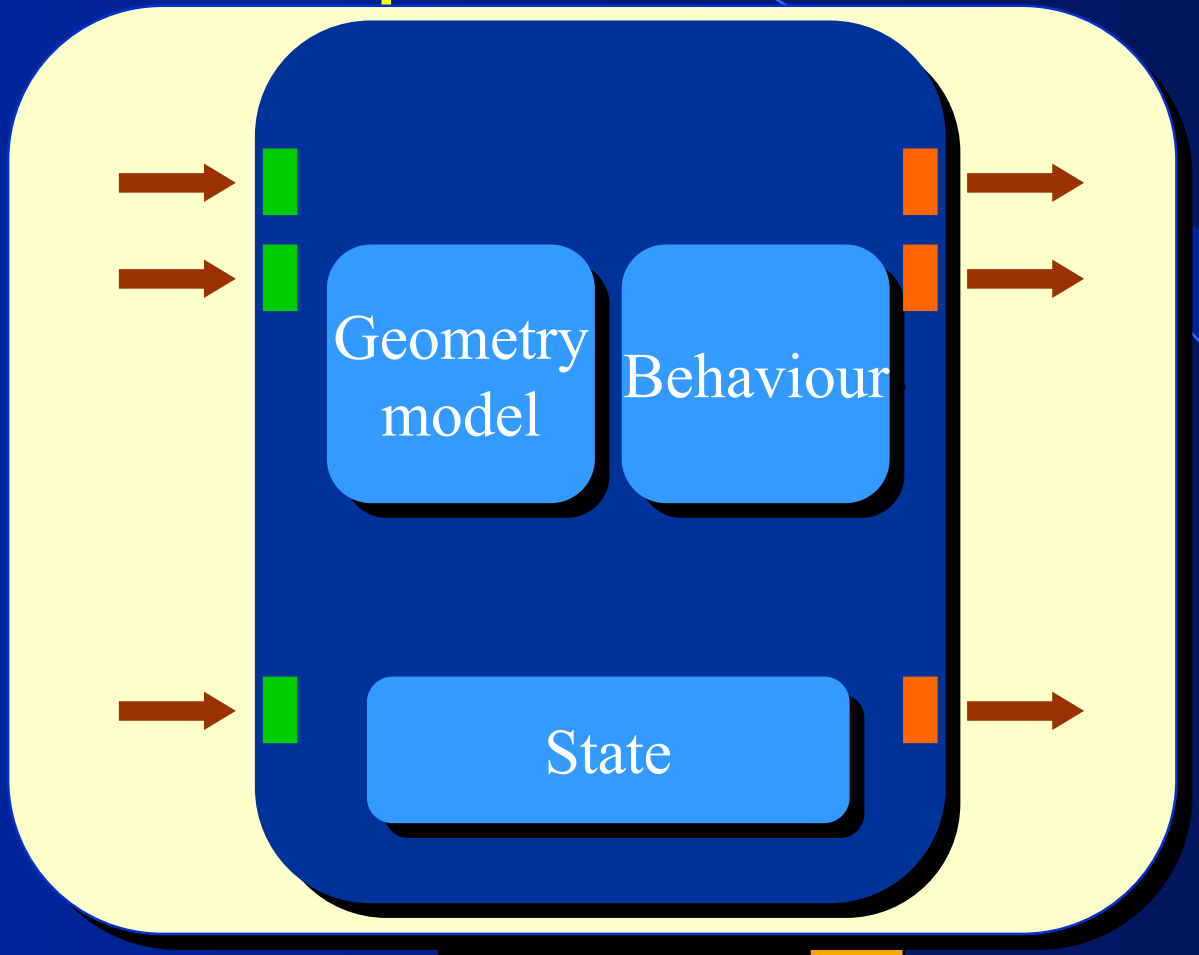
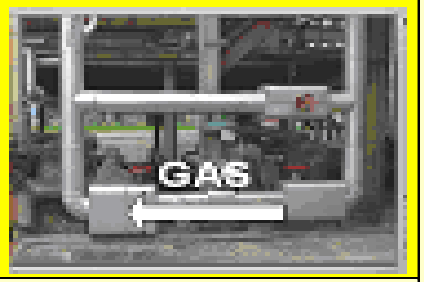
MR Components Types



Component Structure



Components Taxonomy
Domain & Functionality

		
Navigation		
Presentation		
Interaction		
…		

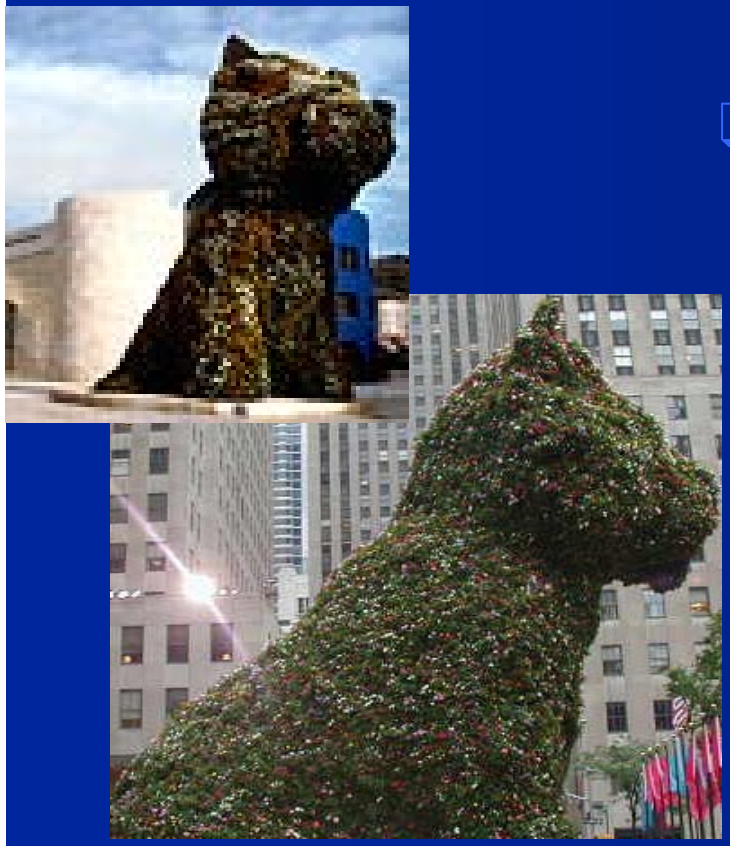
MR Components
Domain: Museum
Functionality: Navigation

- Establishing personalised visiting path
- Provide adapted information for disabled people

MR Components

Domain: Museum

Functionality : Presentation



- Visualisation of missing pieces
  - ✓ same author,...
  - ✓ related masterpieces
  - ✓ reconstructed parts of damaged sites
  - ✓ masterpieces not in exhibition
  - ✓ cybermasterpieces

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MR Components

Domain: Museum

Functionality : Virtual Assistant

- Part of an interactive virtual museum
- Complement other multi-sensorial information
- Presentation of information in creative ways

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MR Components

Domain: Museum

Functionality : Virtual Assistant

- Provide human-like assistance
  - ✓ Why ?
  - ✓ What should I visit next?
- Personalised information
- Provide assistance
- Give information about masterpieces

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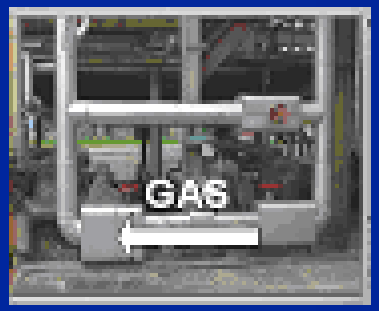
MR Components
Domain: Oil Refinery
Functionality : Presentation



- MR to document working environment
- Visualisation of virtual components
- Transparency view of inside equipment
- Amplification of small areas

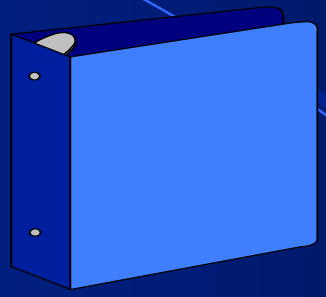
MR Components
Domain: Oil Refinery
Functionality: Presentation

- Procedural help component
  - ✓ What should I do ?
  - ✓ When ?
- Cooperative work. Visualisation of other team members work
- Adaptation to user progress

MR Components
Domain: Oil Refinery
Functionality : Virtual Assistant

- Virtual expert advise:
  - ✓ comunication
  - ✓ video expert demonstration
  - ✓ operates on interface: point out, amplify component,..

Application Development



Specification of Application

MR Gems

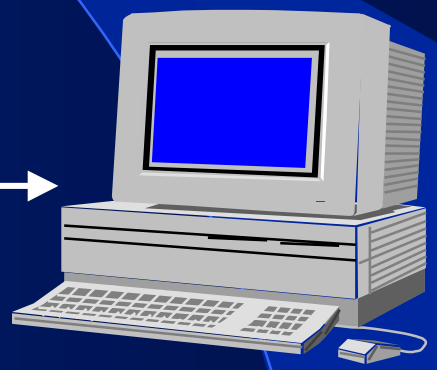
MR Components

MR Framework

MR Authoring

Adaptation

Application Development



Application

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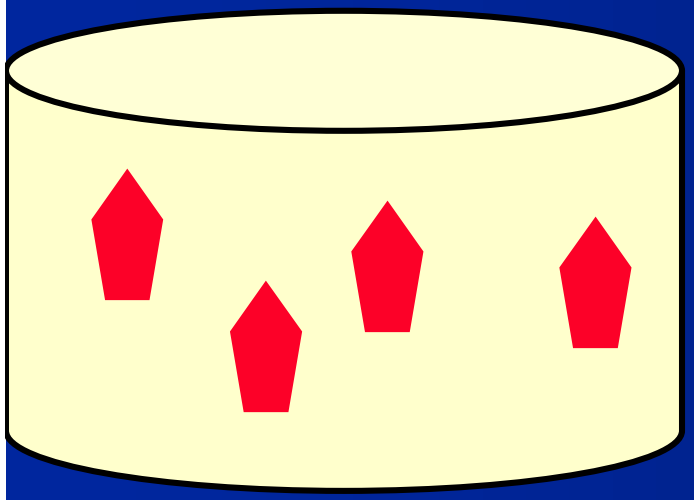
MR Components. Advantages



- Decrease the technical development phase
- Applications can be modified and extended
- Cost-effective development

MR High level Component Library

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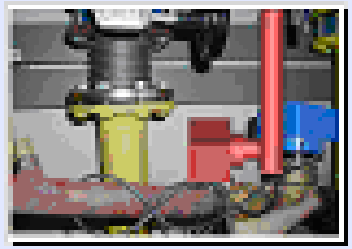

Reuse and Adaptation

- Adaptation to different scenarios
  - ✓ Changes in exhibitions
  - ✓ Maintenance process modifications
- Adaptation to other cases in the same domain
  - ✓ Museums
  - ✓ Maintenance training
  - ✓ ...

Adaptation to other related areas. Standardisation

- Museum related
  - ✓ Virtual reconstruction of monuments
  - ✓ Tourist Guides
- Oil Refinery Ap. Related
  - ✓ Assembly
  - ✓ Production processes
  - ✓ Other complex systems
  - ✓ Training in other areas

Components in MR application

- System Architecture
- Standalone vs. network services
- Components communication
- Platforms
- Devices

MR Project Requirements. Identification of Components

- Object Modelling components
- Interaction components
- Information presentation components
- Navigation components
- Tracking components

MR Components Reusability and Adaptation

- Domain Level / Application Level Requirements
- Adaptation elements to other applications in domain and different domain.
- Adaptation elements to applications in different domain

AMIRE Components

Thank you.

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