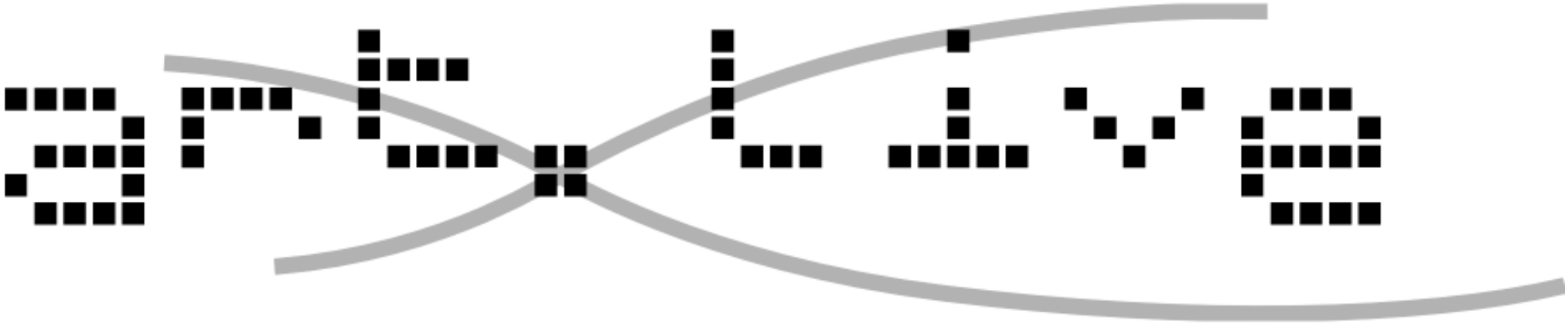

ARchitecture and authoring Tools prototype for Living Images and new Video Experiments

IST-1999-10942

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amire workshop

ist information society technologies

Project Introduction

"The goal of the project is to **develop an architecture and a set of tools**, both generic and application dependent, for the **enhancement of narrative spaces** thanks the production of a mixed-reality environment."

- Vision-oriented, with live cameras

Requirements

- Scope : No ‘physical’ interface
- Technical :
  - Real-time image and signal processing
  - Usage of MPEG-4, MPEG-7
  - FIPA platform
- Application: latency < 0.5 s

Application Description

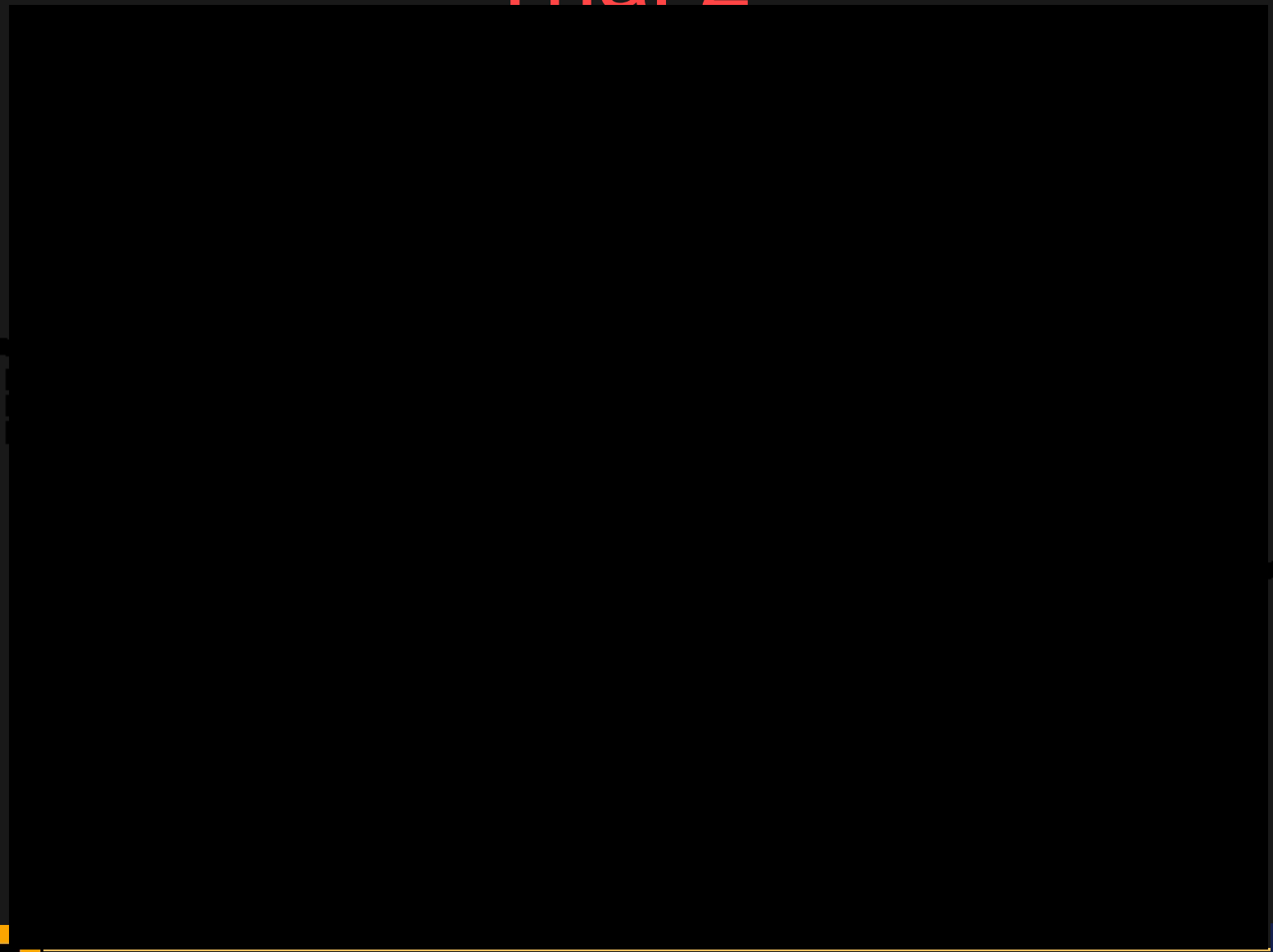
Natural immersion & interaction (*magic mirror*), addressing different 'moments' of MR

-> **Transfiction**: *trans*port into *fiction*al spaces

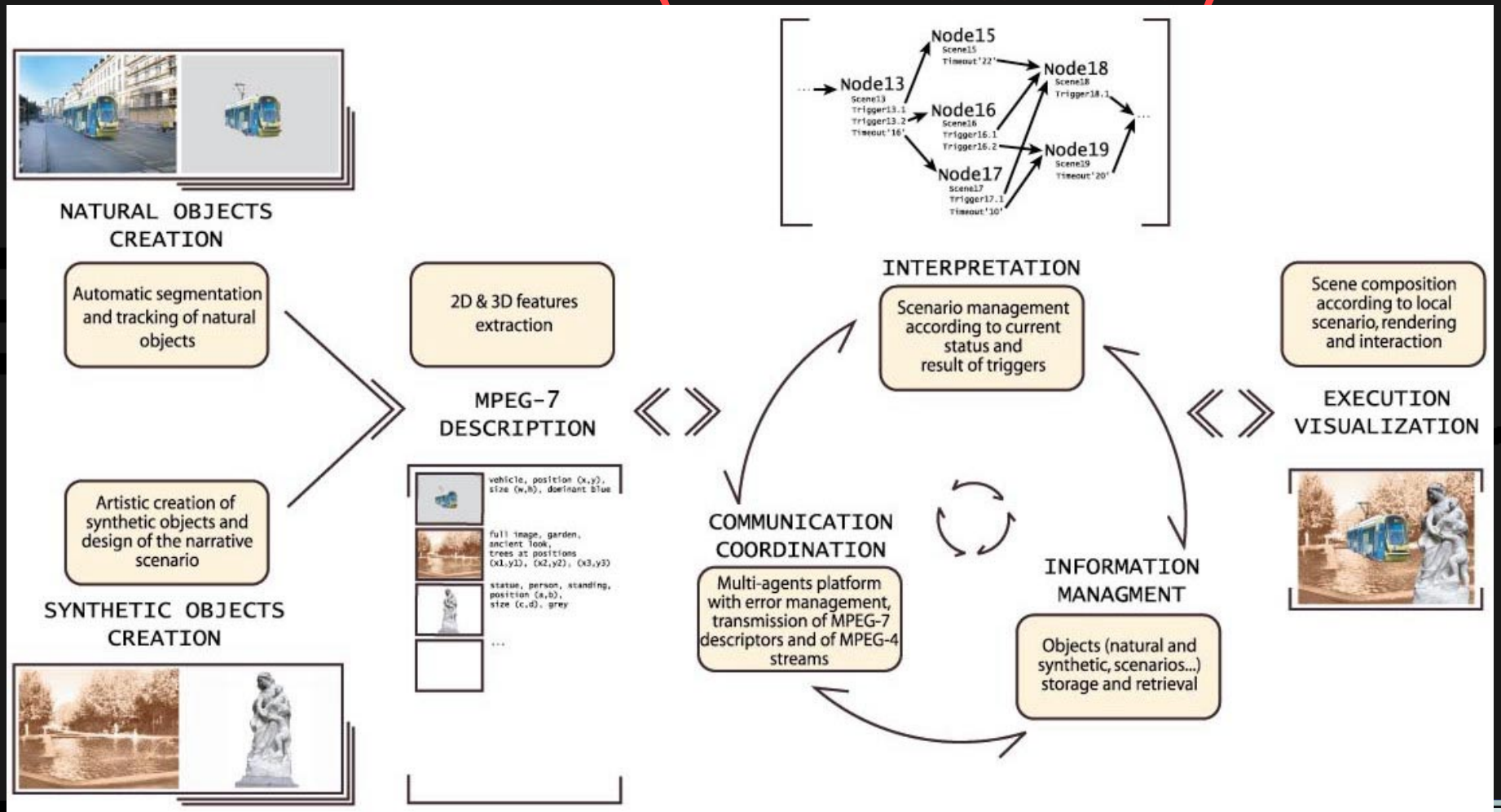
- 'gaming-oriented' -> Trial 1
- 'expo-oriented' -> Trial 2

Trial 1

Trial 2



Application Development Process (Architecture)



Authoring process

People involved:

Artistic team :

- Overall scenario
- Graphical elements (stills, backgrounds, animations…)

Technical team :

- Ad hoc triggers development
- Scripts, integration, installation

Authoring process

Ideal design and development process :

- General theme, main objective, scenario
- New visual effects, triggers
- 1st production : graphical objects, scripts
- Integration onto test platform (1st release)
- Test and improvement of initial release
- Test and evaluation on test platform
- Robustness trial: checking all technical parameters
- Packaging, transport, installing in performing place

Elements Reusability

- Technical level elements reusing
  - Generic image processing (C++ and MMX)
  - Real-time image architecture (+IP) (C++)
- Domain level elements reusing
  - ?
- Adaptation elements to other applications in domain and different domain
  - Open platform, interface through **DESCRIPTION**

Lessons Learned (project specific)

- Involving users in MR authoring process
  - Different roles for different users
  - MR -> mixed skills –> mix of people (= team)
- Ways to improve MR authoring process
  - Intuitiveness
  - Systematization
  - Mimetism to ‘reference’ authoring tools

Lessons Learned (cont'd)

Parallel with movie making

- Conception
  - No tool
- Direction
  - « mise-en-scène », tests, ergonomy attempts…
- Production
  - Global scenario programming with contents
- Deployment
  - On-site installation and fine-tuning

Generic Requirements for MR Dedicated Tools

From the art.live point of view:

- Cross-dialogue between technicians and authors
- Ergonomy and usability issues (MR vs VR)
- Reactivity / responsiveness (console age…)

  Users do not notice visual glitches if they are involved and engaged in the “narrative”. However, some of the video-image savvy were asking for top quality images.