

# MM4U

## Paving the Last Mile for Multi-Channel Multimedia Presentation Generation



Ansgar Scherp, OFFIS  
Susanne Boll, University of Oldenburg

The Eleventh International Multi-Media Modelling Conference  
12-14 January, 2005, Melbourne, Australia



*Paving the Last Mile*  
Ansgar Scherp  
Susanne Boll

### Motivation

- **We target at multimedia content for everyone, everywhere**
- **Problem today**
  - a big variety of heterogeneous devices, platforms, multimedia presentation formats and players for multimedia
- **Observation**
  - Not one platform and multimedia format will prevail
  - Rather a set of device settings and configurations will peacefully coexist
- **Goal**
  - Create and deliver multimedia content that meets all the different individual user's settings
- **Approach**
  - Multi-channel generation of multimedia presentations

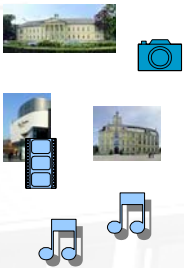


*Paving the Last Mile*  
Ansgar Scherp  
Susanne Boll

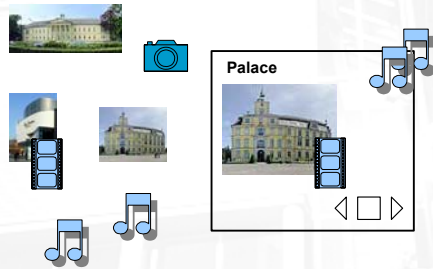
# Multi-channel multimedia content creation chain



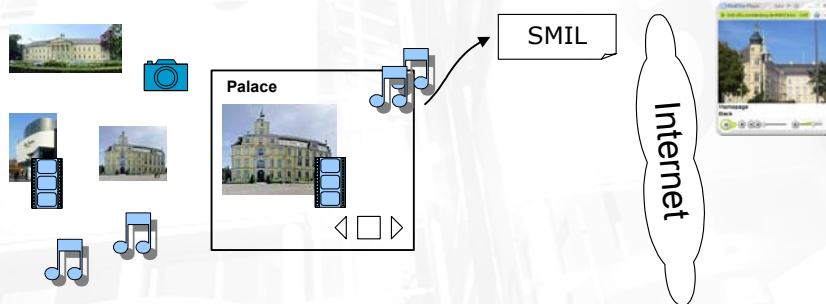
# Multi-channel multimedia content creation chain



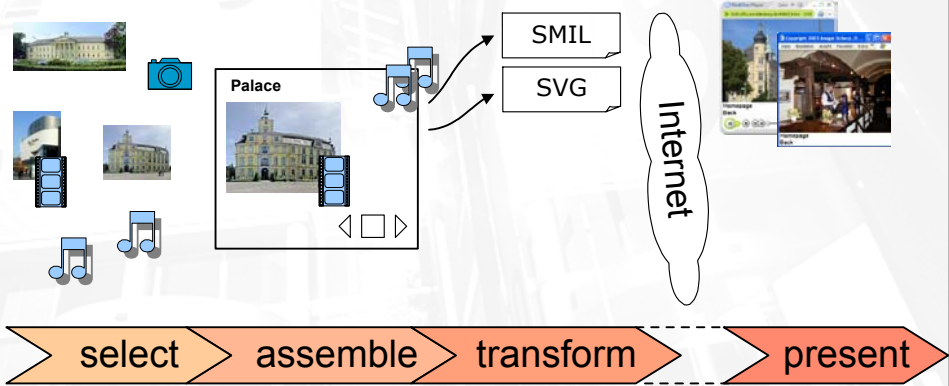
# Multi-channel multimedia content creation chain



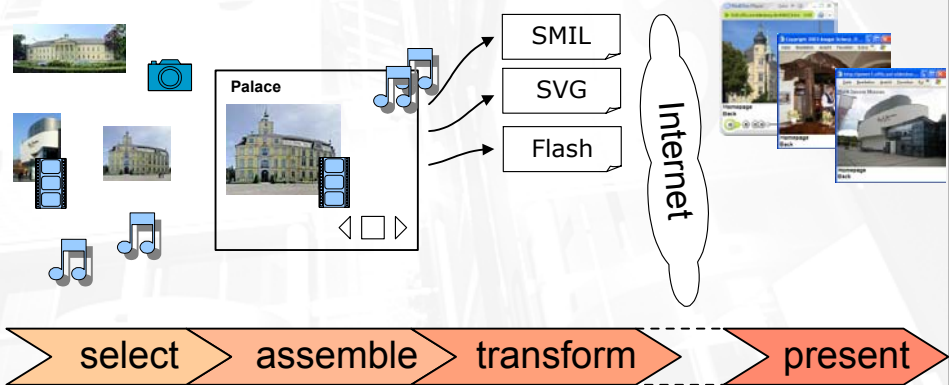
# Multi-channel multimedia content creation chain



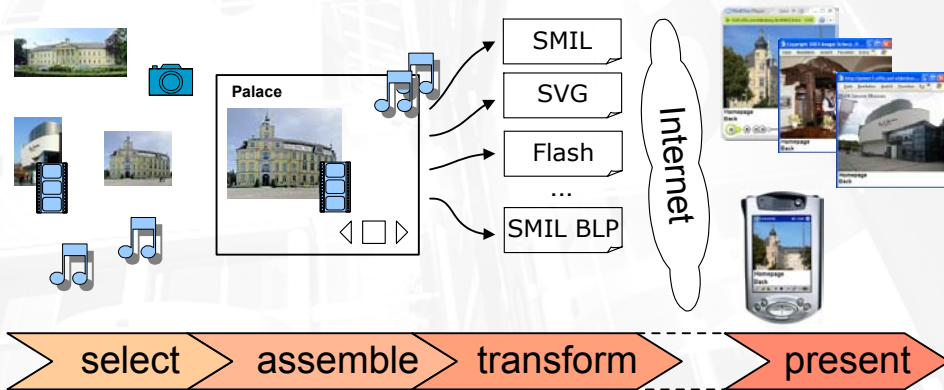
# Multi-channel multimedia content creation chain



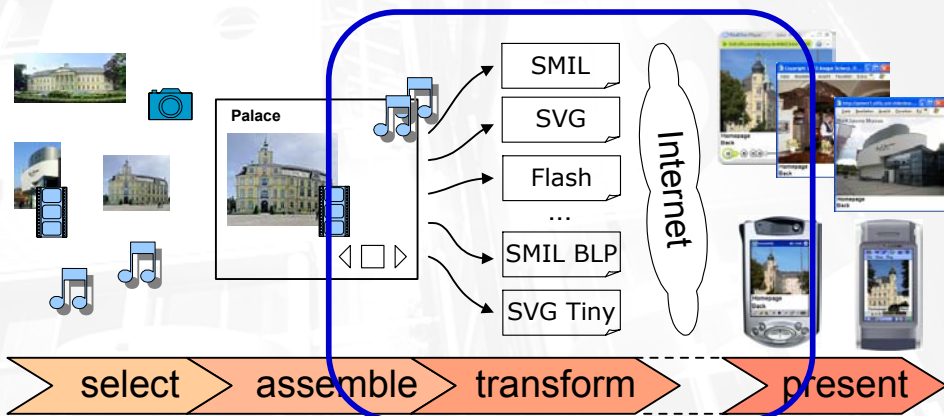
# Multi-channel multimedia content creation chain



# Multi-channel multimedia content creation chain



# Multi-channel multimedia content creation chain



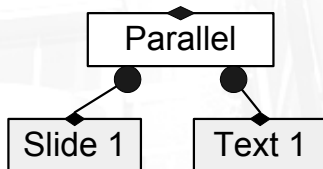
- **Basis forms an internal, abstract multimedia content model**
- **Automatic transformation of multimedia content in internal model to different presentation formats**



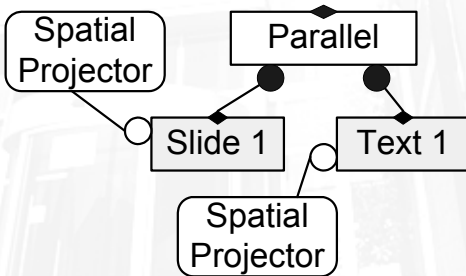
# A simple slideshow in the abstract content model



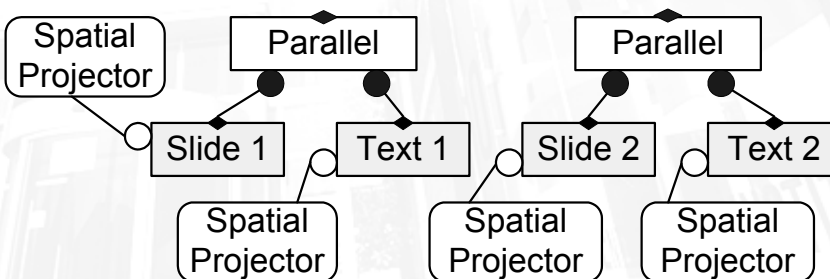
# A simple slideshow in the abstract content model



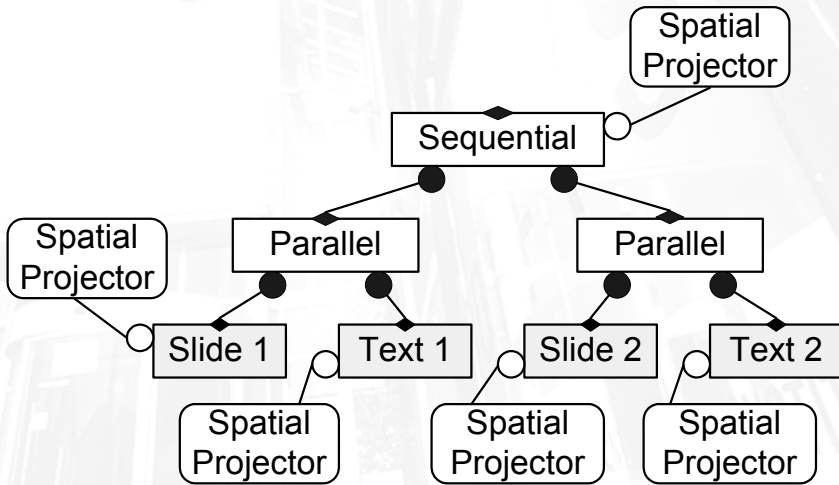
## A simple slideshow in the abstract content model



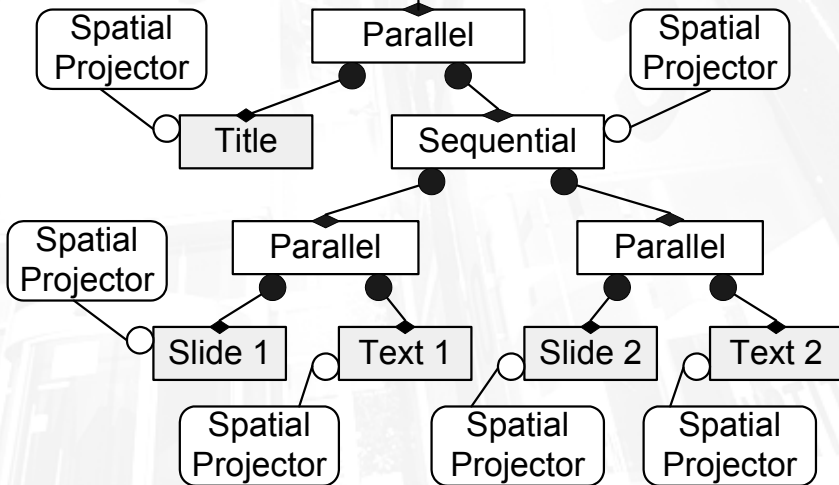
## A simple slideshow in the abstract content model



# A simple slideshow in the abstract content model



# A simple slideshow in the abstract content model







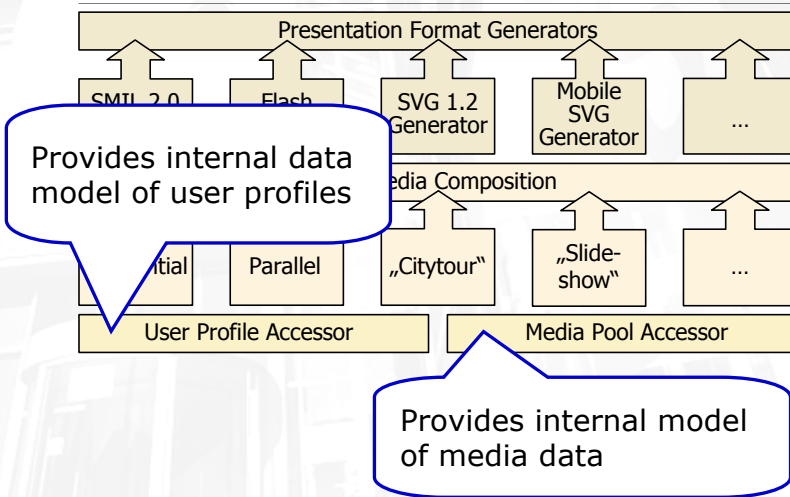




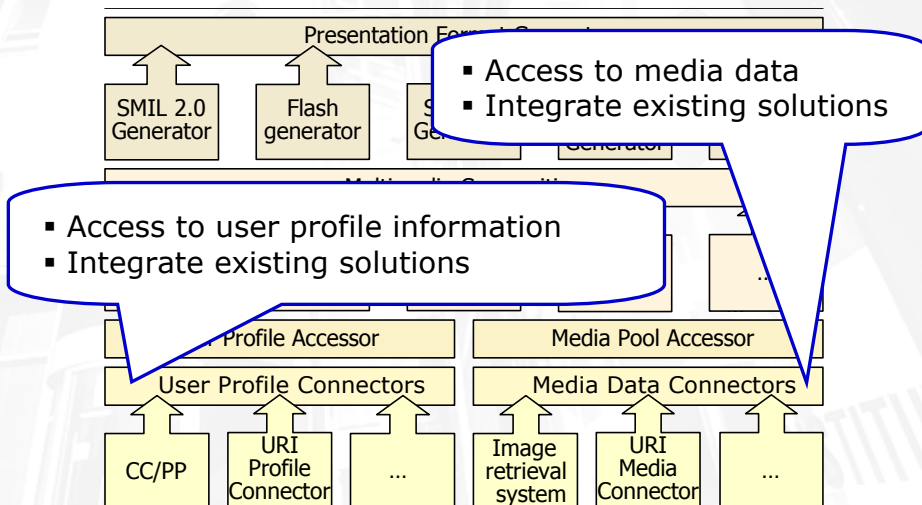




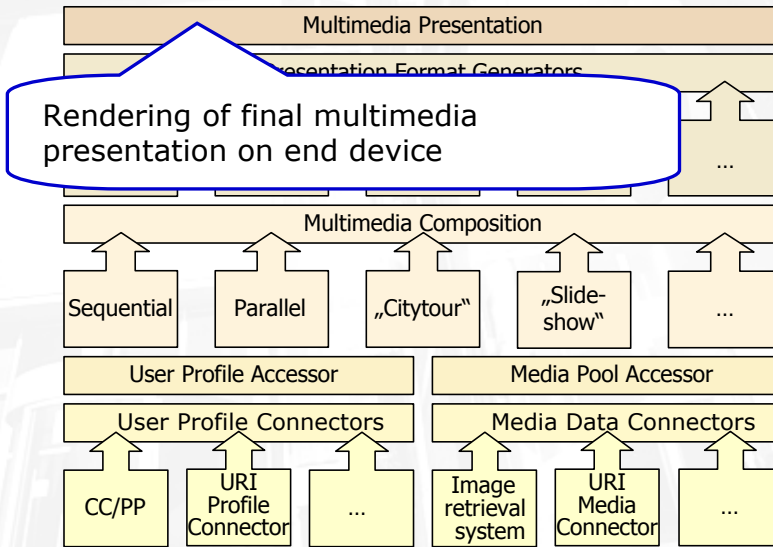
## Integration in our MM4U framework



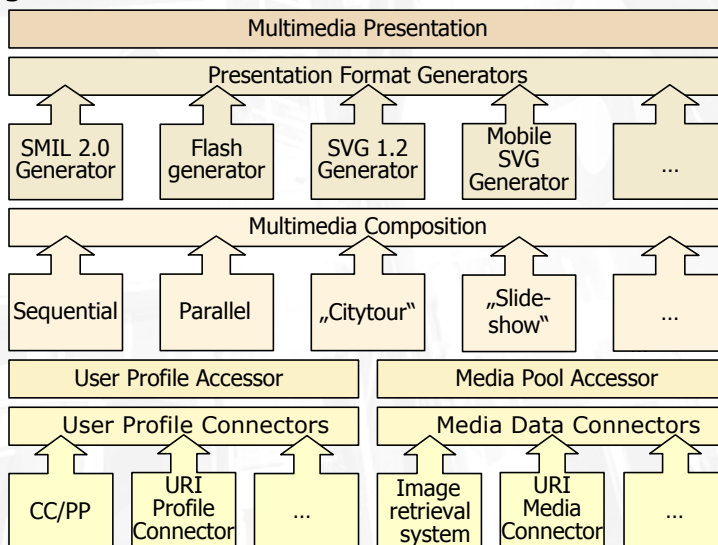
## Integration in our MM4U framework



## Integration in our MM4U framework



## Integration in our MM4U framework



## Sample application – Personalized city guide

# Sightseeing4U Oldenburg

- **Generic application for personalized mobile city guides**
- **Concrete city guide for Oldenburg in the North of Germany**
  - Considers mainly the pedestrian zone
  - Contains video, text, and image material of about 50 sights
- **Uses the MM4U framework and its components**
- **The demonstrator supports**
  - Output in different mobile presentation formats
  - Simulation of different end device characteristics
  - Personalization in regard of user's interests and preferred language

## Transformation results in different formats



SVG 1.2 on a Desktop PC



SVG Tiny on a PDA



SVG Basic on a PDA



Flash on a Desktop PC



SMIL 2.0 on a Desktop PC



SMIL 2.0 BLP  
on a PDA



HTML Web Browser  
on a PDA



MPEG-4 Player on a  
Sony Ericsson P800

## Summary and conclusions

- **With our approach application developers can**
  - Rely on existing players on the market
  - Focus on the multimedia content creation task
  - Leave the creation of the final presentations to our multi-channel presentation format generation
- **We are prepared to support new versions of the presentation formats or even brand new formats**
- **Our approach can be seen as service provider for applications to bring their content over the last mile to the end user's device setting**
- **Project context**
  - Our competence center for mobile applications – Niccimon
  - Multimodal mobile applications – ENABLED

# Thank you!



# Are there any questions?