

FOCUS K3D

FOster the Comprehension, adoption and USe of Knowledge intensive technologies for coding and sharing 3D media content in consolidate and emerging application communities

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- **Coordination Action** in the area of semantic coding of 3D media content
- 8 Partners
- Starting date: 1° March 2008
- Duration: 2 years

FOCUS K3D

Consortium



FP7 – Call 3 in Motion, Challenge 4 – Intelligent Content & Semantics
12-13 December 2007, Luxembourg

Application fields

Medicine & Bioinformatics



CAD/CAE & Virtual Product Modelling



Gaming & Simulation

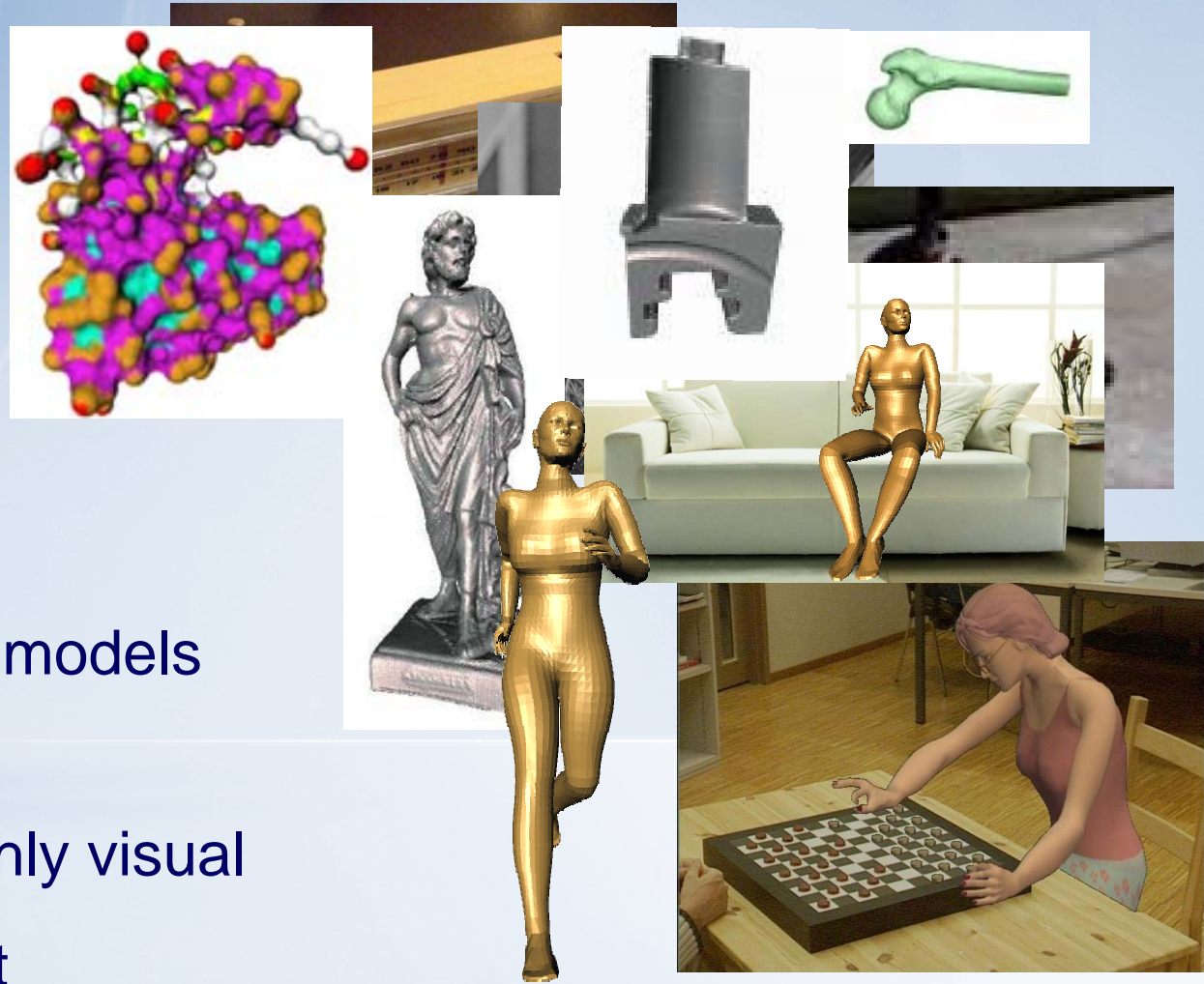
Archaeology & Cultural Heritage

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The new dimension of media

The evolution

- '70s: sound
- '80s: images
- '90s: videos
- now digital 3D models



The *new wave of* highly visual
3-dimensional content

3D content users

- *media professionals*
- *enterprise designers*
- *publishers/dealers*
- *scientists*
- *talented amateurs*



antics



Some considerations on 3D

- Public interest in 3D entertainment
- Research interest in 3D content modelling and reasoning also growing
- 3D technologies fast evolution
- 3D content is big and growing in terms of data, number of users, variety of applications
- Europe has already developed a strong activity in 3D (FP6 projects: AIM@SHAPE, SALERO, 3D TV,...)

Open issues

- Fast and effective creation and archiving of 3D knowledge content
- Context based 3D content representation and delivery
- Fast and efficient search and retrieval

Aim@SHAPE Shape Repository
 News: Version 3 of the Shape Repository is ready...
Shape Repository open to public.
 < 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 > We have 263 models, containing a total of 659 shapes. Current sort: Upload time. Sort by: **Quality** Go

| | | |
|--|--|--|
|  Hand category: surface mesh format: OBJ file size: 10489228 bytes creator: MPII uploader: mpii date: 2005-10-28 16:51:35 downloaded: 333 times Group Desc: Meshings at different resolutions of a laser range scan of t... view group |  Olivier hand category: surface mesh format: OFF file size: 3892716 bytes creator: INRIA and IMATI uploader: inria date: 2006-10-05 11:29:41 downloaded: 31 times Group Desc: A human hand molded and scanned. ... view group |  Pierre hand category: surface mesh format: Archive file size: 50978920 bytes creator: Maroo /Atene an... uploader: inria date: 2006-09-22 12:21:22 downloaded: 8 times Group Desc: A human hand moulded with really high precision (Alginato fo ... view group |
|  Hand man (tetrahedral mesh) category: volume mesh format: ASCII file size: 4220901 bytes creator: Pierre Alliez uploader: inria date: 2006-01-12 23:58:22 downloaded: 32 times Group Desc: Tetrahedral mesh of the hand of a man ... view group |  Laurent hand category: surface mesh format: OFF file size: 4315113 bytes creator: L.Sabonet, M.Pt... uploader: inria date: 2006-10-28 14:03:50 downloaded: 14 times Group Desc: A human hand moulded and laser scanned ... view group |  Dynamic Hand category: depth data format: file size: 886257225 bytes no image for: Oliver Schall uploader: mpii date: 2005-09-26 14:51:03 downloaded: 111 times view download |



Is there a model similar to my hand in a repository?



FOCUS K3D goals

- **Requirements of the user communities**
 - how and why they create and process 3D content
 - how they deal with 3D content knowledge
- **Current practices and analysis of the needs for advanced 3D content modelling and processing**
 - building up on previous FP6 R&D, evaluate how usable/useful semantics-oriented techniques can be in the different applied domains
 - what kind of services users need to handle the 3D knowledge workflow pipeline
- **Research roadmaps**
 - which research problems are still open in 3D content and knowledge modelling and processing
 - how to personalise solutions in the application domains
- **Openness to a larger audience**

- ***Methodological Working Group (MWG)***
 - To set up ad hoc strategies for a profitable collaboration with the different communities
- ***Application Working Groups (AWGs)***
 - User's communities, one for each application area
 - To better organise and customise the dissemination activities according to the needs of the specific fields

Measurable objectives and results!

Impact on Users

- ***Professional developers***
 - insights on the new technology developments for representing and processing 3D content knowledge
 - perspective view into future business needs
- ***Creators of digital 3D content***
 - orientation for future ways of working in 3D knowledge production, share and maintenance
- ***Publishers/dealers of 3D repositories on line***
 - suggestions on how to enable the semantic sharing of those resources

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FOCUS interest group

USA



SINTEF

China



EPFL

Brazil



Japan



in Motion, Challenge 4 – Intelligent Computing
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Viking Laws

1. *be brave & aggressive*

- be direct, grab all the opportunities, use varying methods of attack, be versatile and agile, attack one target at the time, don't plan everything in detail, use top quality weapons

2. *be prepared*

- keep weapons in good conditions, keep in shape, find good battle comrades, agree on important points, choose one chief

3. *be a good merchant*

- find out what the market needs, don't promise what you can't keep, don't demand overpayment, arrange things so that you can return

4. *keep the camp in order*

- keep things tidy and organised, arrange enjoyable activities which strengthen the group, make sure everybody does useful work, consult all members of the group for advice