

Virtual Vellum

- e-Science Demonstrator project funded by:
 - EPSRC/JISC/Arts & Humanities e-Science Initiative
 - UK e-Science Core Programme
- provides researchers with generic viewing tools and environment for image datasets comprising:
 - large volume image datasets
 - high-resolution image files (> 8K x 6K pixels)
- delivered as:
 - open source & open access
 - platform independent (i.e. Windows/Mac/Linux)
- allowing access to image datasets:
 - from a local hard drive
 - over the internet
 - via a Data Grid using Storage Resource Broker (SRB)
- ideal for:
 - Access Grid seminars
 - live conference presentations and lectures
- Froissart Manuscript Project provides initial image dataset (over 4,000 images/folios), digitally photographed by Colin Dunn, Scriptura Ltd



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Project Web Site:

<http://www.shef.ac.uk/hri/projects/projectpages/virtualvellum.html>

Virtual Vellum

Project Team

Principal Investigator:

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Technical Associate:

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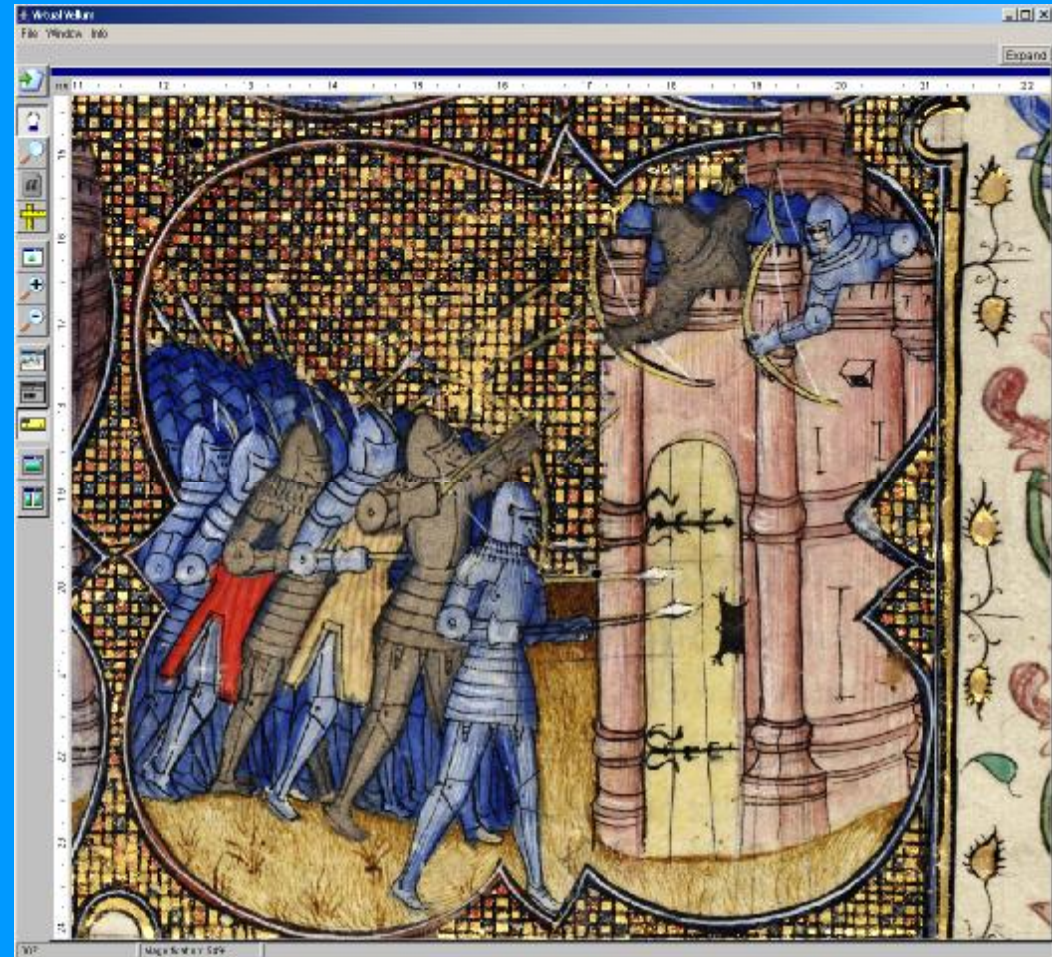
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White Rose Grid Development Officer:

Mike Griffiths, University of Sheffield

Imaging Consultant:

Colin Dunn, Scriptura Ltd (Oxford)



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The AG in Collaborative A&H Research

Principal Investigator:

David Shepherd, Director, HRI, University of Sheffield

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e-Science Workshops

- funded by the Arts and Humanities Research Council

Aims and Objectives:

- To explore the potential and issues associated with the use of the AG to share ICT-based research and to facilitate collaboration between arts and humanities researchers
- To test various forms of use of, and access to, the AG
- To produce a report on issues associated with the use of the AG to share ICT-based research
- To encourage awareness of the potential of the AG and other grid technologies to foster new forms of collaborative arts and humanities research



Participants:

Bangor, Bergen, Bristol, Canterbury (New Zealand), Glasgow, Institute of Historical Research (London), King's College London, Lancaster, Leeds, Manchester, Sheffield, University College London (SLAIS), Western Australia



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<http://www.shef.ac.uk/hri/projects/projectpages/accessgrid.html>

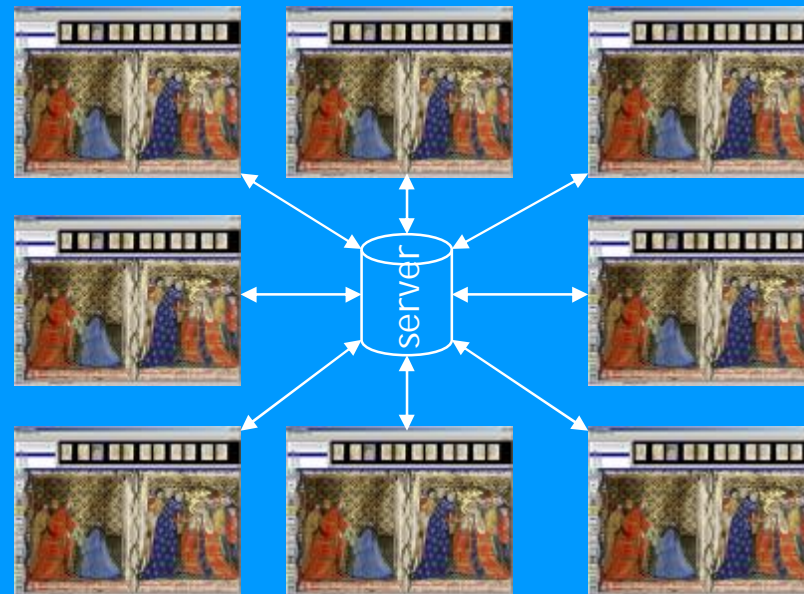
The AG in Collaborative A&H Research

Digital Images (Professor Peter Ainsworth, Department of French), 6 December 2006

"In this workshop scholars working on images primarily of medieval manuscripts presented and shared images, and explored ways in which the Access Grid might facilitate their comparative analysis."

Prototype Demonstration:

- Real-time collaborative image-viewing environment via Virtual Vellum
- Efficient retrieval, opening and manipulation of image datasets stored online
- Server-client model ensures rapid updating of view and manipulation for all participating sites and connected computers (this does use a screen-grab and broadcast approach)
- Each site is free to manipulate (and select) an image for all participating sites to mutually see and view exactly what they are seeing to assist in discussions about the imagery



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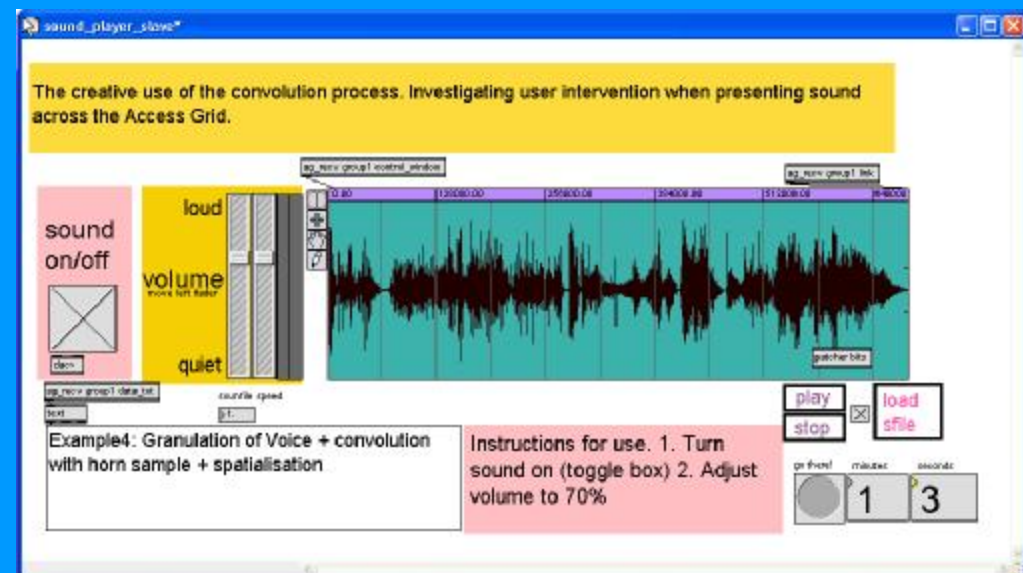
The AG in Collaborative A&H Research

Sound and Moving Image (Professor Andrew Prescott, HRI), 17 January 2007

"This workshop set out to explore and more systematically document the issues involved in collaborative musical activity over the Access Grid."

Overview:

- Sound tests, conducted by Dorothy Ker, to establish the quality of audio via the Access Grid and to examine such issues as latency and packet dropping
- Adrian Moore set out to demonstrate a patch in the MAX/MSP programming environment which would allow the replay of sound in the various AG nodes to be controlled from Sheffield
- Sharing of video over the Access Grid, building on long-standing collaboration between Meg Twycross, Pam King and Andrew Prescott on processional and other forms of activity as theatre



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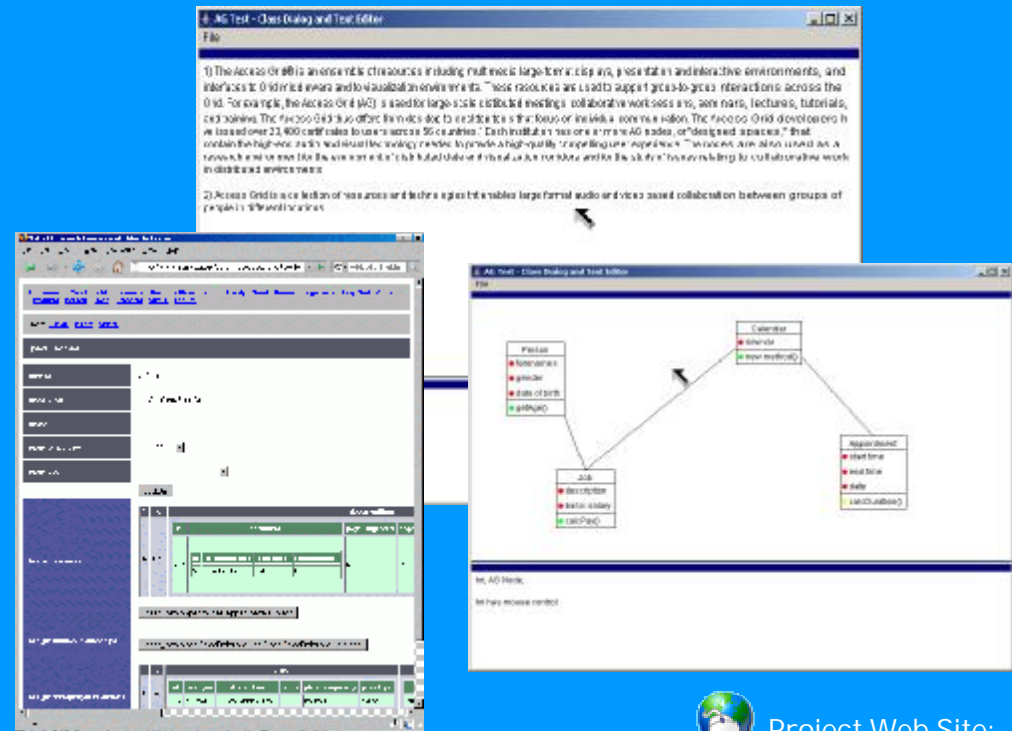
The AG in Collaborative A&H Research

Electronic Texts and Databases (Professor David Shepherd, HRI), 24 January 2007

“This workshop explored ways in which the Access Grid can facilitate the sharing of experience in discussing the structure of databases and tagging schemes, and examined the potential for application of new forms of interface and other technologies.”

Overview:

- Jeff Denton introduced the long-established Taxatio database project
- Jamie McLaughlin presented the possibilities of the Web Ontology Language (OWL) and graphical ontology editors such as Protégé
- Prototypes of collaborative text and class-diagram editing tools were run between participating sites:
 - Used a server-client model similar to the Collaborative Virtual Vellum prototype
 - Each site/client can simultaneously change the text or class diagrams
 - Interactions/changes are reflected to all clients with minimal delay
 - Single pseudo-mouse pointer that any site could control to highlight areas of interest



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The AG in Collaborative A&H Research

VR and Visualisation (Professor Mark Greengrass, Department of History), 28 February 2007

"This workshop explored ways in which the Access Grid can facilitate the sharing of VR experiences in discussing such methodologies across the arts and humanities disciplines."

Prototype Demonstrations:

- Use of a server-client model to perform real-time 3D interaction
- Faked "Augmented reality" room was based on the AG room at the HRI:
 - Each site could choose to use a shared view of the world, or embody its avatar and look around the changing world
 - Virtual holograms of 3D objects
 - Virtual video screen for presentations
 - Each avatar could raise its hand
- Collaborative 3D interaction:
 - Each site could move an object along only one of the 3 axes, thus requiring collaboration
- World building
 - Collaboratively construct a 3D world



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