Approaches Using Virtual Environments with Mosaic

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The Second International WWW Conference '94 Mosaic and the Web

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Overview

- **Surrogate Travel**
- **VR as organizing principle**
- **Mass market technology prototypes**
- **Integrating Mosaic and VR**
- **Inline graphics vs. external program**
- **Summary and Conclusions**

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VR as a User Interface - Immersion as an Organizing Principle

- **First person point-of-view (POV) environments are natural - we are in them every day.**

- **Computer based POV environments attempt to move users from the real world to a virtual world.**

- **Movement in the virtual world is not natural and must be learned.**

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VR as a User Interface - Immersion as an Organizing Principle (cont.)

- Arrangement of items in and around the user can be highly personalized. (I can find stuff in my messy office because I've internalized the location of objects).

- Spatial metaphors can be tailored to the individual, office, building, city, maps.

- One can "objectify" locations - i.e. turning locations of interest into objects (a la 3D clip art) and placing them in memorable locations.
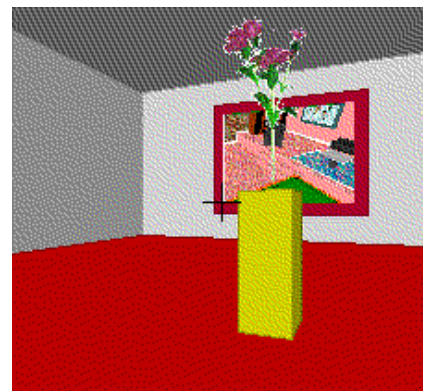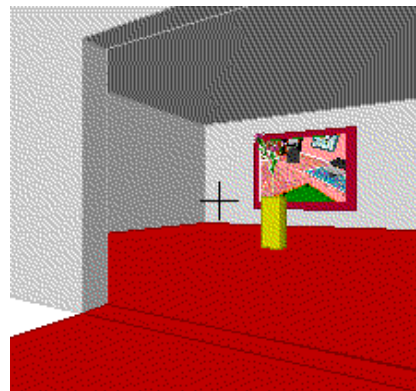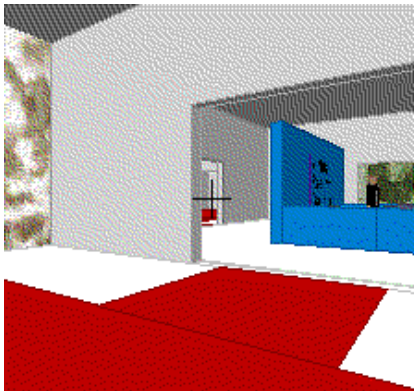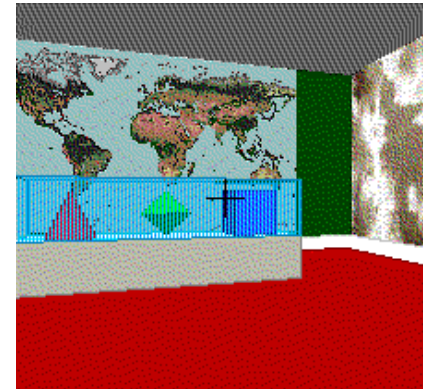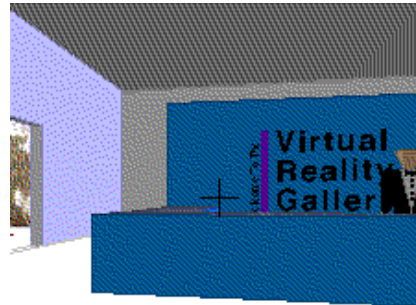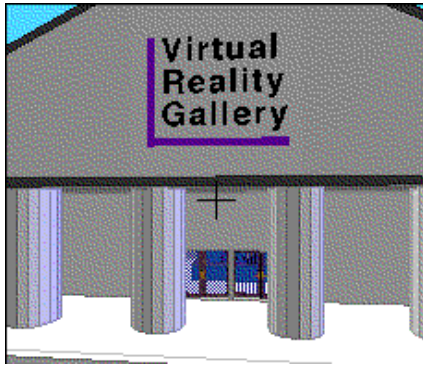
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Mass Market Technology Prototypes/Products

- **Apple's Virtual Museum**

Mass Market Technology Prototypes/Products

- **Virtus Walkthrough**

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Entertainment as a Technology Puller
Some Case Studies

- **Nintendo/Sega - Jurassic Park**

  Alternates between typical 2D video game and 3D POV views for interior scenes, cartridge based.

- **Broderbund/Cyan - MYST**

  Move around environment, sync sound highly photorealistic.

- **Virgin Games/Trilobyte - 7th Guest**

  First person POV plus active elements (actors/agents)

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Integrating Mosaic and a VR Environment

- **An experiment in "surrogate travel" as a front end to Mosaic information.**

Integrating Mosaic and a VR Environment (cont.)

- **Original system is simple proof-of-concept.**

- **All views are "hardwired" no automated layout.**

- **Future systems will provide automated HTML generation of scenes and provide correct connectivity.**

- **Alternately a 3D viewer can be used as a Mosaic application much like viewer are currently used for images and sounds. (Problems with portability)**

Integrating Mosaic and a VR Environment (cont.)
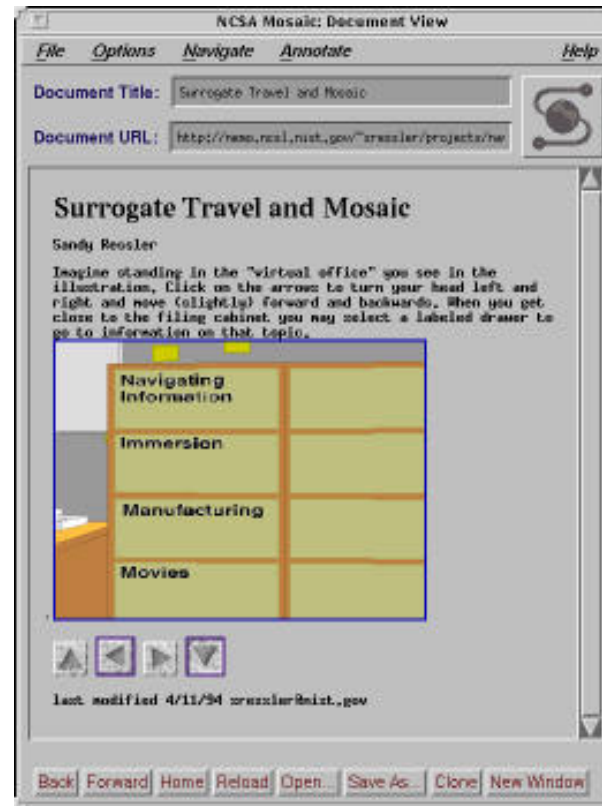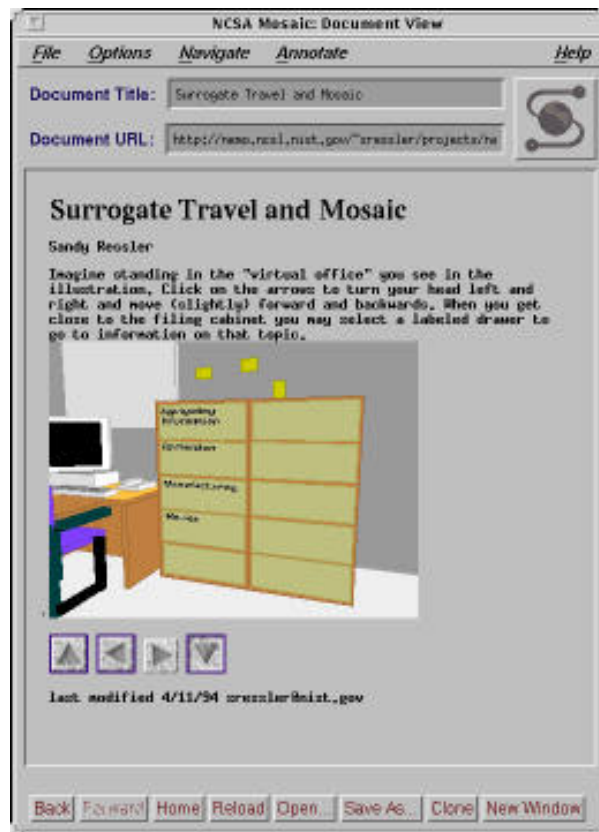
Remote Control
(External Graphics Program) of Mosaic
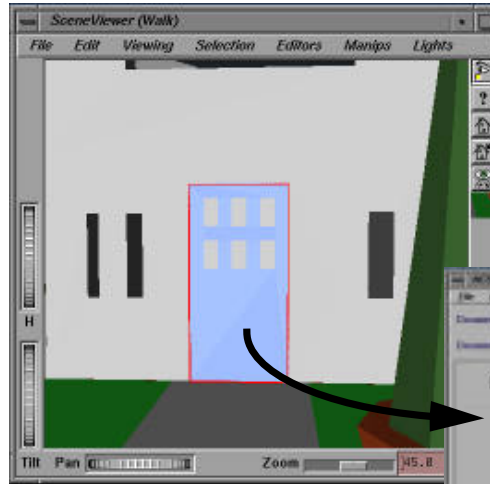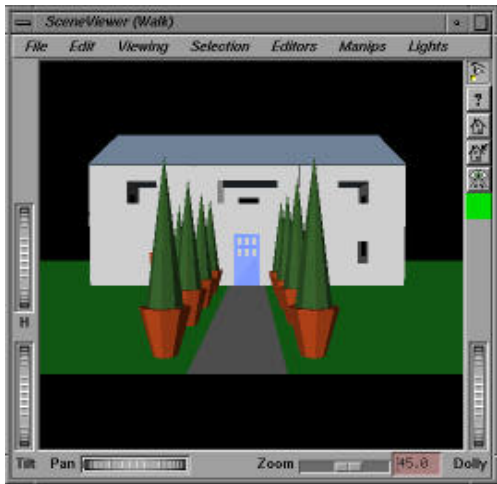
**Selecting the front door causes Mosaic
to go to the NIST WWW home page.**

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Summary and Conclusions

- **Synthetic spatial environments provide a natural way to discover and explore large complex areas.**

- **These spatial areas can be used to represent and mentally organize information.**

- **Different methods to integrate virtual environments with Mosaic are appropriate for different applications.**

- **Performance and portability are the primary trade-offs.**

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