Monash Immersive Visualisation Platform

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MIVP Self-service 2019

Previs
Use our web-based tool for preparing meshes, volumes, images and point clouds for visualisation on the desktop and in the Monash CAVE2. Data can be uploaded, organised, and visualisation parameters applied and saved. Saved configurations can then be accessed in the previs ecosystem using a 6-character tag or QR code.

Big Windows
Use half of the CAVE2 to run your choice of Windows 10 programs in ultra-high resolution.

Simple Windows
Use the whole CAVE2 in moderate resolution mode for presentations, interviews, and filming.

MIVP newsletter:  http://tinyurl.com/mivpnews
MIVP webpage:    http://monash.edu/mivp
previs: Your data in the CAVE2

previs is a web-based tool for preparing meshes and volume images for visualisation in the CAVE2. Data can be uploaded, organized, and volume and surface rendering parameters applied and saved. Saved configurations can then be accessed in the Monash CAVE2 using a short alphanumeric tag, or a QR code.

In order to use previs please follow these steps:

Click the following symbol:  to login at tinyurl.com/monashpv or https://mivp-dws1.erc.monash.edu:3000

previs in the web browser

- Use  to upload data to previs. The supported file types are shown once you select a data type. Click the arrow  for more information on the upload requirements.
- Use  to list visualisations you've created so far, together with their tags.
- Click on the thumbnail and then "Web view" to view a model in the browser and change and save different parameters. You may need to zoom in or out to see your data - sometimes we don't get it right, automatically!
- Bring the tag(s) and/or QR codes of the data you want to visualise with you on your CAVE2 visit.

previs in the Monash CAVE2

- On the KVM select PC1
- On the IPAD, select
- When prompted, enter the tag of the data you want to load. This can take a while.
- You can view and control your model with the CAVE controller
Devices, Controls and their locations

In order to use the CAVE2 to your liking you should be familiar with a few basic devices, their names their locations. Their names will be used in the following documentation.

**“KVM” CAVE2 Input Device Switcher**
1: CAVE2 mode Glasses Controller
3: Big Windows Keyboard, Mouse, USB
4: Simple Windows Keyboard, Mouse, USB

**IPAD:**
- Toggle CAVE2 modes and application
- Turn screens on/off
- Control audio

**Terminal PC**
- Screen
- Keyboard and Mouse

**3D GLASSES and CONTROLLER**
Use for (tracked) 3D applications
Untracked glasses for spectators

**LECTERN:**
Windows keyboard/mouse
2 sets of keyboard/mouse for Simple- and Big-Windows
Using the CAVE2 controller in 3D

To control 3D scenes (e.g. from previs) in the CAVE2, you need to use the CAVE2 controller. For stereoscopic applications (seeing in 3D), tracked glasses are provided as well.

The person controlling the application should also be the person wearing the tracked glasses. Untracked 3D glasses are available for spectators.

- To move a model around, you need to **hold the lower left shoulder button (LT)** and move the controller in the 3D space (up/down/forward)
- You don’t have to be stationary. Move around and the model will move as well
- The menu interaction is described in the image above.
- Tilt the controller in any direction to roll the camera. To enable/disable roll open the menu and navigate to “System” then “toggle freefly”
CAVE2 controller for 2d images

Wear glasses if the image(s) are stereoscopic, i.e. have a left and right eye view. The button layout of the CAVE2 Controller for viewing Images is as follows.

Access to CAVE2

- At 20 Research Way (New Horizons) the CAVE2 is located on level 3.
- Either walk up the stairs to level 3, OR
  - take the lift to level 4
  - Exit the lift and turn right, where you will see the stairs.
  - Go down one level
- Call 50678 on the phone next to the door.
- The image shows the correct stairs in the center.
Windows in the CAVE

Simple Windows

Simple Windows is designed to make the CAVE2 as simple to use as an ordinary Windows Computer. It is best to use this mode for Presentations, interviews and filming.

How to access Simple Windows:

- On the IPAD, press Simple. This may take 20 seconds
- On the LECTERN use the Mouse and Keyboard labeled “Simple Windows”
- Login using your Monash account/authcate

How do I access my data

- Use your S: drive, Google Drive, One Drive, Cloudstor etc instead
- No usb stick support yet (coming soon), also possible to ask staff

How do I install software

- Software Centre
- Microsoft Store
- Portable executable software
- Ask for help

Troubleshooting / Q & A

- Resolution: 9600*1080 -> 5x FullHD in a Row
- Powerpoint template: https://tinyurl.com/y3u82cfv
Monash Immersive Visualisation Platform

Windows in the CAVE

Big Windows

Big Windows is our name for a powerful Windows 10 machine connected to half of the CAVE2 screens with more than 8k resolution allowing you to work with massive datasets using Windows software.

How to access Big Windows:
- On the IPAD, press Big-  This may take 20 seconds
- On the LECTERN use the Mouse and Keyboard labeled “Big Windows”
- On the KVM Hit 3
- Coming soon: Login using your Monash account/authcate

How do I access my data
- Use your S: drive, Google Drive, One Drive, Cloudstor etc instead
- No usb stick support yet (coming soon), also possible to ask staff

How do I install applications
- Software Centre
- Microsoft Store
- Portable executable software
- Ask for help

Troubleshooting / Q & A
- TBA - We welcome your feedback!

Tech spec:
- CPU: 2x8 3.5GHz Intel(R) Xeon(R) CPU E5-2680 v4
- Memory: 256GB
- Canvas Size: 13660*3072
- GPU: NVidia P6000 x2

http://monash.edu/mivp
mivp-admin-l@monash.edu
Need Help?

03 9905 0678
mivp-info@monash.edu
www.monash.edu/mivp

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