vhtoolkitUnity

- Overview
- Users
  - Launching Unity
  - Navigating Unity
  - Interacting with Brad Using Text
  - Interacting with Brad Using Speech
  - Keyboard Commands
  - Using the Console
- Message API
- Known Issues
- FAQ

Overview

vhToolkitUnity is the Unity rendered version of the Virtual Human Toolkit. This project integrates several research systems together in order for the user to interact with a virtual human character through usage of text to speech and language understanding. Some of the systems that are integrated into his project are the Smartbody animation system, text to speech engines, and AcquireSpeech. Unity is a 3rd party proprietary rendering engine and is provided as binary-only with the Virtual Human Toolkit. You can download the free version of Unity here. For changing art assets you need to purchase Unity Pro. vhtoolkitUnity was created using the vhAssets package as a starting point.

The Toolkit also contains an open source renderer Ogre which only serves as a proof-of-concept and is not fully supported.

Users

Launching Unity

In the Launcher, click the Launch button in the Renderer row (click the Advanced button if you don't see any rows). Be sure to have the Engine parameter set to 'Unity'. A small option screen pops up allowing you to select several graphical settings. The most important ones are:

- Screen resolution. The higher the resolution, the better the graphics look, but the slower they are.
- Graphics quality. The higher the quality, the better the graphics look, but the slower they are.
- Windowed. Check if you want the renderer to be windowed, uncheck if you want it to launch full screen.

Once you're happy with your settings, click 'Play!'. Unity should now continue loading.

Navigating Unity

You can use the W,A,S and D keys to move the camera, and Q and E to move it up and down. Hit J to toggle mouse look; this allows you to use the mouse to change the direction the camera is facing.

Interacting with Brad Using Text

Toggle the text box with L. Use the arrow keys to see suggested questions, or type in your own questions. Hit Say to ask Brad the question.

Interacting with Brad Using Speech

You can talk to Brad using a mouse and microphone when Unity is in full screen mode. Use the M key to turn this ability on and off. When the ability is on, click and hold the left mouse button while you are asking your question, and release when you're done talking.

Keyboard Commands

- W,A,S,D - camera movement. Q & E - camera up/down
- J - mouse visibility toggle - mouse look mode
- L - toggles the fake recognizer text box
- O - toggles the user's recognized text
- M - toggles speech recognition mode. When on, click and hold and talk in the mic. Release to quit talking.
- X - reset camera
- Z - show debug statistics
- I - Toggles sbm character subtitles
- P - Toggle entire GUI
- Alt-enter - toggle windowed / fullscreen
- Escape - quit

Using the Console

Hit the ~ key to bring up the console. Here you can see some debug information. Type 'help' for all available commands.

Overview of the main commands:

- q - quit
- play_intro - Play intro sequence
- vhmsg ... - Send vhmsg out to system. 'vhmsg sbm ...' for sending a smartbody command
- setresolution x y - Set resolution to 'x' x 'y'. Example 'setresolution 1024 768'
- toggle_fullscreen - toggle windowed / fullscreen

Message API

Receives:

- vrAllCall
- vrKillComponentMessages
- PlaySound

Sends:

- vrComponent
- vrProcEnd

Known Issues

- ...

FAQ

See Main FAQ for frequently asked questions regarding the installer. Please use the Google Groups emailing list for unlisted questions.