

Debugging Gigi with Pix

You need the following to get started

- Install Pix for Windows from the [Microsoft website](#)
 - Select the “latest main version” and download the x64 link
- [Enable “Developer Mode”](#) in Windows
- [“Allow access to the CPU performance counters for all users”](#) in the NVIDIA Control Panel.

Follows the steps below to debug a shader in Gigi with Pix

Gigi

- Start Gigi
- Enable “Compile Shaders for Debugging” (Main Menu -> Settings -> Compile Shaders for Debugging)
- Load your Gigi file
- Take a “Pix Capture” (Main Menu -> Pix Capture)
 - If Pix for Windows is installed, this action will automatically open it. The files file path for the Pix capture is also written to the Gigi log.

Pix for Windows

- Start the analysis using the play button in the main menu.
- Select “Pipeline” tab.
- Gigi puts performance markers in the capture file matching the node names of the shader file.
- Select a draw call (e.g. boxblur -> CS: BlurH -> Dispatch for the boxblur technique)
- This opens the preview in the lower half of the UI.
 - Select the render target you want to investigate (e.g. UAV Texture 0: PingPongTexture : Output for the boxblur technique)
- Right-click on a pixel and select the option “Debug Pixel”
 - This opens the shader in the debug panel where you can step through the code as used by other IDEs.

Reference

- The Unity documentation includes a [helpful guide for debugging shaders with PIX](#) that provides some general insights.