

The background is a vibrant digital scene featuring a city skyline at sunset or sunrise. In the foreground, there's a large, semi-transparent sphere with a dark, textured surface, possibly representing a planet or a lens. To the left of the sphere, there's a circular inset showing a stylized plant with green and brown leaves. The sky is a mix of orange, yellow, and blue, with a few birds flying. The overall aesthetic is high-tech and futuristic.

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VULKAN RAY TRACING WITH DYNAMIC RENDERING

JOSE EMILIO MUNOZ-LOPEZ (ARM)
STEVE WINSTON (HOLOCHIP)

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The Vulkan logo consists of a stylized white swoosh above the word "Vulkan" in a bold, sans-serif font, followed by a registered trademark symbol (®).

Vulkan®

VULKAN TUTORIAL

- All the content will soon be available as part of Khronos' Vulkan Tutorial
 - <https://github.com/KhronosGroup/Vulkan-Tutorial>
- In the meantime, you may access the content presented today in this Pull Request
 - <https://github.com/KhronosGroup/Vulkan-Tutorial/pull/145>



LAB OVERVIEW



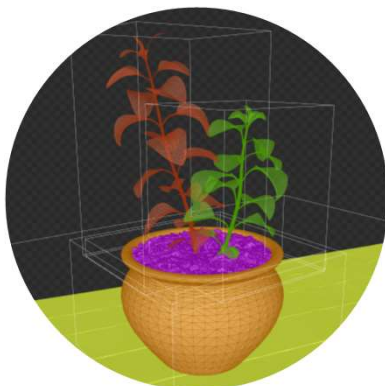
[attachments/38_ray_tracing.cpp](#)



[attachments/38_ray_tracing.slang](#)



Dynamic rendering



Acceleration
structures



Ray query shadows
and animations



Bindless resources
and transparency



Ray query
reflections

BUILD AND RUN!



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Re-build and Run!

Use

```
#define LAB_TASK_LEVEL 4
```



```
cmake --build build --target 38_ray_tracing --parallel
```

```
start .\build\38_ray_tracing\Debug\38_ray_tracing.exe -wo .\build\38_ray_tracing\
```



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WRAP-UP



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- Complete the full Vulkan Tutorial at <https://github.com/KhronosGroup/Vulkan-Tutorial>
- Find more Vulkan documentation and resources at <https://www.khronos.org/vulkan>
- Read Arm's Vulkan Best Practice guide at <https://developer.arm.com/mobile-graphics-and-gaming/vulkan-api-best-practices-on-arm-gpus>
- Download RenderDoc at <https://github.com/baldurk/renderdoc>
- Download NVIDIA Nsight Graphics at <https://developer.nvidia.com/nsight-graphics>
- Learn more about the Slang shading language at <https://shader-slang.org>



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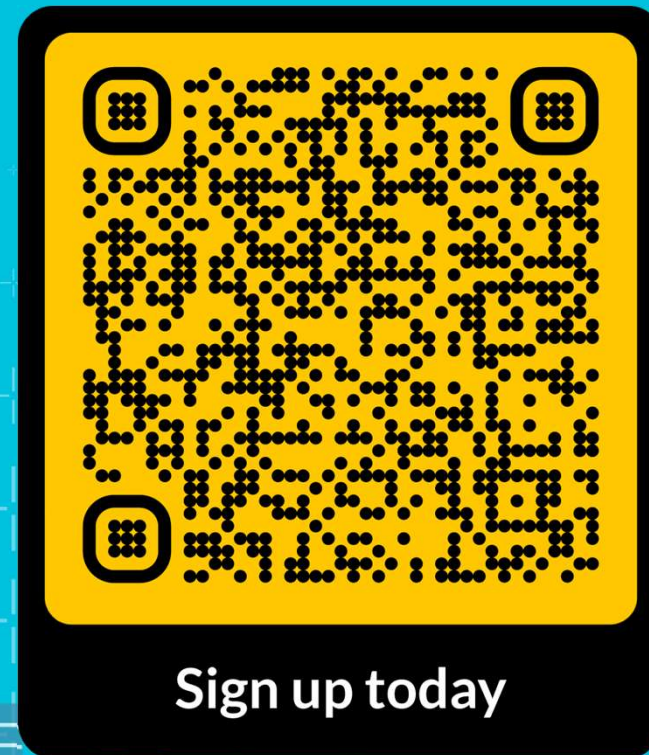
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THANK YOU!



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