MoreThanALICE

Developing an augmented reality mobile application for the ALICE detector

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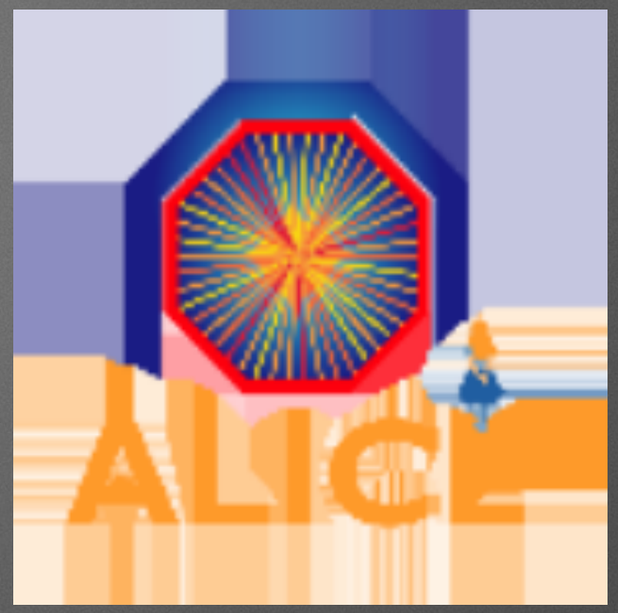


Goal:

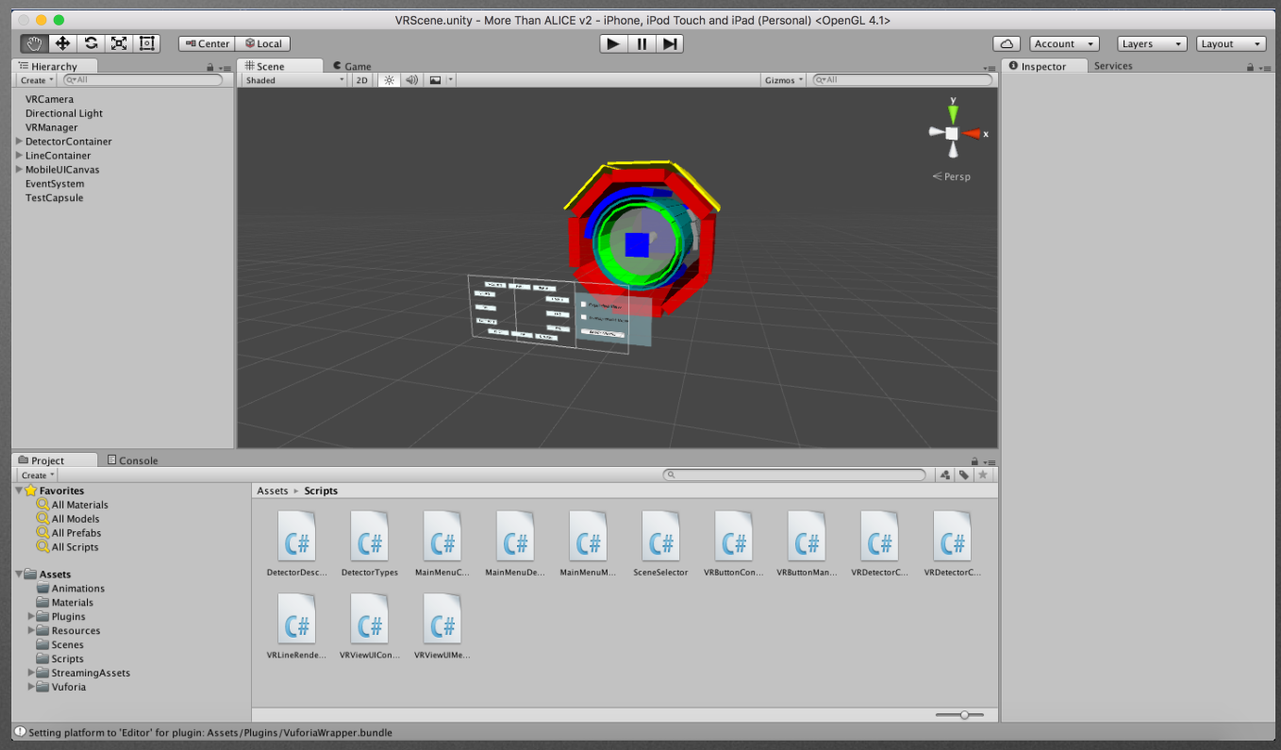
Development of a mobile app in Unity describing the ALICE detector, featuring both

- an augmented reality interface, and
- a virtual reality interface,

as well as the potential to overlay nearly-live collisions occurring in the detector from a central database.

Project Structure

- Written predominantly in C# using the Unity Game Engine
- Augmented reality implemented using the Vuforia SDK for computer vision
- Original version was entirely scripted by 335 C# object files
  - No utilization of the Unity scene editor -> poor interface design
  - Updates to new software releases hard to perform
- New plan: utilize Unity scene editor to improve interface design



vuforia by Qualcomm™

Features Summary

ALREADY IMPLEMENTED

- VR detector mode, with
  - improved controls,
  - labeled detectors
  - … but oversimplified

TO BE IMPLEMENTED

- AR detector mode
  - labeled detectors that are tracked on the screen
  - functionality with detector models and pictures
- ALICE collisions overlay
- Multi-language support (possibly limited)
- More accurate VR detector

Demo Time!