CSE 403 Project Pitch

Project Name: TyrantVC
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Our Problem

We are solving the problem of there not being an effective way to access a version control system such as Git within the Maya scripting environment.

Maya is a modeling and animation software created by Autodesk that is used widely amongst animation and gaming studios. Most of these studios have scripting teams that create specialized plugins and tools. For this they use the basic script editor that is included within Maya. This script editor is limited in its functionality, and while there are plugins that allow for auto-completion, better access to documentation, auto saving, etc., one of the features that is still missing and that no plugin for Maya implements is Version Control for scripts created within Maya. Currently developers have to leave the Maya environment to pull or push their scripts which results in a messy and inefficient workflow. Our hope is to create a lightweight and easy to use plugin to access Git's version control functionality from within Maya for a less disruptive development process.

Approach

We want to create a plugin for Maya that adds an additional UI panel to the Maya Environment. This UI panel would allow you to see which repo you are working in, which files have been modified and allow for standard Git functionality of pulling, committing and pushing files. See the diagram below for a rough idea of how this could look:
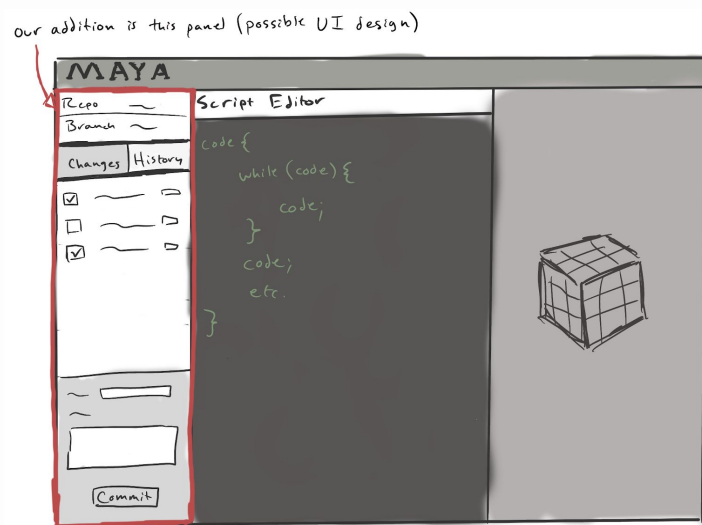
Challenges and Risks

Our main concerns include the potential difficulty of working with Maya's plugin API and running Git commands from within Maya. For our first concern, we can help mitigate this by consulting with a staff member of the UW animation lab who has experience working with the Maya UI and writing plugins for Maya. The second concern can be avoided by researching and testing early in the project process in order to come up with a solid plan for how we want to go about integrating Maya with the Git commands.