

AUTHORING TOOL DESIGN DOCUMENT OUTLINE

TITLE: (you need to come up with a good name for your authoring tool)

PROJECT SUMMARY

Usually one page in length. Include a 1 or 2 sentence descriptions of each of the following: the production/development need, design goals, target audience, tool functionality, implementation details and development schedule

1. AUTHORING TOOL DESIGN

1.1. Significance of Problem or Production/Development Need

What is the significance of the problem and/or the production/development need for the functionality or special effect you plan to develop.

1.2. Technology

Provide an overview of the SigGraph papers you will be using as the basis for your tool. Why did you choose them? How do they relate to each other? What is unique about the combination?

1.3. Design Goals

Describe how your authoring tool will address the problem or need

1.3.1 Target Audience.

Who is the target audience for your tool?

1.3.2 User goals and objectives

What do you envision the user doing with your tool?

1.3.3 Tool features and functionality

List and describe the feature set of the tool.

1.3.4 Tool input and output

Describe the type of data the tool requires as input and produces as an output.

1.4. User Interface

What does the user interface look like and how will it be used?

1.4.1 GUI Components and Layout

What are the main GUI features in terms of windows, property panels and menu items? Show the physical layout and describe the functionality of each.

1.4.2 User Tasks

List the types of operations the user can select and how they are applied. What does the user need to know (creatively or technically) in order to perform the tasks?

1.4.3 Work Flow

Describe the work flow in terms of how the tool is used (i.e. steps, order of operations, etc.) within the Maya authoring environment. Provide an example of a typical session. How does this work flow solve the problem or meet the production/development need. What does the tool require as input and what does it produce as output?

2. AUTHORING TOOL DEVELOPMENT

2.1. Technical Approach

2.1.1 Algorithm Details

Describe the main features and details of the algorithms you plan to implement. List any assumptions or simplifications you will be making.

2.1.2 Maya Interface and Integration

Describe how you plan to implement the algorithms in the Maya runtime environment. What features will be implemented in MEL? What features will be implemented in the C++ plug-in? Provide descriptions of Maya objects, data structures and class hierarchies you plan to use, as appropriate.

2.1.3 Software Design and Development

Spec out the objects, custom nodes, data structures and class hierarchies you plan to develop as part of the authoring tool implementation. Provide descriptions of each. List any third party software you plan to use as part of your development effort.

2.2. Target Platforms

2.2.1 Hardware

Minimum hardware configuration (i.e. processor speed, memory requirements, graphics card, etc.) required to run the tool and/or implement the effect.

2.2.2 Software

Version of Windows, Maya, OpenGL, Direct3D, etc. required to implement the tool and/or effect.

2.3. Software Versions

2.3.1 Alpha Version Features (first prototype)

List the complete set of features to be included in the alpha version. For example, algorithmic functionality, GUI features, MEL or standalone application implementations, etc. Describe the important development milestones. Describe the demo/test app you plan to create to show off the alpha features.

2.3.2 Beta Version Features

List the complete set of features to be included in the beta version. Describe the important development milestones. Describe the demo/test app you plan to create to show off the beta features.

2.3.3 Description of any demos or tutorials

How will users know how to use your tool? Describe the demos and/or tutorials you plan to develop that will ship with the final version.

3. WORK PLAN

3.1. Tasks

List and number all the tasks and subtasks which are necessary to develop your authoring tool. Provide separate descriptions of each task/subtask, which members of the group are assigned to it, and the expected task duration. Be as detailed as you can.

3.1.1 Alpha Version

List the tasks and subtasks that must be completed for the alpha version.

3.1.2 Beta Version

List the tasks and subtasks that must be completed for the beta version.

3.1.3 Final Version

3.2. Schedule

Using Microsoft Project, organize your task schedule in the form of a Gantt chart. List all the tasks (including durations) and the dates of each major milestone (e.g. alpha, beta, final).