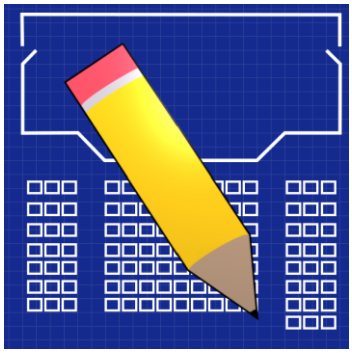

Software Engineering
Software Project Planning Document

Ben Marshall, Lane Addison, Milton Moore, Jason Milloff, Ksenia Belikova
Radford University
readysetgoradford.weebly.com
10/04/16

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.0.0	Ben Marshall, Lane Addison, Milton Moore, Jason Milloff, Ksenia Belikova	Initial Document	10/04/16

Review & Approval

Project Planning Document Approval History

Approving Party	Version Approved	Signature	Date
Project Manager	1.0.0	Jason Milloff	10/04/16
Dr. T. L. Lewis-Williams	1.0.0		10/04/16

Project Planning Document Review History

Reviewer	Version Reviewed	Signature	Date
Ben Marshall	1.0.0	Benjamin Marshall	10/04/16
Lane Addison	1.0.0	Lane Addison	10/04/16
Milton Moore	1.0.0	Milton Moore	10/04/16
Ksenia Belikova	1.0.0	Ksenia Belikova	10/04/16

Contents

Team Information

Team Information

Team Name: READY SET GO
Team Members: Ben Marshall, Lane Addison, Milton Moore, Jason Milloff, Ksenia Belikova

Project Title

Stage Plan

Customer Name/Contact Information

Ryan Gross – Assistant Manager of Production Services, Bondurant Auditorium
Email: rgross10@radford.edu
Work #: (540) 831-5908

Project Overview

Stage plan creates stage plots, which are pictures similar to blueprints that tell stagehands how to set up the stage for a performance or event. The items the user can place on the stage plots include stage curtains, chairs, and tables. The finished plots can be saved to a native format, and can be exported to a picture and/or printed.

Project Scope

From the user's perspective, the program will be a desktop application, which will have a three-paneled GUI. The GUI will consist of a main, large, and centered panel which will display the stage, alongside any items currently set to display on top of it.

The background of the stage panel will be a graphic representing the stage. A default will be provided by the program, but the user will be able to swap it out for their own if desired.

Placing items on the stage will be done via two smaller panels, which will reside to the left and right of the main stage panel. The panel on the left will consist of an ordered list of items on a flyrail, which corresponds to the actual row of items on a stage's real flyrail system. Each item on the flyrail system will have the option to fly in that item, fly out that item, or edit that item. Editing will consist of renaming, reordering in the list, selecting a new graphic for that item, repositioning the graphic onstage, and deleting the flyrail item. A button will be present in the flyrail panel to create a new item as well. When an item is flown in, its graphic will be displayed on the stage. When it is flown out, it will not be visible on the stage.

The right panel will consist of a list of items that can be placed on the stage by stagehands, but are not part of the flyrail system. These items will be referred to as D&D

or drag and drop items. These items include podiums, tables, and chairs. These items can be dragged from the list panel into the stage panel, where they can be repositioned, rotated, and resized. Items such as tables, chairs, podiums, and basic geometric shapes (circles, squares, rectangles, and triangles) will be built into the program, but the user will be able to import graphics for new items if desired. The list of D&D items on the right panel will be scrollable. A button to add new D&D items will be located on the right panel.

The items on the flyrail system, custom D&D items, and custom stage graphics will be stored in some sort of persistent settings or data file.

Stage plots generated with the program will be able to be saved to a file, which will allow the plot to be opened and edited later. The entire list of flyrail items, along with any custom D&D items or custom stage graphics used, will be included in this save file, so that the file can be opened by another instance of the program than the one used to created it

Stage plots will be able to be exported into an image or PDF. Any implementation of one or more of the following formats will be considered sufficient: JPEG, PNG, PDF

Stage plots will be able to be printed.

The toolbar will have a file menu with the following options: Save, Save As, Open, Close, Recent, New, Export, Print, Settings.

The toolbar will have the following buttons visible at all times: Undo, Redo, Cut, Copy, Paste, Rotate.

If time permits, keyboard shortcut functionality will be a desired feature, but not one critical to project success. Shortcuts include Save, Cut, Copy, Paste, and Rotate functionality.

The settings menu, accessible from the File menu, will allow the user to change the stage graphic, as well as providing an alternative method edit the flyrail items, and any custom D&D items.

Project Success

The project will be considered successful if:

- The flyrail panel exists and can be used to toggle flyrail items on stage
- The D&D panel exists and can be used to add D&D items to the stage
- The stage panel displays the stage and items on top of it
- D&D items on stage can be repositioned, rotated, resized, and removed
- Stage plots can be saved and loaded
- Stage plots can be printed
- Stage plots can be exported to an image or PDF

Key Stakeholders

- Ben Marshall, Lane Addison, Milton Moore, Jason Milloff, Ksenia Belikova – READY SET GO team members, responsible for the development of the program
- Dr. Tracy Lewis-Williams – Professor who will grade the program
- Ryan Gross – Client and end user of the program
- Bondurant Auditorium stage crew – Student workers under Ryan who will be using created stage plots
- Bondurant Auditorium clients – Organizations/Persons who will be using the stage, and who will communicate to Ryan what the stage setup should be

Major Risks

Technology Risks

- If an incorrectly rendered/printed stage plot is carried out by stage hands, a show could be disrupted**. Probability: high.**
- In unlikely/extreme cases, an incorrectly rendered/printed plot could be dangerous for people on the stage if carried out. **Probability: low.**
- Future updates to the client's operating system could render the program incompatible. **Probability: medium.**

People Risks

- A team member could become injured or otherwise incapable of performing their share of work. **Probability: low.**
- Team meetings may be difficult to schedule due to conflict in team members' schedules. **Probability: medium-high.**
- A team member may fail to produce their work by a deadline, with no prior warning. **Probability: medium.**

Requirements Risks

- The project could be beyond the scope of the team's knowledge. **Probability: medium.**
- Client could be unsatisfied with the final product. **Probability: low.**
- Not all project requirements could be met. **Probability: medium.**

Estimation Risks

- Project phases' deadlines are missed. **Probability: medium-high.**
- Project could be not completed in time given. **Probability: medium.**
- Tools or techniques planned to be used for the project could be not compatible or otherwise can't be used towards the project. **Probability: medium.**

Minimizing Risks

Technology Risks

- The program documentation will warn the user to verify the printed stage plots for correctness.
- The program itself will notify the user to verify the printed stage plots for correctness.
- The program will be developed for the most recent version of operating system.

People Risks

- Team work will be divided such that any task has at least two people assigned to it.
- Team meetings will still be held if one or two members cannot make it, and notes will be taken to give to any absent members. Also, the project manager will occasionally buy pizza to encourage attendance.
- Internal deadlines will be set multiple days before their corresponding external deadlines, so that there will be time to recover if someone does not meet a deadline.

Requirements Risks

- Clearly define project goals and technology tools and specifications before starting development to make sure requirements are met.
- Keep in touch with the client to inform about possible deviations from an initial plan and find out his opinion about it.
- If project is not complete in full, working prototype is delivered.

Estimation Risks

- Plan ahead, try to finish earlier to start working on a next phase.
- Monitor team's progress and timeliness using Gantter.
- Develop an alternative way to complete project in time where the usage of them is not required or has a limited impact on the release of final product.

Project Deliverables/Milestones

Milestone/Deliverable	*Project Manager* *Asst. Project Manager* *(Select a PM and an Asst. PM for each phase)*	*Scheduled Start*	*Scheduled Finish*
Project Planning	PM: Jason Milloff AM: Ksenia Belikova	9/15/16	10/04/16
Requirements	PM: Ksenia Belikova AM: Ben Marshall	10/06/16	10/25/16
Design (including web updates)	PM: Milton Moore AM: Lane Addison	11/01/16	11/10/16
Development	PM: Ben Marshall AM: Jason Milloff	10/25/16	12/08/16
User Manual and Final Presentation	PM: Lane Addison AM: Milton Moore	11/17/16	12/08/16

Management Objectives and Priorities

- Meetings will occur every week, without a set time.
- If a group member cannot be physically present, the member will try to attend the meeting remotely through a Skype or Phone call.
- If a group member cannot attend the meeting at all, they will be given notes on the meeting.
- Meetings will be held as long as three group members can attend.
- The project manager or assistant project manager must be at the meeting.
- The project manager will take notes if present. In the project manager's absence, the assistant project manager will take notes.
- Communication outside meetings will be conducted primarily through text messages and emails.
- Punishments for missing meetings are as follows

  1st Absence: Verbal Warning

  2rd Absence: Written Warning

- If a team member is repeatedly suspected of not giving their best effort, a meeting will be held to provide performance feedback and discuss possible removal of the team member from the group.
- If a team member is giving their best effort but is unable to complete assigned tasks, the project manager will assist in completing the task, and will attempt to get an additional teammate to help as well.
- Jason Milloff will serve as the primary client contact and will contact them every other week.

Definitions, Acronyms, and Abbreviations

Flyrail – Stage system for raising and lowering things on and off the stage

Flown in – Refers to a thing on the flyrail system being present on the stage

Flown out – Refers to a thing on the flyrail system not being present on the stage

D&D – Drag and Drop. Refers to items from the right panel which can be positioned on the stage

PNG – Portable Network Graphics image format

PDF – Portable Document Format. A document format.

JPEG – Joint Photographic Experts Group image format

GUI – Graphical user interface

PM – Project Manager

AM – Assistant Project Manager

Preliminary Schedule

PDF schedule is attached.

References

None.