
Christmas Lights Animation

System Design Document | Current Version [X.X.X]

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Revision History

<i>Date</i>	<i>Author</i>	<i>Version</i>	<i>Comments</i>
<i>2/2/12</i>	<i>Team Member #1</i>	<i>1.0.0</i>	<i>Initial version</i>
<i>3/4/12</i>	<i>Team Member #3</i>	<i>1.1.0</i>	<i>Added a feature</i>

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1.0 Overview

The overview should take the form of an executive summary. Give the reader a feel for the purpose of the document, what is contained in the document, and an idea of the purpose for the system or product.

1.1 Scope

What scope does this document cover?

1.2 Purpose

What is the purpose of the system or product?

1.2.1 Major System Component #1

Describe briefly the role this major component plays in this system.

1.2.2 Major System Component #2

Describe briefly the role this major component plays in this system.

1.2.3 Major System Component #3

Describe briefly the role this major component plays in this system.

1.3 Systems Goals

Briefly describe the overall goals this system plans to achieve. These goals are typically provided by the stakeholders. This is not intended to be a detailed requirements listing. Keep in mind that this section is still part of the Overview.

1.4 System Overview and Diagram

Provide a more detailed description of the major system components without getting too detailed. This section should contain a high-level block and/or flow diagram of the system highlighting the major components.

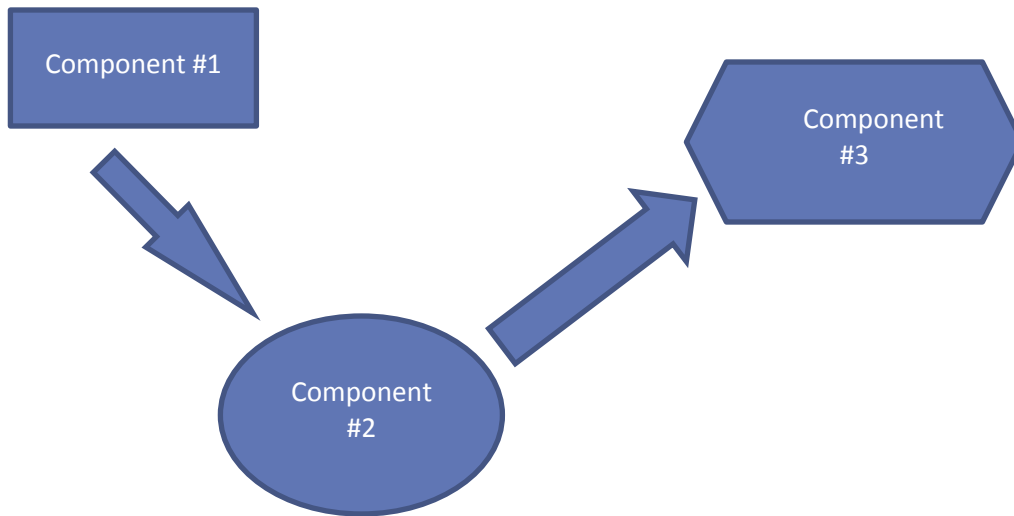


Figure 1 System Diagram

1.5 Technologies Overview

This section should contain a list of specific technologies used to develop the system. The list should contain the name of the technology, brief description, link to reference material for further understanding, and briefly how/where/why it was used in the system.

2.0 Project Overview

This section provides some housekeeping type of information with regard to the team, project, etc.

2.1 Team Members and Roles

Describe who was involved and what role(s) were played.

2.2 Project Management Approach

This section will provide an explanation of the basic approach to managing the project. Typically, this would detail how the project will be managed through a given Agile methodology. The sprint length (i.e. 2 weeks) and product backlog ownership and location (ex. Trello) are examples of what will be discussed. An overview of the system used to track sprint tasks, bug or trouble tickets, and user stories would be warranted.

2.3 Phase Overview

If the system will be implemented in phases, describe those phases/sub-phases (design, implementation, testing, delivery) and the various milestones in this section. This section should also

contain a correlation between the phases of development and the associated versioning of the system, i.e. major version, minor version, revision.

2.4 Terminology and Acronyms

Provide a list of terms used in the document that warrant definition. Consider industry or domain specific terms and acronyms as well as system specific.

3.0 Requirements

List, describe, and define the requirements for the system. These requirements are mostly provided by the stakeholders. However, this section should contain details about each of the requirements and how the requirements are or will be satisfied in the design and implementation of the system.

There could be any number of sub-sections to help provide the necessary level of detail.

4.0 Design and Implementation

This section is used to describe the design details for each of the major components in the system. This section is not brief and requires the necessary detail that can be used by the reader to truly understand the architecture and implementation details without having to dig into the code.

4.1 Major Component #1

4.1.1 Technologies Used

This section provides a list of technologies used for this component. The details for the technologies have already been provided in the Overview section.

4.1.2 Component Overview

This section can take the form of a list of features.

4.1.3 Phase Overview

This is an extension of the Phase Overview above, but specific to this component. It is meant to be basically a brief list with space for marking the phase status.

4.1.4 Architecture Diagram

It is important to build and maintain an architecture diagram. However, it may be that a component is best described visually with a data flow diagram.

4.1.5 Data Flow Diagram

It is important to build and maintain a data flow diagram. However, it may be that a component is best described visually with an architecture diagram.

4.1.6 Design Details

This is where the details are presented and may contain subsections.

4.2 Major Component #2

4.2.1 Technologies Used

This section provides a list of technologies used for this component. The details for the technologies have already been provided in the Overview section.

4.2.2 Component Overview

This section can take the form of a list of features.

4.2.3 Phase Overview

This is an extension of the Phase Overview above, but specific to this component. It is meant to be basically a brief list with space for marking the phase status.

4.2.4 Architecture Diagram

It is important to build and maintain an architecture diagram. However, it may be that a component is best described visually with a data flow diagram.

4.2.5 Data | Logic Flow Diagram

It is important to build and maintain a data flow diagram. However, it may be that a component is best described visually with an architecture diagram.

4.2.6 Design Details

This is where the details are presented and may contain subsections.

4.3 Major Component #3

4.3.1 Technologies Used

This section provides a list of technologies used for this component. The details for the technologies have already been provided in the Overview section.

4.3.2 Component Overview

This section can take the form of a list of features.

4.3.3 Phase Overview

This is an extension of the Phase Overview above, but specific to this component. It is meant to be basically a brief list with space for marking the phase status.

4.3.4 Architecture Diagram

It is important to build and maintain an architecture diagram. However, it may be that a component is best described visually with a data flow diagram.

4.3.5 Data Flow Diagram

It is important to build and maintain a data flow diagram. However, it may be that a component is best described visually with an architecture diagram.

4.3.6 Design Details

This is where the details are presented and may contain subsections.

5.0 System and Unit Testing

This section describes the approach taken with regard to system and unit testing.

5.1 Overview

Provides a brief overview of the testing approach, testing frameworks, and general how testing is/will be done to provide a measure of success for the system.

5.2 Dependencies

Describe the basic dependencies which should include unit testing frameworks and reference material.

5.3 Test Setup and Execution

Describe how test cases were developed, setup, and executed. This section can be extremely involved if a complete list of test cases was warranted for the system.

6.0 Development Environment

The basic purpose for this section is to give a developer all of the necessary information to setup their development environment to run, test, and/or develop.

6.1 Development IDE and Tools

Describe which IDE and provide links to installs and/or reference material.

6.2 Source Control

Which source control system is/was used? How was it setup? How does a developer connect to it?

6.3 Dependencies

Describe all dependencies associated with developing the system.

6.4 Build Environment

How are the packages built? Are there build scripts?

6.5 Development Machine Setup

If warranted, provide a list of steps and details associated with setting up a machine for use by a developer.

7.0 Release | Setup | Deployment

This section should contain any specific subsection regarding specifics in releasing, setup, and/or deployment of the system.

7.1 Deployment Information and Dependencies

Are there dependencies that are not embedded into the system install?

7.2 Setup Information

How is a setup/install built?

7.3 System Versioning Information

How is the system versioned?

8.0 End User Documentation

This section should contain the basis for any end user documentation for the system. End user documentation would cover the basic steps for setup and use of the system. It is likely that the majority of this section would be present in its own document to be delivered to the end user. However, it is recommended the origin is contained and maintained in this document.

Appendix I: List of Figures

Figure 1 System Diagram 6

Appendix II: Supporting Information and Details

This document will contain several appendices used as a way to separate out major component details, logic details, or tables of information. Use of this structure will help keep the document clean, readable, and organized.

Appendix III: Progress | Sprint Reports

This section will contain a complete list of all of the period progress and/or sprint reports which are deliverables for the phases and versions of the system.

III.1 Sprint 1 Progress Report

This would be the first sprint report.

III.2 Sprint 2 Progress Report

This would be the second sprint report.