Deliverable C: Design Criteria

GNG1103G - Engineering Design

University of Ottawa

Group 7

Design Criteria

| **#** | **Need** | **Design Criteria** | **Constraint, Functional, or Non-Function** |
| --- | --- | --- | --- |
| 1 | A dashboard panel created using the XPression software | -Dashboard Software used | Functional Requirement |
| 2 | Solution may consist of several parts including: Team setup, goalie matchups, standings/stats, full page sponsor elements, fan birthdays, three stars, sponsor bugs, and crowd prompts.  | -Possible sections to complete | Non-functionalRequirement |
| 3 | All parts that are chosen to be completed are expected to be high in quality. | - Functionality of panel- Organization | FunctionalRequirement |
| 4 | Increase and encourage fan engagement with new and interesting ideas | -Exciting graphics | Non-Functional Requirement |
| 5 | Set logos, a primary and secondary graphic color for home and away teams | -Displays Team Logos and Colours | FunctionalRequirement |
| 6 | Fill the moments in between play with different kinds of media | -Crowds prompts, replays, highlights ,etc. between plays | Non-functionalRequirement |
| 7 | Graphics such as three stars and birthdays should be configurable. Three stars should be able to be changed at the last second. | -Quickly configurable values  | FunctionalRequirement |
| 8 | Dashboard panels are well organized and easy to use. | -Organization-Functionality of panel | Functional Requirement  |
| 9 | Present visuals with live video of both teams’ goalies, as well as their names, goals against average, and save percentage. | -Displays Visuals of Goalie Information | Functional Requirement |
| 10 | Every game stores 6-8 sponsors and puts it on the screen in 16:9 graphics. | -Number of Sponsors-Quality of graphics | Constraint |
| 11 | Have 15 to an unlimited amount of crowd prompt animations | -Number of crowd prompts | Constraint |

Technical Benchmarking

| **Restrictions** | **Quantified Measurement - Score System** | **Weight** |
| --- | --- | --- |
| Dashboard must load within 1000 ms | 1: <500 ms2: 500 ms-1000 ms3: >1000 ms | 5 |
| FIle size is be no more than 1 GB | 1: 0<0.5 GB2: 0.5 GB-1.0 GB3: >1.0 GB | 3 |
| Have as many crowd prompts as possible | 1: <102: 10-153: >15 | 2 |
| Display logos and primary and secondary colours of teams | 1: Logo2: Logo+Primary Colour3: Logo+Primary Colour+Secondary Colour | 3 |
| Dashboard must be well organized | 1: Graphics not Divided into Subsections2: Graphics Divided into a Subsection3: Graphics Divided into Multiple Subsections | 4 |
| Total amount of sections on the Dashboard (Fan Birthdays, Goalie Matchups, etc.) | 1: <4 Sections2: 4-8 Sections3. >8 Sections | 2 |

Target Specifications

| **#** | **Design Specifications** | **Relation****+,<,or >** | **Value** | **Units** | **Verification Method** |
| --- | --- | --- | --- | --- | --- |
|  | **Functional Requirements** |  |  |  |  |
| **1** | -Organization | = | Yes | N/A | test |
| **2** | -Functionality | = | Yes | N/A | test |
| **3** | -Quickly configurable values  | = | Yes | N/A | test |
| **4** | -Dashboard Software used | = | Yes | N/A | test |
| **5** | -Displays Visuals of Goalie Information | = | Yes | N/A | test |
|  | **Non-Functional Requirements** |  |  |  |  |
| **1** | -Crowds prompts, replays, highlights ,etc. between plays | = | Yes | N/A | test |
| **2** | -Exciting graphics | = | Yes | N/A | test |
| **3** | -Possible sections to complete | < | 5 | N/A | test |
|  | **Constraints** |  |  |  |  |
| **1** | -Number of sponsors | = | 6-8 | N/A | test |
| **2** | -Number of crowd prompts | > | 15 | N/A | test |
| **3** | -Quality of graphics | = | 16:9 | N/A | test |

**Reflection On Client Meeting**

The client meeting was really helpful in providing a more detailed description of exactly what we would be doing for this project. For example, it helped explain what dashboard was and how it functioned, and then also went into more detail about each specific tasks we could complete. They also provided other important information, like that we do not need to complete every task that is listed in the project description; that it is important that the tasks we do decide to complete are completed to a high level of quality; and lastly that our dashboards are very well organized, functional, and easy to use. Lastly, another takeaway from the client meeting is that they mentioned that one of the tasks they would most like us to complete is creating crowd prompts that will engage the crowd. Therefore, we have decided this is one of the tasks we would like to complete for our project.