

Justyn Houle	Infinite WaterWorks Engineering
V00809321	Shower Management System
2016-01-07	1

Version	When	Who	What
1.0			Initial Drafting

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1.0 Problem description / expression of need

When multiple people in a household take a shower around the same time, the people who take their shower after everyone else is usually left with little or no hot water. The people who took their shower first are not aware of how much hot water they are using and take a leisurely shower.

2.0 Project Objectives

- Show the user who is in the shower how much hot water is left (time, percentage)
- Allow the user to set a shower routine. For example, 1 minute drench self (water on), 1 minute lather body (water off), 2 minute wash off soap (water on) done (water off). Allow manual control of the water flow or automatic water flow control.
- Display how much longer the user has to wait to obtain a full tank of hot water.
- Set profiles as to what temperature of water is preferred and to save routines.
- Waterproof touchscreen interface

3.0 Current System(s)

The current system simply transports the hot water to the shower head. Control of the heat is usually done by adjusting the amount of hot and cold water to achieve a comfortable mixed temperature. The only reliable feedback for the user is to physically touch the water to determine its temperature.

4.0 Intended users and their interaction with the system

The target user is someone who has a shower/bath that is used by multiple people where the amount of hot water being used is a problem. This involves users of ages 6 and older. They interact with the system through a waterproof touch screen present inside the shower/bath, or somewhere around the shower/bath where they can easily see and interact with the touch screen while taking a shower/bath.

5.0 Known interaction with other systems within or outside the client organization

- Hot water tank
- Shower Head / Bath faucet

6.0 Known constraints to development

4 month development time

7.0 Project Schedule

- | | |
|--------------------------------|-------------------|
| Project website up and running | January 21, 2016 |
| Formal Requirements Spec | February 16, 2016 |
| Detailed Requirements Spec | March 1, 2016 |
| Prototype Demo | March 3, 2016 |
| Final Requirements Spec | March 15, 2016 |

8.0 Project team

Webmaster
Toolsmith
Analyst
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9.0 Glossary of terms

Terms used in RFP

Project Proposal Summary (1 page)
Justyn Houle
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See attached PDF

My Résumé
Justyn Houle
V00809321

Project management experience

Management, communications, negotiation and conflict resolution experience

Writing experience

Writing and presentation

Webmaster experience

Website development experience
Web tools
HTML5, JavaScript, CSS, PHP

Software tool expert

Eclipse
Matlab, R

Programming skills

Programming languages
Scripting languages
Java, C, Python
MongoDB, PostGreSQL

Design experience

Design experience and design tools
UML diagramming & object-oriented design skills
Data Structures
LucidChart

Requirements engineering experience

User Stories
Task Lists
Testing and reviewing skills