

# I. Team Charter

## 1. Team Information

### A. Team Roster:

Alsharief, Yagoob	yalshar1@iit.edu
Aulfata, Muluken	mtesfami@iit.edu
Curtis, Christopher	ccurtis7@iit.edu
Dhewaju, Anusuya	dhewanu@iit.edu
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Siwek, Steven	ssiwek@iit.edu
Wallace, Sean	swallac6@iit.edu
Yi, Won-Jae	wyi3@iit.edu

### B. Team Member Strengths:

Sean Wallace—web design & development, general coding, doc drafting, project management

Kevin Mutyaba—web design & programming: Java, C, Python, HTML, CSS

Marco Ndoping—basic Java

Naomi Peterson—basic Java

Anu Dhewaju—basic Java, basic C++, doc design

Won-Jae Yi—basic Java, Eclipse

Samah Onaissi—Java, C, Basic PHP, Unix\*Linux, Project Management

Yagoob Alsharief—Photoshop

Steve Siwek—writing/drafting docs, limited inDesign & Photoshop, project management

Muluken Aulfata—basic Java

### C. Team Identity:



The WWWs  
Widget Wonder Workers

## 2. Team Purpose and Objectives

### A. Team Purpose:

As a team, we desire to provide Comcast with feedback from an outside perspective, allowing them to see where their Tru2Way system needs additional attention or support. To do this, we will work together within our team and with

Comcast, while maintaining professional standards.

*B. Team Objectives:*

Test current applications

Design & create new applications

Determine user-friendliness of the Tru2Way system

### **3. Background**

*A. Sponsor Information:* the sponsor for this project is Comcast Corporation, which is considered as one of the largest cable operators in the United State. It provides its customers with different type of services, such as, cable TV, telephone and Internet.

*B. Current User Problems:* Comcast aims to change the classic way of watching TV by making it interactive where the clients can be more involved in choosing what they want to watch and designing their personal interfaces.

*C. Technology or Science involved:* One of the most important skills that is required for this project is the knowledge of programming in order to create a reliable widgets can be used on large scale.

*D. Other Attempts to Solve the Problem:* in the mean time, Comcast and Intel are working on developing a widget by using cable's tru2way technology. They expect this service will be available for their customers very soon.

*E. Ethical Issues:* Privacy is the main concern for Comcast since they are providing services in a very competitive environment so any documents or information that given by Comcast will be used only by the team members.

*F. Implementation of the Solution:* our team will start by designing a simple widget that works properly. Then, after testing that widget, we will increase the complexity level until we reach the desired result.

*G. Similar Solutions Proposed:* Yahoo has developed its own widget, which is called Yahoo widget. Also, some of the electronics manufacturing companies, such as, Samsung and Panasonic, have developed their TVs to be compatible with this new feature.

### **4. Team Values Statement**

*A. Team Behavior:* We would like all team members to attend class regularly and be prepared to discuss the progress of their group's/subgroup's task(s). We would like to see open communication amongst all the members as well as concerns brought up immediately so they can be addressed and roadblocks removed.

- B. *Conflict Resolution*: To assure a fair impartial opinion Chris and Mattox can be mediators for any problems that cannot be worked out and need a mediator to help resolve the issue.

## II. Project Methodology

### 1. Work Breakdown Structure

A. *Problem Solving Plan*:

- Test current application
  - get familiar with provided environment, tools, etc.
- Identify what metrics going to be used
  - bandwidth, response time, transaction, running time, etc.
- Set up environment for development
  - setting up GIT repository & development tools (Eclipse)
- Create a simple pilot widget
- Test & run
  - for any errors or more features to be added
- Design final version based on previous step
- Final test of the program and publish it

\*Ways of testing, analyzing, documenting our product

- Each version will be tested by several individuals to seek for errors, mis-coding, and improvement. After each individual test is completed, reports the result from their own tests to their leader.

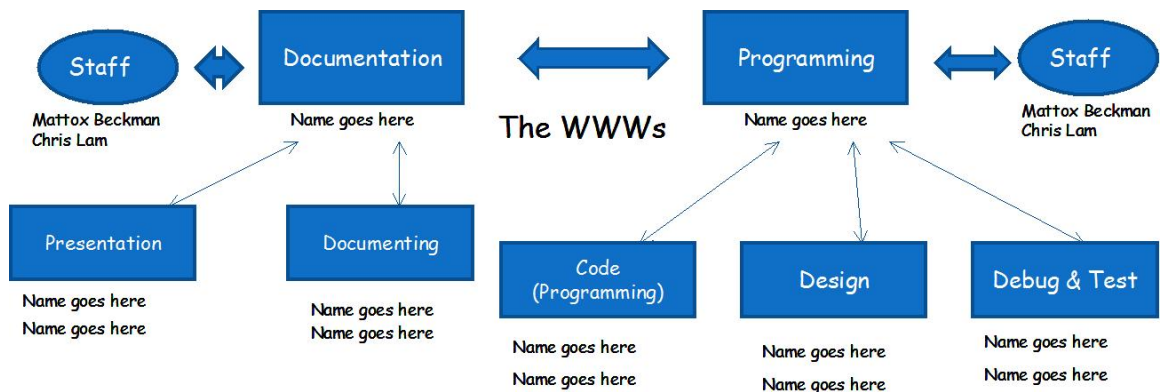
- Basic test will include:

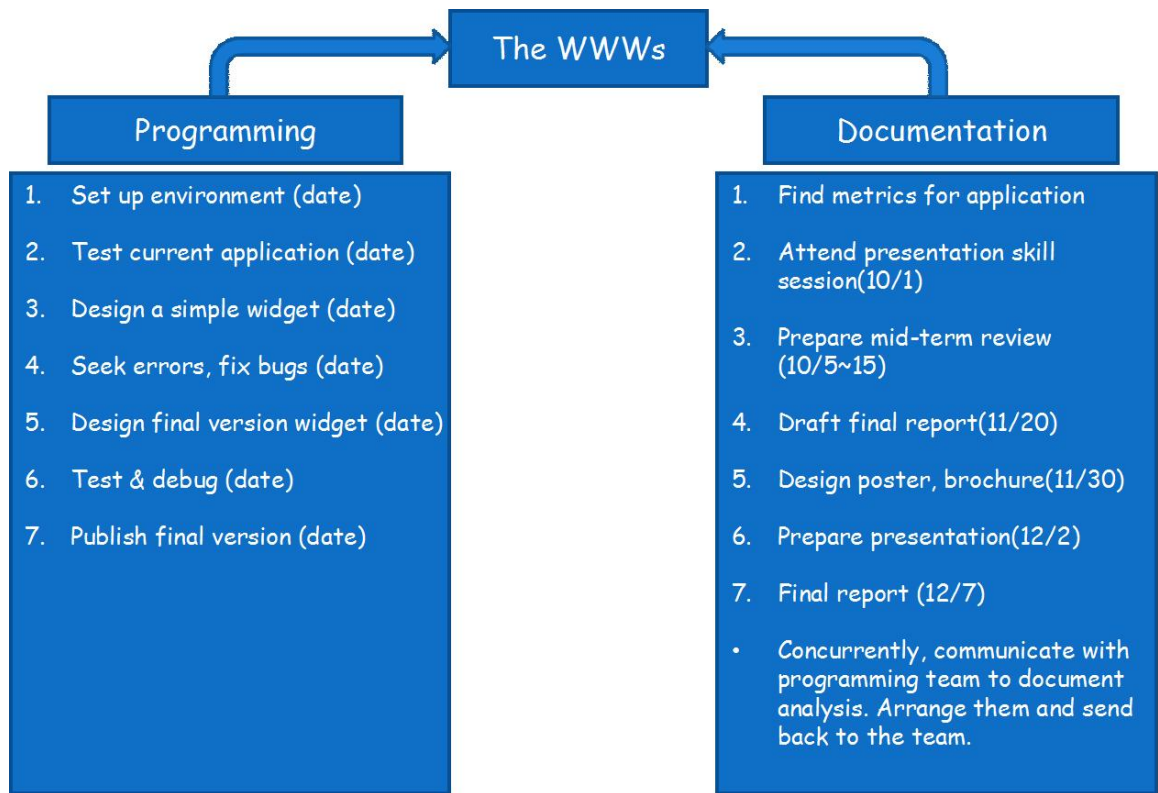
- + effectiveness of the code
- + existences of bugs
- + trying to see when the program is interrupted and unacceptable input is entered

→ case by case, try to catch all exceptions that program might throw

- Document every version of the program's bug, performance, code to see the difference from the first version up until the final version.

B. *Team Structure*:





*C. Task Structure:*

TEAM	TASK	# OF MEMBERS	HOURS NEEDED
Programming	Set up environment		
	Test current application		
	Design a simple pilot widget		
	Seek errors, fix bugs		
	Design final version widget		
	Test & debug final version		
	Publish final version		
Documentation	Find metrics for application		
	Attend presentation skill session		
	Prepare mid-term review		
	Draft final report		
	Design poster, brochure		
	Prepare presentation		
	Final report		
	Concurrent analysis document		

## 2. Expected Results

### 1. Setting Up Environment

- Activity
  - i) Setting up Eclipse 3.5 & Java Runtime Environment for our developing tool
    - ⇒ needs to link with OpenCable libraries
  - ii) Getting friendly with Eclipse and Tru2Way emulator
- Output
  - i) Initial environment set for a start
  - ii) Base for developing first simple widget
- Challenge
  - i) May take a large portion of the project
  - ii) New environment can be a pain

### 2. Test Current Application

- Activity
  - i) Thorough & various method approach to Tru2Way emulator and its source
  - ii) Acknowledge the process of the emulator
  - iii) Try different ways to run this program to work on Eclipse for future development
- Output
  - i) Ready to develop & design our first widget
  - ii) Majority of the team understand 100% how the program works
  - iii) Makes clearer for “Find Metrics for Application” Step
- Challenge
  - i) Also, may take a large portion of the project
  - ii) “Know your enemy and you’ll not be defeated”
  - iii) Currently, limited access to libraries, source codes available to the team

### 3. Design a Simple Widget

- Activity
  - i) Create a simple widget
  - ii) As simple as possible, as light as possible
- Output
  - i) “Hello World!” type of widget
  - ii) Give the team basic idea of how the widget works on the emulator
  - iii) Ready to implement metrics on the widget with more complex features
- Challenge
  - i) Creating something new out of nothing can be difficult

### 4. Seek errors & fix bugs

- Activity
  - i) By looking at variety versions of our program, seek errors & bugs
  - ii) Try as many incorrect input data as possible to track down bugs on the code
  - iii) Add fixed features to the next version of the program
- Output
  - i) Program improvement-step by step process
  - ii) Generates additional ideas to the next version of the program

- iii) More information stacked onto analysis documents
- Challenge
  - i) It is not easy to figure out what is correct or incorrect input data
  - ii) May take more time than expected to make the program perfect
- 5. Design final version of widget
  - Activity
    - i) Integrate all versions of widget with measuring method of metrics
    - ii) Design final version regarding layout, algorithm, etc.
    - iii) Develop a bug-free widget referring to previous versions' analysis
  - Output
    - i) Final draft version of our widget
    - ii) Ready for final test & debug process
    - iii) Analyzed data available to final report
  - Challenge
    - i) Catch all bugs could be found – unresolved bugs still can exist
    - ii) Meeting deadline on time
- 6. Test, debug, and publish final version
  - Activity
    - i) All programming team members concentrate on finding any errors/bugs
    - ii) Analyze all data for final report and presentation
  - Output
    - i) Complete version of our widget
  - Challenge
    - i) Meeting deadline on time
    - ii) Trying to find bugs is always challenging
- 7. Find metrics for application
  - Activity
    - i) Thorough research on metrics currently used in real world
    - ii) Find appropriate metrics for Comcast's needs
    - iii) Document all metrics that are found from the research
  - Output
    - i) Deliver the result of research to programming team
  - Challenge
    - i) Many different ways of using metrics – existences of different approaches

### **3. Project budget**

This project is using programs that are available on the internet free of charge. Therefore, at this time we do not see a need to purchase additional supplies.

### **4. Designation of Roles**

Minute Taker – Naomi Peterson

Agenda Maker – Steve Siwek

Time Keeper – Chris Lam and Mattox Beckman act as time keepers in the respect that they make sure the time we spend in class is efficient and productive.

iGroups Moderator – The iGroups page is moderated by the team. We discuss the deliverables in class and verify that the required information is uploaded into iGropus at the beginning of each class session.