#### **ID INFORMATION**

Programmers :Laithe Marshall
Assignment # :Program 1
Assignment Name :It's About Time
Course # and Title :CISC 192 - C++
Class Meeting Time :MW 9:35 - 12:45
Instructor :Professor Forman

Hours :40 Difficulty :5

Completion Date :October/28/2014
Project Name :TA 2GWTF

Manager's Report

### HURDLES

The most significant hurtle that I encountered was wading through Microsoft's limited MSDN documentation for proper syntax for visual C++. Other than that, some STARs required some creative thinking. For example the adding leading zeros to the time without the use of if statements was hard because MSDN documentation was not clear. I read and reread through relevant sections until I found out about the ToString optional commands. I had the same problem with extracting integer values from a string with a HH:MM:SS format. The documentation on the site was not clear, but I fiddled with the code until I got it to do what I wanted it to. I did have a minor issue with drawing hour and minute hands, but that was quickly resolved by an extra pair of eyes.





## **PRIDE**

The part of the program I am most proud of is the drawing of the minute and hour ticks on the drawn clock. The reason I am so proud of this part is because I expanded upon the formula given to us to draw the minute hand and adjusted it to have a dynamic starting point and ending point while still maintaining the correct angle for any given minute. Adjusting the hour ticks to become

thicker lines than the minute ticks simply required an if statement.

# **HELPED OTHERS**

I helped both James, and Z with clearing numbers and redrawing the background image for the countdown. Both of them kept using the clear command to clear the image, however when they did that the background image would disappear and left with a solid background color. I initially had the



same problem, but I was fixed it by redrawing the image at the exact size of the usable form. I also assisted Falmata with drawing the clock hands. He had made some minor mistakes in translating the formulas to code. I looked over his code and found the mistakes.



### **HELPED BY OTHERS**

James had helped me notice an error in my code to draw the hour and minute hands, by sending me a portion of his code. I ended up adding the y coordinate of the midpoint to the cosine of the minute hand and the hour hand instead of subtracting it. I also received help from my friend Christian Vinluan in coming up with a solution for drawing the minute and hour ticks. I had asked how I could get a starting point to draw the minute and hour ticks. He pointed out that if I could draw a minute hand from midpoint to a length I wanted, then I should be able to calculate that point but not draw the line. From there I was able to come up with the formula to draw the minute and hour ticks.

## **STARS**

- 1. Insert 0's to formatted time without if statements 6
- 2. Display clock at beginning with current time
- 3. Take time data as hh:mm:ss
- 4. Compute how many minutes to the next hour
- 5. Play clock ticking sound or other appropriate sound in background
- 6. Increase thickness of clock hands to stand out more
- 7. Add button for musical slide show of many clocks
- 8. Draw clock hands on clock image
- 9. Two clocks, one drawn, on from image
- 10. Add 1- 12 on drawn clock
- 11. Extra pizzazz draw minute markers with for loop accounting for Hour markers on the clock
- 12. Use DrawString to draw the time string
- 13. Advanced Feature: Used string array to cycle through images for slide show
- 14. Prompt user for hour minute and second and add second info in rest of program

Total Stars: 14

