Assignment 8 – Dark GDK Graphical Application

Date Assigned: Friday, April 19, 2013
Date Due: Monday, May 6, 2013
Points: 40

For this final assignment, you will be placed into groups of three to create a graphical application using Dark GDK. On Monday, May 6, each group will present their application, talking about what each person did, and answer any questions from the class.

Application Specifics

Your application is to

1. use Sprites in a significant way

2. be large enough for each person to write an adequate amount of object-oriented code

3. have a significant amount of animation

4. allow the user to interact (keyboard and/or mouse) with the application as time passes

5. use dynamic memory allocation in a meaningful way.

The easiest application to write is some kind of game. Possible game ideas include:

1. Snake (http://www.snakeonline.net/)

2. Hangman (http://www.spellingcity.com/hangmouse-kids-hangman-online.html?listId=6347487)

3. BlackJack (http://www.addictinggames.com/puzzle-games/blackjack.jsp)

4. Maze (http://www.gamesolo.com/flash-game/maze.html)

Other ideas could be some kind of graphical application (simulation/tool) used in Biology, Chemistry, Physics, …

There cannot be any RPG-type games as I cannot grade those types of games in a reasonable amount of time.

Groups

Group1	Group2	Group3
MM NL	KB QQ	RC AR
JL	ZT	AM

By Thursday, April 25, 2013 1pm, each group must email me what application you are going to implement, describe how your application is going to work and tell me who is working on what part of the application. Make sure your application has

enough content for the number of individuals in your group. Divide the work by the number of people in your group as equally as possible.

On the day the assignment is due, each group will present their game and explain what each individual did. I will give you more details about the final presentation later on. The class will be able to ask questions of each group.

Goals for Assignment 8:

1. Implement the basics of 2D game programming
2. Work efficiently and effectively in small groups
3. Create better designs so that group members can interface code easily
4. Reinforce all of the C++ concepts learned in a graphical environment
5. Use a real API (Dark GDK) in program development

To complete this assignment you must:

1. Create a solution called your group name (e.g. Group1MMNLJL) and then create projects (you need multiple projects) as necessary to hold <u>related</u> classes of code. You can reuse code from existing projects. All code is to be original (i.e. created by individuals in your group, not copied from any other source).
2. Every piece of code in the solution is to be completely and correctly documented including any code from my sample in class code. You are free to use any code from SpritesExample as long as the code is properly documented and the author is sited.
3. Your code is to be written using Visual Studio 2010 and placed in the CS250 Drop Box by 9:15am on the day in which the assignment is due. A stapled hard copy must be placed on the instructor's desk by 9:15am on the day the assignment is due. Remember, print thedriver.cpp, and the .h/.cpp related files.
4. **THERE IS NO LATE GRACE PERIOD FOR THIS LAST ASSIGNMENT!!!!**

Extra Credit (up to 5 points)

I will award up to 5 points of extra credit for any group going above and beyond the description of this assignment in a significant way. Possible ways would be using the concept of polymorphism in a meaningful way. Another way would be incorporating sound into the application usefully, not just playing a sound over and over as the game runs although any sound would get some extra credit.

If you have any questions as to what might count for extra credit, please feel free to ask.