

## Project Plan Simple K

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By Gezim, Curtis, Jeremy, and Jacob

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### Introduction

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The objective of Simple K is to develop a graphical user interface (GUI) tool that allows the client, Dr. Jackie Rice, to create, and modify Karnaugh Maps either through an expression, truth table or by directly manipulating the map grid. In addition, Simple K will compute the minimal sum-of-products and minimal product-of-sums of the user input.

This plan covers the first version of Simple K which must be completed by Thursday, March 4th, 2010. As this is a school project, there is no real budget allocated for it. To meet the challenge of completing a software project with no budget, our team is using resources (software and hardware) contributed by the University of Lethbridge. All additional software and hardware either already belongs to the team members or will be acquired at no cost by using free software. Although no money is changing hands, our team is being funded by an eager taste for knowledge. Our team is composed of Curtis Helle, Gezim Hoxha, Jacob Pledger, and Jeremy Zaretski.

### Project Organization

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Our team is composed of four members. The roles are as follows:

#### *Team Leader – Gezim Hoxha*

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The team leader's overall objective is to ensure that the team reports process data and completes the work as planned. He motivates the team, run weekly meetings, acts as liason between the team and the Professor, etc.

#### *Development Manager – Jacob Pledger*

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The development manager's overall objective is to lead the team in defining, designing, developing, and testing the product. He leads the team in producing a development strategy, size and time estimates, requirement specifications, design specification, product implementation, and product testing.

#### *Planning Manager – Jeremy Zaretski*

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The planning manager's overall objective is to support the team in planning and tracking the work. His activities include leading the team in producing the project plan, overall time and size estimation and tracking the team progress. In addition he will ensure that workload is balanced among the team members.

### *Quality/Process Manager – All*

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Every team member will share the overall objective of the Quality/Process Manager which is to ensure process needs are defined, create the quality plan, and track process and product quality. Activities that will be shared by all the members include producing and tracking quality plan, defining processes, establish and maintain development standards. In addition, Curtis Helle will act as a note taker at meetings.

### *Support Manager – Curtis Helle*

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The support manager's overall objective is to support the team in determining, acquiring, and managing the technological and administrative tools needed. His activities are to obtain and maintain tools, manage change control system, manage issue tracking system, manage risk tracking system, and act as the team's reuse advocate.

### *Risk Analysis*

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During the course of a project many issues can arise that may delay or inhibit project completion. These issues must be monitored carefully as the team may lack experience to prevent these issues from occurring.

The team has identified the following potential risks including likelihood of occurrence and reduction strategies that the team will use. Probabilities are defined as follows: very low, <10%; low, 10-25%; moderate, 25-50%; high, 50-75%; very high, >75%.

### *Size Underestimates – Moderate Probability – Serious Effects*

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The size of the project may be underestimated and this will have serious effects.

### *Strategy*

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This planning document will be continuously monitored and revised to ensure we are on schedule. Planning manager will report status or expected delays to team leader and appropriate measure will be taken to ensure we do not fall behind schedule. If a delay is inevitable features that are unnecessary will be dropped and this will be communicated to the client.

### *Team Member Illness – Low Probability – Serious Effects*

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Team members may fall ill for a few days or longer.

### *Strategy*

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Strict process will be followed to ensure that documentation and progress of each team member is clearly known by team leader and other team members. In addition team members will work closely together by helping each other. This ensures that members share knowledge between themselves.

### *Work Overload – Very Low Probability – Tolerable Effects*

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Individual members may feel overworked especially since each member is a full time student with other commitments.

#### *Strategy*

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When work is allocated team members will volunteer based on their schedules. In addition the Planning Manger will ensure that team members don't feel overloaded and if so, will reassign work to balance work load.

#### *Team Member Leaves – Very Low Probability – Serious Effects*

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A team member may decide to withdraw from the class or otherwise be removed from the team.

#### *Strategy*

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Team will ensure no individual member feels overwhelmed with work. In addition team members will be familiar with work performed by each other. See Team Member Illness.

#### *Hardware/Software Malfunction – Moderate – Serious Effects*

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The hardware or software where team data is stored, including code, process data, etc., may malfunction or otherwise fail causing data corruption or loss. The consequences of this risk range from insignificant to catastrophic.

#### *Strategy*

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In order to prevent such a risk from occurring, the team is using different software and hardware for storage and backup. This ranges from online storage for TeamLog, Google Wave, Subversion, and Trac. Regular backups and recovery tests will be performed.

#### *Hardware/Software Resources*

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As specified in introduction, hardware that is already available for team use will be used and no purchase of hardware is required. Software costs are kept to a minimum by using free or trial version of software products.

#### *Software*

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##### *Subversion*

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An open source tool for version tracking and team project building.

##### *Doxygen*

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An open source automatic documentation generation tool.

##### *Qt Framework*

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A cross-platform, C++ based GUI Toolkit.

##### *G++*

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C++ compiler.

### *TeamLog*

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A web based time and log tracking solution.

### *Google Wave*

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A team collaboration tool.

### *Microsoft Project*

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A project management tool that can track tasks, timeline, and generate gantt charts.

### *Hardware*

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The hardware used to plan and develop the project will be each of the group members laptops, home computers and the university computer labs hardware. No special hardware capabilities are required, thus, hardware that can run Mac OS X or Windows XP and above will suffice.

In addition, online server space will be needed to run TeamLog, Trac, and Subversion. One or more team members have access to these resources. The software to support the tools mentioned above are PHP5, Apache Web Server and MySQL database.

### *Work Breakdown & Project Schedule*

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Since we are in the very early stages of planning, detailed activities (or tasks) are not known at this time. This document will be modified once the team has developed the plans further. In future iterations of this document, a detailed Gantt chart with activities, milestones, and deliverables will be included.

The following is a time estimation distribution:

- Specification – 10%
- Design – 20%
- Development – 50%
- Testing – 20%

### *Milestones:*

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Tues 19-Jan-2010

- project plan - Jeremy

Mon 25-Jan-2010

- user requirements - Jacob

Thurs 28-Jan-2010

- revised user requirements - Jacob

Tues 2-Feb-2010

- system requirements/plan - Jacob
- Tues 9-Feb-2010
- revised system requirements/plan v1 - Jacob
- Fri 26-Feb-2010
- beta - Jacob
- Tues 2-Mar-2010
- final implementation v1 - Jacob
- Wed 3-Mar-2010
- test plan and forms - Curtis

### Monitoring And Reporting Mechanisms

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We are holding weekly meetings every Monday at 4pm. The planning manager will submit weekly log to team leader which will be reviewed and submitted to Professor. Team members will keep weekly logs.