manos zalokostas

2010-2011

C Programming on Unix-like Environments

Unix Systems

accian mant on

Table of Contents

Introduction	4
Description of the Code	5
Twovars.c (Main file)	5
String2ing.c & String.h	6
Makefile (elaborated)	7
1. Generating the files on the "gedit" editor	7
2. "Emacs" environment and Split Screen Facility	
3. Compiling the program from within the emacs environment	10
4. Compile the program using a makefile routine from the terminal	
5. Exploitation of the Version Control facility of emacs	11
6. Develop and Maintain code using of emacs "Check In" & "Check Out" controls	12
Output Results of the Application	14
7. Incorporate a new function on the application	15
An update to the original "twovars" application	
Presentation and Description of the new Function	15
Generate the "makecalc" executable	17
Execution of the updated application "makecalc"	18
Conclusions	
References	20
Appendix 1: Source code for calcresult	21
calcresult.c	21
twovars.c	22
calcresult.h	22
makefile	23
Appendix2: Coding Tests for calcresult	24
test calc result	
test2 calcresult.c	24
test2_calc_result	
test sprintf	
test scratch arrays	
Appendix 3: Coding from the Terminal	

Introduction

The aim of this report is to develop a small application on a Unix-Like Operating System that is called by name from the command line window, followed by two integers. The script should contain capacity to generate a corresponding adding result from the integers and message the user.

The procedure is meant to conclude facilities traditionally used in a Unix-Like environment such as "gedit" and "emacs", while for the last, additional utilities like "Makefile" and "Version Control" facilities should be regarded and invoked.

In the last section of the assignment a complementary routine joins the system and enforces the user to provide input for the calculation method of preference towards the two integers. Valid methods are restrained to addition, subtraction, multiplication and division while initially the user has to input one of the corresponding symbols to the system before be alerted with the result. Erroneous inputs will generate informative display messages to the users.