Boolean Logic Calculator

User’s Manual

Version <0.1>

Revision History

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Table of Contents

1. Purpose 4

2. Introduction **Error! Bookmark not defined.**

3. Getting started **Error! Bookmark not defined.**

4. Advanced features 4

5. Troubleshooting 4

6. Example of uses 4

7. Glossary **Error! Bookmark not defined.**

8. FAQ 5

# Purpose

The purpose of this user manual is to serve as a comprehensive guide for users to use, effectively, the Boolean logic calculator.

# Introduction

Welcome to the User Manual for the Boolean Logic Calculator. This program is manufactured to parse, evaluate and print truth tables for Boolean Logic expressions. The operators supported are &(AND), |(OR), !(NOT), @(NAND), and $(XOR).

# Getting started

To use the Boolean Logic Calculator, follow these steps.

1. Download the source code from the Github repository.
2. Compile the program using a C++ compiler (e.g g++)
3. Execute the program
4. Once prompted, enter choice 1, 2 or 3.
5. Proceed further as software explains

# Advanced features

The program possesses the ability to input truth values for variables and print truth tables. To use this feature, enter 2 when first prompted and then choose to enter truth values for two variables, this will print a truth table.

# Troubleshooting

“Error: tempCodeRunner.cpp does not reference to main.cpp”

If this error or something similar is presented, the user is advised to delete the tempCodeRunner.cpp file and also to delete any executable .exe files. After doing so and a recompiling of the program, it should run as intended.

# Examples

These examples provide a basic use example of every operand. More complex expressions can be formed through a combination of the ones provided.

1. AND:

Input: T & F

Result: F

1. OR:

Input: T| F

Result: T

1. NOT

Input: !T

Result: F

1. NAND:

Input: T @ F

Result: F

1. XOR:

Input: T $ T

Result: F

1. Parentheses:

Input: !(T&T)

Result: F

# Glossary of terms

1. Boolean Logic Calculator:

A program designed to parse and evaluate Boolean logic expressions

1. C++ Compiler:

A tool that translates C++ code into machine code, which enables the use of the program

1. Operand:

The binary operation performed upon two Boolean values

# FAQ

1. What happens if I enter an invalid character in my expression?

The entry of any invalid characters will prompt an error message. Please ensure that all characters entered are valid and supported by the program.

1. Can I define my custom variables in expressions?

While the user can enter their variables for truth tables, the program currently does not support the inclusion of custom variables to be evaluated as expressions.

1. Does the program suppose a default binary operation if none provided, for example TF?

No. The program will result in an error message. Please explicitly define all binary operands.