Bonsai Tree

M.A.R.C.O.

User's Manual

Version 1.0

Revision History

Date	Version	Description	Author
01/12/2023	1.0	Initial editing to the document template.	Anya Combs
02/12/2023	1.0	Completed sections	Pashia Vang

Table of Contents

Test Case

1. Purpose

This document is the user manual for the command prompt calculator program, M.A.R.C.O., created by Bonsai Tree. It will describe the features of M.A.R.C.O. and how to use it.

2. Introduction

M.A.R.C.O. is a calculator made for simple arithmetic expressions and built to run in the terminal or command prompt of various operating systems. It can add, subtract, divide, multiply, and exponentiate as well as handle parentheses and find the remainder of an expression. It follows the rules of PEMDAS.

The key features of M.A.R.C.O. include:

- Support for basic arithmetic operators: +, -, *, /, ^, %
- Parentheses for grouping parts of expressions
- Unary plus and minus signs to indicate positive/negative numbers
- Decimal number support
- Adheres to order of operations (PEMDAS)
- Validation of inputs to catch errors
- Clean and simple command line interface

To install M.A.R.C.O., download the files from its GitHub repository.

3. Getting started

To use M.A.R.C.O., first install the application files on your computer system. The main executable can then be launched from the command line interface of your operating system's terminal.

Once launched, M.A.R.C.O. will display a prompt awaiting your input:

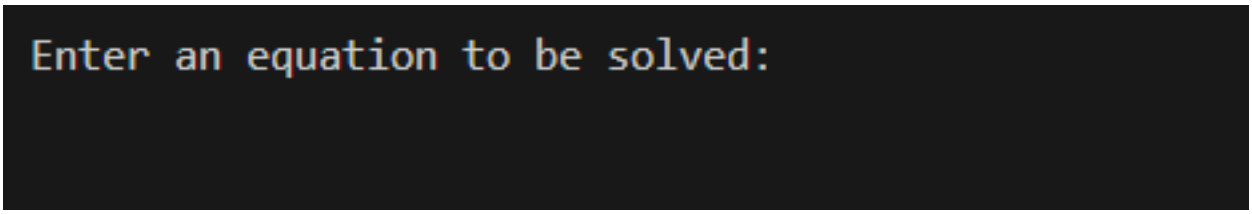

Image of command line prompt.

You can then type any valid mathematical expression, using numbers, operators, parentheses etc. For example:

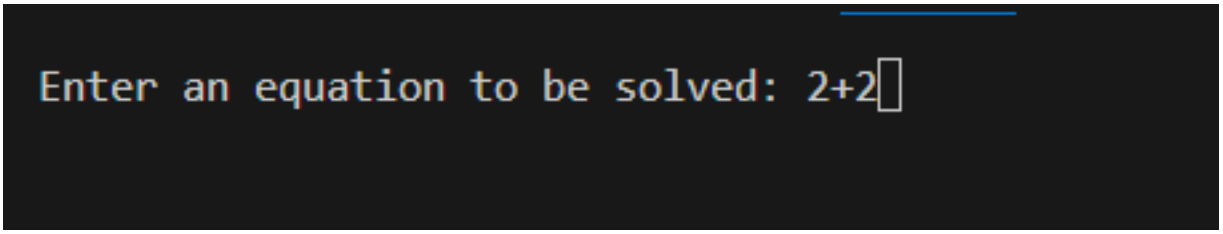

Image of command line with the mathematical expression "2+2" inputted.

Hit enter to evaluate the expression. M.A.R.C.O. will apply PEMDAS rules and print out the result:

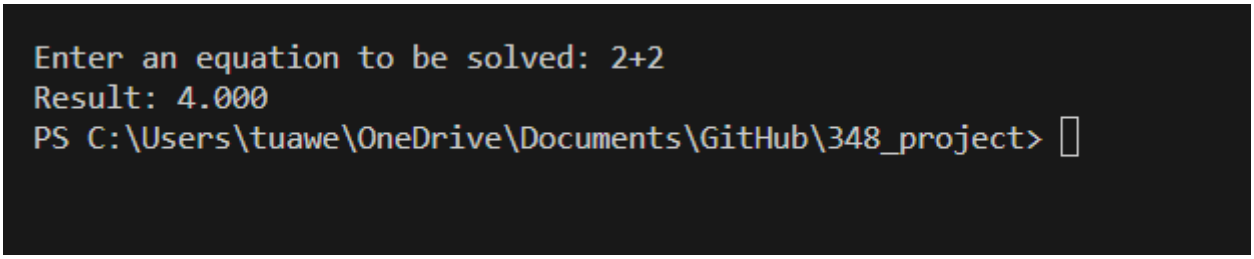

Image of command line printing out the result.

4. Advanced features

M.A.R.C.O. also supports:

- Unary plus and minus signs: +5, -2
- Whitespace between numbers and operators

5. Troubleshooting

If an invalid expression is entered, an error message will be displayed. Common errors include:

- Unbalanced Parentheses
- Division by zero
- Invalid operators or characters
- Missing operands or numbers

The expression will not be evaluated, allowing you to correct it and enter it again.

6. Examples

PEMDAS Order of operations example:

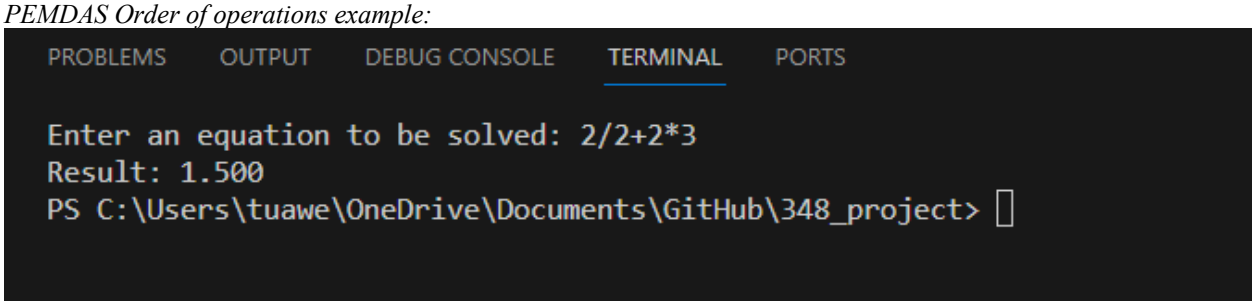

Image of VTC_06.

Decimal operations with extraneous parenthesis example:

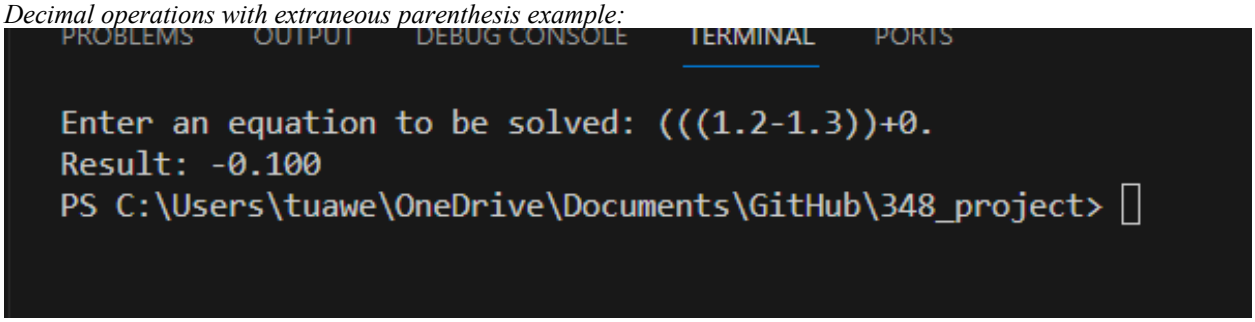

Image of VTC_24.

Unary operations with decimals example:

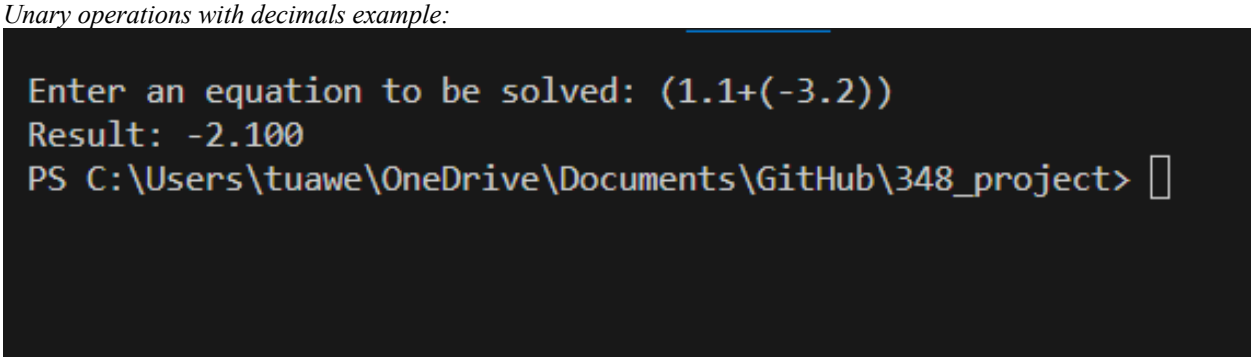

Image of VTC_23.

7. Glossary of terms

- M.A.R.C.O.: Multi-Arithmetic Righteously Calculated Operations

8. FAQ

Q: What operating systems does M.A.R.C.O support?

A: M.A.R.C.O is supported on Windows, Mac OS, and Linux operating systems. The command line interface works across all platforms.

Q: Can M.A.R.C.O perform trigonometric and other mathematical functions?

A: No, M.A.R.C.O focuses solely on arithmetic operations - addition, subtraction, multiplication, division, exponents, modulo etc. It does not support trig, logs, or other complex math functions.

Q: Can results be exported from M.A.R.C.O?

A: Currently, M.A.R.C.O only prints the output to the terminal interface. Export to file may be supported in a future release.