Roman numeral to Arabic Converter

Requirements Specification

Revision: 1.0  
Written by: Samantha Perez  
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1.0 Purpose and overview-

1.1 The purpose of this program is to assist clients in simple Arabic to Roman numeral calculations (and vice versa) with numbers between 0 and 3999.

1.2 This program is meant as a small, convenient calculator the user can use as needed without impeding a computer’s CPU usage, regardless of model or type.

1.3 The converter should be simple, easy to use, and easy to read.

1.4 Buttons and text input should be clearly labeled.

1.5 The program and all of its contents should be easily read on any interface, with font size being at least 12pt in an easily readable font.

2.0 Program Scope

2.1 This program is intended to be run like a simplified calculator; translating values between the two different number systems quickly and efficiently.

2.2 The program will be developed as a windows form-based application that runs as-is. It will function the same whether placed on removable media or a hard drive, with no need for installation or access to a computer’s files or special permissions.

3.0 References

3.1 All mathematical calculations have been checked against a list of proper Roman numerals up to 3999

3.2 Though the program anticipates user error with built-in error handling, some incorrect roman numerals are accepted, yielding proper results with the intent of the user using this program to learn or memorize the proper results

3.2.1 an example: the program takes the input “IIII” and converts it to Arabic. The Arabic output is “4”, but when the user inputs “4” and converts it back to Roman, it’s corrected to “IV” instead. A user could utilize this as a learning tool.

4.0 Deployment and packaging

4.1 This program only runs as a small, easily scanned exe file that can be stored and run from anywhere on a device.

4.2 No installation (aside from the .NET framework as a whole) should be needed

4.3 Program contents should be CLEARLY labeled

4.4 The program should be created with the earliest possible .Net framework (without causing errors)

5.0 Security

5.1 This program requires no special permissions and contains no security risks.

5.1.1 The Roman Numeral Converter should be simple enough to never be flagged by virus protection such as Malwarebytes