Documentation - Converter App Made in C#

Project Specification/Introduction:

ACTA a gas company, needs a simple converter program that will be used to convert metric measurements into imperial. They need to convert various temperatures and lengths. We can give them a program that does this for them made in C#

Screenshots: (Breakpoint + Final Program)

Errors in the code are listed in an error window where I can easily locate what is causing a problem. I can also run the debugger in Visual studio and see if it runs. However this is mainly for fixing minor things like the form design.

```
private void button1_Click(object sender, EventArgs e)

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const double CELCIUS_TO_FAH = 1.8 + 32
UserInput[1] = dbl_Convert;

// validate user entry and convert to a double
```

Big error.

Intro:

After adding in a textbox into the program I had made it so that you can only convert 5 times. After that, a message box is shown saying "You have made 5 conversions". This means that the array won't store anymore strings. However this is not how the program ran.

After converting 5 times, if I try again, the program will throw an exception. I messed around trying to fix it but nothing worked. "Index out of array bounds". (Program is trying to store in position 5 onwards when the array will only hold 5 strings.) Why did this cause an error if the code would only run when count (number of conversions) was not exceeding the limit? (*if count <= 5 {program runs}*)

In a pseudocode way, this is how my code runs:

```
button click
{
  if count is equal to or less than 5
  {
    convert the input and increment the value: count.
  }
  else
  {
    don't convert and show messagebox
  }
```

I changed took a step back. And I tried something different.

Here I have moved the code so that the program first decides if the input should be ignored. Then, if the input is accepted, the code will run to convert the input. In pseudocode this is how it would look:

```
if count is greater than or equal to 5
{
    refuse input and show messagebox
}
    else
{
    convert the input and increment the value: count.
}
```

I've also allowed for the user to "clear" the array of conversions they have entered. All this really does is it sets count to 0 so that the array can be written over again.

I hope this was easy to understand.:)

What is a standard sequential access algorithm?

Sequential access is a way of receiving data in a specific ordered way from a storage device. When data is being searched for this is called sequential access or serial access and this process is related to either reading or writing. As compared with Random access memory (RAM), sequential access memory is permanent storage and is not volatile, so files remain on your computer even when your computer is off.

Open source tool used?

Git is a very powerful version control system that is the most well known out of all version control applications used by an amazing amount of large or small communities and companies. I used Git purely because it is easy to use and has all the features I need.

GitHub screenshots:

