LocalPortScanner

Software Documentation

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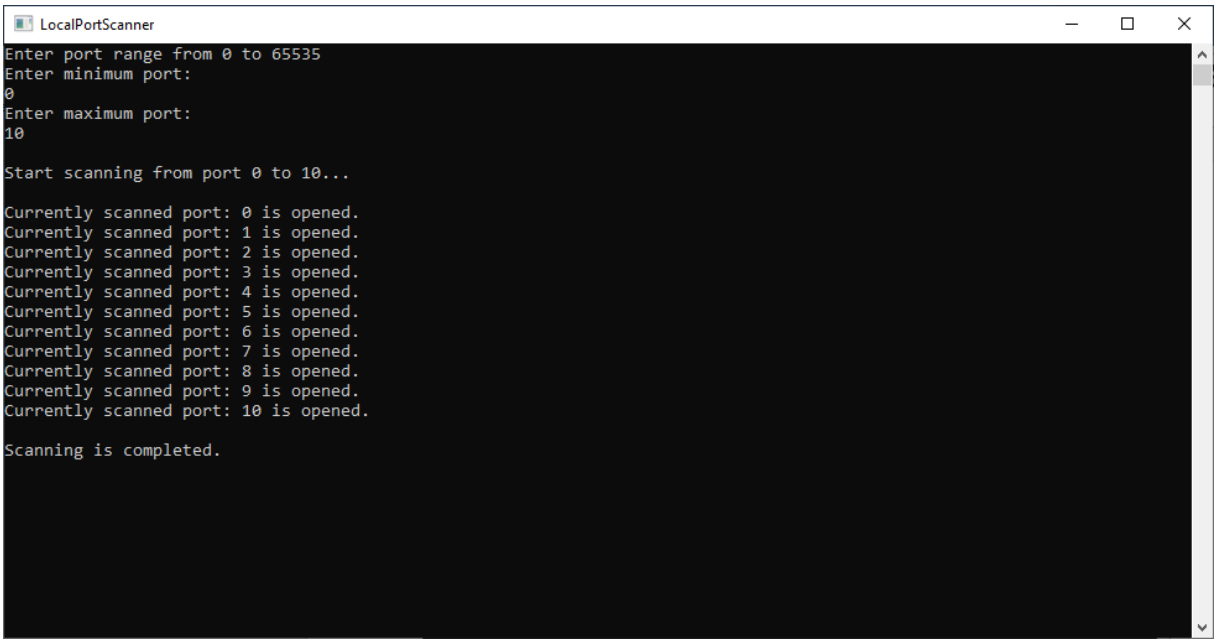
Introduction

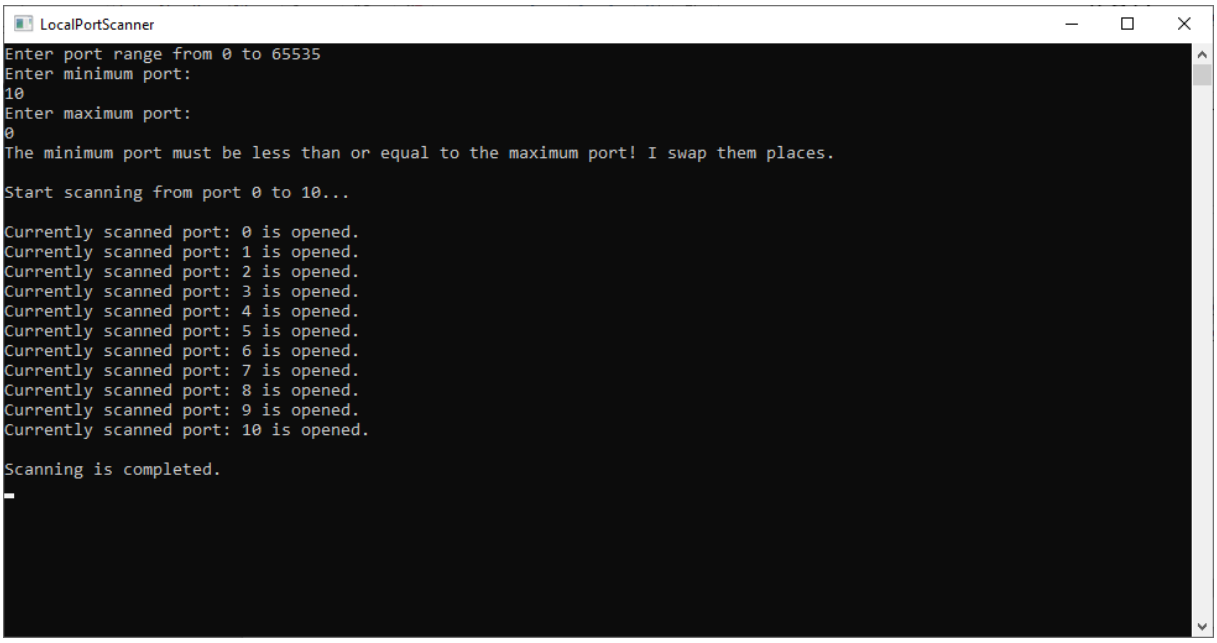
This application is used to scan localhost open ports minimum - maximum.

Describing of the application’s operation

Drawing 1: The beginning of the application's operation [own study]



Drawing 2: The effect of the program's work [own study]



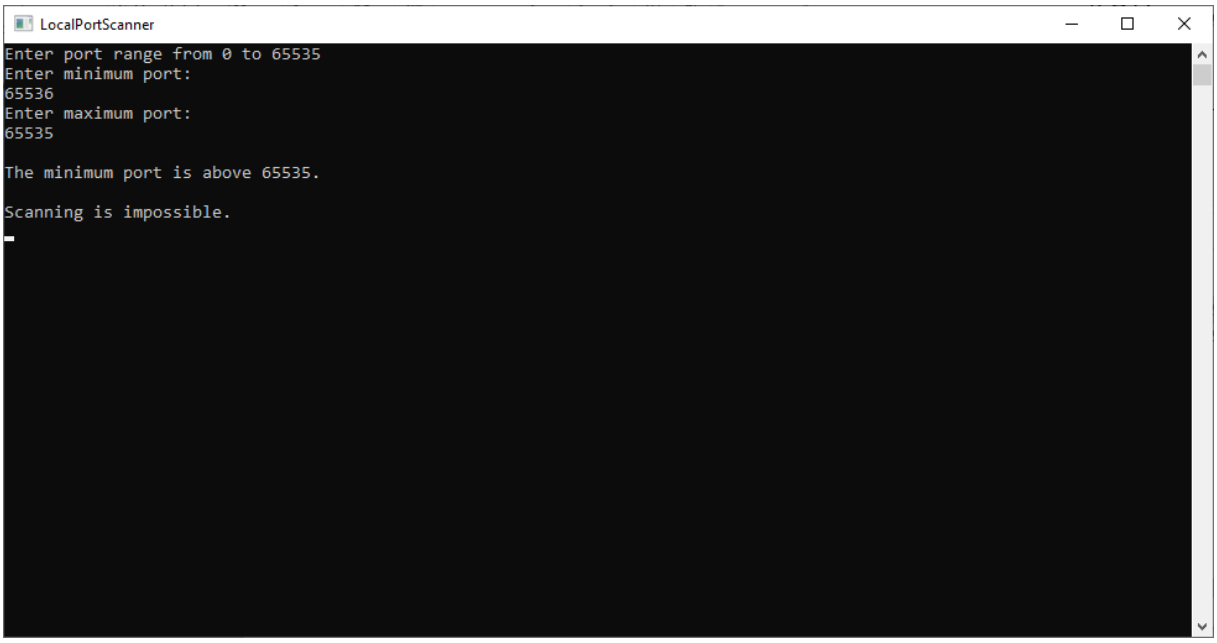
Drawing 3: The effect of the program's work minimum > maximum [own study]

Drawing 4: The effect of the program's work minimum < 0 [own study]

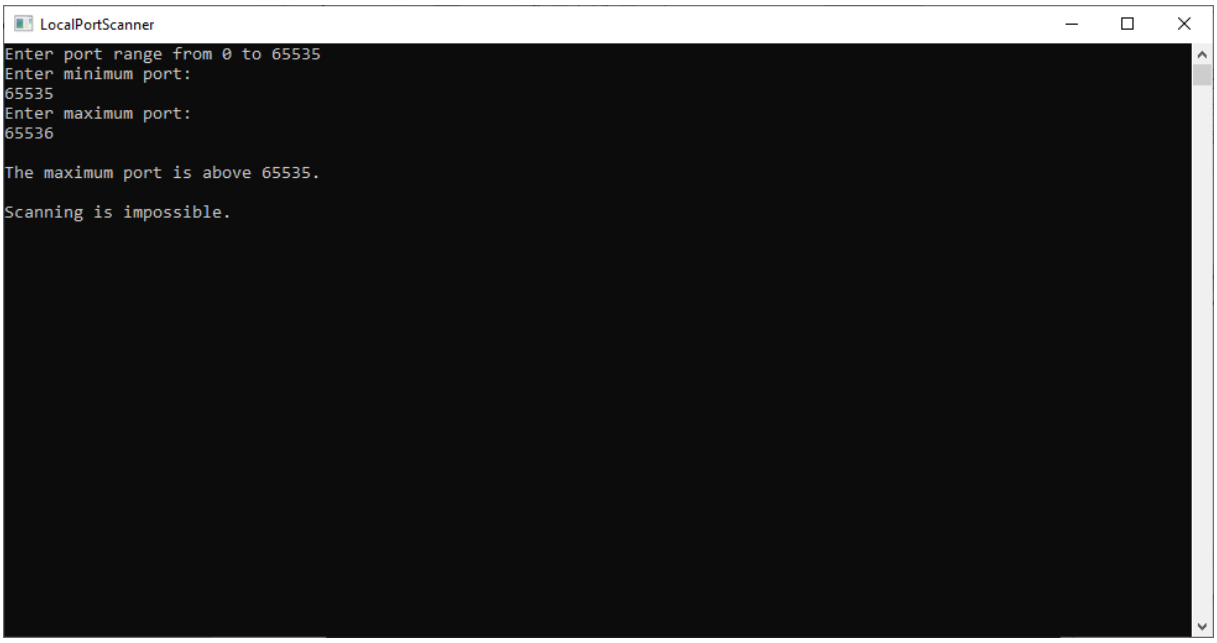
Drawing 5: The effect of the program's work maximum < 0 [own study]

Drawing 6: The effect of the program's work minimum and maximum < 0 [own study]

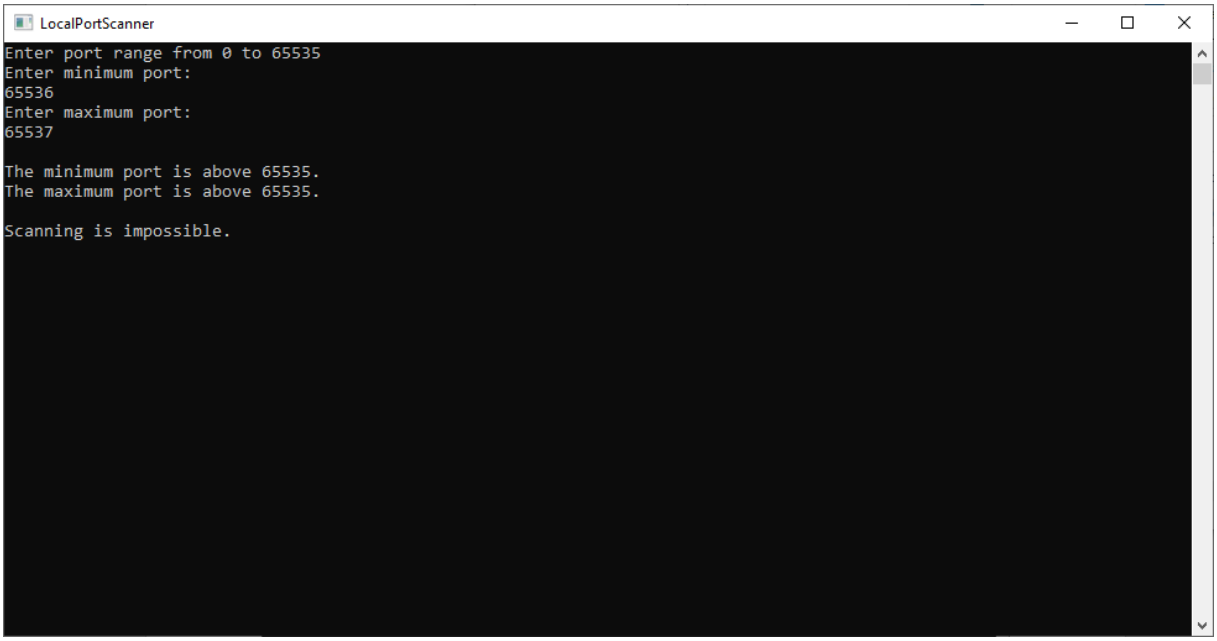
Drawing 7: The effect of the program's work minimum and maximum < 0 [own study]



Drawing 8: The effect of the program's work minimum > 65535 [own study]



Drawing 9: The effect of the program's work maximum > 65535 [own study]



Drawing 10: The effect of the program's work minimum and maximum > 65535 [own study]

After starting the program, the user enters the minimum and maximum port range. But he must be careful! If I enter minimum> maximum, the program will replace the values with places. Unfortunately, in a situation where he enters either or both below or above the range, it does not matter if the minimum is greater than the maximum, scanning will be impossible. If the port is open, it will receive such information, otherwise it will receive an appropriate message. There are certainly some bugs that the developer didn't discover while working on the application. The program has no security for an empty value!

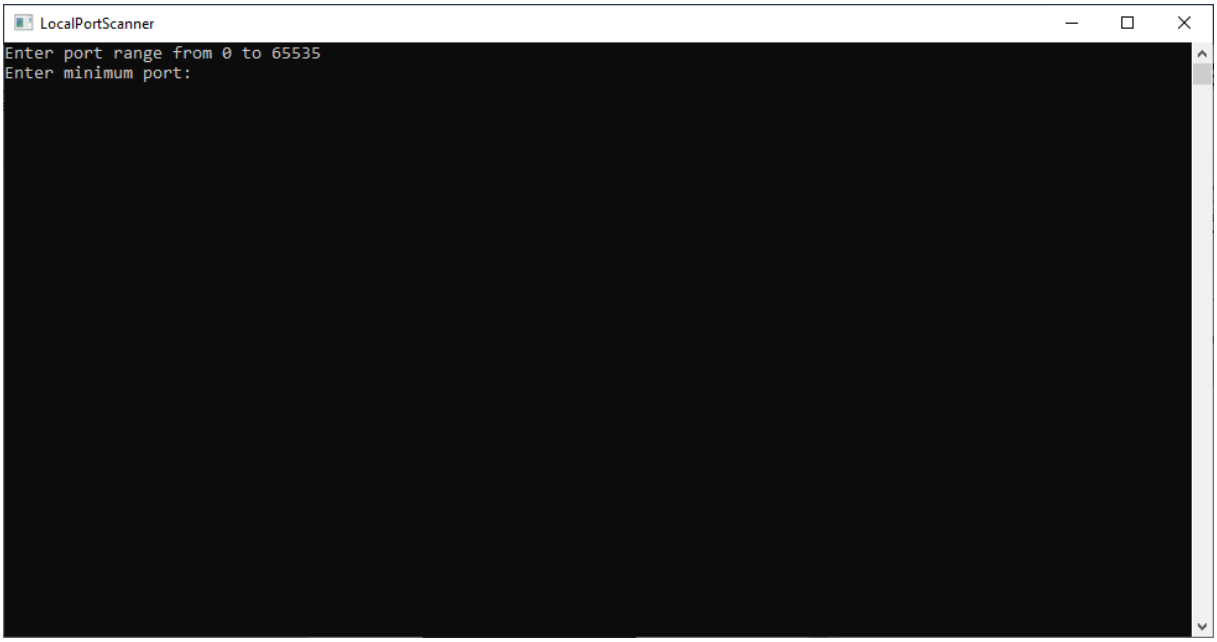
What is needed for use?

The application does not require installation. It only needs the Windows operating system.

Algorithm used

The basic form of the algorithm can be deduced from the previous section. All it needs is the Windows operating system. In summary, the application displays the information about the open ports in the user-specified range, since the range is from 0 to 65535, it could be time consuming not so much to scan, but to analyze the data.

Interface description



Drawing 11: Graphical interface [own study]

The interface is typical for a Console Application.

Source code description

The project was made in the C# programming language, in the Visual Studio Community 2017 programming environment. All work was done on the Windows 10 operating system. The application's source code looks like this.

```
using System;
using System.Net.Sockets;
```

```
namespace PortScanner
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.Title = "PortScanner";
            short[] ListaPortow = { 20, 21, 22, 23, 25, 53, 70, 80, 109, 110, 119,
143, 161, 162, 443, 3389 };
            Console.WriteLine("Enter the host:");
            string host = Console.ReadLine();
            Console.WriteLine("\r\nPort scanning for {0}", host);
            Console.WriteLine("This may take a while ...\r\n");
            foreach(short port in ListaPortow)
            {
                try
                {
                    TcpClient klient = new TcpClient(host, port);
                    Console.WriteLine("Port: {0} is opened.",port);
                }
                catch
                {
                    Console.WriteLine("Port: {0} is not opened.", port);
                }
            }
            Console.ReadKey();
        }
    }
}
```

Listing 1: Source code [own study]

List of drawings

List of listings