

TestPingCSharpV1

Software Documentation

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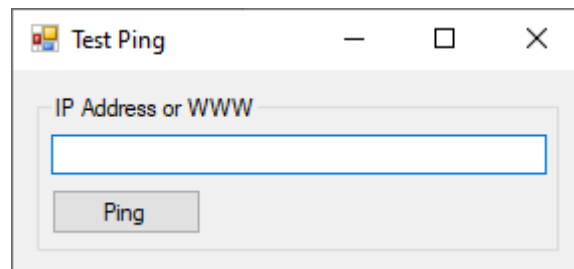
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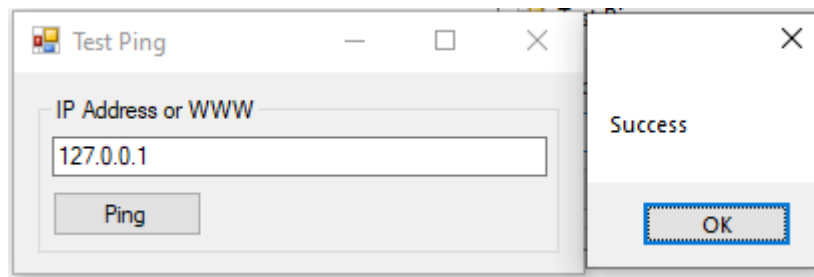
Introduction

This software documentation includes: description of the application's operation, what is needed for use, algorithms used, interface description and source code description. This application is used to diagnose network connections by Ping command.

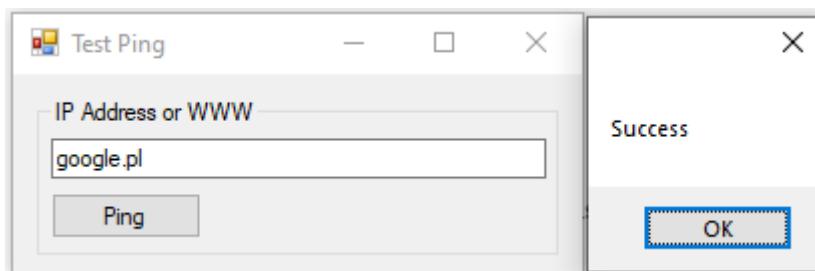
Describing of the application's operation



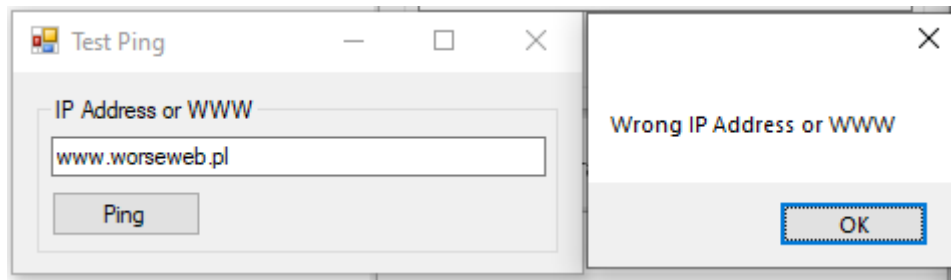
Drawing 1: The beginning of the application's operation [own study]



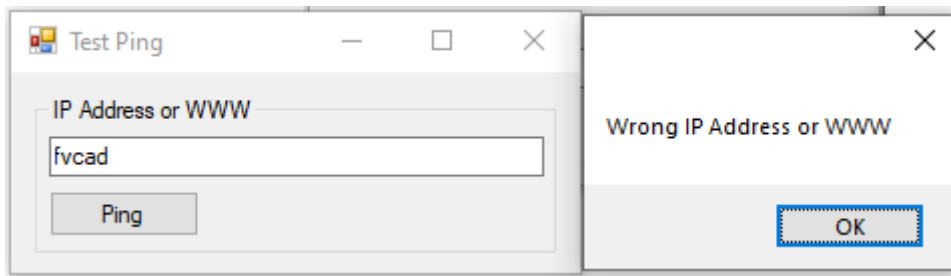
Drawing 2: The effect after entering the IPv4 address of the localhost [own study]



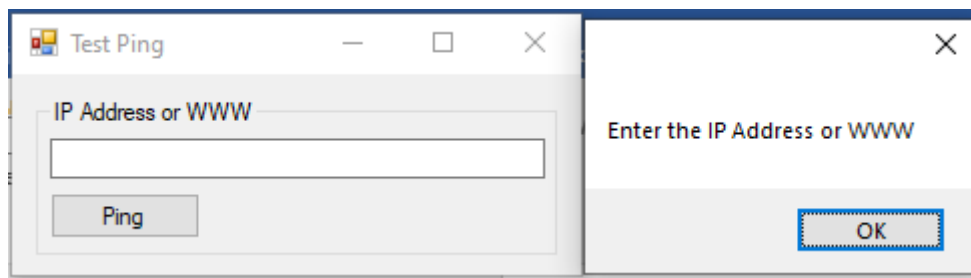
Drawing 3: The effect after entering the website [own study]



Drawing 4: Effect after entering a wrong address [own study]



Drawing 5: Effect after entering random characters [own study]



Drawing 6: Effect after typing nothing [own study]

After starting the program, the user is asked to enter an IP address or a website. He can accept it in two ways: by clicking the Ping button or pressing the Enter key. If there is a network connection and the recipient information is correct, "Success" will be displayed. Otherwise, there will be a "Wrong IP Address or WWW" message when there is a wrong address, random characters (not IP Address and WWW) or missing connection. It is possible that the user is staring at nothing and typing nothing, and the message "Enter the IP Address or WWW" will appear. There are certainly errors that the developer did not discover while working on the application.

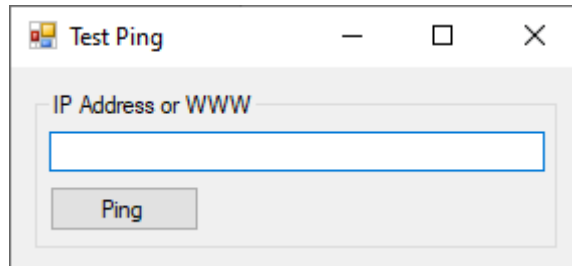
What is needed for use?

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. It only needs the Windows operating system. In summary, the application is equivalent to the Ping command in the Windows Command Prompt.

Interface description



Drawing 7: Graphical interface [own study]

The interface is typical for a Windows Forms Application. There are essential components: groupbox, textbox and button.

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.Windows.Forms;
using System.Net.NetworkInformation;

namespace TestPingCSharpV1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void BPing_Click(object sender, EventArgs e)
        {
            if (txtAddressOrWWW.Text.Length > 0)
            {
                try
                {
                    Ping ping = new Ping();
                    PingReply reply = ping.Send(txtAddressOrWWW.Text, 1000);
                    MessageBox.Show(reply.Status.ToString());
                } catch (Exception nie)
                {
                    MessageBox.Show("Wrong IP Address or WWW");
                }
            }
        }
    }
}
```

```

        }
    }
    else if (txtAddressOrWWW.Text.Length == 0)
        MessageBox.Show("Enter the IP Address or WWW");
}

private void txtAddressOrWWW_KeyPress(object sender, KeyPressEventArgs e)
{
    if(e.KeyChar==13) BPing_Click(sender, e);
}
}
}

```

Listing 1: Source code [own study]

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