TCP Remoting

Example of using TCP remoting to send messages between processes: The code has a procedure that checks if server is present and port is opened, before sending the message (it might still happen that the port is opened by another application in which case the code will crash).

Project: IPC_SharedInterfaces **Class:** ICommunicationService

```
Public Interface ICommunicationService
Sub SaySomething(ByVal text As String)
End Interface
```

Project: IPC_Server **Class:** CommunicationService

```
Public Class CommunicationService
Inherits MarshalByRefObject
Implements IPC_SharedInterfaces.ICommunicationService
Public Sub SaySomething(ByVal text As String) Implements
IPC_SharedInterfaces.ICommunicationService.SaySomething
MsgBox(text)
End Sub
End Class
```

Class: Form1

```
Imports System.Runtime.Remoting
Imports System.Runtime.Remoting.Channels
Imports System.Runtime.Remoting.Channels.Tcp
Public Class Form1
Private Sub Form1_Load(sender As System.Object, e As System.EventArgs)
Handles MyBase.Load
Dim ipcCh As IpcChannel
Dim tcpCh As New Tcp.TcpServerChannel(31337)
ChannelServices.RegisterChannel(tcpCh, False)
RemotingConfiguration.RegisterWellKnownServiceType(
GetType(CommunicationService), "MojURI", WellKnownObjectMode.SingleCall)
End Sub
End Class
```

References: IPC_SharedInterfaces, System.runtime.Remoting

Project: IPC_Client **Class:** Form1

```
Imports System.Runtime.Remoting
Imports System.Runtime.Remoting.Channels
Imports System.Runtime.Remoting.Channels.Tcp
Public Class Form1
Private Sub Button1_Click(sender As System.Object, e As System.EventArgs)
Handles Button1.Click
```

```
Dim tcpCh As New Tcp.TcpClientChannel
ChannelServices.RegisterChannel(ipcCh, False)
Dim obj As IPC_SharedInterfaces.ICommunicationService =
DirectCast(Activator.GetObject(GetType(IPC_SharedInterfaces.ICommunicationSe
rvice), "tcp://localhost:31337/MojURI"),
IPC_SharedInterfaces.ICommunicationService)
If IsPortAvaliable(31337) Then
obj.SaySomething(Now.TimeOfDay.ToString)
Else
MsgBox("Nema servera")
End If
ChannelServices.UnregisterChannel(tcpCh)
End Sub
Private Function IsPortAvaliable(port As Integer) As Boolean
Dim RetVal As Boolean = False
Dim globalProperties As IPGlobalProperties =
IPGlobalProperties.GetIPGlobalProperties()
Dim activeListeners As IPEndPoint() =
globalProperties.GetActiveTcpListeners()
For i As Integer = 0 To activeListeners.Length - 1
If activeListeners(i).Port = port Then RetVal = True
Next
Return RetVal
End Function
End Class
```

References: IPC_SharedInterfaces, System.runtime.Remoting

From:
https://wiki.plecko.hr/ - **Eureka Moment**

Permanent link:
https://wiki.plecko.hr/doku.php?id=development:net:tcp_remoting

Last update: **2019/10/31 09:04**