



Remote Viewer White Paper

Document Information

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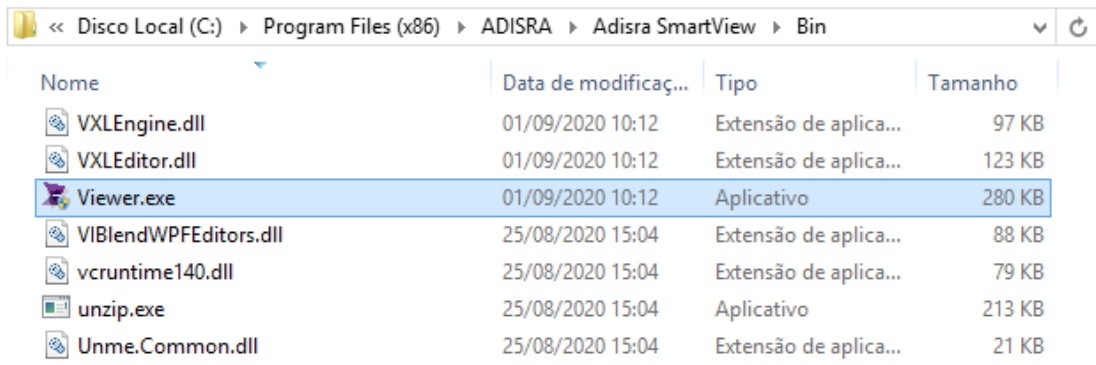
**Note: this document is only for
Microsoft Windows Operating System**

1. Scope

The ADISRA SmartView Remote Viewer White Paper explains how remote access works internally and the steps to follow in order to deploy the remote access feature within ADISRA SmartView.

2. Summary

Remote Viewer is a tool which allows the user to connect the Viewer to ADISRA SmartView runtime on a local or remote computer. In order to execute the Remote Viewer, the user needs to run the full installation of ADISRA SmartView and then execute the Viewer.exe



| Nome | Data de modificaç... | Tipo | Tamanho |
|-----------------------|----------------------|-----------------------|---------------|
| VXLEngine.dll | 01/09/2020 10:12 | Extensão de aplica... | 97 KB |
| VXLEditor.dll | 01/09/2020 10:12 | Extensão de aplica... | 123 KB |
| Viewer.exe | 01/09/2020 10:12 | Aplicativo | 280 KB |
| VIBlendWPFEditors.dll | 25/08/2020 15:04 | Extensão de aplica... | 88 KB |
| vcruntime140.dll | 25/08/2020 15:04 | Extensão de aplica... | 79 KB |
| unzip.exe | 25/08/2020 15:04 | Aplicativo | 213 KB |
| Unme.Common.dll | 25/08/2020 15:04 | Extensão de aplica... | 21 KB |

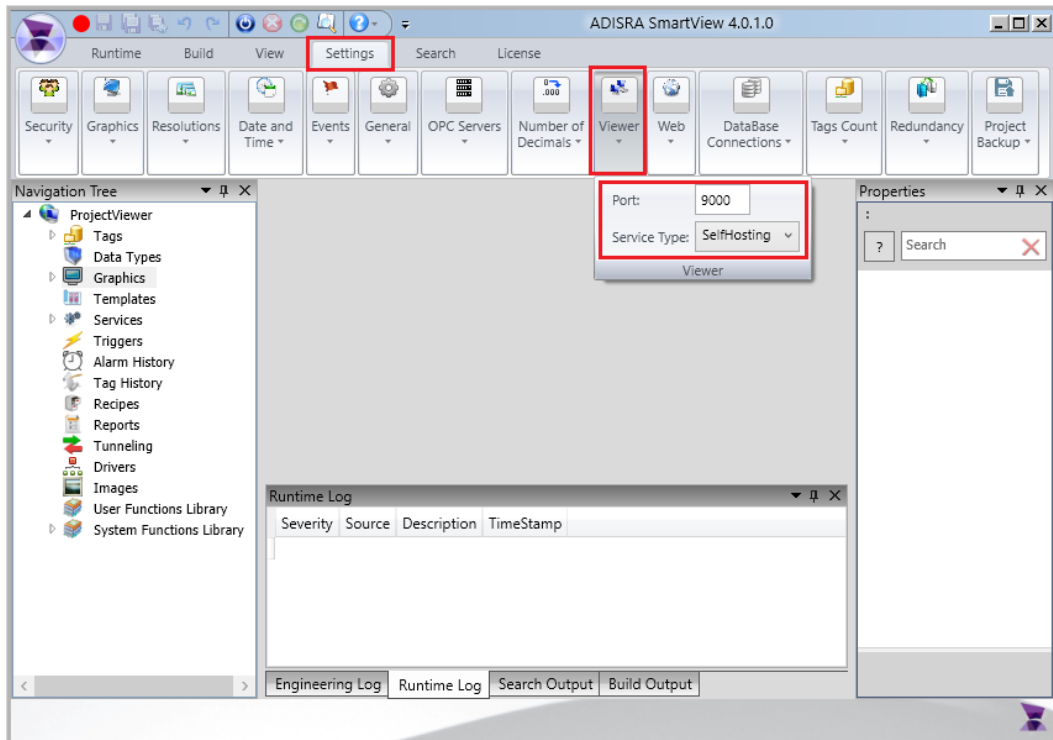
When the Remote Viewer connects to the remote runtime application, it requests the Graphics which will be opened. **It is not necessary to manually copy the application to the machine where the Remote Viewer will be executed.** This is an important feature since the application will be only placed in the machine where the runtime is running. There will be no need to keep applications in different machines. Additionally, whenever a change is made on a Graphics layout (i.e. added an extra label on engineering), this change will already be available to the Remote Viewer, the user needs to re-open the updated Graphics. When logic has been updated in a Service, Trigger, Driver or any module that is part of the runtime, the user must restart the runtime process and the Remote Viewer will be automatically disconnected/closed.

3. Configuring the Runtime

Every Remote Viewer needs to connect to a ADISRA SmartView runtime process. We will look at the runtime configuration first.

To configure the project that is going to be executed, follow the steps below:

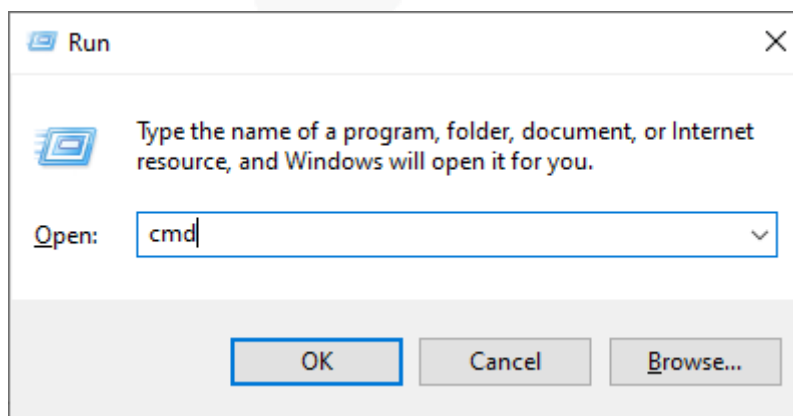
On the Settings Ribbon, go to Viewer and select “SelfHosting”. Enter a port number, the default port is “9000” but it can be changed if it is already in use.



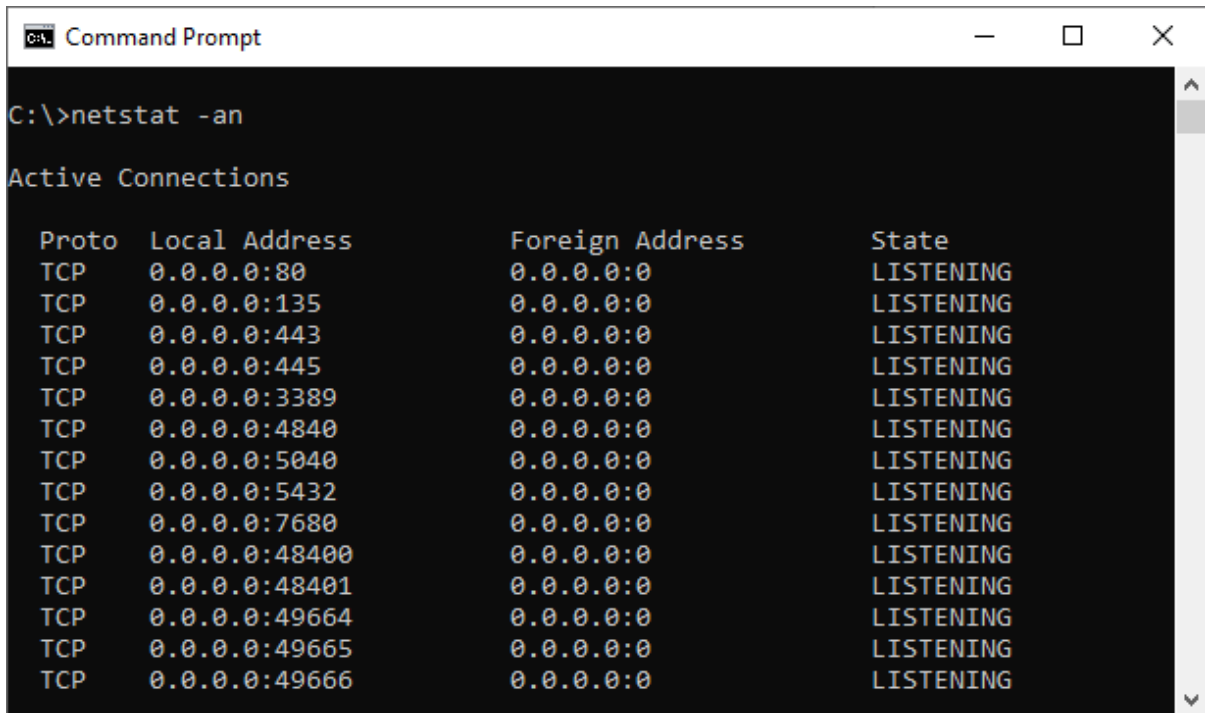
3.1 Check the Ports Being Used

This step is only needed if it is uncertain if the port is already in use. Stop the application if it is running.

- Press “Windows+R” and type "cmd" and click OK to open the Command Prompt:



- In the Command Prompt type "netstat -an" and see the ports that are being used. Make sure the port to be configured is not listed. If it is, select a different port number that is not being used.



```
C:\>netstat -an

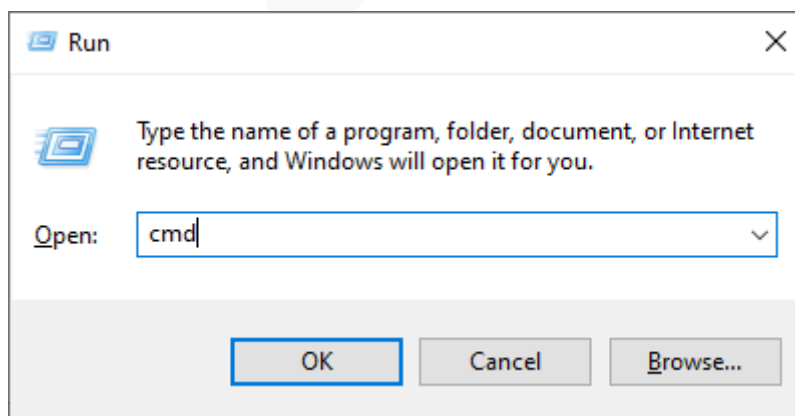
Active Connections

Proto Local Address          Foreign Address        State
TCP   0.0.0.0:80              0.0.0.0:0              LISTENING
TCP   0.0.0.0:135             0.0.0.0:0              LISTENING
TCP   0.0.0.0:443             0.0.0.0:0              LISTENING
TCP   0.0.0.0:445             0.0.0.0:0              LISTENING
TCP   0.0.0.0:3389            0.0.0.0:0              LISTENING
TCP   0.0.0.0:4840            0.0.0.0:0              LISTENING
TCP   0.0.0.0:5040            0.0.0.0:0              LISTENING
TCP   0.0.0.0:5432            0.0.0.0:0              LISTENING
TCP   0.0.0.0:7680            0.0.0.0:0              LISTENING
TCP   0.0.0.0:48400           0.0.0.0:0              LISTENING
TCP   0.0.0.0:48401           0.0.0.0:0              LISTENING
TCP   0.0.0.0:49664           0.0.0.0:0              LISTENING
TCP   0.0.0.0:49665           0.0.0.0:0              LISTENING
TCP   0.0.0.0:49666           0.0.0.0:0              LISTENING
```

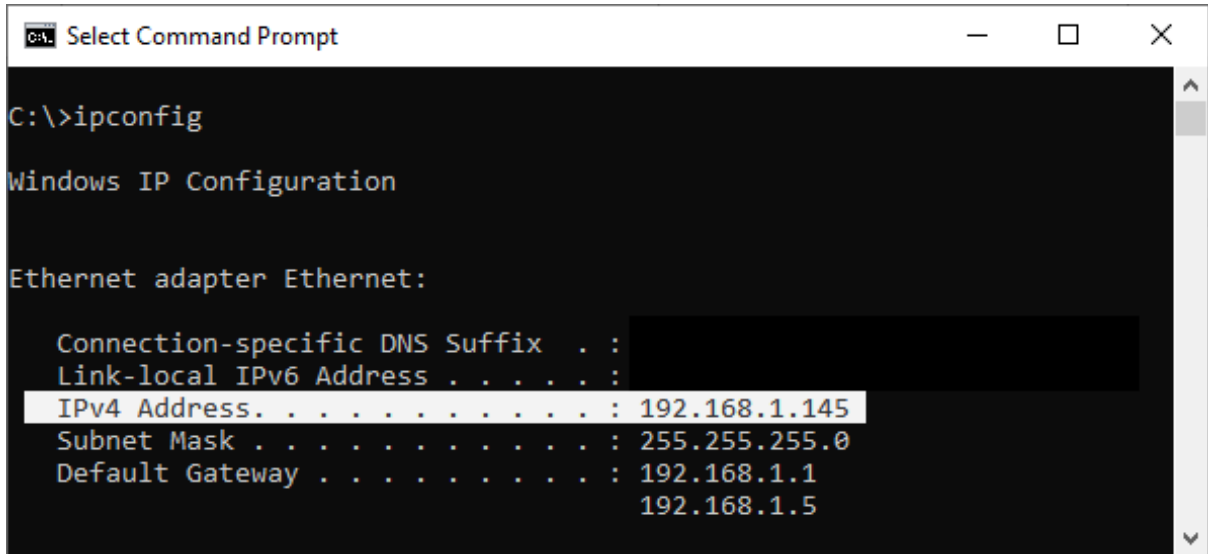
3.2 Check the IP Address of the Executing Machine

The IP Address and the port number configured in the project will be used to create the connection between the Remote Viewer and the Runtime. Please follow the instructions below to obtain the correct IP Address for the machine where the runtime is being executed.

- Press "Windows+R" and type "cmd" and click OK to open the Command Prompt:



- In the Command Prompt type "ipconfig" and check the IPv4 Address, this will be used later. In this example, it is "192.168.1.145".



```

C:\>ipconfig

Windows IP Configuration

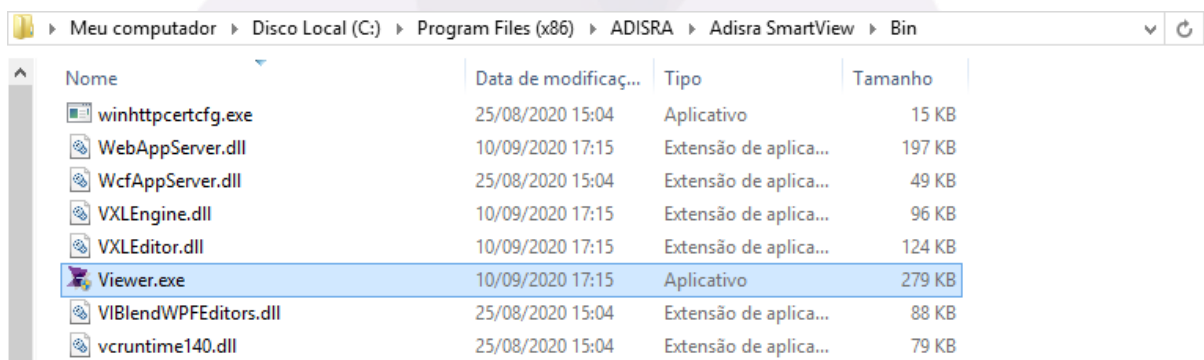
Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : 
    IPv4 Address. . . . . : 192.168.1.145
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1
                                192.168.1.5
  
```

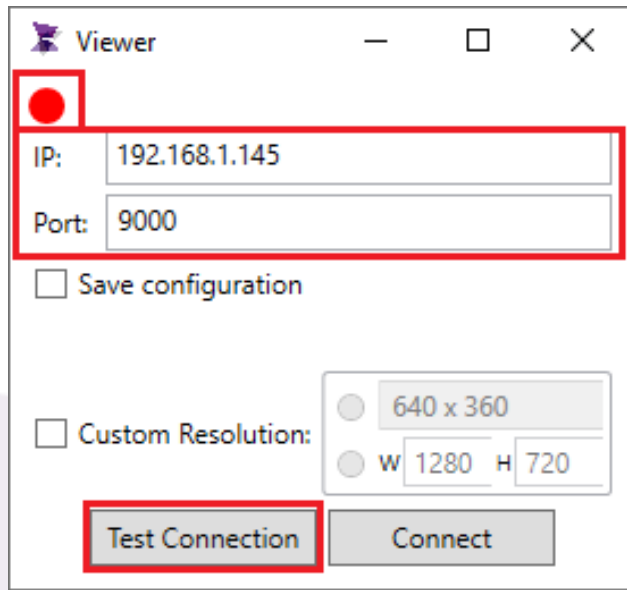
4. Configure the Remote Viewer

To configure the Remote Viewer to connect to the executing Runtime from another machine, follow the steps below:

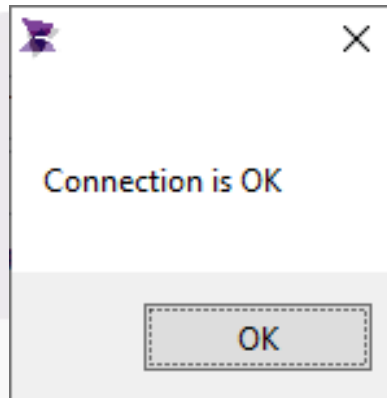
- Open the Viewer. To open the Viewer, the user must navigate to the ADISRA SmartView installation bin folder and double click Viewer.exe.



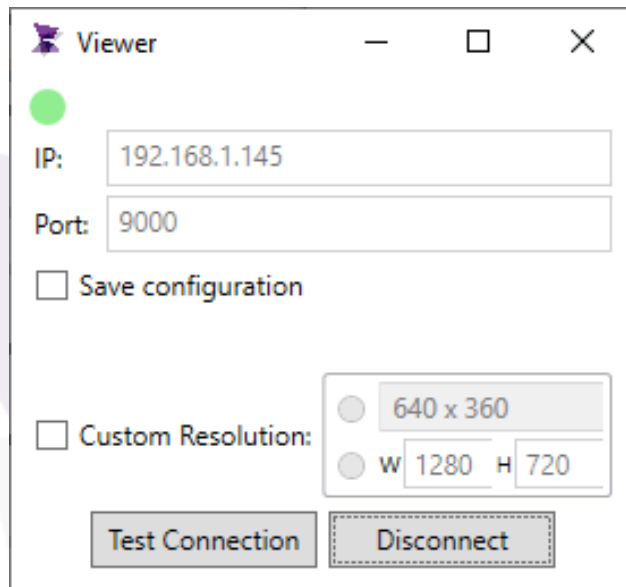
- **Note:** the red circle indicates the viewer is not connected to an executing Runtime; set the IP address and designate the port to be configured (as shown in the last chapter), then test the connection.



- If everything is configured correctly, this message will be displayed. Remember that the ADISRA SmartView Runtime must be running.



- Then click the “Connect” button, the default graphic of the executing project will open; note, now the viewer has a green circle indicating it’s connected to the Runtime:

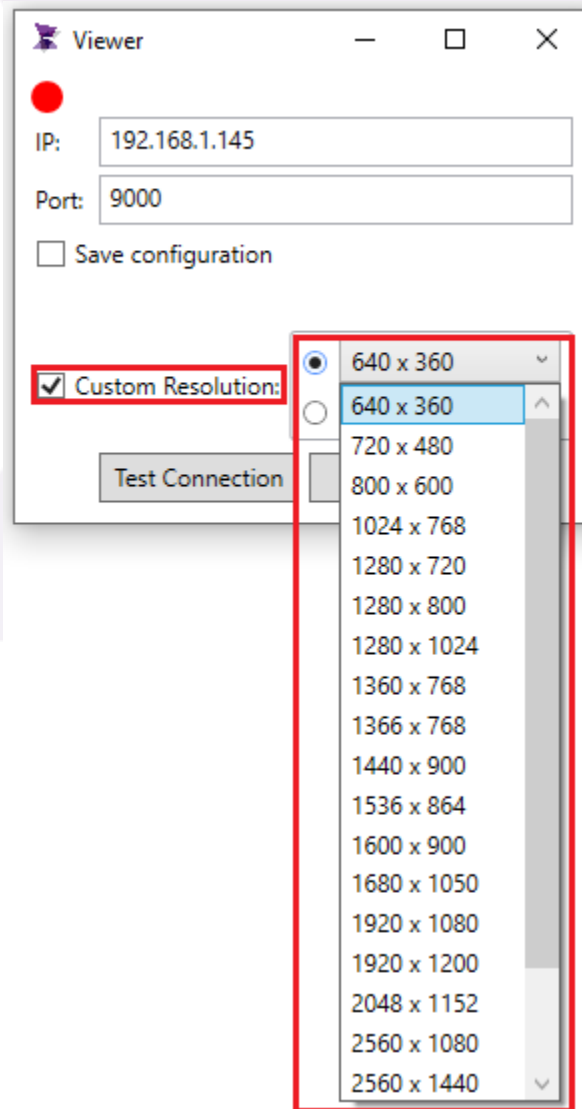


5. Custom Resolution

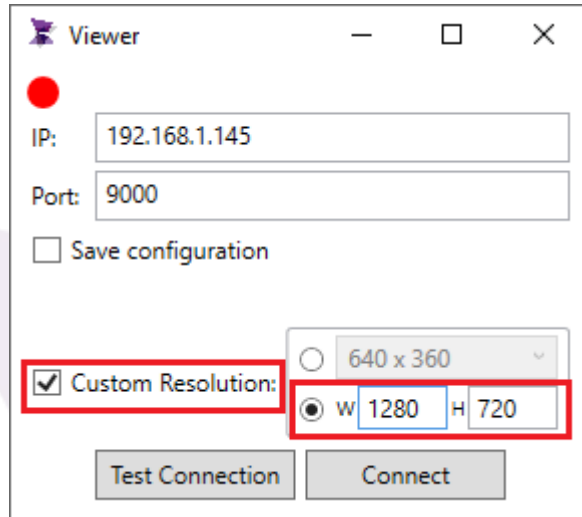
In this section, understand how to configure the custom resolution of the Remote Viewer.

If the machine selected for the Remote Viewer has a different resolution than the initial machine intended for the project, then the viewer's resolution can be changed. Click the "Custom Resolution" check box. Two options are offered:

- First option, click the down arrow on the far right of the first resolution box and the box will descend displaying available resolutions. Select the desired resolution.



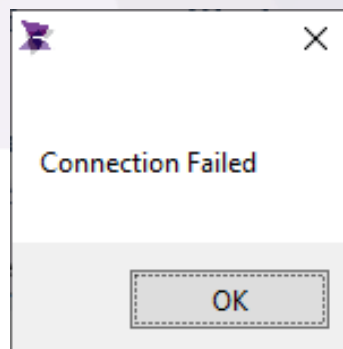
- Or, click the second box and type in the desired resolution:



6. Possible Errors

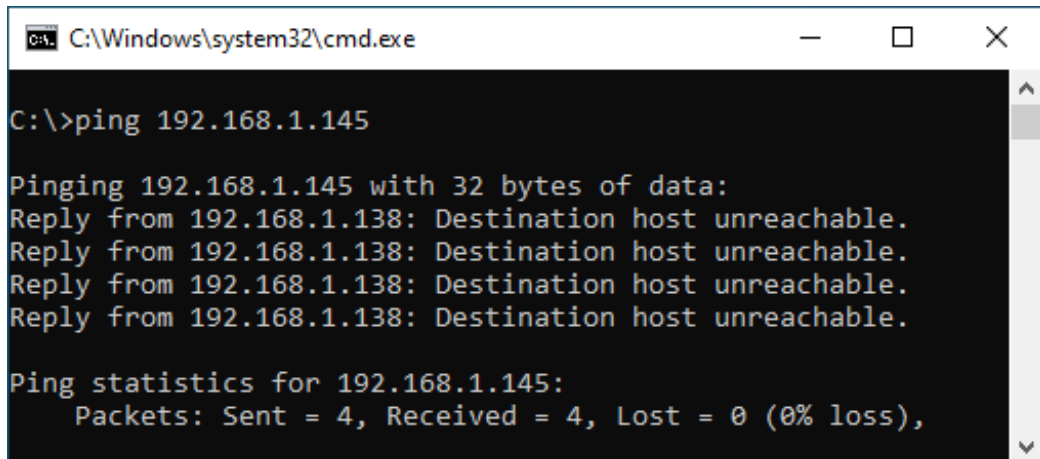
6.1 Connection Failed

When testing the connection in the Remote Viewer and a connection failed message appears:



- To resolve this problem, first make sure the runtime is running on the remote machine. Also, make sure the runtime IP Address and the port number are correct.
- Next, check if the network is operating properly. Open the CMD (Command prompt) and ping the runtime IP Address.

“ping 192.168.1.145”.



```
C:\Windows\system32\cmd.exe

C:\>ping 192.168.1.145

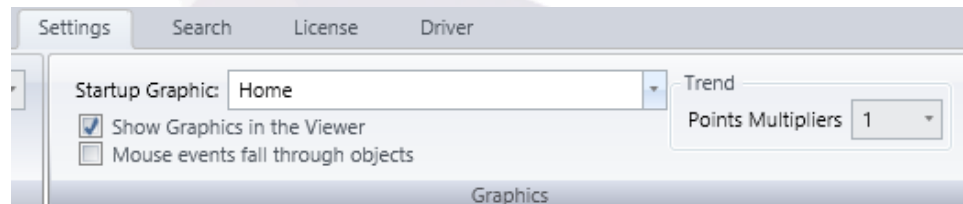
Pinging 192.168.1.145 with 32 bytes of data:
Reply from 192.168.1.138: Destination host unreachable.
Reply from 192.168.1.138: Destination host unreachable.
Reply from 192.168.1.138: Destination host unreachable.
Reply from 192.168.1.138: Destination host unreachable.

Ping statistics for 192.168.1.145:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

- If the ping fails, there is a problem with the network.

6.2 Application Does Not Open

This might not be an error. To confirm the project has a Startup Graphic configured. Select “Settings” to display the Startup Graphic box. Page “Home” is the “Startup Graphic”. When the user runs the Remote Viewer, it will connect to Runtime and the Home page will be displayed for the user. If there is not a “Startup Graphic” configured, nothing will be displayed.



Alternatively, a Graphic maybe opened from the windows notification area located on the screen’s bottom right near the system clock. Right click on the highlighted icon, click on the “Graphics” option and then click on the Graphics to be opened.

