

# Installing and Running PiGS on Windows 10

## Draft 1.8 - 23 February 2021

First, you'll need to configure the firewall on your Windows machine to allow connections from other computers on your local network:

1. In Windows 10, open **Settings** (Windows Settings, PC Settings) and select **Network and Internet**.
2. Then select **Change connection properties**.
3. Make sure that the radio button **Private** (not **Public**) is selected.
4. If you're using **Windows Defender Firewall**, you may need to configure that to allow DNS and HTTP connections from DVR+.
5. If you're using a 3rd party firewall, you may need to configure that to allow DNS and HTTP connections from DVR+. \*
6. Firewall configuration on earlier Windows versions is beyond the scope of this guide.

If your Windows machine is running an **IIS Web Server** (typically only Windows 10 Pro and Windows 10 Server run this), you'll need to disable and stop that. You can tell if it is by opening a browser and typing the URL `http://localhost`. If it tries for several seconds and then cannot connect or times out, then a Web server is not running; if, on the other hand, it immediately displays a blank page or some other page, the IIS Web server is running.

To disable and stop it, follow these steps:

1. Hit Windows-R, enter **Control Panel**, and click on **OK**. **Control Panel** will launch.
2. Click on **Programs and Features**.
3. Click on **Turn Windows features on or off**.
4. Click the + to the left of **Internet Information Services**, uncheck **World Wide Web services**, and click **OK**.
5. [it may ask you to reboot here - DON'T]
6. In the **Programs and Features** window, click the back arrow to return to the **Control Panel**.
7. Select **Administrative Tools**, and in the directory that pops up, double click **Services**.
8. In the **Services** window, right click **World Wide Web Publishing Service** and select **Properties**.
9. In the **Properties** pop-up, click on **STOP**, then change the **Startup type** to **Disabled**, and click **OK**.
10. Close any remaining windows.

If your Windows machine does not already have a static IP (v4) address on your network, but is using DHCP to obtain one dynamically, you'll need to assign a static IP:

1. Hit Windows-R, enter **Control Panel**, and click on **OK**. **Control panel** will launch.
2. Click on **Network and Sharing Center**.
3. Click on the **Local Area Connection** or **Wireless Network Connection** you are using. Dialog pops up. Click **Details...**
4. Write down the **IPv4 Subnet Mask**, **IPv4 Default Gateway**, and **IPv4 DNS Servers**. Close popups.
5. Follow step 5a) in timothee's spreadsheet (PiSetup tab) to determine a suitable static IP address on your network.
6. In **Network and Sharing Center** you opened in step 2, click on **Change Adapter Settings**.
7. Locate the **Local Area Connection** or **Wireless Network Connection** you are using to connect to your network.
8. Right click on that connection and select **Properties**.
9. Highlight **Internet Protocol Version 4 (TCP/IPv4)** [click the text, **NOT** the checkbox], then click **Properties** button.
10. Select radio button **Use the following IP address:**.
11. Type in the static IP address you decided on in step 5.
12. Type in the **Subnet mask** you noted in step 4.
13. Type in the **Default gateway** you noted in step 4.
14. Select radio button **Use the following DNS server addresses** (it's already selected).
15. Type in the **DNS Server(s)** you noted in step 4.
16. Click **OK** [it may ask you to reboot here - do so if it does - otherwise you can close any remaining windows].

Follow steps 8) and 9) in tomothee's spreadsheet (PiSetup tab) to set the DVR+ to a static IP and DNS server, specifying the static IP of your Windows machine as its DNS server (instead of the typical IP of your Default Gateway (which usually also serves as your DNS server) or any custom DNS Server you may have configured. Step 9) ensures that you have a Schedules Direct account that you can specify when configuring PiGS.

Download the latest Windows (Standalone) Portable PiGS App zip file **PiGS-vX.XX-For-Windows-Portable.zip** from this web page:

<http://pigs.goihl.com/pigs-on-windows/>. These instructions are also available on that page.

Open the zip file and extract the directory **PiGS-vX.XX-For-Windows-Portable**. You can now delete the zip file.

Open the directory **PiGS- vX.XX -For-Windows-Portable** and launch `pigs.exe`. A DOS box will open running PiGS.

From your browser, browse to <http://localhost/>. A pink PiGS Configuration webpage should open up (if it doesn't, substitute your Windows static IP address for [localhost](http://localhost/)):

1. Follow timothee's spreadsheet (PiSetup tab) starting in step 10) at "*A pink PiGS Configuration webpage should open up*"
2. Finish the rest of timothee's steps 10 and 11 down to "*That's it!*".
3. Close the browser - you have finished configuring PiGS and have tested it. Leave PiGS running in its DOS box.

I'm sure if you're clever with Windows you can figure out how to put the **pigs.exe** launch in your Startup folder and start PiGS in a minimized DOS box on login. Your DVR+ will now download the guide from Schedules Direct each day. If the Windows machine is down when the DVR+ tries to download the guide, it will keep trying until the Windows machine is up again and the PiGS server is running.

\* User Arenal04 from the AVS Forum has kindly provided the following instructions specific to the **Norton Firewall**:

1. When you unZIP the PiGS ZIP file, Norton will likely remove pigs.exe, having decided that pigs.exe is unsafe. This will become known to you via a pop-up window generated by Norton. Within that pop-up window is a button labeled "View Details". Click it. This will bring up another window, titled "File Insight". Within that window will be a "Restore" option. Click it. This will bring up another window titled "Quarantine Restore". Within this window is an option "Exclude this file ID from future scans." If it does not already have a check mark, click it so that it has a check mark. Then click "Yes". Windows will then ask "Do you want this app to make changes to this device." Click "Yes". The "Quarantine Restore" window will now state that pigs.exe has been restored from Quarantine.
2. Next, you need to allow PiGS through the Norton Firewall.
  - A. Start Norton.
  - B. Go into Settings. Then select Firewall, then Program Control.
  - C. Click Add, to add a program.
  - D. Select the pigs.exe file, from the directory that you unZIPped it into.
  - E. On the right side, select "Manual Configure (recommended)". Click OK.
  - F. An "Add Rule" screen will appear. Click "Allow", then Next.
  - G. Select "Connections to and from other computers", then Next.
  - H. Select "Any Computer", then Next.
  - I. For "The protocol you want to allow", select "UDP".  
Then select "The rule will apply only if it matches all of the ports below".  
Click "Add". From the drop-down list, select "53", then OK.
  - J. For "Apply rule for NAT traversal traffic", select "If Explicitly requested". Click Next.
  - K. For "What do you want to call this rule" select something relatively explicit. For V1.39 PiGS, I chose "pigs\_v1.39\_UDP".  
Click Next, then Finish.
  - L. Repeat steps C through K for "TCP" and port 80. Specify something like "pigs\_v1.39\_TCP" for step K.
  - M. Click Apply, then Close.
  - N. Run PiGS.
3. The first time I ran PiGS, I got a pop-up from Norton, titled "Threats detected" and "pigs does not have a valid digital signature." The pop-up disappears after about 5 seconds. Click on the "Allow Always" button.