

How To Configure SOLIDWORKS Visualize Boost 2023

TITLE:	How To Configure SOLIDWORKS Visualize Boost 2023
DATE:	September 2022
SUBJECT:	Setup and Configuration of SOLIDWORKS Visualize Boost
ABSTRACT:	Instructions on how to configure SOLIDWORKS Visualize Boost after install



This document has detailed instructions on how to configure SOLIDWORKS Visualize Boost after it has been installed. For instructions on how to install and activate Visualize Boost, please see our [Visualize Boost 2023 Install Guide](#).

Before loading any software, you should always login with full administrative permissions and disable your anti-virus and anti-spyware programs.

This is not a troubleshooting guide. If you have any technical issues with SOLIDWORKS Visualize, please visit our [Help Center](#) or contact [Hawk Ridge Systems Technical Support](#).

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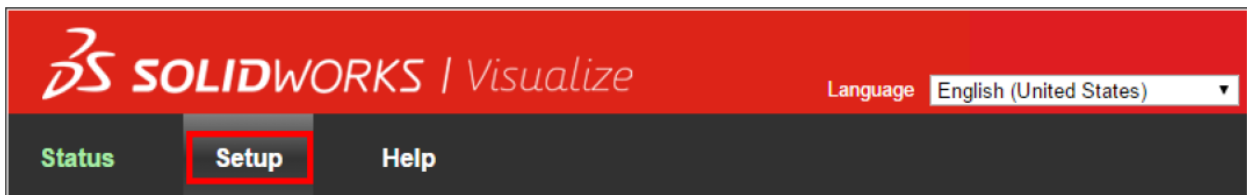
Standalone and Cluster Configuration

After installing and activating Visualize Boost, the software can be used in conjunction with **Visualize Professional** to render projects over your network. For the majority of network setups, Visualize Boost can be used with the default settings. This section will go over how to access the Visualize Boost settings area, in addition to the options that are available for configuring multiple machines running Visualize Boost to be part of a cluster.

In order to access Visualize Boost, do one of the following:

- From the machine hosting Visualize Boost, launch the software via the Visualize Boost shortcut, or navigate to <http://localhost:9031/config.html> in Chrome, Firefox, or Internet Explorer.
- If you are on a client machine, launch Chrome, Firefox or Internet Explorer and navigate to either: **<http://<BOOST MACHINE HOST NAME>:9031/config.html>** or **<http://<BOOST MACHINE IP ADDRESS>:9031/config.html>**

Once the Visualize Boost user interface has loaded, navigate to the **Setup** tab.



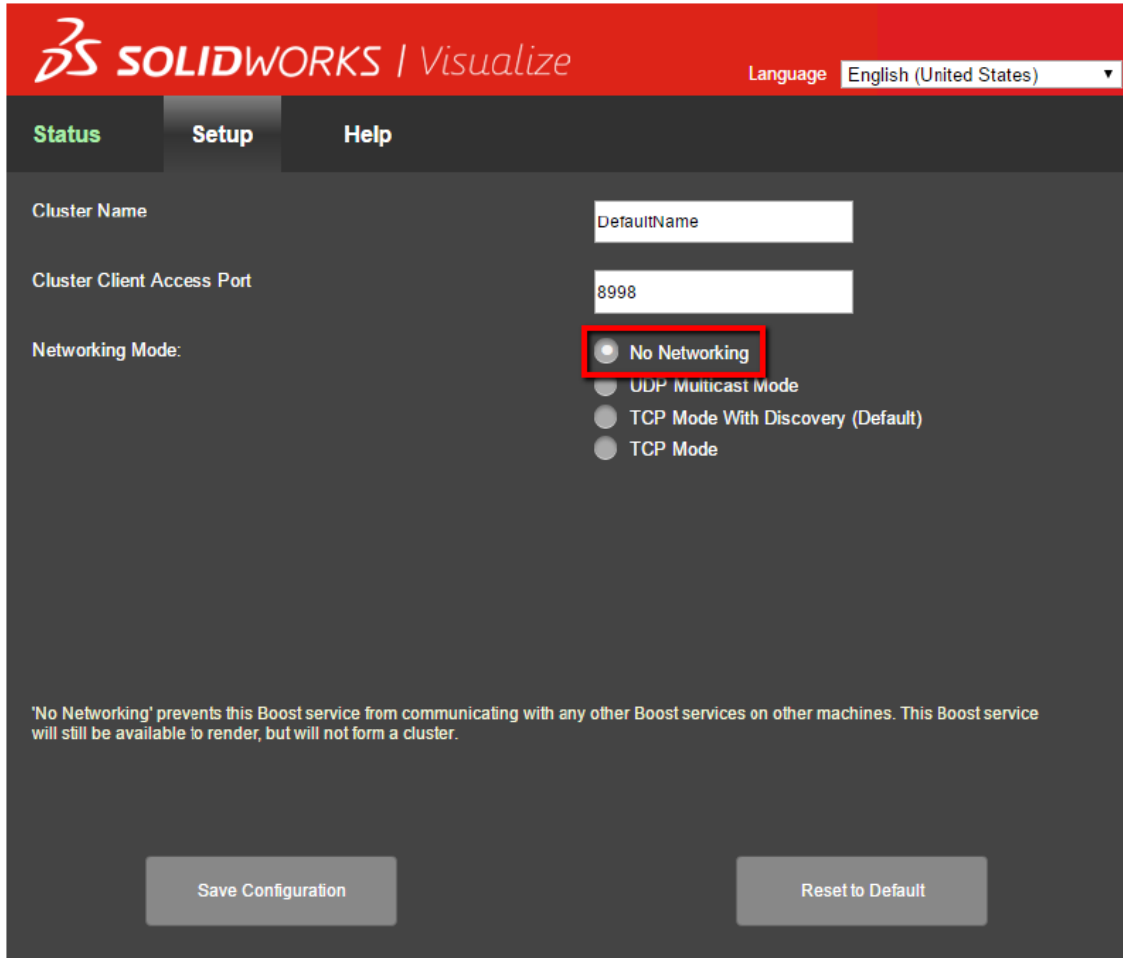
Within the **Setup** area of Visualize Boost, there are three options that can be set.

1. The **Cluster Name** field can be used to change the name of the Visualize Boost cluster. Available Boost clusters can be selected within Visualize Professional. Please see the Utilizing Visualize Boost section for information on how to select a Boost cluster from the client side.
2. Use the **Cluster Client Access Port** field to specify what port will be used when a client install of Visualize Professional connects to a Boost cluster. The default port is **8998**.
3. Within the Networking Mode area, one of four different system modes can be set for Visualize Boost. The default mode for Visualize Boost is TCP Mode with Discovery. Please see the following section for additional information on the differences between each selectable networking mode.

Networking Mode Options

There are four networking modes that can be used with Visualize Boost. An overview of each of these modes is listed below. Please see the illustrations associated with each option for more information on the networking modes.

1. **No Networking.** This mode is used when you do not want the machine hosting Visualize Boost to form a cluster with other Boost machines on your network.



The screenshot shows the SolidWorks Visualize Setup interface. At the top, there is a red header with the SolidWorks logo and the text "SOLIDWORKS | Visualize". To the right of the header, there is a language dropdown menu set to "English (United States)". Below the header, there are three tabs: "Status", "Setup", and "Help". The "Setup" tab is active. The main content area is dark gray and contains the following fields and options:

- Cluster Name:** A text input field containing "DefaultName".
- Cluster Client Access Port:** A text input field containing "8998".
- Networking Mode:** A section with four radio button options:
 - No Networking (highlighted with a red box)
 - UDP Multicast Mode
 - TCP Mode With Discovery (Default)
 - TCP Mode

At the bottom of the setup area, there are two buttons: "Save Configuration" and "Reset to Default".

'No Networking' prevents this Boost service from communicating with any other Boost services on other machines. This Boost service will still be available to render, but will not form a cluster.



- UDP Multicast Mode.** This mode is recommended if your network supports UDP Multicast. Please see your network administrator for more information on your network setup.

The screenshot shows the 'Setup' tab of the SolidWorks Visualize configuration window. The 'Networking Mode' section has four radio button options: 'No Networking', 'UDP Multicast Mode', 'TCP Mode With Discovery (Default)', and 'TCP Mode'. The 'UDP Multicast Mode' option is selected and highlighted with a red rectangular box. Other fields include 'Cluster Name' (DefaultName), 'Cluster Client Access Port' (8998), and 'Cluster Discovery Address' (224.1.1.1:8994). A 'Save Configuration' button is at the bottom left and a 'Reset to Default' button is at the bottom right.

SOLIDWORKS | Visualize Language English (United States)

Status Setup Help

Cluster Name: DefaultName

Cluster Client Access Port: 8998

Networking Mode:

- No Networking
- UDP Multicast Mode**
- TCP Mode With Discovery (Default)
- TCP Mode

Cluster Discovery Address: 224.1.1.1:8994

'UDP Multicast' configures Boost to communicate over Multicast, which is more efficient for large clusters. Some networks do not support this mode. In this mode Boost will form a cluster with any other Boost services configured on the same 'Cluster Discovery Address', which are reachable through UDP Multicast, which is typically your internal network. The 'Cluster Discovery Address' must be a valid Multicast IP Address, in the range 224.0.0.0 to 239.255.255.255, and use a port above 1024. The default address is 224.1.1.1:8994. Some networks do not support UDP Multicast; if this mode does not work try 'TCP Mode With Discovery'.

Save Configuration Reset to Default



- TCP Mode with Discovery.** This is the default networking mode for Visualize Boost. When set, this will attempt to automatically connect all correctly configured Boost machines via TCP.

The screenshot shows the 'Setup' tab of the SolidWorks Visualize interface. The 'Networking Mode' section has four radio button options: 'No Networking', 'UDP Multicast Mode', 'TCP Mode With Discovery (Default)', and 'TCP Mode'. The 'TCP Mode With Discovery (Default)' option is selected and highlighted with a red rectangular box. Other fields include 'Cluster Name' (DefaultName), 'Cluster Client Access Port' (8998), and 'Cluster Discovery Address' (224.2.2.2:8995). A 'Save Configuration' button is at the bottom left and a 'Reset to Default' button is at the bottom right.

SOLIDWORKS | Visualize Language English (United States)

Status Setup Help

Cluster Name DefaultName

Cluster Client Access Port 8998

Networking Mode:

- No Networking
- UDP Multicast Mode
- TCP Mode With Discovery (Default)
- TCP Mode

Cluster Discovery Address 224.2.2.2:8995

'TCP Mode With Discovery' configures Boost to form clusters using TCP communications rather than UDP. The 'Cluster Discovery Address' can either be a valid multicast IP address and port (such as 224.2.2.2:8994), or the address and port another Boost Service you wish to form a cluster with. If using non-multicast addresses, provide one node its own address to make it the head node. For example, if you have machine A with internal IP address '10.0.0.100', and machines B and C on the same network; set each machine's 'Cluster Discovery Address' to '10.0.0.100:8994', or '224.2.2.2:8994'. If using a multicast address does not work, try using specific addresses instead.

Save Configuration Reset to Default



4. **TCP Mode.** Similar to **TCP Mode With Discovery**, this mode allows Visualize Boost machines to communicate via TCP. However, **TCP Mode** grants the ability to input specific machine addresses for configuration as part of a cluster. This mode is **not recommended** unless all other networking modes do not function correctly.

The screenshot shows the 'Setup' tab of the SolidWorks Visualize configuration window. The 'Networking Mode' section has four radio button options: 'No Networking', 'UDP Multicast Mode', 'TCP Mode With Discovery (Default)', and 'TCP Mode'. The 'TCP Mode' option is selected and highlighted with a red box. Other fields include 'Cluster Name' (DefaultName), 'Cluster Client Access Port' (8998), 'Cluster Access Port for TCP Mode' (8996), and 'Cluster Address List' (One IP per line). A 'Save Configuration' button and a 'Reset to Default' button are at the bottom.

TCP Mode configures Boost to form clusters using an explicit list of machine addresses. One node in the cluster should be designated the head node, and it must be provided the addresses of all the other nodes in order to communicate with them. Every other node needs to be in TCP Explicit mode but does not need to list all the other nodes. The 'Cluster Access Port for TCP Mode' option sets the port used by the cluster; the addresses in the head node's address list must specify the same port that each the other node was configured to use. This mode should only be used if 'UDP Multicast' and 'TCP Mode With Discovery' cannot be used successfully, since it is more complicated to configure correctly.

If either the UDP Multicast Mode or the TCP Mode With Discovery are selected, then you will need to input a Cluster Discovery Address. This address will be an IP address followed by a port above 1024. This port will be used for communication between machines hosting Visualize Boost. The following ports are the default for their respective networking modes:

- 8994 for **UDP Multicast Mode**
- 8995 for **TCP Mode With Discovery**
- 8996 for **TCP**

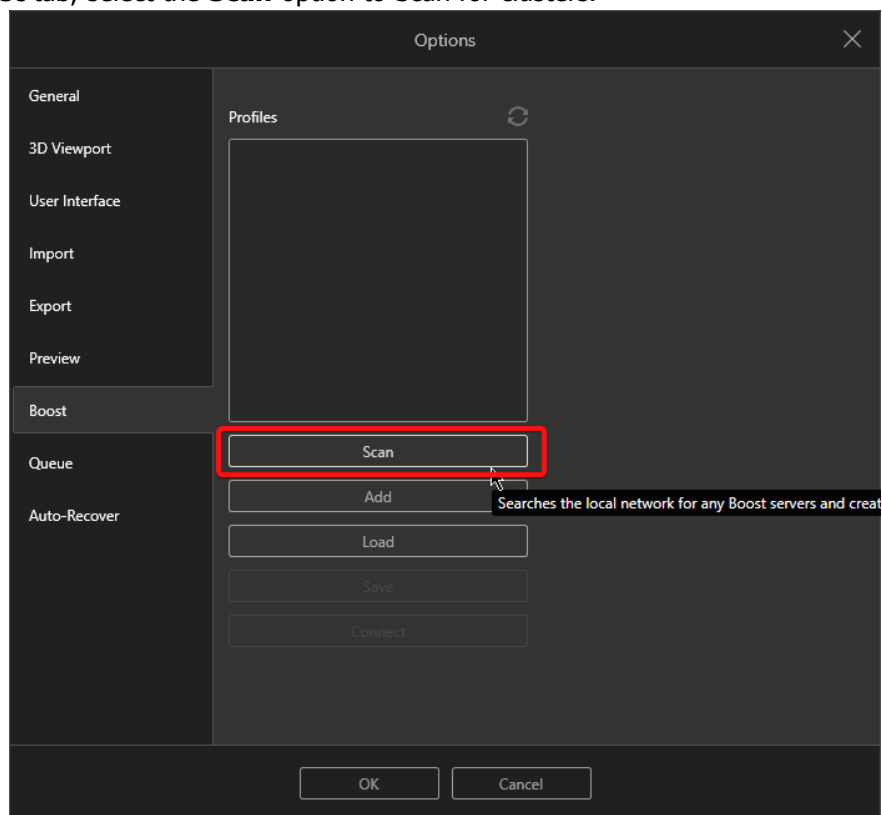
If any changes are made to the Setup area in Visualize Boost, the option for Save Configuration will need to be selected before any changes are implemented. Reset to Default can also be used to set Boost back to the default state.



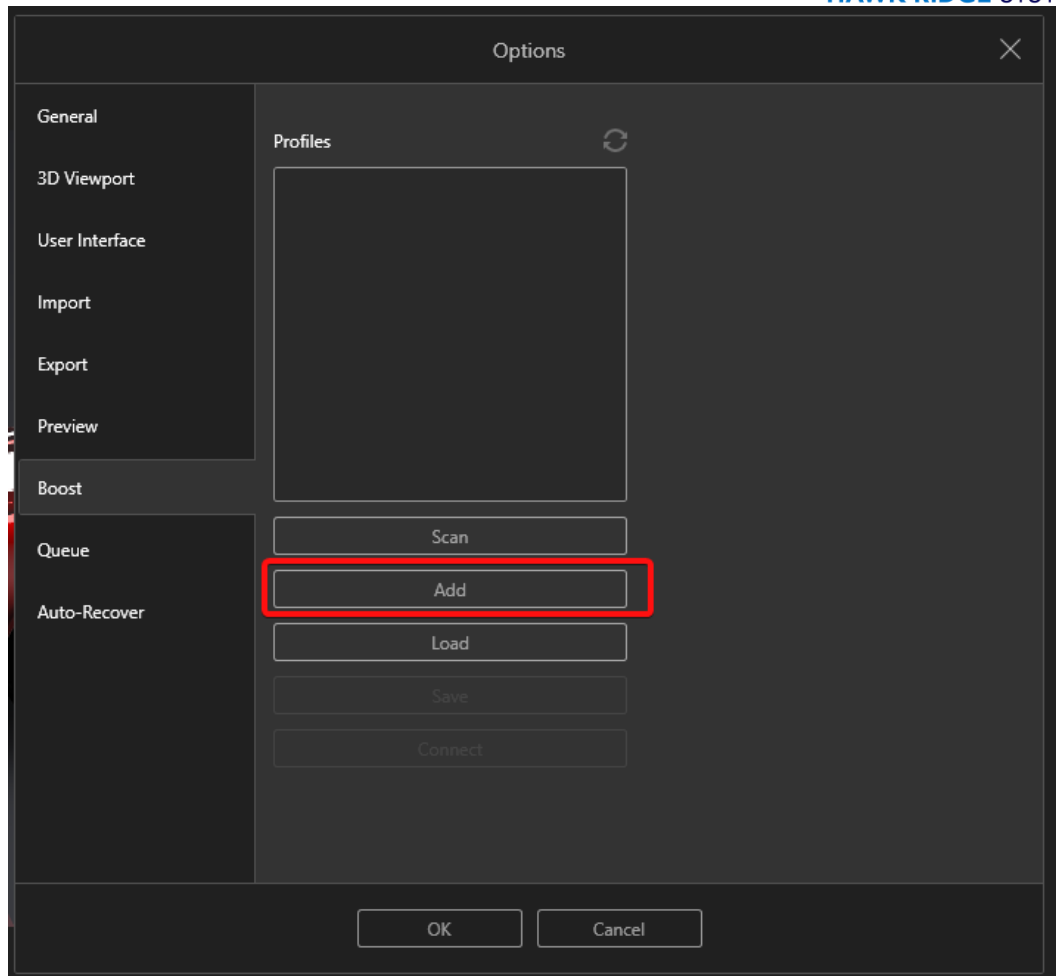
Utilizing Visualize Boost

In order to render with Visualize Boost while using Visualize Professional, please follow the steps listed below to connect to the Boost process.

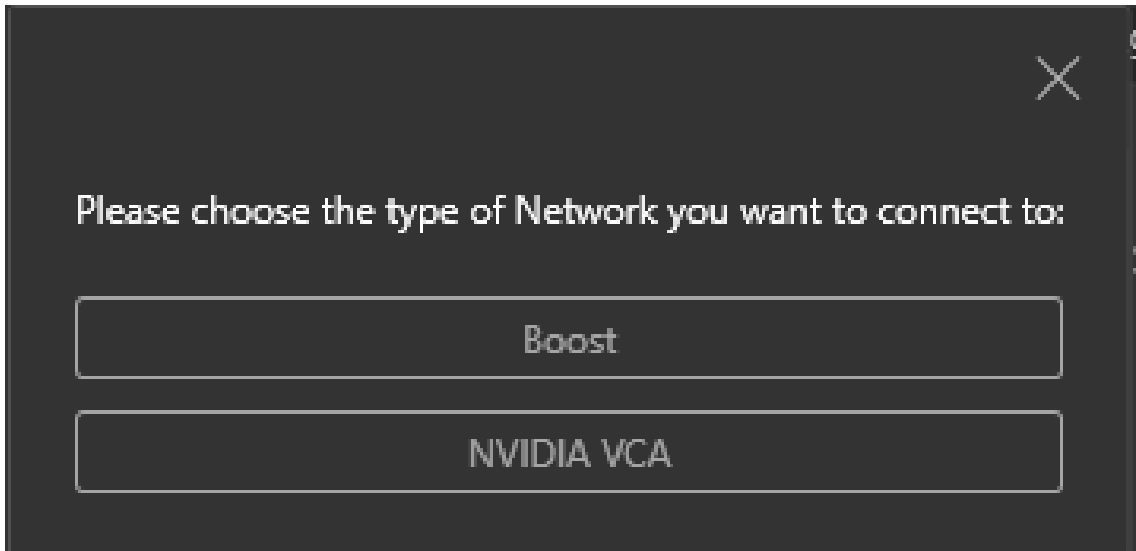
1. Within Visualize Professional, navigate to **Tools > Options > Boost** tab.
2. In the **Boost** tab, select the **Scan** option to Scan for clusters.



3. The name of your Boost cluster should show up under the **Profiles** area. Proceed to **step 6** if the Boost cluster shows up after scanning for it. If the cluster does not show up, click on the **Add** button.



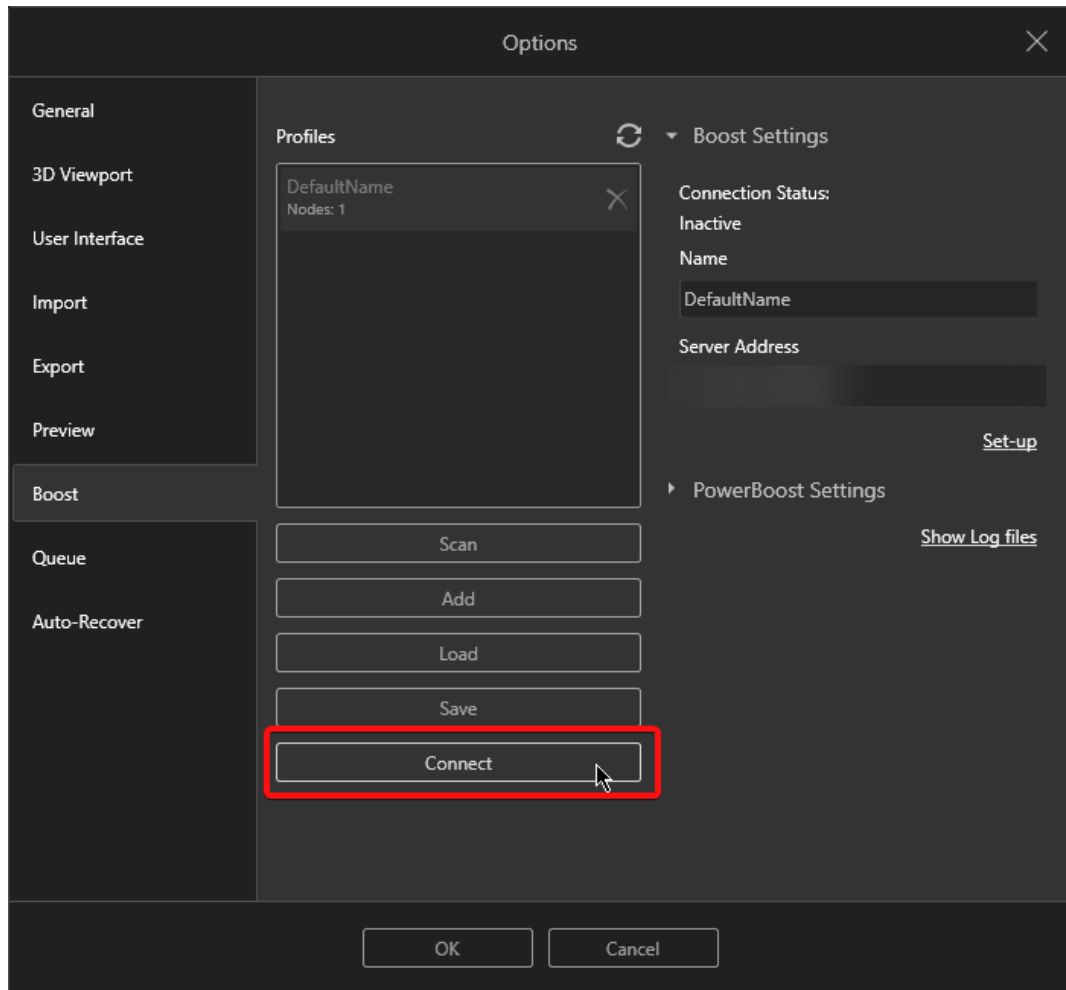
4. In the new window that appears, you will be able to select the cluster type. If your cluster is utilizing NVIDIA VCA, select the **VCA** option. Otherwise, choose **Boost**.



5. Input the name and address of your cluster into the **Name** and **Server Address** fields.

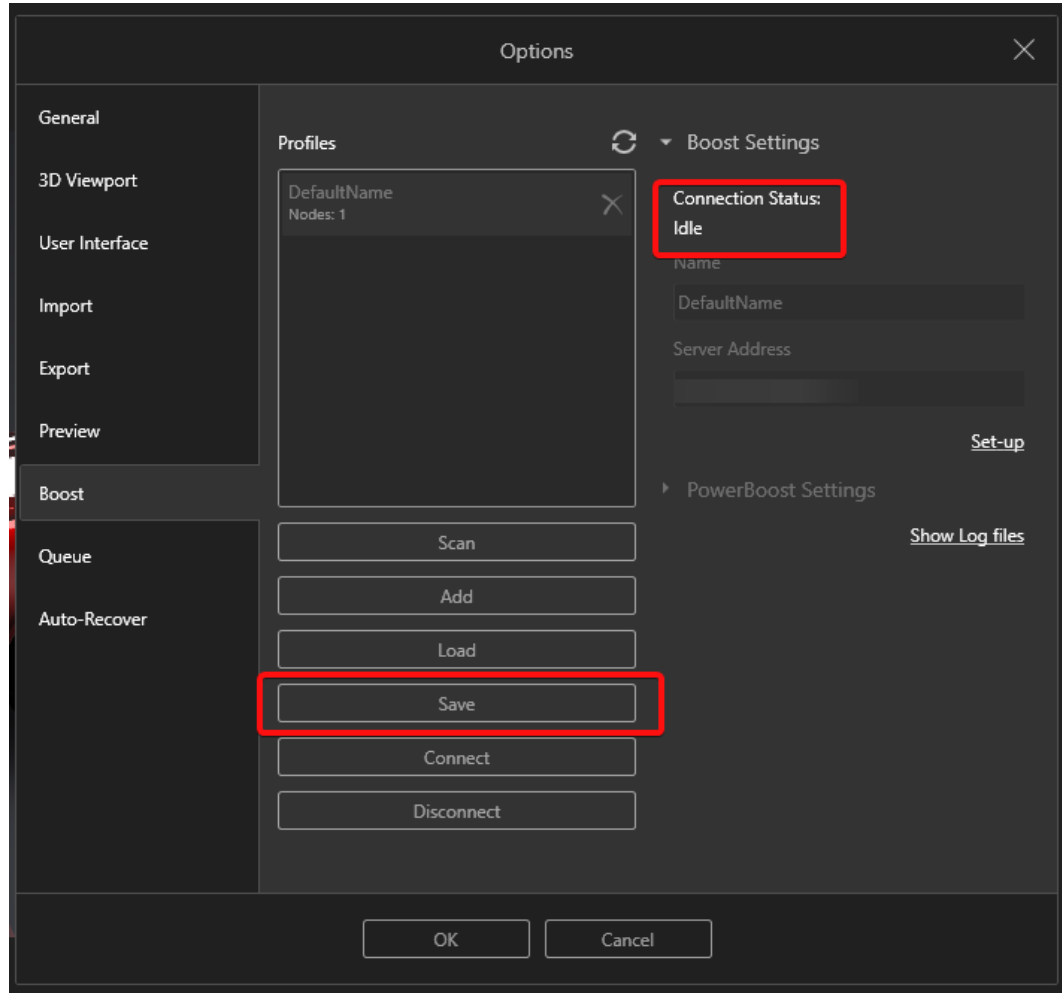


- Click on **Connect** after inputting or verifying the **Name** and **Server Address** of your cluster.





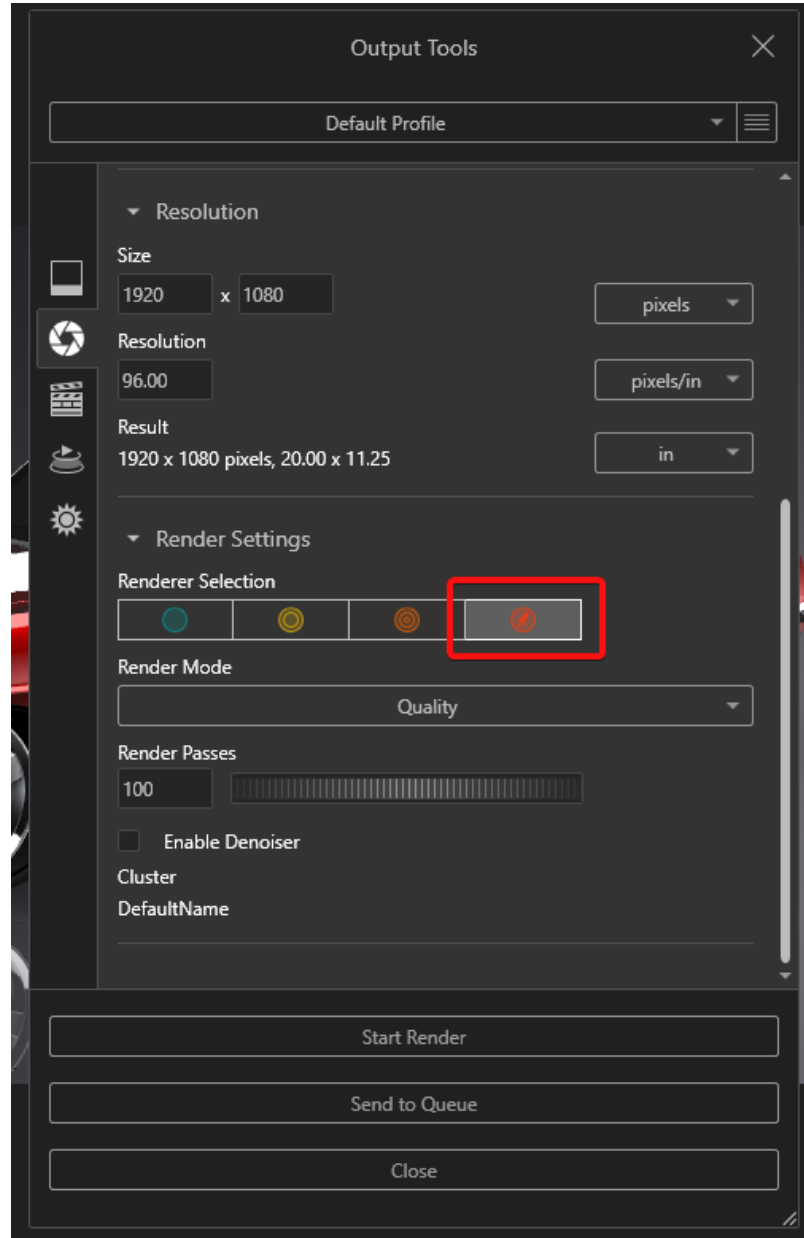
7. You should receive a message stating that the connection was successful. You should also see an updated **Connection Status**. If you would like to save this Boost profile for use on another machine, click on **Save**. From the other PC, click on **Load** to load the saved profile.





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- To use the Boost cluster for rendering, bring up the **Output Tools** window and select the **Boost** icon found under the **Render Settings** section.



For further assistance, please contact our support team at support@hawkridgesys.com, or 877-266-4469 (US) or 866-587-6803 (Canada).