Next Generation Control - Networking Option - Settings - Introduction

This procedure tells you about the settings you use to connect a machine to a wired or wireless network.

These configurations are for example only. The setting values that are necessary to connect to your network can be different. Your network administrator can give you the correct values.

Prerequisites

For general information about wired or wireless networks refer to:

- Haas Machines in a Network.
- Next Generation Control - Wireless Network.
- Next Generation Control - Networking Option - Icons.

Next Generation Control - Wired Network - Connections

This procedure tells you about the settings when you connect a machine with the Next Generation Control to a wired network.

STEP 1

Push [SETTING].

Select the Network tab [1].


The display shows the values of the settings and other important information. Change these settings when you use a LAN cable to connect the machine to a computer network.

Go to Step 2 for more information on these settings.
STEP 2

Wired Network Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>*</td>
<td>The wired connection is disabled.</td>
</tr>
<tr>
<td>Status</td>
<td>UP</td>
<td>The machine is connected to a wired network.</td>
</tr>
<tr>
<td>Status</td>
<td>DOWN</td>
<td>The machine is not connected to a wired network.</td>
</tr>
<tr>
<td>Status</td>
<td>UNKNOWN</td>
<td>The <strong>Wired Network Enabled</strong> setting is set to <strong>On</strong> but the status cannot be determined. Make sure the ethernet cable is connected.</td>
</tr>
</tbody>
</table>

Wired Network Settings

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wired Network Enabled</td>
<td>Set this value to <strong>ON</strong> to start the wired network connection.</td>
</tr>
<tr>
<td>Obtain Address Automatically</td>
<td>Set this value to <strong>ON</strong> when a DHCP server is available.</td>
</tr>
<tr>
<td></td>
<td>Set this <strong>OFF</strong> for a static IP address.</td>
</tr>
<tr>
<td>IP Address</td>
<td>The machine's static TCP/IP address on a network without a DHCP server.</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>The subnet mask value for machines with a static TCP/IP address.</td>
</tr>
<tr>
<td>Default Gateway</td>
<td>An address to gain access to your network through routers.</td>
</tr>
<tr>
<td>DNS Server</td>
<td>Enter the Domain Name Server or DHCP server on the network.</td>
</tr>
</tbody>
</table>

Function Keys

<table>
<thead>
<tr>
<th>Function key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3 Discard Changes</td>
<td>Push [F3] to discard all changes.</td>
</tr>
<tr>
<td>F4 Apply Changes</td>
<td>Push [F4] to apply the changes.</td>
</tr>
</tbody>
</table>

STEP 3

**Enable the wired network:**

Select **Wired Network Enabled** [1].

Push the right **CURSOR** arrow.

Select **ON** [2].

Push [ENTER].

To obtain the IP address automatically, go to Step 4.

To use a static IP address, go to Step 5.
STEP 4

Obtain the IP address automatically:

Select Obtain Address Automatically [1].

Push the [RIGHT] CURSOR arrow.

Select ON [2].

Push [ENTER].

Push [F4] [3] to apply the changes.

Go to Net Share to configure the remote and local net share settings. Refer to Next Generation Control - Net Share for more information.

STEP 5

Use a static IP address:

Make sure Obtain Address Automatically is set to OFF [1].

Select IP Address [2].

Type the IP Address.

Push [ENTER].

Enter values for: Subnet Mask, Default Gateway, and DNS Server [3].

Push [F4] [4] to apply the changes.

Go to Net Share to configure the remote and local net share settings. Refer to Next Generation Control - Net Share for more information.
This procedure tells you about the settings you use to connect a machine with the Next Generation Control to a wireless network.

**Prerequisites**

The machine can connect to a 2.4 GHz, 802.11b/g/n wireless network.

*Note:* 5 GHz wireless networks are not supported.

Before you begin, ask your network administrator if your network has a Dynamic Host Configuration Protocol (DHCP) server. If it does not have a DHCP server, collect this information:

- The IP address that your machine will use on the network
- The subnet Mask address
- The Default Gateway address
- The DNS Server name

You also need this information:

- The SSID for your wireless network
- The password to connect to your secured wireless network

*Note:* Make sure that SSID broadcasting is enabled on your wireless network. The Connection Wizard can not find networks with SSID broadcasting disabled.

**STEP 1**

Push **[SETTING]**.

Select the **Network** tab [1].

Select the **Wireless Connection** tab [2].


*Note:* Make sure that SSID broadcasting is enabled on your wireless network. The Connection Wizard can not find wireless networks that have SSID broadcasting disabled.

The display shows the values of the settings, the **MAC Address**, **Status** and other important information.

Go to Step 2 for more information on these settings.
### STEP 2

**Wireless Network Status**

<table>
<thead>
<tr>
<th>Status</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>*</td>
<td>The wireless connection is disabled.</td>
</tr>
<tr>
<td>Status</td>
<td>UP</td>
<td>The machine is connected to a wireless network.</td>
</tr>
<tr>
<td>Status</td>
<td>DOWN</td>
<td>The machine is not connected to a wireless network.</td>
</tr>
<tr>
<td>Status</td>
<td>DORMANT</td>
<td>The machine is waiting for external action. Typically it is waiting for association or authentication with the access point.</td>
</tr>
</tbody>
</table>

**Function Keys**

<table>
<thead>
<tr>
<th>Function Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>[F2] Disconnect and refresh access points</td>
<td>Push [F2] to disconnect from the wireless network and show the available wireless networks.</td>
</tr>
</tbody>
</table>

### STEP 3

The Connection Wizard displays a list of available networks, with their signal strengths and security types. 64/128 WEP, WPA, WPA2, TKIP, and AES are supported.

Select the **Wireless SSID** for network [1] you want to connect to.

Push the [RIGHT] CURSOR arrow.
STEP 4

Type the network password [2]. This is case-sensitive.

⚠️ Note: Do not enter a password if the network does not require one.

Set **DHCP Enabled** to **On** [3].

⚠️ Note: Set **DHCP Enabled** to **Off** to manually set up the network.

Push **[F4]** To connect after configuring network settings [1].

Wait until the **Status** changes from **DOWN** to **UP**.

Go to **Net Share** to configure the remote and local net share settings. Refer to **Next Generation Control - Net Share** for more information.

**Next Generation Control - Net Share**

This procedure tells you about the settings for Net Share.

STEP 1

Push **[SETTING]**.

Select the **Network** tab [1].

Select the **Net Share** tab [2].

Go to Step 2 for more information on these settings.
### Remote Net Share

A **Remote Net Share** connection gives the control access to a shared folder on the network.

### Local Net Share

A **Local Net Share** connection gives a computer on the network access to the control's **User Data** directory.

### Remote Net Share

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UP</strong></td>
<td>The machine is connected to a shared folder on the network. Push [List Prog]. Select <strong>Net Share</strong> to folder.</td>
</tr>
<tr>
<td><strong>DOWN</strong></td>
<td>The machine is not connected to a shared folder on the network.</td>
</tr>
</tbody>
</table>

### Local Net Share

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UP</strong></td>
<td>The <strong>User Data</strong> directory on the control is accessible to computers on the network. Remote users can log in and access files on the <strong>User Data</strong> folder. Use the <strong>Local User Name</strong> and the <strong>Local Password</strong> to log in from a computer.</td>
</tr>
<tr>
<td><strong>DOWN</strong></td>
<td>The <strong>User Data</strong> directory on the control is not accessible to computers on the network.</td>
</tr>
</tbody>
</table>
### STEP 3

**Network Share Settings**

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CNC Network Name</strong></td>
<td>The name of the machine on the network. The default value is <strong>HAASMachine</strong>, but you must change this so that each machine on the network has a unique name.</td>
</tr>
<tr>
<td><strong>Domain/Workgroup Name</strong></td>
<td>The name of the <strong>Domain</strong> or <strong>Workgroup</strong> that the machine belongs to.</td>
</tr>
<tr>
<td><strong>Remote Net Share Enabled</strong></td>
<td>Activates or deactivates <strong>Net Share</strong> on the machine.</td>
</tr>
<tr>
<td><strong>Remote Server Name</strong></td>
<td>The remote network name or IP address of the computer that has the shared folder.</td>
</tr>
<tr>
<td><strong>Remote Share Path</strong></td>
<td>The name of the shared folder on the network. Note: Do not use spaces in the shared folder name. The full path of the shared folder is not necessary. Only enter the name of the shared folder. Do not use forward slashes.</td>
</tr>
<tr>
<td><strong>Remote User Name</strong></td>
<td>The <strong>User Name</strong> that is used to log in to the remote server or domain. User names are case-sensitive and cannot contain spaces.</td>
</tr>
<tr>
<td><strong>Remote Password</strong></td>
<td>The password to use to log in to the remote server. Passwords are case-sensitive.</td>
</tr>
<tr>
<td><strong>Local Net Share Enabled</strong></td>
<td>Activates and deactivates access to the <strong>User Data</strong> directory on the control.</td>
</tr>
<tr>
<td><strong>Local User Name</strong></td>
<td>The <strong>Local User Name</strong> is &quot;<strong>haas</strong>&quot; and cannot be changed. This is the user name that is used when you log into the <strong>User Data</strong> directory on the control from a network computer.</td>
</tr>
<tr>
<td><strong>Local Password</strong></td>
<td>Create and enter a password in this setting. This password is used when you log into the <strong>User Data</strong> directory on the control from a network computer.</td>
</tr>
</tbody>
</table>

**Function Keys**

<table>
<thead>
<tr>
<th>Function key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>[F3] Discard Changes</td>
<td>Push [F3] to discard all changes made to the field boxes.</td>
</tr>
<tr>
<td>[F4] Apply Changes</td>
<td>Push [F4] to apply the changes made to the field boxes</td>
</tr>
</tbody>
</table>

### STEP 4

Do this step to enter a value for **CNC Network Name**.

Select **CNC Network Name**.

Enter a unique name for the machine.

Push [Enter].
**STEP 5**

Do this step to enter a value for **Domain/Workgroup Name**.

Select **Domain/Workgroup Name**.

Enter the domain/workgroup name network name.

Push [Enter].

**Conclusion**

To set up local net share, refer to **Next Generation Control - Net Share - Local**.

To set up remote net share, refer to **Next Generation Control - Net Share - Remote**.

**Next Generation Control - Net Share - Local**

A **Local Net Share** connection gives computers on the network access to the control’s **User Data** directory.

**STEP 1**

Make sure **Local Net Share Enabled** [1] is set to **On**.

Make sure you enter a **Local Password** [2].

⚠️ **Note**: Use this password on the computer to access the **User Data** directory.

Push [F4] to apply changes.

**STEP 2**

Get the **IP Address** [1] of the connection.

This is in the Wired Connection tab or Wireless Connection tab.
STEP 3

On a computer on the network, use the Start menu to open a Run [1] command.

Enter the IP Address from the machine in the format shown [2]. Select OK [3].

The Windows Security prompt shows.

Type haas [4] for the user name.

Type your Local Password [5].

Select OK [6].

STEP 4


A Remote Net Share connection gives the control access to a folder on the computer that is on the network. This procedure shows you how to create a shared folder and connect this folder to the machine. The examples in this procedure are shown on the Windows 10 operating system. You can do this procedure on Windows XP or Windows 7.

STEP 1

Click on the search bar at the bottom left of the screen.

Type [sharing] in the search bar.

Click on Manage advanced sharing settings [1].
STEP 2

If the All Networks prompt [1] does not appear on this screen, skip this step and press Cancel.

Click on the arrow from the All Networks prompt [1] to expand the list of network settings.

Select Turn off password protected sharing [2].

Click on Save Changes [3].

Note: Your computer may ask you to log out and log in for the changes to take effect.

If the All Networks prompt [1] or the Turn off password protected sharing prompt [2] does not appear on this screen, skip this step.

STEP 3

Choose the folder that you want to share. This example uses the folder “NGCSimulator.” Be sure the name of the folder does not have any spaces.

Right click on the folder and select Properties [1].

STEP 4

In the properties screen, select Sharing [1].

Click Advance Sharing [2].
**STEP 5**

Click on the box next to **Share this folder** [1]. Be sure the check mark appears.

Click **Permissions** [2].

**STEP 6**

Go to the **Allow** [2] column. Click on the box [3] next to **Full Control** [1]. Be sure the check mark appears.

Click **Apply** [5].

Click **Okay** [4].

**STEP 7**

In the properties screen, click **Share** [1].
STEP 8

Click the arrow [2] and select Everyone [1].

Click Add [3].

Click the arrow next to Read.

Change the permission to Read/Write [4].

Click Share [5].

STEP 9


Enter all the necessary information for a remote connection:

- **Remote Server Name**: Remote network name or IP address of the computer that has the shared folder.
- **Remote Share Path**: Name of the shared folder on the network.

**Note**: Do not use spaces in the shared folder name. The full path of the shared folder is not necessary. Only enter the name of the shared folder. Do not use forward slashes.

- **Remote User Name**: The user name used to log in to the computer. The user name is case-sensitive and cannot contain spaces.
- **Remote Password**: The password used to log in to the computer. The password is case-sensitive.

Push [F4] to apply changes.

STEP 10

Open the shared folder on the computer. This example shows a folder named NGCSimulator [1].