



Device Director User Guide

geistglobal.com



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Introduction

Device Director is a convenient tool for commissioning new Geist devices, firmware updates and bulk settings changes.

Welcome

Notice to Users

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Geist products adhere to the Buy American provisions of the American Recovery and Reinvestment Act of 2009 (Recovery Act). All Geist goods manufactured in our Lincoln, Nebraska, plant have undergone substantial transformation during production.

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This document details Geist's corporate policy regarding the use of conflict minerals. The policy expressed in this document should be considered to cover the Geist and Geist Europe divisions of PCE Inc.

Section 1502 of the Dodd-Frank Act which was passed by the US Congress in 2010 requires certain companies to annually disclose their use of conflict minerals. Conflict minerals covered under this act include tantalum, tin, tungsten, and gold.

Although Geist is not directly subjected to the requirements of the Dodd-Frank Act, Geist recognizes that all companies within the electronics manufacturing industry supply chain are impacted by this legislation. Geist supports the intent of the law, which is the reduction of violence within the Democratic Republic of the Congo and will take several actions to both advance the goals of the Dodd-Frank Act and to provide exceptional support to our customers.

- Geist will work with our direct suppliers to identify purchased components and materials that contain tin, tantalum, tungsten or gold.
- Geist will work with our direct suppliers to trace sources of any tin, tantalum, tungsten or gold used in our products back to the smelter.
- Geist will document our efforts to trace tin, tantalum, tungsten, and gold minerals back to the smelter and will accurately report the results to our customers.
- Geist will continue to monitor industry progress in identifying conflict-free smelters and will adjust corporate policy as the electronics supply chain becomes more fully documented.

Geist will not require that our direct suppliers source only conflict-free minerals until an adequate number of smelters has been reliably identified and audited by The Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI) to service the electronic industry supply chain. Mandating a conflict-free supply chain before an adequate number of smelters has been identified will prohibit the use of all tin, tantalum, tungsten, and gold originating in the Democratic Republic of the Congo and surrounding countries. This prohibition would cut off the sole income source for many artisanal miners within the region and may result in increased violence within the Democratic Republic of the Congo in direct opposition to the goals of the Dodd-Frank Act. Geist will work continuously with our direct suppliers in order to annually increase the percentage of documented conflict-free minerals that are used in our products until all products can be certified as conflict-free.

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Geist Europe is obligated to finance the cost of the collection, treatment, recovery and environmentally sound disposal of all products sold by Geist Europe into the UK market this includes:

- New WEEE (displaying ‘the crossed out wheeled bin symbol’) that Geist Europe has placed onto the market after the 13th August 2005; and
- Historic WEEE (not displaying ‘the crossed out wheeled bin symbol’), when Geist Europe is supplying new WEEE that is intended to replace the historic WEEE and is of equivalent type or fulfills the same function even if the historic WEEE was manufactured by a third party.

Please contact Geist Europe on 01823 275100 for further details or to arrange collection. (UK Only)

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About this Manual

This document provides an overview of Geist product(s), the major topics covered include:

- Copyright, Trademarks, and Disclosure Restrictions.
- Instructions for installing and using the software.
- Information that will aid in managing and maintaining the software.

Revision History

Revision	Date	Notes	Approved By
1.0	3/23/2017	Initial Version	JW
1.1	2/7/2018	Feature Updates	JB

Audience Profile

This document is intended for use by authorized technicians experienced with same or similar product types and for personnel requiring guidance for equipment installation, operation, maintenance and support.

On-line Documentation

This document is available on-line and within the corresponding [Geist Product Manuals](#). Additional Geist product supporting [Videos](#), [Product Literature](#) and [Case Studies](#) can be found on the [Geist Resource](#) page.

Product firmware updates can be found and downloaded from the [Geist Support](#) site, under [Firmware Updates](#).

Should this product fail within its warranty period and be in need of repair or replacement, a Return Material Authorization may be obtained on-line from the [RMA Form](#) link located within the [Geist Support](#) site.

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Should you discover any error or identify a deficiency in this document, please take time to contact us at the following email address:

Geist-Documents@geistglobal.com

Please be sure to provide us with the document name, part number, and page number(s). Also, please provide us with description of the error or the deficiency for the document. If you would like for us to contact you, please provide us with your name and contact information.

Thank you for your time. We appreciate any comments and feedback you can provide.

Supported Product Versions

Device Director may be used with Geist Upgradeable and R-Series v3/v4/v5 Power Distribution Units (PDUs), as well as Watchdog 15/100/1000/1200/1250/1400 environmental monitors.

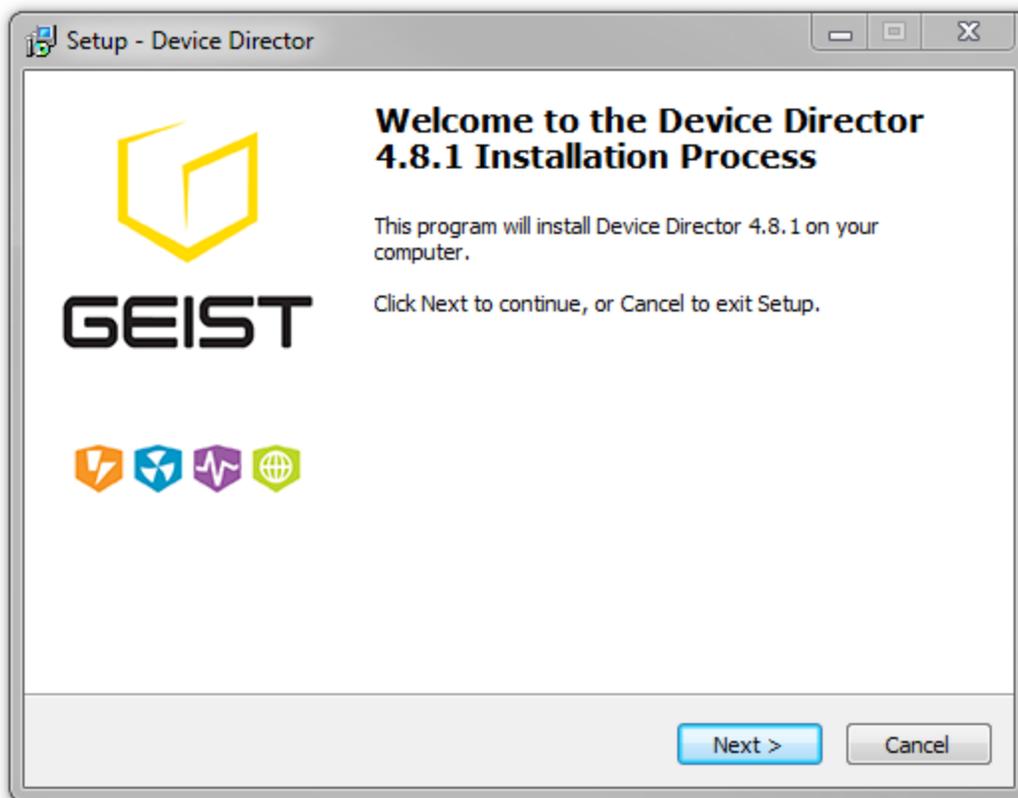
	Geist Discovery	Import by IPv4 Address	Firmware Updates	Edit Settings
Geist Upgradeable v2				
5.3.x and higher	X	X	X	X
Geist Upgradeable v1				
3.4.x and higher	X	X	X	X
2.1.x - 3.3.x		X	X	X
2.0.x		X	X	
R-Series v5				
5.2.x and higher	X	X	X	X
5.0.x - 5.1.x		X	X	X
R-Series v4				
4.3.x - 4.4.x		X	X	X
R-Series v3				
3.15.x - 3.16.x		X	X	
Watchdog 15/100				
3.4.0 and higher	X	X	X	X
3.0.x - 3.3.x		X	X	X
Watchdog 1000/1200/1250/1400				
3.15.x - 3.16.x		X	X	

Chapter 1: Installation

Click on the Device Director executable to begin installation (for example, DeviceDirector-4.8.1_setup_x64.exe).

Follow the onscreen prompts to accept the End User License Agreement (EULA), accept or change the install location and set shortcut options. Device Director will be installed according to the settings chosen.

Figure 1-1 Device Director Install Screen



Start Up

Once Device Director is installed, it can be started by clicking the icon in the Start menu or the Desktop (depending on user selected options during installation).

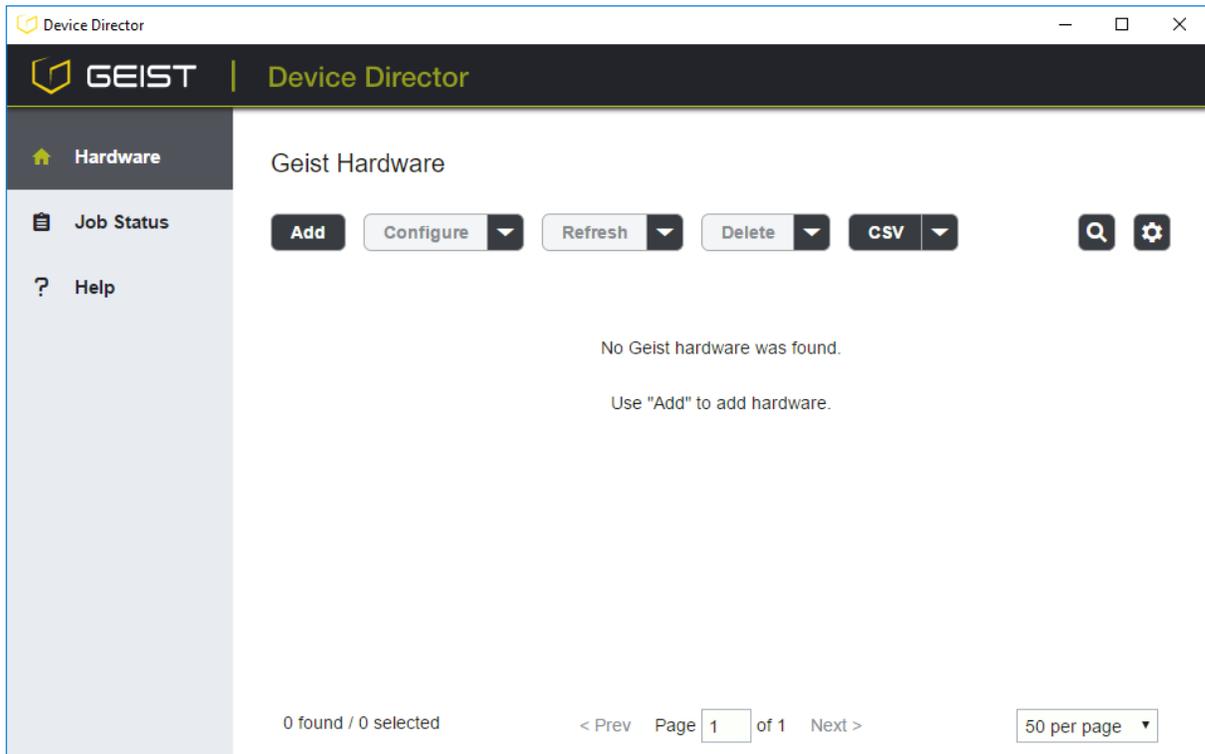
Device Director takes a few seconds to start, during which time the following screen provides progress updates.

Figure 1-2 Device Director Start-Up Screen



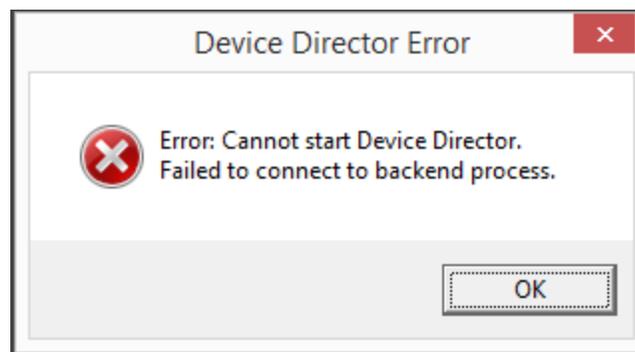
Device Director should start without issue and display the home page.

Figure 1-3 Device Director Home Page



If Device Director encounters a problem during start-up, an error will be displayed as shown below.

Figure 1-3 Device Director Start-Up Error Screen



On occasion, Device Director's backend start-up process does not start up quickly enough due to other processing that is temporarily consuming substantial resources on the computer; therefore, if the above error screen occurs, try starting Device Director again to resolve the issue. Another potential cause could be that the firewall on the machine is blocking access to port 9000, which is required for Device Director to function; if so, allowing access to this port

should solve the problem. If the issue remains after trying these recommended solutions, contact [Geist Support](#) for further assistance.

Chapter 2: Hardware Page

This table lists all hardware units known to Device Director. Hardware may be added, updated and deleted from this view.

Figure 2-1 Hardware Page with Example Data

Geist Hardware

<input type="checkbox"/>	Last Connect	IPv4 Address	Firmware Version	System Label	Model Name
<input type="checkbox"/>	✓	10.0.30.1	3.2.0	PDU-01	Upgradeable v1
<input type="checkbox"/>	✓	10.0.30.2	3.2.0	PDU-02	Upgradeable v1
<input type="checkbox"/>	✓	10.0.30.3	3.2.0	PDU-03	Upgradeable v1
<input type="checkbox"/>	✓	10.0.30.30	3.2.0	PDU-30	Upgradeable v1
<input type="checkbox"/>	✓	10.0.30.31	3.2.0	PDU-31	Upgradeable v1
<input type="checkbox"/>	✓	10.0.30.33	3.2.0	PDU-33	Upgradeable v1

6 found / 0 selected < Prev Page 1 of 1 Next > 50 per page ▾

Search by clicking the  button at the upper right of the table.

Figure 2-2 Search Dialog Box

Search Reset

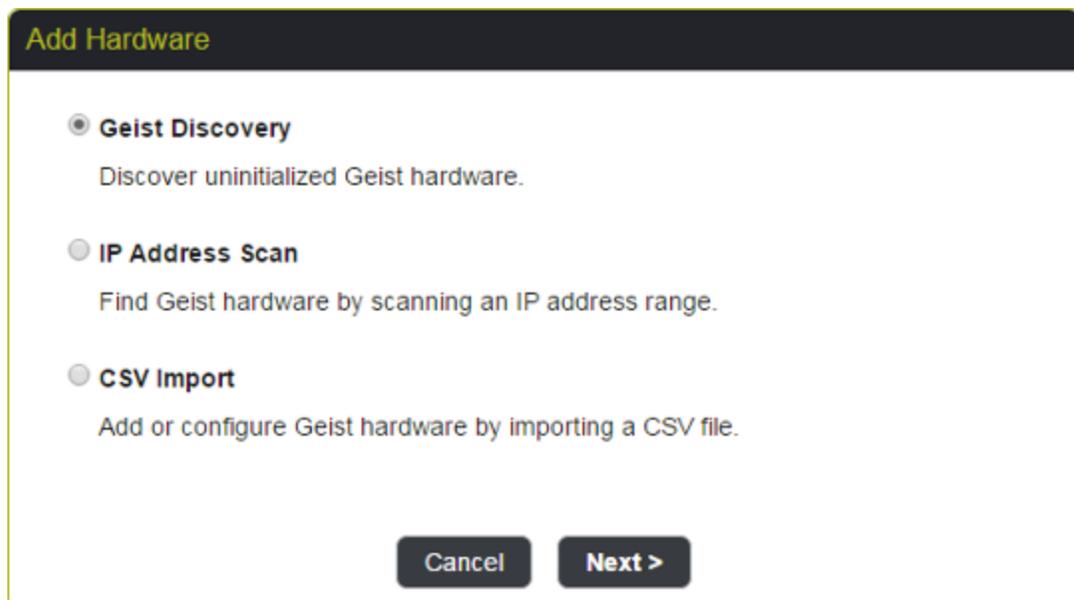
+ Add Criteria

- Items in the table can be searched by any combination of criteria. When search results are being displayed, the search button is green , indicating there are active search criteria.
- All search criteria can be quickly cleared by clicking **Reset** at the upper right of the search dialog. When all criteria have been reset, clicking Search will restore the table to showing all items, and the search button will return to its normal color.

- **Columns:** clicking the  button at the upper right of the table opens a dialog for selecting which columns to show or hide.
- **Pagination:** item and page counts for the table are displayed at the bottom of the screen. While the number of items to show per page can be changed at the lower right of the screen, note that selecting to show a large number of items per page may slow down performance, depending on the capacity of the machine running Device Director.

Add

Figure 2-3 Add Hardware Prompt: Choose how to add hardware



- **Geist Discovery:** discover uninitialized Geist hardware, usually with the intent of commissioning it, using a proprietary protocol.
- **IP Address Scan:** find hardware that has been assigned a valid IPv4 address (manually or via DHCP), that may or may not be fully commissioned. Found hardware can then be added to Device Director for management.
- **CSV Import:** add or update hardware using information from a spreadsheet. A CSV Import template can be obtained by exporting the current list of hardware (an empty template is exported if no hardware is in Device Director).

Geist Discovery

Add hardware by Geist Discovery - step 1 of 5: discovery settings

Figure 2-4 Geist Discovery Tool

The screenshot shows the 'Geist Discovery: Settings' window. It is divided into two main sections: 'Hardware Models to Discover' and 'Broadcast Settings'. In the 'Hardware Models to Discover' section, five items are listed with checked checkboxes: 'Upgradeable v2 PDUs', 'Upgradeable v1 PDUs', 'R-Series v5 PDUs', 'Watchdog 15 Environmental Monitors', and 'Watchdog 100 Environmental Monitors'. The 'Broadcast Settings' section has three radio buttons: 'IPv6 Multicast' (selected), 'Target IPv4 Addresses', and 'Target MAC Addresses'. Below the radio buttons are input fields: '192.168.123.255' for Target IPv4 Addresses, 'FF:FF:FF:FF:FF:FF' for Target MAC Addresses, and '10' for Timeout (seconds). At the bottom, there are three buttons: 'Cancel', '< Back', and 'Discover'. A note at the bottom of the window states: 'With default timeout of 10 seconds, discovery typically takes about 30 seconds.'

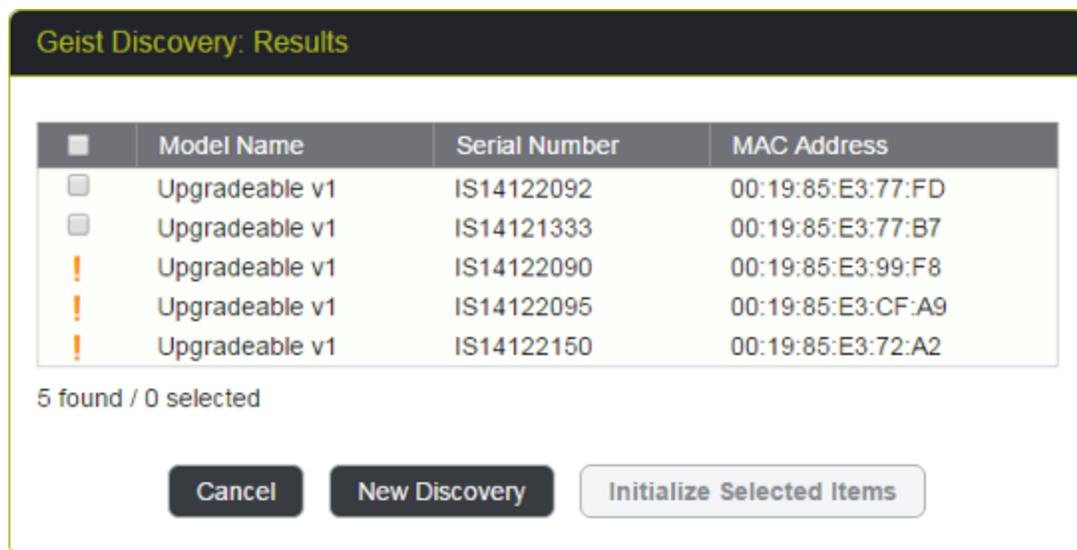
- **Hardware Models to Discover:** select the types of hardware that should be discovered.
- **Broadcast Settings:** select how the discovery broadcast will be issued. Only one network card should be enabled on the machine running Device Director when the broadcast is made, and switches within the network must be configured to allow broadcasts through.
 - **IPv6 Multicast:** allows the broadcast to be made without having to set the machine running Device Director to be on the same IPv4 subnet as the hardware to be discovered. Note that this does require the network card of the machine running Device Director to be enabled for IPv6 and configured for DNS.
 - **Target IPv4 Addresses:** should be set to the subnet broadcast of the hardware to discover (typically 192.168.123.255 for factory default hardware). Note that the

machine running Device Director must also be assigned an IPv4 address on this subnet.

- **Target MAC Addresses:** one MAC address or a comma-separated list of MAC Addresses to be targeted by the discovery. This field may be used to limit which hardware units respond to the broadcast.
- **Timeout:** sets how long to wait for responses after the broadcast is made.

Add hardware by Geist Discovery - step 2 of 5: select from discovery results

Figure 2-5 Example of Geist Discovery Tool Results List



<input type="checkbox"/>	Model Name	Serial Number	MAC Address
<input type="checkbox"/>	Upgradeable v1	IS14122092	00:19:85:E3:77:FD
<input type="checkbox"/>	Upgradeable v1	IS14121333	00:19:85:E3:77:B7
!	Upgradeable v1	IS14122090	00:19:85:E3:99:F8
!	Upgradeable v1	IS14122095	00:19:85:E3:CF:A9
!	Upgradeable v1	IS14122150	00:19:85:E3:72:A2

5 found / 0 selected

Cancel New Discovery Initialize Selected Items

Possible hardware states illustrated in the table above:

- Row 1 - no admin exists, DHCP on but no lease.
- Row 2 - no admin exists, DHCP off, static IP is factory default.
- Row 3 - admin exists, DHCP on but no lease.
- Row 4 - admin exists, DHCP off, static IP is factory default.
- Row 5 - admin exists, DHCP off, no static IPs.

Units displayed with an exclamation point instead of a checkbox (rows 3-5 above) cannot be initialized using Device Director. These units are in a state that requires a full factory reset before they can be initialized.

Select the hardware items to initialize and click **Initialize Selected Items**.

Add hardware by Geist Discovery - step 3 of 5: IPv4 addressing

Figure 2-6 Initialize Hardware IPv4 Addressing Screen

Initialize Hardware: IPv4 Addressing

2 selected

Model Name	Serial Number	MAC Address
Upgradeable v1	IS14122092	00:19:85:E3:77:FD
Upgradeable v1	IS14121333	00:19:85:E3:77:B7

Use DHCP to assign IPv4 addresses

Assign static IPv4 addresses

Start . . .

Increment .

Prefix

Gateway . . .

It is possible to assign IPv4 addresses statically or using DHCP.

- **Start:** the first IP address in the range of addresses to use for assigning to discovered hardware units.
- **Increment:** used to calculate the next IP address to assign, from the start address and each subsequent address, until units are all addressed or the address space is exhausted (e.g. increment 1 indicates normal integer counting, increment 2 indicates skipping every other address).
- **Prefix:** the IP addressing prefix to set on the hardware, using CIDR notation (e.g. a prefix of 24 is equivalent to a subnet mask of 255.255.255.0).
- **Gateway:** the default network gateway to set on the hardware.

Add hardware by Geist Discovery - step 4 of 5: create admin account

Figure 2-7 Initialize Hardware IPv4 Addressing Create Admin Account Screen

Initialize Hardware: Create Admin Account

2 selected

Model Name	Serial Number	MAC Address
Upgradeable v1	IS14122092	00:19:85:E3:77:FD
Upgradeable v1	IS14121333	00:19:85:E3:77:B7

Create Admin

Username

Password

Verify Password

Cancel < Back Next >

- **Username:** username of the admin account to be set. Username must start with a letter and contain only letters and numbers (e.g. no hyphen, underscore, space or other special characters are allowed).
- **Password:** the password of the admin account to be set.
- **Verify Password:** ensures the password is entered as intended.

Add hardware by Geist Discovery - step 5 of 5: confirm initialization settings and add to Device Director

Figure 2-8 Confirm Initialization Settings Screen

Confirm Initialization Settings and Add Hardware to Device Director

2 selected

Model Name	Serial Number	MAC Address
Upgradeable v1	IS14122092	00:19:85:E3:77:FD
Upgradeable v1	IS14121333	00:19:85:E3:77:B7

IPv4 Addressing

DHCP **Disabled**

Static Start **10.0.30.1**

Last Octet Increment **1**

Prefix **24**

Gateway **10.0.30.254**

Create Admin

Username **username**

Password **••••••**

Cancel
< Back
Initialize and Add

Verify settings are correct.

Click **Initialize** and **Add** to initialize the selected hardware with the settings shown and add the hardware to Device Director.

If Geist Discovery was originally done via IPv4 broadcast to a subnet that is different from the subnet of the new IPv4 addresses being assigned to the hardware, Device Director will likely lose contact with the hardware once the new IPv4 addresses are set on the hardware. If this happens, Device Director will be unable to create an admin account on the hardware, and the initialization will appear to have failed. The process will have to be completed by reconfiguring the machine running Device Director to have network access to the subnet of the newly assigned IPv4 addresses, finding the newly addressed hardware by an IPv4 address scan, and then adding the found hardware to Device Director.

IPv4 Address Scan

Figure 2-9 IPv4 Address Scan for Geist Hardware

IPv4 Address Scan for Geist Hardware: Settings

Target IPv4 Addresses

Admin Credentials
*Required to verify admin access to hardware.
If hardware has no admin set, an account with these credentials will be created.*

Username

Password

Verify Password

Advanced Settings ^

Network

Protocol

HTTP Port

HTTPS Port

SNMP

Port

Version

Read Community

Typically takes 20-30 seconds per device. Total time depends on the size of the subnetwork scanned and number of hardware units in that space.

Add hardware by IPv4 address scan - step 1 of 2: scan settings

- **Target IPv4 Addresses:** a comma separated list with no spaces (e.g., '10.0.0.2,10.0.0.3') or a range of IP addresses (e.g., '10.0.0.2-10.0.0.254').

- **Admin Credentials:** the admin username and password used to log into a hardware unit expected to be found in the given IP address range.
- **Advanced Settings:** the connection settings Device Director will use to communicate with hardware found in the IP address range being scanned. If the hardware to be found has settings that differ from these defaults, the appropriate connection settings must be entered here in order for the scan to succeed.
 - **Network Protocol:** the protocol (HTTP or HTTPS) to use for communicating with hardware units in the given IP address range.
 - **HTTP Port:** If HTTP is selected, the HTTP port to use for communicating with hardware units in the given IP address range.
 - **HTTPS Port:** If HTTPS is selected, the HTTPS port to use for communicating with hardware units in the given IP address range.
 - **SNMP Port:** the SNMP port to use for communicating with hardware units in the given IP address range.
 - **SNMP Version:** the SNMP version to use for communicating with hardware units in the given IP address range.
 - **Read Community:** the read community string expected to be on the hardware units in the given IP address range.

Add hardware by IPv4 address scan - step 2 of 2: select from scan results

Figure 2-10 IPv4 Address Scan Results Screen

<input type="checkbox"/>	IPv4 Address ^	Model Name	Serial Number	MAC Address
<input type="checkbox"/>	10.0.40.4	Upgradeable v1	IS04111856	00:19:85:E3:B1:DD
<input type="checkbox"/>	10.0.40.5	Upgradeable v1	IS04101163	00:19:85:E3:99:F4
<input type="checkbox"/>	10.0.40.6	Upgradeable v1	IS04111574	00:19:85:E3:75:C3
<input type="checkbox"/>	! 10.0.40.7	Upgradeable v1	IS04101113	00:19:85:E3:75:D3
<input type="checkbox"/>	! 10.0.40.8	Upgradeable v1	IS04101127	00:19:85:E3:75:CF

5 found / 0 selected

Cancel New Scan Add Selected Items

Possible hardware states shown in the table above:

- Row 1 - no admin exists, DHCP on and has acquired lease. Note that if a unit in this state is added to Device Director, an admin account will be created on the hardware using the credentials entered in the previous step.
- Row 2 - admin exists, user entered valid admin credentials, DHCP on and has acquired lease.
- Row 3 - admin exists, user entered valid admin credentials, DHCP off, main static IP address is not factory default.
- Row 4 - admin exists, user entered invalid login credentials (i.e., no such user is on the hardware).
- Row 5 - admin exists, user entered non-admin credentials (i.e., matched user on the hardware, but that user has no admin permissions).

Units listed with an exclamation point instead of a checkbox (rows 4 and 5 above) cannot be added to Device Director because the admin credentials entered for the scan did not match an admin account on the hardware.

Select the hardware items to add and click **Add Selected Items**. Hardware added to Device Director that does not have an admin account set will be updated with an admin account matching the IP Address Scan search criteria so that it can be properly administered.

Manual Device Add

A separate mechanism is not needed for manually adding a single hardware unit to Device Director. To add a single hardware unit, use either Geist Discovery or IP Address Scan and enter the specific search IP Address or MAC Address on the search settings page. If the hardware unit is found according to the settings entered, it can be added to Device Director.

Configure

Configure is used to update hardware settings, either individually or in bulk.

The Configure wizard separates updates into (1) choosing what to change and (2) changing the values. This is done to make clear what is being changed and to avoid the ambiguity of leaving a field empty for bulk updates. If a setting is selected for editing, it will be updated. Likewise, if a field is not selected for editing, it will not be updated. If a text field is selected for editing and its value is left blank, that field will be set to blank on all selected hardware. Boolean, integer and enumerated fields that are selected for editing must have a valid value set. To leave a field unchanged, do not select that field for editing.

Figure 2-11 Configure Wizard: Select Type of Configuration

Select Type of Configuration

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

- Network**
Chaining (RSTP), HTTP/HTTPS ports, DNS servers
- User Accounts**
- SNMP**
- Localization**
- Email Alerts**
- Remote Syslog**
- Firmware Update**
- Admin**
- Reboot/Reset**

Cancel Next >

- **Network:** configure chaining (for RSTP), HTTP/HTTPS ports, and DNS servers.
 - If only one hardware unit has been selected, there is also the option to edit its IPv4 address under network settings.
 - To batch-edit the IPv4 addresses of multiple hardware units, CSV import is recommended.
- **User Accounts:** add, edit, or delete user accounts.
- **SNMP:** configure SNMP port, security settings, and trap targets.
- **Localization:** configure language and temperature units.
- **Email Alerts:** configure SMTP settings and targets for email alerts.
- **Remote Syslog:** configure remote syslog.
- **Firmware Update:** update firmware on the hardware.
- **Admin:** edit system label, description, location, and admin contact.
- **Reboot/Reset:** reboot or restore factory settings on the hardware.

Network Settings

Figure 2-12 Network Settings Screen: select settings to edit

Select Settings to Update

3 selected

IPv4 Address	Network
10.0.30.30	<input checked="" type="checkbox"/> Chain
10.0.30.31	<input checked="" type="checkbox"/> HTTP Enable/Disable
10.0.30.32	<input checked="" type="checkbox"/> HTTP Port
	<input checked="" type="checkbox"/> HTTPS Port
	<input checked="" type="checkbox"/> DNS Server 1
	<input checked="" type="checkbox"/> DNS Server 2

Figure 2-13 Configure Network Settings: edit settings

Edit Settings

3 selected

IPv4 Address	Network
10.0.30.30	Chain <input type="text"/>
10.0.30.31	HTTP <input type="text" value="Disabled"/>
10.0.30.32	HTTP Port <input type="text" value="80"/>
	HTTPS Port <input type="text" value="443"/>
	DNS Server 1 <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>
	DNS Server 2 <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/>

- **Chain:** assigns hardware to a particular network daisy chain. This setting is intended for networks using RSTP, in which units linked in the same network daisy chain can only be updated one at a time.
- **HTTP Enable/Disable:** enable/disable HTTP on the hardware.
- **HTTP Port:** HTTP Port to use on the hardware.
- **HTTPS Port:** HTTPS Port to use on the hardware.
- **DNS Server 1:** primary DNS server the hardware will use.
- **DNS Server 2:** secondary DNS server the hardware will use.

Note that if only one hardware unit has been selected, there is also the option to edit its IPv4 address under network settings.

Figure 2-14 Select which Settings to Update (IPv4 address selectable to edit if only 1 item selected)

Select Settings to Update

1 selected

IPv4 Address	Network
10.0.30.30	<input checked="" type="checkbox"/> IPv4 Address <input type="checkbox"/> Chain <input type="checkbox"/> HTTP Enable/Disable <input type="checkbox"/> HTTP Port <input type="checkbox"/> HTTPS Port <input type="checkbox"/> DNS Server 1 <input type="checkbox"/> DNS Server 2

Figure 2-15 Edit Network Settings (IPv4 address editable if only 1 item selected)

Edit Settings

1 selected

IPv4 Address	Network																																			
10.0.30.30	<input type="radio"/> Use DHCP to assign IPv4 address <i>Switching between DHCP and static IPv4 addressing requires an IPv6 connection.</i> <input checked="" type="radio"/> Static IPv4 <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">10</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">0</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">30</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">30</td> </tr> <tr> <td colspan="7">Prefix</td> </tr> <tr> <td colspan="7" style="text-align: center;"> <input style="width: 60px;" type="text" value="24"/> </td> </tr> <tr> <td colspan="7">Gateway</td> </tr> <tr> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">10</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">0</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">30</td> <td style="padding: 0 5px;">-</td> <td style="border: 1px solid #ccc; width: 40px; text-align: center;">254</td> </tr> </table>	10	-	0	-	30	-	30	Prefix							<input style="width: 60px;" type="text" value="24"/>							Gateway							10	-	0	-	30	-	254
10	-	0	-	30	-	30																														
Prefix																																				
<input style="width: 60px;" type="text" value="24"/>																																				
Gateway																																				
10	-	0	-	30	-	254																														

If switching between DHCP and static IPv4 addressing, the system will use IPv6 to maintain a connection with the hardware while the switch is made. Note that this requires the network card of the machine running Device Director to be enabled for IPv6.

In order to batch-edit the IPv4 addresses of multiple items, CSV import is recommended.

User Accounts

Figure 2-16 Select Type of Action

Select Type of Action

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

User Accounts

- Add a user to selected hardware
- Delete a user from selected hardware
- Edit a user on selected hardware

Cancel < Back Next >

Figure 2-17 Add User Account

Add User

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Add User

Username

Password

Verify Password

User Type

- Admin
Can configure all hardware settings, including adding/deleting other users.
- Control
Can configure alarms and histories, but only view other hardware settings.
- Read Only
Can view all hardware settings, alarms, and historical data.

Cancel < Back Next >

- **Username:** username of user account to add. Can contain only letters and numbers (no spaces, dashes, or any other special characters), and the first character must be a letter.
- **Password:** password of user account to add.
- **Verify Password:** ensures the password is entered as intended.
- **User Type:** type of user account to add.

If the username entered already exists on a selected hardware unit, the add job will fail for that unit (i.e., indicating that an additional user account with that username could not be added to the hardware).

Figure 2-18 Delete User Account

Select User to Delete

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Delete User

Username

Cancel **< Back** **Next >**

- **Username:** username of user account to delete from hardware.

If the username entered does not exist on a selected hardware unit, the delete job will fail for that unit (i.e., indicating that user account could not be deleted from the hardware).

Figure 2-19 Edit User Account: enter username of account to edit

Select User to Edit

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Edit User

Username

Cancel < Back Next >

Figure 2-20 Edit User Account: select account settings to edit

Select Settings to Update

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Edit User

Username **userX**

Password

User Type

Account Enable/Disable

Cancel < Back Next >

Figure 2-21 Edit User Account: make edits

Edit Settings

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Edit User on Selected Hardware

Username **userX**

Password

Verify Password

User Type Admin
Can configure all hardware settings, including adding/deleting other users.

Control
Can configure alarms and histories, but only view other hardware settings.

Read Only
Can view all hardware settings, alarms, and historical data.

Account

- **Username:** username of user account to edit.
- **Password:** new password for user account.
- **Verify Password:** ensures the password is entered as intended.
- **User Type:** new type for user account.
- **Account Enable/Disable:** enable/disable account.

If the username entered does not exist on a selected hardware unit, the edit job will fail for that unit (i.e., indicating that user account could not be edited on the hardware).

SNMP Settings

Figure 2-22 Configure SNMP: Select which SNMP Settings to Edit

Select Settings to Update

3 selected

IPv4 Address	SNMP
10.0.30.30	<input checked="" type="checkbox"/> Port
10.0.30.31	<input checked="" type="checkbox"/> v1/2c Enable/Disable
10.0.30.32	<input checked="" type="checkbox"/> Read Community
	<input checked="" type="checkbox"/> Write Community
	<input checked="" type="checkbox"/> Trap Community
	<input checked="" type="checkbox"/> v3 Enable/Disable
	<input checked="" type="checkbox"/> v3 Read User
	<input checked="" type="checkbox"/> v3 Write User
	<input checked="" type="checkbox"/> v3 Trap User
	<input checked="" type="checkbox"/> Trap Target 1
	<input checked="" type="checkbox"/> Trap Target 2

Figure 2-23 Edit SNMP Settings

Edit Settings

3 selected

IPv4 Address	SNMP
10.0.30.30	Port <input type="text" value="161"/>
10.0.30.31	Version 1/2c <input type="text" value="Disabled"/>
10.0.30.32	v1/2c Read <input type="text"/>
	v1/2c Write <input type="text"/>
	v1/2c Trap <input type="text"/>
	Version 3 <input type="text" value="Disabled"/>
	v3 Read User <input type="text"/>
	Auth <input type="text" value="None"/>
	Privacy <input type="text" value="None"/>
	v3 Write User <input type="text"/>
	Auth <input type="text" value="None"/>
	Privacy <input type="text" value="None"/>
	v3 Trap User <input type="text"/>
	Auth <input type="text" value="None"/>
	Privacy <input type="text" value="None"/>
	Trap Target 1 <input type="text" value="IPv4/v6"/> <input type="text" value="v2c"/>
	Trap Target 2 <input type="text" value="IPv4/v6"/> <input type="text" value="v2c"/>

- **Port:** SNMP port to use on the hardware.
- **v1/2c Enable/Disable:** enable/disable SNMP v1/2c on the hardware.
- **v1/2c Read Community:** v1/2c read community string to use on the hardware.
- **v1/2c Write Community:** v1/2c write community string to use on the hardware.
- **v1/2c Trap Community:** v1/2c trap community string to use on the hardware.

- **v3 Enable/Disable:** enable/disable SNMP v3 on the hardware.
- **v3 Read User ,Auth , Privacy:** v3 read username, auth scheme and password, privacy scheme and password to use on the hardware.
- **v3 Write User ,Auth , Privacy:** v3 write username, auth scheme and password, privacy scheme and password to use on the hardware.
- **v3 Trap User ,Auth , Privacy:** v3 trap username, auth scheme and password, privacy scheme and password to use on the hardware.
- **Trap Target 1 IP Address ,Version:** address to which to send traps, version of trap.
- **Trap Target 2 IP Address ,Version:** additional address to which to send trap, version of trap.

For Geist Upgradeable v1 PDUs and Watchdog 15/100 environmental monitors, older firmware versions (3.1.0 and earlier) do not support enabling/disabling SNMP v1/2c and SNMP v3 independently of each other. For hardware still running this older firmware, all versions of SNMP must be enabled/disabled together, or else the job will fail.

Localization

Figure 2-24 Configure Localization: select settings to edit

Select Settings to Update

3 selected

IPv4 Address	Localization
10.0.30.30	<input checked="" type="checkbox"/> Language
10.0.30.31	<input checked="" type="checkbox"/> Temp Units
10.0.30.32	

Cancel < Back Next >

Figure 2-25 Edit Localization Settings: edit settings

Edit Settings

3 selected

IPv4 Address	Localization
10.0.30.30	Language: en
10.0.30.31	Temp Units: Fahrenheit
10.0.30.32	

Cancel < Back Next >

- **Language:** language to show on the hardware interface.
- **Temp Units:** temperature units to show on the hardware interface.

Email Alerts

Figure 2-26 Configure Email Alerts: select settings to edit

Select Settings to Update

3 selected

IPv4 Address	Email Alerts
10.0.30.30	<input checked="" type="checkbox"/> SMTP Server
10.0.30.31	<input checked="" type="checkbox"/> SMTP Port
10.0.30.32	<input checked="" type="checkbox"/> SMTP Auth
	<input checked="" type="checkbox"/> "From" Address
	<input checked="" type="checkbox"/> Targets

Cancel **< Back** **Next >**

Figure 2-27 Edit Email Alert Settings

Edit Settings

3 selected

IPv4 Address	Email Alerts
10.0.30.30	SMTP Server <input type="text" value="IPv4/v6 or FQDN"/>
10.0.30.31	SMTP Port <input type="text" value="25"/>
10.0.30.32	SMTP Auth <i>Blanks for unauthenticated relay</i>
	Username <input type="text"/>
	Password <input type="text"/>
	"From" Address <input type="text"/>
	Targets <input type="text" value="Add"/> <input type="text" value="comma-separated list"/>

- **SMTP Server:** IPv4/v6 address or FQDN of the email server for the hardware to use.
- **SMTP Port:** port on the email server port for hardware to use.
- **SMTP Auth Username:** username to log into email server (leave blank if not required).
- **SMTP Auth Password:** password to log into email server (leave blank if not required).
- **"From" Address:** email address that alerts are to be shown as sent from.
- **Targets:** comma-separated list of destination email address(es) to add or delete from hardware.

Remote Syslog

Figure 2-28 Configure Remote Syslog: select settings to edit

The screenshot shows a dialog titled "Select Settings to Update" with a dark header. Below the header, it indicates "3 selected". On the left, there is a list of IPv4 addresses: 10.0.30.30, 10.0.30.31, and 10.0.30.32. On the right, under the heading "Remote Syslog", there are three checked checkboxes: "Remote Syslog Enable/Disable", "IP Address", and "Port". At the bottom, there are three buttons: "Cancel", "< Back", and "Next >".

Figure 2-29 Edit Remote Syslog Settings

The screenshot shows a dialog titled "Edit Settings" with a dark header. Below the header, it indicates "3 selected". On the left, there is a list of IPv4 addresses: 10.0.30.30, 10.0.30.31, and 10.0.30.32. On the right, under the heading "Remote Syslog", there are three input fields: "Remote Syslog" is a dropdown menu set to "Disabled", "IP Address" is a text input field containing "IPv4/v6", and "Port" is a text input field containing "514". At the bottom, there are three buttons: "Cancel", "< Back", and "Next >".

- **Remote Syslog Enable/Disable:** enable/disable copying local hardware syslog to a remote location.
- **IP Address:** IPv4/IPv6 address of remote syslog.
- **Port:** port to use for remote syslog.

Firmware Update

Figure 2-30 Firmware Update Screen

The screenshot shows the 'Firmware Update' interface. On the left, there is a list of IPv4 addresses: 10.0.30.30, 10.0.30.31, and 10.0.30.32. The main area is titled 'Select File to Install' and contains a table with five rows of firmware files. Each row has a radio button for selection, a file name, intended models, version, and a red minus sign for removal. Below the table is a '+ Upload File' button. At the bottom are three buttons: 'Cancel', '< Back', and 'Update Firmware'.

File Name	Intended Models	Version
Firmware-i02-geist-2_2_1-23032015.zip	Upgradeable v1	2.2.1
Firmware-i02-geist-2_3_1-27012016.zip	Upgradeable v1	2.3.1
Firmware-i02-geist-3_0_0-20112015.zip	Upgradeable v1	3.0.0
Firmware-i02-geist-3_1_0-11032016.zip	Upgradeable v1	3.1.0
firmware-i02-geist-3_2_0-02052016.zip	Upgradeable v1	3.2.0

- **Select File to Install:** select the firmware file to use to update hardware.
- **Upload File:** upload a firmware file to Device Director for use in updating firmware on hardware.

Admin

Figure 2-31 Configure Admin Information: select settings to edit

Select Settings to Update

3 selected

IPv4 Address	Admin
10.0.30.30	<input checked="" type="checkbox"/> System Label
10.0.30.31	<input checked="" type="checkbox"/> Description
10.0.30.32	<input checked="" type="checkbox"/> Location Detail
	<input checked="" type="checkbox"/> Admin Name
	<input checked="" type="checkbox"/> Admin Email
	<input checked="" type="checkbox"/> Admin Phone

Cancel **< Back** **Next >**

Figure 2-32 Edit Configure Admin Settings

Edit Settings

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Admin

System Label
 Append incrementing number

Description

Location Detail

Admin Name

Admin Email

Admin Phone

- **System Label:** free-text label for the hardware. Can be used as friendly name to help identify the hardware.
 - **Append incrementing number:** this option appears if two or more items have been selected. If checked, the text entered in the System Label field will be suffixed with a number, starting with 1 and incremented by 1, for each item selected. This provides a quick way to assign unique System Labels to many items at once.
- **Description:** free-text description of the hardware.
- **Location Detail:** free-text location details of the hardware.
- **Administrator Name:** contact info for the administrator of the hardware.
- **Administrator Email:** contact info for the administrator of the hardware.
- **Administrator Phone:** contact info for the administrator of the hardware.

Reboot/Reset

Figure 2-33 Reboot/ Reset Options

Select Type of Action

3 selected

IPv4 Address
10.0.30.30
10.0.30.31
10.0.30.32

Reboot/Reset

- Reboot
- Reset all settings to factory defaults
EXCEPT network configuration and user accounts
- Reset ALL settings to factory defaults

Cancel < Back Next >

- **Reboot:** reboot the hardware.
- **Reset all settings to factory defaults EXCEPT network configuration and user accounts:** restore factory default hardware configuration except for network settings (e.g., IPv4 address) and user accounts. Occasionally, if the hardware takes longer than expected to finish this type of reset, the information stored in Device Director may fall out of sync with the actual hardware. It is recommended to Refresh hardware in Device Director after this type of reset appears to be completed.
- **Reset ALL settings to factory defaults:** restore full factory default hardware configuration.
Note that this will also delete the hardware from Device Director, since this will return the hardware to its uninitialized state.

Refresh

Refresh scans current settings on actual hardware and refreshes information stored in Device Director accordingly.

Delete

Delete removes hardware from Device Director. If the hardware remains online, it can be found again and re-added.

CSV Import/Export

CSV import may be used both to add hardware to Device Director and to update hardware already in Device Director. While it is possible to add some hardware and update other hardware in a single CSV import, it is recommended to do adds and updates with separate CSV files for manageability.

CSV export may be used to generate a template file that can simply be edited for import. An empty template is exported if no hardware has been added to Device Director yet.

Important considerations for CSV import:

- A device record will be added or updated in Device Director for each row of the CSV file.
- Missing device records (rows) in the imported file have no effect. Hardware known to Device Director will neither be deleted nor updated if it is missing from the CSV import. This is to allow for partial updates of only relevant hardware.
- Column headers present in the import file must exactly match the CSV template column names and must not appear more than once in the same file.

Adding Hardware with CSV Import

If a CSV row contains a MAC Address that is new to Device Director, or if the MAC Address is blank and the IPv4 Address is new to Device Director, the system will attempt to contact and add the hardware.

To add hardware to Device Director, the CSV row must include at minimum an IPv4 address and valid admin credentials in the User Accounts column.

The following defaults will be used to try to contact the hardware:

- **HTTP Port:** 80
- **Protocol to Use:** HTTP
- **SNMP Port:** 161
- **SNMP Version:** v2c
- **v2c Read Community:** public

If the hardware has settings that differ from these defaults, the appropriate connection settings must be included in the CSV import in order for the job to succeed.

Any additional settings that may be specified in the CSV row will be ignored in an add.

Updating Hardware with CSV Import

If a CSV row contains a MAC Address that is known to Device Director, the system will attempt to update the hardware as specified in the CSV.

When updating hardware, the MAC Address is the only required field; any other fields (columns) included in the CSV will be read as intended updates.

- Text fields may be blank, in which case the empty value is treated as the desired value. Boolean, integer and enumerated fields will be ignored if empty.
- Password fields that contain only * characters will be ignored.
- Missing columns in the imported file will have no effect. Hardware fields will not be updated with a blank value if a column is missing. This is to allow for partial updates of only particular fields of interest.
- Extra columns in the import file that are unknown to Device Director will be ignored.

CSV Fields (Columns)

See the user manual for a specific hardware model for more information on fields and their values.

- **MAC Address** : considered the unique identifier for correlating each CSV row to a hardware unit known to Device Director or for adding a new hardware unit if not already known.
- **IPv4 Address**: IPv4 address set on the hardware.
- **DHCP Enabled**: valid values are "TRUE" or "FALSE". If "FALSE", the IPv4 Address is static.
 - If switching between DHCP and static IPv4 addressing, the system will use IPv6 to maintain a connection with the hardware while the switch is made. Note that this requires the network card of the machine running Device Director to be enabled for IPv6.
- **IPv4 Prefix**: CIDR network prefix set on the hardware.
- **IPv4 Gateway**: IPv4 network gateway set on the hardware.
- ***IPv6 Address**: IPv6 address of the hardware.
- **Chain**: assigns hardware to a particular network daisy chain (leave blank if not required). This setting is intended for networks using RSTP, in which units linked in the same network daisy chain can only be updated one at a time.

- **HTTP Enabled:** valid values are "TRUE" or "FALSE".
- **HTTP Port:** what HTTP port the hardware is set to use.
- **HTTPS Port:** what HTTPS port the hardware is set to use.
- **Protocol to Use:** what protocol Device Director will use when connecting to the hardware. Valid values are "HTTP" or "HTTPS".
- **DNS Server 1:** IPv4 address of the primary DNS Server that the hardware will use.
- **DNS Server 2:** IPv4 address of the secondary DNS Server that the hardware will use.
- **User Accounts:** user accounts on the hardware. Format of this field is Username;Password;IsEnabled;IsAdmin;IsControl. Users are separated by "&". Passwords are imported if included, but export shows ***** for security reasons.
 - When adding hardware to Device Director by CSV import, this field only needs to contain Username;Password;;; for one admin account on the hardware. This is required to verify admin access to the hardware. If the hardware does not yet have an admin set, an admin account with these credentials will be created.
 - When updating hardware already in Device Director by CSV import, the contents of this field fully "replaces" the accounts set on the hardware. E.g., to delete a user account on the hardware, all accounts except the one to delete should be listed in this field. To add a user account to the hardware, all existing accounts should be listed in this field, plus the account to add.
 - When exporting a CSV from Device Director, all existing user accounts on the hardware are exported in this field.
- **SNMP Port:** the SNMP port on the hardware.
- **SNMP Version:** the SNMP version for Device Director to use when connecting to the hardware. Valid values are "V1", "V2C", or "V3".
- **SNMP v1v2c Enabled:** valid values are "TRUE" or "FALSE".
 - For Geist Upgradeable v1 PDUs and Watchdog 15/100 environmental monitors, firmware versions 3.1.0 and earlier do not support enabling/disabling SNMP v1/2c and SNMP v3 independently of each other. For hardware still running this older firmware, all versions of SNMP must be enabled/disabled together, or else the job will fail.
- **v1v2c Read Community:** SNMP v1/2c read community string set on the hardware.
- **v1v2c Write Community:** SNMP v1/2c write community string set on the hardware.
- **v1v2c Trap Community:** SNMP v1/2c trap community string set on the hardware.

- **SNMP v3 Enabled:** valid values are "TRUE" or "FALSE".
 - For Geist Upgradeable v1 PDUs and Watchdog 15/100 environmental monitors, firmware versions 3.1.0 and earlier do not support enabling/disabling SNMP v1/2c and SNMP v3 independently of each other. For hardware still running this older firmware, all versions of SNMP must be enabled/disabled together, or else the job will fail.
- **v3 Read User:** the SNMP v3 read user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- **v3 Write User:** the SNMP v3 write user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- **v3 Trap User:** the SNMP v3 trap user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- **SNMP Trap Target 1:** primary SNMP trap target set on the hardware. Format of this field is IpAddress;Version. If IPAddress is set, Version is required. Version may be "V1", "V2C" or "V3".
- **SNMP Trap Target 2:** secondary SNMP trap target set on the hardware. Format of this field is IpAddress;Version. If IPAddress is set, Version is required. Version may be "V1", "V2C" or "V3".
- **Language:** the system language set on the hardware. Language uses the ISO Language Code and may be "de", "en", "es", "fr", "ja", "ko", "pt", "ru" or "zh".
- **Temp Units:** the temperature units set on the hardware. Valid values are "Fahrenheit" or "Celsius".
- **SMTP Server:** IPv4/v6 or FQDN of SMTP server through which the hardware is to send email.
- **SMTP Port:** TCP port to use on the SMTP server.

- **SMTP Username:** username for logging into SMTP server (leave blank if not required).
- **SMTP Password:** password for logging into SMTP server (leave blank if not required). Note that passwords are imported if included but export shows ***** for security reasons.
- **Email From Address:** email address that alerts from the hardware are to be shown as sent from.
- **Email Targets:** comma-separated list of destination email addresses to which hardware will send alerts.
 - When updating hardware by CSV import, the contents of this field fully "replaces" the list of email targets set on the hardware. E.g., to delete a target on the hardware, all targets except the one to delete should be listed in this field. To add a target, all existing targets should be listed in this field, plus the target to add.
- **Remote Syslog Enabled:** valid values are "TRUE" or "FALSE".
- **Remote Syslog IP Address:** the remote syslog IP address set on the hardware.
- **Remote Syslog Port:** the remote syslog port set on the hardware.
- ***Firmware Version:** version of firmware running on the hardware.
- **System Label:** free-text label for the hardware. Can be used as a friendly name to help identify the hardware.
- **Description:** free-text description of the hardware.
- **Location Detail:** free-text location details of the hardware. Typically a low-level detail of where the hardware is located (e.g. a floorplan grid or internal identifier).
- **Admin Name:** contact info for the administrator of the hardware.
- **Admin Email:** contact info for the administrator of the hardware.
- **Admin Phone:** contact info for the administrator of the hardware.
- ***Model Name:** commonly used description of the hardware model.
- ***Model Number:** factory designation for the exact specifications of the hardware.
- ***Serial Number:** serial number of the hardware.

* = Field is considered read-only and exported for informational purposes. On CSV import, this field may be updated to something other than what is defined in the import file if the hardware reports a different value.

Chapter 3: Job Status Page

Figure 3-1 Job Status Page (example data)

Job Status

Firmware Update

2017-01-07 01:12:43 PM MST

Cancel

Pending

0 / 3

Update Hardware Settings

2016-12-29 02:04:31 PM MST

Terminate

Graceful Stop

In Progress ...

0 / 3

SNMP v1/2c = Enabled, v1/2c Read Community = public, v1/2c Write Community = private, v1/2c Trap Community = private

MAC Address	IPv4 Address	System Label	Model Name	Job Status	Message
00:19:85:E3:77:FD	10.0.30.1	PDU-01	Upgradeable v1	Successful	
00:19:85:E3:77:CC	10.0.30.2	PDU-02	Upgradeable v1	Successful	
00:19:85:EE:73:FD	10.0.30.3	PDU-03	Upgradeable v1	Successful	

Update Hardware Settings

2016-09-25 01:51:23 PM MST

Clear

Complete (1 failed)

2 / 3

Hide details

MAC Address	IPv4 Address	System Label	Model Name	Job Status	Message
00:19:85:E3:77:FD <i>Location Detail = Rack-01</i>	10.0.30.1	PDU-01	Upgradeable v1	Failed	Error establishing connection to hardware.
00:19:85:E3:77:CC <i>Location Detail = Rack-02</i>	10.0.30.2	PDU-02	Upgradeable v1	Successful	
00:19:85:EE:73:FD <i>Location Detail = Rack-03</i>	10.0.30.3	PDU-03	Upgradeable v1	Successful	

Add Hardware from GDP

2016-09-25 12:03:05 PM MST

Clear

Successful

3 / 3

This page lists all job batches pending, in progress, or completed by Device Director. Batches are queued and processed in chronological order, but they are displayed in reverse chronological order, with the most recently created batch listed first.

Only one batch is processed at a time, to prevent potentially conflicting updates contained in different batches from coinciding on any hardware unit.

- Pending batches are collapsed by default but can be expanded to show their details.
 - **Cancel:** cancels the pending batch of jobs. The batch will retain its place in the list but will be marked as Cancelled and can be cleared.
- If a batch is in progress, its details are expanded by default and updated as the batch progresses.

- **Terminate:** stops all in-progress jobs within the batch immediately and cancels any pending jobs within the batch.
- **Graceful Stop:** allows all in-progress jobs within the batch to complete and cancels any pending jobs within the batch.
- Completed batches are collapsed by default but can be expanded to show their details. Each completed batch is summarized by one of four labels:
 - **Successful:** all jobs in the batch were completed successfully.
 - **Cancelled:** all jobs in the batch were cancelled.
 - **Failed:** all jobs in the batch failed.
 - **Complete:** some jobs in the batch succeeded, and some were either cancelled or failed. The number of cancellations and/or failures is shown in parentheses.
- **Clear:** removes a completed batch from the Job Status page.

Geist Support

For additional help or to report any issues, please contact [Geist Support](#).

Americas

- +1 888 630 4445

Europe and Middle East

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