

## Digitus Ethernet Utility User Manual

The screenshot shows the Digitus Ethernet Configuration Utility V2.4 window. The interface is organized into several sections:

- Broadcast:** Contains two radio buttons, "Broadcast" (selected) and "Manual". To the right is a "Select Port" dropdown menu with "65534" selected.
- Available Devices:** A large empty rectangular area for displaying a list of devices. Below it is the instruction "Click a device in the list to select it".
- Selected Device:** Two input fields labeled "MAC" and "IP Address".
- Login to Device:** An "Enter Password:" input field with a "Show Password" checkbox. Two buttons, "Login MAC" and "Login IP", are positioned to the right.
- Commands:** A grid of buttons for various operations:
  - Left column: "Set Password", "Set IP", "Set Mask", "Set Gateway", "Set Port", "Set Timeout". Each button is paired with an empty input field.
  - Middle column: "Enable DHCP", "Disable DHCP", "Enter Data" (with a "Send" button below it).
  - Right column: "Get MAC", "Get IP", "Get Mask", "Get Gateway", "Get Port", "Get Timeout".
  - Far right column: "Factory Reset", "Save", "Logout", "Reboot".
- Output Window:** A large text area for displaying command results, with a "Clear" button to its right.
- Exit:** A single button at the bottom center of the window.

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## **Introduction – Digitus Ethernet Utility User Manual**

The Digitus Ethernet Utility is used to program the IP (network) settings for Digitus Devices. Note this utility is only needed when the Digitus device is on a different network segment than the DAS-SQL Service, preventing it from being discovered using UDP Broadcast and program via UDP command.

## Section 1 – Discovering the Digitus Devices

### Default Device IP Addresses

**db Zero-U, db Nexus and db Nexus Duo** devices have a default IP address of **192.168.1.1**. Please set your PC to an IP address on the **192.168.1.1/8** network, e.g. IP address **192.168.1.2**, Subnet Mask **255.255.255.0**

**db Bus** and **db Sentry** devices have a default IP address of **10.0.0.200**. Please set your PC to an IP address on the **10.0.0.0/8** network, e.g. **10.0.0.1**, Subnet Mask **255.255.255.0**

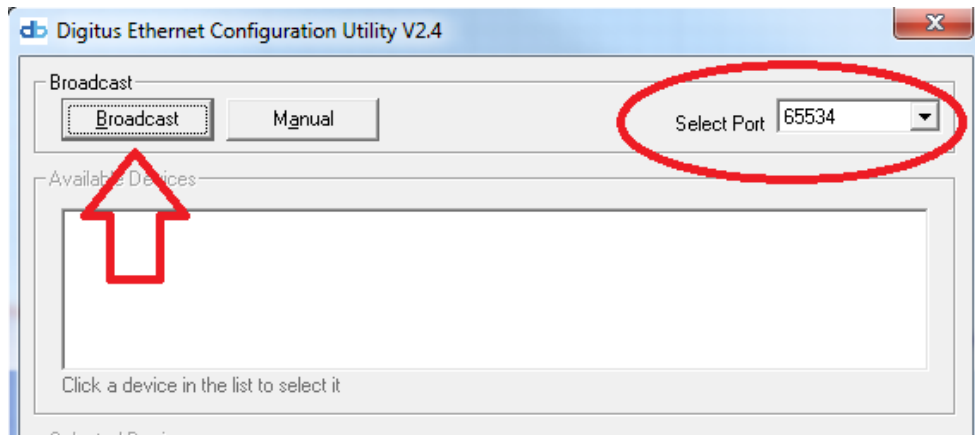
Different Digitus devices listen on different UDP ports.

Device Type	UDP Port Number
db Zero-U	65534
db Nexus	65534
db Nexus Duo	65534
db Bus products	65533
db Sentry	65532

The Digitus Ethernet Utility uses UDP broadcast to discover the devices. UDP Broadcasts only work over a single network segment. Please ensure the computer running the utility and the device are connected to the same network segment. Ideally they would be connected directly using a crossover cable.

**Please note that all software firewall programs either need to be disabled, or the Digitus Ethernet Utility needs to be added as an “allow program” through the firewall.**

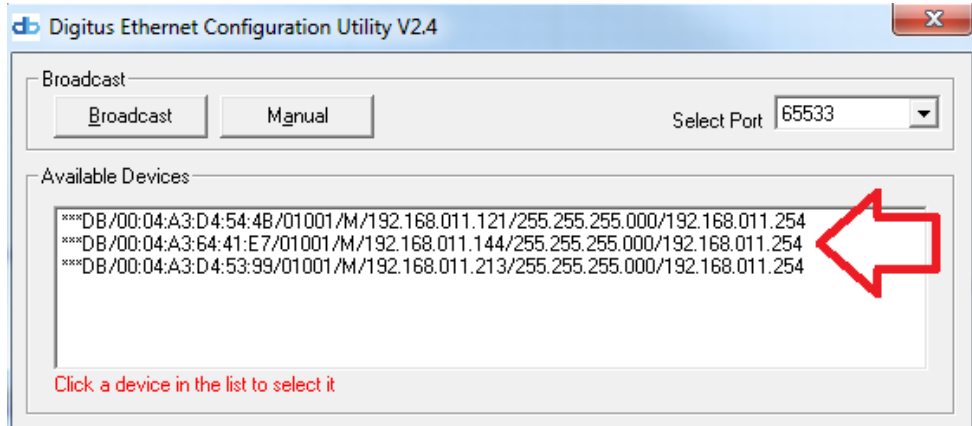
Select the correct **port** of the device being configured:



Click the **Broadcast** Button

## Section 2 – Select the Device to Configure

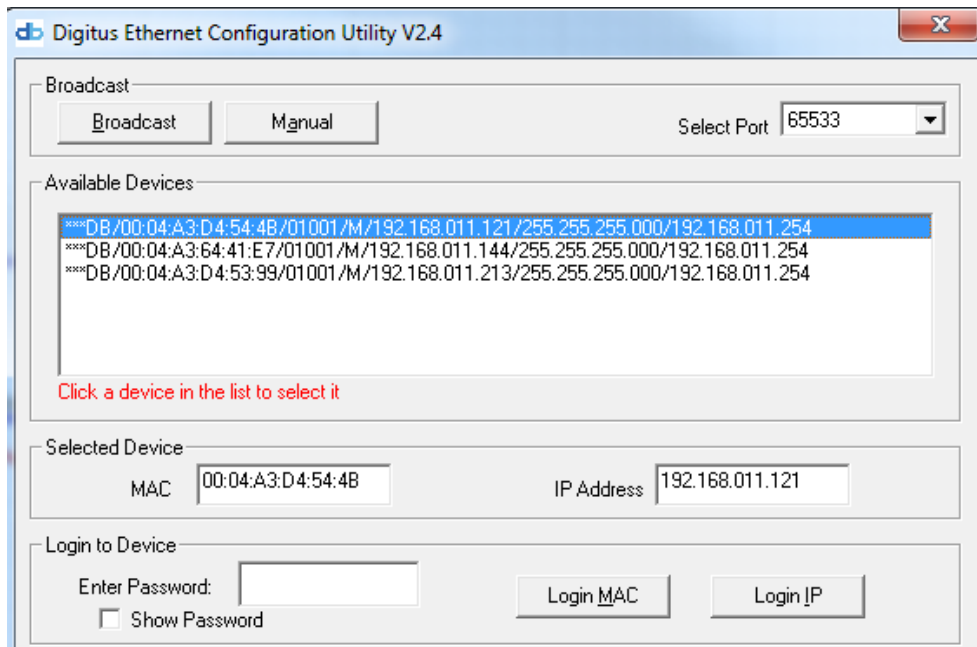
If any Digitus devices are discovered, they will be displayed in the “Available Devices” list as show below:



Click on the **device** in the list to be configured:

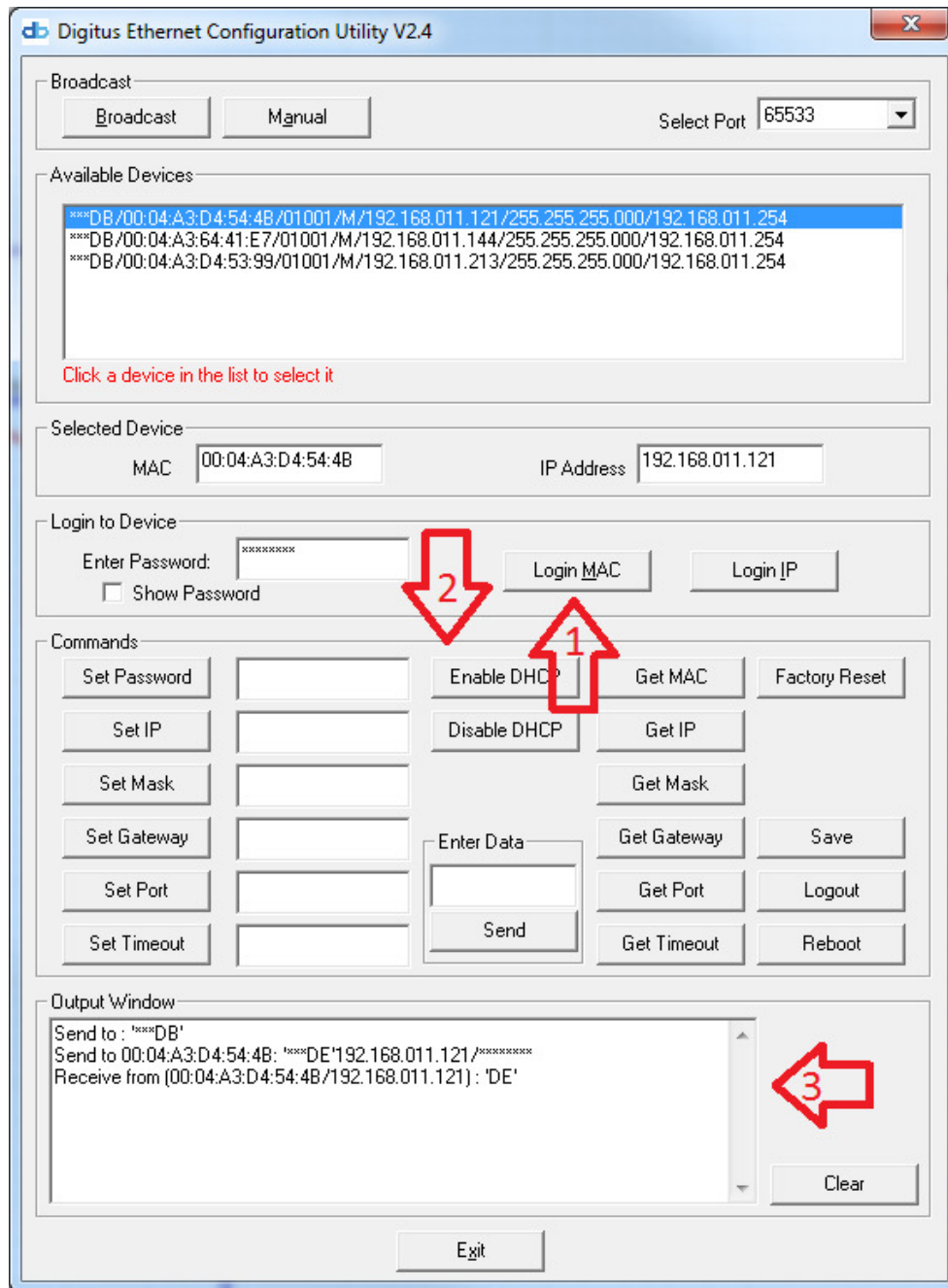
Note that the devices are identifiable by their MAC (Ethernet) address. Each Digitus device has a unique MAC address that will be printed on the actual device. The responses in the list contain the MAC address an identified below:

Unique DB Header	***DB/00:04:A3:D4:54:4B/01001/M/192.168.011.121/255.255.255.000/192.168.011.254
<b>MAC Address</b>	***DB/ <b>00:04:A3:D4:54:4B</b> /01001/M/192.168.011.121/255.255.255.000/192.168.011.254
TCP Port	***DB/00:04:A3:D4:54:4B/ <b>01001</b> /M/192.168.011.121/255.255.255.000/192.168.011.254
DHCP (D) / Static (M)	***DB/00:04:A3:D4:54:4B/01001/ <b>M</b> /192.168.011.121/255.255.255.000/192.168.011.254
IP Address	***DB/00:04:A3:D4:54:4B/01001/M/ <b>192.168.011.121</b> /255.255.255.000/192.168.011.254
Subnet Mask	***DB/00:04:A3:D4:54:4B/01001/M/192.168.011.121/ <b>255.255.255.000</b> /192.168.011.254
Default Gateway	***DB/00:04:A3:D4:54:4B/01001/M/192.168.011.121/255.255.255.000/ <b>192.168.011.254</b>



### Section 3 – Login to the Device

The default password for all Digitus device is "password". Enter the password and click **Login MAC (1)**:



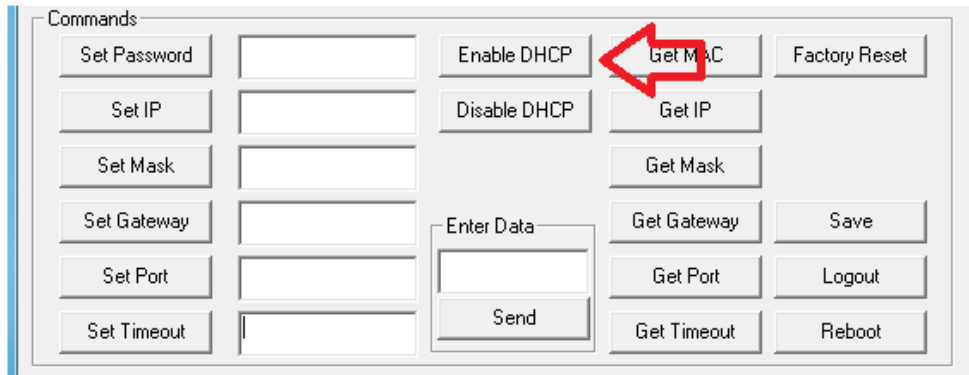
If the login is successful, all the controls within the **“Commands”** frame will be enabled (2).

Note the **“Output Window”** (3) shows the communication dialogue between the Digitus Ethernet Utility and the Digitus device.

## Section 4 – Enabling DHCP

Although DHCP is supported, it is not recommended for Digitus devices. All communication between the Digitus DAS-SQL software and Digitus devices is done using the TCP protocol. DAS-SQL will initiate communication with the device by using its IP address. If DHCP is used, there's a chance that the IP address can change and thus DAS-SQL will not be able to communicate with the device. If DHCP must be used, please add "MAC Address Reservations" within the DHCP Server.

To Enable DHCP, click *Enable DHCP* button:



The screenshot shows a web interface titled "Commands" with a grid of buttons and input fields. The buttons are arranged in a grid-like fashion. A red arrow points to the "Enable DHCP" button, which is located in the top row, second column from the right. Other buttons include "Set Password", "Set IP", "Set Mask", "Set Gateway", "Set Port", "Set Timeout", "Disable DHCP", "Get MAC", "Get IP", "Get Mask", "Get Gateway", "Get Port", "Get Timeout", "Factory Reset", "Save", "Logout", and "Reboot". There is also an "Enter Data" input field with a "Send" button below it.

Click the **Save** button

Note if DHCP is already enabled, click the **Disable DHCP** button to disable it, followed by a click of the **Save** button



## Section 5 – Changing Password Setting

To change any given setting, enter the new value in the text box to the right of the applicable button.

To change the UDP password, enter the *new value* as shown below:

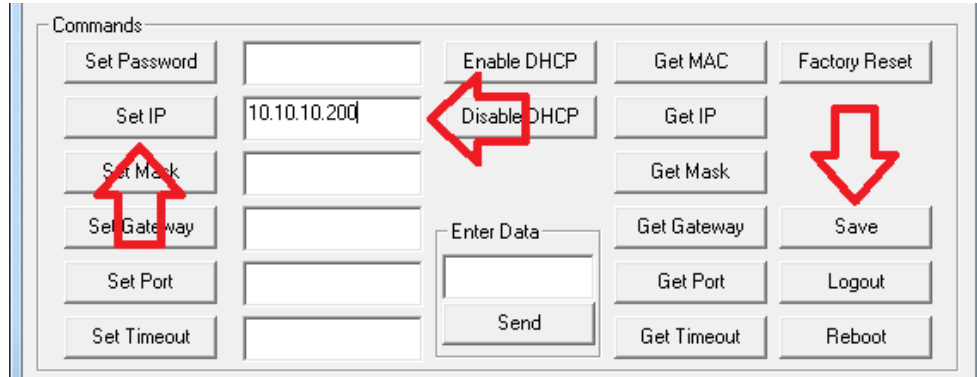
The screenshot shows a 'Commands' window with a grid of buttons and text boxes. The 'Set Password' button is highlighted with a red arrow pointing to it. The text box next to it contains 'FRED123@?'. The 'Enable DHCP' button is also highlighted with a red arrow. The 'Save' button is highlighted with a red arrow. Other buttons include 'Set IP', 'Set Mask', 'Set Gateway', 'Set Port', 'Set Timeout', 'Disable DHCP', 'Enter Data', 'Send', 'Get MAC', 'Factory Reset', 'Get IP', 'Get Mask', 'Get Gateway', 'Get Port', 'Get Timeout', 'Logout', and 'Reboot'.

Click the **Set Password** button

Click the **Save** button

## Section 6 – Changing Network (IP, Subnet Mask, Default Gateway) Settings

To set the IP address, enter the new value as shown below:



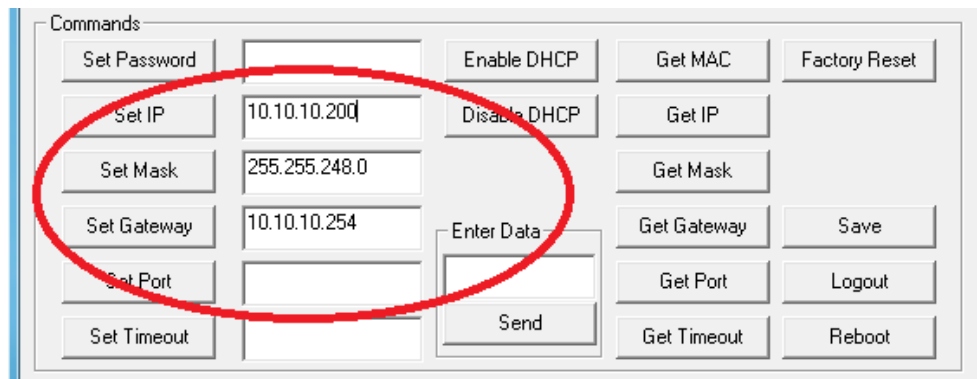
Commands

Set Password		Enable DHCP	Get MAC	Factory Reset
Set IP	10.10.10.200	Disable DHCP	Get IP	
Set Mask			Get Mask	
Set Gateway		Enter Data	Get Gateway	Save
Set Port			Get Port	Logout
Set Timeout		Send	Get Timeout	Reboot

Click the **Set IP** button

Click the **Save** button

Repeat the steps for the **Subnet Mask** and **Default Gateway** configured:



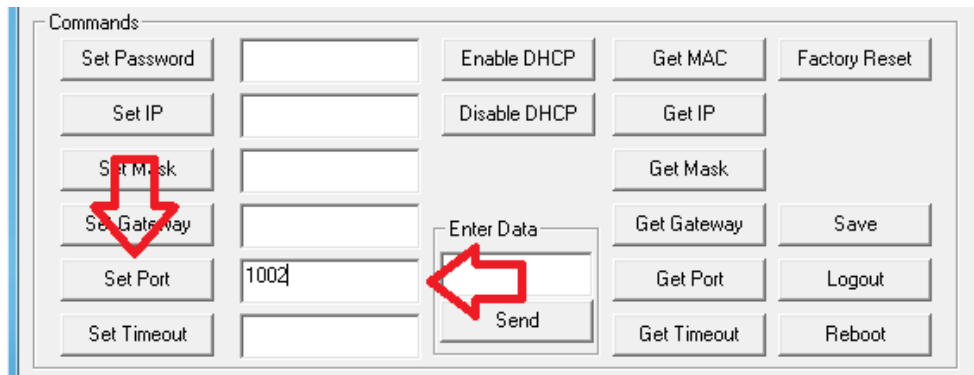
Commands

Set Password		Enable DHCP	Get MAC	Factory Reset
Set IP	10.10.10.200	Disable DHCP	Get IP	
Set Mask	255.255.248.0		Get Mask	
Set Gateway	10.10.10.254	Enter Data	Get Gateway	Save
Set Port			Get Port	Logout
Set Timeout		Send	Get Timeout	Reboot

## Section 7 – Changing TCP Port Setting

**It should be very rare that the default listening TCP port needs to be changed.**

To change the TCP Port, enter the new value as shown below:



The screenshot shows a web interface titled "Commands" with a grid of buttons and input fields. The "Set Port" button is highlighted with a red arrow pointing down to its input field, which contains the value "1002". Another red arrow points from the "Send" button to the "Enter Data" input field.

Command	Input Field	Command	Command	Command
Set Password		Enable DHCP	Get MAC	Factory Reset
Set IP		Disable DHCP	Get IP	
Set Mask			Get Mask	
Set Gateway		Enter Data	Get Gateway	Save
Set Port	1002	Send	Get Port	Logout
Set Timeout			Get Timeout	Reboot

Click the **Set Port** button

Click the **Save** button

## Section 8 – Changing TCP Timeout Setting

The default (and **recommend**) timeout value is 30 (seconds).

To change the TCP Timeout, enter the new value as shown below, the minimum permitted value is 20 (seconds) and the maximum is 59 (seconds).

The screenshot shows a web interface titled "Commands" with a grid of buttons and input fields. The "Set Timeout" button is highlighted with a red arrow pointing to it. Below it, the "Enter Data" field contains a value, and a red arrow points to the "Send" button next to it. Other buttons include "Set Password", "Set IP", "Set Mask", "Set Gateway", "Set Port", "Set Timeout", "Enable DHCP", "Disable DHCP", "Get MAC", "Get IP", "Get Mask", "Get Gateway", "Get Port", "Get Timeout", "Factory Reset", "Save", "Logout", and "Reboot".

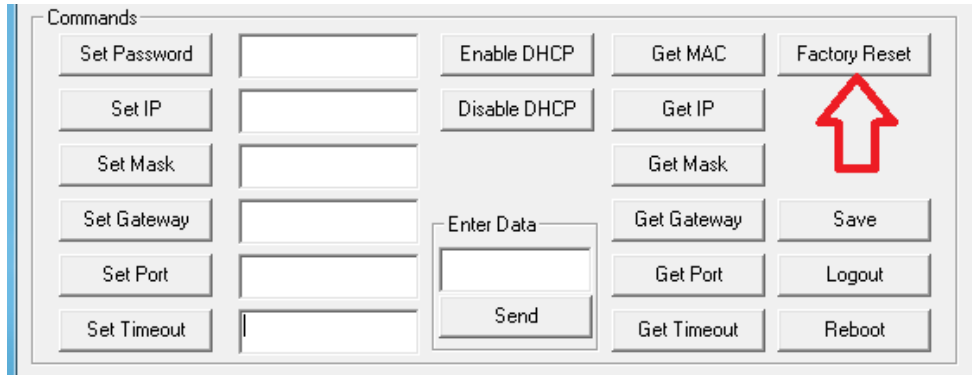
Click the **Set Timeout** button

Click the **Save** button

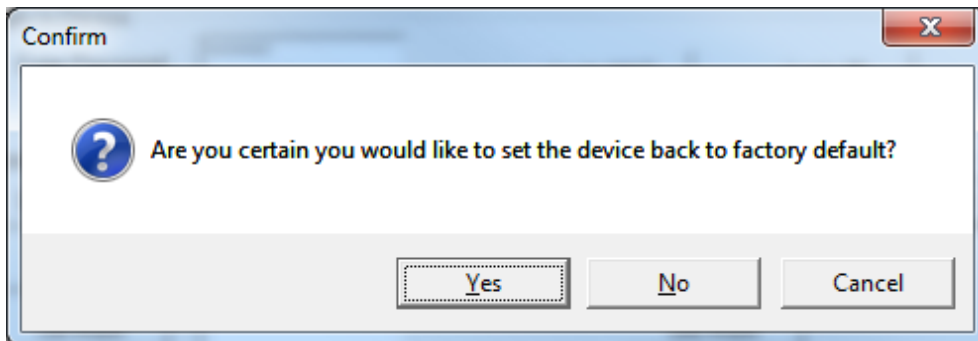
## Section 9 – Factory Reset (db Bus Product only)

To reset the entire db Bus system back to factory default, use the Factory Rest button. Note that all **user data, event logs** and **configuration data** will be lost. The Factory reset will **not** however restore to an earlier version of **firmware**. If the firmware version has been changed, the current version will remain active on the db Bus devices.

Click the **Factory Reset** button

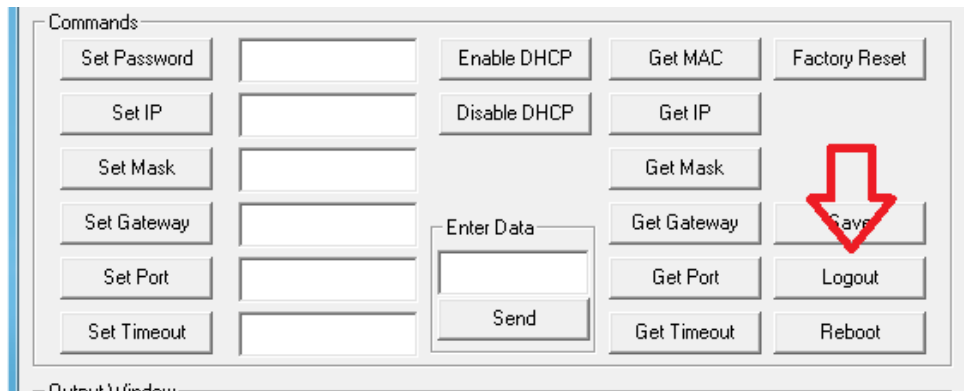


Click the **Yes** button on the Confirmation dialogue box



## Section 9 – Logging Out of the UDP Configuration

To logout of the UDP session, click the **Logout** button



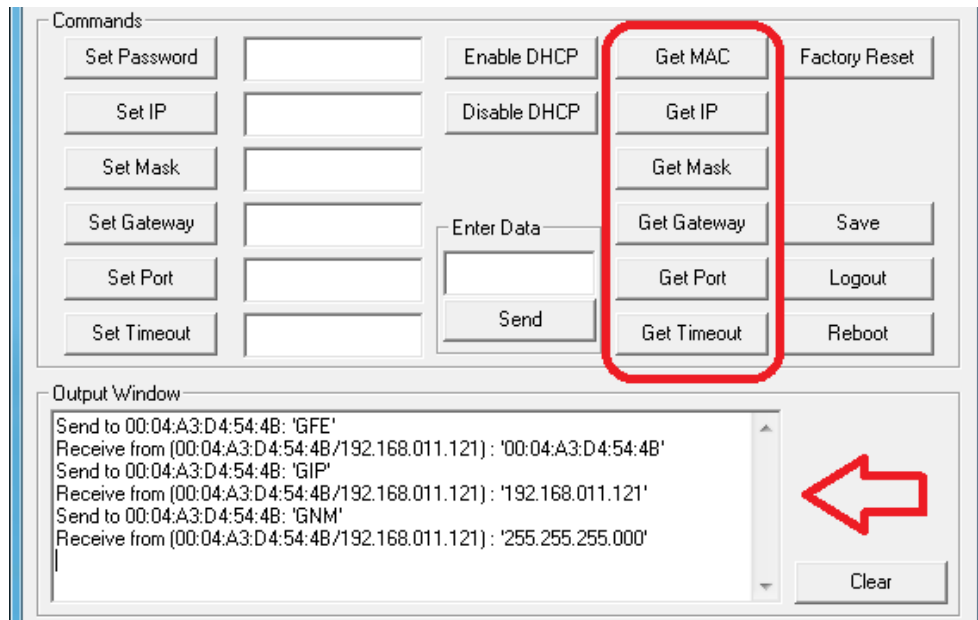
The screenshot shows a web-based configuration interface for UDP. It features a grid of buttons and input fields. On the left side, there are buttons for 'Set Password', 'Set IP', 'Set Mask', 'Set Gateway', 'Set Port', and 'Set Timeout', each followed by an empty text input field. In the center, there are buttons for 'Enable DHCP' and 'Disable DHCP', and a section labeled 'Enter Data' with a text input field and a 'Send' button below it. On the right side, there are buttons for 'Get MAC', 'Get IP', 'Get Mask', 'Get Gateway', 'Get Port', and 'Get Timeout'. At the bottom right, there are buttons for 'Factory Reset', 'Save', 'Logout', and 'Reboot'. A prominent red arrow points downwards to the 'Save' button.

Once you've logged out of the UDP session, click the Broadcast button again, to confirm the new settings. Refer to the table in **Section 2** of this document to confirm that the new settings have been applied.

## Section 10 – Using the “Get” Buttons

The “**Get**” buttons allow you to read the current settings from a device.

Click the applicable button and the current setting from the device will be displayed in the **Output Window**:



The screenshot displays the Digitus Ethernet Utility interface. The 'Commands' section contains several buttons for configuration and retrieval. A red box highlights the 'Get' buttons: 'Get MAC', 'Get IP', 'Get Mask', 'Get Gateway', 'Get Port', and 'Get Timeout'. The 'Output Window' below shows the following log entries:

```
Send to 00:04:A3:D4:54:4B: 'GFE'  
Receive from (00:04:A3:D4:54:4B/192.168.011.121) : '00:04:A3:D4:54:4B'  
Send to 00:04:A3:D4:54:4B: 'GIP'  
Receive from (00:04:A3:D4:54:4B/192.168.011.121) : '192.168.011.121'  
Send to 00:04:A3:D4:54:4B: 'GNM'  
Receive from (00:04:A3:D4:54:4B/192.168.011.121) : '255.255.255.000'
```

A red arrow points to the 'Clear' button in the Output Window.



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