Configuring a VLAN with Hirschmann HiOS (RSP, RSPE, MSP, Greyhound)

A Virtual Local Area Network (VLAN) provides network segmentation at the data link layer (OSI Layer 2). The segmentation is achieved by marking network packets with identifiers called VLAN Tags. Switch ports on managed switches are then configured to be associated with a certain VLAN Tag or not. VLAN traffic will only be sent to those ports that are configured to receive it.

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VLAN Configuration

This guide will provide the steps to configure 2 ports to a single VLAN on a Hirschmann RSPE managed switch. To test out the configuration it will require the use of 2 network appliances to initiate/respond to ping packets through the switch. Lastly, as a prerequisite, the guide will assume an IP address has been assigned to the switch and administrator access to the configuration web interface has been obtained.

Step 1: Connect to the switch on Port 3 and open the web interface using HiView.

Step 2: Browse the main menu to Switching -> VLAN -> Configuration. You should see the window below.
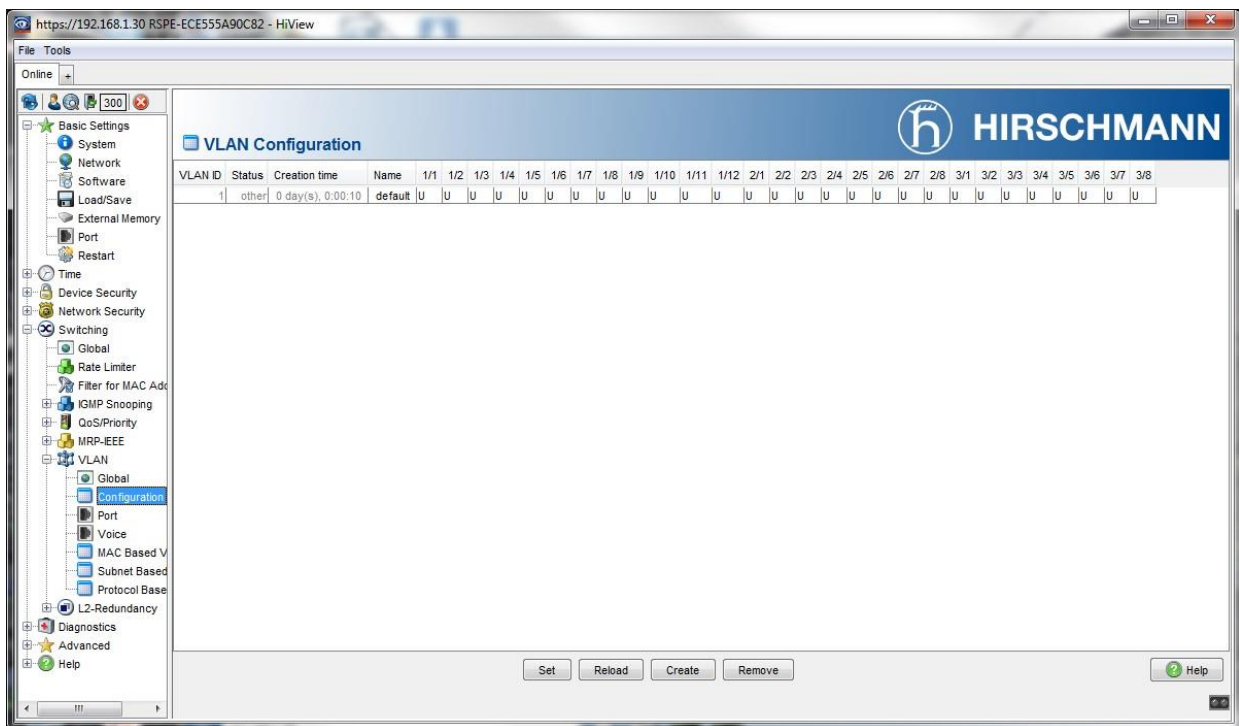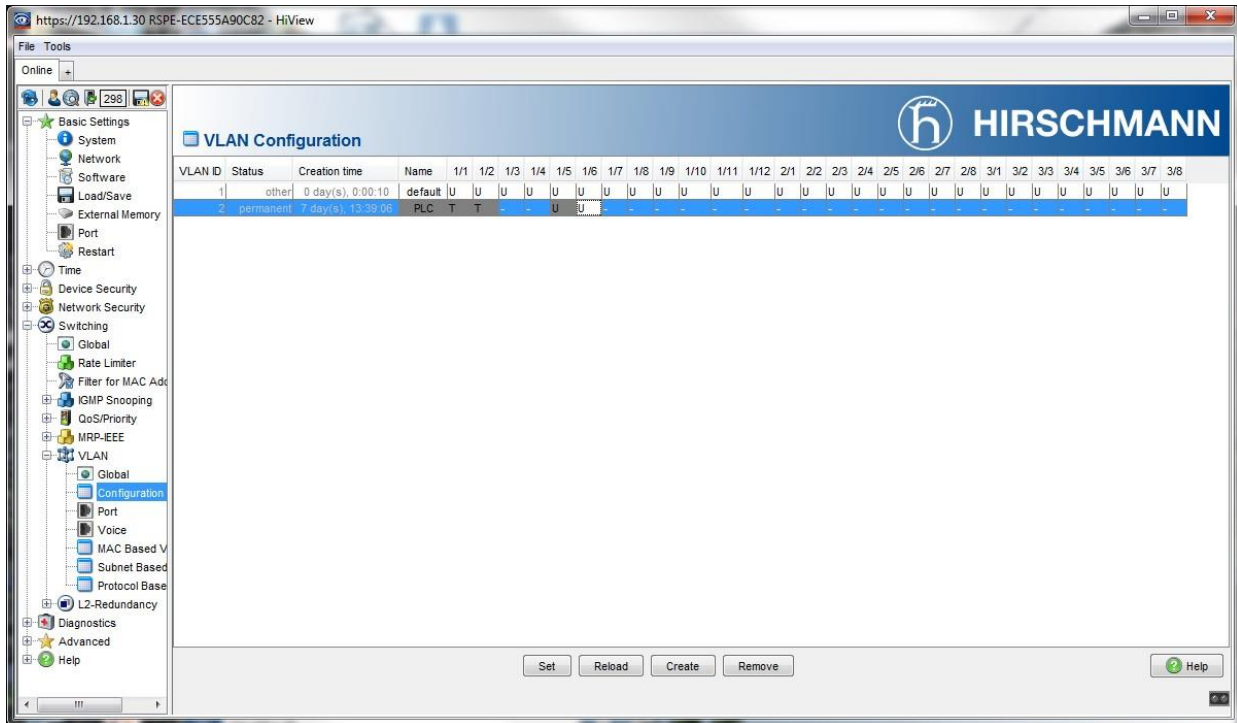

Step 3: Click on the "Create" button at the bottom of the window.
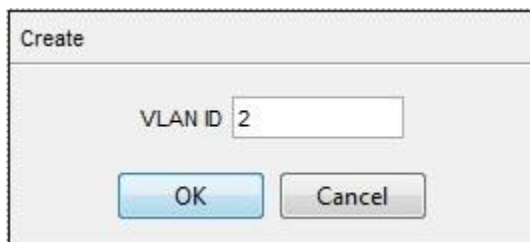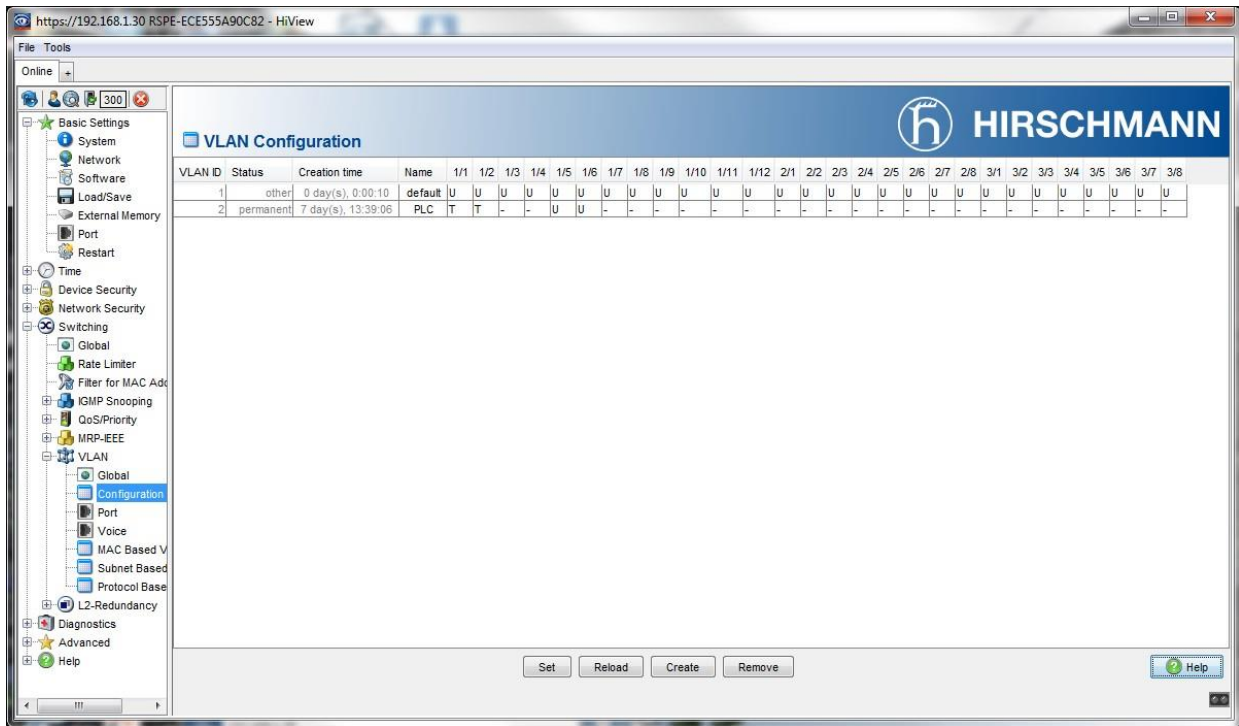
Step 4: Type 2 and click the "OK" button

Step 5: Notice the VLAN ID 2 entry has now been created. Click inside the "Name" box and assign a name to the VLAN. The example uses "PLC".
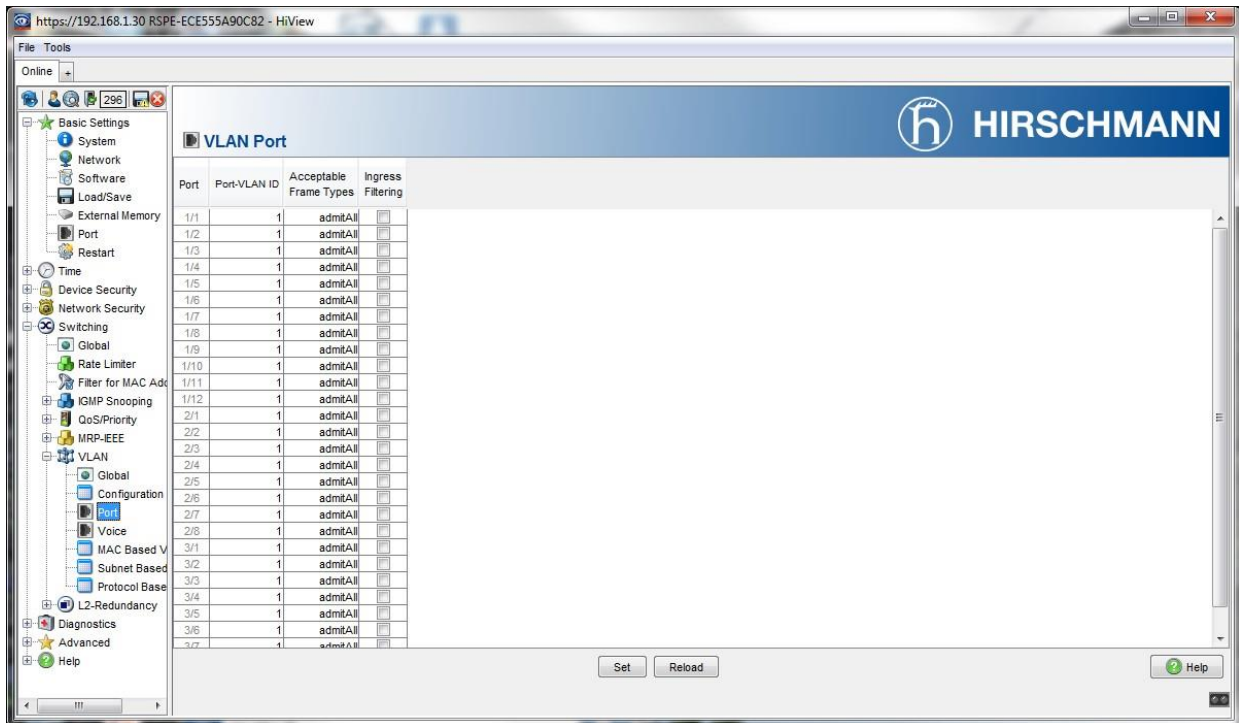

Step 6: The ports assigned to the backbone connections should be given a "T" meaning all packets sent out of these ports will include VLAN Tags for other switches on the network. Click inside the box of these ports and apply a "T". The example uses ports 1/1 and 1/2 as backbone uplink connections.

Step 7: Identify the ports that will participate in VLAN 2 and assign them a "U". The example uses ports 1/5 and 1/6.

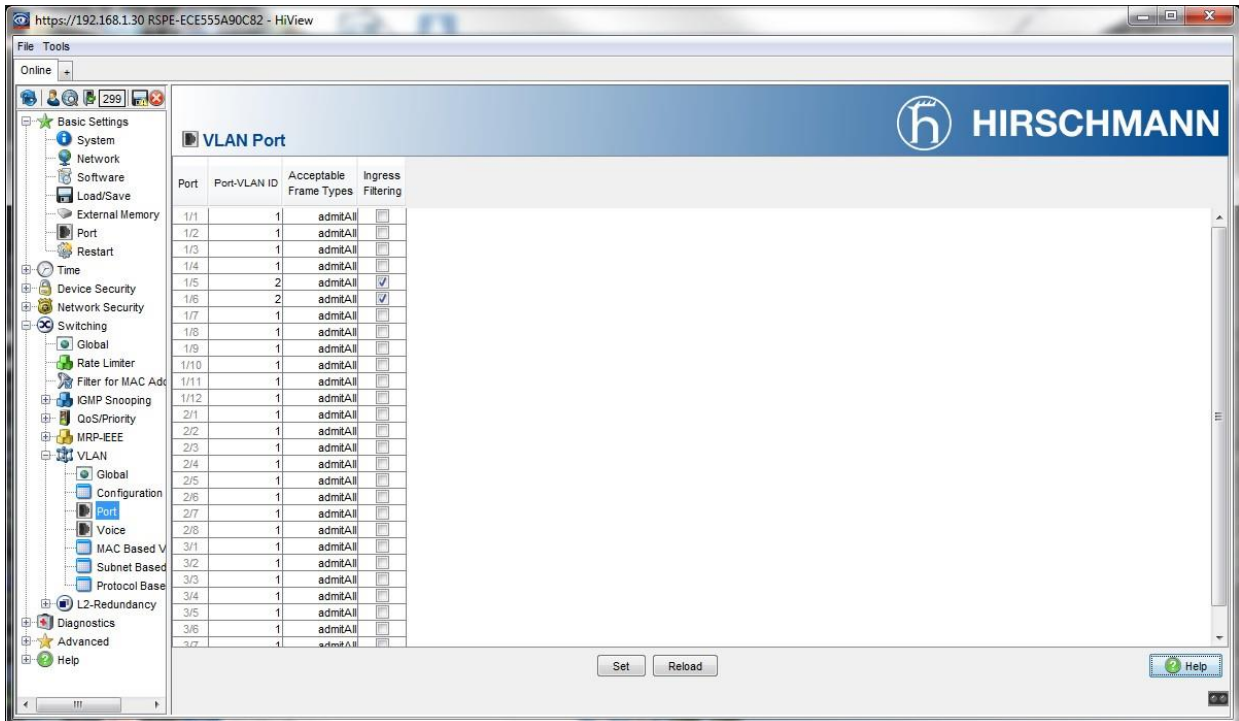Step 8: Click the "Set" button at the bottom of the window.

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VLAN Configuration

VLAN ID	Status	Creation time	Name	1/1	1/2	1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	2/1	2/2	2/3	2/4	2/5	2/6	2/7	2/8	3/1	3/2	3/3	3/4	3/5	3/6	3/7	3/8
1	other	0 day(s), 0:00:10	default	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2	permanent	7 day(s), 13:39:06	PLC	T	T	-	-	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Set   Reload   Create   Remove   Help

Step 9: Browse the main menu to Switching -> VLAN -> Port. You should the window below.

VLAN Port

Port	Port-VLAN ID	Acceptable Frame Types	Ingress Filtering
1/1	1	admitAll	
1/2	1	admitAll	
1/3	1	admitAll	
1/4	1	admitAll	
1/5	1	admitAll	
1/6	1	admitAll	
1/7	1	admitAll	
1/8	1	admitAll	
1/9	1	admitAll	
1/10	1	admitAll	
1/11	1	admitAll	
1/12	1	admitAll	
2/1	1	admitAll	
2/2	1	admitAll	
2/3	1	admitAll	
2/4	1	admitAll	
2/5	1	admitAll	
2/6	1	admitAll	
2/7	1	admitAll	
2/8	1	admitAll	
3/1	1	admitAll	
3/2	1	admitAll	
3/3	1	admitAll	
3/4	1	admitAll	
3/5	1	admitAll	
3/6	1	admitAll	
3/7		admitAll	

Set   Reload   Help

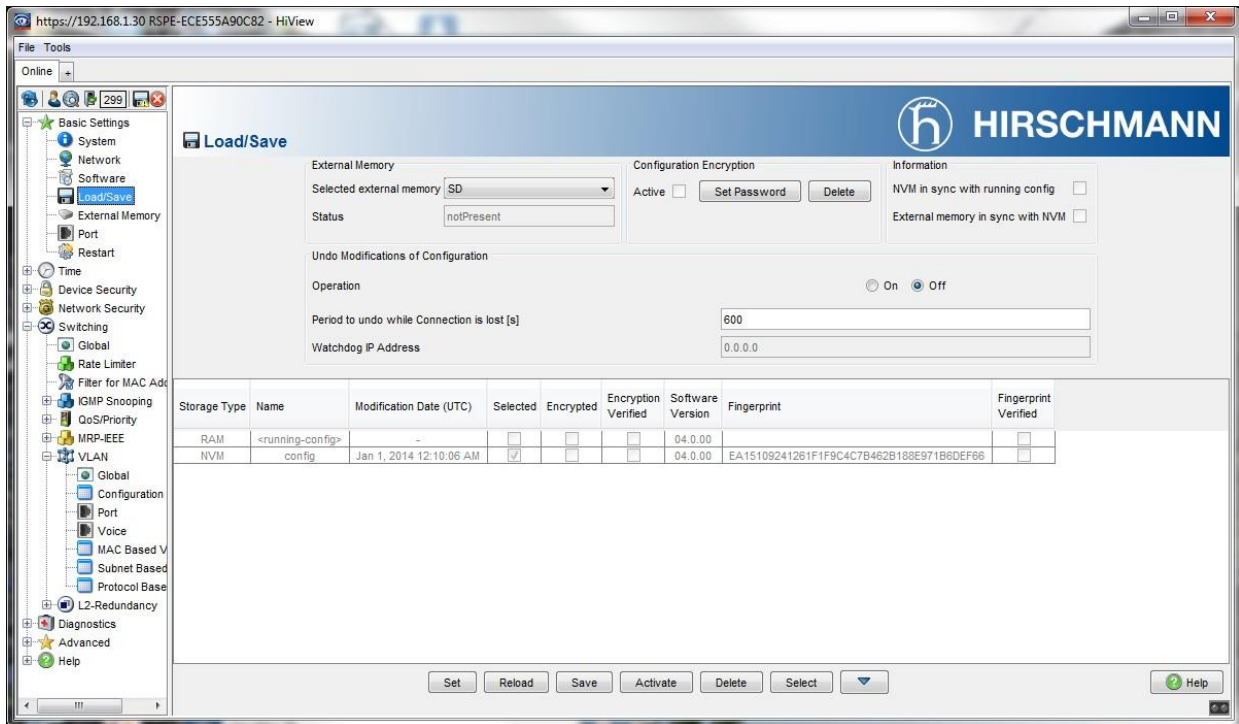Step 10: Enter "2" for Port-VLAN-ID for Ports 5 and 6.

Step 11: Activate "Ingress Filtering" for Ports 5 and 6.

Step 12: Click "Set" button at the bottom of the window.

Step 12: Browse to Basic Settings -> Load/Save

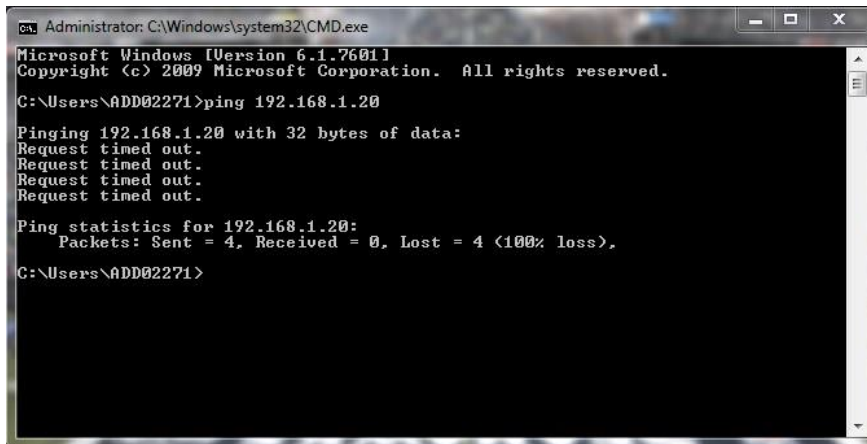Step 13: Click "Save" button at the bottom of the window.

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Congratulations! You have now successfully configured Ports 5 and 6 to VLAN 2 of the switch.

Test the VLAN functionality

To test this configuration, follow these few steps.

Step 1: Plug a network enabled appliance into Port 6.

Step 2: Open a command prompt and initiate a ping request to the IP address of the device at Port 6 from Port 3 that you are currently using. You will notice that the host is unreachable as Port 3 is not configured for VLAN 2.

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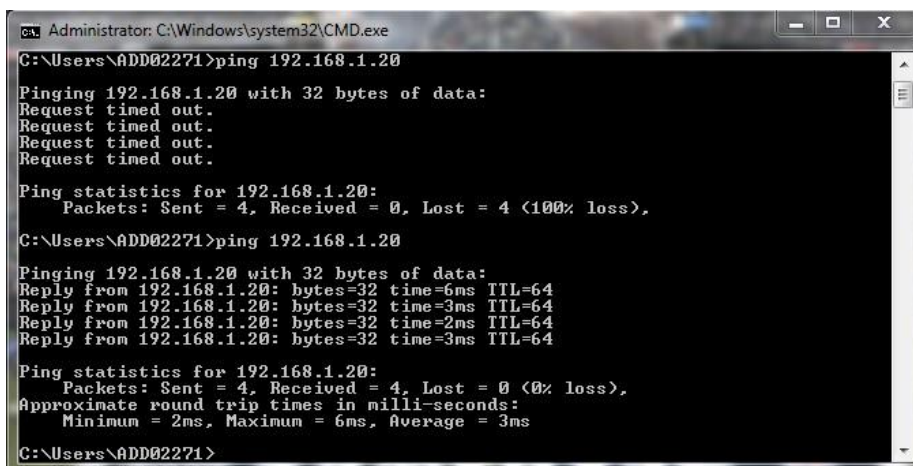
Step 3: Unplug from Port 3 and plug into Port 5 and initiate the ping request again. You will notice that you are now getting replies, due to the fact that Port 5 and 6 are on the same VLAN 2.
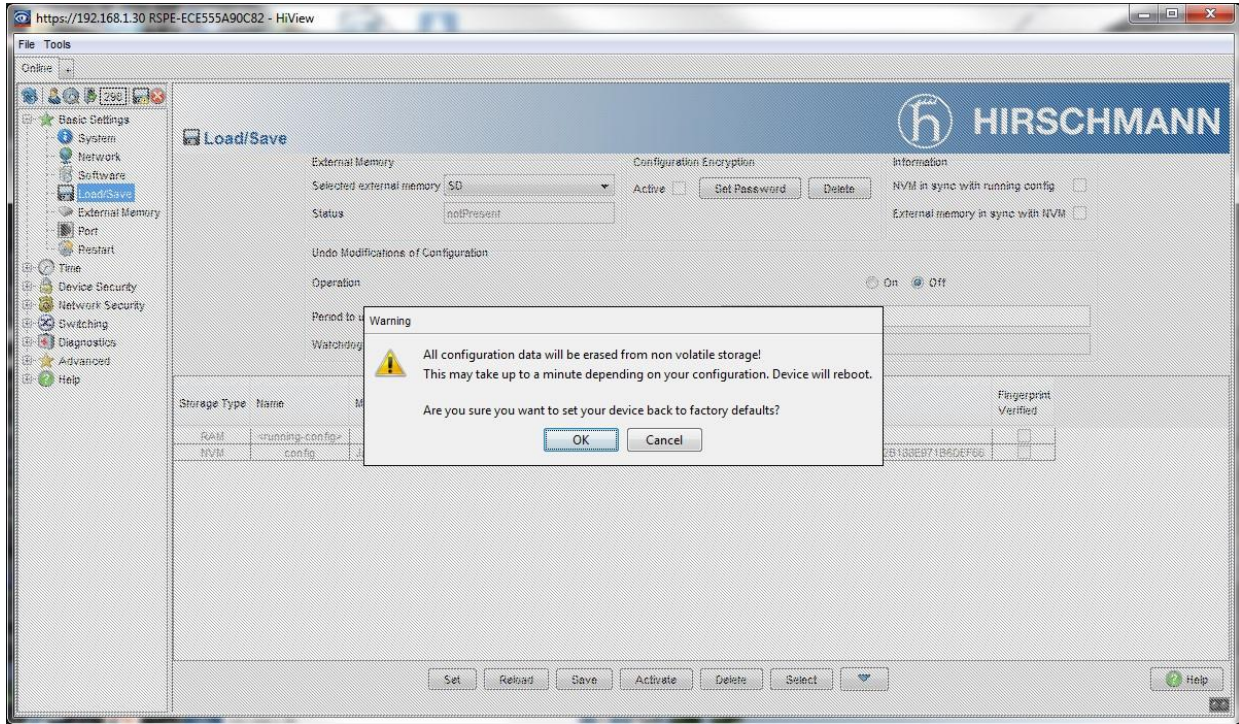

Reset switch back to Factory Defaults.

Unless you plan to use the configured VLAN permanently it is recommended to return the switch settings back to "Factory Defaults". Follow these steps if so desired.

Step 1: Plug back in to Port 3 of the switch.

Step 2: Browse to Basic Settings -> Load/Save

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Step 3: Notice the button on the bottom of the page with down arrow. Click the button to reveal a drop down menu and select "Back to factory defaults".

Step 5: Click the "OK" button

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