


Doc. reference: <b>bullion-HT-001</b>	<b>BULLION How To</b>	
Product:	novascale bullion	Issued : <b>January 14, 2011</b>
Subject:	<b>Create a Raid 1 under the Web Bios interface</b>	
Abstract:	Example of creation of a Raid 1 including two new drives, using the Web Bios interface of the LSI MegaRAID® SAS 9261-8i board.	

# Creating a Raid Group

**Goal : Create a Raid 1 including two new drives**

- Step 1 : Enter in the WebBios interface
- Step 2 : create the Raid 1
  - Launch the Configuration Wizard
  - Add disks to Array, create a new Drive Group
  - Add Drive Group to a Span
  - Define properties of Raid
  - Save the configuration
  - Initialise the Raid volume
- Step 3 : Verify the boot list order

# Creating a Raid Group

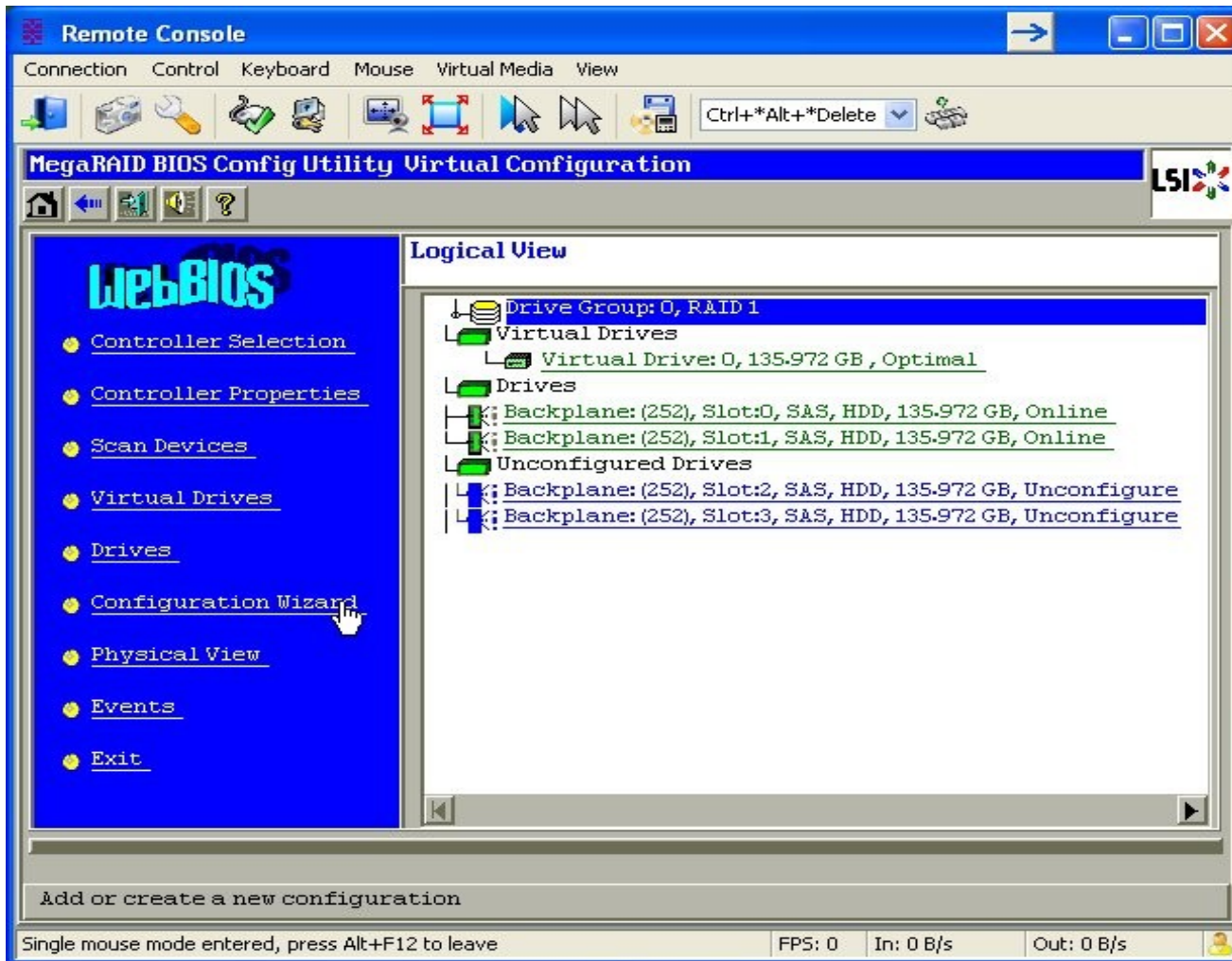
- Enter in the WebBios interface

- At the start of the novascale bullion server, press [Ctrl]+[H] when this message is displayed.
- Press the [Space] key when the message "Hit [Space] for Boot Menu" is displayed.
- In the BIOS interface, go to "Boot Maintenance Manager" then [Enter], on "Boot Options", press [Enter], go down to "Set Legacy BEV Drive Order" and press [Enter] On the line "BEV Drive #0", press [Enter] to modify, then select "<LEGACY PCI DEVICE>" and validate by [Enter]. Save the changes by selecting the line "Commit Changes and Exit" and press [Enter]. Press [Esc] to go back to the main menu. Go down to "Boot Manager" and press [Enter], Select the line "LEGACY PCI DEVICE", press [Enter] to display the interface of the WEBBIOS utility allowing to configure the LSI MegaRaid SAS adapter.

**NOTE: It is recommended to configure the mouse in "Single cursor mode ", inside the Remote Console window.**

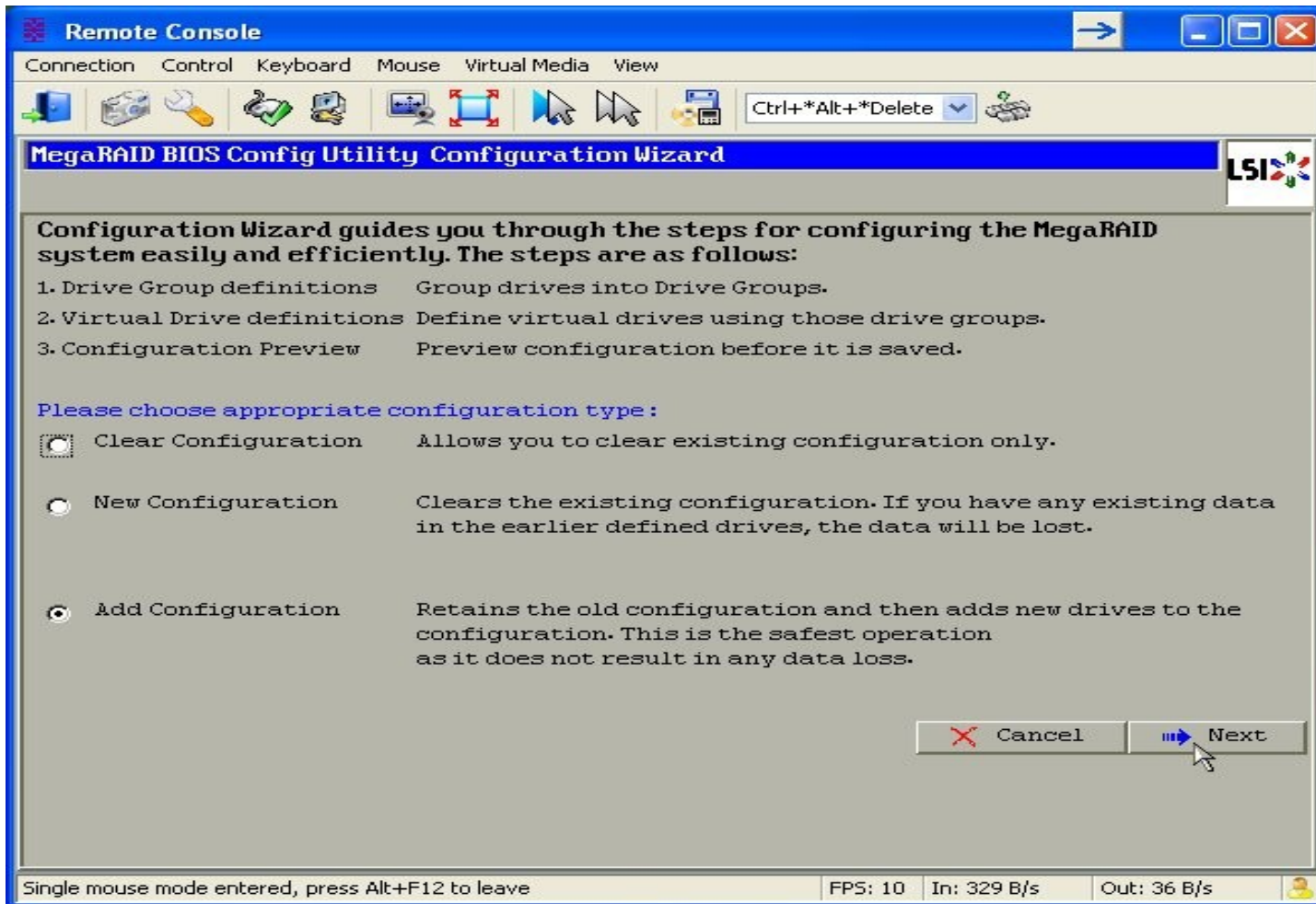
# Creating a Raid Group

- After clicking the 'Start' button , the WebBios interface shows the existing configuration : with the Drive Group 0 in Raid 1 including disks in slot 0 and slot 1.
- The disks in slot 2 and slot 3 are flagged « Unconfigured » and will be included in a new Drive Group



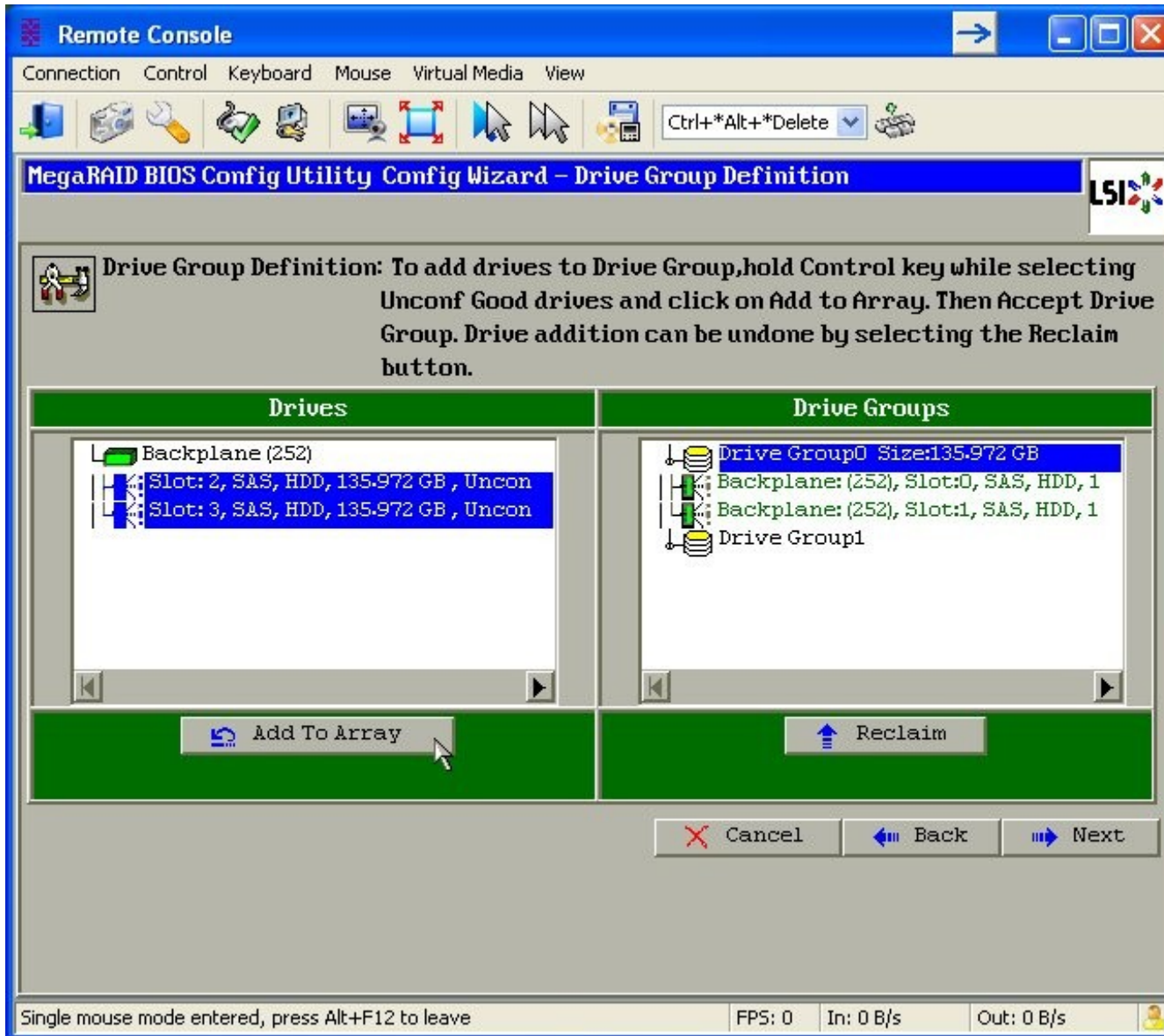
Click on  
« Configuration  
Wizard »

# Creating a Raid Group



Select « Add Configuration », then click « Next »

# Creating a Raid Group



Under « Drives » area, unselect the line 'Backplane'. Select the lines relative to the drives in slot2 and slot3. (hold the Control key for multiple selection).

Click « Add To Array ».



# Creating a Raid Group

Remote Console

Connection Control Keyboard Mouse Virtual Media View

MegaRAID BIOS Config Utility Config Wizard - Drive Group Definition

Drive Group Definition: To add drives to Drive Group, hold Control key while selecting Unconf Good drives and click on Add to Array. Then Accept Drive Group. Drive addition can be undone by selecting the Reclaim button.

Drives	Drive Groups
Backplane (252)	Drive Group0 Size:135.972 GB
Slot: 2, SAS, HDD, 135.972 GB, Onlin	Backplane: (252), Slot:0, SAS, HDD, 1
Slot: 3, SAS, HDD, 135.972 GB, Onlin	Backplane: (252), Slot:1, SAS, HDD, 1
	Drive Group1
	Backplane: (252), Slot:2, SAS, HDD, 1
	Backplane: (252), Slot:3, SAS, HDD, 1

Add To Array Accept DG Reclaim

Cancel Back Next

Single mouse mode entered, press Alt+F12 to leave FPS: 1 In: 851 B/s Out: 72 B/s

In 'Drive Groups' area, a new « Drive Group1 » is created.

Click « Accept DG »

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Remote Console

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MegaRAID BIOS Config Utility Config Wizard - Drive Group Definition

LSI

**Drive Group Definition:** To add drives to Drive Group, hold Control key while selecting Unconf Good drives and click on Add to Array. Then Accept Drive Group. Drive addition can be undone by selecting the Reclaim button.

Drives	Drive Groups
Backplane (252)	Drive Group0 Size:135.972 GB
Slot: 2, SAS, HDD, 135.972 GB, Onlin	Backplane: (252), Slot:0, SAS, HDD, 1
Slot: 3, SAS, HDD, 135.972 GB, Onlin	Backplane: (252), Slot:1, SAS, HDD, 1
	Drive Group1 Size:135.972 GB
	Backplane: (252), Slot:2, SAS, HDD, 1
	Backplane: (252), Slot:3, SAS, HDD, 1
	Drive Group2

Add To Array Reclaim

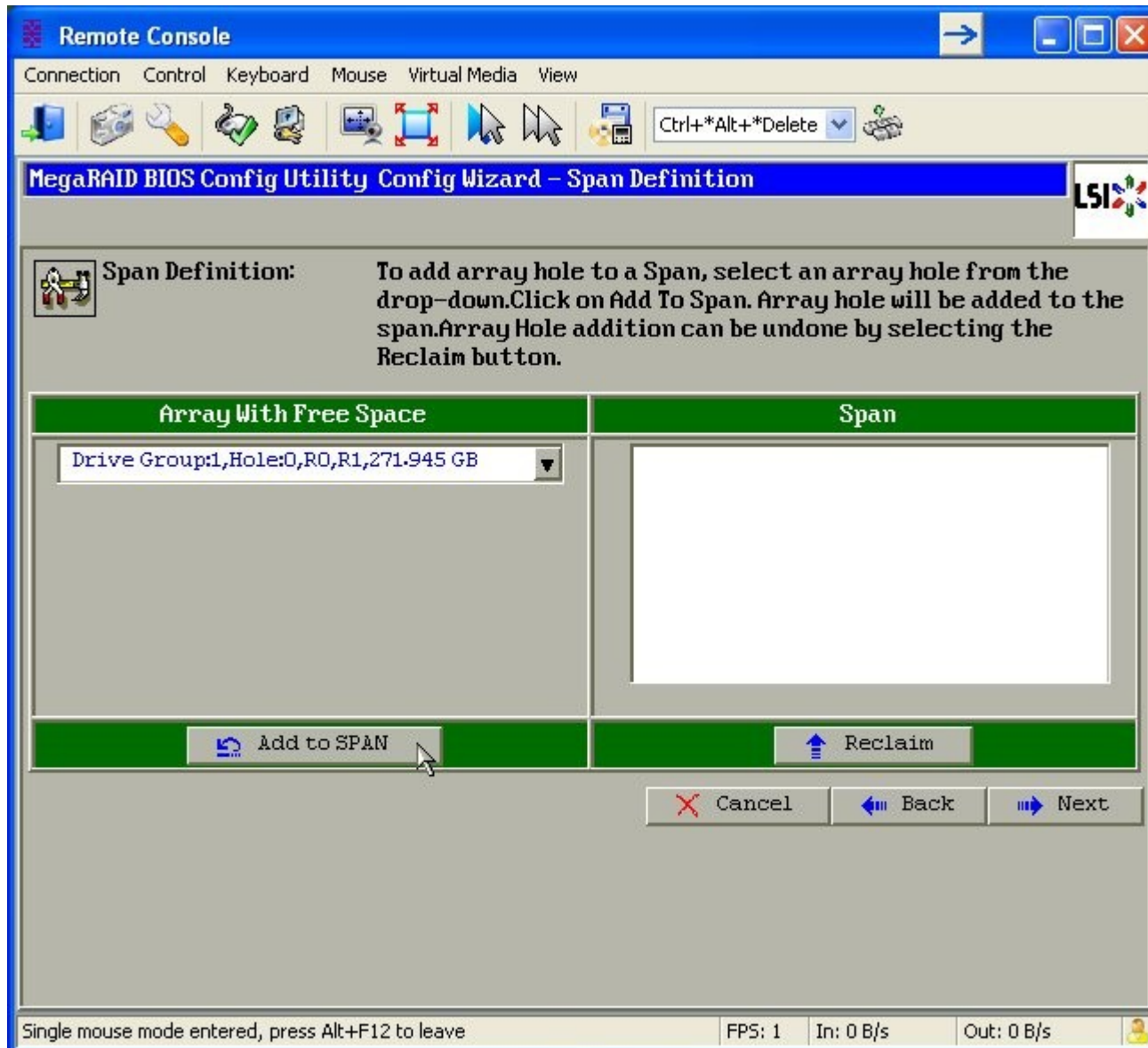
Cancel Back Next

Single mouse mode entered, press Alt+F12 to leave FPS: 9 In: 549 B/s Out: 46 B/s

Click « Next » button



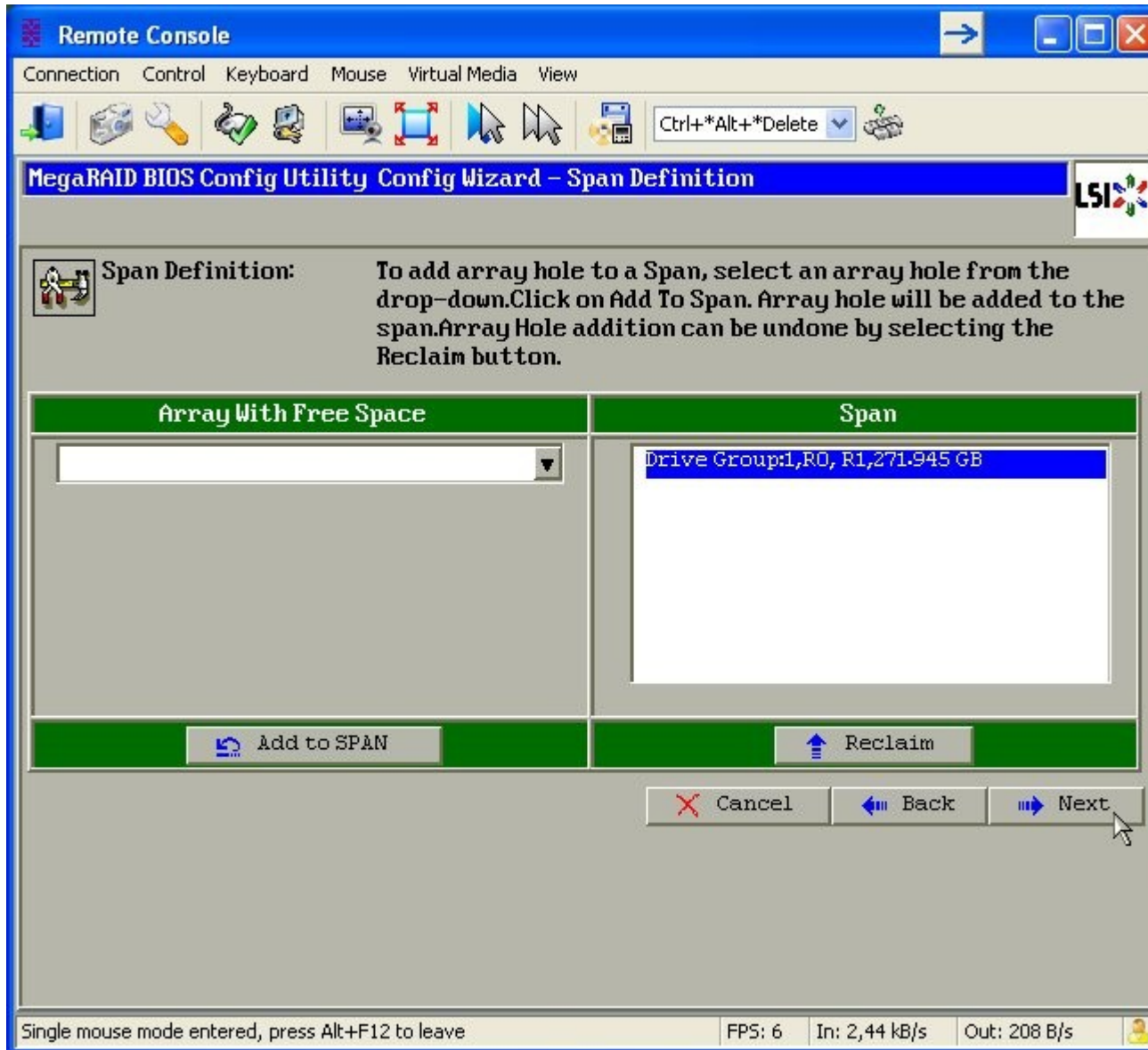
# Creating a Raid Group



The « Drive Group1 » appears in the « Array with Free Space ».

Click « Add to SPAN »

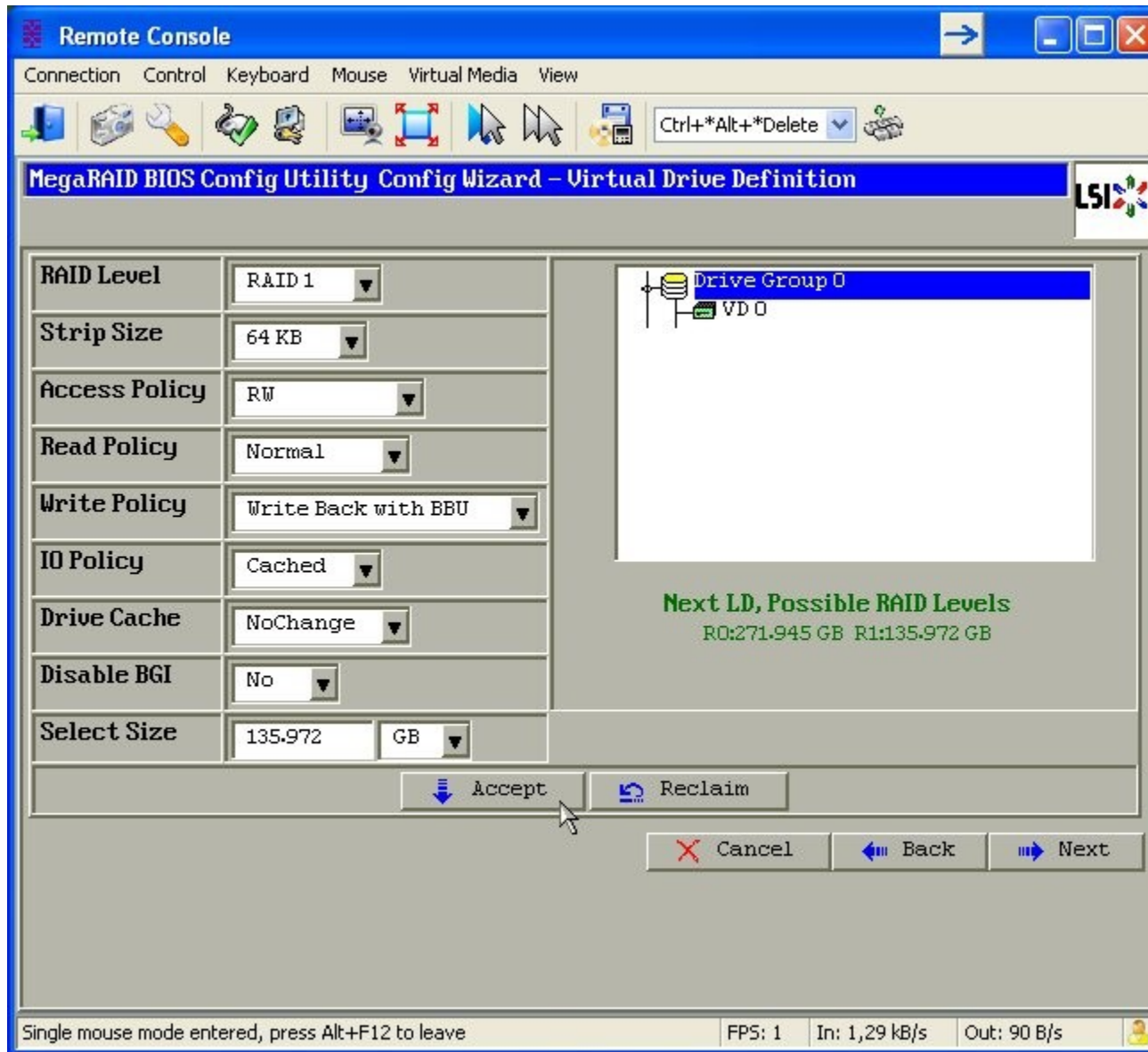
# Creating a Raid Group



The « Drive Group1 » appears in the Span area.

Click « Next » button

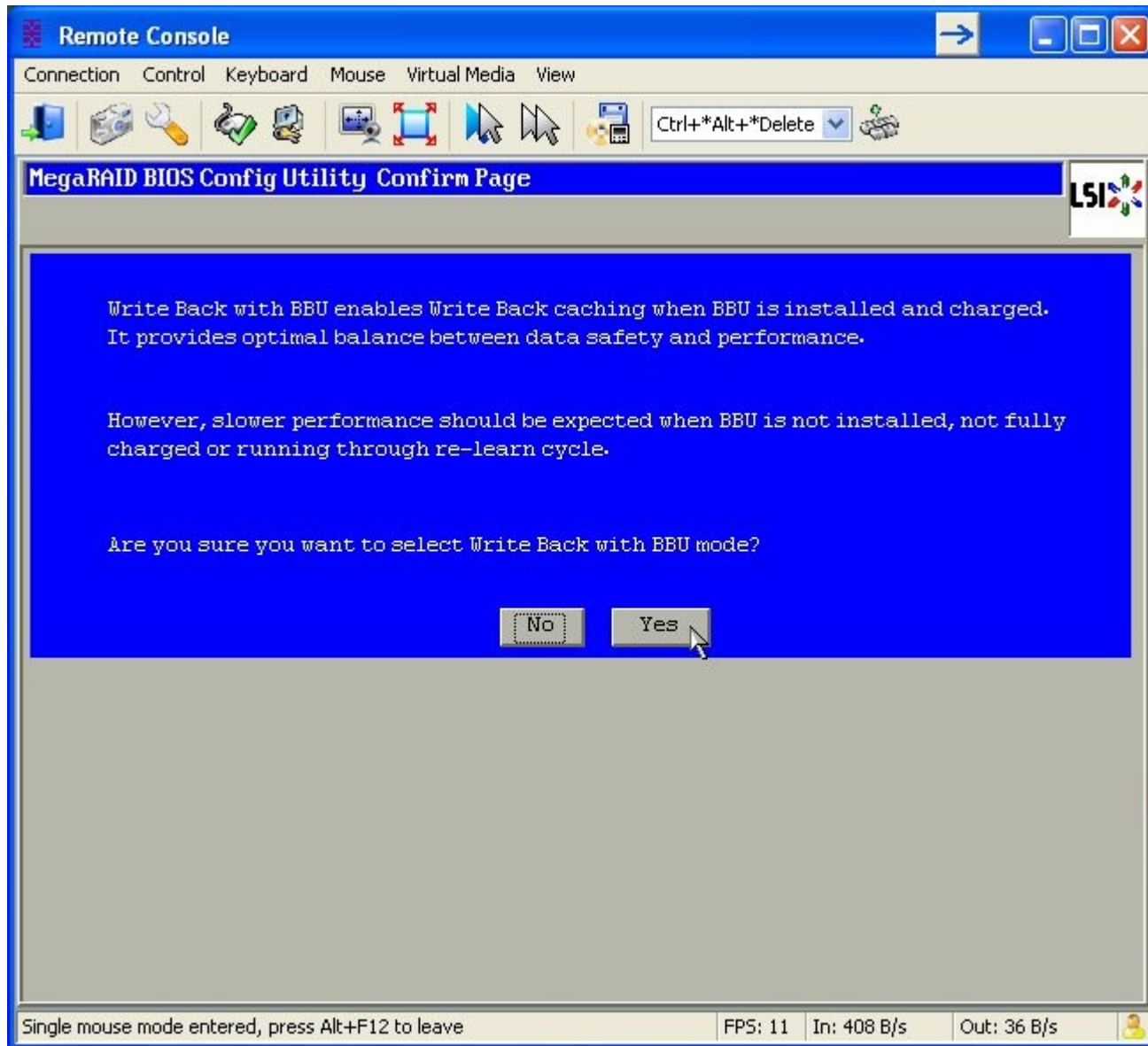
# Creating a Raid Group



The « Virtual Drive Definition » page allows to set the Raid properties. In this example , there is no needs to change the values.

Click « Accept » .

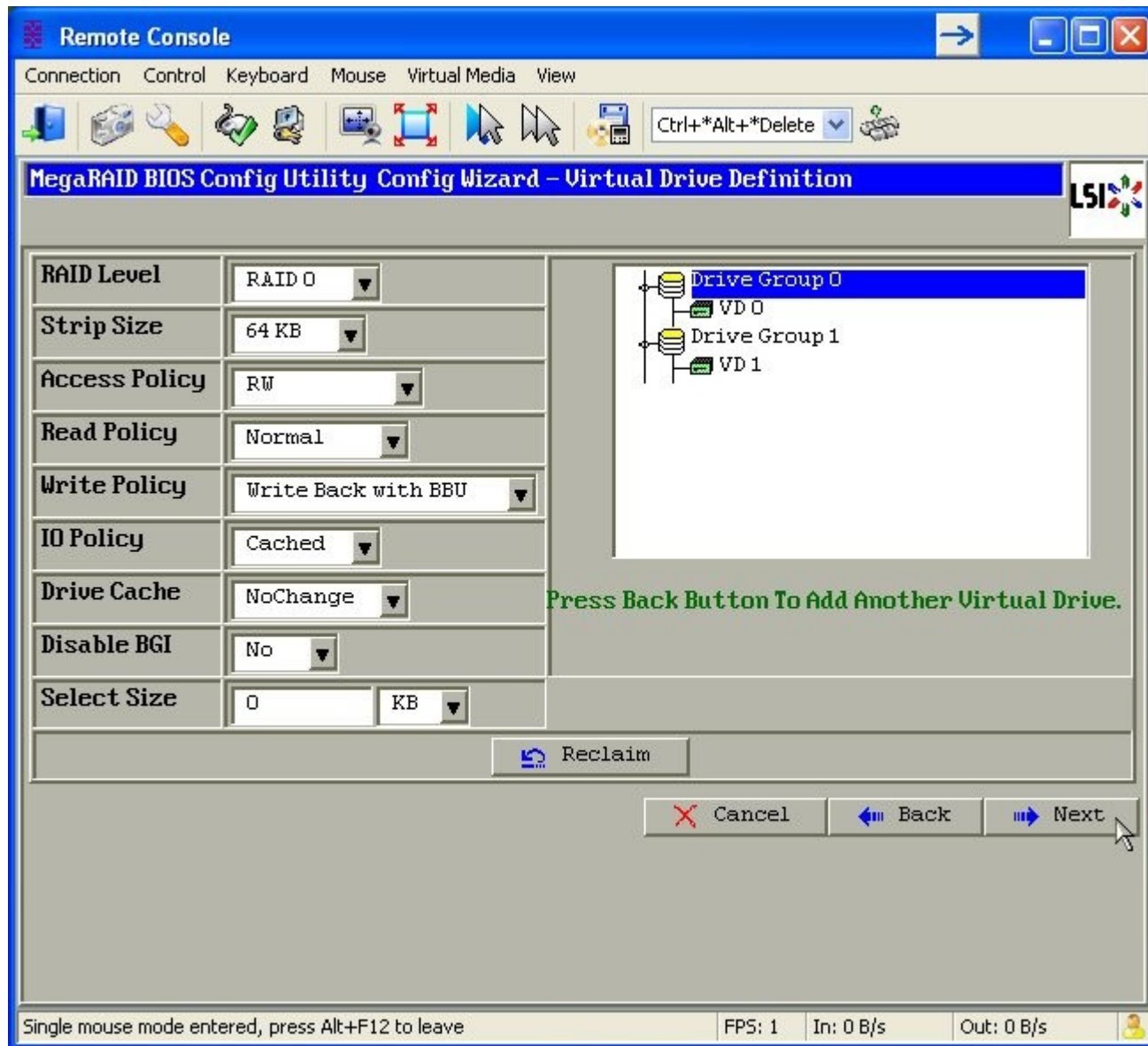
# Creating a Raid Group



Generally, the «Write Back with BBU » mode is activated.

Click « Yes » button

# Creating a Raid Group



The Virtual drive « VD1 » appears in the tree.

Click « Next » button.



# Creating a Raid Group

Remote Console

Connection Control Keyboard Mouse Virtual Media View

MegaRAID BIOS Config Utility Config Wizard - Preview

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**Configuration Preview:** This is the configuration defined. Click ACCEPT to save this configuration.

Drives	Virtual Drives
Backplane (252)	Drive Group 0
Slot: 0, SAS, HDD, 135.972 GB, Onlin	VD 0
Slot: 1, SAS, HDD, 135.972 GB, Onlin	Drive Group 1
Slot: 2, SAS, HDD, 135.972 GB, Onlin	VD 1
Slot: 3, SAS, HDD, 135.972 GB, Onlin	

Cancel Back Accept

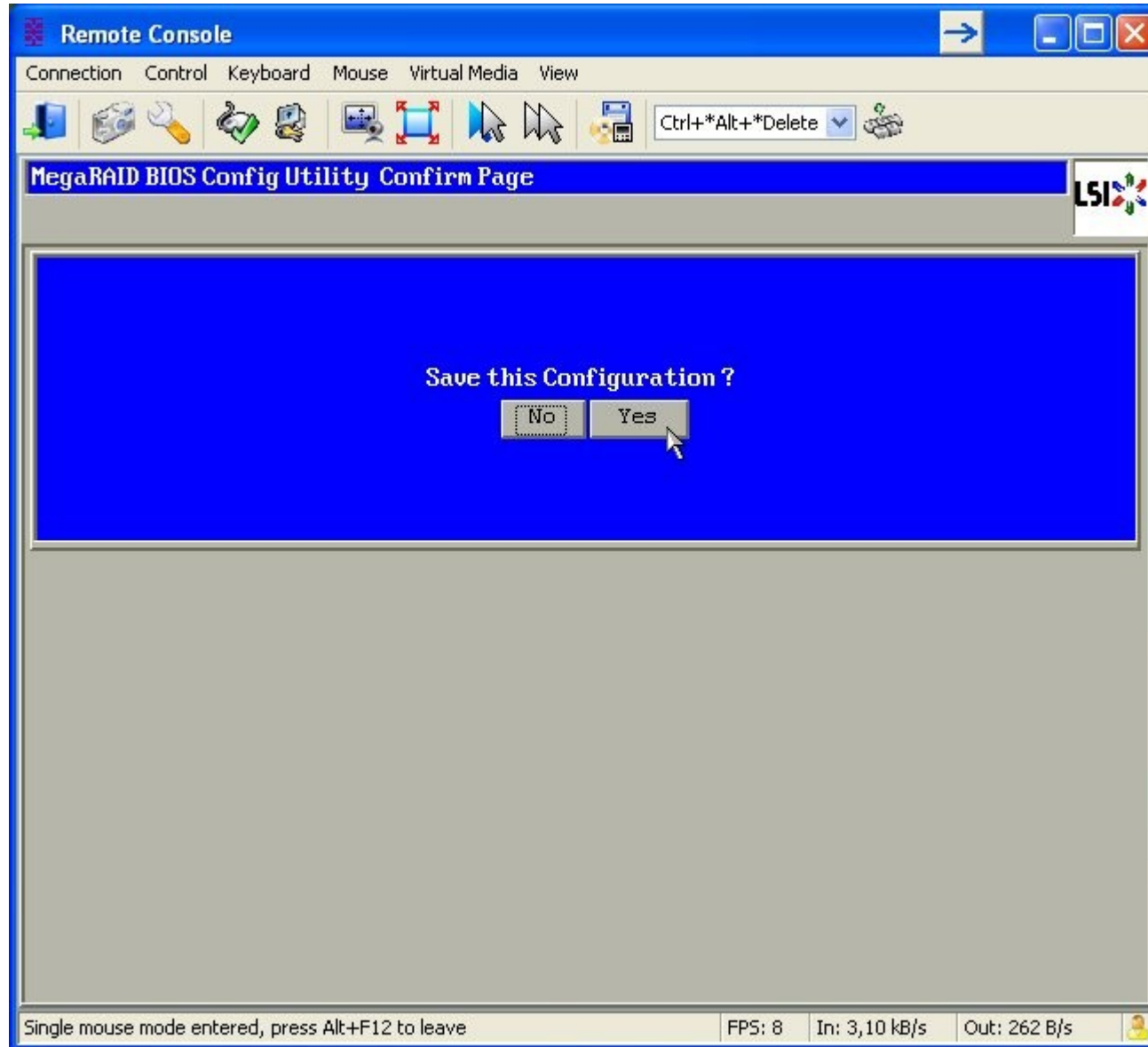
Single mouse mode entered, press Alt+F12 to leave FPS: 7 In: 1,88 kB/s Out: 198 B/s

Preview of the new configuration.

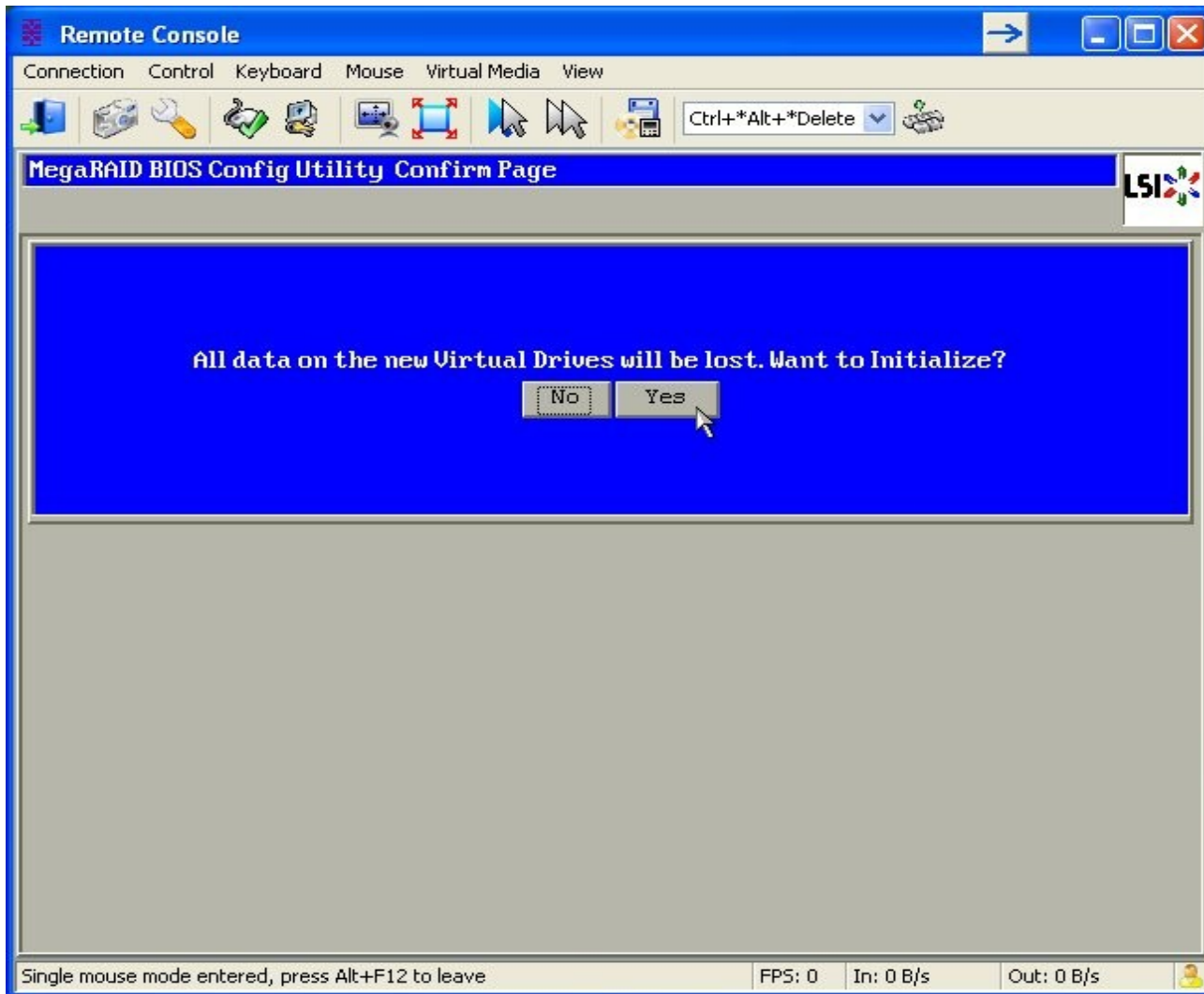
Click "Accept" button.



# Creating a Raid Group

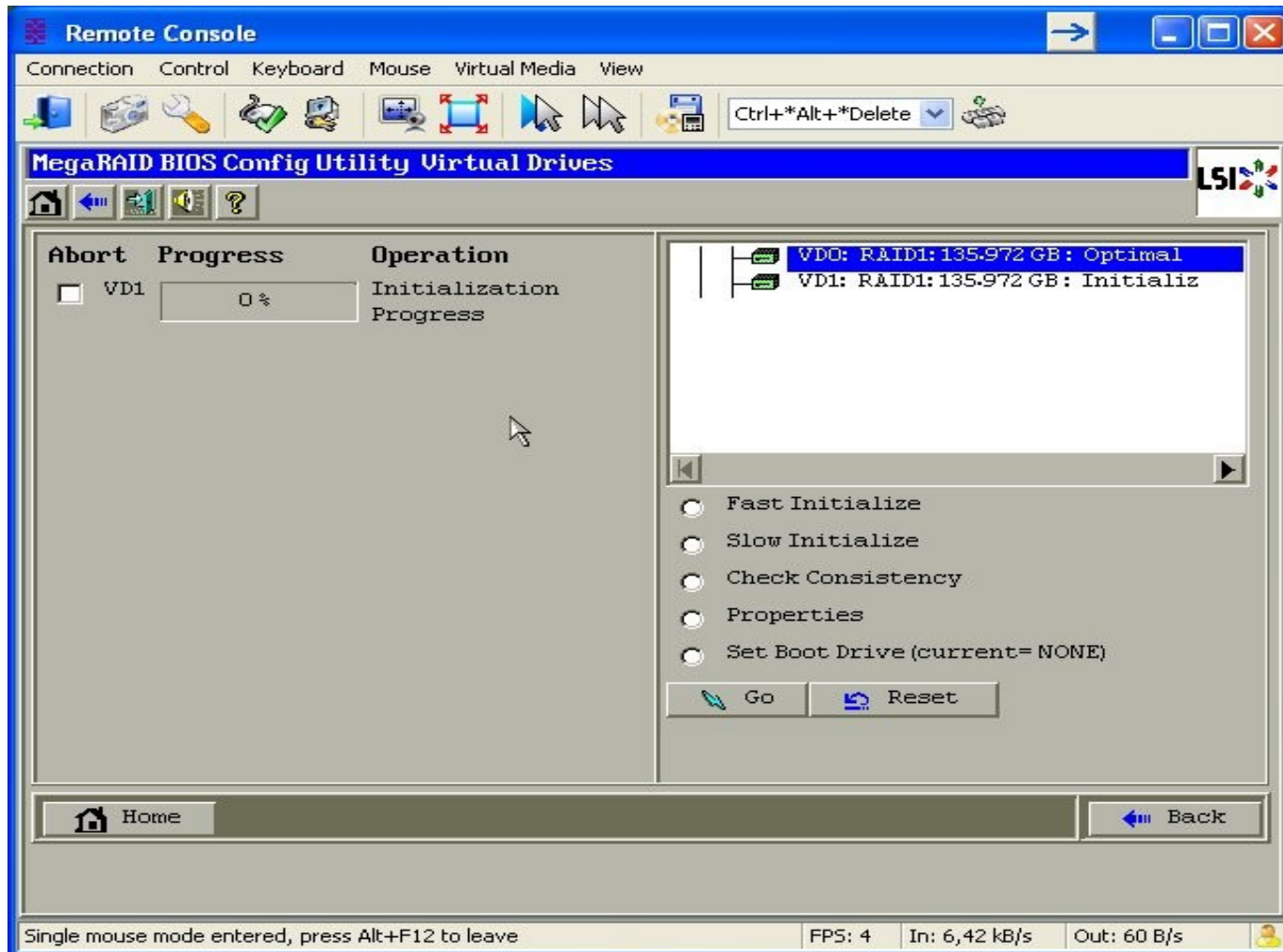


# Creating a Raid Group



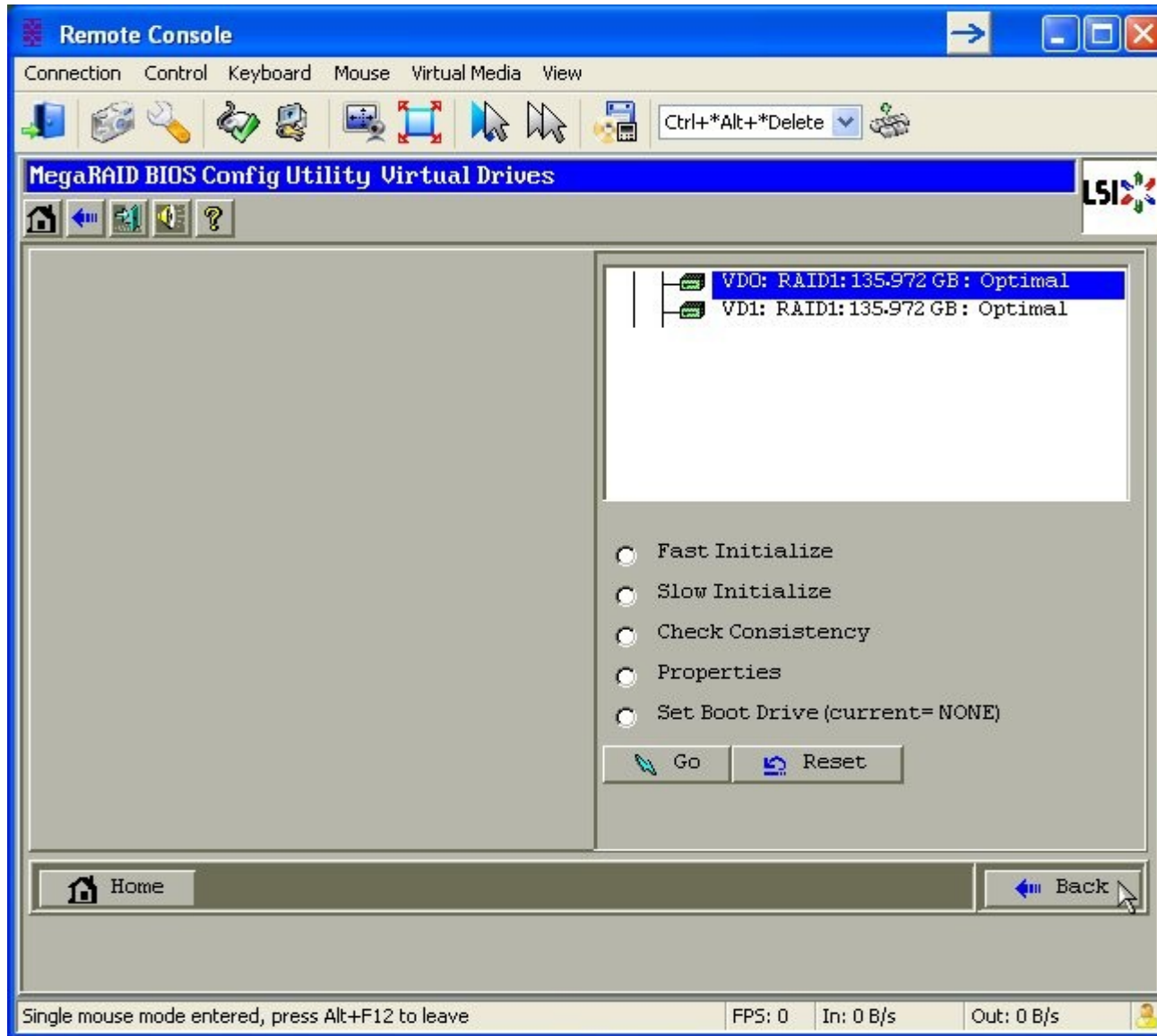
Click « Yes » to confirm the initialization of the new Virtual Drive.

# Creating a Raid Group



The «'Progress' bar appears for a short time.

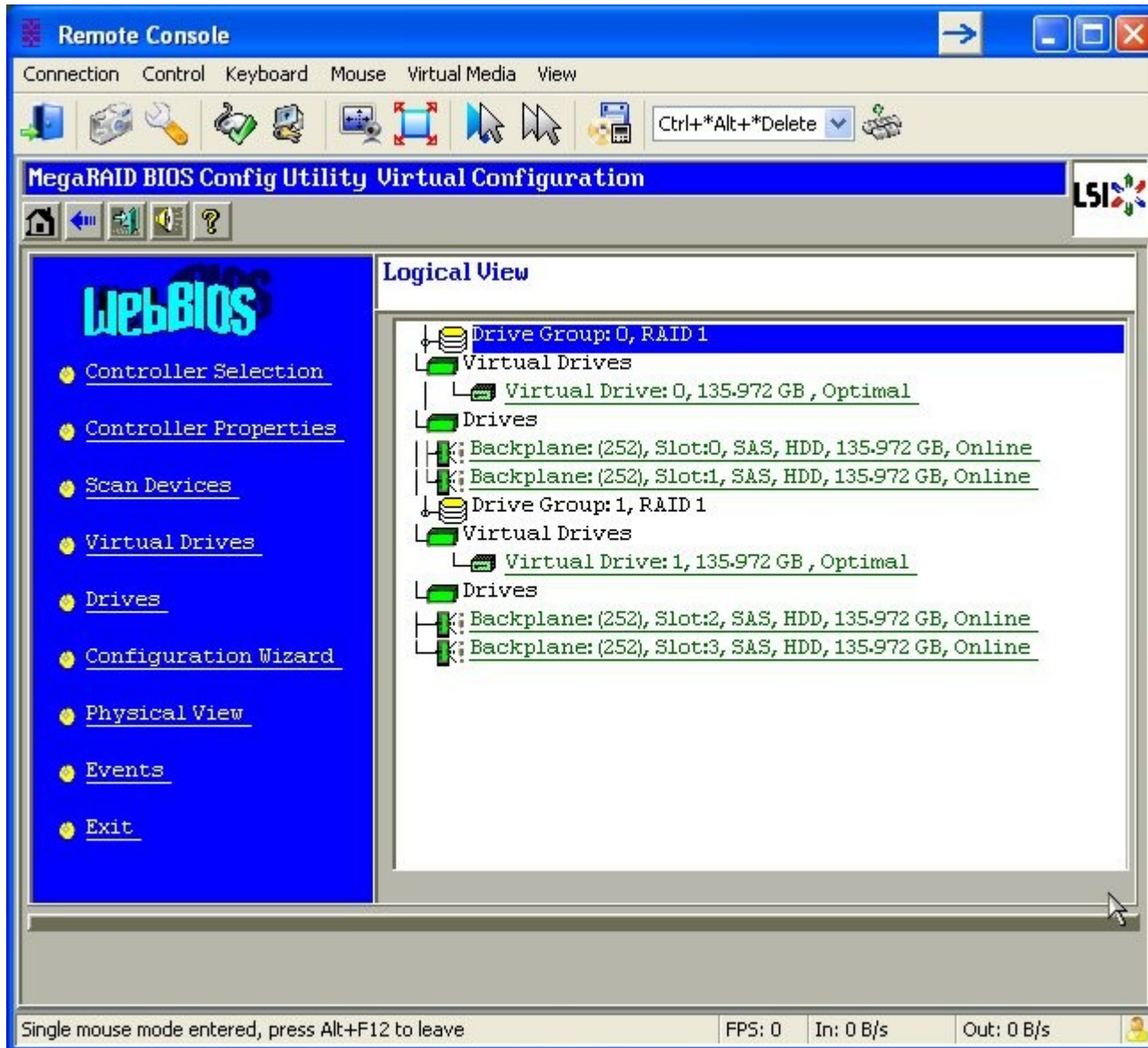
# Creating a Raid Group



The new virtual drive 'VD1' is created and in 'Optimal' state.

Click « Back » to return to the Home page.

# Creating a Raid Group

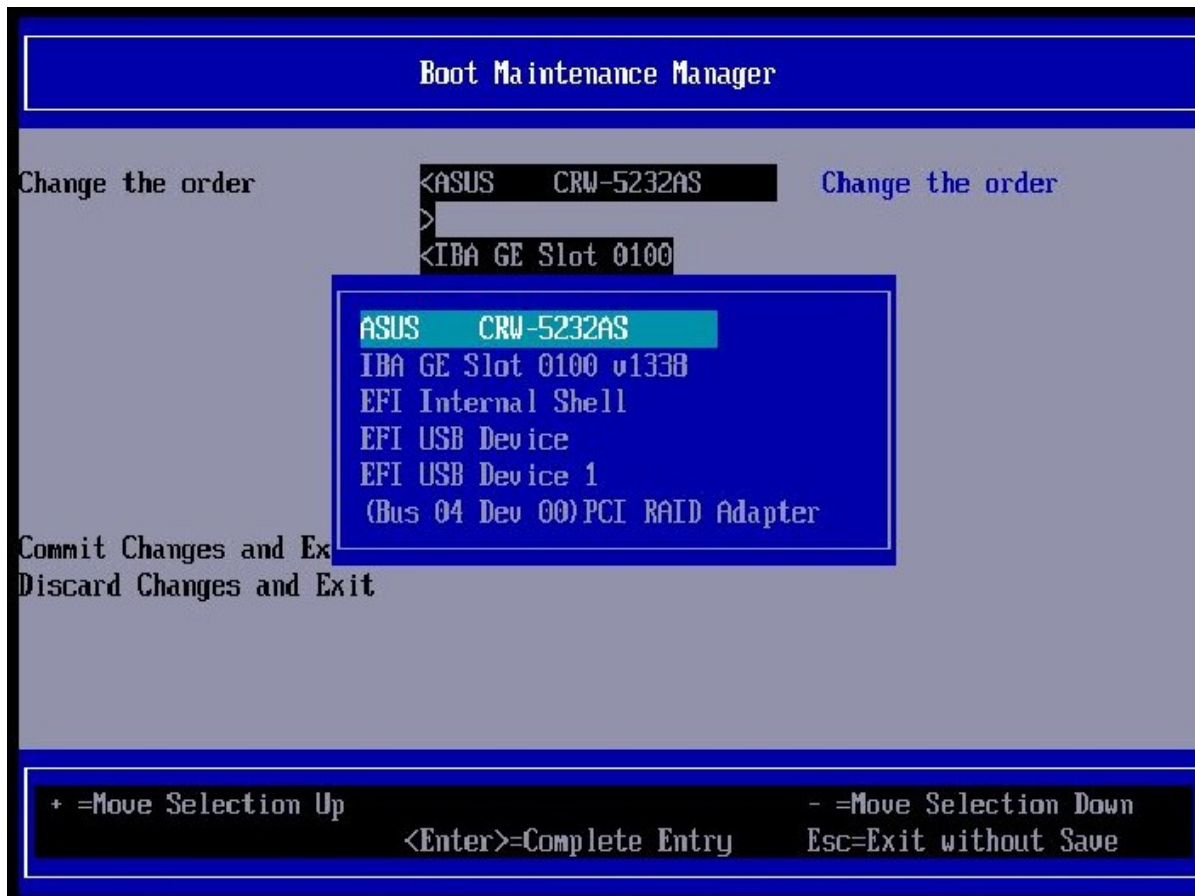


The Virtual Drive 1, belonging to the Drive Group 1 is in Optimal state. It includes drives in slot 2 and slot 3.

# Creating a Raid Group

- Verify the boot list order

- Reboot the novascale bullion server.
- Press the [Space] key when the message "Hit [Space] for Boot Menu" is displayed.
- In the BIOS interface, go to "Boot Maintenance Manager" then [Enter],



From the interface, the boot order can be set using a list with:

- EFI devices
- only the selected item for each kind of legacy device.

NOTE: In the boot order list, there is no way to have two devices from the same kind of legacy.

Select the line to be pushed at the top of the Boot List.

Use the '+' key to move the selected line.

Press 'Enter'.

Go down to 'Commit Changes and Exit', press 'Enter'.