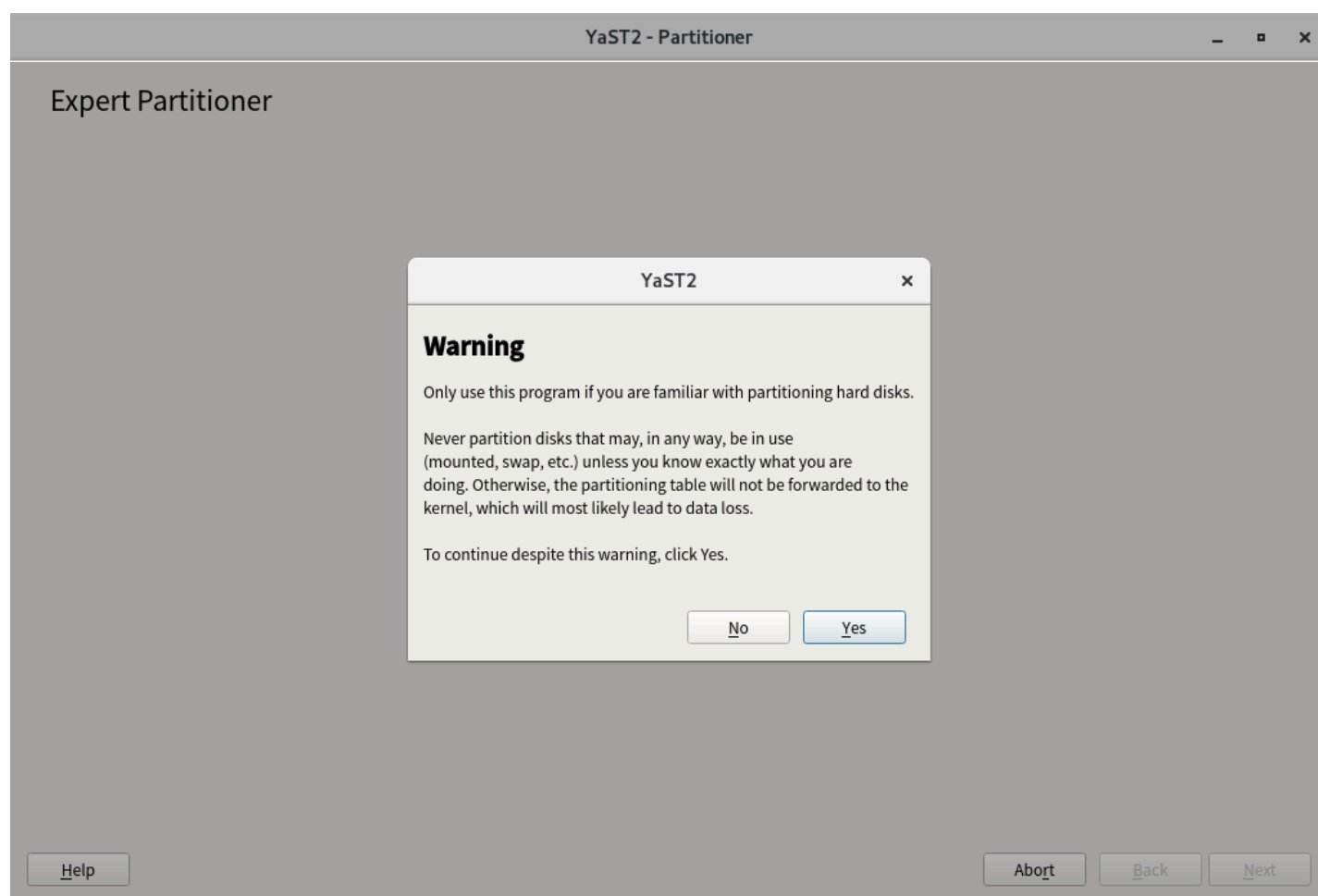


LAB: 用 Yast2 Disk 模組，建立 RAID

- 建立三個大小為 200 MB 分割區，系統 ID 為 0xFD Linux RAID 的分割區，並做 Soft RAID5，掛載至 /mnt/md0

```
linux-zali:~ # yast2 disk
```

請點選 『yes』



請點選左邊列表中的『 Hard Disks 』，並展開它

YaST2

Expert Partitioner

System View

linux-za1i

- Hard Disks
- RAID
- Volume Management
- Crypt Files
- Device Mapper
- NFS
- Btrfs
- tmpfs
- Unused Devices
- Installation Summary
- Settings

Available Storage on linux-za1i

Device	Size	F	Enc	Type	FS Type	Label	Mount Point
/dev/sda	30.00 GiB			VMware-,VMware Virtual S			
/dev/sda1	2.01 GiB			Linux swap	Swap	swap	
/dev/sda2	20.00 GiB			Linux native	Btrfs	/	
/dev/sda3	1.99 GiB			Linux native	XFS	/home	
/dev/sda4	6.00 GiB			Extended			
/dev/sda5	1.00 GiB			Linux native	Ext3	/data1	
tmpfs	419.53 MiB			TMPFS	TmpFS	/dev/shm	
tmpfs	419.53 MiB			TMPFS	TmpFS	/run	
tmpfs	419.53 MiB			TMPFS	TmpFS	/sys/fs/cgroup	
tmpfs	83.91 MiB			TMPFS	TmpFS	/run/user/0	
tmpfs	83.91 MiB			TMPFS	TmpFS	/run/user/1000	

Rescan Devices

Configure...

Help

Abort

Finish

請點選左邊列表中的『 sda 』，再點選『 Add 』

YaST2

Expert Partitioner

System View

linux-za1i

Hard Disks

sda

RAID

Volume Management

Crypt Files

Device Mapper

NFS

Btrfs

tmpfs

Unused Devices

Installation Summary

Settings

Hard Disk: /dev/sda

Overview

Partitions

sda2

20.00 GiB

Unpartitioned

4.99 GiB

Device	Size	F	Enc	Type	FS Type	Label	Mount Point	Start	End
/dev/sda1	2.01 GiB			Linux swap	Swap	swap		0	261
/dev/sda2	20.00 GiB			Linux native	Btrfs		/	261	2872
/dev/sda3	1.99 GiB			Linux native	XFS		/home	2872	3133
/dev/sda4	6.00 GiB			Extended				3133	3915
/dev/sda5	1.00 GiB			Linux native	Ext3		/data1	3134	3264

Add...

Edit...

Move...

Resize...

Delete...

Expert...

Help

Abort

Finish

請建立 200 MB，點選『Next』

YaST2

Add Partition on /dev/sda

New Partition Size

☐ Maximum Size (4.98 GiB)

☒ Custom Size

☐ Custom Region

Size

200 MB

Start Cylinder

3265

End Cylinder

3914

Help

Abort

Back

Next

請點選『Next』

YaST2

Add Partition on /dev/sda

Role

☐ Operating System

☒ Data and ISV Applications

☐ Swap

☐ Raw Volume (unformatted)

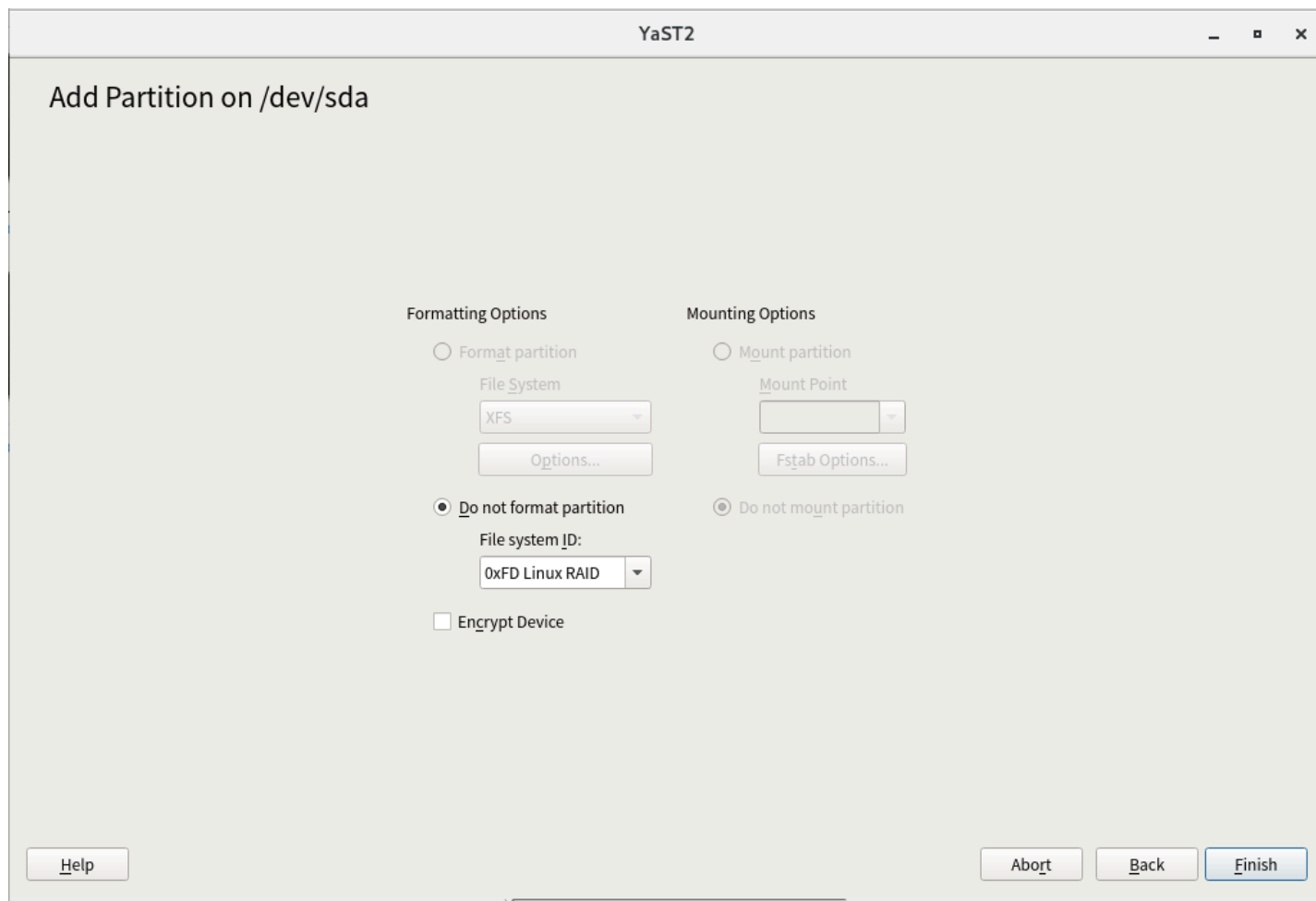
Help

Abort

Back

Next

請點選『Do not format partition』→點選 File System ID 的下拉選單，點選『0xFD Linux RAID』→點選『Next』



The image shows a window titled "YaST2" with the subtitle "Add Partition on /dev/sda". The window is divided into two main sections: "Formatting Options" and "Mounting Options".

Formatting Options:

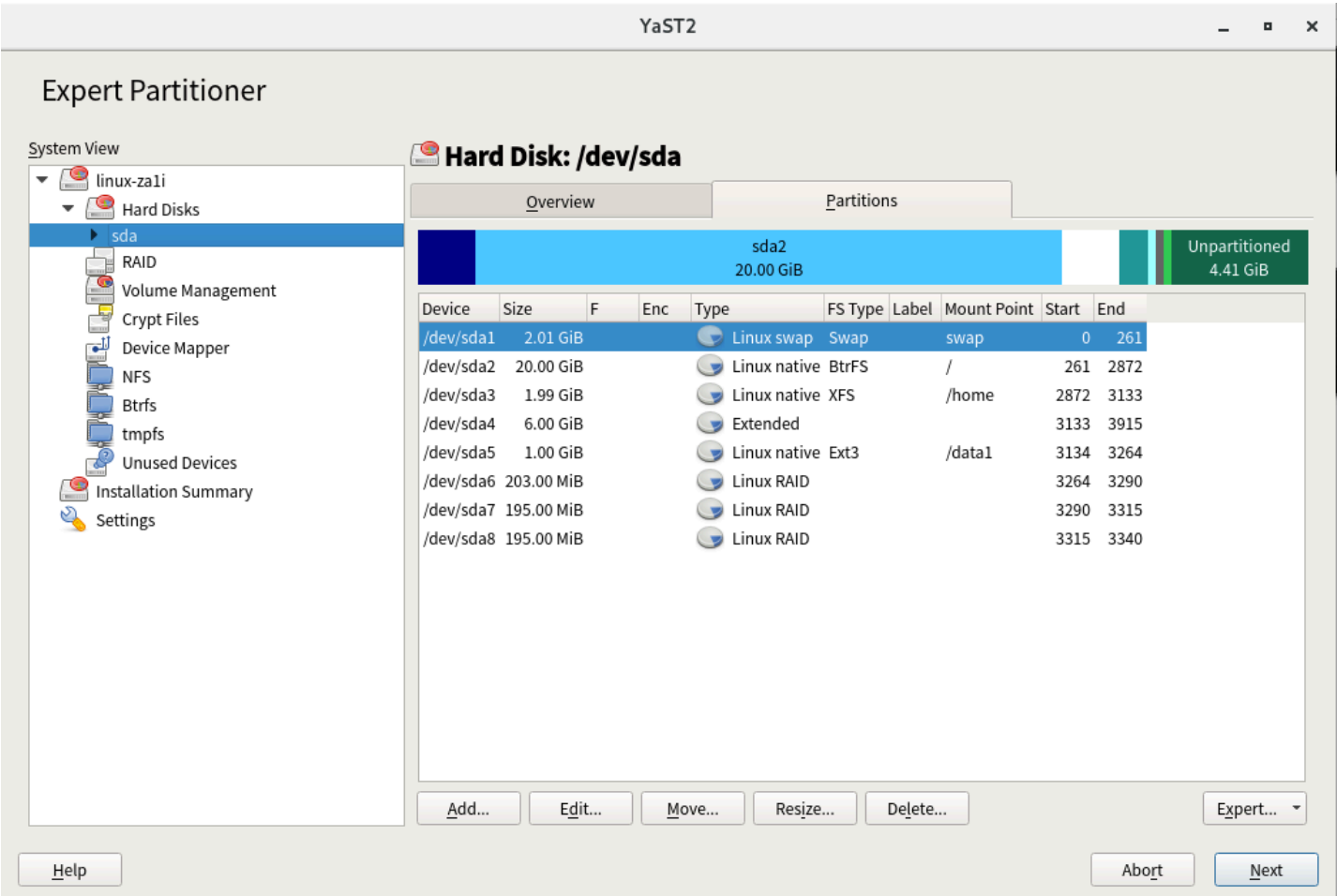
- ☐ Format partition
 - File System: XFS (dropdown menu)
 - Options... (button)
- ☒ Do not format partition
 - File system ID: 0xFD Linux RAID (dropdown menu)
- ☐ Encrypt Device

Mounting Options:

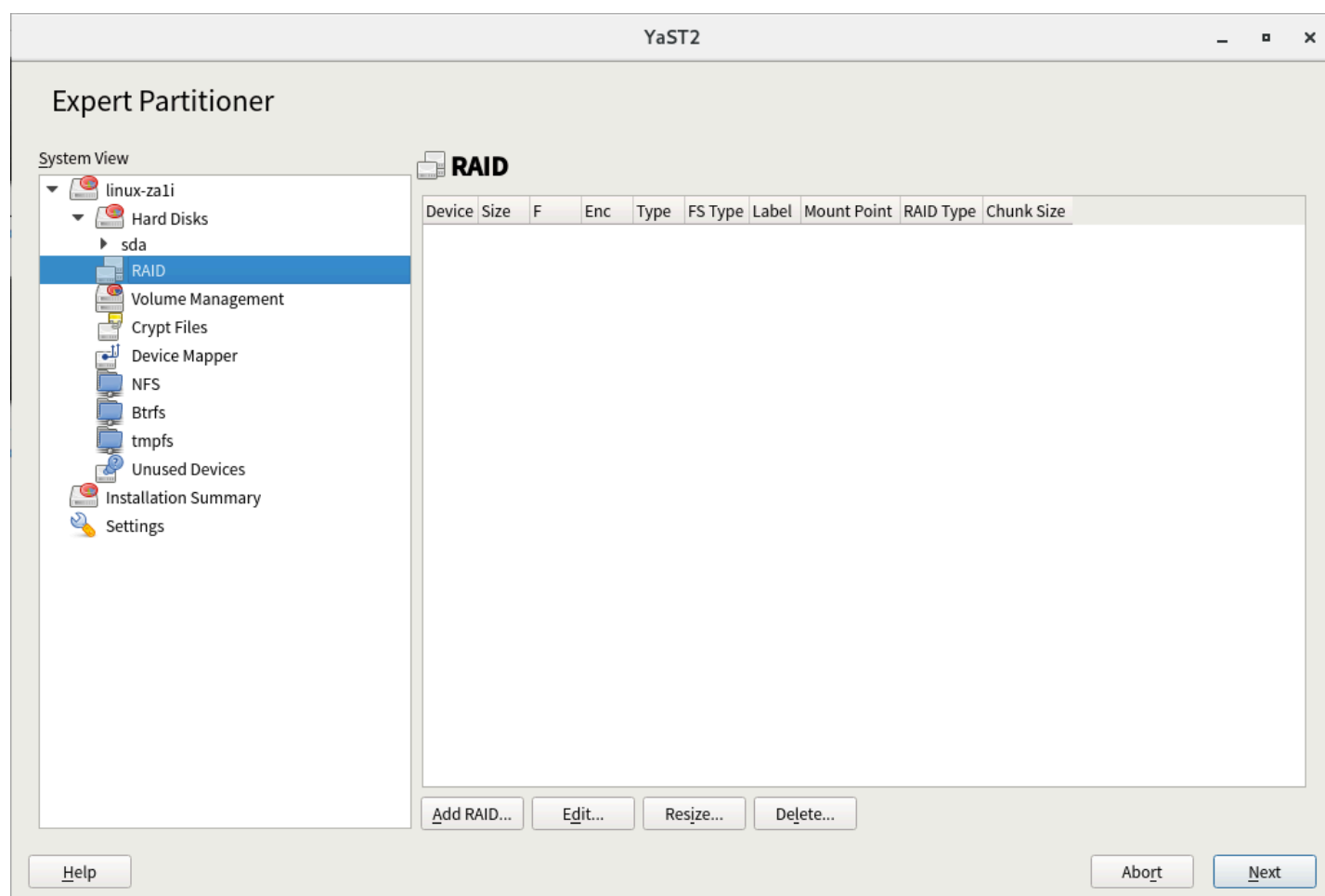
- ☐ Mount partition
 - Mount Point: (empty dropdown menu)
 - Fstab Options... (button)
- ☒ Do not mount partition

At the bottom of the window, there are three buttons: "Help", "Abort", and "Finish". The "Finish" button is highlighted in blue.

上述建立分割區步驟請再重複二次，確認有看到三個 200 MB 的分割區



請點選左側選單『RAID』→再點選『Add RAID』



這是尚未點選任何選項的畫面

YaST2

Add RAID /dev/md0

RAID Type

☒ RAID 0 (Striping)

☐ RAID 1 (Mirroring)

☐ RAID 5 (Redundant Striping)

☐ RAID 6 (Dual Redundant Striping)

☐ RAID 10 (Mirroring and Striping)

Raid Name (optional)

Available Devices:

Device	Size	Enc	Type
/dev/sda6	203.00 MiB		Linux RAID
/dev/sda7	195.00 MiB		Linux RAID
/dev/sda8	195.00 MiB		Linux RAID

Add →

Add All →

← Remove

← Remove All

Selected Devices:

Device	Size	Enc	Type	Class
--------	------	-----	------	-------

Top

Up

Down

Bottom

Classify

Total size: 593.00 MiB

Resulting size: 0 B

Help

Abort

Back

Next

請點選『 RAID 5 (Redundant Striping) → 並設定『 Raid Name (Optional) 』為『 RAID5 』 → 再點選『 Add All 』 → 點選『 Next 』

YaST2

Add RAID /dev/md0

RAID Type

☐ RAID 0 (Striping)

☐ RAID 1 (Mirroring)

☒ RAID 5 (Redundant Striping)

☐ RAID 6 (Dual Redundant Striping)

☐ RAID 10 (Mirroring and Striping)




Raid Name (optional)

RAID5

Available Devices:

Device	Size	Enc	Type
--------	------	-----	------

Selected Devices:

Device	Size	Enc	Type	Class
/dev/sda6	196.11 MiB		 Linux RAID	
/dev/sda7	196.11 MiB		 Linux RAID	
/dev/sda8	196.11 MiB		 Linux RAID	

Add →

Add All →

← Remove

← Remove All

Top

Up

Down

Bottom

Classify

Total size: 0 B

Resulting size: 392.21 MiB

Help

Abort

Back

Next

請點選『Next』

YaST2

Add RAID /dev/md0

RAID Options

Chunk Size

128 KiB

Parity Algorithm

default

Help

Abort

Back

Next

請點選『Next』

YaST2

Add RAID /dev/md0

Role

☐ Operating System

☒ Data and ISV Applications

☐ Swap

☐ Raw Volume (unformatted)

Help

Abort

Back

Next

請點選『Mount partition』→並在『Mount Point』中，輸入『/mnt/md0』→點選『Finish』

YaST2

Add RAID /dev/md0

Formatting Options

☒ Format partition

File System

XFS

Options...

☐ Do not format partition

☐ Encrypt Device

Mounting Options

☒ Mount partition

Mount Point

/mnt/md0

Fstab Options...

☐ Do not mount partition

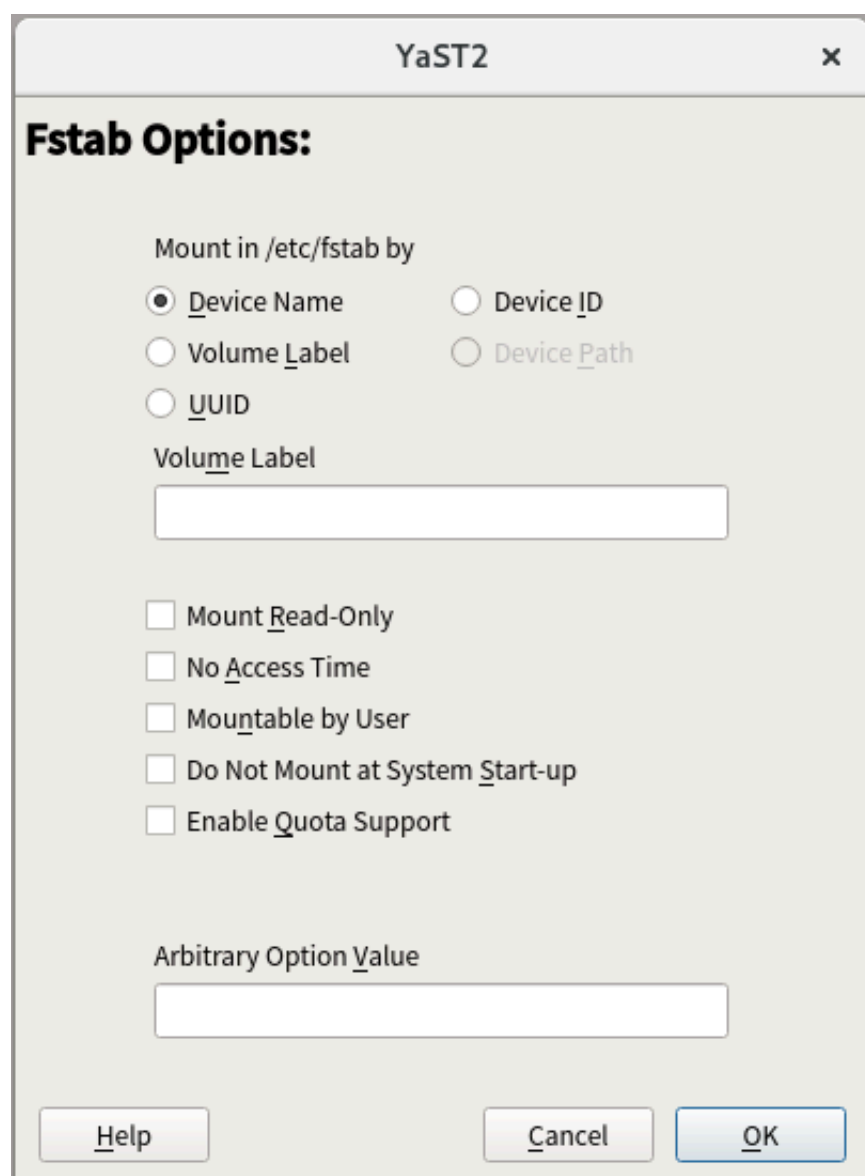
Help

Abort

Back

Finish

這是設定 fstab 的細部設定，請依照實際需求設定



The image shows a YaST2 window titled "Fstab Options:". It contains several configuration options for mounting a device in the /etc/fstab file. The options are organized into sections: "Mount in /etc/fstab by" with radio buttons for Device Name (selected), Device ID, Volume Label, Device Path, and UUID; a "Volume Label" text input field; a list of checkboxes for "Mount Read-Only", "No Access Time", "Mountable by User", "Do Not Mount at System Start-up", and "Enable Quota Support"; and an "Arbitrary Option Value" text input field. At the bottom are buttons for Help, Cancel, and OK.

YaST2

Fstab Options:

Mount in /etc/fstab by

☒ Device Name ☐ Device ID

☐ Volume Label ☐ Device Path

☐ UUID

Volume Label

☐ Mount Read-Only

☐ No Access Time

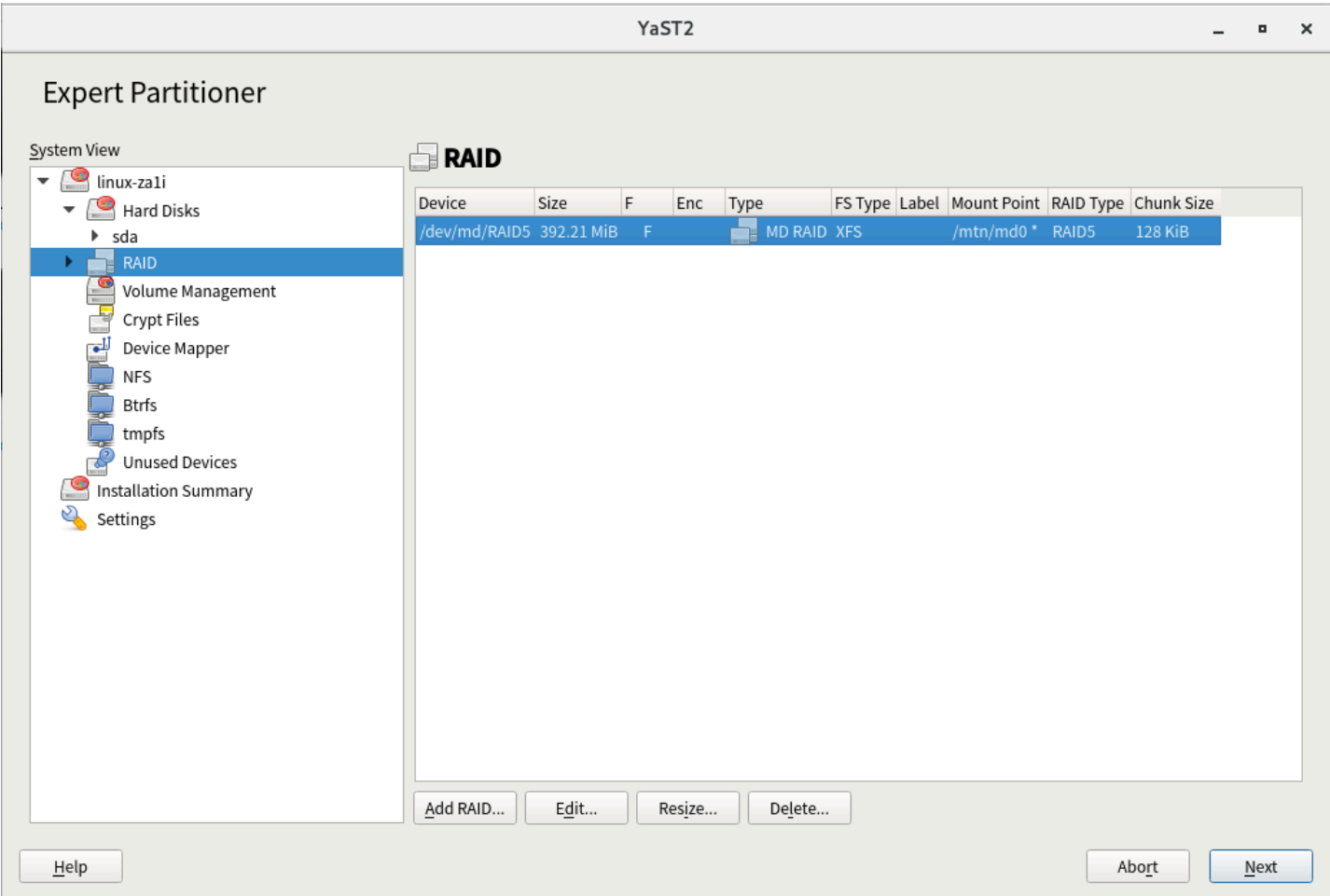
☐ Mountable by User

☐ Do Not Mount at System Start-up

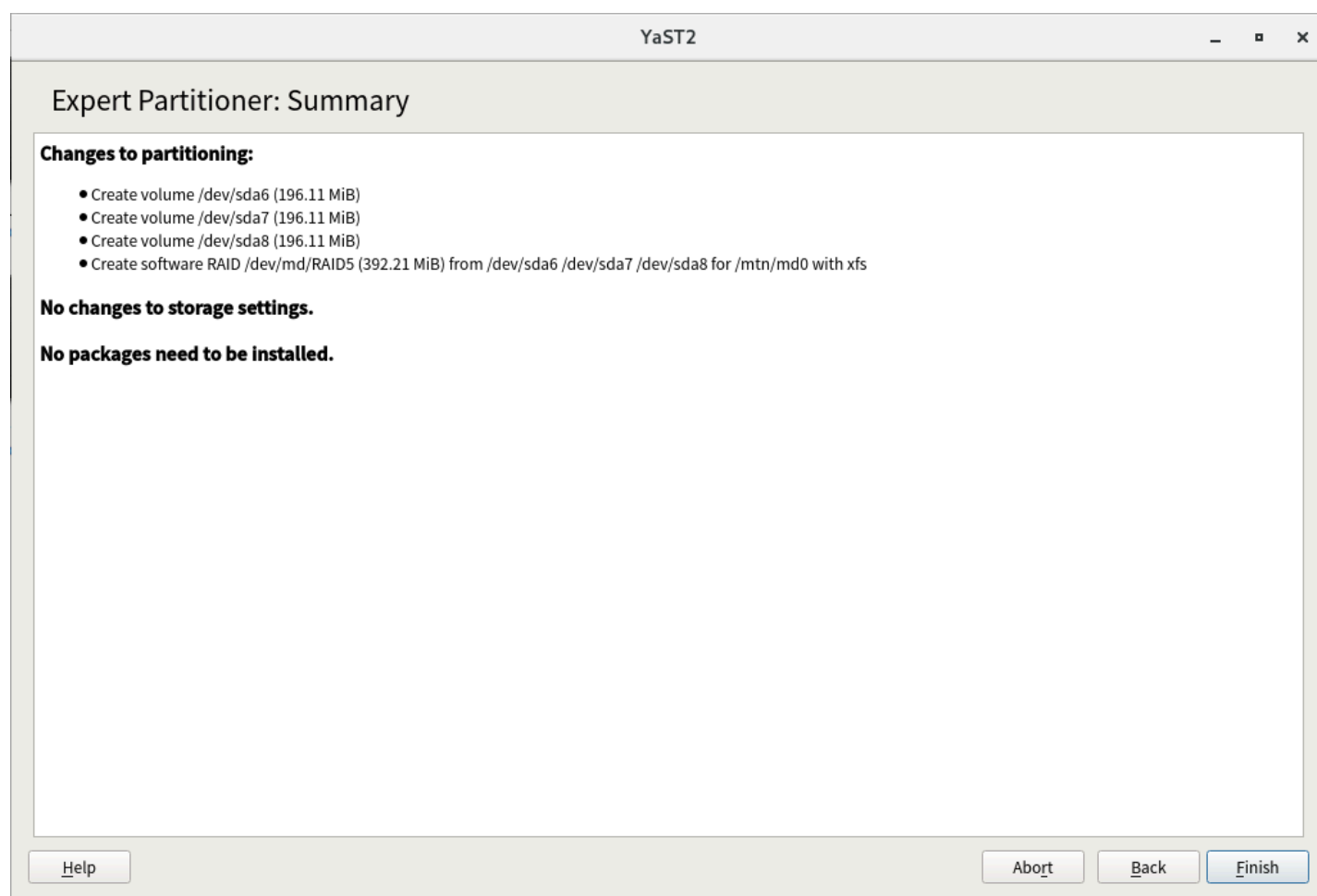
☐ Enable Quota Support

Arbitrary Option Value

這裡可以已經看到 RAID 的相關資訊了，點選『Next』



請點選『Finish』



- 請觀察資訊

```
linux-zali:~ # cat /etc/fstab
linux-zali:~ # df -h
```