

Setup RAID 1 Mirroring

May 25, 2010

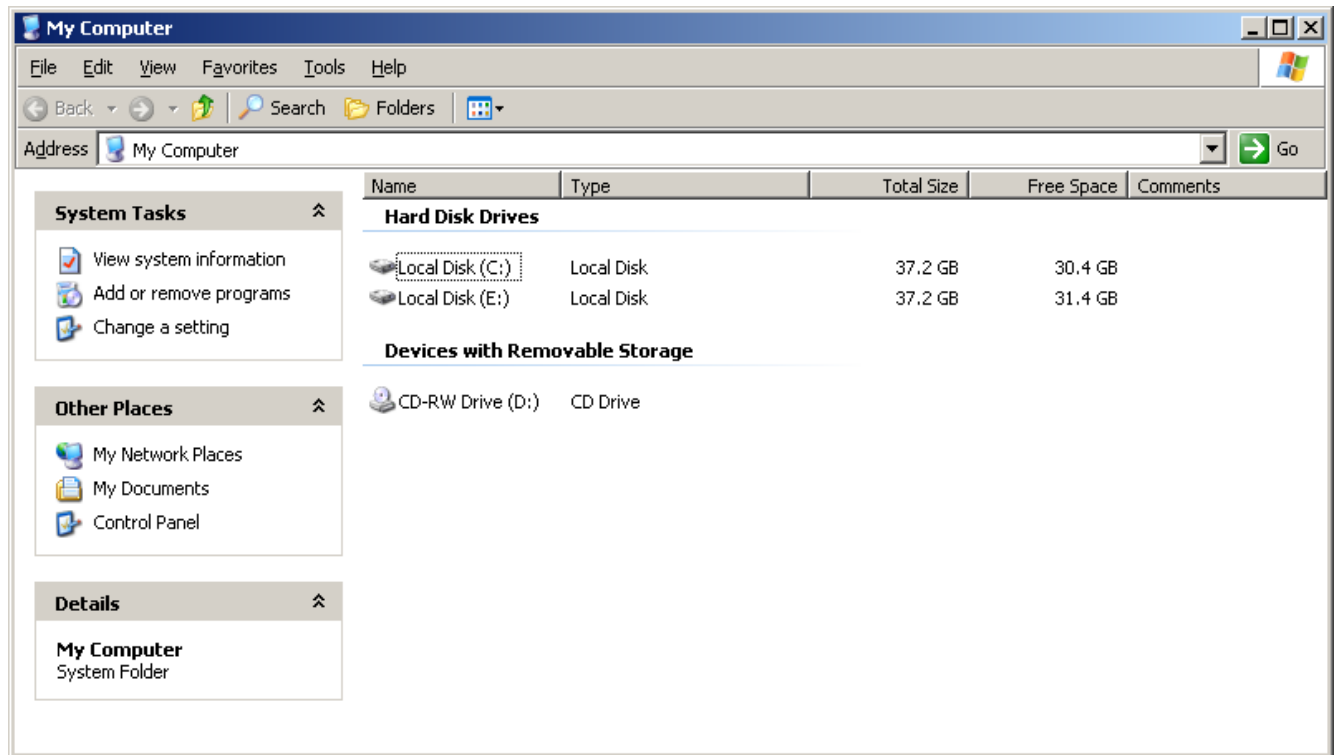
RAID Level 1

Raid level 1 requires a minimum of two hard drives. Both drives will be dynamic and the second one will have duplicate system and information data.



Add a Second Hard Drive

We add a second hard drive to the server. Our hard drive letters are C and E and the CDROM is drive D.



Open Computer Management

To access the disk management console, we first pick Computer Management from the Administrative Tools menu.



Computer Management Console

The screenshot shows the Windows Computer Management console. The left-hand tree view shows the following structure:

- Computer Management (Local)
 - System Tools
 - Event Viewer
 - Shared Folders
 - Local Users and Groups
 - Performance Logs and Alerts
 - Device Manager
 - Storage
 - Removable Storage
 - Disk Defragmenter
 - Disk Management**
 - Services and Applications

The main pane displays a table of volumes:

Volume	Layout	Type	File System	Status	Capacity	Free Space	% Free	Fault Tolerance	Overhead
	Partition	Basic		Healthy (EISA Configuration)	31 MB	31 MB	100 %	No	0%
(C:)	Partition	Basic	NTFS	Healthy (System)	37.25 GB	30.49 GB	81 %	No	0%
(E:)	Partition	Basic	NTFS	Healthy (Active)	37.25 GB	31.49 GB	84 %	No	0%

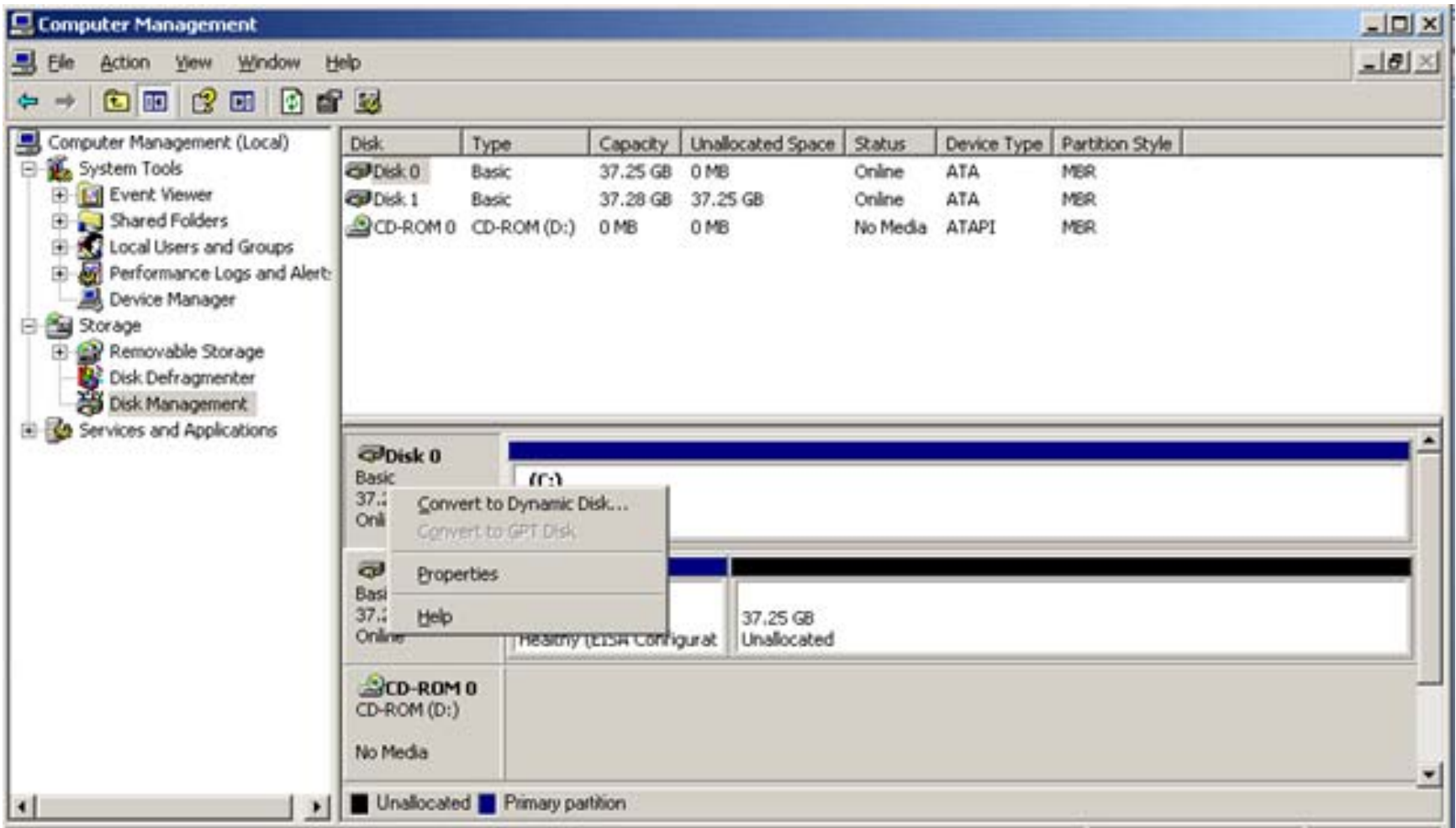
Below the table, the graphical representation shows:

- Disk 0**: Basic, 37.25 GB, Online. Contains a primary partition (C:) with 37.25 GB NTFS, Healthy (System).
- Disk 1**: Basic, 37.28 GB, Online. Contains a 31 MB partition (Healthy (EISA Configuration)) and a primary partition (E:) with 37.25 GB NTFS, Healthy (Active).
- CD-ROM 0**: CD-ROM (D:), No Media.

A legend at the bottom indicates that a blue square represents a Primary partition.

In the Computer Management Console, we select Disk Management and we see the C and E hard drive and the CDROM drive.

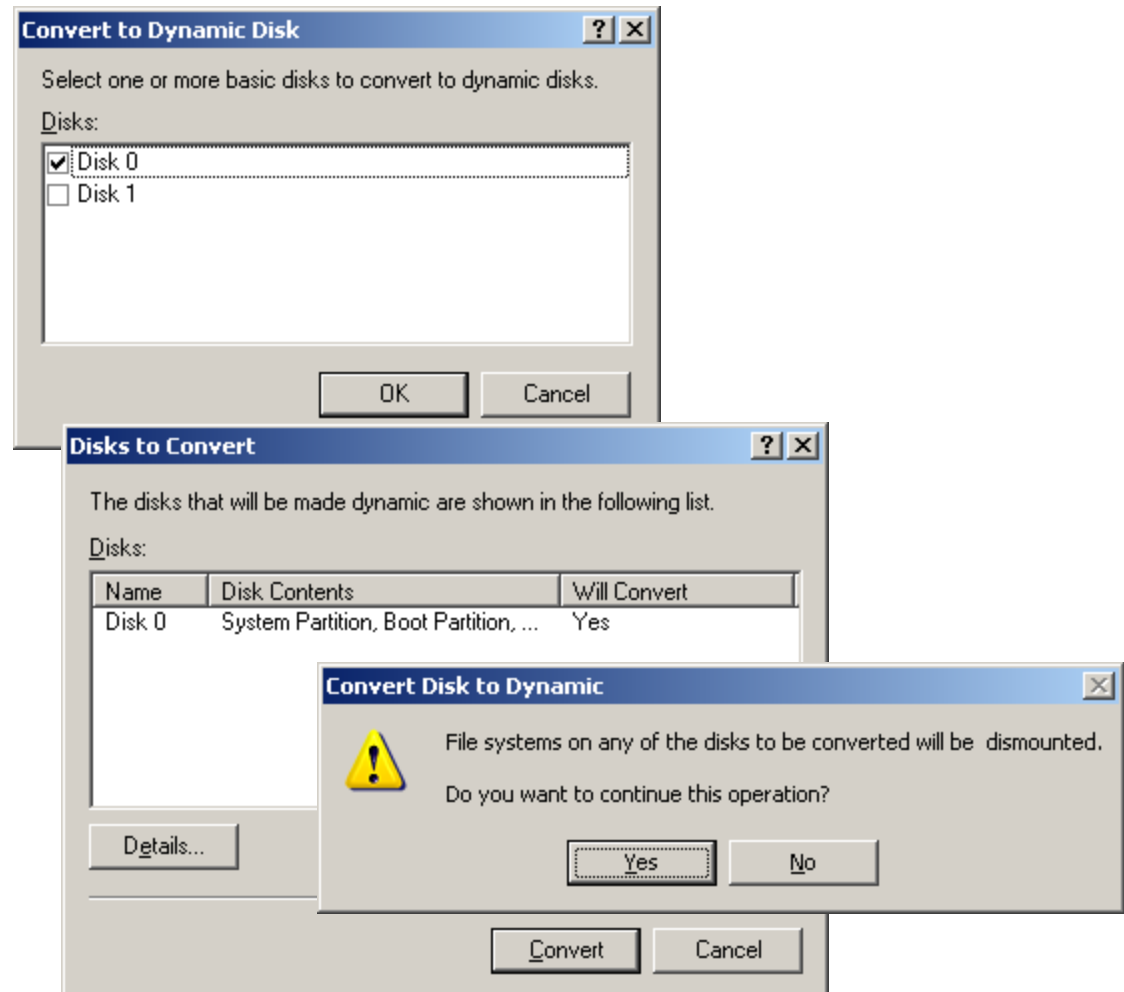
Convert Disk 0 to Dynamic Disk



We right click on the Disk 0 box and a menu appears. We select Convert to Dynamic disk.

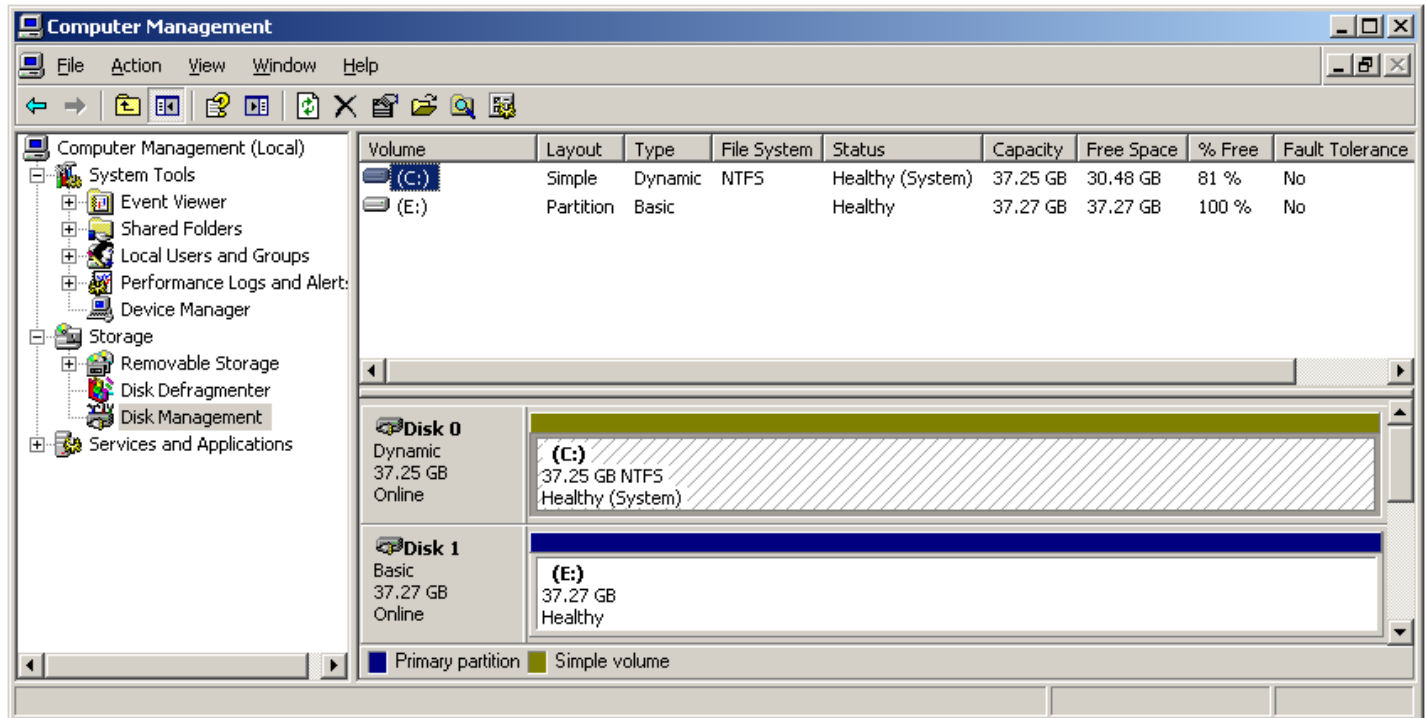
Multiple Questions and Warnings

We then answer a series of questions, checking the Disk 0 checkbox, then confirming that Disk 0 will be dynamic and then we answer a question that is okay to convert the file system.

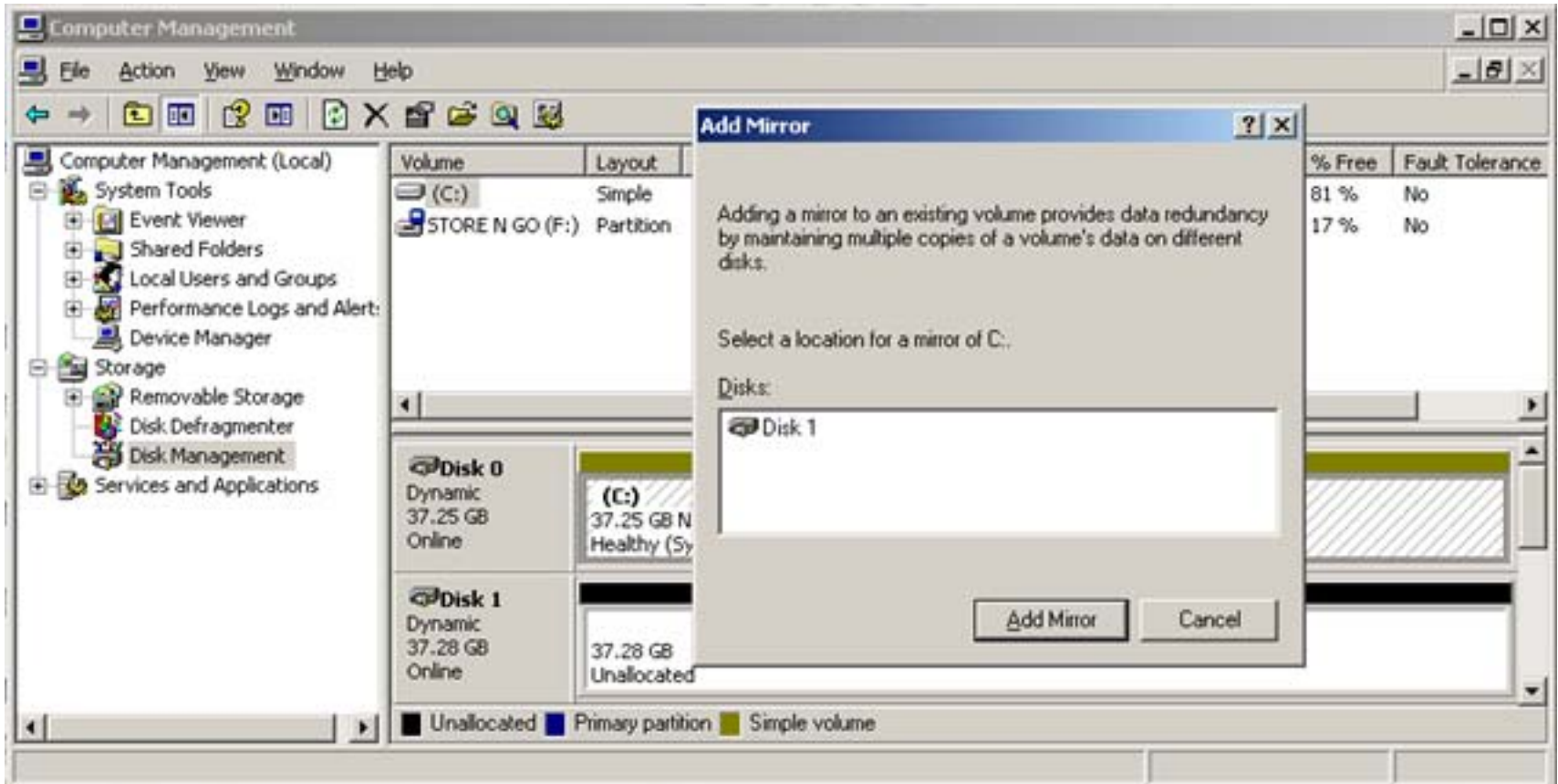


Disk 0 is Dynamic

Disk 0 is now a dynamic disk and is labeled as such in the bottom graphic.

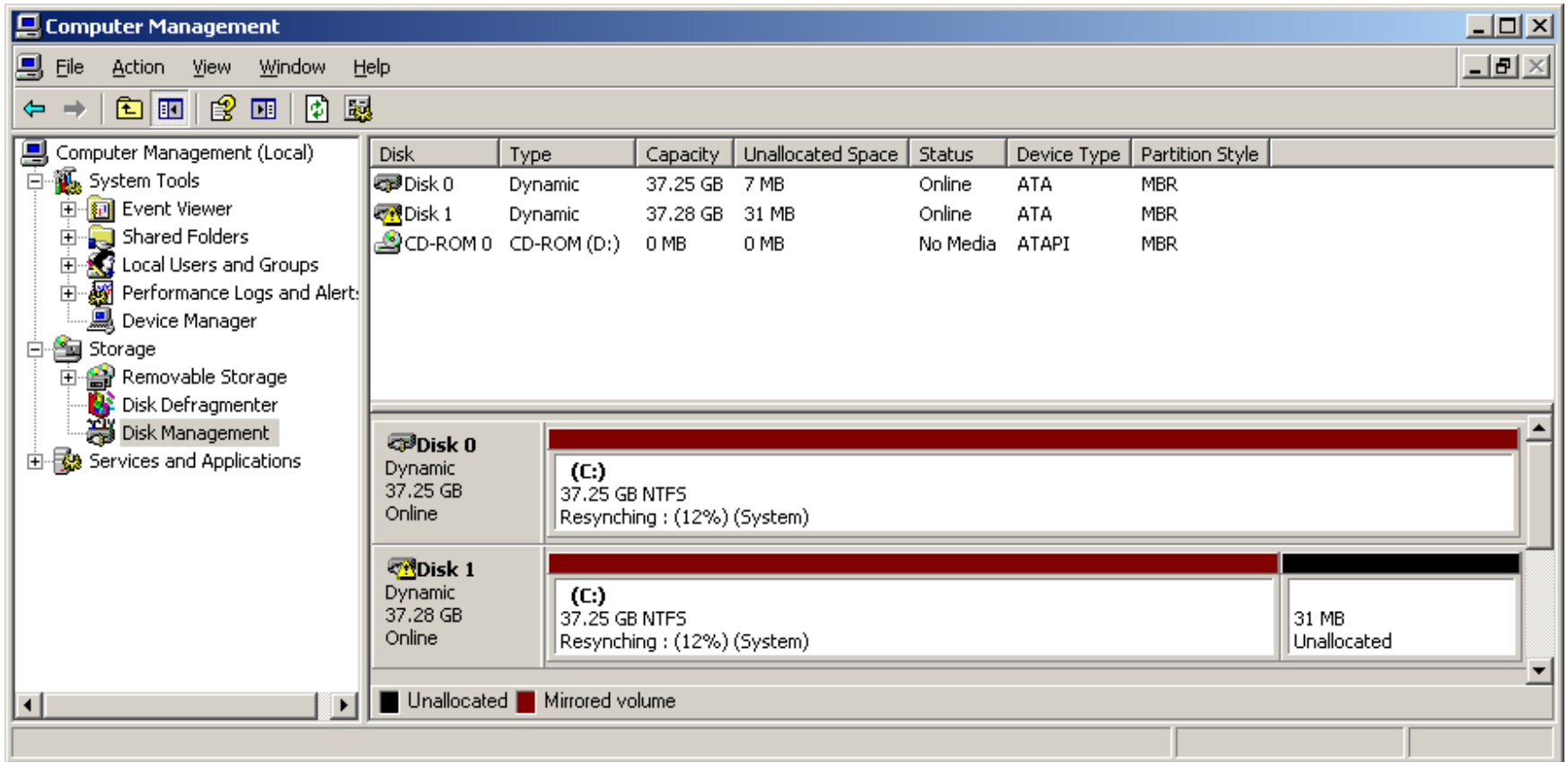


Add Mirror to Disk 0



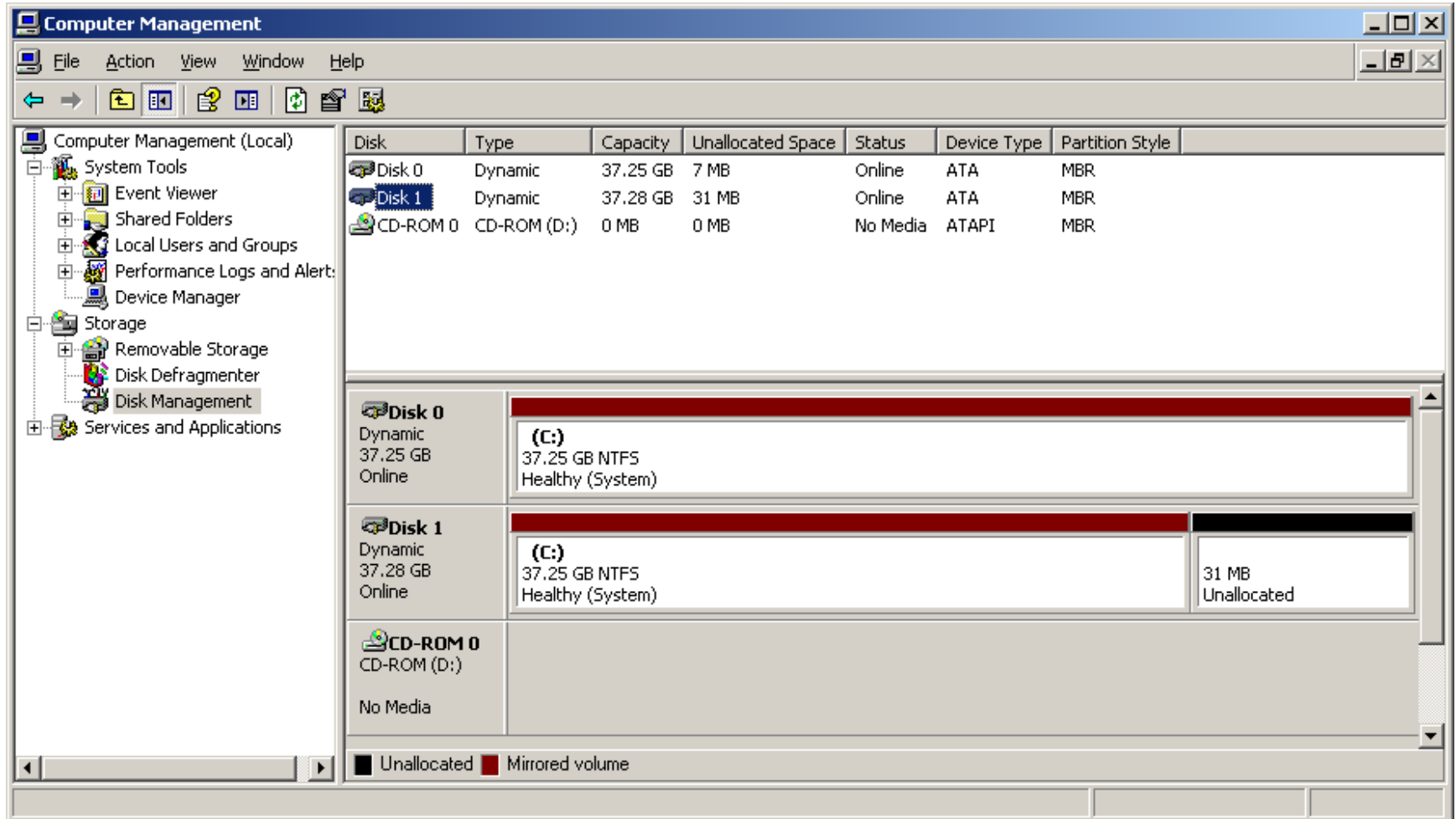
We right click on Disk 0 and select Add Mirror. The Add Mirror window appears and we select Disk 1 and the Add Mirror command button.

Disk 1 is a Mirror Drive



Disk 1 is now a mirror drive of Disk 0. Resynching of drive 0 and 1 will begin.

Finished Mirrored System



When the drives are synchronized, all data on Drive 0 is copied to Drive 1. The capacity of the server is still only 37.25 GB.