What is RAID?

RAID is a typical high-tech acronym for a bunch of words that no one can remember. The acronym’s not important. What is important is that the inclusion of RAID technology in WD’s dual-drive external storage systems make them very powerful storage products.

Advantages of RAID

RAID optimizes the two hard drives in WD’s external storage systems to give you either big capacity and extra speed, or extra data protection.

Extraordinary Capacity and Speed (RAID 0)

Spread data across two drives for high capacity and accelerated data transfer.

Set to RAID 0, this system gives you the full capacity of the combined drives plus the performance you need for smooth digital editing and complex graphic design projects.

Extra Data Protection (RAID 1)

Reserve half the capacity for reliable data protection.

Set to RAID 1, this system generates an exact copy, or mirror, of your data in real time. If either drive goes down, you can continue to use the healthy drive until you have replaced the faulty drive and rebuilt your mirrored system.
Frequently Asked Questions

• Why do I need RAID?
There are two reasons you might want a RAID system of drives:
1. You need tons of storage space and need it to be fast. (RAID 0)
2. You want to instantaneously and automatically back up your data. (RAID 1)

• Why do I need the speed I can get from RAID?
Set in high-performance mode (also called Striped mode or RAID 0), this drive gives you the power you need when you’re:
– Designing huge graphics and need a lightning-fast Photoshop scratch space.
– Recording large DV files while maintaining clean audio performance.
– Editing DV or HD video and want a smooth work flow with no dropped frames.
– Rendering complex 3D objects or special effects.
– Performing resource-intensive database operations.
– Driven to be the first geek on your block with a computer so fast it blows your socks off.

• Why is RAID 0 so fast?
It’s a bit complicated, but suffice it to say that two heads, or in this case, two drives, are better than one. Picture two hoses filling a bucket or two men bailing a boat at the same time and you can understand why two drives striped are faster than one. Data is saved (striped) across both drives and accessed in parallel by both drives so you get higher data transfer rates on large data accesses and higher input/output rates on small data accesses.

• Why do I need instantaneous backup and how does that work?
WD’s RAID storage system has two drives. You can stripe them together into one big, fast drive or you can use one drive as a mirror of the other. Mirror? Right, when you save something to the RAID system, it’s actually saved on one drive and duplicated on the other – instantaneously. Now you have the same data in two places. If one drive fails, you still have your data on the other.

• So why do I want that kind of redundancy?
It’s your data, your family photos, your movie of your baby’s first steps, your artwork…whatever. Is it important? You decide. If it is, then RAID mirroring is for you.

You can actually have a double backup if you use our RAID storage system as the backup device for your computer’s main drive. We’ve provided powerful backup software that makes that easy. Double backup, double protection – what could be safer?

• Can I have both blazing speed and redundancy?
Nope, it’s one or the other. But that’s not to say a redundant (mirrored) system is slow. It’s still fast, just not as fast as a striped system.

• I’m still a bit confused; can you explain some of this high-tech terminology?
OK, you asked for it:

RAID (Redundant Array of Independent Disks) – a system which uses multiple hard drives to share or repeat data among the drives.

RAID 0 (Striped set) – divides data evenly across two or more hard drives with no redundancy. This is the high-performance mode because two drives work as one big drive.

RAID 1 (Mirrored set) – saves an exact copy (or mirror) of a set of data on two or more hard drives. This is the redundant mode and can be used to ensure instantaneous data backup.