

Performance Numbers

Our USB 3.0 RAIDDrive is unquestionably one of the fastest drives on the market today. We were able to achieve these incredible speeds by:

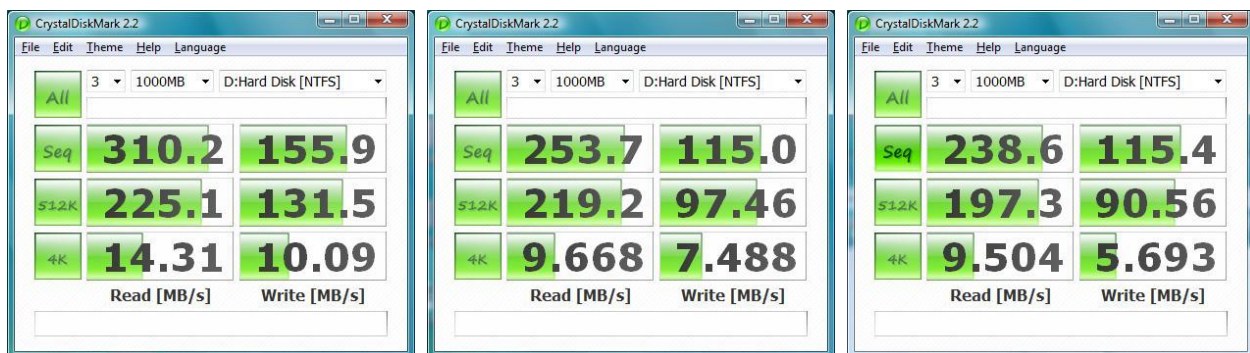
1. Creating a performance architecture
2. Developing enhanced USB 3.0 drivers to go beyond the traditional driver
3. Running on a fast enough machine to remove all other bottlenecks

A BRIEF EXPLANATION OF THESE PERFORMANCE ELEMENTS:

#1 – Creating Performance Architectures

The USB 3.0 standard enables products to go up to 10x faster than USB 2.0 speeds while still remaining backward compatible with its predecessor. The theoretical maximum transfer speed has gone from 480Mbps (60MB/s) to an incredible 4.8Gbps (600MB/s). The USB 3.0 connector alone does not make products go faster. Adding a USB 3.0 connector to today's standard flash drive would be like taking your parents' car and putting it on a racetrack; it's not going to go any faster. Creating a drive that performs at USB 3.0 speeds requires developing multi-channel performance architectures. Creating such architectures enables you to draw performance from a number of different flash devices concurrently. With our USB 3.0 RAIDDrive, we constructed two such drives and combined them together in a RAID 0 array – thus the extreme speed. That said, you will notice, the larger capacity drives are performing faster than the smaller capacity drives.

Here are some numbers we collected in our lab. These will give you a guideline of the performance that you might expect.



128GB

64GB

32GB

#2 – Developing enhanced drivers

Your SuperTalent USB 3.0 drive may be used on any PC, without the installation of a driver. In this case, your SuperTalent USB 3.0 drive will automatically be assigned the Mass Storage Compliant Driver (MSCD) from Microsoft. This is the same driver used for all standard USB 2.0 hard drives and flash drives and it's already on every machine you use. This driver will work just fine but will be limited to the speeds that driver can support (about 140MB/s). In order to offer industry leading speeds of over 300MB/s, we have developed a series of enhanced drivers for our device. When

these drivers are present, your SuperTalent device will go even faster; over 100% faster, in some cases. Our enhanced drivers not only deliver improved performance but also include the power management features called out in the USB 3.0 specification; thus these drivers are highly recommended.

#3 – Running on a fast PC

Your performance may vary. In order to achieve speeds over 300MB/s, you need to make sure you are running on a fast platform (i.e., fast processor, fast motherboard, fast memory and a fast OS). If you're adding USB 3.0 to your system via a PCIe card, it means getting a fast PCI card and plugged into your fastest PCI slot. Think over clocking.

Our test environment included:

- ASUS P6X58D Premium Motherboard
- Intel Core i7 975
- Windows® 7, 32-bit
- 6GB of SuperTalent DDR3 2000 RAM (over-clocked, 1.65v)

Note: This is an extreme environment, so your scores may be lower. Our 128GB RAIDDrive™ design was tested on a USB analyzer at over 355MB/s, so the possibility of getting even greater speeds in the future is a strong possibility.

Applications for this technology:

Creative Professionals use software applications that are very disk intensive and work with data files that are often too large to fit into memory. Our drive offers many benefits to these customers. It gives them an incredibly fast work space. It offers them portability so they can move their data from machine to machine faster than any other method. It gives them scratch space – a separate area where they can render and not worry about fragmenting their main system disk. For mobile users, it gives them the ability to increase their system performance using Windows 7 ReadyBoost™ (64 bit), which enables them to use this ultra-fast drive as additional RAM.

Here are a few applications that are enabled by our ultra-fast drive:

Windows® 7

- **Bit-Locker® Encryption**
- **System Backup**
- **ReadyBoost™** <http://windows.microsoft.com/en-GB/windows7/Using-memory-in-your-storage-device-to-speed-up-your-computer>

Adobe

- **Photoshop**
- **Premiere**
- **Light Room**

AutoDesk

- **AutoCad**
- **Maya**

Happy computing!



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