

## How to make NewViews 2 run faster.

“Wow does that USB drive speed it up! I can now use multi-user mode which is such a relief – Thank you! I talked to the people who built the computer (it is a 3.6 Ghz with ATA drives) and they do not have any reasonable answers as to why.” Geneva, Seattle WA

### Introduction

Experience indicates that NewViews often runs significantly faster when accounting databases are placed on an **external disk drive**.

If you are experiencing sluggish performance, for example, when inserting new transactions, or the computer seems to "stall" for 20 to 25 seconds at a time, there may be a simple solution. Use an external hard drive connected to a USB port.

### Why don't other software products have similar performance problems?

Most often you will not experience performance problems with other software applications such as word processors, spreadsheets, graphics programs, and so on. These products typically access the disk solely to load and save files and do not access the disk while carrying out general operations. Even when they do access the disk, the disk is accessed in a **sequential** fashion, not with so-called **random** access.

The software applications that are most likely to expose disk performance problems are database applications that work on files intensively, using random access.

NewViews is such a disk-intensive database-oriented application. It accesses the disk in a random fashion as you perform your accounting activities. This high volume of random access is what encounters and exposes potential performance deficiencies of the disk.

### How can external drives perform better than internal drives?

The short answer is that they shouldn't.

But we have discovered that about 80 percent of current computers have a very slow hard drive interface (*with standard Windows drivers for the IDE (S)ATA controller*). The hard drive may be very fast according to published specifications, but in reality, the actual data transfer between the drive and Windows is very inefficient, especially when accessed randomly. When an external drive is plugged into the same machine, NewViews performs up to 10 times faster than with the internal drive. Windows appears to have better drive communication through USB than through ATA or SATA!

The usual underlying cause is a mis-match of software drivers with drive hardware. Often the computer manufacturer is unaware of the problem and does not install more up to date or specifically tuned software drivers for the computer hardware being configured. Often a computer with poor disk performance can be improved by installing the "right" driver software. However, because most users never run disk-intensive software the problem usually doesn't surface and the manufacturer never becomes aware of it.

In any case, such a fix is technically complicated, hard to do, and fraught with uncertainty. That is why we recommend using an external drive. This is sure to work and is very simple to implement.

## Get and Install the External Drive

1. Purchase a Maxtor USB external hard drive. There may be several models available. The model name will something similar to "Maxtor OneTouch External Hard Drive". Capacities and prices vary but 200 to 300 dollars is typical for a 300GB drive.

There may be similar external drives available from other manufacturers but to date Maxtor is the only one we have tested, but we expect other external drives will offer similar performance improvements.

2. Connect the drive to a USB 2.0 port on your current computer.

Typically that is all that is required. The new drive will appear in a Windows Explorer using the next available drive letter. Later, use this drive letter when selecting databases in a NewViews workstation.

External drives usually also have a **firewire** connection capability and you can use it instead, if available on your computer.

3. Copy NV2 accounting databases to the external drive.

You should create a single folder on the external drive and copy the accounting databases into this directory. For example, create the folder **h: /nv**, where we assume **h: /** is the external drive. Then copy application databases into this folder from the computer's internal hard drive.

Note: Do not install the NewViews program on the external drive. Nor is it necessary to copy workstation or server databases to the external drive. Leave all of these on the computer's internal hard drive.

4. From now on, open accounting databases on the external drive.

When in the workstation press **<F3>** when positioned on the directory field and navigate to the external drive to pick the database in its new location.

## Disconnecting the External Drive

You can just turn off the external drive power and disconnect it when you want to transport it elsewhere.

However, it is recommended that you first tell Windows that you are about to disconnect the drive. When connected, an icon representing the external drive will appear in the icon area of the Windows task bar. Click on this icon and you are offered an opportunity to explicitly unplug or eject hardware, identifying the external drive. Do this first, before unplugging the external drive or disconnecting its USB cable. This ensures that all data has been properly flushed to the external drive and that Windows is aware of the disconnection.