The Advanced Open Files Add-on

BackupAssist
Windows® Backup Made Easy!

Cortex I.T.

1. The Problem With Open/Locked/In-use Files

Active applications will often have files that are continuously in-use or open. When files are in such a locked state, a real problem can be presented when you attempt to perform a backup of these files, as they cannot be accessed by backup applications. As a consequence, these files will not be copied to the required backup media (tape, hard-disk, DVD/CD, etc), leaving your business critical data unprotected.

Servers also run critical applications such as databases which store data both in memory and on disk. This makes it very difficult for backup applications to distinguish which data needs to be backed up. If the backup of your database is not synchronised properly and the backup process misses data from either memory or disk, you may be left with a corrupt backup, which is useless when it comes time to perform a restoration.

To overcome this issue, traditionally you can forcefully stop the database to ensure that no files are locked or in-use. This, however, requires users to be taken offline and adds the risk that the database may not start up normally, creating significant hassles and work for system administrators.

For these very troublesome open file problems, Snapshot technology can be used to take a snapshot or 'picture' of the data at a particular instant in time. A backup application can then backup from this snapshot or point-in-time copy, rather than the original data files that may be in-use and locked, and subsequently inaccessible to backup requests.

2. What does the Advanced Open Files Add-on do?

To overcome the issues of backing up open or locked files, users can opt for the BackupAssist Advanced Open Files Add-on which involves the use of the BackupAssist Snapshot Manager.

The BackupAssist Snapshot Manager is an advanced open file management solution which ensures that you have complete protection for all your mission critical data by taking a point-in-time snapshot of your data before commencing the backup.

This ensures that locked, open and in-use business critical data files can be easily backed up without taking users offline or interrupting any systems that are currently in use.

With the Advanced Open Files Add-on, 'skipped file' messages in your backup reports are no longer an issue. Additionally, applications with locked or open files, such as Lotus Notes, Oracle, Office and custom database applications, can all be accessed and backed up whenever required: 24 hours a day, 7 days a week.

3. Who Needs the Advanced Open Files Add-on?

> Please note: the Advanced Open Files Add-on can only be installed on a machine running a 32-bit Windows operating system. The add-on is not compatible with and cannot be used on a machine where a 64-bit version of Windows is installed.

You should use the Open Files Add-on if you are:

- Running **Windows 2000 Server or earlier** where Microsoft® VSS is not available

- Running any **applications that are not compliant** with the VSS framework

- Using the **NTBackup Engine** in BackupAssist to back up your data (Windows XP and 2003 only)

3.1 You are running Windows 2000 Server or earlier

The Microsoft VSS or Volume Shadow Copy Service that is built into the Windows Operating System for snap-shots of open files is currently only available through Windows XP and Windows 2003. This means that businesses running Windows 2000 cannot use VSS to backup their open files and are consequently at a great risk, with no open file backup protection.

3.2 You are running 3rd party or legacy applications that are not compliant with VSS

Applications must be VSS compliant in order for the backup application to be able to take a snapshot of any open files. Currently, many business applications are not compliant with the VSS standard, which includes a large number of legacy applications. For applications that are not VSS compliant, VSS only provides crash consistency on files that are open or in use during the backup procedure.

Crash consistency does not guarantee that application transactions (data swapped between memory and disk) will be intelligently backed up. This means that if an application transaction is in progress at the time of a snapshot, the actual snapshot may only contain a partial record of that transaction, rather than the full and complete transaction. Consequently, the data backed up is incomplete, and you are left with a corrupt backup, which was the situation described earlier in this document.

The BackupAssist Snapshot Manager has the advantage of providing support for legacy and non-VSS compliant applications under any Windows Operating System environment.

3.3 You are using the NTBackup Engine to back up your data

The Open Files Add-on is only compatible with the NTBackup Engine in BackupAssist on Windows 2000, Windows XP and Windows 2003. Newer Operating Systems, such as Windows Server 2008 and Windows Vista, are not supported.

4. More Information

For more information about how BackupAssist handles open file backups, both with and without the Advanced Open Files Add-on, please consult our open files white paper in the education section on our website:

http://www.backupassist.com/education