Out of Memory error during File and Folder backup

Applies to: All 32-bit Versions of Windows when using Reflect File and Folder backup. If you see a similar message when running Macrium Reflect on a 64-bit, please see **Out of Memory** article.

Explanation

32 bit Windows has a limit to the amount of application memory it can address regardless of the amount of internal RAM you have installed. Your memory can become fragmented and this means that you may receive an 'Out of memory' error during a file and folder backup even though Windows task manager shows memory available. To overcome this Windows can be set to allocate more memory to compatible applications that are configured for IMAGE_FILE_LARGE_ADDRESS_AWARE. Macrium Reflect is configured for this.

Enabling Large Address Support

The steps you need to take to enable large address support depend on your operating system.

On Windows 8, Windows 7, Windows Vista, Server 2008 R2 and Server 2008

To enable PAE and 3GB user mode memory on Windows 7 and Vista download and execute 'EnablePAE.exe' from here: http://updates.macrium.com/reflect/utilities/enablepae.exe

You will need to reboot Windows after the program has run.

On Windows XP and Server 2003

Modify the 'c:\boot.ini' file, add the '/PAE' and /3GB switches and reboot.

Example boot.ini file with /PAE and /3GB:

```
[boot loader]
timeout=30
default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows XP" /FASTDETECT /PAE /3GB
```

More information on XP boot.ini switches can be found here: http://support.microsoft.com/kb/833721

The 'boot.ini' file is a read/only file. You will need to remove the read/only property before editing.
You will need to reboot Windows after editing boot.ini