

Windows 10 Insider Preview Build 18234 Bug

Important Update

 **Please note** that Windows 10 18234 is now part of the **live** Windows 10 kernel. **This is no-longer an Insider Preview issue.**

Macrium Reflect has now been updated to resolve this error.

We have been made aware of a problem with the C: drive NTFS file system that affects all installations of the **Windows 10 Insider Preview Build 18234**.

<https://blogs.windows.com/windowsexperience/2018/09/06/announcing-windows-10-insider-preview-build-18234/>

When imaging and verifying the System volume (Drive C:), the NTFS file system verification step will fail with **'Unknown error. - Error code = 9'**.

Starting Image - Friday, September 07, 2018 17:23:06

Initializing
Testing disk write speed
Write Method: Using Direct Disk I/O
Destination Drive: New Volume (e:) - Free Space 59.88 GB
Image Guardian: Protected
Free space threshold: Delete oldest backup sets when free space is less than 5.00 GB
Creating Volume Snapshot - Please Wait

Volume Snapshots Created

Analyzing file system on volume
Analyzing file system on volume
Analyzing file system on volume C:
Gathering Windows Events - Please Wait

 **Unknown error. - Error code = 9**

Note: Do not turn off file system verification to complete the image. This will result in an incomplete backup.

What's the problem?

NTFS contains a series of meta data file records that describe the layout and format of the file system. One of these records is named **\$BITMAP** and contains a series of 'Bits' in a data stream that indicate which clusters in the file system are in use and which are not. Each record has multiple **attributes** to further describe the record and location and size of data streams. The **\$FILE_NAME** attribute contains the allocated and actual size of the data in the stream. **For the \$BITMAP record the \$FILE_NAME attribute contains incorrect size information.** This would appear to be a problem with, or an undocumented change to, the NTFS driver shipped with the OS. This caused the file system to update the \$BITMAP record incorrectly at the time of installation.

For more information on NTFS, the Master File Table (MFT) and Attributes please see here:

<https://docs.microsoft.com/en-us/windows/desktop/devnotes/master-file-table>

Why do other imaging product work correctly if this is a problem with Windows?

Unlike other imaging products **Macrium Reflect** uses the file system meta data described above to determine the location and size of key file system structures. There are Windows APIs that also retrieve this data but Macrium Reflect reads values directly from the file system meta data. The Windows API calls appear to be unaffected by this problem. We believe that for the \$BITMAP file the size is being calculated from information in the data stream attribute. Please note that this doesn't mean that other products have a better implementation, it simply means that they are unaffected by the problem.

What's the solution?

Note: The fix in the below patches has now been **released into Macrium Reflect v7.2** and it is **no-longer necessary** to apply them. If you haven't done so already please **upgrade to Macrium Reflect v7.2 or later**.

If you are running **v7.1.3317** then run the appropriate downloaded patch from any location on your PC to upgrade to **v7.1.3570**.

Edition	Architecture	Download
Free	32 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x8600.exe
Free	64 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x6400.exe
Home	32 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x8615.exe
Home	64 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x6415.exe
Workstation	32 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x8615.exe
Workstation	64 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x6415.exe
Server	32 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x8620.exe
Server	64 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x6420.exe
Server Plus	32 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x8625.exe
Server Plus	64 Bit	http://updates.macrium.com/reflect/v7/Win10_18234/patch7.1.3317-7.1.3570x6425.exe
