

# Carbon Black Windows Embedded Support

## Summary

Various versions of Windows embedded were tested in a virtual environment to determine if Carbon Black would run.

- XP Embedded SP2: Depending on what components were and were not included when building the Operating System image with the Image Builder Carbon Black may not run. Trying to build a minimal image, we had to add the following to get Carbon Black working:

- dbghelp.ell
- DirectX GTI+

Also we had to pull fltmgr from XP SP3 and place on the system. Instructions are below.

- WePOS: Had to pull fltmgr from XP SP3 and place on the system. Instructions are below.
- POSReady 2009: Installed and ran no issues.
- Windows Embedded Standard 7: Installed and ran no issues.
- Windows Embedded Standard 8: Installed and ran no issues.

## Instructions for Embedded systems based on XP SP2 which is missing the fltmgr driver.

You will get the following error if installing on a XP SP2 based system:  
"Installation error: Required service is not installed:

### Error:

**UI message:** Error! Required service is not installed! Please contact Carbon Black Support!  
OR

**Installer Log Message:** FltMgr check failed; aborting ...

### Solution:

1) Using a Windows XP SP3 x86 disc or mounted ISO, navigate into the D:\I386 directory (assuming D:\ is the drive mount location). From this directory you will need to copy the following files to another location:

File	MD5 hash
FLTMGR.SY_	745727CC5D68657CB6B01D2416A54499
FLTMC.EX_	E7C4114FC3113129D6BC5D5274E68A0F
FLTMGR.IN_	0C5B17696A4E9314A1AC08307E95CCAF
FLTLIB.DL_	9D8BD118AF4948686AE636576D0C435E

2) Expand the files with expand.exe on a full XP system “expand FLTMGR.SY\_  
FLTMGR.SYS”

I386 directory name	New name
FLTMGR.SY_	FLTMGR.SYS
FLTMC.EX_	FLTMC.EXE
FLTMGR.IN_	FLTMGR.INF
FLTLIB.DL_	FLTLIB.DLL

3) Copy these files to your Windows XP Embedded system to a temporary location such as c:\temp

4) Install the driver to the Windows XP Embedded system as follows:

- On systems with the explorer shell you can double-click the **fltmgr.inf** file and the system should automatically install the needed file. If you are prompted to insert a CD for the OS to locate a file just navigate to the directory containing the files you copied.
- On command prompt only systems you can use the following command line to install the INF file. Note that the final parameter requires a full path to be used even if the inf file is in the current directory:
  - RUNDLL32.EXE SETUPAPI.DLL,InstallHinfSection DefaultInstall 132  
FULLPATHHERE\fltmgr.inf

5) Reboot the system to allow driver to be loaded

6) Re-run the Carbon Black Sensor installer.