

# Image porting Guide

## 6 Series Chipset with Sandy or Ivy Bridge CPU support

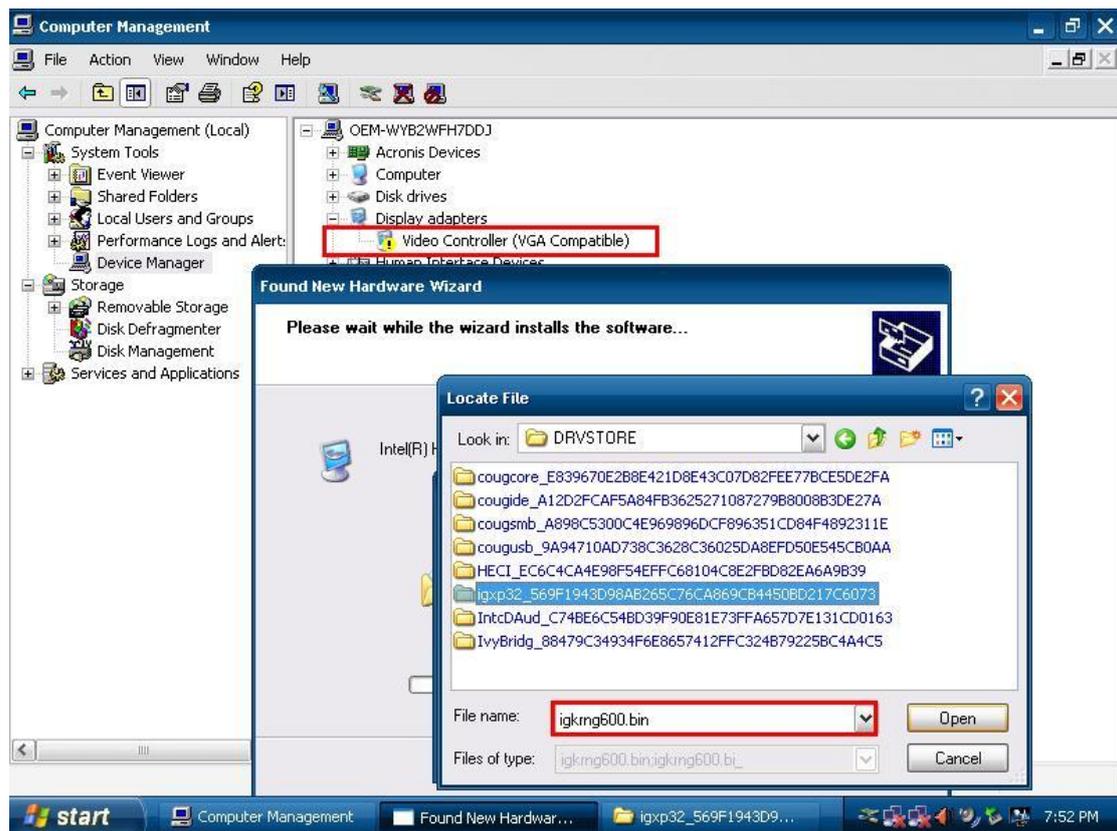
XPE:

For instance, you're building one image with Ivy Bridge CPU on 6 chipset MB; after all drivers installed, shutdown and replace it with Sandy Bridge CPU, reboot system.

You will see VGA driver lost and one pop-up window appearing, requesting one bin file to reload driver, point it to C:\WINDOWS\system32\DRVSTORE and find that file:

P.S igkrng600.bin is for Sandy Bridge VGA driver/ igkrng700.bin is for Ivy VGA driver  
System will ask one of them for the platform you don't install VGA drivers before.

In this case you installed VGA drivers in Ivy CPU before but now its change to Sandy CPU so system will ask for igkrng600.bin location to reload proper Sandy VGA drivers.



Since you've installed VGA drivers on Ivy Bridge before and reload drivers for Sandy Bridge, now image has recognized both CPU and its related driver components locations.

So finish your image work then fbseal/Ghost it, run through FBA procedures in both Ivy and Sandy CPU configuration to double confirm VGA driver not lose anymore after FBA.

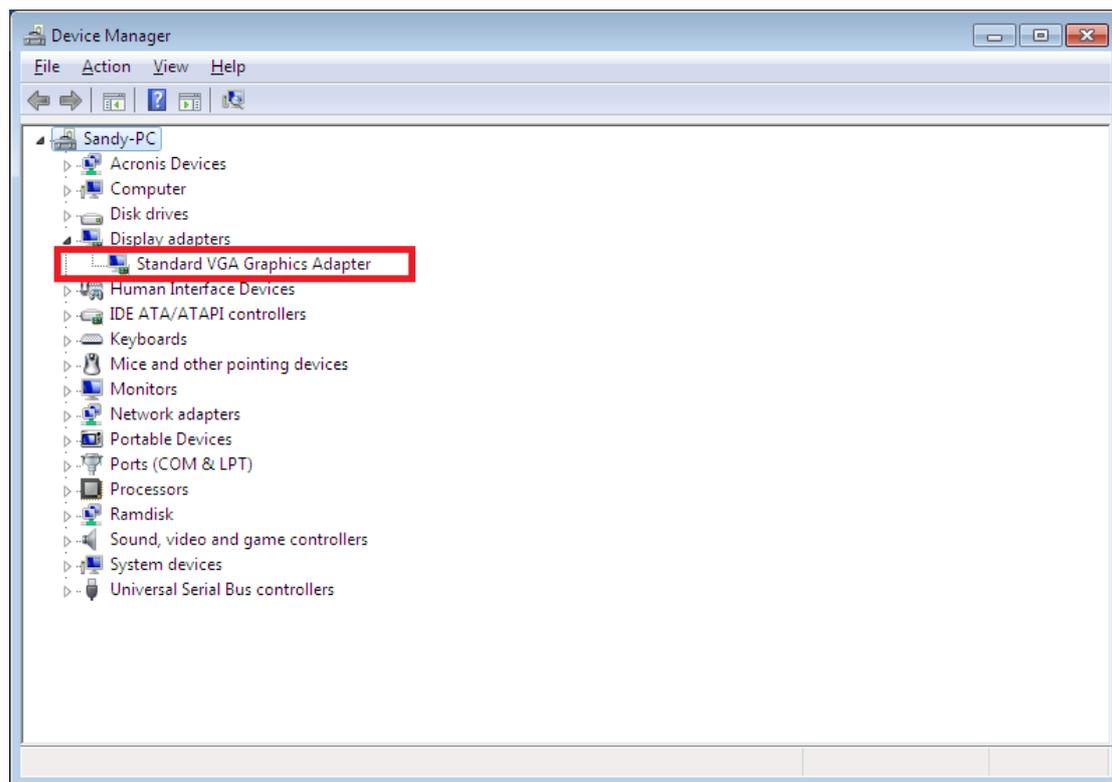
WES7:

WES7 is more intelligent than XPE that it will reload/search drivers automatically after you change the CPU because Intel graphic HD driver package could support both Sandy and Ivy platforms so all the driver components already inside system.

So there should be no such issues like XPE in WES7 that you have to point to driver component locations for reloading drivers but we need to sysprep image before release it and that process will also let this issue happen.

(It deletes all other PID graphic driver components that not match the PID with the HW that you sysprep images on; so even WES7 will load/search driver automatically but there is no VGA driver components left so only load inbox standard VGA driver.)

Sysprep will pass through [Generalize](#) and [Specialize phase](#), both of them will clean up devices' drivers that not match PID of HW status when you sysprep and it will cause issue appeared.



(After ghost back sysprep image then DVM shows there is no installed VGA driver existed.)

We need to keep all devices' drivers we installed/recognized to avoid this issue, please set **DoNotCleanUpNonPresentDevices/PersistAllDeviceInstalls** as True in WES7 template.

```
<settings pass="generalize">
  <.....>
  <DoNotCleanUpNonPresentDevices>true</DoNotCleanUpNonPresentDevices>
  <PersistAllDeviceInstalls>true</PersistAllDeviceInstalls>
</component>
```

Or set it in target system registry before sysprep it:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup\Sysprep\Settings\sppn  
p set **DoNotCleanUpNonPresentDevices to 1** (Not implement in current WES7 Template.)

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup\Sysprep\Settings\sppn  
p set **PersistAllDeviceInstalls to 1** (Already have done in current WES7 Template.)

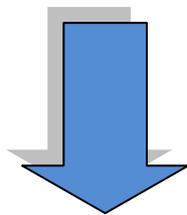
(P.S In our WES7 template, we already set persistAllDeviceInstalls as True, so there is no need to set persistAllDeviceInstalls, **just add DoNotCleanUpNonPresentDevices value as 1 in registry or True in Template Design.**)

**PersistAllDeviceInstalls -> Generalize Phase not to clean PNP devices' drivers.**

**DoNotCleanUpNonPresentDevices ->**

**Specialize Phase not to clean non-detected PNP devices' drivers.**

Other information shows at next page:



Details please refer to below link:

[http://technet.microsoft.com/en-us/library/ff715820\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ff715820(WS.10).aspx)

The DoNotCleanUpNonPresentDevices setting specifies whether plug and play information for devices that are not detected on the destination computer during the next specialize should remain on the computer.

This setting is useful for devices with a physical on/off switch. When a physical on/off switch is off, the device information may be removed during either the **generalize** or **specialize** configuration pass. However, when both [PersistAllDeviceInstalls](#) and DoNotCleanUpNonPresentDevices are set to **true**, the device information remains on the computer.

This list describes the process Windows® Setup uses to determine whether plug and play information remains on the computer, or is removed, or is removed and then re-initialized:

- When [PersistAllDeviceInstalls](#) is set to **true**, then during the **generalize** configuration pass, plug and play device information remains on the computer.

During the next **specialize** configuration pass:

- Any plug and play devices that are detected are re-installed.
- For plug and play devices that are not detected:
  - If [DoNotCleanUpNonPresentDevices](#) is set to **true**, the device information remains on the computer.
  - If [DoNotCleanUpNonPresentDevices](#) is set to **false**, the device information is removed from the computer.
- When [PersistAllDeviceInstalls](#) is set to **false**, then during the **generalize** configuration pass, plug and play device information is removed from the computer.

During the next **specialize** configuration pass:

- Any plug and play devices that are detected are re-installed.
- Any plug and play devices that are not detected remain uninstalled.  
The [DoNotCleanUpNonPresentDevices](#) setting will have no effect.

## **XPE Steps by Steps:**

- 1. Install all drivers in one CPU platform, no matter Ivy or SNB.**
- 2. Put below BIN files under C:\windwos\system32 for SNB/Ivy platform  
VGA support and system will reload drivers automatically under XPE:**
  - SNB:**  
**igfcg600m.bin/igkrng600.bin/igcompkrng600.bin**
  - Ivy:**  
**igfcg700m.bin/igkrng700.bin**
- 3. Finish all other image works then fbreseal/ghost it.**
- 4. Roll back fbreseal image to both Ivy and Sandy Bridge CPU configuration  
for double check if VGA driver reload successfully.**

## **WES7 Steps by Steps:**

- 1. Install all drivers in target system, no matter what HD Graphic type is.**
- 2. After reloading procedure finished, adding registry setting as below:**
  - [HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup\Sysprep\Settings\sppnp]
  - "DoNotCleanUpNonPresentDevices"=dword:00000001
  - "PersistAllDeviceInstalls"=dword:00000001
- 3. Finish all other image works then sysprep/ghost it.**
- 4. Roll back sysprep image to both Ivy and Sandy Bridge CPU for double  
check if VGA driver keep existed.**

## **P.S**

For new Template release, there is no need to execute upper steps for WES7.

Just use new Template and building images as usual, sysprep it.

WES7 will keep drivers and reload it automatically for different kinds of HD graphic series.