

## G U I D E

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TECHNOLOGY: WINDOWS 8

TITLE: WINDOWS 8 – ‘VIRTUALLY’ A PAINLESS TRANSITION

The advertising will have you believe it is the advent of a brave new world with the (not quiet all new) Windows 8 Operating System, the biggest change in desktop ‘Yardy, yady, ya’....

*What follows is by no means exhaustive in detail, and assume a modest degree of comfort configuring PC's. There are longer tutorials covering many of the discrete steps summarised below that you can reference online ie: Full Windows 8 install screen by screen, or YouTube videos that can help give insight into what you can expect. Please ensure you have taken whatever steps you need to feel comfortable proceeding with the steps summarised below.*

What most users I have come across want to know is:

- A. Do I upgrade?
- B. Do I do a fresh install?

Well Option B is the answer which for many throws them out of a comfort zone. The thought of running an in situ upgrade and Voila is all too tempting BUT as IT aficionado will tell you, Operating System (OS) upgrades carry with them baggage. Baggage being artefacts and a bloated hard drive full of highly fragmented files that undermine future performance and stability. Read on and find out how simple and secure it is to get the best of BOTH worlds.

**NB: This is ONLY applicable to users with PC's running CPU's that support SLAT.** (Please see my earlier blog [Windows 8 Client Hyper-V – Why SLAT?](#) for information on this)

Assuming you have SLAT support, proceed....

### Ingredients:

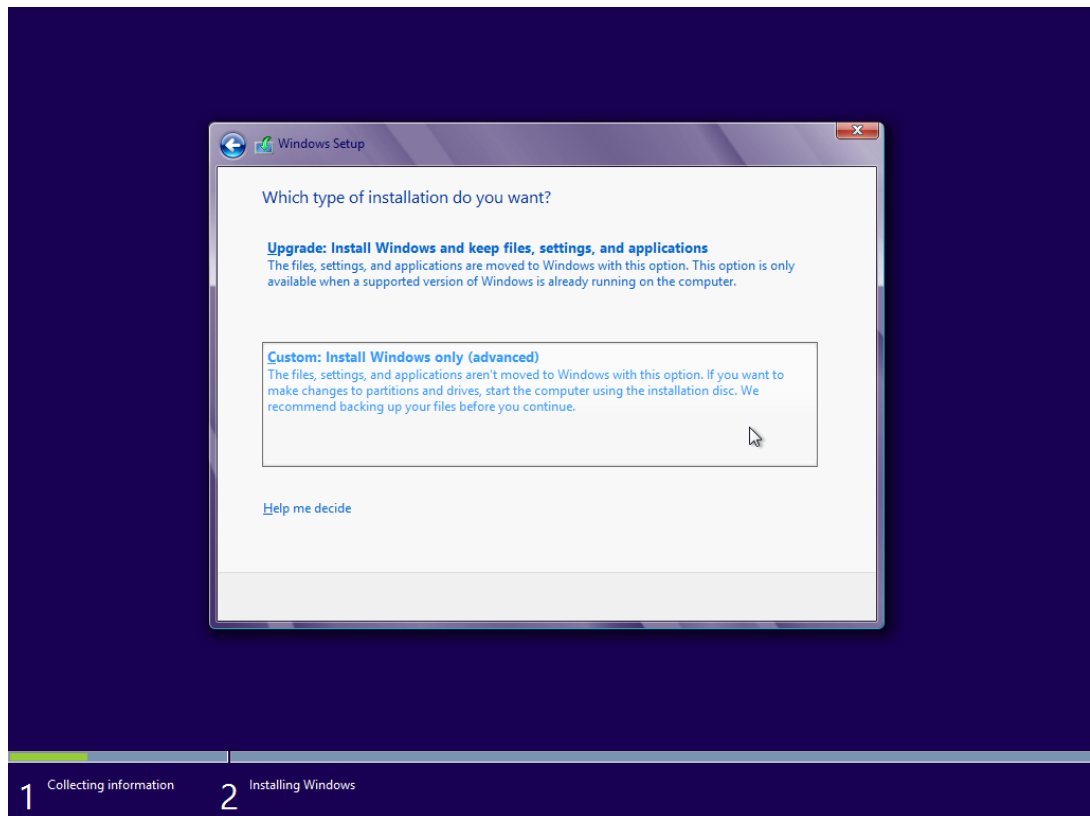
- A. Printed copy of this Blog (Your PC is going to be offline so you may need a copy of the following steps), or if you have your Windows Surface Tablet to hand bookmark this for reference as you install Windows 8 for yourself. Yes this will work on an iPad but somehow doesn't quiet feel so good!
- B. Windows 8 Operating System installation disc, serial number to hand.
- C. Download onto the PC you wish to replace with Windows 8 a copy of Mark Russinovich and Bryce Cogswell AWSOME [Disk2vhd](#) utility that creates Virtual Hard Disks (VHD's - Microsoft's Virtual Machine disk format) of physical disks (PC's or Servers) for use in Microsoft Hyper-V virtual machines (VMs). <http://technet.microsoft.com/en-us/sysinternals/ee656415.aspx>
- D. x1 external USB hard drive (USB v3 not the old USBv2). Suggested size is 1Terrabyte (TB) you can pick them up from PC World or online for under £100 and they work well as a backup device for future peace of mind.  
(If your PC has a Hard Drive LARGER than 1TB then you will need an external Hard Drive of 2TB+, a bit more expensive but necessary).
- E. PATIENCE, read the instructions through BEFORE starting so you know what is coming. Forewarned is to be forearmed, we like NO surprises.

### Receipt:

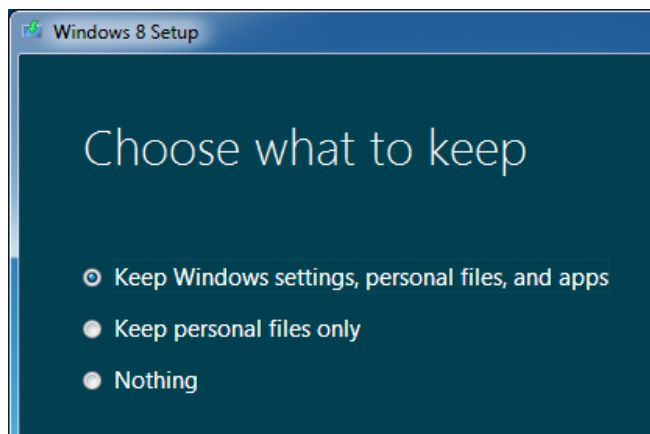
This is a 4 phase process that builds in a belt and braces step 1, followed by a dynamic second step that I suggest you do overnight so you do not end up losing patience and interrupt the process as it

takes time. Phase 2 allows you to safely move to Phase 3, to install Windows 8 and finally Phase 4 the set-up of your Windows 8 environment with your old PC running in a virtual instance on your Windows 8 desktop using Client Hyper-V so you can migrate settings and reference your old PC at your leisure ☺

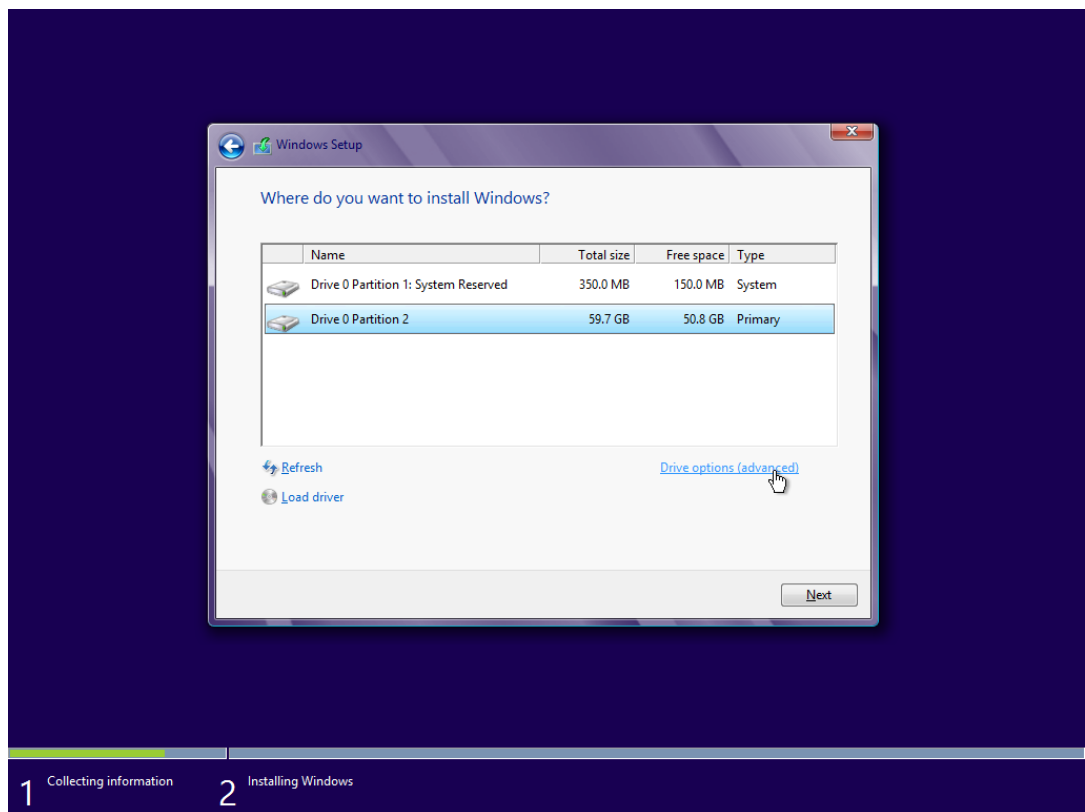
1. **Safety Backup Phase** - Take x1 USB hard drive purchased according to D. above and you PC you wish to upgrade to Windows 8:
  - a. Insert the USB cable so that the USB drive appears in your 'Windows File Explorer' on your PC.
  - b. Open up the USB 'Windows File Explorer' and Create a new folder, give it a memorable name I use the format date+name ie: '**20121105 Backup Files**'. It makes it easy to list and also reference.
  - c. Manually copy ALL the data files you have created and hold so dear from your PC onto the USB hard drive into the folder you have just created.
  - d. Make a record of ALL your installed programs and check you have installation media to reinstall them if desirable. Do this from either the Start > Programs menu or Start > Settings > Control Panel > Programs and Features or use the 'MSINFO32.exe' utility from your start menu or command line to list and print out details.
  
2. **PC Virtualisation Phase** – *(Recommended you do this so you can leave it running overnight)* With your USB still plugged in and having downloaded the [Disk2vhd](#) utility:
  - a. Re-boot your PC.
  - b. Make sure it is connected to a power supply.
  - c. Ensure your PC's power settings are NOT set to allow the PC to sleep or hibernate. From your Start Button go Settings > Control Panel > Power Options and tick the 'High Performance' option to be safe.
  - d. If you know how, disable ANY applications that Auto start to reduce activity.
  - e. Disconnect any network cables and WiFi.
  - f. Run the [Disk2vhd](#) utility you downloaded.
  - g. In the top dialogue box select where you wish to create a VHD (Virtual Hard Drive) of your PC. This should be your USB hard drive.
  - h. In the lower half of the [Disk2vhd](#) utility screen tick the box's against ALL the hard drives EXCEPT the USB external hard drive (this is often the last in the list, but CHECK).
  - i. Click the 'Create' button.
  - j. Go to bed....
  - k. Fingers crossed when you wake up you should see a 'Completed' message on the [Disk2vhd](#) utility.
  - l. Boot down your PC.
  - m. Disconnect your USB drive.
  - n. Place USB drive somewhere SAFE.
  
3. **Windows 8 Install Phase** – Not a whole lot to this. Insert your Windows 8 DVD and re-boot your PC, following the prompts to install Windows 8. Critical choice is to do a Clean Install NOT an upgrade.
  - a. What you should see after some pre-amble screens is the following, you want to select the second option as highlighted below:



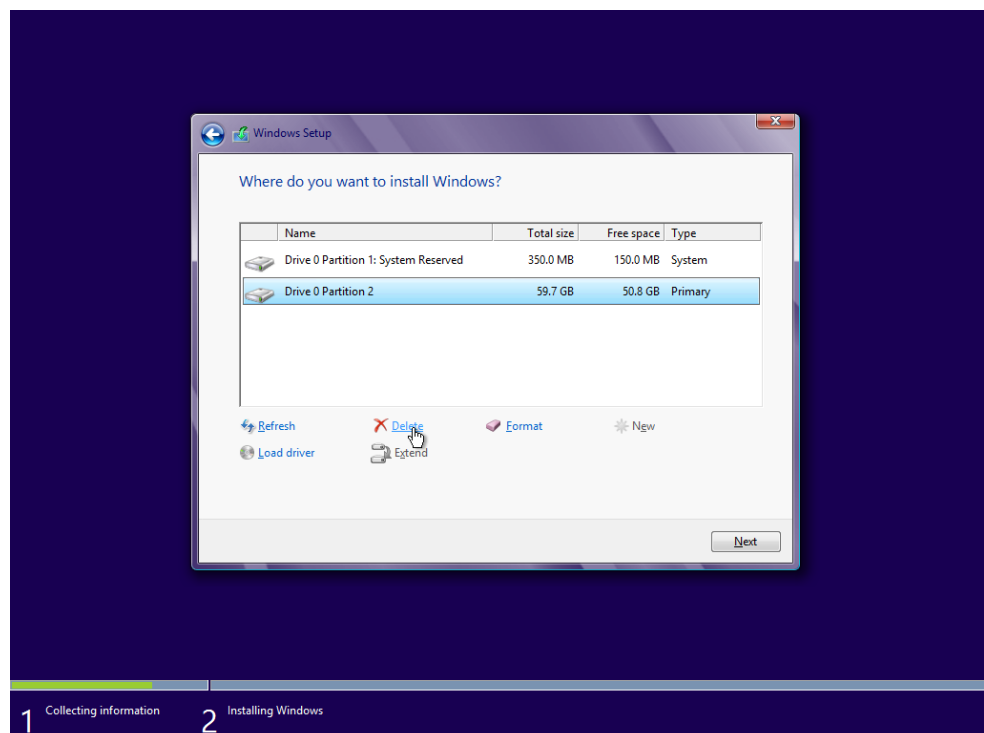
- b. If you see the following dialogue box at any point then you have an Upgrade install version of Windows 8 (you cannot do a Fresh install with this disc):



- c. Assuming you get to the screen in a. above you want to select the Advanced Drive option:

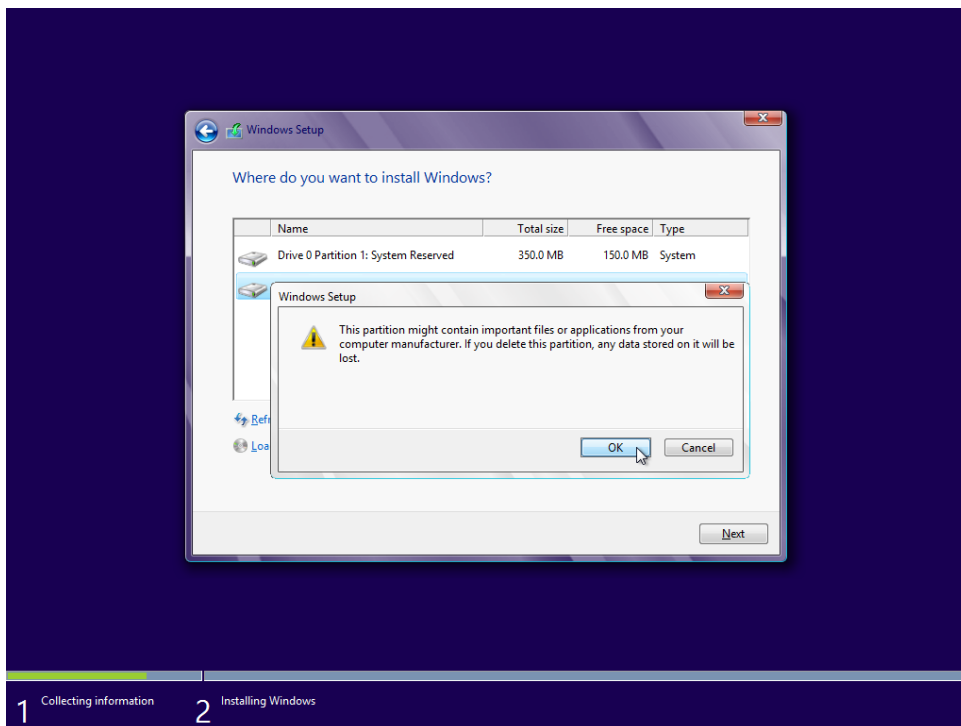


- d. From the next screen you proceed to DELETE each of the partitions on the hard drive:
- Highlight the partition and select DELETE:

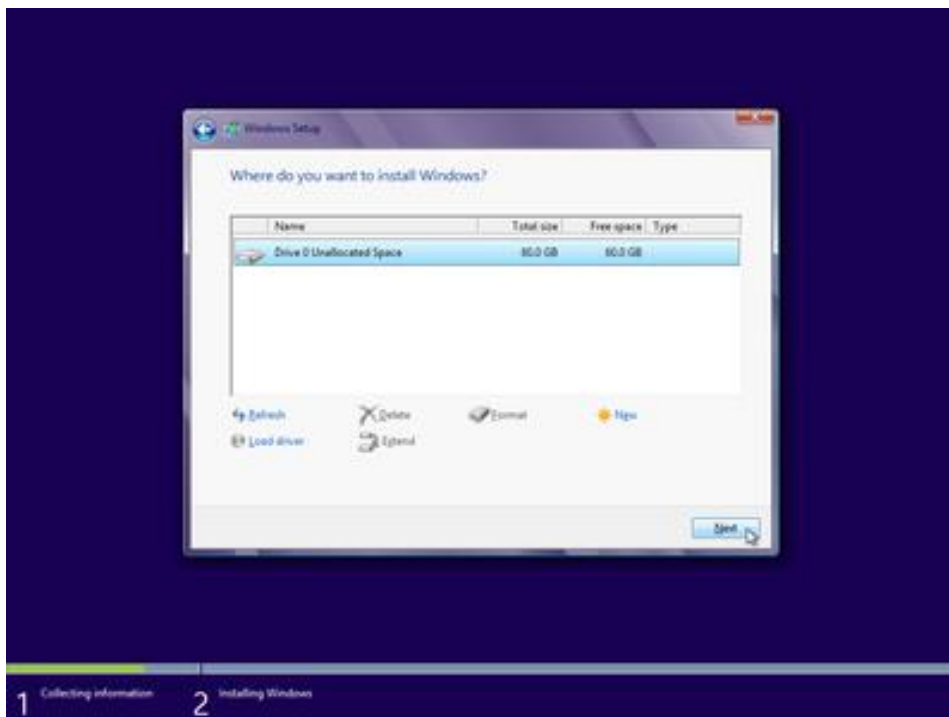


## NRG - GUIDE

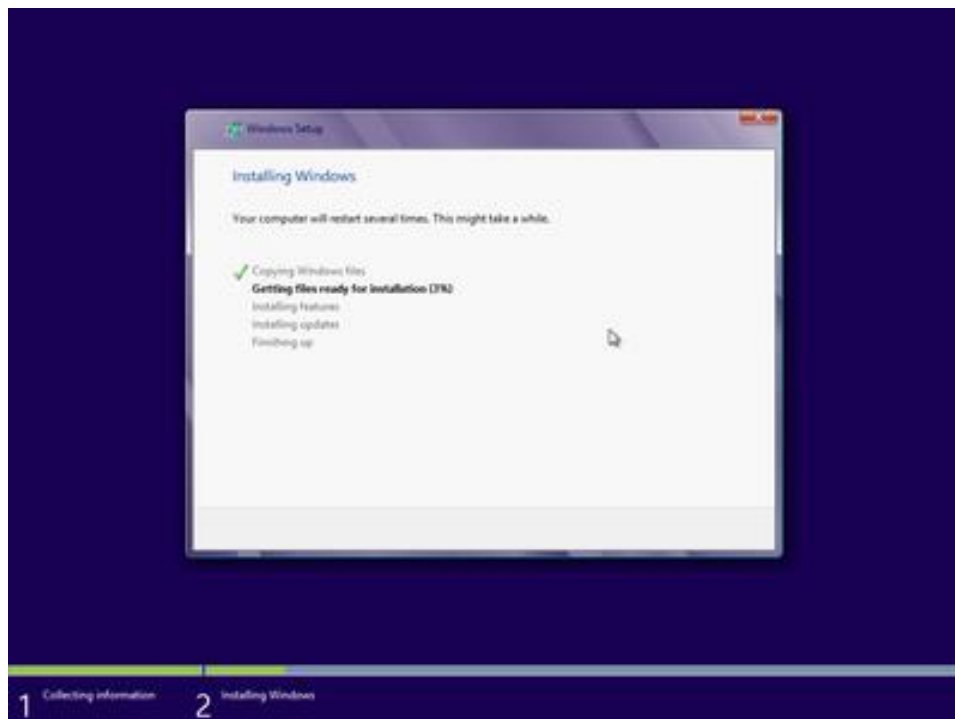
- ii. As we have already both copied our files to the USB and created an image of the original drives we should be safe that all our data is recoverable (*this is not a guarantee, but has always worked for me!*), proceed and select 'OK' :



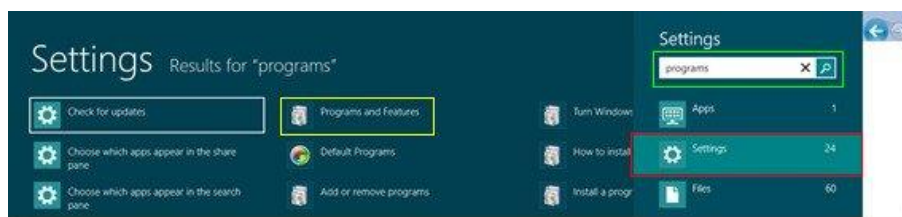
- iii. Repeat the steps above till you have deleted ALL the partitions and are left with a screen similar to the following, then click 'Next':



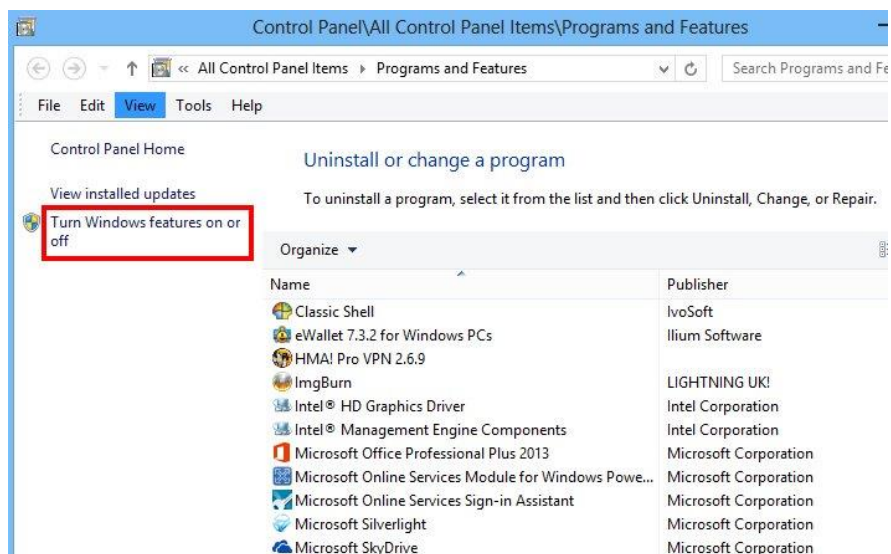
- iv. The installation phase now commences:



- e. The rest of the steps are quiet self-explanatory, just follow the prompts.
- f. When you get to the 'Sign Into your PC' screen you have the option to use a Microsoft Account (formerly known as a Live ID / Passport /Hotmail amongst others). This has its advantages, but also commits you to a single identity for certain other Microsoft services. You can always elect to do this later if you are not sure and select to create a 'Local PC Account'. *See my blog on the implications of using a Microsoft Account on Windows 8.*
- g. By the end of this process you should have a nice clean install of Windows 8.
- h. Congratulations ☺
4. **Co-existence Phase** - You will now configure Windows 8 so it can instantiate a Virtual instance of your former PC using the new Windows 8 Client Hyper-V:
- a. Enable the Client Hyper-V feature on Window's 8:
- i. From the main Windows Tile Home Screen 'Charms' menu:
1. select 'Search'
  2. Highlight Settings (highlighted in red below)
  3. Type in 'Programs' in the dialogue box (highlighted in Green below)
  4. Click on 'Programs and Features' in the search returns (highlighted in Yellow below)

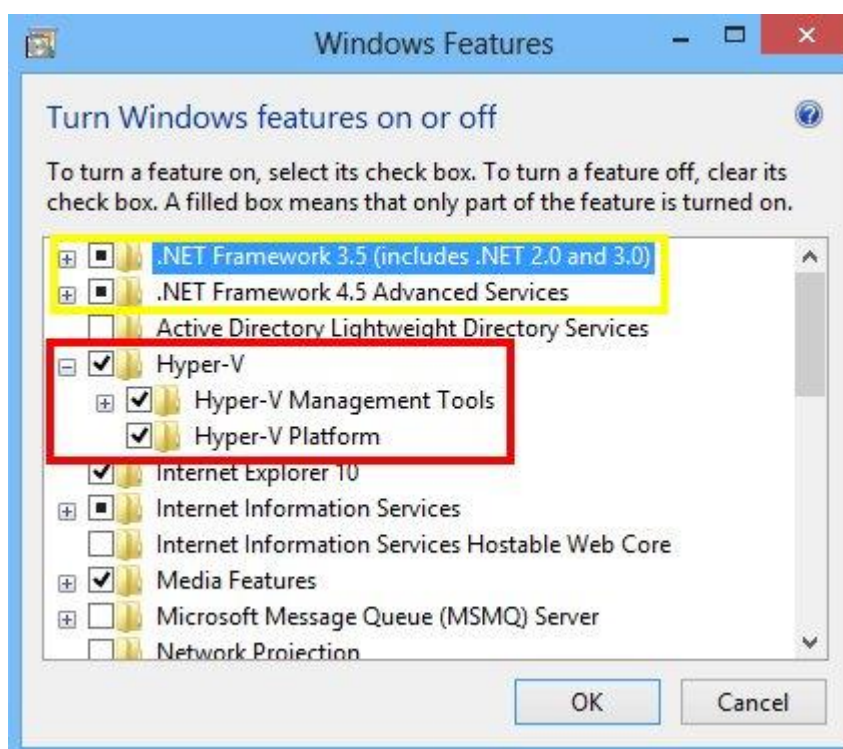


- ii. This will open up a dialogue box, click on the 'Turn Windows features on or off' in the left hand menu (highlighted in red below):

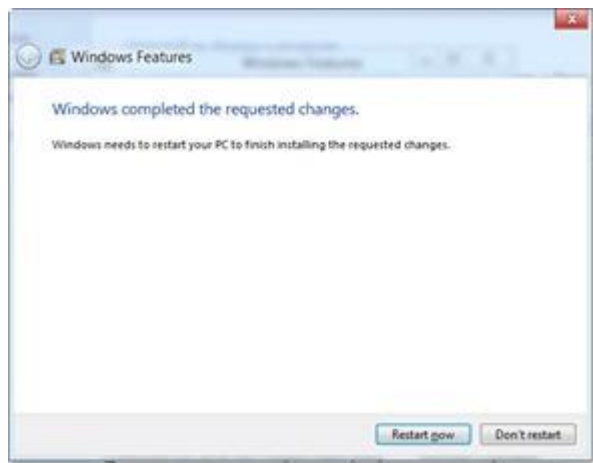


- iii. You will get another dialogue box, make sure ALL the options are selected in the Client Hyper-V section (highlighted in red below), it is useful to also do the items in the yellow box as so many applications require these today you will have to do this at some point, but it is not essential.

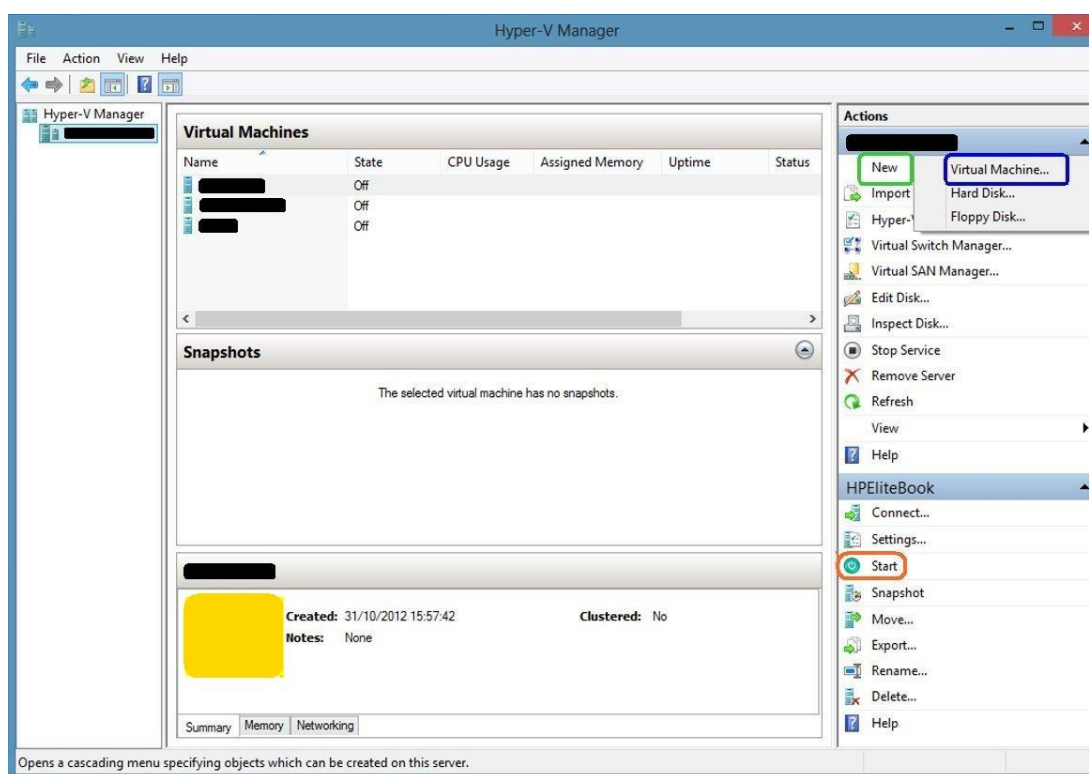
*(If you do not get the option to run the 'Hyper-V Platform' then your PC does not support virtualisation or SLAT and you have overlooked the notice at the start of this blog. Drop me an email and I will try and get back with alternatives, but I hope at least you can proceed with the manual file backup noted above).*



- iv. You will now see the following screen and your PC will re-boot at least twice, let it finish doing its re-boots:



- b. Attach your USB Hard drive that contains the VHD you created in Phase 2 above.
- c. Configure Client Hyper-V with your VHD:
- Open Hyper-V manager. (Do a search from the Search option from the 'Charms bar', or if you have followed my guide '*Boot to Basic*' <http://blog.nigelgibbons.com/2012/09/20/windows-8-boot-to-basics> to reinstate a Start Button then you can more easily access it that way).
  - Click 'New' in the right hand menu as highlighted in **Green** Below and this will pop out a menu from which you should click on 'Virtual Machine' highlighted in **Blue**:



- iii. The **'New Virtual machine Wizard'** will start, click **'Next'** till you see the screen below and then fill in the form field to give your Virtual Machine a name.
- iv. At the next Screen **'Assign Memory'** you will be asked to assign RAM. A minimum I would recommend for any Windows VM is 1024.
- v. At the next Screen **'Configure Networking'** by default unless you have configured a Virtual Switch you will only have the **'Not Connected'** option. It is probably a good idea to select this to start with, you can always attach the VM to a network later by creating a Virtual Switch from the **'Virtual Switch Manager'** option in the Hyper-V Manager right hand window.
- vi. At the next Screen **'Connect Virtual Hard Disk'** you should select the second option to **'Use an Existing Hard Disk'** and browse to where the Virtual hard Disk (VHD) file is located that you created in the earlier steps.
- vii. The final screen confirms you settings, click **'Finish'** and you will be taken back to the main Hyper-V Manager screen where you should see your PC listed, in the image above I have redacted the names of my VM's but this is where you should see your VM.
- viii. If you highlight your VM and click **'Start'** highlighted in **Orange** in the left hand window of the Hyper-V Manager it will start your VM.
- ix. Click on the image of the booting VM in the lower window (Highlighted **Yellow** above) of the Hyper-V Manager will open that window up as a Console Session and allow you to access you old PC.

By now I hope you will be enjoying a clean Windows 8 PC environment WITH your old PC fully functional so you can temporarily still operate (albeit in a reduce screen size) as you proceed to install your applications and configure your new Windows 8 environment. Of course you also have all the files you manually copied over for quick and easy re-population of your new Windows 8 environment with your personal files.