Windows Reinstallation Guide and Related Software Guides

Introduction and How to use this guide

Welcome

This guide is designed to address many common Windows problems on Dell systems especially reinstallation of Windows. This guide should not be used or read like a book, use the hyperlinks and bookmarks to find information relevant to your particular problem. I do not recommend printing this entire guide as it includes many external and internal hyperlinks which will be lost on a carbon copy. You may of course print the selected areas you are interested in should you wish.

This guide requires heavily on the availability and use of Dell Reinstallation DVDs and has included a number of alternative methods for Windows Vista and Windows 7. For Windows 8.1 and an OEM install the situation isn't ideal as there is no official direct Windows 8.1 .iso download link.

Disclaimer: This guide is not Official Technical Dell Documentation

This guide is written and maintained by Philip Yip who is a volunteer on the Dell Community Forums and does not work for either Dell or Microsoft. Many of the procedures/workarounds in this guide although thoroughly tested are not supported by Dell Technical Support.

However due to contributions on the Dell Community I have become a Dell Community Rockstar and forum moderator. For information about the Dell Community Rockstar program see:

- Dell Community Rockstars
- Dell Community Rockstar Terms of Service

You may also contact Dell-Robert P, Dell-Amy B or Cy Jervis, IdeaStorm Project Manager.

Note: Dell Community Rockstars sign a Non-Disclosure Agreement with Dell when joining the Rockstar program and thus I will not participate in any research surveys or provide any additional information or insight into the Rockstar program.

As this guide is not official Dell technical documentation not all the suggestions listed in this guide are supported by Dell however most of the guide will be. Three completely unsupported procedures listed in this guide are the Unofficial Driver Sets for Selected Dell systems and use of setup files/.iso files from Digital River and use of Activation Backup and Recovery.

I hope this guide proves useful; any feedback on this guide is very welcome as this guide has been developed by continuous feedback/problems other forum users have experienced. Please vote on the IdeaStorm Ideas to help improve Dell software services.

Philip Yip
# Contents

Windows Reinstallation Guide and Related Software Guides .......................................................... 1

1. A Clean Install of Windows .............................................................................................................. 6
   A Clean Install of Windows 7 ......................................................................................................... 7
   A Clean Install of Windows 8.1 ....................................................................................................... 66
   A Clean Install of Windows Vista ................................................................................................. 156

2. Microsoft Windows and Office Information and Downloads .......................................................... 220
   Requesting a Windows Reinstallation DVD .................................................................................. 221
   Windows 8 Additional Information and Offers .............................................................................. 222
   Windows 8 – System Locked Preinstallation .............................................................................. 223
   Windows 7 Additional Information ............................................................................................... 224
   Windows 7 – Dell OEM System Locked Preinstallation Keys ......................................................... 225
   Windows 7 – Alienware OEM System Locked Preinstallation Keys .............................................. 227
   Windows Vista Information and Downloads ................................................................................. 229
   Windows Vista – Dell OEM System Locked Preinstallation Keys ................................................ 230
   Windows Vista – Alienware OEM System Locked Preinstallation Keys ........................................ 231

Microsoft Office and Microsoft Works .............................................................................................. 232
   Microsoft Office 2013 .................................................................................................................. 233
   Microsoft Office 2010 .................................................................................................................. 234
   Microsoft Office 2007 .................................................................................................................. 238
   Microsoft Works .......................................................................................................................... 240

Microsoft Software [Other] .............................................................................................................. 241
   Microsoft Security Essentials ...................................................................................................... 241
   Microsoft Windows Live ............................................................................................................... 241

Recommended Non-Microsoft Software .......................................................................................... 242
   Security ........................................................................................................................................ 242
   Productivity Software .................................................................................................................. 242
   Remote Connection & Virtual Machines ....................................................................................... 244
   Utilities/Maintainance .................................................................................................................. 244
   Music and Video .......................................................................................................................... 245
Introduction

3. Backing Up and Restoring Your Windows Installation Using Acronis ......................................................... 247
   Creating a Backup .............................................................................................................................................. 248
   Creating Bootable Media ................................................................................................................................. 251
   Restoring from a Backup within Windows ...................................................................................................... 256
   Restoring from a Backup via BIOS .................................................................................................................. 260
   Limitations of the 30 Day Trial of Acronis True Image 2013 and Interchangability of Acronis Versions ...................................................................................................................................................... 262

4. Repartitioning your Hard Drive once Windows is Installed with EaseUs partition Manager ............. 263

5. Diagnosing Windows StartUp Problems ......................................................................................................... 267
   Last Good Known Configuration [Windows Vista/Windows 7] ................................................................. 268
   Startup Repair [Windows Vista/Windows 7] ................................................................................................. 269
   Last Good Known Configuration [Windows XP] .......................................................................................... 274
   Startup Repair [Windows XP] ......................................................................................................................... 275

6. Diagnosing Internet Explorer Problems ....................................................................................................... 279

7. Running Dell Diagnostics .............................................................................................................................. 286
   Dell Online Diagnostics .................................................................................................................................. 286
   F12 Pre-Boot Diagnostics ............................................................................................................................... 290

8. Data Recovery of the Hard Drive using Fedora ........................................................................................... 294

9. Checking your Original System Configuration ........................................................................................... 301

10. Unofficial Driver Sets for Selected Dell Systems .......................................................................................... 303
    Unofficial Windows 7 Drivers For Unsupported but Capable Systems - Direct Links .................. 304
    Installing a Driver in Compatibility Mode ................................................................................................. 305
    Installing a Device in Device Manager in Windows Vista, 7 and 8 ...................................................... 307
    Uninstalling a Device in Device Manager in Windows Vista, 7 and 8 .................................................. 310

11. Recommended Upgrades for Your Dell Before A Clean Installation ......................................................... 312

12. Software Maintenance ...................................................................................................................................... 316
    CCleaner – Cleaner and Registry Cleaner ................................................................................................. 317
    Defraggler – Defragging your Hard Drive ................................................................................................. 322
    Malwarebytes’ AntiMalware – Scanning your System for Malware and Potentially Unwanted Programs .................................................................................................................................................. 327
    Uninstall McAfee and the McAfee Removal Tool .................................................................................... 331

13. Hardware Maintenance ...................................................................................................................................... 338

Contents
Introduction

Cleaning Out the Vents ................................................................. 339
Selecting a Laptop Cooling Pad .................................................. 341
Optical Drive Lens Cleaning ....................................................... 344

14. BIOS Screen Sketches ............................................................. 345
Boot Sequence .............................................................................. 346
Disable Card Reader [Variant A] .................................................. 348
Disable Card Reader [Variant B] .................................................. 350
Disable Flash Cache Module ....................................................... 353
Disable Secure Boot ................................................................. 355
Disable Secure Boot and UEFI ..................................................... 358
Disable USB 3.0 Functionality to Install Windows from a USB Flash Drive .................................................. 361
SATA Operation [Variant A] ....................................................... 364
SATA Operation [Variant B] ....................................................... 366
System information [Variant A] ................................................... 369
System Information [Variant B] ................................................... 372

15. Dell Downloads ...................................................................... 373
Registering with My Dell Downloads ......................................... 374

16. Dell Technical Support Videos & Dell Factory Settings ............. 386
Windows Vista and Windows 7 .................................................... 386
Recovery Media, Setup and Installation ...................................... 386
Troubleshooting ......................................................................... 386
Windows 8 .................................................................................. 387
How to Use Windows 8 .............................................................. 387
Recovery Media, Setup and Installation ...................................... 387
Notes on Recovery Media .......................................................... 388

17. IdeaStorm ............................................................................ 389
Reinstallation Media .................................................................. 389
Windows 7 Availability .............................................................. 389
Windows 8 Start Menu ............................................................... 389
Supported Systems for Windows 8 ............................................. 389
Drivers and Downloads Improvements ....................................... 389
1. A Clean Install of Windows

- A Clean Install of Windows 7
- A Clean Install of Windows 8.1
- A Clean Install of Windows Vista

Windows 7 or 8.1 is the most recommended version of Windows by the author. If the computer is 64 bit capable the 64 bit version should be used, if not the 32 bit version should be installed. If your system came with Windows 8 64 bit Professional you should have downgrade rights to Windows 7 Professional but will need to contact Dell to obtain a Windows 7 Professional with Service Pack 1 Reinstallation DVD. See Requesting a Windows Reinstallation DVD. If your system only came with Windows 8 (i.e. the Home version) you do not have any downgrade rights.

Windows 8 had several changes in user interface over Windows 7 and earlier version of Windows. The new changes are under much debate but my opinion is that they are very annoying for a Desktop or Laptop user as the design seems revolved around Tablet users. Many of the problems of Windows 8.0 are fixed in Windows 8.1 (which is a free update to Windows 8.0) and this guide will instruct on how to clean Install Windows 8.1.

Windows Vista got bad press as it had many issues when it was first released however if Windows Vista is installed with the Service Packs before the drivers it is actually quite stable. The Market Share for Windows Vista is pretty low however and Microsoft is trying to phase it out. For this reason Office 2013 or Internet Explorer 10 will not install on Windows Vista. For Windows Vista users if you can get a hold of a Windows 7 Upgrade license or alternatively an OEM licence then I recommend installation of Windows 7.

Windows XP is best to be avoided if possible because Microsoft is terminating support for it entirely. This guide no longer supports Windows XP. Information about Windows XP is found in a legacy version.
A Clean Install of Windows 7

Note: This guide takes you through almost every screen of the install and is hence quite long; it is nowhere as daunting as it looks on first glance.

Before reading this guide for completeness I will refer you to the Dell Factory Restore which will restore your computer to factory settings. This is generally the fastest method to restore your system to a working state. However in all cases, the systems that I have done a clean install on have vastly superior performance, than when they were restored to the factory install/factory settings.

This wiki should be used opposed to the factory settings for the following situations:
- If you are upgrading a Windows Vista system to Windows 7 (which requires purchase of a product key).
- Plan to install a new hard drive in your machine - If you are considering upgrading some parts in your computer see here before beginning the installation.
- Want to change from 32 bit to 64 bit Windows 7.
- Experiencing problems installing Windows Service Packs.
- Are experiencing significantly reduced performance after installing Windows Service Packs.
- Prefer a cleaner installation.

Note: If upgrading your operating system from XP or Vista and not to sure whether to go 32 or 64 bit. Run the Windows 7 Upgrade Advisor. I recommend using the 64 bit version if the system is compatible. Refer to Step 5 to see if there are any available system drivers before committing to the install. You may use the retail .iso without a product key for 30 days to access the performance of Windows 7 before deciding to purchase it.

Note: In few cases BIOS Update (Step 17) may need to be applied before upgrading your Operating System to Windows 7¹.

**Step 1a. Determine your Windows 7 License Type**

You will be in one of following two situations, an OEM or Retail license. Quickly review the notes applicable for your Windows 7 license before deciding on what media to use:

**The OEM or Original Equipment Manufacturer Preinstalled Version of Windows.**

If reinstalling Windows 7 on a system that came with Windows 7 preinstalled by Dell or exhibiting downgrades from Windows 8 Professional to Windows 7 Professional².
- This type of Windows 7 license is known as the Dell OEM version.
- Product Activation should be performed using the System Locked Preinstallation (SLP) as mentioned in Step 11b³ or phone activation to Microsoft Step 11e.
- You do not need to know your product key for system locked preinstallation but do need to know your version of Windows to be correctly licensed.
- This license key will work with the 32 bit or 64 bit version of Windows 7⁴.

**The retail or store bought or digital version of Windows**

If Windows 7 was purchased as a full or upgrade license or from the Microsoft store you should have a label with your product key or email.

¹ I have listed it as Step 17 as I prefer upgrading the BIOS when the system has a clean install and nothing else is going on in the background e.g. Windows Update.
² Windows 8 and Windows 8 RT don't have any downgrade rights and the user must purchase a separate license in this case.
³ For non-Dell systems including Alienware systems you will have to perform Step 2a yourself in order to carry out Step 11b.
⁴ Providing that the hardware is 64 bit capable and that it is not Windows 7 starter or Home Basic.
• This type of Windows 7 license is known as the retail version.
• Product activation for the full retail full license should be carried out in Step 1c.
• Product activation for the upgrade retail license should be carried out in Step 1d.
• If product activation using the 2 above steps fails you should use phone activation to Microsoft Step 1e.

**Step 1b. Obtaining Windows 7 Reinstallation Media**

This guide recommends the use of Windows 7 media from Digital River (see Step 1c) which is in general more up to date and has Windows 7 Service Pack 1 media refresh included.

It should be noted that the Windows 7 .iso from Digital River combined with the Activation Backup and Recovery Utility (ABR) mentioned in Step 2 and Step 11b and the Dell OEM Branding (Step 19) creates an install that would be identical to that of a Dell Windows 7 Reinstallation DVD. This is downloadable solution which can be readily employed to make a Bootable USB to clean install Windows 7.

**However this viable alternative for media is frequently frowned upon by a subset of Microsoft Most Valued Professionals and completely unsupported by Dell who state you should use a Reinstallation DVD yet simultaneously stop supplying them with their systems and have not optimised the process to procure or download one.**

For this reason my guides have all been migrated to my WordPress away from the Dell Community and I call it “Unofficial”.

The official statement from Microsoft is that you should obtain Reinstallation media from Dell or use the media you have been provided to install Windows 7 if you purchased your system from Dell with Windows 7 preinstalled. If you wish to request media from Dell or unsure whether you have a Reinstallation DVD see Step 1d. If you have the Reinstallation DVD already proceed directly to Step 3.

For a retail license you should use the media that came with your retail license if you purchased Windows 7 from a retail store or from Microsoft directly. If you have the DVD you can proceed directly to Step 3.

However in all cases I recommend using more up to date installation media from Digital River. Moreover if you want to install Windows 7 for a 30 day evaluation period to see how well it runs on your system before deciding whether or not to purchase it you may use a Digital River .iso without input of a product key.

**Step 1c Obtaining Windows 7 Reinstallation Media from Digital River**

The direct links are available from Digital River. For English see:

- 64 Bit: [http://msft.digitalrivercontent.net/win/X17-59186.iso](http://msft.digitalrivercontent.net/win/X17-59186.iso)
- 32 Bit: [http://msft.digitalrivercontent.net/win/X17-59183.iso](http://msft.digitalrivercontent.net/win/X17-59183.iso)
For other languages the installation files are conveniently listed here: Windows 7 Direct Download Links by Jan Krohn. Use the Windows 7 professional .iso in all cases as the instructions below will allow your installation media to install the other versions of Windows 7 (Starter and Home Basic require use of the 32 Bit .iso).

Once you have the .iso you can use the Windows 7 .iso to USB/DVD to create a bootable USB: http://images2.store.microsoft.com/prod/clustera/framework/w7udt/1.0/en-us/Windows7-USB-DVD-tool.exe

Deleting the ei.cfg file

This is easiest to do when the bootable USB is made (in most cases a bootable USB would be used on netbooks which don’t have optical drives). Open up the USB in Windows Explorer go to the sources folder and look for ei.cfg and delete it.

When you install Windows 7 you will be prompted to select your version and you can now choose starter or Home Basic.
A Clean Install of Windows

Philip Yip

©

A Clean Install of Windows 7
Step 1d. The Dell Windows 7 Reinstallation DVD

Ideally if Windows 7 was preinstalled on your Dell system, you should have got a Dell Windows 7 Reinstallation DVD shipped with your system which should be used for clean installation. In practice however Dell were forced to undertake an OEM media reduction policy by Microsoft and no longer ship the system with the Reinstallation DVD which has been detrimental to all its customers.

There is an Online Media Request Form for Reinstallation Media for US and CA Customers only where you can request media in the post if your system has active warranty. Unfortunately as the form is just for US and CA customers in warranty the only means of requesting one for customers for the rest of the World or out of warranty is to call Dell Technical Support. This has mixed results depending on your circumstance (Region, Warranty Status, person of contact). It has been reported on an odd occasion that Dell Technical Support are charging more for the Reinstallation DVD than Microsoft are charging for a retail license. The author has raised this problem with Dell on multiple occasions and urges users to add their vote to Windows 8 Reinstallation Media Request and Download Link [Revised] and Windows and Office Storm Session (both require an IdeaStorm account which is separate from the rest of the Dell Community).

Step 2. Backing Up Your Product Activation and OEM Product Key – OEM Windows Only

This step only applies to Reinstallation of an OEM license using a Digital River .iso from a major vendor such as Dell. If using a retail license skip this step.

To backup your OEM System Locked Preinstallation Microsoft Product Activation; on your old installation download Activation Backup and Restore from here. Ensure that you download the file ABRbeta.exe as its Windows 7 compatible.

Save it to your desktop.

Run ABRbeta.exe and accept the UAC prompt.
Extract the setup and then go to the extracted folder.

Run activation_backup.exe
You should get your SLP activation as two files the backup-cert and backup-key. Press enter to exit and then copy the entire contents of this folder to your external hard drive. This will not be the same as the 25 digit product key on your Code of Authenticity which should be attached to any machine with preinstalled Windows 7⁵. You should also note this product key down (unless its faded⁶).

See Windows 7 – Dell OEM System Locked Preinstallation Keys for more information about SLP Activation. If you haven’t managed to back up the Dell System Locked Preinstallation files (e.g. because your hard drive has failed or your installation is corrupt) then follow the steps above but instead of running the activation_backup.exe instead copy the 2 files over that match your version of Windows 7 from here.

For users reading this guide and not using a Dell OEM System but an OEM system from another vendor. The SLP keys for other OEMs are listed here and your key should match the one listed for your OEM and version of Windows in the list.

If your hard drive has failed or your installation is corrupt and you are unable to backup your product activation. You will need to run ABR on any machine by your computer manufacturer which has a factory preinstalled version of Windows 7 (of any version) to get the backup-cert for your OEM. The backup-key can be replaced with the 25 digit product key here which corresponds to your particular version of Windows by use of notepad.

**Step 3 Backing Up your Data and other Useful Things you will Need for Reinstallation.**

This step is for backing up data only. If you have all you need to install proceed to Step 4.

Note: If you are reinstalling due to start-up problems with your PC you should through with Diagnosing Windows Startup problems before committing to a clean install. If you can repair your installation reattempt this step. If you cannot repair your installation because your hard drive has failed for example then carry out Data Recovery of the Hard Drive using Fedora and then proceed to Step 4.

You may also attempt to install Windows 7 directly and obtain your data from the Windows.old folder (Step 15) this will only work if you don’t securely wipe your system with DBAN or opt to format/delete any partitions during the install which is unrecommended.

⁵ Note for those using downgrade rights from Windows 8 Professional, Windows 8 machines are no longer shipped with a COA.

⁶ The COA was placed in battery compartments in newer Dell Laptops or inside the Computer Cover to prevent it fading.
Step 3a. Use Belarc Advisor

**Belarc Advisor** will obtain details about your system. It is free for home use and gives you a print out of your computer’s hardware and software. It also gives you your product keys. This is particularly useful for obtaining your Microsoft Office and Microsoft Windows (retail only) product keys. It is handy to keep a print out of this data. **CutePDF Writer** may be used to create a pdf print out of it. Save this in a folder in the external hard drive e.g. called Computer Software.

Step 3b. Dell Service Tag

The sticker for the Dell Service Tag should be located in a similar area. You should take note of it. You only need to know the Service Tag (7 digit code) and not the Express Service Code.

If you do not know what your service tag is (Belarc Advisor should tell you) or you may follow the following instructions:

Press [Windows] and [r] to bring up the run command

Type `cmd` and press enter.

In the command prompt enter `wmic bios get serial number` and press enter

The Service tag will now display.

7 For the OEM version you will get the SLP Key.
I tend to save the Service Tag and all product keys in a notepad file and save these on the external hard drive as well as a handwritten note. It is also a good idea to send them to yourself via an email.

**Step 3c. Back up your data**

An external hard drive is a great device to back ones data up on. Documents, Music, Pictures and Videos in particular. A standard user should make regular backups in case of hard drive failure.

I have found manually copying the desired files and folders to be the most reliable.

**Step 3d. Backup your Full Previous Windows Installation Using Acronis (optional)**

It is recommended to make a full hard drive backup using Acronis True image which is full explained in Backing Up and Restoring Your Windows Installation Using Acronis.

**Step 4. Obtaining Service Packs/The Latest Build of Internet Explorer**

Currently the latest Service Pack for Windows 7 is Service Pack 1, the media I mentioned in Step 1 already has Service Pack 1 so there is no need to download it. If you are using your own installation discs such a Dell Reinstallation DVD without Service pack 1 then you should download it.

In either case you may want the optional Security Updates and the latest version of Internet Explorer which will give you a stronger base security.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Pack 1</td>
<td>Service Pack 1</td>
<td>Service Pack 1</td>
</tr>
<tr>
<td>KB2775511*</td>
<td>KB2775511*</td>
<td></td>
</tr>
<tr>
<td>Internet Explorer 10</td>
<td>Internet Explorer 10</td>
<td>Internet Explorer 10</td>
</tr>
<tr>
<td>Microsoft Security Essentials</td>
<td>Microsoft Security Essentials</td>
<td>Microsoft Security Essentials</td>
</tr>
<tr>
<td>Latest Definition (MSE)</td>
<td>Latest Definition (MSE)</td>
<td>Latest Definition (MSE)</td>
</tr>
</tbody>
</table>

* KB277511 is a hotfix rollup is available for Windows 7 SP1 and Windows Server 2008 R2 SP1 and has to be obtained from the Microsoft Update Catalog (this requires use of Internet Explorer). It is 19.8 MB for the 32 bit version and 31.3 MB for the 64 bit version.

**Step 5a. Driver Install Notes**

Drivers may be obtained from the Dell Drivers and Downloads (Step 5c) or the Dell ftp Website (Step 5d).

If you are planning to install Windows 7 and see that there are no listed Windows 7 drivers available for your system then have a look at Unofficial Windows 7 Drivers – Direct Links. These and are listed in the correct install order.

For systems not mentioned in this wiki note that:

- 32 bit Vista drivers may be used in conjunction with Windows 7 32 bit.
- 64 bit Vista drivers may likewise be used in conjunction with Windows 7 64 bit.

i.e. you may use the Windows Vista drivers with Windows 7. There are few exceptions to this rule in particular Bluetooth which integrates with Windows Explorer.

If you only have XP drivers listed then ask on the forums for assistance; however if Vista or 7 drivers are unavailable for your system it is likely you will get a low Windows Experience Index running these operating systems on your hardware, so I would not recommend switching in this case.
For optimal performance the drivers should be installed in the following order:

**Step 5b. Driver Install Order**

**Dell System (Notebook/Desktop) Software - Under System Utilities**
Use the latest version [here](#). See [here](#) for more information about Dell Desktop Software.

**Free Fall Sensor - Under System Utilities**
This is mainly just present for newer laptops. The free fall sensor is designed to help prevent data loss from the hard drives which may be caused by dropping of the unit. For more information about the Free Fall Sensor see [here](#).

**Chipset Drivers - Under Chipset**
Your system will have either an Intel (most Dell systems) or ATI chipset. Install the Intel Chipset Installation Utility (or AMD equivalent) before any of the other drivers. Then install any of the other Intel (or AMD) chipset drivers. You may also have some USB 3.0 chipset drivers and in this case these should be installed next. There may also be a card reader driver e.g. Realtek, Ricoh, O2 Micro. The card reader may also be found under a Removable Storage category.

**Intel Matrix Storage Manager/Intel Rapid Storage Technology - Under SATA Drives and/or CPU**
Not all systems will have this. Note there are the drivers and the applications. The applications should increase system performance. If a full installer isn't present then it is likely the preinstallation drivers (see Step 6).

**Video Driver - Under Video.**
Generally there are several variants for Video Driver e.g. Intel/ATI(AMD)/nVidea. In addition for Desktop PCs in particular there may also be different variants of ATl(AMD) and nVidea cards sold with the system. Ignore any for TV tuners under the Video category at the moment.

Some of the newer laptops have switchable graphics and require the Intel driver to be installed first then the corresponding nVidea/ATi video driver for full performance. There may be a few variants of graphics cards for a laptop and you must select the correct ones.

In desktops if there is no dedicated graphics card in the card slot, then they have the onboard (generally Intel driver).

In desktop if there is a dedicated graphics card in the card slot then generally it is the ATl(AMD) or nVidea driver). Generally there are several variants of graphics card per desktop model and you need to pick the correct one. The latest driver from the ATl/nVidea websites generally offers increased functionality.

- AMD (ATI) Driver Autodetect
- nVidea Smart Scan
- Intel Update Utility

**Modem Drivers - Under Communications**
Drivers for Modems are often natively included in Windows 7 if it's not there don't worry. Modems are becoming obsolete also. For newer systems if modem drivers exist, they may fail to install as a modem is not present. As modems are becoming obsolete the modem is not always installed as default for a Windows 7 laptop.

**Network Ethernet Driver - Under Network**
This usually mentions Ethernet/LAN/Broadcom/Realtek in the description. Sometimes Intel, Atheros but the latter two can also be the wireless card. Some laptops are being sold without Ethernet ports and rely on wireless only.
**Wireless Card - Under Network**

Not present for all Desktops but most that come with Windows Vista or later will have a wireless card included. There are generally several variants of Wireless Cards and you will need to pick the correct one. For some newer systems the wireless and Bluetooth card are one and the same.

If you don’t know what wireless card you have check out the hardware IDs in your device manager (further explained in Step 12) and search through the compiled list of common hardware IDs/Drivers for Dell Systems here.

**Touchpad - Input**

This is for laptops only. There are 3 main brands of touchpads used in Dell systems; Synaptics, Alps and Cyprus. The latest version of Synaptics Touchpad may be obtained directly from Synaptics here although won’t contain the customisations of the Dell driver.

There may be additional input drivers if you purchased a non-standard keyboard for a desktop e.g. a wireless or Bluetooth keyboard.

**Audio - Under Audio**

Ensure you install any audio drivers before audio applications. Generally the drivers have the name SigmaTel/IDT/Realtek. There is generally little to none variants for the audio driver for each model. This is for the standard onboard integrated audio which 90% of Dellsystems use.

For the other 10% (mainly but not exclusively higher end desktop systems) an optional Creative Soundblaster may be installed. This is a dedicated soundcard. There will likely be a driver available but you may be able to get a later driver from the Creative Website.

There are sometimes also Creative applications available for the onboard audio (even if Creative don’t make the audio component).

**TV Tuners/Other Video (If applicable) - Under Video**

Many systems don’t have these and are only added via customisation.

**Bluetooth - Under Network**

Bluetooth is standard for most new systems, in fact for some of the really newer systems it is integrated with the wireless card. In some of the older models it was optional so not all systems have it.

**DO NOT INSTALL THE VISTA BLUETOOTH DRIVER ON WINDOWS 7.**

If you don’t know what bluetooth card you have check out the hardware IDs in your device manager (further explained in Step 12) and search through the compiled list of common hardware IDs/Drivers for Dell Systems here.

**Dell Quickset or Dell ControlPoint - Under Applications**

Dell Quickset is for the power settings and Fn keys. Usually this is for laptops only. These include the onscreen volume/brightness meters.

For some newer Latitude (E Series)/Mobile Precision Workstations Dell Quickset was replaced by Dell ControlPoint. If you cannot locate Dell ControlPoint System manager which should control the volume meters on these models then use the following ones here:

- **R312259** A21, Version 1.7.10000 Update Package Windows 7 64 bit
- **R301919** A19, Version 1.7.00000 Hard Drive Version Windows 7 64 bit
- **R312260** A21, Version 1.7.10000 Update Package Windows 7 32 bit
- **R301915** A19, Version 1.7.00000 Hard Drive Version Windows 7 32 bit

**Webcam Driver found - Under Input**
For many laptop systems the Webcam Driver is included in Windows 7. Most desktops won't have a webcam driver or will use a dedicated Logitech or Creative webcam which can be downloaded from the perspective vendors. Note for desktop systems with a webcam integrated into the monitor, the webcam driver may be found bundled with the monitor driver. Installation of the monitor driver will install the webcam. If the monitor has a driver it will be listed separately from the computer and one will have to select the monitor [on the Dell ftp website](http://www.dell.com/support).

**Mobile Broadband Drivers - under Communications**

Most users don't have these but the drivers are there for the users that do.

These are the main drivers and I have tried to give a basic guide to cover all systems. There will of course be some other variants from model to model and customisations within the same model such as mobile broadband cards, TV tuners and other drivers depending on your systems configuration. There may also be security drivers for Latitude and Optiplex series. The check for any missing drivers is via the Device Manager ([Step 12](#)) and you should post on the Microsoft OS forum if you run into problems there.

There are a number of other drivers such as the CD/DVD firmware. These can be updated if you wish but I would recommend leaving these well alone. Sometimes if these updates go wrong, things seriously break. If you have no problems with any of these devices then leave them be. You may look through Applications to see if you find anything else useful.

The BIOS can also be updated (see [Step 17](#) for more information about this).

If you are unsure what drivers apply to your system, i.e. what variants; Video Card, Wireless Card, Bluetooth etc. then check your Original System Configuration. If you are still unsure make a new post on the Microsoft OS forum with your Original System Configuration.

Naturally some of these drivers/applications such as Dell Quickset for power/mobility are designed for Laptops only and are thus not needed for Desktops.

When downloading all the system drivers I recommend saving each driver in an appropriately labelled folder and adding a numeric prefix to the folder. This will ensure that you install the drivers in the recommended order. E.g. here are the drivers I downloaded for a Latitude E6520:
All the drivers should be downloaded and saved to a USB stick. The way this guide is intended, Steps 1-6 are preparation for installing Windows so the user has everything they need when installing Windows.

This is why Step 5 (downloading drivers) and Step 10 (installing drivers) are independently. If however the user has already attempted to install Windows likely they won't be able to access the internet to get the drivers and will need to use a working system to download them.

**Step 5c. Obtaining the Dell System Drivers (Dell FTP Website)**

This guide recommends downloading the drivers from the Dell FTP Website which lists the drivers as direct links as there are less problems with it than Drivers and Downloads. Use the new version:

- Dell FTP Published Pages (new)
- Index of the Dell ftp website (old)
- old Dell ftp browse for drivers (old 2)
- Dell ftp root

As of yet Dell have still not took our advice to list the drivers in the correct installation.

**Step 6. Preparing SATA Drivers**

In the case where newer hard drives are fitted, several errors may occur during Windows 7 Reinstallation:

- Errors which state there is no hard drive.
- Windows Setup could not configure Windows on this computer’s hardware.
- A CD/DVD device is missing.*

* 9 out of 10 times the third error is due to bad media in particular if the Digital River .isos are used e.g. a badly burnt DVD or USB a corrupt download of the .iso. Downloading the .iso again and making a bootable USB usually resolves the matter.

To prevent these errors it is necessary to download SATA drivers such as the Intel Rapid Storage Technology F6fipy Drivers and load them during the Windows setup. For Intel systems these may be obtained on the Drivers and Downloads page but it is generally better to get the latest versions from
A Clean Install of Windows

Philip Yip

A Clean Install of Windows 7

Intel directly. Note most Dell systems are Intel but a few will be AMD systems and the Intel Drivers won’t be any use to you. To verify if your system is Intel or AMD run and install the Intel Processor Identification Utility (also c.f. the Chipset Driver in Step 5). If no CPU is identified your CPU is likely AMD. For AMD systems look on the drivers and downloads page, if you can’t find anything ignore this step and continue with the install.

Once you have downloaded the SATA drivers from Dell or Intel. You will need to extract the file with 7zip as shown. First download and install 7zip from here, selecting the 32 bit .msi or 64 bit .msi depending on your OS.

For the Dell SATA Driver once 7zip is installed, right click the Dell driver and select extract all.

This leads you to a folder with the same name Rxxxxxx as the driver.

Look in this folder for a F6flpy-x86 (32 bit) or F6flyp-x64 folder (64 bit) and copy the contents of this folder to a USB stick.
Usually I use a reinstallation USB opposed to a DVD so I just make an additional folder on the USB called SATA and copy these across to it. Others may recommend you to use a separate USB.

Select the correct one to match the version of Windows you are installing. Note if there are additional folders and a setup.exe in the folder then the F6flpy drivers should be loaded before Windows and the Application (Setup.exe) installed alongside the drivers.

Repeat for the extracted contents of all the SATA drivers on this USB/DVD. Note some of the items under “SATA Drivers” are applications these should be installed alongside the system drivers. See the downloads page below for example.

The 2 Applications should be installed at the end of the installation while the two drivers should be loaded onto the USB stick. The 2 Firmware may be installed at the end of the installation if desired.

For the Intel Drivers the F6flpy-x86 and F6flpy-x64 should be offered as separate .zip downloads. Download the correct one and extract it with 7zip then copy the extracted folder to your USB stick.

If you get one of the error messages above start a new post in the Disk Drives forum stating your model number, your type of hard drive (if you know, for example if you purchased one) and what Operating System you have tried to install. In addition it may be worth mentioning what SATA drivers you have attempted to use.

The SATA Drivers should then be loaded in Step 8, in particular loading the SATA Drivers.
**Step 7a. Ensure that you have the correct SATA Operation within the Dell System**

**BIOS**

At this stage many customers with Solid State Drive configurations get confused as where to install Microsoft Windows 7.

Many Dell systems come with a small mSATA SSD which is ~30-60 GB in size. This mSATA SSD is too small to support a Windows 7 installation effectively and Windows should be installed on the main hard drive. The SSD is then later used and set up as a cache drive to increase system performance. Note in some cases the mSATA SSD will not show up as a hard drive on the “Where Do You Want to Install Windows Screen?” (Step 8) however this is as intended. Verify what the SATA operation is in the BIOS setup before proceeding with the install. To do this see BIOS Screen sketch SATA Operation and set the operation to IRST. If installed by Dell with a SSD cache drive it should be default. Also review this document here. If the SSD does show up on the “Where Do You Want to Install Windows?” screen then delete any contents on it. You may wish to delete anything on the SSD and

Customers may also replace or insert (if a mSATA slot is available on their system) a mSATA drive such as a Crucial mSATA M500 that has a higher capacity such as 120 GB or superior. A SSD of this size is large enough to support a Windows installation and Windows should be installed directly on it. See BIOS Screen sketch SATA Operation and set the operation to AHCI. Install Windows directly on the mSATA SSD.

For systems without a mSATA drive set the operation to AHCI if it’s available. Older systems used ATA.

**Step 7b. Preparing the Drive For Installing Windows (DBAN)**

This step is optional to securely wipe the system. Users that are planning on selling/giving away their system or reinstalling due to a viral/malware infection should perform this step as it permanently erases data and is more through than the standard Windows format.

Download DBAN and burn it to a blank CD/DVD using ImgBurn (on XP/Vista) no additional Software needed for Windows 7 or alternatively make a bootable USB using Universal USB Installer.

Before using DBAN any card readers need to be disabled in the BIoS setup as the card reader registers with DBAN as a blank drive and stalls DBAN from running. In addition secure boot and UEFI which are present in newer systems may also need to be disabled. For instructions on how to do this follow:

* Card Reader BIOS Settings [Variant A]
* Card Reader BIOS Settings [Variant B]
* Disable Secure Boot (systems newer than 26/10/2012)
* Disable UEFI and Secure Boot (systems newer than 26/10/2012)

If using a USB device to run DBAN from, use a USB 2.0 port, if your system only has only USB 3.0 ports follow Disable USB 3.0 functionality to Install Windows from a USB Flash Drive. Note the USB device will also be securely wiped at the end of DBANs operation.

Remove any other external USB Hard Drives and USB sticks unless you want to securely format them too.

Insert the DBAN CD/DVD or USB and power down your system. Press F12 at the Dell BIoS screen and select boot from CD/DVD or from USB respectively.

---

8 Not all systems have card readers. If you cannot find the BIOS settings for the card reader, inserting a Card Reader will allow DBAN to run correctly (the card will of course be securely wiped).
DBAN will then load

Darik’s Boot and Nuke

Warning: This software irrecoverably destroys data.

This software is provided without any warranty; without even the implied warranty of merchantability or fitness for a particular purpose. In no event shall the software authors or contributors be liable for any damages arising from the use of this software. This software is provided "as is".

http://www.dban.org/

- Press the F2 key to learn about DBAN.
- Press the F3 key for a list of quick commands.
- Press the F4 key to read the RAID disclaimer.
- Press the ENTER key to start DBAN in interactive mode.
- Enter `autonuke` at this prompt to start DBAN in automatic mode.

The easiest way to use DBAN is by typing `autonuke` and then pressing enter.
You should get these two screens

DBAN will then begin to securely format your hard drive. Note DBAN can take a very long time to securely format a large capacity hard drive.

When completed you should get a screen like this. Hopefully it will say DBAN succeeded although sometimes it mentions an error. Most of the times that it has mentioned an error to me it has actually fully formatted the drive and ran for the same length of time as it should (i.e. the same time for a system of the same model where no error cropped up).
Once the DBAN format is done, re-enable any card reader within the BLOs setup.

Note using DBAN may sometimes cause some issues with product activation if using upgrade product keys as the original version of Windows is not there.

Some people have reported that a double install of Windows 7 will work in this case (see here). Others reinstall the old operating system, activate it and then proceed with a clean install Windows 7.

**Step 7c. Preparing the Drive For Installing Windows (Media Direct)**

This step is only for systems shipped with Media Direct if your system does not have Media Direct skip this step. Most Dell systems don't have Media Direct; Media Direct is only for selected systems such as the Inspiron 6000, 6400, 9300, 9400, E1505, E1705, XPS Gen 2, XPS M170, M1270, M1710, M2010. The Media Direct Button has the symbol below and is in close proximity to the power button.

The partitions for Media Direct must be set up before the installation of Microsoft Windows otherwise pressing the Media Direct Button while the system is powered down can corrupt your entire Operating System.
Insert the Media Direct DVD supplied with your system. It should look like the following:

If you don't have the Media Direct DVD you may download the files from here, there are 10 files. Download all 10 and then use 7zip to extract the first one and ImgBurn to burn the .iso to DVD.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD. Select option 1 (recommended) or option 2. (if you want 2 partitions).
Note: The application must be installed after the system drivers while on the Windows Desktop (Step 14a).
Step 8. Installing Windows

Insert the DVD you have created or Dell reinstallation DVD or the bootable USB flash stick. Also insert the SATA Drivers USB stick if applicable.

Note: If your system has a mSATA Solid State State Cache Drive you should review this document here and change the SATA operation.

Note: It is recommended to unplug any unnecessary peripherals (You need keyboard and mouse).

Note: Where possible use USB 2.0 ports when booting from USB; users have reported that when using USB 3.0 ports the USB stick doesn’t boot.

Note: Ensure that the keyboard and mouse are plugged in USB 2.0 ports as Windows 7 installation media has no USB 3.0 drivers and often won’t boot from a USB port or cause the installation to freeze.

Secure boot and UEFI may need to be disabled. I would advise sticking to UEFI if using the 64 bit version of Windows however you will need to load the latest SATA drivers (see Step 6 and loading the SATA Drivers later on in this Step). If you still can’t boot from the Windows 7 Reinstallation media you can try to disable UEFI. For instructions on how to do this follow:

- Disable Secure Boot (systems newer than 26/10/2012)
- Disable UEFI and Secure Boot (systems newer than 26/10/2012)

For systems with only USB 3.0 ports follow the instructions:

- Disable USB 3.0 functionality to Install Windows from a USB Flash Drive

*UEFI is only supported on the 64 bit version of Windows Vista, 7 and 8.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD or from USB respectively.
Press any key when prompted such as "h" when it says Press any Key to boot from CD/DVD.

You will get a black screen that says "Windows is Starting Files" then one that says "Windows is Loading Files." These should disappear pretty quickly. Next one that says Starting Windows

You will then be prompted for your language, time and currency format and keyboard settings. Mine are all set to U.K. as shown below, amend for your preference.

Select Install Now.
Read the license, check to select and then select Next.

Next select Custom (Advanced).
Note select Custom (advanced) even/especially if you are "upgrading" from Vista to 7. There are always some bugs when selecting "Upgrade" on this screen and this seriously hinders your systems performance.

When you get to this screen select Load Driver and select your SATA drivers USB stick. Ensure that "Hide drivers that are not compatible with hardware on this computer is ticked" (it should be set like this by default). Select all the drivers listed and then click next. It will take you back to this screen. Select "Drive Options".
This will reveal the drive options. The tools are rather self-explanatory. For a new hard drive you will need to select New to make a new partition (case below).

You should get a message saying some space must be "System Reserved" and a System Reserved Partition is made, don't worry about it, it is very small.
When you have an existing Windows partition you have a few options:

1. To delete it and then must create a new partition or partitions if you want multiple partitions e.g. for dual boot or for other reasons; this will remove all data and factory partition. Once you have created your partitions; select the partition you wish to install Windows on and select Next. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service.

2. To format it, leave the partition intact but remove all data and factory partition. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead Extend the main partition.

3. To install Windows on the partition but not format it (in this case all old files will be found in the Windows.old folder). Again you might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead Extend the main partition.

Note If you have a Media Direct system you should install on C: the largest partition and leave all other partitions alone.

Note for systems without media direct, the Dell Factory setting will no longer work after a manual install. I recommend deleting or formatting such a partition alongside any other partitions and creating new partitions to your own preference but you must take the 3rd option if you have not carried out Step 1 and wish to keep your data (Step 15).

Note: if you have not backed up all your data onto an external hard drive. Do not select any of the drive options particularly format or delete. In this scenario all your files will be saved in a folder called Windows.old.

You will then a screen telling you the progress of the install.

Note some parts may be very fast and some steps may be very slow.

However it should not take any more than a few hours; if it is stuck on the same % for a few hours on one part then it has likely froze and you must start again (this rarely happens) by holding down the power button until the machine powers off and then reattemping the install.
Type in your "username", by default the PC name will be "username-PC" but you can change this as desired.

Next type in your password, retype it and leave yourself a hint. Alternatively just select next (to have no password - not recommended but optional). Personally for convenience I tend to leave the password blank and add one after the installation of Windows 7, drivers and updates as you will be prompted to restart your computer several times.

If using retail media you will be prompted for a product key. Use your product key found on the COA sticker found at the base of your system or your purchased upgrade key/retail key/OEM key.

A Dell OEM disc should not require you to input this key and this screen should not display.
Once you have input your key select Next. The following screen will display if you have input the wrong key.

Alternatively you may skip this step and get a 30 day trial of Windows 7 which is recommended for testing Windows 7 on your machine.
Once you have input the correct key, this should lead you to here, generally select Use recommended settings should be selected.

Then select your time and date settings.

The next screen(s) should be about connecting to the internet and/or connecting to a wireless network. In this case the system is a home desktop connected to a router via an Ethernet cable.
Thus Home network is selected. You may alternatively be asked about connecting to a wireless network.

**Note the above screen should show only if your system can connect to the internet. Often the network drivers are needed to be installed before connecting to a network so this step may not show or if it does skip it if you cannot connect.**

Finally the setup will Finalise.
Step 9. Install the Service Packs/Internet Explorer 10

Now that you have Windows 7 installed. Ensure that you have the latest Service Pack installed. It often works out better installing the latest Service Pack and Internet Explorer before installing the system drivers. Doing so in this order prevents a great deal of problems with Windows Update and conflicts with system drivers.

You should have downloaded these onto a USB stick at Step 4 if your installation media didn't include them and have them readily accessible on a USB stick or External Harddrive.

Insert the USB stick and run the .exe installers.

Step 10. Install the System Drivers

Ensure you keep to the order listed above for best results. You should again have downloaded these at Step 5 and have them readily accessible on a USB stick or External Harddrive.

Running the .exe file Rxxxxxx should extract the driver to C:\Dell\Drivers\Rxxxxxx and then run the installer automatically.

Newer systems no location adopt the R# notation as Dell decided it was better to give the file names a better description but should still extract to C:\Dell\Drivers\"Subfolder" where "Subfolder" is variable. Unfortunately often no installer runs and the file just extracts. To actually install the driver you will need to navigate to the folder where the driver extracted to and run any setup.exe files. Many users think they have installed the driver when they haven't.

We will take for example R284334 the chipset driver for my XPS 8300 and look at it in detail:
Double clicking the file, you should get a run prompt select yes.

Select Continue

Select Ok
Select Ok. At this stage the setup should start and you should start the installation. **If it does not the driver is not installed.** In my XPS 8300 (and I suspect many other systems) the installers do not automatically run. Therefore in this case I have to go to C:\Dell\Drivers\R284334 (you will have to go to the number of your driver) and click setup.

Accept the UAC prompt and install via the setup program.

Usually the rest of the driver installation consists of a series of clicking next, next, finish and then rebooting. I usually tell it not to reboot until I install all the drivers it is faster this way and always
worked for me however it is probably best to reboot when prompted especially after Chipset Driver installation.

**Step 11. Microsoft Product Activation**

If you have used a Dell Reinstallation DVD see [Step 11a](#).

If you have used a Digital River .iso for an OEM version of Windows 7 see [Step 11b](#).

If you have used a Digital River .iso and a Retail Full/Upgrade license key see [Step 11c](#).

**Step 11a. Microsoft Product Activation – Dell Reinstallation DVD**

Press the [Windows] and [Pause|Break] or go to start, right click computer and click properties.

![Windows Activation](image)

If it says (at the bottom) Windows is activated then you are fine. This should happen automatically if you use the Dell Reinstallation DVD. These will automatically input the Dell System Locked Preinstallation key when installed via a Dell BIOS and will automatically activate with this product key. Proceed to [Step 12](#) if it's activated. If it isn't activated see [Step 11e](#) of [Step 11f](#).

**Step 11b. Microsoft Product Activation – Digital River .iso and Activation Backup Recovery (Dell OEM Windows 7)**

Copy the ABR folder you had copied/made in [Step 2](#) e.g. on the Desktop. Run activation_restore.exe and follow the onscreen instructions.
Press enter to exit and then restart your computer. Your product won’t be activated until your computer is restarted.

Recheck the first screen for activation. Press [Windows] and [Pause|Break]

If your product is activated proceed to Step 12. If it still hasn’t activated refer to Step 11e for phone activation.
Step 11c. Microsoft Product Activation – Digital River .iso and Retail Product Key

If it says activate Windows Now, click the link to activate. If you used the .isos I referred to you should get a screen like this:

Press the [Windows] and [Pause|Break] or go to start, right click computer and click properties.

Click to enter a product key.
Enter the Windows 7 product key on your COA or Retail/Upgrade product key. Select next, hopefully your product should activate over the internet and you should get the following screen:

If your product is activated proceed to Step 12. If it isn’t activated and you get an error message saying this product key is an upgrade key illegible for clean installation or similar proceed to Step 11d if you get the product key is invalid for activation (no mention of an upgrade product key and a clean install) then refer to Step 11e for Microsoft Phone Activation.
**Step 11d. Microsoft Product Activation – Digital River .iso and Upgrade Product Key (Clean Installation)**

Press the Start Button and in the search box type in CMD.

Right click CMD.exe and select run as an administrator. This will open up the elevated command prompt accept any user account control prompt.

In the Window type `slmgr /ipk xxxxx-xxxxxx-xxxxxx-xxxxxx-xxxxx` where `xxxxx-xxxxxx-xxxxxx-xxxxxx-xxxxx` is your product key and press Enter.
This should load your product key and prevent the message about clean installation.

Then type `slmgr -ato` and press Enter.

Windows should now activate.

Select ok and then close the command prompt. This solution taken from MyDigitalLife forums here and I have verified it.

Note this workaround can only be carried out for an eligible system i.e. a system which contains a valid Windows XP, Windows Vista or Windows 7 Full/OEM license (generally most Dells which have a Windows COA affixed to the system) to upgrade from otherwise the workaround is illegal and you are incorrectly licensed and should not be using an upgrade license.

Press [Windows] and [Pause|Break] or right click Computer and select properties. Check if your product is activated. If your product is activated proceed to Step 12. If it still hasn’t activated refer to Step 11e for Microsoft Phone Activation.
Step 11e. Microsoft Product Activation by Phone

If however you get the following screen:

Select use the automated phone activation and select your country. I have selected the UK in this example. Once you have selected your country select next.
The Microsoft (toll-free) and (toll) phone numbers should now be available.

**Note these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**

You will also have a unique installation ID.

Call the toll-free number; I recommend using a land line for this as the number isn’t toll-free for Mobiles and the number keys on the landlines are usually easier to type with. Other numbers may be found [here](#).

The phone call will be automated. You will first be asked if you are a home or a business customer and be told to enter a number key on the phones keyboard corresponding to each answer.

You will then be asked how many computers you have installed your Microsoft product on, i.e., how many computers you have used that specific product key with. You should have two options 1 computer or more than 1 computer. Again you will be told to enter a number key corresponding to each answer. If you select more than 1 computer you will be informed that your product is only valid for installation on one computer and be bid farewell.

Assuming you have selected 1 computer only, you will be prompted to input the Installation ID displayed on your screen via your phones number pad. You will be prompted to enter this in the blocks of 6 like displayed on screen. If you have entered in the values incorrectly you will be prompted to re-enter in that block.

Once you have entered in the entire code you will be given a confirmation ID also given out in blocks of 6. You will have to press the # key once you have entered in the Confirmation ID for each block to move onto the next block. When you have finally input the last number in the last block select next; now hopefully you should get the “Activation was successful screen”.
You should now have Windows is now activated in the screen below. If your product is activated proceed to Step 12.

If for some reason your product isn’t activated and you cannot get the option to activate via phone. Press [Windows] and [r] to bring up the run command.

Input `slui 4` and press enter as this will sometimes bring up the phone activation wizard.

If you still can’t activate your product you may call the toll-based number and speak to a Microsoft Support Representative. The phone numbers may be found here. It says for volume licensing only but it is the same numbers that display for customers without volume licensing.

**Note again that these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**
Once activated “Windows is Activated” should display on the system properties.

If you still cannot activate you will need to call a toll number and speak to a Microsoft Activation Support Agent.

**Step 11f: Microsoft Product Activation – Digital River .iso and Activation Backup Recovery Ineligible system**

This is just a demonstration to show that the Activation Backup Recovery program or Dell Windows 7 Reinstallation DVD won’t work on ineligible systems.

A Dell Latitude D820 was used with an XP Professional COA in this test. It has a genuine Windows 7 Upgrade license and was later activated.

If you try to use the activation files on an ineligible system or a Windows 7 Reinstallation DVD on an ineligible system you should get 9 days until automatic activation as shown below.
When you click to activate now you will be unable to activate with the Dell SLP key and will be prompted to enter another product key. After 9 days you will get

You will need to purchase a new Windows 7 Product key in order to activate and have a genuine version of Windows 7.
Step 11g: Removal of Microsoft Product Key and Microsoft Product Activation.

I don’t really expect anyone to use this step however it is listed for completeness.

Press the Start Button and in the search box type in CMD

Right click CMD.exe and select run as an administrator. This will open up the elevated command prompt accept any user account control prompt.

In the Window type `slmgr.vbs /upk` and then press enter.
You will get a uninstalled product key dialogue box and also

Taken from Windows 7 forums: http://www.sevenforums.com/tutorials/165472-product-key-number-uninstall-deactivate-windows.html

**Step 12. Ensure there are no Errors in Device Manager and Rate the Windows Experience Index**

Press [Windows] and [Pause|Break] or right click Computer and select properties. On this screen select Device manager (to the left).

Hopefully it should look something like mine.
If you have an error, yellow ? or ! then you probably haven't installed a system driver correctly. You should quickly check that you haven't missed installation of a driver and check to see that something hasn't installed correctly. If you still can't find out what it is. Right click the device with the error and select properties:

Go to details and select Hardware ids.

You should make a new post on the Microsoft OS Forum starting your model of Dell, the hardware ids and whether you have installed Windows 7 32 bit or 64 bit. Advanced users may also search in the Microsoft Update Catalogue or PCIDatabase.
Next after the drivers are installed you should rate your system. Click the link "system rating is not available".

**Note at this stage I would re-rate the system even a number is displayed there. Although people may not care so much for the system rating it is best to perform. Several unrated systems will revert to the Windows 7 Basic Theme even if they are capable of the Aero Interface and will not allow the user to change to the Windows 7 Theme until the system is rated.**

Select rate this computer and leave it be for 5 minutes to rate it.

You should get the rating now. Here are the scores on my XPS 8300 Desktop for example:
Step 13a. Install a Security Program and your Applications (Security)

For Security I recommend use of Microsoft Security Essentials (I have mentioned installing this at step 4 of the wiki) and Malwarebytes’ Antimalware.

This is an area where almost everyone has a different opinion/their own favourites. So I am not going to argue or force my opinion here. Just ensure that you install a security suite that you trust. If you have any queries with regards to security software then I recommend you to post a new topic in the Virus & Spyware Discussion Forum.

Step 13b. Install Microsoft Office

The installers for Microsoft Office may be found here:

- Microsoft Office 2007
- Microsoft Office 2010
- Microsoft Office 2013

These installers require a product key. Use your product key obtained by Belarc advisor (Step 1) and/or found with the Microsoft Product Identification card on your system with the correct installer. For more details about the Microsoft Product Identification Card see here.

If your system just came with Office 2010 Starter, you cannot download it from an official source however Office 2010 Starter is becoming redundant and not worth installing. Instead you should use Microsoft Office Web Apps which has tight integration with SkyDrive and the same functionality or slightly more than Office 2010 Starter. Microsoft Mathematics may also be installed; this is essentially a free graphics calculator for Microsoft Windows.

Useful third party additions for the full versions of Microsoft Office are Mendeley Desktop Reference Manager and Mathtype both have free and paid versions. The free versions should suffice most users.
**Step 13c. Install SkyDrive for Windows**

I highly recommend SkyDrive for Windows. This gives users a 7 GB free webdrive which can be accessed via the SkyDrive folder on your computer and within any web browser. Paid plans can give you 100 GB storage.

SkyDrive for Windows is the easiest way to access your SkyDrive from your PC. When you install SkyDrive, a SkyDrive folder is created on your PC. Everything that you put in this folder is automatically kept in sync between your computers (PC or Mac) and SkyDrive.com, so you can get to your latest files from virtually anywhere.

Users may also install SkyDrive for Windows and additional programs in the Windows Live Essentials Suite.

**Step 13d. Install Microsoft.net Framework 4**

Install Microsoft.net Framework 4.

**Step 14a. Reinstalling Dell Preinstalled Applications (Media Direct)**

Skip this step if your system doesn't have Media Direct. For the systems with Dell Media Direct, once on the windows desktop, insert the media direct disc; it should autorun follow the onscreen instructions to install the application. If it doesn't you should navigate to the WindowsMD3 folder and click setup.exe. Use the updater within Media Direct to get it to the latest version.

**Step 14b. Reinstalling Dell Preinstalled Applications (Webcam Central)**

For some unknown reason Dell does not provide Dell Webcam Software under the drivers and downloads page for most systems. Here is the download link Dell Webcam Software R230103. You may wish to download the latest version of Skype before installing the webcam driver. Note for newer systems Dell Webcam Central may be supplied in My Dell Downloads (Step 14e).

**Step 14c. Reinstalling Dell Preinstalled Applications (Dell Support Centre)**

Dell Support Centre can be installed. It only works on home systems and does not work on Precision, Latitude or Optiplex systems.

**Step 14d. Reinstalling Dell Preinstalled Applications (Dell Dock)**

Dell Dock can also be installed. Note there is often confusion between two Dell products Dell Dock and Dell Stage.

You may not need or want Dell Dock if you have Dell Stage (this is for newer systems) and can be found in My Dell Downloads (Step 14e).

**Step 14e. Reinstalling Dell Preinstalled Applications (My Dell Downloads)**

See Instructions on using My Dell Downloads. Here the user should find the preinstalled Dell Stage, Roxio Creator Starter, McAfee. What other software you have available here will depend on your specific system. Save any downloaded items to an external hard drive for backup purposes as there is a download quota.

**Step 15. Copy old files from Windows.old**

If you have everything on the external hard drive then ignore this step. If not go to computer, then to C then to C:\Windows.old look through the users folder, move all the items (you want to keep) from "documents" to "documents", "desktop" to "desktop", "music" to "music", "pictures" to "pictures", "downloads" to "downloads". Look about in this folder for anything else.

Windows.old has old windows files you won't need, old program files you can no longer use and it is very large. Delete it when you have moved whatever you need as it is a very large folder and
unnecessary once you have your new windows installed. Note there is more information and an automated tool here.

I recommend using unlocker to delete the Windows.old file as you will get several error messages using the standard windows delete, the folders name is too long, its too big for the recycle bin and you don’t have permission. Be careful when using this utility as you can cause damage to the windows installation if you delete the wrong file. You may get unlocker from here:

- Unlocker 64 bit
- Unlocker 32 bit

Ensure that you select the advanced install when installing unlocker as it is bundled with potentially unwanted programs e.g. toolbars and Quickstores, ensure that you select advanced install and don’t install any additional components.

**Step 16. Visit Windows Update**

Go to start > Windows Update
This will open up Windows Update

Click on the optional updates and place a tick for each optional date you want.
Select ok. You can now review the important updates also.

These will be installed by default on your system. Should you decided not to install an important update (which is generally not recommended), uncheck the box for the update then right click then select Hide Update.

The update I decided to disable in this example is the browser choice update which is an unnecessary and annoying update in my opinion.

Select okay when done. Note the 116 important updates is now 115 as 1 update was disabled. There will be no prompt to install that annoying update again.
Click install updates. The updates should download and install (this may take a while) you may be prompted to restart your computer a few times.

You should check Windows Update again after logging on until it tells you Windows is up to date.

**Step 17. Notes on Updating the BIOS**

Dell recommend updating the BIOS to the latest version as there are often enhancements/fixes in the updates.

Know the risks however caution should be taken when updating the BIOS as a failed BIOS = a dead system. Therefore many users opt to stay clear of BIOS updates completely. I personally tend to update the BIOS if available after a clean install.

When you power up your Dell system, you will get the Dell BIOS screen:
On this screen is the model number and the BIOS revision. The BIOS revision typically this of either 2 formats:

- Axx, i.e. A01, A02, ..., A12 etc.
- x.x.xx, i.e. 1.0.0, 1.0.3, 1.1.2, 1.1.4, 1.1.10, 1.1.11 etc.

The higher the number the later the revision.

To reduce the probably of fatal BIOS updates save the BIOS update file to the desktop and close down all programs.

Remove any USB device from your computer except for keyboard and mouse and also remove any CD/DVDs and media cards. Restart computer.

Then double click the file and run it as an administrator. Don't touch the computer until the BIOS update is complete. It should automatically log you off, update the BIOS and restart the computer.

Don’t power down the computer during the BIOS update as this will ensure your system is rendered completely useless. Ensure both the battery is at full charge and the AC adaptor is plugged in when updating the BIOSs on a laptop.

**Step 18. Install other Software**

For more software recommendations see Additional Recommended Software.

Pay attention when installing any third party software (non-Dell/non-Microsoft). When you have the option available always select advanced setup. Software is often bundled with toolbars, search provider defaults, browsers and/or other programs. The larger software vendors e.g. Ask, Google, Bing (Microsoft) pay for bundling their toolbars within the installer. Thus the cost of the software can be made lower or distributed for free in some cases. The advanced setup allows
users to disable installation of these toolbars and other programs which they don't want.

CNET in particular although a good source bundle a lot of unwanted programs and you should decline about 5 things in some of their installers.

>70 % of Internet Explorer crashes are due to these toolbars. For Internet Explorer 9/10 see:

- How to Manage Add-ons
- How to Change your Default Search Provider

Other browsers which you may also install for free are:

- Google Chrome with Adblock
- Firefox with Adblock Plus

Note some things work better in Internet Explorer than in the other browsers e.g. SkyDrive and Microsoft Office Web Apps likewise YouTube (especially with the adblock), Google Docs and Google services will work better in Google Chrome. Firefox has a variety of third party extensions. You can of course use all three and switch between them for individual tasks.

Note although the Adblock for Chrome extension and Adblock Plus for Firefox extension can be installed for free, the developers make living from donations so if you find their extensions useful then send them a donation to thank them.

**Step 19. Desktop Enhancements**

**Multiple Monitors**
For those that are using 2 monitors I recommend installing Actual Windows Manager or Actual Multiple Monitors. This will give you a taskbar and Start Menu on each monitor thus completing your Windows Multi-Monitor experience. In addition you can set programs to open on the monitor with the mouse. There is an array of further customisation that can be made with either program. Note this software isn't free when you install it you will get a 30-60 day free trial of either product but it is worth trying out for those that have multiple monitors.

It should be noted that for older versions of Actual Multiple Monitors there was a free version with limited functionality however for the latest version there is no free version anymore. The older free version can still be downloaded from their [3.x Achieve](https://www.actualwindowsmanager.com/actual_multiple_monitors.php).

**Lock Screen**
The Background for the Lock Screen isn’t made simple to modify in Windows 7.

The free StarDock LogonStudio may be used to change the lock screen background into any jpg you like providing that it is less than 256 KB in size.

Once installed select Create, enter a name and author, select browse and then select your image, the lock screen should be changed.
Should you wish to use the Dell preinstalled background theme then they may be found on the files area of the Microsoft OS Forum or alternatively on my SkyDrive here saved as LockScreen Background.7z. (When downloading the image from the files area ensure that it is opened to full size on your web browser then right click the image and select save as…) The files on the SkyDrive will require extraction with 7zip.

If using the LockScreen Background.7z from the SkyDrive there is a registry edit with included instructions (StarDock login studio is not required but can be used opposed to the registry edit). The light blue defaultbackground.jpg can be replaced by another colour or any custom image (as long as it
is below 256 KB) if it is renamed for example backgrounddefaultold.jpg and the desired colour/image is renamed defaultbackground.jpg, i.e. once the registry edit is set any file in the folder C:\Windows\System32\oobe\info\backgrounds that has the name backgrounddefault.jpg will be the default login screen background.

**Desktop Background and Theme**
Right click a blank area of the Desktop and select Personalise, you will be able to select the theme from the default available. The default Dell ones may be found on my SkyDrive here saved as Desktop Background.7z and the theme may be selected by double clicking the file. You may alternatively select Get more themes online and browse through the list on the Microsoft website till you find one you like.

At the bottom you may alternatively select the Desktop BackGround and Windows Colour aswell as Sound Scheme and alter to your preferences.

**OEM System Properties Branding**
The OEM System properties branding will already be applied if you used a Dell Windows 7 with Service Pack 1 Reinstallation DVD. For those who didn’t to get the Dell OEM branding download the following files from my SkyDrive here. There are two variants on the SkyDrive; the Blue and white saved as System Properties Blue and White.7z and the Black and Silver logo saved as System properties Black.7z.

Follow the instructions in the text files included in the folder for installation; again there is an included registry edit which must be applied for the logos to display.
**StarDock Fences**
Additional 3rd party software to enhance the Desktop can be found on the [StarDock website](#). One notable product is Fences which used to have a free version but no longer does. It is worth having a look at their software however.

**WinAero**
I haven’t tried these however it is worth mentioning that there are a series of free tools/utilities made by [WinAero](#) which can be used to further personalise or enhance the Desktop or user interface.

**Step 20. Create a Backup**
At this stage your system should be clean installed, up to date and fully functional; it is recommended to make a full hard drive backup using Acronis True Image which is full explained in [Backing Up and Restoring Your Windows Installation Using Acronis](#).

**Step 21. Setting up the msata Cache Drive**
Note: If your system has a msATA Solid State State Cache Drive you should review this document for configuring the Intel Rapid Responsiveness software [here](#). Note I suggest making the backup before this as sometimes things may go wrong when using a Cache Drive.

**Step 22. Use Your computer**
That’s everything done, you should have a fully functional system with peak performance.😊

Enjoy your Dell system!
A Clean Install of Windows 8.1

Note: This guide takes you through almost every screen of the install and is hence quite long; it is nowhere as daunting as it looks on first glance.

This wiki should be used opposed to the factory settings for the following situations:

• If you are upgrading a Windows Vista system to Windows 7 (which requires purchase of a product key).
• Plan to install a new hard drive in your machine - If you are considering upgrading some parts in your computer see here before beginning the installation..
• Experiencing problems installing Windows Service Packs.
• Are experiencing significantly reduced performance after installing Windows Service Packs.
• Prefer a cleaner installation.

Step 1a. Determine your Windows 8.0/8.1 License Type

You will be in one of following two situations, an OEM or Retail license. However should you wish to install Windows 8.1 as a 90 day trial then see Step 1e.

Quickly review the notes applicable for your Windows 8.0/8.1 license before deciding on what media to use:

The OEM or Original Equipment Manufacturer Preinstalled Version of Windows.

If reinstalling Windows 8.0/8.1 on a system that came with Windows 8.0/8.1 preinstalled by an OEM such as Dell:

• This type of Windows 8.0/8.1 license is known as the Dell OEM version.
• Product Activation should be performed using the System Locked Preinstallation (SLP).
• You do not need to know your product key for system locked preinstallation, the product key is embedded within the systems BIOS and will be automatically input when the Windows 8 setup is ran from the Dell (OEM) Reinstallation DVD/USB.
• Product activation should be carried out automatically when connected to the internet.
• This license key will work with the 32 bit or 64 bit version of Windows 8.0/8.1 but in general Dell only supply the 64 Bit version of Windows 8.0/8.1.

To obtain installation media for a Dell OEM license see Step 1b. If you have media which already contains Windows 8.0/8.1 go directly to Step 3.

The retail or store bought or digital version of Windows

If Windows 8 was purchased as a full or upgrade license or from the Microsoft store you should have an email with your product key. If you have boxed media the product key should be printed on a sticker affixed to the box.

Note the BIOS Update (Step 17) should be performed before upgrading your Operating System to Windows 8.

• This type of Windows 8 license is known as the retail version.
• Product activation for the full retail full license should be carried out in Step 11a.
• Product activation for the upgrade retail license should be carried out in Step 11b.
• If product activation using the 2 above steps fails you should use phone activation to Microsoft Step 11d.
To buy Windows 8.1 see **Step 1c** and to download Windows 8.1 see **Step 1d**. If Windows 8.1 was bought from a retail store you should have a boxed Windows 8 license with media. If you have media which already contains Windows 8.1 go directly to **Step 3**.

**Step 1b. Requesting Windows 8.1 Installation media From Dell**

Ideally if Windows 8.0 or 8.1 was preinstalled on your Dell system, you would have ideally got a Dell Windows 8.1 Reinstallation DVD/USB shipped with your system which should be used for clean installation.

In practice however Dell were forced to undertake an OEM media reduction policy by Microsoft and don't ship any system with the Reinstallation DVD which has been detrimental to all its customers. Moreover there have been many issues with the Dell Backup and Recovery program essentially leaving many customers without a reinstalation solution. Finally the Dell Backup and Recovery program does not allow for clean installation or advanced installation options.

There is an online media request form for Reinstallation Media for US and CA Customers only where you can request media in the post. Unfortunately as the form is just for US and CA customers, the only other means of requesting one for customers outside the US and CA is to call Dell Technical Support. This has mixed results depending on your circumstance (Region, Warranty Status, person of contact). The author has raised this problem with Dell on multiple occasions and urges users to add their vote to [Windows 8 Reinstallation Media Request and Download Link [Revised]] and [Windows and Office Storm Session](both require an IdeaStorm account which is separate from the rest of the Dell Community).

I have requested that Dell make a separate board as sub-board of the Software & Operating Systems for media requests but this is not implemented yet.

If you have a Windows 8 retail license you can likely use the key to download media to clean install on your OEM system see **(Step 1d)**.
Note: A MSDN/Technet .iso or retail media can also be used to reinstall Windows 8.1 and the preinstalled product key should be automatically input but few users have access to these and these are again paid subscriptions. I don't recommend it but I have seen that many users have extreme difficulty obtaining media from Microsoft or the OEM so look around for a MSDN/Technet from a non-official source. Be careful if you are forced to go down this route.

**Step 1c. Buying Windows 8.1**

Should you want to purchase and download Windows 8.1 online use the following links:

- For US customers [here](#) for a price of $119.99 for Windows 8 and a price of $199.99 for Windows 8 Professional.
- For UK customers [here](#) for a price of £99.99 for Windows 8 and a price of £189.99 for Windows 8 Professional.

For other customers visit [http://windows.microsoft.com](http://windows.microsoft.com) to get pricing in your own currency.

I recommend avoiding the download solution at present as it doesn't offer the best price. In the UK it is cheaper to get a boxed solution of Windows 8 Professional from Amazon or Tesco for about a quarter of the price at £49.50. If you buy a boxed Windows 8.0 you can use the product key to download Windows 8.1 media.

**Step 1d. Downloading Windows 8.1**

There are no direct download links on Digital River of Windows 8.1 .isos as was in the case of Windows Vista and Windows 7 and an uproar on Microsoft Answers as these are necessary.

**Instead Microsoft has made a setup program and downloader which requires input of your product key and a working previous version of Windows.**

This downloader will only work if you have a Windows 8.0 or 8.1 product key either from a downloadable purchase or bought from a store with boxed media. As the OEM version of Windows 8.0 or 8.1 has a hidden embedded product key it is not possible to download media for they systems at present. The downloader has the following other restrictions:

- The user must have a previous version of Windows installed on their hard drive such as Windows XP, Vista or 7. This makes it more difficult for installation on a computer with a corrupt Windows installation or a system which needs hard drive replacement.
- The user must purchase a new upgrade license from Microsoft or enter a product key.
  - The OEM System Locked Preinstallation product keys are hidden within the system BIOS and cannot be used with this downloader.
- The version of Windows (32 bit or 64 bit) installed matches the former version of Windows installed - users cannot switch from 32 bit to 64 bit or vice versa.
- The Windows 8.1 downloader doesn't accept Windows 8.0 product keys, we will address this limitation in this wiki. I have no idea why some genius at Microsoft decided to do this.
First download both the Windows 8.1 downloader (WindowsSetupBox.exe) and the Windows 8.0 downloader (Windows8-Setup) direct from Microsoft and save (do not run). If you have a Windows 8.1 Product Key directly use the Windows 8.1 downloader (WindowsSetupBox.exe) and run it.

For UK and US customers use the link below. For other customers change en-gb to your region in the address bar.

- **UK Customers:** [http://windows.microsoft.com/en-gb/windows-8/upgrade-product-key-only](http://windows.microsoft.com/en-gb/windows-8/upgrade-product-key-only)

Note if you run WindowsSetupBox.exe directly it will reject your Windows 8 product key.

I will use the UK setups as an example here.

Run the Windows8-Setup

![Windows8-Setup](image)

Enter your Windows 8 Product Key

![Product key](image)
Follow through the instructions and press next. When Windows 8 starts downloading; cancel the setup.

Confirm that you want to cancel.
Now run WindowsSetupBox.exe

The Windows 8.1 installer will now start and because you have entered a valid product key with the Windows 8 installer will skip the part where you are prompted to enter a product key.

Let the downloader run until it finishes and you are presented with the option to install now or make media. Opt to create media and save a .iso installation file.
A Clean Install of Windows

Install Windows 8.1

- Install now
- Install by creating media
- Install later from your desktop

Choose which media to use

- USB flash drive
- ISO file

Please select a location to save the ISO file to:

- This PC
- Software (F:)
- Windows 8.1"
Once you have downloaded the .iso you may use the Windows 7 .iso to USB/DVD tool (also works with Vista, 8.0, 8.1) to create a bootable USB/DVD:

http://images2.store.microsoft.com/prod/clustera/framework/w7udt/1.0/en-us/Windows7-USB-DVD-tool.exe
Step 1e. Downloading Windows 8.1 Enterprize Evaluation

As Microsoft didn't make a Retail or OEM .iso available as a direct download link the only way of installing Windows 8.1 as a trial is to use the 90 day Enterprize trial however if you decide to purchase Windows 8.1 you will need to clean install again which is quite inefficient in comparison to the 30 day trial that was available with a Windows 7 Digital River .iso which only needed the key input and the product activated.

The Windows 8.1 Enterprize trial can be found here:


Once you have downloaded the .iso you may use the Windows 7 .iso to USB/DVD tool (also works with Vista, 8.0, 8.1) to create a bootable USB/DVD:

http://images2.store.microsoft.com/prod/clustera/framework/w7udt/1.0/en-us/Windows7-USB-DVD-tool.exe

Note the BIOS Update (Step 17) should be performed before upgrading your Operating System to Windows 8.

Once you have media go directly to Step 3.
Step 2 Backing Up Your Product Activation and OEM Product Key – OEM Windows Only

This step is incomplete and a placeholder as I have not yet got an OEM Windows 8 machine and hence have not tested a means of obtaining the product key from the system BIOS.

There is however a solution mentioned on this thread: http://forums.tweakarena.com/showthread.php?t=226

Which uses the RW Everything utility: http://rweverything.com/download/

Step 3 Backing Up your Data and other Useful Things you will Need for Reinstallation.

This step is for backing up data only. If you have all you need to install proceed to Step 4.

Note: If you are reinstalling due to start-up problems with your PC you should through with Diagnosing Windows Startup problems before committing to a clean install. If you can repair your installation reattempt this step. If you cannot repair your installation because your hard drive has failed for example then carry out Data Recovery of the Hard Drive using Fedora and then proceed to Step 4. You may also attempt to install Windows 7 directly and obtain your data from the Windows.old folder (Step 15) this will only work if you don’t securely wipe your system with DBAN or opt to format/delete any partitions during the install which is unrecommended.

Step 3a. Use Belarc Advisor

Belarc Advisor will obtain details about your system. It is free for home use and gives you a print out of your computer’s hardware and software. It also gives you your product keys. This is particularly useful for obtaining your Microsoft Office and Microsoft Windows (retail only) product keys. It is handy to keep a print out of this data. CutePDF Writer may be used to create a pdf print out of it. Save this in a folder in the external hard drive e.g. called Computer Software.

Step 3b. Dell Service Tag

The sticker for the Dell Service Tag should be located in a similar area. You should take note of it. You only need to know the Service Tag (7 digit code) and not the Express Service Code.

If you do not know what your service tag is (Belarc Advisor should tell you) or you may follow the following instructions:

Press [Windows] and [r] to bring up the run command

Type cmd and press enter.

In the command prompt enter wmic bios get serial number and press enter
The Service tag will now display.

I tend to save the Service Tag and all product keys in a notepad file and save these on the external hard drive as well as a handwritten note. It is also a good idea to send them to yourself via an email.

**Step 3c. Back up your data**

An external hard drive is a great device to back ones data up on. Documents, Music, Pictures and Videos in particular. A standard user should make regular backups in case of hard drive failure.

I have found manually copying the desired files and folders to be the most reliable.

**Step 3d. Backup your Full Previous Windows Installation Using Acronis (optional)**

It is recommended to make a full hard drive backup using Acronis True image which is full explained in *Backing Up and Restoring Your Windows Installation Using Acronis*.

**Step 4. Obtaining Service Packs/The Latest Build of Internet Explorer**

Ignore this step if your media has Windows 8.1 included.

If your media doesn't have Windows 8.1 included you have to get it from the Microsoft Store. In order for the update to show in the Microsoft Store KB2871389 must be installed:

- KB2871389 Windows 8.0 64 Bit
- KB2871389 Windows 8.0 32 Bit

**Step 5a. Driver Install Notes**

Drivers may be obtained from the Dell Drivers and Downloads (Step 5c) or the Dell ftp Website (Step 5d). Unofficial Dell Driver Sets covers many systems which don’t have Windows 7 or later drivers.

Windows 8.1 includes many system drivers inbuilt and in general fewer third party drivers will be needed for full functional than previous version of Windows.

For most cases note that:

- 32 bit Windows 7 drivers may be used in conjunction with Windows 8.1 32 bit.
• 64 bit Windows 7 drivers may likewise be used in conjunction with Windows 8.1 64 bit.

i.e. you may use the Windows 7 drivers with Windows 8.1. There are few exceptions to this rule which are mentioned in Driver Install Order below.

If Dell only has XP or Vista drivers listed for your system and there are no Unofficial Dell Driver Sets listed for Windows 7 for your system then ask on the Dell Community Windows 8 forum for assistance; however if Vista or later drivers are unavailable for your system it is likely time to consider upgrading the system entirely however if you wish you may also try installation of Windows 8.1 32 Bit without any additional system drivers, if you do this carry out Step 12 and then ask on the forum for assistance.

**Step 5b. Driver Install Order**

**Dell System (Notebook/Desktop) Software - Under System Utilities**

This is not necessary for Windows 8.0 or 8.1 and is only mentioned as many customers looking at Dell documentation will look for the Windows 8.0/8.1 version.

**Free Fall Sensor - Under System Utilities**

This is mainly just present for newer laptops. The free fall sensor is designed to help prevent data loss from the hard drives which may be caused by dropping of the unit. For more information about the Free Fall Sensor see here.

**Chipset Drivers - Under Chipset**

Your system will have either an Intel (most Dell systems) or ATI chipset. Install the Intel Chipset Installation Utility (or AMD equivalent) before any of the other drivers. Then install any of the other Intel (or AMD) chipset drivers. You may also have some USB 3.0 chipset drivers and in this case these should be installed next. There may also be a card reader driver e.g. Realtek, Ricoh, O2 Micro. The card reader may also be found under a Removable Storage category.

Note: The latest Chipset Installation Utility can be obtained directly from Intel here but you may need some additional chipset drivers from Dell.

**Intel Matrix Storage Manager/Intel Rapid Storage Technology - Under SATA Drives and/or CPU**

Not all systems will have this. Note there are the drivers and the applications. The applications should increase system performance. If a full installer isn't present then it is likely the preinstallation drivers (see Step 6).

**Video Driver - Under Video.**

Generally there are several variants for Video Driver e.g. Intel/ATI(AMD)/nVidea. In addition for Desktop PCs in particular there may also be different variants of ATI(AMD) and nVidea cards sold with the system. Ignore any for TV tuners under the Video category at the moment.

Some of the newer laptops have switchable graphics and require the Intel driver to be installed first then the corresponding nVidea/ATI video driver for full performance. There may be a few variants of graphics cards for a laptop and you must select the correct ones.

In desktops if there is no dedicated graphics card in the card slot, then they have the onboard (generally Intel driver).

In desktop if there is a dedicated graphics card in the card slot then generally it is the ATI(AMD) or nVidea driver). Generally there are several variants of graphics card per desktop model and you need to pick the correct one. The latest driver from the ATI/nVidea websites generally offers increased functionality.

• AMD (ATI) Driver Autodetect
• nVidea Smart Scan
• Intel Update Utility
**Modem Drivers - Under Communications**

Drivers for Modems are often natively included in Windows 7 if it’s not there don’t worry. Modems are becoming obsolete also. For newer systems if modem drivers exist, they may fail to install as a modem is not present. As modems are becoming obsolete the modem is not always installed as default for a Windows 7 laptop.

**Network Ethernet Driver - Under Network**

This usually mentions Ethernet/LAN/Broadcom/Realtek in the description. Sometimes Intel, Atheros but the latter two can also be the wireless card. Some laptops are being sold without Ethernet ports and rely on wireless only.

**Wireless Card - Under Network**

Not present for all Desktops but most that come with Windows Vista or later will have a wireless card included. There are generally several variants of Wireless Cards and you will need to pick the correct one. For some newer systems the wireless and Bluetooth card are one and the same.

If you don’t know what wireless card you have check out the hardware IDs in your device manager (further explained in Step 12) and search through the compiled a list of common hardware IDs/Drivers for Dell Systems here.

**Touchpad - Input**

This is for laptops only. There are 3 main brands of touchpads used in Dell systems; Synaptics, Alps and Cyprus. The latest version of Synaptics Touchpad may be obtained directly from Synaptics here although won’t contain the customisations of the Dell driver.

There may be additional input drivers if you purchased a non-standard keyboard for a desktop e.g. a wireless or Bluetooth keyboard.

**Audio - Under Audio**

Ensure you install any audio drivers before audio applications. Generally the drivers have the name SigmaTel/IDT/Realtek. There is generally little to none variants for the audio driver for each model. This is for the standard onboard integrated audio which 90 % of Dellsystems use.

For the other 10 % (mainly but not exclusively higher end desktop systems) an optional Creative Soundblaster may be installed. This is a dedicated soundcard. There will likely be a driver available but you may be able to get a later driver from the Creative Website.

There are sometimes also Creative applications available for the onboard audio (even if Creative don’t make the audio component).

**TV Tuners/Other Video (If applicable) - Under Video**

Many systems don’t have these and are only added via customisation.

**Bluetooth - Under Network.**

Bluetooth is standard for most new systems, in fact for some of the really newer systems it is integrated with the wireless card. In some of the older models it was optional so not all systems have it.

**DO NOT INSTALL THE VISTA BLUETOOTH DRIVER ON WINDOWS 7/8.**

If you don’t know what bluetooth card you have check out the hardware IDs in your device manager (further explained in Step 12) and search through the compiled a list of common hardware IDs/Drivers for Dell Systems here.

**Dell Quickset or Dell ControlPoint - Under Applications**
Dell Quickset is for the power settings and Fn keys. Usually this is for laptops only. These include the onscreen volume/brightness meters.

For some newer Latitude (E Series)/Mobile Precision Workstations Dell Quickset was replaced by Dell ControlPoint. If you cannot locate Dell ControlPoint System manager which should control the volume meters on these models then use the following ones here:

- R312259 A21, Version 1.7.10000 Update Package Windows 7 64 bit
- R301919 A19, Version 1.7.00000 Hard Drive Version Windows 7 64 bit
- R312260 A21, Version 1.7.10000 Update Package Windows 7 32 bit
- R301915 A19, Version 1.7.00000 Hard Drive Version Windows 7 32 bit

**Webcam Driver found - Under Input**

For many laptop systems the Webcam Driver is included in Windows 7. Most desktops won't have a webcam driver or will use a dedicated Logitech or Creative webcam which can be downloaded from the perspective vendors. Note for desktop systems with a webcam integrated into the monitor, the webcam driver may be found bundled with the monitor driver. Installation of the monitor driver will install the webcam. If the monitor has a driver it will be listed separately from the computer and one will have to select the monitor on the Dell ftp website.

**Mobile Broadband Drivers - under Communications**

Most users don't have these but the drivers are there for the users that do.

These are the main drivers and I have tried to give a basic guide to cover all systems. There will of course be some other variants from model to model and customisations within the same model such as mobile broadband cards, TV tuners and other drivers depending on your systems configuration. There may also be security drivers for Latitude and Optiplex series. The check for any missing drivers is via the Device Manager (Step 12) and you should post on the Microsoft OS forum if you run into problems there.

There are a number of other drivers such as the CD/DVD firmware. These can be updated if you wish but I would recommend leaving these well alone. Sometimes if these updates go wrong, things seriously break. If you have no problems with any of these devices then leave them be. You may look through Applications to see if you find anything else useful.

The BIoS can also be updated (see Step 17 for more information about this).

If you are unsure what drivers apply to your system, i.e. what variants; Video Card, Wireless Card, Bluetooth etc. then Check your Original System Configuration. If you are still unsure make a new post on the Microsoft OS forum with your Original System Configuration.

Naturally some of these drivers/applications such as Dell Quickset for power/mobility are designed for Laptops only and are thus not needed for Desktops.

When downloading all the system drivers I recommend saving each driver in an appropriately labelled folder and adding a numeric prefix to the folder. This will ensure that you install the drivers in the recommended order. e.g. here are the drivers I downloaded for a Latitude E6520:
All the drivers should be downloaded and saved to a USB stick. The way this guide is intended, Steps 1-6 are preparation for installing Windows so the user has everything they need when installing Windows.

This is why Step 5 (downloading drivers) and Step 10 (installing drivers) are independently. If however the user has already attempted to install Windows likely they won't be able to access the internet to get the drivers and will need to use a working system to download them.

**Step 5c. Obtaining the Dell System Drivers (Dell FTP Website)**

This guide recommends downloading the drivers from the Dell FTP Website which lists the drivers as direct links as there are less problems with it than Drivers and Downloads. Use the new version:

- Dell FTP Published Pages (new)
- Index of the Dell ftp website (old)
- old Dell ftp browse for drivers (old 2)
- Dell ftp root

As of yet Dell have still not took our advice to list the drivers in the correct installation.

**Step 6. Preparing SATA Drivers**

**In the case where newer hard drives are fitted several errors may occur during Windows 7 Reinstallation:**

- Errors which state there is no hard drive.
- Windows Setup could not configure Windows on this computer’s hardware.
- A CD/DVD device is missing.*

* 9 out of 10 times the third error is due to bad media in particular if the Digital River .isos are used e.g. a badly burnt DVD or USB a corrupt download of the .iso. Downloading the .iso again and making a bootable USB usually resolves the matter.

To prevent these errors it is necessary to download SATA drivers such as the Intel Rapid Storage Technology F6fipy Drivers and load them during the Windows setup. For Intel systems these may be obtained on the Drivers and Downloads page but it is generally better to get the latest versions from Intel directly. Note most Dell systems are Intel but a few will be AMD systems and the Intel Drivers
won’t be any use to you. To verify if your system is Intel or AMD run and install the Intel Processor Identification Utility (also c.f. the Chipset Driver in Step 5a). If no CPU is identified your CPU is likely AMD. For AMD systems look on the drivers and downloads page, if you can’t find anything ignore this step and continue with the install.

Once you have downloaded the SATA drivers from Dell or Intel. You will need to extract the file with 7zip as shown. First download and install 7zip from here, selecting the 32 bit .msi or 64 bit .msi depending on your OS.

For the Dell SATA Driver once 7zip is installed, right click the Dell driver and select extract all.

This leads you to a folder with the same name Rxxxxx as the driver.

Look in this folder for a F6flyp-x86 (32 bit) or F6flyp-x64 folder (64 bit) and copy the contents of this folder to a USB stick.

Usually I use a reinstallation USB opposed to a DVD so I just make an additional folder on the USB called SATA and copy these across to it. Others may recommend you to use a separate USB.
Select the correct one to match the version of Windows you are installing. Note if there are additional folders and a setup.exe in the folder then the F6fipy drivers should be loaded before Windows and the Application (Setup.exe) installed alongside the drivers.

Repeat for the extracted contents of all the SATA drivers on this USB/DVD. Note some of the items under "SATA Drivers" are applications these should be installed alongside the system drivers. See the downloads page below for example.

![Serial ATA Drivers](image)

The 2 Applications should be installed at the end of the installation while the two drivers should be loaded onto the USB stick. The 2 Firmware may be installed at the end of the installation if desired.

For the Intel Drivers the F6fipy-x86 and F6fipy-x64 should be offered as separate .zip downloads. Download the correct one and extract it with 7zip then copy the extracted folder to your USB stick.

If you get one of the error messages above start a new post in the Disk Drives forum stating your model number, your type of hard drive (if you know, for example if you purchased one) and what Operating System you have tried to install. In addition it may be worth mentioning what SATA drivers you have attempted to use.

The SATA Drivers should then be loaded in Step 8, in particular loading the SATA Drivers.
**Step 7a. Ensure that you have the correct SATA Operation within the Dell System BIOS**

At this stage many customers with Solid State Drive configurations get confused as where to install Microsoft Windows 8.0/8.1.

Many Dell systems come with a small mSATA SSD which is ~30-60 GB in size. This mSATA SSD is too small to support a Windows 8.0/8.1 installation effectively and Windows should be installed on the main hard drive. The SSD is then later used and set up as a cache drive to increase system performance. Note in some cases the mSATA SSD will not show up as a hard drive on the “Where Do You Want to Install Windows Screen?” (Step 8) however this is as intended. Verify what the SATA operation is in the BIOS setup before proceeding with the install. To do this see BIOS Screen sketch SATA Operation and set the operation to IRST. If installed by Dell with a SSD cache drive it should be default. Also review this document here. If the SSD does show up on the “Where Do You Want to Install Windows?” screen then delete any contents on it. You may wish to delete anything on the SSD and

Customers may also replace or insert (if a mSATA slot is available on their system) a mSATA drive such as a Crucial mSATA M500 that has a higher capacity such as 120 GB or superior. A SSD of this size is large enough to support a Windows installation and Windows should be installed directly on it. See BIOS Screen sketch SATA Operation and set the operation to AHCI. Install Windows directly on the mSATA SSD.

For systems without a mSATA drive set the operation to AHCI if it’s available. Older systems used ATA.

**Step 7b. Preparing the Drive For Installing Windows (DBAN)**

This step is optional to securely wipe the system. Users that are planning on selling/giving away their system or reinstalling due to a viral/malware infection should perform this step as it permanently erases data and is more thorough than the standard Windows format.

Download DBAN and burn it to a blank CD/DVD using ImgBurn (on XP/Vista) no additional Software needed for Windows 7 or alternatively make a bootable USB using Universal USB Installer.

Before using DBAN any card readers need to be disabled in the BIOS setup as the card reader registers with DBAN as a blank drive and stalls DBAN from running. In addition secure boot and UEFI may need to be disabled. Remove any external USB Hard Drives and USB sticks unless you want to format them.

For instructions on how to do this follow:

- Card Reader BIOS Settings [Variant A]
- Card Reader BIOS Settings [Variant B]
- Disable Secure Boot (systems newer than 26/10/2012)
- Disable UEFI and Secure Boot (systems newer than 26/10/2012)

Not all systems have card readers. If you cannot find the BIOS settings for the card reader, inserting a Card Reader will allow DBAN to run correctly (the card will of course be securely wiped).

Insert the DBAN CD/DVD or USB and power down your system. Press F12 at the Dell BIOS screen and select boot from CD/DVD or from USB respectively.
DBAN will then load

The easiest way to use DBAN is by typing autonuke and then pressing enter.
A Clean Install of Windows

Philip Yip

You should get these two screens

DBAN will then begin to securely format your hard drive. Note DBAN can take a very long time to securely format a large capacity hard drive.

When completed you should get a screen like this. Hopefully it will say DBAN succeeded although sometimes it mentions an error. Most of the times that it has mentioned an error to me it has actually fully formatted the drive and ran for the same length of time as it should (i.e. the same time for a system of the same model where no error cropped up).
Once the DBAN format is done, re-enable any card reader within the BIOS setup and re-enable UEFI.

**Step 7c. Preparing the Drive For Installing Windows (Media Direct)**

This step is only for systems shipped with Media Direct. These systems will have a MediaDirect button in close proximity to the power button as shown below. If your system doesn't have this button skip this step (most systems won't).

Media Direct is for selected systems such as the Inspiron 6000, 6400, 9300, 9400, E1505, E1705, XPS Gen 2, XPS M170, M1270, M1710, M2010.

The partitions for Media Direct must be set up before the installation of Microsoft Windows otherwise pressing the Media Direct Button while the system is powered down can corrupt your entire Operating System.

Insert the Media Direct DVD supplied with your system. It should look like the following:
If you don't have the Media Direct DVD you may download the files from [here](#), there are 10 files. Download all 10 and then use 7zip to extract the first one and ImgBurn to burn the .iso to DVD.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD. Select option 1 (recommended) or option 2. (if you want 2 partitions). Note: The application must be installed after the system drivers while on the Windows Desktop ([Step 14a](#)).
Step 8. Installing Windows

As Microsoft have made things more difficult than usual by making Windows 8.1 media incompatible with Windows 8.0 product keys this step is split into two:

- **Clean Installation with Windows 8.1 Media**
- **Clean Installation with Windows 8.0 Media**

Clean Installation with Windows 8.1 Media should be performed if your Dell system came with Windows 8.1 preinstalled and you have received a Windows 8.1 Reinstallation DVD from Dell or you purchased Windows 8.0* or 8.1 as a retail upgrade.

Clean Installation with Windows 8.0 Media should be performed if your Dell system came with Windows 8.0 media and you have received a Windows 8.0 Reinstallation DVD from Dell.

* This involves an unofficial workaround. If the workaround doesn't work for you (it has worked for at least 10,000 users) you should follow Clean Installation with Windows 8.0 Media.

**Clean Installation with Windows 8.1 Media**

Ensure everything (documents and the downloads listed above) is copied over onto the external hard drive.

Insert the DVD you have created or Dell reinstallation DVD or the bootable USB flash stick. Also insert the SATA Drivers USB stick if applicable.

Note: It is recommended to unplug any unnecessary peripherals (You need keyboard and mouse).

Secure boot and UEFI may need to be disabled. I would advise sticking to UEFI if using the 64 bit version of Windows however you will need to load the latest SATA drivers (see Step 6 and loading the SATA Drivers later on in this Step). For instructions on how to do this follow:

- **Disable Secure Boot** (systems newer than 26/10/2012)
- **Disable UEFI and Secure Boot** (systems newer than 26/10/2012)

*UEFI is only supported on the 64 bit version of Windows 7 and 8.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).
Press any key when prompted such as "h" when it says Press any Key to boot from CD/DVD. You will get a black screen that says Windows.

The language to install only has English (US) at the moment for the English version but its just a few screens. Change the Time and Currency format and the Keyboard to your desired country. When ready select next.
Select Install. If you have a Windows 8.1 Product Key enter it.

If you have a Windows 8.0 product key the installer will reject it. In these cases enter the following generic keys to install:

- 334NH-RXG76-64THK-C7CKG-D3VPT for Core/Home
- XHQ8N-C3MCJ-RQXB6-WCHYG-C9WKB for Professional
Select Next. Read and accept the license and then select next.

Select custom install (advanced) and then select next.
Next you will be brought to the drive options.

When you get to this screen select Load Driver and select your SATA drivers USB stick.
Ensure that "Hide drivers that are not compatible with hardware on this computer is ticked" (it should be set like this by default). Select all the drivers listed and then click next. It will take you back to this screen. Select "Drive Options".

This will reveal the drive options. The tools are rather self-explanatory. For a new hard drive you will need to select New to make a new partition (case below).
You should get a message saying some space must be "System Reserved" and a System Reserved Partition is made, don't worry about it, it is very small.

When you have an existing Windows partition you have a few options:

1. To delete it and then must create a new partition or partitions if you want multiple partitions e.g. for dual boot or for other reasons; this will remove all data and factory partition. Once you have created your partitions; select the partition you wish to install Windows on and select Next. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service.

2. To format it, leave the partition intact but remove all data and factory partition. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead extend the main partition.
3. To install Windows on the partition but not format it (in this case all old files will be found in the Windows.old folder).

In any case the Dell factory partition will no longer work and hence serve no purpose so it can be deleted.

I recommend deleting or formatting but you must take the 3rd option if you have not carried out Step 1 and wish to keep your data.

Note: if you have not backed up all your data onto an external hard drive. Do not select any of the drive options particularly format or delete. In this scenario all your files will be saved in a folder called windows.old.

You will then a screen telling you the progress of the install.

The computer will then restart.
A black Windows screen will appear and the system will do some preparations such as getting the devices ready.

You will then be prompted to type in your computers name and select a colour scheme.
Once done select next. You will then be prompted for the settings. I generally would select use express settings.

However you can customise if you want.
Settings

You're connected to a network. Do you want to find PCs, devices and content on this network, and automatically connect to devices like printers and TVs?

Yes
For home or home network

No
For networks in public places

Settings

Update your PC and apps

Windows Update:
Automatically install important and recommended updates

Automatically get device drivers, applications and info for new devices
On

Automatically update my apps
On

Help protect your PC and your privacy

Use SmartScreen online services to help protect against malicious content in apps loaded by Windows Store apps, and Internet Explorer, as well as malicious downloads
On

Send a Do Not Track request to websites I visit in Internet Explorer
On

Next
One thing to notice about Windows 8 when changing the settings is that it is very touch screen optimised, you can move the sliders along with your finger if using a touchscreen, otherwise just click them with the mouse.

You will then be prompted to enter your email address:
Enter your email address and select next, it will then search for a Microsoft Account (if you use a Microsoft email or XBOX live it will be one). If you don’t have a Microsoft account you can sign up for one.

Note you can also sign in without a Microsoft Account by selecting Sign In without a Microsoft Account.

If you then sign with a Microsoft Account (recommended) it will then ask you for some additional security information.
i.e. number and alternative email. If you have already provided such information or have a Windows 7 phone likely it will be filled in for you. You should now be logged into Windows 8.

Your account will then be made and the setup will get your PC ready in the background. You will be shown some screenshots about using the corners in Windows 8.

This is the new start menu (again very touchscreen orientated). Proceed to Step 10.

**Clean Installation with Windows 8.0 Media**

Ensure everything (documents and the downloads listed above) is copied over onto the external hard drive.
Insert the DVD you have created or Dell reinstallation DVD or the bootable USB flash stick. Also insert the SATA Drivers USB stick if applicable.

Note: It is recommended to unplug any unnecessary peripherals (You need keyboard and mouse).

Note: If your system has a mSATA Solid State State Cache Drive you should review this document here and change the SATA operation.

Secure boot and UEFI may need to be disabled. I would advise sticking to UEFI if using the 64 bit version of Windows however you will need to load the latest SATA drivers (see Step 6 and loading the SATA Drivers later on in this Step). For instructions on how to do this follow:

- **Disable Secure Boot** (systems newer than 26/10/2012)
- **Disable UEFI and Secure Boot** (systems newer than 26/10/2012)

*UEFI is only supported on the 64 bit version of Windows 7 and 8.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Press any key when prompted such as "h" when it says Press any Key to boot from CD/DVD. You will get a black screen that says Windows.
The language to install only has English (US) at the moment for the English version but it's just a few screens. Change the Time and Currency format and the Keyboard to your desired country. When ready select next.

Select Install. Enter the product key given
Select Next. Read and accept the license and then select next

Select custom install (advanced) and then select next
Next you will be brought to the drive options.

When you get to this screen select Load Driver and select your SATA drivers USB stick.
Ensure that "Hide drivers that are not compatible with hardware on this computer is ticked" (it should be set like this by default). Select all the drivers listed and then click next. It will take you back to this screen. Select "Drive Options".

This will reveal the drive options. The tools are rather self-explanatory. For a new hard drive you will need to select New to make a new partition (case below).
You should get a message saying some space must be "System Reserved" and a System Reserved Partition is made, don't worry about it, it is very small.

When you have an existing Windows partition you have a few options:
4. To delete it and then must create a new partition or partitions if you want multiple partitions e.g. for dual boot or for other reasons; this will remove all data and factory partition. Once you have created your partitions; select the partition you wish to install Windows on and select Next. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service.

5. To format it, leave the partition intact but remove all data and factory partition. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead extend the main partition.

6. To install Windows on the partition but not format it (in this case all old files will be found in the Windows.old folder).

In any case the Dell factory partition will no longer work and hence serve no purpose so it can be deleted.

I recommend deleting or formatting but you must take the 3rd option if you have not carried out Step 1 and wish to keep your data.

Note: if you have not backed up all your data onto an external hard drive. Do not select any of the drive options particularly format or delete. In this scenario all your files will be saved in a folder called windows.old.

You will then a screen telling you the progress of the install.

The computer will then restart
A black Windows screen will appear and the system will do some preparations such as getting the devices ready.

You will then be prompted to type in your computer's name and select a colour scheme.
Once done select next. You will then be prompted for the settings. I generally would select use express settings.

However you can customise if you want.
Settings

It's your first time on this network. Do you want to turn on sharing between PCs and connect to devices on this network?

- [ ] Yes, turn on sharing and connect to devices
  For home or work networks

- [ ] No, don't turn on sharing or connect to devices
  For networks in public places

Settings

Help protect and update your PC

Windows Update

Automatically install important and recommended updates

[ ] Automatically get device drivers, applications and info for new devices

On

Help protect your privacy and your PC

Turn on Windows SmartScreen Filter to check files and apps with Microsoft

[ ] Turn on Internet Explorer SmartScreen Filter to check URLs and downloads with Microsoft

On

Send a Do Not Track request to websites you visit in Internet Explorer

[ ] On
One thing to notice about Windows 8 when changing the settings is that it is very touch screen optimised, you can move the sliders along with your finger if using a touchscreen, otherwise just click them with the mouse.

You will then be prompted to enter your email address:
Enter your email address and select next, it will then search for a Microsoft Account (if you use a Microsoft email or XBOX live it will be one). If you don’t have a Microsoft account but want one you can sign up for one.

Alternatively you can sign in with a Local Account:
Once you have a Microsoft Account (most people will already have one) Enter your email and password. It will then ask you for some additional security information i.e. number and alternative email. If you have already provided such information or have a Windows 7 phone likely it will be filled in for you. You should now be logged into Windows 8.
Your account will then be made and the setup will get your PC ready in the background. You will be shown some screenshots about using the corners in Windows 8.

This is the new start menu (again very touchscreen orientated).

**Step 9. Install the Service Packs/Internet Explorer 11**

Install depending on your version of Windows 8.0:

- KB2871389 Windows 8 64 Bit
- KB2871389 Windows 8.0 32 Bit

Install and restart the computer:
When prompted restart your computer. Next go to Start and to Windows Store.

On a clean install the start screen should look like this. If you cannot find the Store on the Start Screen press the [Windows] and [f] keys together:
Scroll down until you find Store (note the search only searches for files, if you type in Store it will not find the Windows Store).

Click to update to Windows 8.1. Note the Store is quite buggy and the download may not start. If you get this error message try again a couple of minutes later:
The download should now start:

You will be informed that “the update is getting ready”, then “applying changes”, then be told to restart your PC to complete the update.
To restart your PC, move your mouse to the top right corner and then move down as the charms bar appears, selecting settings, power and then restart.
The update will now begin:
The update may take a while to setup.

Change the language input by pressing Eng (mine switched to US English for some reason despite the original install being in UK English) and accept the agreement.
You will then be prompted for settings.
As I was just doing this to test I opted to view all settings and install using a local account.
The standard user should use a Microsoft Account as Windows 8.1 is heavily integrated with Windows services such as SkyDrive and Outlook which require use of a Microsoft Account.

You will then be provided with an assortment of settings like you were when you installed Windows 8.0, you can choose express or customise as before:
**Settings**

**Express settings**

We recommend these settings, which include automatically sending info to Microsoft. You can customize these settings now.

- Automatically find and connect to recommended content on the network.
- Automatically install Windows updates, app updates, and device software.
- Turn on Do Not Track in Internet Explorer.
- Help protect your PC from sneak attacks, apps and websites with tricks for stealing your information.
- Help protect Microsoft software and services offline by not using your location.
- Use Bing to get search suggestions and web results in Windows Search, and let Microsoft use your location and other data to personalize your experience.
- In Internet Explorer, use your prediction on results page, which includes your browsing history to Microsoft.
- Let Windows and apps use your name, account picture, and advertising ID, and record your location from the Windows Location Platform.

Learn more about express settings.

Privacy statement

**Settings**

You're connected to a network. Do you want to find PC, devices, and content on this network, and automatically connect to those locations and files?

No

For same or same network

Yes

For networks in a public place

**Settings**

Update your PC and apps

**Windows Update**

- Automatically install recommended updates

- Automatically get device drivers, applications, and info for new device

- Automatically update my apps

**Help protect your PC and your privacy**

Use SmartScreen to protect against malicious content, sites, and apps in Windows Store apps and Internet Explorer, as well as malicious downloads.

On

Send a Do Not Track request to websites. I want it in Internet Explorer

On
If you have signed into a Microsoft Account before it should automatically log you in.

If you had previously installed Windows 8.0 using a local account it will prompt you to log into a Microsoft Account or Create one. As Windows 8.1 has tighter integration to Microsoft’s online services such as SkyDrive. The Microsoft Account is recommended:

Note if you don’t want a Microsoft Account you have to select create new account in order to get the option at the bottom to continue using your local account:
You should now be able to log in and you will have the Windows 8.1 Desktop:

**Step 10. Install the System Drivers**

Ensure you keep to the order listed above for best results. You should again have downloaded these at [Step 5](#) and have them readily accessible on a USB stick or External Harddrive.

Running the .exe file Rxxxxxx should extract the driver to C:\Dell\Drivers\Rxxxxxx and then run the installer automatically.

Newer systems no location adopt the R# notation as Dell decided it was better to give the file names a better description but should still extract to C:\Dell\Drivers\"Subfolder" where "Subfolder" is variable. **Unfortunately often no installer runs and the file just extracts. To actually install the driver you will need to navigate to the folder where the driver extracted to and run any setup.exe files. Many users think they have installed the driver when they haven't.**

We will take for example R284334 the chipset driver for my XPS 8300 and look at it in detail:
Double clicking the file, you should get a run prompt select yes.

Select Continue

Select Ok
Select Ok. At this stage the setup should start and you should start the installation. **If it does not the driver is not installed.** In my XPS 8300 (and I suspect many other systems) the installers do not automatically run. Therefore in this case I have to go to C:\Dell\Drivers\R284334 (you will have to go to the number of your driver) and click setup.

Accept the UAC prompt and install via the setup program.

Usually the rest of the driver installation consists of a series of clicking next, next, finish and then rebooting. I usually tell it not to reboot until I install all the drivers it is faster this way and always
worked for me however it is probably best to reboot when prompted especially after Chipset Driver installation.

**Step 11a. Microsoft Product Activation - General activation**

An unactivated Windows 8 product will show the version number in the bottom right corner of the desktop. If activated this will not display and you should proceed to **Step 12**.

Go to computer by clicking the Windows Explorer icon on the taskbar and select computer > system properties

You will see the activation status of Windows on the bottom left.
You will be given the option to activate Windows on the bottom right (left click it).

Select Enter Key or Buy Key as appropriate. Once activated you should proceed to Step 12.

**Step 11b. Microsoft Product Activation – Enter Key via Command Prompt**

Open an elevated command prompt. To do this right click the start button and select elevated command prompt.
Type `slmgr /ipk xxxxx-xxxxx-xxxxx-xxxxx-xxxxx` and press enter.

Press ok.

Then type `slmgr /ato` and press enter. Select ok and then close the command prompt. Your product should now be activated.
Select ok and then close the command prompt. This solution was taken from TweakHound here and slightly modified. I have verified it.

Note this workaround can only be carried out for an eligible system i.e. a system which contains a valid Windows XP, Windows Vista, Windows 7 Full/OEM license (generally most Dells which have a Windows COA affixed to the system) to upgrade from. Otherwise the workaround is illegal and you are incorrectly licensed and should not be using an upgrade license. For systems that came with Windows 8, the “Add features to Windows 8” should be used to get from Windows 8 to Windows 8 Professional.

Press [Windows] and [Pause|Break] or press [Windows] and [E] to open Computer and select properties at the top left. Check if your product is activated. If your product is activated proceed to Step 12.

**Step 11c. Microsoft Product Activation – Removing the Product Keys**

Probably in order for your system locked preinstallation key to show instead of the generic key you will need to remove all Windows 8 Produce Keys after the install is completed. To do this right click the start button and select elevated command prompt.
In the command prompt type slmgr.vbr /upk

You will get a notification that your product key is uninstalled.

Open up Windows explorer and select computer > properties you should see that there is no Product ID and Windows is not activated.

Restart your computer again to see if the OEM system locked preinstallation key displays instead.

**Step 11d. Microsoft Product Activation – Phone Activation**

If you still can’t activate you may be prompted for phone activation. If for some reason your product isn’t activated and you cannot get the option to activate via phone you can try the following. Press [Windows] and [r] to bring up the run command.
Input `slui 4` and press enter. This may or may not bring up the phone activation wizard.

If you still can’t activate your product you may call the toll-based number and speak to a Microsoft Support Representative. The phone numbers may be found [here](#). It says for volume licensing only but it is the same numbers that display for customers without volume licensing.

**Note again that these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**

Select use the automated phone activation and select your country. I have selected the UK in this example. Once you have selected your country select next.

The Microsoft (toll-free) and (toll) phone numbers should now be available.

You will also have a unique installation ID.
Call the toll-free number; I recommend using a land line for this as the number isn't toll-free for Mobiles and the number keys on the landlines are usually easier to type with. Other numbers may be found here.

**Note these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**

The phone call will be automated. You will first be asked if you are a home or a business customer and be told to enter a number key on the phones keyboard corresponding to each answer.

You will then be asked how many computers you have installed your Microsoft product on. i.e. how many computers you have used that specific product key with. You should have two options 1 computer or more than 1 computer. Again you will be told to enter a number key corresponding to each answer. If you select more than 1 computer you will be informed that your product is only valid for installation on one computer and be bid farewell.

Assuming you have selected 1 computer only, you will be prompted to input the Installation ID displayed on your screen via your phones number pad. You will be prompted to enter this in the blocks of 6 like displayed on screen. If you have entered in the values incorrectly you will be prompted to re-enter in that block.

Once you have entered in the entire code you will be given a confirmation ID also given out in blocks of 6. You will have to press the # key once you have entered in the Conformation ID for each block to move onto the next block. When you have finally input the last number in the last block select next; now hopefully you should get the “Windows is Activated” screen.
If you still have problems activating you will need to call a toll based number and speak to a Microsoft support agent.

**Step 12. Ensure there are no Errors in Device Manager and Rate the Windows Experience Index**

Press [Windows] and [Pause|Break] or press [Windows] and [E] and select Computer properties to the top right.

On this screen next select Device manager (to the left).

Hopefully it should look something like mine.
If you have an error, yellow ? or ! as in my base system device then Windows 8 hasn’t found a system driver correctly. Quickly check to see if you have missed installation of a driver. If you still can’t find out what it is. Right click the device with the error and select properties:

Go to details and select Hardware ids.

If you cannot find a Windows 8 driver for the component likely installation of the Windows 7 driver will fix this issue.

You should make a new post on the Microsoft OS Forum starting your model of Dell, the hardware ids and whether you have installed Windows 8 32 bit or 64 bit. Advanced users may also search in the Microsoft Update Catalogue or PCIDatabase.

**Step 13a. Install a Security Program and your Applications (Security)**

Windows 8.1 is the most secure version of Windows and has natively the protection of Microsoft Security Essentials however I recommend supplementing this with Malwarebytes' Antimalware.

This is an area where almost everyone has a different opinion/their own favourites. So I am not going to argue or force my opinion here. Just ensure that you install a security suite that you trust. If you
have any queries with regards to security software then I recommend you to post a new topic in the Virus & Spyware Discussion Forum.

**Step 13b. Install Microsoft Office**

The installers for Microsoft Office may be found here:

- Microsoft Office 2007
- Microsoft Office 2010
- Microsoft Office 2013

These installers require a product key. Use your product key obtained by Belarc advisor (Step 1) and/or found with the Microsoft Product Identification card on your system with the correct installer. For more details about the Microsoft Product Identification Card see [here](#).

If your system just came with Office 2010 Starter, you cannot download it from an official source however Office 2010 Starter is becoming redundant and not worth installing. Instead you should use Microsoft Office Web Apps which has tight integration with SkyDrive and the same functionality or slightly more than Office 2010 Starter. Microsoft Mathematics may also be installed; this is essentially a free graphics calculator for Microsoft Windows.

Useful third party additions for the full versions of Microsoft Office are Mendeley Desktop Reference Manager and Mathtype both have free and paid versions. The free versions should suffice most users.

**Step 13c. Install Windows 8 Media Centre Pack (optional)**

You may purchase and download Windows 8 Media Centre:

- For UK customers and Windows 8 you can get the Windows 8 Pro Pack and Windows Media Centre for $99.99 [here](#)
- For UK customers and Windows 8 Professional you can get the Windows Media Centre for $9.99 [here](#)
- For UK customers and Windows 8 you can get the Windows 8 Pro Pack and Windows Media Centre for £99.99 [here](#)
- For UK customers and Windows 8 Professional you can get the Windows Media Centre for £6.99 [here](#)

For other customers visit [http://windows.microsoft.com](http://windows.microsoft.com) to get pricing in your own currency.

**Step 14a. Reinstalling Dell Preinstalled Applications (Media Direct)**

Skip this step if your system doesn't have Media Direct. For the systems with Dell Media Direct, once on the windows desktop, insert the media direct disc It should autorun, install the application, if it doesn't you should navigate to the WindowsMD3 folder and click setup.exe. Use the updater within Media Direct to get it to the latest version.

**Step 14b. Reinstalling Dell Preinstalled Applications (Webcam Central)**

For some unknown reason Dell does not provide Dell Webcam Software under the drivers and downloads page for most systems. Here is the download link Dell Webcam Software R230103. You may wish to download the latest version of Skype before installing the webcam driver. Note for newer systems Dell Webcam Central may be supplied in My Dell Downloads (Step 14d).

**Step 14c. Reinstalling Dell Preinstalled Applications (Dell Support Centre)**

Dell Support Centre can be installed. It only works on home systems and does not work on Precision, Latitude or Optiplex systems.

**Step 14d. Reinstalling Dell Preinstalled Applications (Dell Dock)**
Dell Dock can also be installed. Note there is often confusion between two Dell products Dell Dock and Dell Stage.

You may not need or want Dell Dock if you have Dell Stage (this is for newer systems) and can be found in My Dell Downloads (Step 14d).

Note however that both Dell Stage and Dell Dock are unsupported by Dell in Windows 8.

**Step 14e. Reinstalling Dell Preinstalled Applications (My Dell Downloads)**

See Instructions on using My Dell Downloads. Here the user should find the preinstalled Dell Stage, Roxio Creator Starter, McAfee. What other software you have available here will depend on your specific system. Save any downloaded items to an external hard drive for backup purposes as there is a download quota.

**Step 14f. Reinstalling Dell Preinstalled Applications (Digital Persona Personal Fingerprint)**

You will need to reinstall the older version of Dell Digital Persona from My Dell Downloads (which is incompatible with Windows 8) and then apply the following upgrade patch:

- 32 bit 6.2.1.309 patch
- 64 bit 6.2.1.309 patch

**Step 14g. Reinstalling Dell Preinstalled Applications**

Review this Dell Support Article for more information about other preinstalled software.

- Windows 8 Dell-Installed Software Support.

**Step 15. Copy old files from Windows.old**

If you have everything on the external hard drive then ignore this step. If not go to computer, then to C then to C:\Windows.old look through the users folder, move all the items (you want to keep) from "documents" to "documents", "desktop" to "desktop", "music" to "music", "pictures" to "pictures", "downloads" to "downloads". Look about in this folder for anything else.

Windows.old has old windows files you won't need, old program files you can no longer use and it is very large. Delete it when you have moved whatever you need as it is a very large folder and unnecessary once you have your new windows installed. Note there is more information and an automated tool here.

I recommend using unlocker to delete the Windows.old file as you will get several error messages using the standard windows delete, the folders name is too long, its too big for the recycle bin and you don't have permission. Be careful when using this utility as you can cause damage to the windows installation if you delete the wrong file. You may get unlocker from here:

- Unlocker 64 bit
- Unlocker 32 bit

Ensure that you select the advanced install when installing unlocker as it is bundled with potentially unwanted programs e.g. toolbars and Quickstores, ensure that you select advanced install and don’t install any additional components.
Step 16. Visit Windows Update

Move your mouse or swipe your finger to the top left corner to display the charms menu.

Then move downward and the charms menu will darken:
Select settings

Change PC Settings and scroll down till you get to Windows Update.
Select Check for Updates now

Once it has found updates it’ll say “we’ll install x important updates automatically”. Click on this link and the updates will display. You can choose which important update you wish to install or to install them all select install. The updates will download. Then you will be prompted to restart your PC to install them.

**Step 17. Notes on Updating the BIOS**

Dell recommend updating the BIOS to the latest version as there are often enhancements/fixes in the updates.

Know the risks however caution should be taken when updating the BIOS as a failed BIOS = a dead system. Therefore many users opt to stay clear of BIOS updates completely. I personally tend to update the BIOS if available after a clean install.

When you power up your Dell system, you will get the Dell BIOS screen:
On this screen is the model number and the BIOS revision. The BIOS revision typically this of either 2 formats:

- Axx, i.e. A01, A02, ..., A12 etc.
- x.x.xx, i.e. 1.0.0, 1.0.3, 1.1.2, 1.1.4, 1.1.10, 1.1.11 etc.

The higher the number the later the revision.

To reduce the probably of fatal BIOS updates save the BIOS update file to the desktop and close down all programs.

Remove any USB device from your computer except for keyboard and mouse and also remove any CD/DVDs and media cards. Restart computer.

Then double click the file and run it as an administrator. Don't touch the computer until the BIOS update is complete. It should automatically log you off, update the BIOS and restart the computer.

Don't power down the computer during the BIOS update as this will ensure your system is rendered completely useless. Ensure both the battery is at full charge and the AC adaptor is plugged in when updating the BIOS on a laptop.

**Step 18. Install other Software**

For more software recommendations see [Additional Recommended Software](#).

**Pay attention when installing any third party software (non-Dell/non-Microsoft).** When you have the option available always select advanced setup. Software is often bundled with toolbars, search provider defaults, browsers and/or other programs. The larger software vendors e.g. Ask, Google, Bing (Microsoft) pay for bundling their toolbars within the installer. Thus the cost of the software can be made lower or distributed for free in some cases. The advanced setup allows
users to disable installation of these toolbars and other programs which they don't want.

CNET in particular although a good source bundle a lot of unwanted programs and you should decline about 5 things in some of their installers.

>70% of Internet Explorer crashes are due to these toolbars. For Internet Explorer 9/10 see:

- [How to Manage Add-ons](#)
- [How to Change your Default Search Provider](#)

Other browsers which you may also install for free are:

- [Google Chrome with Adblock](#)
- [Firefox with Adblock Plus](#)

Note some things work better in Internet Explorer than in the other browsers e.g. SkyDrive and Microsoft Office Web Apps likewise YouTube (especially with the adblock), Google Docs and Google services will work better in Google Chrome. Firefox has a variety of third party extensions. You can of course use all three and switch between them for individual tasks.

Note although the Adblock for Chrome extension and Adblock Plus for Firefox extension can be installed for free, the developers make living from donations so if you find their extensions useful then send them a donation to thank them.

**Step 19. Desktop Enhancements & Customising Windows 8**

**Start Menu – Resize Icons**

The default application icons will look like something like this. If you right click one or of the icons then you will be presented with the options of resizing them, unpinning them or uninstalling them.
e.g. resizing them

The icons are now all small in size.

If you press on the down arrow at the bottom left (if the arrow doesn’t display just move to the bottom left). This will take you to the all applications screen.
Applications will be listed first by default and then programs (this can be changed see below). You may click one or more programs you are interested and you will be presented again with a number of options such as pinning to the taskbar or to start.

e.g. pinning to start

These will all display at the end as large icons; I want to resize them to small as before so I click resize and small as before.
When a icon is right clicked the name group displays. This can be renamed by left clicking the name box and renaming it. In this case I want to rename this Microsoft Office.

The name Microsoft now displays above my set of Microsoft Office. As Microsoft Office is much more useful than all the Windows 8 applications I want it to the left. To do this I can click the – on the bottom right corner. Note the – only displays when nothing is right clicked.

This will zoom out of the start menu. If I left click one of the icon groups (e.g. Microsoft Office) and hold then I can drag it to the location desired.
I can get out the zoomed view by left clicking a blank area on the start screen. This gives me all my Microsoft Applications in one group at the left hand side of the start menu.

Icons can be moved over by left clicking on them and holding down the left click. You can then drag them to the desired location on the Start Screen.
Take time to get the start screen the way you like it and put any newly installed program in the place you want it.

A left single click will open the program.

**Taskbar Properties**

You can pin the desired icons to the taskbar from the start menu.
Theres a few other things you can customise. For Windows 7 users I recommend altering the Taskbar and Navigation settings to the following:

But of course amend to your own preferences.

**Desktop Background, Start Background and Lock Screen**

Okay its easier to do this than earlier versions of Windows. However I don't know why Microsoft didn't put the 3 options beside each other. Maybe it would have been too logical.

Desktop Background

Right click a blank area of the Desktop and select Personalise, You will be able to select your desktop background.
You can then browse for one or multiple pictures (I have just selected 1 picture) but you may for example select a folder full of pictures and have a slide show.

**Start Screen**
You can select the Start Screen Background to match the Desktop Background by using the Taskbar Properties above.

**Lock Screen**
Bring the mouse to the far right, select settings and then change PC settings. You will get Lockscreen to the far right, click on it and amend as desired.
OEM System Properties Branding

The OEM System properties branding will already be applied if you used a Dell Windows 8.1 Reinstallation DVD. For those who used retail media to get the Dell OEM branding download the following files from my SkyDrive here. There are two variants on the SkyDrive; the Blue and white saved as System Properties Blue and White.7z and the Black and Silver logo saved as System properties Black.7z.

Follow the instructions in the text files included in the folder for installation; again there is an included registry edit which must be applied for the logos to display.

Step 20. Create a Backup

At this stage your system should be clean installed and fully functional; it is recommended to make a full hard drive backup using Acronis True image which is full explained in Backing Up and Restoring Your Windows Installation Using Acronis.

Step 21. Setting up the mSata Cache Drive

Note: If your system has a mSATA Solid State State Cache Drive you should review this document for configuring the Intel Rapid Responsiveness software here. Note I suggest making the backup before this as sometimes things may go wrong when using a Cache Drive.

Step 22a. Use of SkyDrive

Each user with a Microsoft Account is assigned to 7 GB of free SkyDrive (25 GB if they were an early adopter and more storage up to 200 GB can be purchased).

SkyDrive is a Microsoft cloud storage service and documents uploaded on SkyDrive can be accessed on any machine with a web browser. Uploading and saving your documents to SkyDrive means you should never lose them which can happen for example when carried around on a USB stick.

SkyDrive is integrated highly with Microsoft Office 2013 WebApps which can be used for minor editing for absolutely free. SkyDrive use on the web browser is pretty similar to that on the Desktop.

On a Windows 8.1 machine SkyDrive can be accessed from the Start Menu or directly in Windows Explorer (I recommend using Windows Explorer).

Windows Explorer will automatically open up to this PC which can be used to access local files. SkyDrive (cloud storage) can be selected to the left.
Anything you place in the SkyDrive will be visible on any Windows 8.1 computer you are signed into with your Microsoft Account that is online. As mentioned you will be able to access it through a web browser also.

Should you wish some of the folders or all of the folders to be available offline which is handy if you are on the move and aren’t permanently connected you can right click the folders within SkyDrive and select make available offline. You can alternatively make the entire SkyDrive available offline.
To access SkyDrive through a web browser simply go to https://skydrive.live.com/ and log in with your Microsoft Account.

For more information about using SkyDrive via the Web Browser and Office 2013 Web Apps see the What Are Office Web Apps? video.

**Step 22b. Working with Apps**
Apps aren’t Windows and do not behave in the same way. They don’t have the title buttons we are all accustomed to. They also open in full screen and obscure the taskbar.

Apps are opened just like programs in the start menu in a similar user interface to the start menu.

In addition only one instance of each App can be opened at once (which is a huge limitation of the reader App).

For example, the SkyDrive App:

There are similar options to right click folders and to make them offline like the desktop app.

Things which initially confuse users when working with Apps are the following.
Moving and Closing Apps

Move the mouse to the top of the application Window until a hand appears. When this hand appears hold down the left click and you can drag the app.

Dragging the app left and right will aero snap it to the left or right hand side of the screen, dragging it back up to the top will maximise it and dragging it to the bottom will close it.

e.g. closing the SkyDrive App.
**A Clean Install of Windows**

**Philip Yip**

When Apps are open half screen they can be dragged left and right in order to occupy the full screen. It should be noted that the desktop itself is treated as an App.

e.g. If I want to maximise the desktop to full screen again I would need to hold down the left click on the central bar and drag it to the far right.

Some useful shortcut keys.

[Windows] on Desktop show Start Menu.

[Windows] on Start Menu close Start Menu

[Windows] and [d] on App or Start Menu show Desktop.

[Windows] and [d] on Desktop minimise all Desktop programs.
[Windows] and [→] AeroSnap App to the right or if on the Desktop AeroSnap Desktop program to the right of the desktop.

[Windows] and [←] AeroSnap App to the left or if on the Desktop AeroSnap Desktop program to the left of the desktop.

[Windows] and [↑] AeroSnap App to full screen or if on the Desktop AeroSnap Desktop program to the full desktop.

[Windows] and [↓] Close App or if on the Desktop AeroSnap Desktop program minimise.

[Windows] and [Tab] scrolls through open Apps (treating start as an App and Desktop as an App)

[Alt] and [Tab] scrolls through open Desktop Programs.

e.g. [Windows] and [Tab]

e.g. [Alt] and [Tab]
I highly recommend upgrading to Windows 7 for any machine which runs Windows Vista. Although Vista is still being supported by Microsoft unofficially support is being dropped. Hence there is no support for Internet Explorer 10 or Office 2013 on Windows Vista. In addition the performance of Windows 7 is superior to that of Windows Vista.

You may also wish to upgrade to Windows 8 as its cheaper. I personally prefer Windows 7 however.

**Step 1a. Determine your Windows Vista License Type**

You will be in one of following two situations, an OEM or Retail license. Quickly review the notes applicable for your Windows 7 license before deciding on what media to use:

The OEM or Original Equipment Manufacturer Preinstalled Version of Windows.

If installing Windows Vista on a system that came with Windows Vista:

- This type of Windows Vista license is known as the Dell OEM version.
- Product Activation should be performed using the System Locked Preinstallation (SLP) as mentioned in Step 11b or phone activation to Microsoft Step 11e.
- You do not need to know your product key for system locked preinstallation but do need to know your version of Windows to be correctly licensed.
- This license key will work with the 32 bit or 64 bit version of Windows Vista.

The retail or store bought or digital version of Windows

If Windows Vista was purchased as a full or upgrade license or from the Microsoft store you should have a label with your product key or email.

- This type of Windows 7 license is known as the retail version.
- Product activation for the full retail full license should be carried out in Step 11c.
- Product activation for the upgrade retail license should be carried out in Step 11d.
- If product activation using the 2 above steps fails you should use phone activation to Microsoft Step 11e.

**Step 1b. Obtaining Windows Vista Reinstallation Media**

The official statement from Microsoft is that you should obtain Reinstallation media from Dell or use the media you have been provided to install Windows Vista if you purchased your system from Dell with Windows Vista preinstalled. If you wish to request media from Dell or are unsure whether you have a Reinstallation DVD see Step 1d. Fortunately most Dell systems which came with Windows Vista came with a Windows Vista Reinstallation DVD. If you have the Reinstallation DVD already proceed directly to Step 3.

For a retail license you should use the media that came with your retail license if you purchased Windows Vista from a retail store or from Microsoft directly. If you have the DVD you can proceed directly to Step 3.

---

For non-Dell systems including Alienware systems you will have to perform Step 2a yourself in order to carry out Step 11b.

Providing that the hardware is 64 bit capable and that it is not Windows 7 starter or Home Basic.
This guide recommends the use of Windows Vista media from Digital River if you have misplaced your Windows Vista Reinstallation DVD (see Step 1c). It should be noted that the Windows Vista .iso from Digital River combined with the Activation Backup and Recovery Utility (ABR) mentioned in Step 2 and Step 1b creates an install that would be identical to that of a Dell Windows Vista Reinstallation DVD (besides OEM branding). This is downloadable solution which can be readily employed to make a Bootable USB to clean install Windows Vista.

However this viable alternative for media is frequently frowned upon by a subset of Microsoft Most Valued Professionals and completely unsupported by Dell who state you should use a Reinstallation DVD yet simultaneously stop supplying them with their systems and have not optimised the process to procure or download one.

For this reason my guides have all been migrated to my WordPress away from the Dell Community and I call it "Unofficial".

**Step 1c. Obtaining Windows Vista Reinstallation Media from Digital River**

English Windows Vista Setup Files can be downloaded directly from Digital River:

64 Bit (3 files all versions)

http://msft-dnl.digitalrivercontent.net/msoffice/pub/X14-63453/X14-63453.exe
http://msft-dnl.digitalrivercontent.net/msvista/pub/msshus/vista64/boot.wim
http://msft-dnl.digitalrivercontent.net/msvista/pub/msshus/vista64/install.wim

32 Bit (3 files all versions)

http://msft-dnl.digitalrivercontent.net/msvista/pub/msshus/vista32/boot.wim
http://msft-dnl.digitalrivercontent.net/msvista/pub/msshus/vista32/install.wim

Once you have downloaded the 3 setup files and have them in the same folder run the x14-63452.exe (32 bit) or x14-63453.exe (64 bit).

This will extract the setup files in a folder called Vista

![Windows Vista Setup Files](image)

You will need to download imgburn [http://imgburn.com/](http://imgburn.com/) to prepare a .iso file from these setup files. Its best to download ImgBurn directly from imgBurn when installing ensure you select advanced install and do not install any prebundled unwanted software or search providers etc.
Launch ImgBurn select create image files from files/folders. Load the vista folder and go to advanced settings. Select bootable disc.

Select make image bootable. For developer ID type in Microsoft Corporation. Load Segment type in 07C0 and load sector to 4.

Select the browse folder button and then navigate to your Vista folder and then select the boot folder and finally select the file called etfsboot.
Press the button to create the image and agree with any settings ImgBurn recommends. It should now create a Vista .iso.

Once you have the .iso you can use the Windows 7 .iso to USB/DVD (also works on Vista, 8.0, 8.1) to create a bootable USB/DVD:

http://images2.store.microsoft.com/prod/clustera/framework/w7udt/1.0/en-us/Windows7-USB-DVD-tool.exe
Windows Vista Setup Files for English, German and English can be downloaded from Windows Vista Direct Download Links by Jan Krohn.

**Step 1d. The Dell Windows 7 Reinstallation DVD**

Ideally if Windows Vista was preinstalled on your Dell system, you should have got a Dell Windows Vista Reinstallation DVD shipped with your system which should be used for clean installation.

As pretty much all Vista systems have expired warranty. The only way to procure a lost Windows Vista Reinstallation DVD is to call Dell Technical Support and it is highly likely Dell will charge you for the Windows Vista Reinstallation DVD and the money is better spent towards a Windows 7 or 8.1 license.
Step 2. Backing Up Your Product Activation and OEM Product Key – OEM Windows Only

This step only applies to Reinstallation of an OEM license using a Digital River .iso from a major vendor such as Dell. If using a retail license skip this step.

To backup your OEM System Locked Preinstallation Microsoft Product Activation; on your old installation download Activation Backup and Restore from here. Ensure that you download the file ABR-1.0.exe as its Windows Vista compatible.

Save it to your desktop.

Run ABR-1.0.exe and accept the UAC prompt.

![Security Warning]

Extract the setup and then go to the extracted folder.
Run activation_backup.exe

You should get your SLP activation as two files the backup-cert and backup-key. Press enter to exit and then copy the entire contents of this folder to your external hard drive. This will not be the same as the 25 digit product key on your Code of Authenticity which should be attached to any machine with preinstalled Windows Vista\(^1\). You should also note this product key down (unless its faded\(^2\)).

\(^1\) Note for those using downgrade rights from Windows 8 Professional, Windows 8 machines are no longer shipped with a COA.

\(^2\) The COA was placed in battery compartments in newer Dell Laptops or inside the Computer Cover to prevent it fading.
A Clean Install of Windows Vista

Philip Yip

See Windows Vista – Dell OEM System Locked Preinstallation Keys for more information about SLP Activation. If you haven’t managed to back up the Dell System Locked Preinstallation files (e.g. because your hard drive has failed or your installation is corrupt) then follow the steps above but instead of running the activation_backup.exe instead copy the 2 files over that match your version of Windows Vista from here.

For users reading this guide and not using a Dell OEM System but an OEM system from another vendor. The SLP keys for other OEMs are listed here and your key should match the one listed for your OEM and version of Windows in the list.

If your hard drive has failed or your installation is corrupt and you are unable to backup your product activation. You will need to run ABR on any machine by your computer manufacturer which has a factory preinstalled version of Windows Vista (of any version) to get the backup-cert for your OEM. The backup-key can be replaced with the 25 digit product key here which corresponds to your particular version of Windows by use of notepad.

**Step 3 Backing Up your Data and other Useful Things you will Need for Reinstallation.**

This step is for backing up data only. If you have all you need to install proceed to Step 4.

Note: If you are reinstalling due to start-up problems with your PC you should through with Diagnosing Windows Startup problems before committing to a clean install. If you can repair your installation reattempt this step. If you cannot repair your installation because your hard drive has failed for example then carry out Data Recovery of the Hard Drive using Fedora and then proceed to Step 4. You may also attempt to install Windows 7 directly and obtain your data from the Windows.old folder (Step 15) this will only work if you don’t securely wipe your system with DBAN or opt to format/delete any partitions during the install which is unrecommended.

**Step 3a. Use Belarc Advisor**

Belarc Advisor will obtain details about your system. It is free for home use and gives you a print out of your computer’s hardware and software. It also gives you your product keys. This is particularly useful for obtaining your Microsoft Office and Microsoft Windows (retail only) product keys. It is handy to keep a print out of this data. CutePDF Writer may be used to create a pdf print out of it. Save this in a folder in the external hard drive e.g. called Computer Software.

**Step 3b. Dell Service Tag**

The sticker for the Dell Service Tag should be located in a similar area. You should take note of it. You only need to know the Service Tag (7 digit code) and not the Express Service Code.

If you do not know what your service tag is (Belarc Advisor should tell you) or you may follow the following instructions:

Press [Windows] and [r] to bring up the run command

---

13 For the OEM version you will get the SLP Key.
Type `cmd` and press enter.

In the command prompt enter `wmic bios get serial number` and press enter.

The Service tag will now display.

I tend to save the Service Tag and all product keys in a notepad file and save these on the external hard drive as well as a handwritten note. It is also a good idea to send them to yourself via an email.

**Step 3c. Back up your data**

An external hard drive is a great device to back ones data up on. Documents, Music, Pictures and Videos in particular. A standard user should make regular backups in case of hard drive failure.

I have found manually copying the desired files and folders to be the most reliable.

**Step 3d. Backup your Full Previous Windows Installation Using Acronis (optional)**

It is recommended to make a full hard drive backup using Acronis True image which is full explained in [Backing Up and Restoring Your Windows Installation Using Acronis](#).

**Step 4. Obtaining Service Packs/The Latest Build of Internet Explorer**

I recommend installing Microsoft Security Essentials* with the latest definition immediately after the Service Packs and Internet Explorer 9* to ensure your system is protected upon first connection to the internet. I have found significant performance boosts by installing the Service Packs before any additional drivers.
If using a Dell Reinstallation DVD or a purchased Windows Vista Upgrade/Retail DVD it will tell you on the label if Service Pack 1 is included.

If using the Digital River setup files then these already have Service Pack 1.

If Service Pack 1 is not included the user will need to download Service Pack 1 and 2, Internet Explorer 9* and Microsoft Security Essentials*.

If Service Pack 1 is included the user will need to download Service Pack 2, Internet Explorer 9* and Microsoft Security Essentials*.

Ensure that only 32 bit files are used for 32 bit installation media and 64 bit files for 64 bit installation media.

* Optional but recommended.

Currently the latest Service Pack for Windows Vista is Service Pack 2.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Pack 1</td>
<td>Service Pack 1</td>
<td>Service Pack 1</td>
<td>Service Pack 1</td>
</tr>
<tr>
<td>Service Pack 2</td>
<td>Service Pack 2</td>
<td>Service Pack 2</td>
<td>Service Pack 2</td>
</tr>
<tr>
<td>Internet Explorer 9</td>
<td>Internet Explorer 9</td>
<td>Microsoft Security Essential</td>
<td>Microsoft Security Essential</td>
</tr>
<tr>
<td>Latest Definition</td>
<td>Latest Definition</td>
<td>Latest Definition</td>
<td>Latest Definition</td>
</tr>
</tbody>
</table>

**Step 5a. Driver Install Notes**

Drivers may be obtained from the Dell Drivers and Downloads (Step 5c) or the Dell ftp Website (Step 5d).

If you only have XP drivers listed then ask on the forums for assistance; however if Vista or 7 drivers are unavailable for your system it is likely you will get a low Windows Experience Index running these operating systems on your hardware, so I would not recommend switching in this case.

For optimal performance the drivers should be installed in the following order:

**Step 5b. Driver Install Order**

**Dell System (Notebook/Desktop) Software - Under System Utilities**

See here for more information about Dell Desktop Software.

**Chipset Drivers - Under Chipset**

Your system will have either an Intel (most Dell systems) or ATI chipset. Install the Intel Chipset Installation Utility (or AMD equivalent) before any of the other drivers. Then install any of the other Intel (or AMD) chipset drivers. You may also have some USB 3.0 chipset drivers and in this case these should be installed next. There may also be a card reader driver e.g. Realtek, Ricoh, O2 Micro. The card reader may also be found under a Removable Storage category.
Intel Matrix Storage Manager/Intel Rapid Storage Technology - Under SATA Drives and/or CPU
Not all systems will have this. Note there are the drivers and the applications. The applications should increase system performance. If a full installer isn't present then it is likely the preinstallation drivers (see Step 6).

Video Driver - Under Video.
Generally there are several variants for Video Driver e.g. Intel/ATI(AMD)/nVidea. In addition for Desktop PCs in particular there may also be different variants of ATI(AMD) and nVidea cards sold with the system. Ignore any for TV tuners under the Video category at the moment.
Some of the newer laptops have switchable graphics and require the Intel driver to be installed first then the corresponding nVidea/ATI video driver for full performance. There may be a few variants of graphics cards for a laptop and you must select the correct ones.
In desktops if there is no dedicated graphics card in the card slot, then they have the onboard (generally Intel driver).
In desktop if there is a dedicated graphics card in the card slot then generally it is the ATl(AMD) or nVidea driver). Generally there are several variants of graphics card per desktop model and you need to pick the correct one. The latest driver from the ATl/nVidea websites generally offers increased functionality.

- AMD (ATI) Driver Autodetect
- nVidea Smart Scan
- Intel Update Utility

Modem Drivers - Under Communications
Drivers for Modems are often natively included in Windows 7 if it's not there don't worry. Modems are becoming obsolete also. For newer systems if modem drivers exist, they may fail to install as a modem is not present. As modems are becoming obsolete the modem is not always installed as default for a Windows 7 laptop.

Network Ethernet Driver - Under Network
This usually mentions Ethernet/LAN/Broadcom/Realtek in the description. Sometimes Intel, Atheros but the latter two can also be the wireless card. Some laptops are being sold without Ethernet ports and rely on wireless only.

Wireless Card - Under Network
Not present for all Desktops but most that come with Windows Vista or later will have a wireless card included. There are generally several variants of Wireless Cards and you will need to pick the correct one. For some newer systems the wireless and Bluetooth card are one and the same.

Touchpad - Input
This is for laptops only. There are 3 main brands of touchpads used in Dell systems; Synaptics, Alps and Cyprus. The latest version of Synaptics Touchpad may be obtained directly from Synaptics here although won't contain the customisations of the Dell driver.

There may be additional input drivers if you purchased a non-standard keyboard for a desktop e.g. a wireless or Bluetooth keyboard.

Audio - Under Audio
Ensure you install any audio drivers before audio applications. Generally the drivers have the name SigmaTel/IDT/Realtek. There is generally little to none variants for the audio driver for each model. This is for the standard onboard integrated audio which 90% of Dell systems use.
For the other 10% (mainly but not exclusively higher end desktop systems) an optional Creative Soundblaster may be installed. This is a dedicated soundcard. There will likely be a driver available but you may be able to get a later driver from the Creative Website.

There are sometimes also Creative applications available for the onboard audio (even if Creative don’t make the audio component).

**TV Tuners/Other Video (If applicable) - Under Video**

Many systems don’t have these and are only added via customisation.

**Bluetooth - Under Network.**

Bluetooth is standard for most new systems, in fact for some of the really newer systems it is integrated with the wireless card. In some of the older models it was optional so not all systems have it.

**Dell Quickset or Dell ControlPoint - Under Applications**

Dell Quickset is for the power settings and Fn keys. Usually this is for laptops only. These include the onscreen volume/brightness meters.

For some newer Latitude (E Series)/Mobile Precision Workstations Dell Quickset was replaced by Dell ControlPoint. If you cannot locate Dell ControlPoint System manager which should control the volume meters on these models then use the following ones here:

- R312259 A21, Version 1.7.10000 Update Package Windows Vista 64 bit
- R301919 A19, Version 1.7.00000 Hard Drive Version Windows Vista 64 bit
- R312260 A21, Version 1.7.10000 Update Package Windows Vista 32 bit
- R301915 A19, Version 1.7.00000 Hard Drive Version Windows Vista 32 bit

**Webcam Driver found - Under Input**

For many laptop systems the Webcam Driver is included in Windows 7.

Most desktops won't have a webcam driver or will use a dedicated Logitech or Creative webcam which can be downloaded from the perspective vendors. Note for desktop systems with a webcam integrated into the monitor, the webcam driver may be found bundled with the monitor driver. Installation of the monitor driver will install the webcam. If the monitor has a driver it will be listed separately from the computer and one will have to select the monitor on the Dell ftp website.

**Mobile Broadband Drivers - under Communications**

Most users don’t have these but the drivers are there for the users that do.

These are the main drivers and I have tried to give a basic guide to cover all systems. There will of course be some other variants from model to model and customisations within the same model such as mobile broadband cards, TV tuners and other drivers depending on your systems configuration. There may also be security drivers for Latitude and Optiplex series. The check for any missing drivers is via the Device Manager (Step 12) and you should post on the Microsoft OS forum if you run into problems there.

There are a number of other drivers such as the CD/DVD firmware. These can be updated if you wish but I would recommend leaving these well alone. Sometimes if these updates go wrong, things seriously break. If you have no problems with any of these devices then leave them be. You may look through Applications to see if you find anything else useful.

The BIOS can also be updated (see Step 17 for more information about this).

If you are unsure what drivers apply to your system, i.e. what variants; Video Card, Wireless Card, Bluetooth etc. then Check your Original System Configuration. If you are still unsure make a new post on the Microsoft OS forum with your Original System Configuration.
Naturally some of these drivers/applications such as Dell Quickset for power/mobility are designed for Laptops only and are thus not needed for Desktops.

When downloading all the system drivers I recommend saving each driver in an appropriately labelled folder and adding a numeric prefix to the folder. This will ensure that you install the drivers in the recommended order. e.g. here are the drivers I downloaded for a Latitude E6520:

All the drivers should be downloaded and saved to a USB stick. The way this guide is intended Steps 1-6 are preparation for installing Windows so the user has everything they need when installing Windows. This is why Step 5 (downloading drivers) and Step 10 (installing drivers) are independently. If however the user has already attempted to install Windows likely they won’t be able to access the internet to get the drivers and will need to use a working system to download them.

Step 5c. Obtaining the Dell System Drivers (Dell FTP Website)

This guide recommends downloading the drivers from the Dell FTP Website which lists the drivers as direct links as there are less problems with it than Drivers and Downloads. Use the new version:

- Dell FTP Published Pages (new)
- Index of the Dell ftp website (old)
- old Dell ftp browse for drivers (old 2)
- Dell ftp root

As of yet Dell have still not took our advice to list the drivers in the correct installation.

Step 6. Preparing SATA Drivers

In the case where newer hard drives are fitted several errors may occur during Windows Vista Reinstallation:

- Errors which state there is no hard drive.
- Windows Setup could not configure Windows on this computer’s hardware.
• A CD/DVD device is missing.*

* 9 out of 10 times the third error is due to bad media in particular if the Digital River .isos are used e.g. a badly burnt DVD or USB a corrupt download of the .iso. Downloading the .iso again and making a bootable USB usually resolves the matter.

To prevent these errors it is necessary to download SATA drivers such as the Intel Rapid Storage Technology F61fly Drivers and load them during the Windows setup. For Intel systems these may be obtained on the Drivers and Downloads page but it is generally better to get the latest versions from Intel directly. Note most Dell systems are Intel but a few will be AMD systems and the Intel Drivers won’t be any use to you. To verify if your system is Intel or AMD run and install the Intel Processor Identification Utility (also c.f. the Chipset Driver in Step 5). If no CPU is identified your CPU is likely AMD. For AMD systems look on the drivers and downloads page, if you can’t find anything ignore this step and continue with the install.

Once you have downloaded the SATA drivers from Dell or Intel. You will need to extract the file with 7zip as shown. First download and install 7zip from here, selecting the 32 bit .msi or 64 bit .msi depending on your OS.

For the Dell SATA Driver once 7zip is installed, right click the Dell driver and select extract all.

This leads you to a folder with the same name Rxxxxxx as the driver.
Look in this folder for a F6flypy-x86 (32 bit) or F6flyp-x64 folder (64 bit) and copy this to a USB stick. Select the correct one to match the version of Windows you are installing. Note if there are additional folders and a setup.exe in the folder then the F6flypy drivers should be loaded before Windows and the Application (Setup.exe) installed alongside the drivers.

Repeat for the extracted contents of all the SATA drivers on this USB/DVD. Note some of the items under “SATA Drivers” are applications these should be installed alongside the system drivers. See the downloads page below for example.
The 2 Applications should be installed at the end of the installation while the two drivers should be loaded onto the USB stick. The 2 Firmware may be installed at the end of the installation if desired.

For the Intel Drivers the F6flpy-x86 and F6flpy-x64 should be offered as separate .zip downloads. Download the correct one and extract it with 7zip then copy the extracted folder to your USB stick.

If you get one of the error messages above start a new post in the Disk Drives forum stating your model number, your type of hard drive (if you know, for example if you purchased one) and what Operating System you have tried to install. In addition it may be worth mentioning what SATA drivers you have attempted to use.

The SATA Drivers should then be loaded in Step 8, in particular loading the SATA Drivers.

**Step 7a. Preparing the Drive For Installing Windows (DBAN)**

**Step 7a is for advanced users, most regular users should skip it. However for users that are planning on selling/giving away their system or reinstalling due to a viral/malware infection this step is highly recommended as it permanently erases data and is more through than the standards Windows format.**

Download DBAN and burn it to a blank CD/DVD using ImgBurn (on XP/Vista) no additional Software needed for Windows 7 or alternatively make a bootable USB using Universal USB Installer.

Before using DBAN any card readers need to be disabled in the BIOS setup as the card reader registers with DBAN as a blank drive and stalls DBAN from running. In addition secure boot and UEFI may need to be disabled. Remove any external USB Hard Drives and USB sticks unless you want to format them.

For instructions on how to do this follow:

* Card Reader BIOS Settings [Variant A]
* Card Reader BIOS Settings [Variant B]
* Disable Secure Boot (systems newer than 26/10/2012)
* Disable UEFI and Secure Boot (systems newer than 26/10/2012)

If using a USB device, use a USB 2.0 port, if your system only has USB 3.0 ports follow:

* Disable USB 3.0 functionality to Install Windows from a USB Flash Drive

Not all systems have card readers. If you cannot find the BIOS settings for the card reader, inserting a Card Reader will allow DBAN to run correctly (the card will of course be securely wiped).

Insert the DBAN CD/DVD or USB and power down your system. Press F12 at the Dell BIOS screen and select boot from CD/DVD or from USB respectively.
The easiest way to use DBAN is by typing autonuke and then pressing enter.
DBAN will then begin to securely format your hard drive. Note DBAN can take a very long time to securely format a large capacity hard drive.

When completed you should get a screen like this. Hopefully it will say DBAN succeeded although sometimes it mentions an error. Most of the times that it has mentioned an error to me it has actually fully formatted the drive and ran for the same length of time as it should (i.e. the same time for a system of the same model where no error cropped up).
Once the DBAN format is done, re-enable any card reader within the B IOs setup.

Note using DBAN may sometimes cause some issues with product activation if using upgrade product keys as the original version of Windows is not there.

Some people have reported that a double install of Windows 7 will work. Others reinstall the old operating system, activate it and then proceed with a clean install Windows 7.

**Step 7b. Preparing the Drive For Installing Windows (Media Direct)**

This step is only for systems shipped with Media Direct. These systems will have a MediaDirect button in close proximity to the power button as shown below. If your system doesn’t have this button skip this step.

Media Direct is for selected systems such as the Inspiron 6000, 6400, 9300, 9400, E1505, E1705, XPS Gen 2, XPS M170, M1270, M1710, M2010.
The partitions for Media Direct must be set up before the installation of Microsoft Windows otherwise pressing the Media Direct Button while the system is powered down can corrupt your entire Operating System.

Insert the Media Direct DVD supplied with your system. It should look like the following:

If you don't have the Media Direct DVD you may download the files from here, there are 10 files. Download all 10 and then use 7zip to extract the first one and ImgBurn to burn the .iso to DVD.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD. Select option 1 (recommended) or option 2. (if you want 2 partitions).
Note: The application must be installed after the system drivers while on the Windows Desktop (Step 14a).

**Step 8. Installing Windows**

Ensure everything (documents and the downloads listed above) is copied over onto the external hard drive.

Insert the DVD you have created or Dell reinstallation DVD or the bootable USB flash stick. Also insert the SATA Drivers USB stick if applicable.

Note: It is recommended to unplug any unnecessary peripherals (You need keyboard and mouse).

Note: Where possible use USB 2.0 ports when booting from USB; users have reported that when using USB 3.0 ports the USB stick doesn't boot.

Note: Ensure that the keyboard and mouse are plugged in USB 2.0 ports as use of USB 3.0 ports can cause the installer to freeze at the language select screen.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD or from USB respectively.

Press any key when prompted such as "h" when it says Press any Key to boot from CD/DVD.

You will get a black screen that says "Windows is Starting Files" then one that says Microsoft Corporation. These should disappear pretty quickly. Next one that says Starting Windows.
You will then be prompted for your language, time and currency format and keyboard settings. Mine are all set to U.K. as shown below, amend for your preference.
Select Install Now.

If using retail media you will be prompted for a product key. Use your product key found on the COA sticker found at the base of your system or your purchased upgrade key/retail key/OEM key.
If you are going to use Activation Backup and Recover (i.e. have carried out Step 1c) or want to evaluate Windows Vista for 30 days then don’t enter any product key and select next.

A Dell OEM disc should not require you to input this key and this screen should not display.

Once you have input your key select Next. The following screen will display if you have input the wrong key.
If you haven’t entered a product key, it will explicitly ask you what version of Windows Vista you wish to install. Select the correct version you wish to install (matches your COA if using Activation Backup and Recovery) or alternatively select the version you wish to trial.
Read the license, check to select and then select Next.

Next select Custom (Advanced).
Note select Custom (advanced) even/especially if you are "upgrading". There are always some bugs when selecting "Upgrade" on this screen and this seriously hinders your systems performance.

When you get to this screen select Load Driver and select your SATA drivers USB stick.
When you get to this screen select Load Driver and select your SATA drivers USB stick.

Ensure that "Hide drivers that are not compatible with hardware on this computer is ticked" (it should be set like this by default). Select all the drivers listed and then click next. It will take you back to this screen. Select "Drive Options".
This will reveal the drive options. The tools are rather self-explanatory. For a new hard drive you will need to select New to make a new partition (case below).
You should get a message saying some space must be "System Reserved" and a System Reserved Partition is made, don't worry about it, it is very small.

When you have an existing Windows partition you have a few options:

1. To delete it and then must create a new partition or partitions if you want multiple partitions e.g. for dual boot or for other reasons: this will remove all data and factory partition. Once you have created your partitions; select the partition you wish to install Windows on and select Next. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service.

2. To format it, leave the partition intact but remove all data and factory partition. You might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead Extend the main partition.

3. To install Windows on the partition but not format it (in this case all old files will be found in the Windows.old folder). Again you might as well delete the Dell factory partition if going down this route as it will no longer work and hence serve no service and instead Extend the main partition.

Note If you have a Media Direct system you should install on C: the largest partition and leave all other partitions alone.

Note for systems without media direct, the Dell Factory setting will no longer work after a manual install. I recommend deleting or formatting such a partition alongside any other partitions and creating new partitions to your own preference but you must take the 3rd option if you have not carried out Step 1 and wish to keep your data (Step 15).

**Note:** if you have not backed up all your data onto an external hard drive. Do not select any of the drive options particularly format or delete. In this scenario all your files will be saved in a folder called Windows.old.

You will then a screen telling you the progress of the install.
Note some parts may be very fast and some steps may be very slow.

However it should not take any more than a few hours; if it is stuck on the same % for a few hours on one part then it has likely froze and you must start again (this rarely happens) by holding down the power button until the machine powers off and then reattempting the install.
Type in your "username". Next type in your password, retype it and leave yourself a hint. Alternatively just select next (to have no password - not recommended but optional). Personally for convenience I tend to leave the password blank and add one after the installation of Windows Vista, drivers and updates as you will be prompted to restart your computer several times.
Now name the computer, by default the PC name will be "username-PC" but you can change this as desired. Next you will get the Windows Update options, I generally select Use recommended settings.

Set up Network settings and or connect to a wireless network. Note you may not get this or be able to do this if the wireless and/or Ethernet drivers are not installed. You may ignore this step and connect later.
Finally the setup will Finalise.

When you first login, Vista may assess your hardware after this which will take a few minutes.
**Step 9. Install the Service Packs/Internet Explorer 9**

Now that you have Windows Vista installed. Ensure that you have the latest Service Pack installed. It often works out better installing the latest Service Pack and Internet Explorer before installing the system drivers. Doing so in this order prevents a great deal of problems with Windows Update and conflicts with system drivers.

You should have downloaded these onto a USB stick at Step 4 if your installation media didn't include them and have them readily accessible on a USB stick or Externa Harddrive.

Insert the USB stick and run the .exe installers.

**Step 10. Install the System Drivers**

Ensure you keep to the order listed above for best results. You should again have downloaded these at Step 5 and have them readily accessible on a USB stick or External Harddrive.

Running the .exe file Rxxxxxx should extract the driver to C:\Dell\Drivers\Rxxxxxx and then run the installer automatically.

Newer systems no location adopt the R# notation as Dell decided it was better to give the file names a better description but should still extract to C:\Dell\Drivers\"Subfolder" where "Subfolder" is variable. **Unfortunately often no installer runs and the file just extracts. To actually install the driver you will need to navigate to the folder where the driver extracted to and run any setup.exe files. Many users think they have installed the driver when they haven't.**

We will take for example R143625 the Dell Notebook Software for my Inspiron 6400:
Double clicking the file, you should get a run prompt select yes.

Select Continue

Select Ok
Select Ok. At this stage the setup should start and you should start the installation. **If it does not the driver is not installed.** The installers do not always automatically run. Therefore in this case I have to go to C:\Dell\Drivers\R143625 (you will have to go to the number of your driver) and click setup.

Accept the UAC prompt and install via the setup program.

Usually a series of clicking next, next, finish and then rebooting. I usually tell it not to reboot until I install all the drivers it is faster this way and always worked for me however it is probably best to reboot when prompted.

**Step 11. Microsoft Product Activation**

If you have used a Dell Reinstallation DVD see [Step 11a](#).
If you have used a Digital River .iso for an OEM version of Windows 7 see Step 11b.
If you have used a Digital River .iso and a Retail Full/Upgrade license key see Step 11c.

**Step 11a. Microsoft Product Activation – Dell Reinstallation DVD**

This step only applies if you have used a Dell Reinstallation DVD.

If you have used a Digital River .iso and a Dell OEM Product key see Step 11b.
If you have used a Digital River .iso and a Retail Full/Upgrade license key see Step 11c.
Press the [Windows] and [Pause|Break] or go to start, right click computer and click properties.

![Microsoft Product Activation](image)

If it says (at the bottom) Windows is activated then you are fine. This should happen automatically if you use the Dell Reinstallation DVD. These will automatically input the Dell System Locked Preinstallation key when installed via a Dell BIOS and will automatically activate with this product key. Proceed to Step 12. If it isn’t activated see Step 11e.


Copy the ABR folder you had copied/made in Step 2 e.g. on the Desktop. Run activation_restore.exe and follow the onscreen instructions.
Run activation_restore.exe

It should remove all keys and instead insert the OEM SLP key. Press Enter and then restart your computer.
Recheck the first screen for activation. Press [Windows] and [Pause|Break]

If it says (at the bottom) Windows is activated then you are fine. If it isn’t activated see Step 11e.

**Step 11c. Microsoft Product Activation – Digital River .iso and Retail Product Key**

If it says activate Windows Now, click the link to activate. If you used the .isos I referred to you should get a screen like this:

Press the [Windows] and [Pause|Break] or go to start, right click computer and click properties.

Click change product key.
Enter the Windows Vista product key on your COA or Retail/Upgrade product key. Select next, hopefully your product should activate over the internet and you should get the following screen:

If your product is activated proceed to Step 12. If it isn't activated and you get an error message saying this product key is an upgrade key illegible for clean installation or similar proceed to Step 11d if you get the product key is invalid for activation (no mention of an upgrade product key and a clean install) then refer to Step 11e.
Step 11d. Microsoft Product Activation – Digital River .iso and Upgrade Product Key (Clean Installation)

Press the Start Button and in the search box type in CMD

Right click CMD.exe and select run as an administrator. This will open up the elevated command prompt accept any user account control prompt.

In the Window type `slmgr /ipk xxxxx-xxxxx-xxxxx-xxxxx-xxxxx` where `xxxxx-xxxxx-xxxxx-xxxxx-xxxxx` is your product key and press Enter.
This should load your product key and prevent the message about clean installation.

Then type `slmgr -ato` and press Enter.

Windows should now activate.

Select ok and then close the command prompt. This solution taken from MyDigitalLife forums [here](#) and I have verified it.

Note this workaround can only be carried out for an eligible system i.e. a system which contains a valid Windows XP or Windows Vista Full/OEM license (generally most Dells which have a Windows COA affixed to the system) to upgrade from otherwise the workaround is illegal and you are incorrectly licensed and should not be using an upgrade license.

Press [Windows] and [Pause|Break] or right click Computer and select properties. Check to see if your product is activated. If your product is activated proceed to Step 12.
Step 11e. Microsoft Product Activation by Phone

If however you get the following screen:

Select use the automated phone activation and select your country. I have selected the UK in this example. Once you have selected your country select next.
The Microsoft (toll-free) and (toll) phone numbers should now be available.

**Note these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**

You will also have a unique installation ID.

Call the toll-free number; I recommend using a land line for this as the number isn’t toll-free for Mobiles and the number keys on the landlines are usually easier to type with. Other numbers may be found [here](#).

![Windows Activation](image)

The phone call will be automated. You will first be asked if you are a home or a business customer and be told to enter a number key on the phones keyboard corresponding to each answer.

You will then be asked how many computers you have installed your Microsoft product on. i.e. how many computers you have used that specific product key with. You should have two options 1 computer or more than 1 computer. Again you will be told to enter a number key corresponding to each answer. If you select more than 1 computer you will be informed that your product is only valid for installation on one computer and be bid farewell.

Assuming you have selected 1 computer only, you will be prompted to input the Installation ID displayed on your screen via your phones number pad. You will be prompted to enter this in the blocks of 6 like displayed on screen. If you have entered in the values incorrectly you will be prompted to re-enter in that block.

Once you have entered in the entire code you will be given a confirmation ID also given out in blocks of 6. You will have to press the # key once you have entered in the Conformation ID for each block to move onto the next block. When you have finally input the last number in the last block select next; now hopefully you should get the “Activation was successful screen”.

You should now have Windows is now activated in the screen below. If your product is activated proceed to Step 12.

If for some reason your product isn’t activated and you cannot get the option to activate via phone. Press [Windows] and [r] to bring up the run command.

Input *slui 4* and press enter as this will sometimes bring up the phone activation wizard.

If you still can’t activate your product you may call the toll-based number and speak to a Microsoft Support Representative. The phone numbers may be found here. It says for volume licensing only but it is the same numbers that display for customers without volume licensing.

**Note again that these phone numbers are to Microsoft and not Dell; Dell technical support will be unable to help you activate your Microsoft product.**
Once activated “Windows is Activated” should display on the system properties.

If you still cannot activate you will need to call a toll number and speak to a Microsoft Activation Support Agent.

**Step 11f: Microsoft Product Activation – Digital River .iso and Activation Backup**

**Recovery Ineligible system**

This is just a demonstration to show that the Activation Backup Recovery program or Dell Windows 7 Reinstallation DVD won’t work on ineligible systems. A similar result will occur for an ineligible Windows Vista system.

A Dell Latitude D820 was used with an XP Professional COA in this test. It has a genuine Windows 7 Upgrade license and was later activated.

If you try to use the activation files on an ineligible system or a Windows 7 Reinstallation DVD on an ineligible system you should get 9 days until automatic activation as shown below.
When you click to activate now you will be unable to activate with the Dell SLP key and will be prompted to enter another product key. After 9 days you will get

You will need to purchase a new Windows 7 Product key in order to activate and have a genuine version of Windows 7.
Step 11g: Removal of Microsoft Product Key and Microsoft Product Activation.

I don’t really expect anyone to use this step however it is listed for completeness.

Press the Start Button and in the search box type in CMD

Right click CMD.exe and select run as an administrator. This will open up the elevated command prompt accept any user account control prompt.

In the Window type `slmgr.vbs /upk` and then press enter.
You will get a uninstalled product key dialogue box and also

Step 12. Ensure there are no Errors in Device Manager and Rate the Windows Experience Index

A Clean Install of Windows

Philip Yip

Hopefully it should look something like mine.

If you have an error, yellow ? or ! then you probably haven't installed a system driver correctly. You should quickly check that you haven't missed installation of a driver and check to see that something hasn't installed correctly. If you still can't find out what it is. Right click the device with the error and select properties:

Go to details and select Hardware ids.
You should make a new post on the Microsoft OS Forum starting your model of Dell, the hardware ids and whether you have installed Windows Vista 32 bit or 64 bit. Advanced users may also search in the Microsoft Update Catalogue or PCIDatabase.

Next after the drivers are installed you should rate your system. Click the link “system rating is not available”.

Note at this stage I would re-rate the system even a number is displayed there. Although people may not care so much for the system rating it is best to perform. Several unrated systems will revert to the Windows Vista Basic Theme even if they are capable of the Aero Interface and will not allow the user to change to the Windows Vista Theme until the system is rated.

Select rate this computer and leave it be for 5 minutes to rate it.
You should get the rating now.

**Step 13a. Install a Security Program and your Applications (Security)**

For Security I recommend use of Microsoft Security Essentials (I have mentioned installing this at step 4 of the wiki) and Malwarebytes’ Antimalware.

This is an area where almost everyone has a different opinion/their own favourites. So I am not going to argue or force my opinion here. Just ensure that you install a security suite that you trust. If you have any queries with regards to security software then I recommend you to post a new topic in the Virus & Spyware Discussion Forum.

**Step 13b. Install Microsoft Office**

The installers for Microsoft Office may be found here:

- Microsoft Office 2007
- Microsoft Office 2010

These installers require a product key. Use your product key obtained by Belarc advisor (Step 1) and/or found with the Microsoft Product Identification card on your system with the correct installer. For more details about the Microsoft Product Identification Card see here.

If your system just came with Office 2010 Starter, you cannot download it from an official source however Office 2010 Starter is becoming redundant and not worth installing. Instead you should use Microsoft Office Web Apps which has tight integration with SkyDrive and the same functionality or slightly more than Office 2010 Starter.

Microsoft Mathematics may also be installed; this is essentially a free graphics calculator for Microsoft Windows.
Useful third party additions for the full versions of Microsoft Office are Mendeley Desktop Reference Manager and Mathtype both have free and paid versions. The free versions should suffice most users.

**Step 13c. Install SkyDrive for Windows**

I highly recommend SkyDrive for Windows. This gives users a 7 GB free webdrive which can be accessed via the SkyDrive folder on your computer and within any web browser. Paid plans can give you 100 GB storage.

*SkyDrive for Windows is the easiest way to access your SkyDrive from your PC. When you install SkyDrive, a SkyDrive folder is created on your PC. Everything that you put in this folder is automatically kept in sync between your computers (PC or Mac) and SkyDrive.com, so you can get to your latest files from virtually anywhere.*

Users may also install SkyDrive for Windows and additional programs in the Windows Live Essentials Suite.

**Step 13d. Install Microsoft.net Framework 4**

Install Microsoft.net Framework 4.

**Step 14a. Reinstalling Dell Preinstalled Applications (Media Direct)**

Skip this step if your system doesn't have Media Direct. For the systems with Dell Media Direct, once on the windows desktop, insert the media direct disc It should autorun, install the application, if it doesn't you should navigate to the WindowsMD3 folder and click setup.exe. Use the updater within Media Direct to get it to the latest version.

**Step 14b. Reinstalling Dell Preinstalled Applications (Webcam Central)**

For some unknown reason Dell does not provide Dell Webcam Software under the drivers and downloads page for most systems. Here is the download link Dell Webcam Software R230103. You may wish to download the latest version of Skype before installing the webcam driver.

**Step 14c. Reinstalling Dell Preinstalled Applications (Dell Support Centre)**

Dell Support Centre can be installed. It only works on home systems and does not work on Precision, Latitude or Optiplex systems.

**Step 14d. Reinstalling Dell Preinstalled Applications (Dell Dock)**

Dell Dock can also be installed.

**Step 15. Copy old files from Windows.old**

If you have everything on the external hard drive then ignore this step. If not go to computer, then to C then to C:\Windows.old look through the users folder, move all the items (you want to keep) from "documents" to "documents", "desktop" to "desktop", "music" to "music", "pictures" to "pictures", "downloads" to "downloads". Look about in this folder for anything else.

Windows.old has old windows files you won't need, old program files you can no longer use and it is very large. Delete it when you have moved whatever you need as it is a very large folder and unnecessary once you have your new windows installed. Note there is more information and an automated tool here.

I recommend using unlocker to delete the Windows.old file as you will get several error messages using the standard windows delete, the folders name is too long, its too big for the recycle bin and you don't have permission. Be careful when using this utility as you can cause damage to the windows installation if you delete the wrong file. You may get unlocker from here:
- Unlocker 64 bit
- Unlocker 32 bit

Ensure that you select the advanced install when installing unlocker as it is bundled with potentially unwanted programs e.g. toolbars and Quickstores, ensure that you select advanced install and don’t install any additional components.

**Step 16. Visit Windows Update**

Go to start > Windows Update

This will open up Windows Update
Click on the optional updates and place a tick for each optional date you want.

Select ok. You can now review the important updates also.
These will be installed by default on your system. Should you decided not to install an important update (which is generally not recommended), uncheck the box for the update then right click then select Hide Update.

The update I decided to disable in this example is the browser choice update which is an unnecessary and annoying update in my opinion.

Select okay when done. Note the 116 important updates is now 115 as 1 update was disabled. There will be no prompt to install that annoying update again.
Click install updates. The updates should download and install (this may take a while) you may be prompted to restart your computer a few times.

You should check Windows Update again after logging on until it tells you Windows is up to date.

**Step 17. Notes on Updating the BIOS**

Dell recommend updating the BIOS to the latest version as there are often enhancements/fixes in the updates.

Know the risks however caution should be taken when updating the BIOS as a failed BIOS = a dead system. Therefore many users opt to stay clear of BIOS updates completely. I personally tend to update the BIOS if available after a clean install.

When you power up your Dell system, you will get the Dell BIOS screen:
On this screen is the model number and the BIOS revision. The BIOS revision typically this of either 2 formats:

- Axx, i.e. A01, A02, ..., A12 etc.
- x.x.xx, i.e. 1.0.0, 1.0.3, 1.1.2, 1.1.4, 1.1.10, 1.1.11 etc.

The higher the number the later the revision.

To reduce the probably of fatal BIOS updates save the BIOS update file to the desktop and close down all programs.

Remove any USB device from your computer except for keyboard and mouse and also remove any CD/DVDs and media cards. Restart computer.

Then double click the file and run it as an administrator. Don't touch the computer until the BIOS update is complete. It should automatically log you off, update the BIOS and restart the computer.

Don't power down the computer during the BIOS update as this will ensure your system is rendered completely useless. Ensure both the battery is at full charge and the AC adaptor is plugged in when updating the BIOS on a laptop.

**Step 18. Install other Software**

For more software recommendations see [Additional Recommended Software](#).

Pay attention when installing any third party software (non-Dell/non-Microsoft). When you have the option available always select advanced setup. Software is often bundled with toolbars, search provider defaults, browsers and/or other programs. The larger software vendors e.g. Ask, Google, Bing (Microsoft) pay for bundling their toolbars within the installer. Thus the cost of the software can be made lower or distributed for free in some cases. The advanced setup allows
users to disable installation of these toolbars and other programs which they don't want.

CNET in particular although a good source bundle a lot of unwanted programs and you should decline about 5 things in some of their installers.

>70 % of Internet Explorer crashes are due to these toolbars. For Internet Explorer 9 see:

- How to Manage Add-ons
- How to Change your Default Search Provider

Other browsers which you may also install for free are:

- Google Chrome with Adblock
- Firefox with Adblock Plus

Note some things work better in Internet Explorer than in the other browsers e.g. SkyDrive and Microsoft Office Web Apps likewise YouTube (especially with the adblock), Google Docs and Google services will work better in Google Chrome. Firefox has a variety of third party extensions. You can of course use all three and switch between them for individual tasks.

Note although the Adblock for Chrome extension and Adblock Plus for Firefox extension can be installed for free, the developers make living from donations so if you find their extensions useful then send them a donation to thank them.

**Step 19. Desktop Enhancements**

**Multiple Monitors**
For those that are using 2 monitors I recommend installing Actual Windows Manager or Actual Multiple Monitors. This will give you a taskbar and Start Menu on each monitor thus completing your Windows Multi-Monitor experience. In addition you can set programs to open on the monitor with the mouse. There is an array of further customisation that can be made with either program. Note this software isn't free when you install it you will get a 30-60 day free trial of either product but it is worth trying out for those that have multiple monitors.

It should be noted that for older versions of Actual Multiple Monitors there was a free version with limited functionality however for the latest version there is no free version anymore. The older free version can still be downloaded from their 3.x Achieve.

One advantage of installing Actual Windows Manager or Actual Multiple Monitors (full version) on a Windows Vista system (without multiple monitors) is that you will get AeroSnap capabilities and the ability to pin to the taskbar.

**Lock Screen**
The Background for the Lock Screen isn't made simple to modify in Windows Vista.

The free StarDock LogonStudio may be used to change the lock screen background into any jpg you like providing that it is less than 256 KB in size.

Once installed select Create, enter a name and author, select browse and then select your image, the lock screen should be changed.
A Clean Install of Windows Vista

Should you wish to use the Dell preinstalled background theme then they may be found on the files area of the Microsoft OS Forum, or alternatively on my SkyDrive here saved as LockScreen Background.7z. (When downloading the image from the files area ensure that it is opened to full size on your web browser then right click the image and select save as…) The files on the SkyDrive will require extraction with 7zip. Note the instructions included on the files in SkyDrive don’t work for Windows Vista and you should use the StarDock logon Studio to change the Desktop Background.

If using the LockScreen Background.7z from the SkyDrive there is a registry edit with included instructions (StarDock login studio is not required but can be used opposed to the registry edit). The light blue defaultbackground.jpg can be replaced by another colour or any custom image (as long as it
is below 256 KB) if it is renamed for example backgrounddefault.jpg and the desired colour/image is renamed defaultbackground.jpg. i.e. once the registry edit is set any file in the folder C:\Windows\System32\oobe\info\backgrounds that has the name backgrounddefault.jpg will be the default login screen background.

**Desktop Background and Theme**
Right click a blank area of the Desktop and select Personalise, you will be able to select the theme from the default available. The default Dell ones may be found on my SkyDrive here saved as Desktop Background.7z and the theme may be selected by double clicking the file. You may alternatively select Get more themes online and browse through the list on the Microsoft website till you find one you like.

At the bottom you may alternatively select the Desktop Background and Windows Colour as well as Sound Scheme and alter to your preferences.

**OEM System Properties Branding**
The OEM System properties branding will already be applied if you used a Dell Windows 7 with Service Pack 1 Reinstallation DVD. For those who didn’t get the Dell OEM branding download the following files from my SkyDrive here. There are two variants on the SkyDrive; the Blue and white saved as System Properties Blue and White.7z and the Black and Silver logo saved as System properties Black.7z.

Follow the instructions in the text files included in the folder for installation; again there is an included registry edit which must be applied for the logos to display.

**StarDock Fences**
Additional 3rd party software to enhance the Desktop can be found on the StarDock website. One notable product is Fences which used to have a free version but no longer does. It is worth having a look at their software however.

**Step 20. Create a Backup**

At this stage your system should be clean installed and fully functional; it is recommended to make a full hard drive backup using Acronis True image which is full explained in Backing Up and Restoring Your Windows Installation Using Acronis.

**Step 21. Use Your computer**

That's everything done, you should have a fully functional system with peak performance.

Enjoy your Dell system!
# 2. Microsoft Windows and Office Information and Downloads

All Microsoft downloads are provided by Digital River or direct from Microsoft. The Non-Microsoft/Additional Recommended Software wiki has software that I recommend available from a variety of safe locations.

## Microsoft Windows

- [Requesting a Reinstallation DVD](#) [Dell only]
- Windows 8 Offers and Information
- Windows 7 Information and Download Links
- Windows Vista Information and Download Links
- Windows XP Information

## Microsoft Office

- Office 2013 Information and Download Links
- Office 2010 Information and Download Links
- Office 2007 Information and Download Links
- [Works 9.0 Download Links](#)

## Microsoft Other [Free]

- Security Essentials Information
- Windows Live Information
- Mathematics Information
- DreamSpark Information

## Non-Microsoft Additional Recommended Software

- Security
- Productivity Software
- Remote Connections and Virtual Machines
- Utilities/Maintenance
- Music and Video
**Requesting a Windows Reinstallation DVD**

Dell is currently shipping all their systems without reinstallation DVDs. For US customers there is an online request form for Reinstallation Media for US and CA Customers only.

For those customers not in the US and CA or out of warranty you will need to contact Dell technical support.

Some Technical Support Numbers are available [here](#) although I am not sure if they are the best ones to use or not.

The phoning of Dell Technical Support has led to some abnormal results:

- Refusal of media.
- Telling the user to purchase a new OS.
- Overcharging for it a price of £60 ($90).
- Told that they must purchase an expensive warranty to get the Reinstallation DVD.
- Instructing users they must return the DVD after so many days or their warranty expires.

To improve the experience for customers from the rest of the world, I have made a poll. Please add your votes and comments to them:

- [Windows 8 Reinstallation Media Request and Download Link [Revised]](#)
- [Request a Reinstallation DVD form [Rest of the World] poll](#)

If you are experiencing issues from Technical Support requesting the Reinstallation DVD or feel that you have been unfairly quoted, had someone force a warranty purchase upon you to get the DVD or refused media or told that Dell don’t have the media please make a new post on the Customer Care Board. Include your region, Model and Operating System (e.g. XPS 8300 with Windows 7 64 Bit Home Premium) in your post for the fastest response.

I have left a lot of suggestions with Dell regarding media requests which I hope they will implement.
There are no Windows 8 downloads on Digital River as Microsoft are selling it directly and will only let you download it if you have bought it from them directly. This seriously hinders the ease of Clean Installation and is a huge step backwards.

For the Retail version of Windows 8, you should get an email link containing a download link and can make a .iso from this, for more details see my wiki [A Clean Install of Windows 8.1](#).

For the Dell OEM Preinstalled version of Windows 8 there is no free download to a retail .iso for clean installation as for Windows Vista and Windows 7.

A TechNet/MSDN iso will work but the standard user doesn’t have access to these. For the standard user a Dell Windows 8 Reinstallation DVD, USB or Dell DataSafe USB must be used. I recommend the Dell Reinstallation DVD/USB over DataSafe media but these must be requested via Dell Technical Support.

For Windows 8 there is no included COA for the OEM version of Windows 8 and instead a unique product key is hidden in the system BIOS. The Reinstallation media/Technet .iso picks up this product key inputs it automatically and then activates Windows 8 online. Thus no phone activation should be required. See System Locked Preinstallation for more details.

**Windows 8 Media:**

- [Requesting a Dell Reinstallation DVD](#)
- [Windows 8 – System Locked Preinstallation](#)
- [Microsoft Windows 8 Professional Upgrade](#)
- [Windows 8 Media Centre Pack](#)

**Useful Videos:**

- [Dell YouTube Technical Support Channel](#)

**Useful Guides:**

- [Dell Windows 8 Guide for Dummies](#)
Windows 8 – System Locked Preinstallation

For Windows 8, Microsoft have stepped up their game regarding Microsoft Product Activation.

There is no Code of Authenticity stating the unique 25 Digit Product Key attached to every Dell OEM Computer sold with Windows 8.

For earlier versions of Windows in particular Windows Vista and Windows 7 the quality of the COA stickers was poor and the product keys tended to fade. System Locked Preinstallation was in generally used which involved the Dell Installation Media inputting a generic 25 digit product key which automatically activated if and only if the Dell had a validated system BIOS and the correct COA attached. Despite this a number of users had a Microsoft Product Activation issue and could use the unique 25 digit product key on their COA to reactivate their product. However because of the low quality of the COA they were often unable to read the COA and so could not use their unique 25 digit product key.

For Windows 8 System Locked Preinstalled is now enhanced. The unique 25 digit product key is now embedded but hidden within the Dell BIOS and no COA label is attached. When using Windows 8 Reinstallation media this product key is automatically input and in the vast majority of cases the product is automatically activated when connected to the internet. In the rare cases where product activation fails; the unique 25 digit product key is already input which allows for Microsoft Product Activation via phone.

For more details see the Dell Article Where is the Windows 8 Product Key, and How Can I Tell That My Windows 8 Installation Is genuine?

This should have made activation almost bulletproof and also reduced piracy.

However Microsoft so far have failed the user by failing to provide a free direct link to a downloadable Windows 8.1 and Windows 8.1 professional .iso which can be used to repair corrupt Windows 8.1 installations or clean install Windows 8.1 according to the users preferences so genuine users are often looking for media in unofficial locations hence increasing piracy. There are also additional problems regarding product activation as users and users cannot see their product key to input in which is problematic when calling Microsoft Support.
The Windows 7 Download Links on Digital River may be used directly with a Retail Product Key and activated online, the procedure including download links are documented within A Clean Install of Windows 7.

Windows 7 Media:

- [Requesting a Dell Reinstallation DVD](#)
- [Dell Windows 7 System Locked Preinstallation Keys](#)
- [Alienware Windows 7 System Locked Preinstallation Keys](#)

Useful Videos:

- [Dell YouTube Technical Support Channel](#)
Windows 7 – Dell OEM System Locked Preinstallation Keys

Typically each system has a unique 25 digit product key on its COA which is that systems license or right to run that particular version of Windows. This Product Key is usually present as a backup for Microsoft Product Activation in some rare cases and in general System Locked Preinstallation is used.

You may have noticed that the product key you obtained from your Dell System after Clean Installation with a Windows 7 Reinstallation DVD or at Factory Settings is not the same as the unique 25 digit product key affixed to your system via its Code of Authenticity. This is because for Windows 7 OEMs such as Dell use system locked preinstallation (SLP) keys.

The installation media inputs these keys and automatically activates Windows 7 if and only if a valid system BIOS is detected. In the case of the keys listed, a valid Dell BIOS is required with the correct attached COA.

The reason for SLP Activation was to prevent the need for Dell and every Dell user from calling Microsoft to Activate or Reactivate their Windows Product.

Windows 7 Starter
backup-cert.xrm-ms
backup-key.txt
Product Key: 36Q3Y-BBT84-MGJ3H-FT7VD-FG72J
Product ID: XXXXX-OEM-8992707-00082

Windows 7 Home Basic
backup-cert.xrm-ms
backup-key.txt
Product Key: 36T88-RT7C6-R38TQ-RV8M9-WWTCY
Product ID: XXXXX-OEM-8992752-50258

**Windows 7 Home Premium**
backup-cert.xrm-ms
backup-key.txt

Product Key: 6RBBT-F8VPQ-QCPVQ-KHRB8-RMV82

Product ID: XXXXX-OEM-8992687-00095

**Windows 7 Home Premium Variant 2**
There is also a second variant but its rarer than the first variant.

Product Key: 83K3W-QH8JT-T7KBY-9FQB6-V9R8H

Product ID: XXXXX-OEM-8992687-00191

Use the backup-cert.xrm-ms and backup-key.txt of the first variant.

**Windows 7 Professional**
backup-cert.xrm-ms
backup-key.txt

Product Key: 32KD2-K9CTF-M3DJT-4J3WC-733WD

Product ID: XXXXX-OEM-8992671-00524

**Windows 7 Ultimate**
backup-cert.xrm-ms
backup-key.txt

Product Key: 342DG-6YJR8-X92GV-V7DCV-P4K27

Product ID: XXXXX-OEM-8992662-00400
Windows 7 – Alienware OEM System Locked Preinstallation Keys

Note the author of Windows Reinstallation Guide isn’t as familiar with Alienware systems as Dell systems. Alienware became part of Dell in 2009, so later Alienware systems may have Dell SLP Keys.

Typically each system has a unique 25 digit product key on its COA which is that systems license or right to run that particular version of Windows. This Product Key is usually present as a backup for Microsoft Product Activation in some rare cases and in general System Locked Preinstallation is used.

![COA]

You may have noticed that the product key you obtained from your Alienware System after Clean Installation with a Windows 7 Reinstallation DVD or at Factory Settings is not the same as the unique 25 digit product key affixed to your system via its Code of Authenticity. This is because for Windows 7 OEMs such as Alienware use system locked preinstallation (SLP) keys.

The installation media inputs these keys and automatically activates Windows 7 if and only if a valid system BIOS is detected. In the case of the keys listed, a valid Alienware BIOS is required with the correct attached COA.

The reason for SLP Activation was to prevent the need for Alienware and every Alienware user from calling Microsoft to Activate or Reactivate their Windows Product.

**Home Premium**
Product Key: V3Y2W-CMF9W-PGT9C-777KD-32W74
System ID: XXXXX-OEM-8992687-00008

**Professional**
Product Key 1: 4CFBX-7HQ6R-3JYWF-72GXP-4MV6W
System ID 1: XXXXX-OEM-8992671-00188
Product Key 2: MPC38-VC8FK-TWPXH-TR3XV-T2Y4K

System ID 2: XXXXX-OEM-8992671-00006

**Ultimate**

Product Key 1: VQ3PY-VRX6D-CBG4J-8C6R2-TCVBD

System ID 1: XXXXX-OEM-8992662-00008

Product Key 2: 4HMYB-6YHYT-TW2J6-FQBC3-6GBFW

System ID 2: XXXXX-OEM-8992662-00120
The Windows Vista Download Links on Digital River may be used directly with a Retail Product Key and activated online.

Unofficially they may be used with a Dell OEM Product Key and Phone Activation to Microsoft. Dell do not support phone activation of Digital River .isos and strongly suggest to use a Reinstallation DVD, USB or DataSafe USB. I don't like the factory settings so the most recommended option is a Dell Reinstallation DVD/USB. Unfortunately Dell are making these hard to obtain especially outside the US.

If your 25 digit product key is faded on your COA, phone activation to a Microsoft Product Activation Support Agent is possible. I have added a link to Activation backup and Restore within the A Clean Install of Windows Vista wiki to help reduce product activation issues.

Windows Vista Media:

- Requesting a Dell Reinstallation DVD
- Microsoft Windows Vista Official Setup Files Download Links (Digital River)
- Windows Vista – Dell OEM System Locked Preinstallation Keys
- Windows Vista – Alienware OEM System Locked Preinstallation Keys
- Convert your Windows Vista Reinstallation DVD to a Bootable USB
Typically each system has a unique 25 digit product key on its COA which is that systems license or right to run that particular version of Windows. This Product Key is usually present as a backup for Microsoft Product Activation in some rare cases and in general System Locked Preinstallation is used.

You may have noticed that the product key you obtained from your Dell System after Clean Installation with a Windows Vista Reinstallation DVD or at Factory Settings is not the same as the unique 25 digit product key affixed to your system via its Code of Authenticity. This is because for Windows Vista OEMs such as Dell use system locked preinstallation (SLP) keys. The installation media inputs these keys and automatically activates Windows Vista if and only if a valid system BIOS is detected. In the case of the keys listed, a valid Dell BIOS with a correct attached COA.

The reason for SLP Activation was to prevent the need for Dell and every Dell user from calling Microsoft to Activate or Reactivate their Windows Product.

**Windows Vista Home Basic**

backup-cert.xrm-ms
backup-key.txt
Product Key: 3YMR2-WMV49-4WD8X-M9WM7-CH4CG

**Windows Vista Home Premium**

backup-cert.xrm-ms
backup-key.txt
Product Key: 4GPTT-6RYC4-F4GJK-KG77H-B9HD2

**Windows Vista Business**

backup-cert.xrm-ms
backup-key.txt
Product Key: 368Y7-49YMQ-VRCTY-3V3RH-WRMG7

**Windows Vista Ultimate**

backup-cert.xrm-ms
backup-key.txt
Product Key: 2QBP3-289MF-9364X-37XGX-24W6P
Typically each system has a unique 25 digit product key on its COA which is that systems license or right to run that particular version of Windows. This Product Key is usually present as a backup for Microsoft Product Activation in some rare cases and in general System Locked Preinstallation is used.

You may have noticed that the product key you obtained from your Alienware System after Clean installation with a Windows Vista Reinstallation DVD or at Factory Settings is not the same as the unique 25 digit product key affixed to your system via its Code of Authenticity. This is because for Windows Vista OEMs such as Alienware use system locked preinstallation (SLP) keys.

The installation media inputs these keys and automatically activates Windows Vista if and only if a valid system BIOS is detected. In the case of the keys listed, a valid Alienware BIOS with a correct attached COA.

The reason for SLP Activation was to prevent the need for Alienware and every Alienware user from calling Microsoft to Activate or Reactivate their Windows Product.

**Home Premium**

Product Key: D9CRD-R8YYQ-VYG3W-YG4FK-2CXRF  
System ID: XXXXX-OEM-7332157-00026

**Ultimate**

Product Key: 7OVFM-MF2DT-WXJ62-XTYX3-P9YTT  
System ID: XXXXX-OEM-7332132-00062
Microsoft Office and Microsoft Works

- Microsoft Office and Visio 2013 Consumer Preview
- Microsoft Office and Visio 2010 Official Downloads (Digital River)
- Microsoft Office and Visio 2007 Official Downloads (Digital River)
- Microsoft Works 9.0 Official Downloads (Digital River)
If you are looking for the OEM version of Microsoft Office 2013 i.e. you customised the system to purchase Microsoft Office 2013 with your Windows 8.0/8.1 PC go [here](#).

The product key will be found on a Microsoft Product Identity card that shipped with the system.

The above download link should work with retail installs also however Office 2013 .iso files for various languages can also be downloaded from [Office 2013 Direct Download Links by Jan Krohn](#).
If you are looking for the OEM version of Microsoft Office 2010 i.e. if you customised your system to purchase Microsoft Office 2010 with your Windows 7 PC go [here](#).

The product key will be found on a Microsoft Product Identity card that shipped with the system.

If you have a retail version (purchased separately from the system) Office 2010 .exes files for various languages can be downloaded from [Office 2010 Direct Download Links by Jan Krohn](#).

**Service Pack 2 Update**

- [Office 2010 Service Pack 2 32 Bit](#)
- [Office 2010 Service Pack 2 64 Bit](#)

In addition to the products in the Office 2010 suite, the service pack 2 also updates Microsoft Project 2010, Microsoft Visio 2010, and Microsoft SharePoint Designer 2010.

Note if you are having problems with Microsoft Product Activation after installation of Service Pack 2. Navigate to the Microsoft Office folder within Program Files or Program Files (x86) depending on your version of Windows and Office. Right click an Office application such as Microsoft Word and select run as administrator. Then reattempt product activation. Once activated run any Office program as normal.
Language Packs

Arabic 32-bit (x86): X16-37685.exe
Arabic 64-bit (x64): X16-37621.exe

Bulgarian 32-bit (x86): X16-37688.exe
Bulgarian 64-bit (x64): X16-37625.exe

Chinese (Simplified) 32-bit (x86): X16-37690.exe
Chinese (Simplified) 64-bit (x64): X16-37627.exe

Chinese (Traditional) 32-bit (x86): X16-37692.exe
Chinese (Traditional) 64-bit (x64): X16-37628.exe

Croatian 32-bit (x86): X16-37694.exe
Croatian 64-bit (x64): X16-37630.exe

Czech 32-bit (x86): X16-37695.exe
Czech 64-bit (x64): X16-37632.exe

Danish 32-bit (x86): X16-37697.exe
Danish 64-bit (x64): X16-37633.exe

Dutch 32-bit (x86): X16-37699.exe
Dutch 64-bit (x64): X16-37635.exe

English 32-bit (x86): X16-37701.exe
English 64-bit (x64): X16-37637.exe

Estonian 32-bit (x86): X16-37703.exe
Estonian 64-bit (x64): X16-37638.exe

Finnish 32-bit (x86): X16-37705.exe
Finnish 64-bit (x64): X16-37640.exe

French 32-bit (x86): X16-37707.exe
French 64-bit (x64): X16-37642.exe

German 32-bit (x86): X16-37709.exe
German 64-bit (x64): X16-37644.exe

Greek 32-bit (x86): X16-37710.exe
Greek 64-bit (x64): X16-37646.exe

Hebrew 32-bit (x86): X16-37712.exe
Hebrew 64-bit (x64): X16-37647.exe
Hindi 32-bit (x86): X16-37713.exe
Hindi 64-bit (x64): X16-37649.exe

Hungarian 32-bit (x86): X16-37715.exe
Hungarian 64-bit (x64): X16-37651.exe

Italian 32-bit (x86): X16-37717.exe
Italian 64-bit (x64): X16-37653.exe

Japanese 32-bit (x86): X16-37718.exe
Japanese 64-bit (x64): X16-37654.exe

Kazakh 32-bit (x86): X16-37720.exe
Kazakh 64-bit (x64): X16-37656.exe

Korean 32-bit (x86): X16-37722.exe
Korean 64-bit (x64): X16-37657.exe

Latvian 32-bit (x86): X16-37724.exe
Latvian 64-bit (x64): X16-37659.exe

Lithuanian 32-bit (x86): X16-37725.exe
Lithuanian 64-bit (x64): X16-37661.exe

Norwegian 32-bit (x86): X16-37727.exe
Norwegian 64-bit (x64): X16-37662.exe

Polish 32-bit (x86): X16-37728.exe
Polish 64-bit (x64): X16-37664.exe

Portuguese (Brazil) 32-bit (x86): X16-37687.exe
Portuguese (Brazil) 64-bit (x64): X16-37623.exe

Portuguese (Portugal) 32-bit (x86): X16-37730.exe
Portuguese (Portugal) 64-bit (x64): X16-37665.exe

Romanian 32-bit (x86): X16-37731.exe
Romanian 64-bit (x64): X16-37667.exe

Russian 32-bit (x86): X16-37733.exe
Russian 64-bit (x64): X16-37669.exe

Serbian 32-bit (x86): X16-37735.exe
Serbian 64-bit (x64): X16-37670.exe

Slovenian 32-bit (x86): X16-37738.exe
Slovenian 64-bit (x64): X16-37673.exe
Slovak 32-bit (x86): X16-37736.exe
Slovak 64-bit (x64): X16-37672.exe

Spanish 32-bit (x86): X16-37740.exe
Spanish 64-bit (x64): X16-37675.exe

Swedish 32-bit (x86): X16-37741.exe
Swedish 64-bit (x64): X16-37677.exe

Thai 32-bit (x86): X16-37743.exe
Thai 64-bit (x64): X16-37679.exe

Turkish 32-bit (x86): X16-37745.exe
Turkish 64-bit (x64): X16-37681.exe

Ukrainian 32-bit (x86): X16-37746.exe
Ukrainian 64-bit (x64): X16-37683.exe
See here to request Microsoft Office 2007 OEM Recovery Media. You will likely need this media if you purchased Office 2007 with your Dell.

The product key will be found on a Microsoft Product Identity card that shipped with the system.

**DO NOT DISCARD**

Microsoft® Product Identifier:

The manufacturer of your personal computer has licensed the Microsoft® products listed in this document. This certificate of authenticity is your assurance that the following Microsoft® products you have received are legally licensed to you from Dell®.

This card also includes the Activation Key for your Office Product. You will need this key again for any recovery. Please keep this card in a safe place.

Included Microsoft® Products:

Microsoft® Office 2007 Professional

If you have a retail version (purchased separately from the system) Office 2007 .exes files for various languages can be downloaded from Office 2007 Direct Download Links by Jan Krohn.

**Service Pack 3 Update**

- Microsoft Office 2007 Suite Service Pack 3
- Microsoft Office 2007 Visio Service Pack 3

**Language Packs**


Chinese (Hong Kong) [http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34006/X12-34006.exe](http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34006/X12-34006.exe)
Croatian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34007/X12-34007.exe
Danish  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34009/X12-34009.exe
English  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-42421/X12-42421.exe
Estonian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34012/X12-34012.exe
French  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34014/X12-34014.exe
German  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-37276/X12-37276.exe
Greek  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-37277/X12-37277.exe
Hebrew  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34015/X12-34015.exe
Hindi  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34016/X12-34016.exe
Hungarian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-37272/X12-37272.exe
Italian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-37273/X12-37273.exe
Latvian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34017/X12-34017.exe
Lithuanian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34018/X12-34018.exe
Norwegian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34019/X12-34019.exe
Polish  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34020/X12-34020.exe
Portuguese  (Brazil)  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34002/X12-34002.exe
Portuguese  (Portugal)  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34021/X12-34021.exe
Romanian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34022/X12-34022.exe
Russian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34023/X12-34023.exe
Serbian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34025/X12-34025.exe
Slovak  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34026/X12-34026.exe
Slovenian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34027/X12-34027.exe
Spanish  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34028/X12-34028.exe
Swedish  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34029/X12-34029.exe
Thai  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-37271/X12-37271.exe
Turkish  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34030/X12-34030.exe
Ukrainian  http://msft-dnl.digitalrivercontent.net/msoffice/pub/X12-34031/X12-34031.exe
Office 2010 .exes files for various languages can be downloaded from Microsoft Works 9.0 Direct Link by Jan Krohn.
Microsoft Software [Other]

Microsoft Security Essentials

- Microsoft Security Essentials (XP/Vista/7 - select language)
- Microsoft Security Essentials Latest Definition

Security Essentials is included as a part of Windows 8 so there is no need to install it.

Microsoft Windows Live

- Windows Live SkyDrive
  Online storage (7 GB free can purchase an additional 100 GB) highly recommended.

- Windows Live SkyDrive for Windows
  Add SkyDrive as a synced folder in Windows Vista, 7 or 8.

- Skype
  Instant Messaging Software for Microsoft Windows

- Microsoft Mathematics
  Scientific Calculator for Microsoft Windows.

- Microsoft DreamSpark
  Microsoft Student Programs
Recommended Non-Microsoft Software

Disclaimer: Much of the non-Microsoft software that is “free” is bundled with toolbars and other potential unwanted programs. The software developers get payment for bundling this junk within their programs it makes in inconvenient for the end user but the good news is the software is free. A high proportion of software downloaded from CNET for example will use the CNET installer which includes such junk. Despite the fact that the installers can often contain more junk than useful programs; the program being installed is free and often quite useful. Fortunately such software usually offers an advanced installation which gives options as to what to install.

My recommendation is to always select advanced install and uncheck any unwanted software such toolbars or requests to change their browser, or home page. Users should do this both with the CNET installer and also the program installer.

Security

I recommend Malwarebytes’ Antimalware and Microsoft Security Essentials. Although I will mention other security software, don't install everything unless you want a really slow computer. The end user will need to pick software that they like and trust.

- **Malwarebytes' Antimalware**
  
  I recommend installation of the free version of Malwarebytes’ Antimalware on all systems as it is an excellent antimalware program. The free version will only run and update when prompted so is fine to run with other security software. The pro version offers real-time protection and is a one off payment for ~$25, I would recommend it. There is no expiry once purchased. Use of malwarebytes’ Antimalware is discussed further in [Malwarebytes’ AntiMalware – Scanning your System for Malware and Potentially Unwanted Programs](#).

- **Windows 7 Firewall Control (XP, Vista, 7 & 8)**
  
  Windows 7 Firewall Control is a free stringent firewall.

Productivity Software

- **Mendeley Desktop**
  
  A must have reference manager. Extremely useful for students and academics. Add your pdf files to Mendeley, it will manage them. In most cases it will extract all the information required for referencing. It will allow you to quickly search to find a paper via author, keywords, or notes you have left. A useful Word plugin allows you to insert the reference in your word
document. Free online storage of papers to 0.5 GB which will automatically sync from
computer to computer. If you wish more then you can select one of their plans.

- **MathType**
  A must have for typing mathematics in Word, Excel, Visio and Powerpoint. Much better then
  Microsoft's native equation editor. There is a free version called MathType lite which comes
  along with a 30 day free trial of the full MathType. MathType lite does most purpose, for
  coloured equations and additional shortcuts full MathType is required.

- **BKChem**
  Free software for drawing chemical structure. There are many superior paid packages out
  there but this free software is quite useful.

- **Adobe Reader 11**
  The standard reader for opening pdfs. Adobe Reader was getting quite buggly of late but
  version 11 seems better. Adobe have a suite of pdf editing products.

- **Foxit PDF Reader**
  Another pdf reader. This is much lighter than Adobe Reader but cannot open all the secured
  pdfs that Adobe Reader can.

- **PDF-XChange Viewer**
  Another pdf reader. This software has a useful inbuilt OCR mechanism, if you have scanned
  in a document with text then you can use this software to perform OCR to make the pdf
  searchable.

- **Cute PDF Writer**
  Prints to pdf. This is useful if you want to save a receipt or something. Note the pdf prints from
  this printer will just be as images. There will be no OCR for printed text or bookmarks. To get
  OCR from a printed webpage for example, open in PDF-XChange viewer. If using a Microsoft Office
  Product you are better to use save as > pdf. The file size will be lower and the pdf searchable.
  There is also CutePDF professional but there are other free pdf software which duplicate most of the
  functions of CutePDF Professional.

- **PDF Creator**
  Equivalent to Cute PDF Writer, some slight differences e.g. merging of files but there are
  better software for merging files. I prefer CutePDF Writer.

- **PDFill**
  An assortment of free tool for merging pdf files, deleting pages, rotating and reordering pages.
  This company also has an editor.

- **PDFTK Builder**
  Carries out a similar function to PDFill free tools.

- **7zip**
  Want to make a file smaller to send by email, then compress it with 7zip. In addition 7zip can
  open and extract .rar, .iso, .7z and .tar files. This is extremely easy to have installed.

- **Peazip**
  Like 7zip but a different user interface, install te one you prefer out of the two. I prefer 7zip.

- **StarDock** (fences, ObjectDock, Start8, LogOnStudio)
  Create fences on your Desktop so your icons are always aligned the way you wish and so
  you can group desktop icons together in a way you see fit. There was a free and now there is
  only a paid version. ObjectDock is a Desktop Dock, there is a free version and a paid version.
  Although for Dell users they should see DellDock. This is made by the same company
  although there are some slight differences. LogOnStudio allows the user to easily change
Taking a System image Using Acronis

their LockScreen/LogOn Screen Background. Start8 gives Windows 8 the Start button and classic Start Menu back for Windows 8. There is a small price tag.

- **ClassicShell**
  Carries out the same function as Start8 but is free.

- **StartIsBack**
  Menu to get the Start button and classic Start Menu back for Windows 8. There is a small price tag.

- **ActualTools** (Multiple Monitors, Windows manager)
  Multiple Monitor Taskbar, there is a free (very limited version) and a paid version. It gives a taskbar for each monitor you attach to your system. You can pin items to the taskbar, you can select to have the clock and start button on each taskbar if you wish. You can also set it so the program will open in the window that has the mouse. Windows Manager, highly recommended for power users. It has enabled me to be far more productive.

- **Autodesk Student Community**
  Autodesk products free for non-commercial use.

- **GIMP**
  GIMP is a useful image editing software.

- **Inkscape**
  Drawing software.

- **PortableApps**
- **PenDriveApps**
  A variety of usable portable USB software may be found here.

### Remote Connection & Virtual Machines

- **LogMeIn**
  Set up all your PCs with LogMeIn to allow you to remote control them via the web browser. There is a free and professional version.

- **VirtualBox**
  Use VirtualBox to install other Operating Systems as virtual machines, its useful for testing software.

### Utilities/Maintainance

- **Piriform** (CCleaner, Defraggler, Speccy and Recuva)
  The four products by Piriform. CCleaner, allows cleaning of temporary files, which can greatly improve system performance. It has an inbuilt registry cleaner, which in my case has always worked fine but you should back up the registry when using it (it will prompt you to). Defraggler defrags the files on your hard drive also increasing system performance. Speccy quickly looks at your system specifications and Recuva is for file recovery. Use of CCleaner and Defraggler are covered in more detail in [CCleaner – Cleaner and Registry Cleaner](#) and [Defraggler – Defragging your Hard Drive](#) respectively.
• **Acronis TrueImage 2013** – Acronis TrueImage 2013 and rebranded variants are covered in great detail in *Backing Up and Restoring Your Windows Installation Using Acronis*.

• **Pandora Recovery**
  Pandora Recovery software.

• **Belarc Advisor**
  Belarc Advisor scans your computer and generates in depth system information on a page of your web browser.

• **Revo Uninstaller**
  This program is an advanced uninstallation program, it is often useful if you are having issues uninstalling a program. It has a 30 day free trial which you can use if you have problems with a program. If you have problems regularly you will need to purchase the pro version.

• **EaseUS Partition Manager**
  Wanted to repartition your hard drive within Windows without performing a clean install, EaseUS partition Manager is a free utility which you can use to do this. For instructions on using this tool see *Repartitioning your Hard Drive once Windows is Installed with EaseUs partition Manager*. Note the Dell DataSafe factory restore won’t work after use of this tool.

• **HP Format Tool**
  Simple and easy to use tool for formatting media cards and USB sticks. Ensure to run the tool as an administrator.

• **Unlocker**
  Simple tool which will force deletion or movement of a file. This is useful when Windows won’t let you. Although it should be noted there is usually a reason why Windows won’t let you and care should be taken using this tool.

• **Darik's Boot and Nuke (DBAN)**
  Use this utility to completely format your computer for instructions in use see *A Clean Install of Windows*.

• **Eraser**
  Securely erase files within Windows. If there is really something you want to wipe, I would recommend to use DBAN although more work is required with DBAN as a full installation of Windows is required with DBAN.

---

**Music and Video**

• **Freemake** (Video Downloader, Audio Convertor, Video Convertor)
  Freemake video downloader, download and convert online video files e.g. youtube files. The video convertor and audio convertor are extremely useful.

• **Koyote** (Free Screen to Video)
  I haven’t tested out all their products. There’s an assortment on their website I have mainly been using their screen capturing software. It generally saves in .flv format which can be opened in VLC player but can be converted to .mp4 for instance using the Freemake Video Convertor.

• **Wisdom-soft** (AutoscreenRecorder, ScreenHunter)
  Screen capturing software, free and pro versions. It disables double click however which is quite annoying. Pro version includes audio capture and slow recording, to allow the double click.
- **VLC Player**  
  Free DVD and Video player.

- **Mirillis**  
  SplashLite HD video player, in addition there is a paid version and screen capturing software.

- **Corel WinDVD**  
  HD video software free trial and then paid version.

- **Cyberlink PowerDVD**  
  HD video software free trial and then paid version.

- **Audacity**  
  Audacity free audio recording software.

- **Speaktonia**  
  Free text to speech software, development is discontinued.

- **KLite Codec Pack**  
  K-Lite Codec Pack is a collection of codecs and related tools. Codecs are required to encode and/or decode (play) audio and video. The K-Lite Codec Pack is designed as a user-friendly solution for playing all your movie files.

- **3RVX**  
  Onscreen volume meter, Dell Quickset is better but this one is quite useful for XP, Vista and 7 for systems without Dell Quickset.

- **Slysoft AnyDVD**  
  Use this software to make your computer multiregional and to prevent the annoying adverts from displaying.
3. Backing Up and Restoring Your Windows Installation Using Acronis

You will need an external hard drive and a copy of Acronis True Image. If you have a WD internal or external hard drive or a Seagate internal or external hard drive you can use Acronis WD True Image edition or Seagate DiscWizard respectively for free. There is also Intel Data Migration Software which is free for use on Intel Solid State Drives. However note that you may use the 30 day trial of Acronis True image 2013 with any hard drive type to create an image of your clean installation and/or old version of Windows as long as the images you create are within the trial period i.e. within 30 days of each other. Note you can restore with the bootable media via BIOS at any time after the trial has expired. To create continuous backup solutions (not covered in this guide) it is recommended to purchase the full version of Acronis True Image 2013.

- **Acronis True Image WD Edition** – requires an internal or external WD Hard Drive.
- **Seagate DiscWizard** – requires an internal or external Seagate Hard Drive.
- **Intel Data Migration Software** – requires an Intel Solid State Drive.
- **Acronis True Image 2013** – 30 day trial or/paid.

All 4 versions of Acronis are Windows XP, Vista, 7 and 8 compatible. The instructions here will mention the Acronis WD edition but the procedure is very similar on Acronis True Image 2013.

- **Creating a Backup**
- **Creating Bootable Media**
- **Restoring from a backup within Windows**
- **Restoring from a backup via BIOS**
- **Limitations of the 30 Day Trial of Acronis True Image 2013 and Interchangability of Acronis Versions**

This guide instructs the user in how to create a backup of their hard drive and how to recover from the backup. It is recommended to carry out this procedure with your original version of Windows if you are upgrading and also once you have completed the clean install.

There are some other additional useful features in Acronis such as incremental backups but as this guide is focusing mainly on clean installation they won’t be further covered however they are documented in detail in their perspective Acronis documentation and the user is recommended to look to these for permanent backup solutions for their data.
Creating a Backup

Install and launch Acronis True Image Edition. The WD Edition will require a WD to be attached to your system either an internal drive or an external hard drive. It won’t install or launch without one.

Select backup and then Disk and Partition Backup.
Place a check beside all the partitions on your primary hard disc including the smaller partitions such as the system reserved and diagnostics partition in this case. Select next.

Select a folder and type in a file name for your save file on your external hard drive: Press ok.

Press Next.
Then select proceed, leave it running until it finishes.
Creating Bootable Media

Launch Acronis Bootable Media Creator

Select next

Check all the boxes to the left and then select next.
Select next to view the bootable media options

Create a USB or CD as desired. If you create a USB you will be prompted to format it as FAT32.
Select proceed.

Select format if prompted.
Select FAT32 and then Start.

The process to create the bootable USB/CD will start.
You will be told when its complete.

This will give you bootable media which will allow you to boot within the Dell BIOS if you find yourself in the situation that you are replacing the hard drive or you are unable to boot into your OS.
Restoring from a Backup within Windows

Launch Acronis True Image

Select recovery and then Disk and Partition Recovery

Select your backup file and then select next.
Select recover whole disks and partitions

Check all partitions and select next.
Select the defaults of all the partitions and select next.

Select the correct disk for MBR and select next.
Select proceed.

You will be prompted to reboot. Leave the external hard drive connected and Acronis will carry out the operations automatically. Windows should load exactly in the configuration you imaged your hard drive in. Note if you get stuck at the Loading Windows screen for a prolonged period of time; temporarily de-attach the external hard drive.
Restoring from a Backup via BIOS

To do this you will need to insert your bootable Acronis USB/CD/DVD made earlier and your external hard drive.

Power down your computer. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD or from USB respectively.
Select Acronis True WD Edition. At this stage it will look for a WD HDD. If it can’t find one you should connect and disconnect your external WD hard drive.

The procedure for recovery at this point is more or less identical to that of Restoring from a Backup within Windows.
Limitations of the 30 Day Trial of Acronis True Image 2013 and Interchangability of Acronis Versions

The trial will be fully functional with any internal and external hard drive type for 30 days and you will be allowed to create a backup at any time within the 30 day trial. This guide recommends creating one immediately after performing a clean installation for instance.

For those using the 30 day trial of Acronis True Image 2013 note that your bootable media will only be able to perform a recovery when launched within the BIOS. You will not be able to perform a backup with bootable media created with the trial version; this is to prevent full use of the program while the trial has expired.

Once the trial has expired however you will still be able to use the bootable media to recover any backup you have previously made i.e. the bootable media will still recover your clean install image after the trial has expired.

A note about interchangability of the Acronis products; Acronis True Image WD Edition, Seagate DiscWizard, Intel Data Migration Software and Acronis True Image 2013 are all essentially variants of the same product. They all create backups in the .tib format. Thus recovery via bootable media or recovery within Windows for any of the 4 versions will work. i.e. they will read the .tib files created by the other variants.
4. Repartitioning your Hard Drive once Windows is Installed with EaseUs partition Manager

Note: It is recommended that you back up all your data on an external hard drive before proceeding. It is rare for something to go wrong here but if it does the data on your drive may be irrecoverable.

Note: Repartitioning the hard drive will lose the Dell Factory Image. If you insist on using the factory settings a Dell DataSafe Reinstallation USB should be made in advance to carrying out this operation. The factory settings should be restorable via use of this USB.

In addition requesting a Dell Reinstallation DVD is recommended. If you need to reinstall Windows, you may need to do so manually as described in my other wiki A Clean Install of Windows

For this you will need to download and install

- EaseUs Partition Manager

This software is free for Home use only, for commercial use a license must be purchased. Care should be taken when using this system utility.

This program is an extremely easy to use tool for carrying out hard drive operations.

Once installed run it and select yes at the UAC prompt. In the first screen you will get the option to view the user guide or to go to the main screen.

Opting for the main screen we get:
Your harddrives and their partitions will be listed. In addition at the bottom the partition sizes. Operations may be carried out by moving the sliders on each disk (near the bottom).

For example if I wanted to make F: (200 GB opposed to 100 GB)

I would first need to click on C: (And move the slider so the size is 731.20 GB opposed to 831.20 GB)

Then I would first need to click on F: (And move the slider so the size is 200.00 GB opposed to 100.00 GB).
You may carry out several operations by right clicking on each partition.

Many of these buttons are listed at the top also. Of particular interest is the Delete and Merge Buttons.
When you are done setting up your partitions, select Apply to the top left. The computer will reboot and the program will make the requested adjustments.
5. Diagnosing Windows StartUp Problems

Diagnosing Startup problems in Windows Vista or Windows 7:

Sometimes Windows gets corrupt midway during Windows Updates especially if forced shut down and is unable to boot. The first step in such problems is to select Last Good Known Configuration, the second step is Startup Repair.

- Last Good Known Configuration [Windows Vista/Windows 7]
- Startup Repair [Windows Vista/Windows 7]
- Last Known Good Configuration [Windows XP]
- Startup Repair [Windows XP]
The first thing to try is selecting Last Good Known Configuration:

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. When you get to the Dell BIOS screen, tap F8 repeatedly. This will open the Advanced Boot Options Menu

Use the [↑] and [↓] arrow keys to select Last Good Known Configuration and press [Enter]

Hopefully your computer should Startup, if it still doesn’t startup run Startup Repair.
**Startup Repair [Windows Vista/Windows 7]**

You will need a Windows Vista/7 USB/DVD for this (depending on your OS). If you don’t have the Dell Reinstallation DVD request one by following the instructions [Requesting a Reinstallation DVD](#) and in the meantime use a retail .iso from [here](#) (no product key will be required for a startup repair).

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD or from USB respectively.

Press any key when prompted such as “h” when it says Press any Key to boot from CD/DVD. You will get a black screen that says “Windows is Starting Files” then one that says “Windows is Loading Files.” These should disappear pretty quickly. Next one that says Starting Windows
You will then be prompted for your language, time and currency format and keyboard settings. Mine are all set to U.K. as shown below, amend for your preference.

Select Repair Your Computer.
The setup will then search for Windows installations.

It will then find an installation.
Likely it will be the C: partition. Click the partition and click next.

Select Startup Repair.
The Startup Repair should run and hopefully fix the problem.

If your problem is still unresolved you will need to Run the Dell F12 Pre-Boot Diagnostics.
Last Good Known Configuration [Windows XP]

The first thing to try is selecting Last Good Known Configuration:

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. When you get to the Dell BIOS screen, hold F8 down.

This will open this menu

We apologize for the inconvenience, but Windows did not start successfully. A recent hardware or software change might have caused this.

If your computer stopped responding, restarted unexpectedly, or was automatically shut down to protect your files and folders, choose Last Known Good Configuration to revert to the most recent settings that worked.

If a previous startup attempt was interrupted due to a power failure or because the Power or Reset button was pressed, or if you aren’t sure what caused the problem, choose Start Windows Normally.

Safe Mode
Safe Mode with Networking
Safe Mode with Command Prompt

Last Known Good Configuration (your most recent settings that worked)

Start Windows Normally

Use the up and down arrow keys to move the highlight to your choice.

Use the [↑] and [↓] arrow keys to select Last Good Known Configuration and press [Enter].

Hopefully this boots if not you will next need to attempt a Startup repair.
**Startup Repair [Windows XP]**

You will need a Windows XP CD/DVD for this (depending on your OS). If you don’t have the Dell Reinstallation DVD request one by following the instructions Requesting a Reinstallation DVD.

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. Hold F12 while powering up your computer (at the Dell BIOS screen).

Select boot from CD/DVD or from USB respectively.

Press any key when prompted such as "h" when it says Press any key to boot from CD/DVD.

This will begin the Windows setup.
This screen also quickly flashes, you can just ignore it.

When you get this screen press \textit{R} as you want to try to repair the Windows XP installation.
You then get the EULA, read it and then press F8 to agree and continue with the setup.

This will take you to this screen.
If your problem is still unresolved you will need to Run the Dell F12 Pre-Boot Diagnostics.
6. Diagnosing Internet Explorer Problems

- **Determine your version of Internet Explorer**
- **Internet Explorer 9/10 Reset** – Latest Version for Windows Vista (9) /Windows 7 (10) & Windows 8 (10)
- **Internet Explorer 7/8 Reset** – Latest Version for Windows XP (8)

Ensure you have the latest version of Internet Explorer available for your version of Windows.

**Internet Explorer 9/10 Reset**

To the top right select the tools icon.

Select Internet Options. On the general tab select delete.
This will bring up the delete browsing history dialogue.
Check all the boxes and select delete.
Next select advanced settings.
Select Restore Advanced Settings, select Reset, then Apply then ok.
Close all Internet Explorer windows and reopen Internet Explorer.
To the top right select the tools icon.
Select Internet Options.
Change the home page to your desired home page. Then select ok.

**Internet Explorer 7/8 Reset**

Open Internet Explorer
Right click a blank part of internet explorer beside the new tab button. Select menu bar.

Select Internet Options. On the general tab select delete.

This will bring up the delete browsing history dialogue.
Check all the boxes and select delete.
Next select advanced
Select Restore Advanced Settings, select Reset, then Apply then ok. Close all Internet Explorer windows and reopen Internet Explorer. To the top right select the tools icon.

Select Internet Options.

Change the home page to your desired home page. Then select ok.
7. Running Dell Diagnostics

Before using the Dell Online Diagnostics ensure that you have installed Microsoft.net Framework 4.

Next go to the Dell Support page and select your segment, Home or Work.
Select Dell PC Diagnostics

Specify a test; in this I will select the full test.

Select run diagnostics. You will need to accept the license agreement.

Save and run the installer.
The Dell Support Centre will then install.

Dell Support Center Installation

Searching for updates...

Dell Support Center

Downloading...

full_dsc_6032_125_64_02.exe 4.6 MB / 40.8 MB (11%)

The scan will then run, leave the tab open and its best to not do any other work on the computer while running the diagnostics as the screen may flash etc.
Hopefully they should all pass.
F12 Pre-Boot Diagnostics

I am told that the online diagnostics mentioned above are meant to be better however they are no use if your system cannot boot its operating system.

To run the F12 Pre-Boot diagnostics, power down your computer. Wait 10 seconds, power it back up and press F12 at the Dell BIOS screen (pictured).

Select Diagnostics by using the [↓] and [↑] keys and then press enter. When prompted run the express test, alongside any extended tests.

For newer systems the diagnostics are all onboard, for older systems the extended diagnostics were contained on a diagnostics partition on the hard drive.

Note many older systems had a diagnostics partition on the hard drive, if this partition is removed by reinstallation of the Operating System or if the hard drive is damaged the extended tests will be unable to run and you will get an error message saying the system can’t boot to the diagnostics utility.

Fortunately these extended tests can be run off a CD or a USB (really old systems won’t boot from a USB).

To run the diagnostics on such systems please download the following file (on a working system) A1394A0. Run the .exe
Extract to the default location

Once the files extract navigate to this folder and run the DDDP program (if it doesn't automatically run)
The DDDP program will now run

Select Create a Bootable CD or Install to a USB Flash Drive. The CD/DVD is usually more reliable.

Once you have made the diagnostics CD/DVD or USB stick insert the CD/DVD or plug the USB stick into your problem system.

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. Hold F12 while powering up your computer (at the Dell BIOS screen).
Select boot from CD/DVD or from USB respectively.

Run the extended diagnostics and tests.

If diagnostics fail you will be given an error code, common error codes are listed in Beep Codes and PSA Diagnostic Charts. One of the most common problems is hard drive failure. If cannot locate your error or don’t know how to address it make a new post in the Disk Drives forum (if you know it is to do with your Hard Drive), Desktop General Hardware forum or Laptop General Hardware forum.
8. Data Recovery of the Hard Drive using Fedora

If the diagnostics pass and the OS you are reinstalling is Windows Vista or Windows 7, you may reinstall Windows via A Clean install of Windows and recover your data via the Windows.old folder.

If you don’t want to take any chances and for Windows XP you may use a Linux Live Disc in this case Fedora to copy your data over to an external hard drive. The procedure using Ubuntu will be very similar.

For a failing hard drive this protocol should be carried out as soon as possible (as the longer you leave it, the more likely you will be unable to recover your data). However there is no guarantee that this will work and results will vary depending on how badly the drive has failed.

For this you need:

- an external hard drive (large enough to back up any data you need)
- a USB flash drive or alternatively a blank CD/DVD

You will need to prepare the bootable USB/DVD on another computer.

You will need the FEDORA.iso (probably the 32 bit one will do for these purposes). For the bootable USB you will need to use the Universal USB installer. You can alternatively use ImgBurn to create a bootable CD/DVD
To create a bootable USB launch the universal USB installer. Select Fedora 17, the fedora 17 32 bit .iso and the USB drive, opt to format the USB flash drive and click create. Then select yes.

Insert the Fedora CD/DVD or USB flash drive into your problem system. Also insert the external hard drive into a USB port of your problem system.

Power down your computer if not already powered down and wait at least 10 seconds before powering it back up. Hold F12 while powering up your computer (at the Dell BIOS screen).
Select try fedora

Select close at the welcome to Fedora menu.
Select files to the menu on the left (filing cabinet icon)

Locate your OS drive in the upper left menu (in this case a 27 GB volume in VirtualBox).
Go to the Users folder and select your Windows username in this case "test"

Within this folder (On Windows Vista/7) are Desktop, Documents, Downloads, Favourites, Music and Videos.
Now to open a second folder. Go to the filing cabinet, as before but this time right click it and select New Window.

Next drag one window to the far left and the other window to the far right (Fedora has AeroSnap) so that you can view the two folders side by side. Navigate the other folder to your external hard drive.
Drag and drop, copy and paste files/folders as you normally would. Have a look throughout your drive to see if there is anything else you need to copy over.

You should use an external hard drive (preferably more than 1) to periodically backup your files/folders. You should also consider using an online service such as SkyDrive for really important files. For Windows Vista/7 you can install SkyDrive for Windows and for Windows XP you can visit SkyDrive Live and manually add files to the SkyDrive via your web browser.

For those whose hard drive has failed, they should look at Recommended Upgrades for Your Dell Before A Clean install of Windows to replace the hard drive.

Windows should then be reinstalled by following A Clean Install of Windows

For those with working hard drives if you suspect Malware has caused the issue use another computer and external hard drive to download the drivers and only reattach the original external hard drive once adequate security software is installed and updated. Scan the drive with this software (Malwarebytes’ AntiMalware is recommended). Note you could also disconnect from the Internet while plugging in and scanning the drive.
9. Checking your Original System Configuration

Before using the Dell Online Diagnostics ensure that you have installed Microsoft.net Framework 4.

Next go to the Dell Support page and select your segment, Home or Work.

Enter your service tag.

Select System Configuration:
This will give you your system configuration. Note if you are sharing this information publicly on the Dell Community Forums, omit your service tag as it can be used to track you.
If you are talking to a Dell staff member via private messaging you should give them your Service Tag. You may also find information about your warranty by clicking on the warranty tab.
10. Unofficial Driver Sets for Selected Dell Systems

Some unofficial driver sets for Dell models.

- **Windows 7**
- **Windows 8**

Note none of the driver sets listed is supported by Dell and so are not guaranteed to work (but in most cases do).

Some advanced methods of driver installation/uninstallation.

- **Installing a Driver in Compatibility Mode**
- **Installing a Device in Device Manager in Windows Vista, 7 and 8**
- **Uninstalling a Device in Device Manager in Windows Vista, 7 and 8**
Unofficial Windows 7 Drivers For Unsupported but Capable Systems - Direct Links

This wiki is unofficial and will help the user get Windows 7 opposed to Windows XP (which is reaching end of life) and Windows Vista on their Windows 7 Capable Dell System.

This is a work in progress and so not all systems are listed. Post in the Microsoft OS Forum if you need help with a system without the drivers listed.

Other systems will be added in due time.

http://en.community.dell.com/support-forums/software-os/w/microsoft_os/4253.unofficial-windows-7-drivers-for-unsupported-but-capable-systems-direct-links.aspx (will be moved to Wordpress)

Laptops

- **Inspiron Laptops**
- Latitude D Laptops (32 bit only listed so far)
- Studio Laptops (incomplete)
- Vostro Laptops (incomplete)
- XPS Laptops

Desktops

- Dimension Desktops (incomplete)
- **Inspiron Desktops**
- OptiPlex Desktops (not started)
- Vostro Desktops (incomplete)
- XPS Desktops (not started)
Installing a Driver in Compatibility Mode

Right click the driver you are interested in installing or program you are interested in running:

Select properties and then the compatibility tab.
Check the box run this program in compatibility mode select the Operating System the driver/program was designed for. If possible select the newest Operating System the driver/program can run on.

Select apply.

In some cases you will need to set the driver/program to run as an administrator. Most times you should try without this box checked before attempting trying with this box checked.
Installing a Device in Device Manager in Windows Vista, 7 and 8

Press the [Windows] and [Pause|Break] or [Windows] and [e] (to open computer) and then select properties.

On this screen next select Device manager.

Go to the device you are interested in, it is usually marked with an [!] or [?] if you are installing via this method.
In this case we will use a display adaptor as an example. The device is not marked as an ![I] but is called generic device/display adaptor. Right click the device you are interested in and select update driver software.

Select browse my computer for driver software:
Select C:\Dell\Drivers\ if using a Dell driver that has been extracted (but not installed) or the location of the driver if it is non-Dell. Note some non-Dell drivers will also require extraction and 7zip can be used for this. Check include subfolders.

Select next, let it install and then click finish. You may or may not have to restart your computer.
Uninstalling a Device in Device Manager in Windows Vista, 7 and 8

Press the [Windows] and [Pause|Break] or [Windows] and [e] (to open computer) and then select properties.

On this screen next select Device manager.

Hopefully it should look something like mine. Expand the device category you are interested in. In this example I will uninstall the webcam so I will look under Imaging Devices. Right click the device you want to uninstall, in this case the integrated webcam and select uninstall.
In Windows Vista/7 ensure that this box is checked and then press OK. In Windows 8 this box isn’t here so just select OK.

Restart your computer.
11. Recommended Upgrades for Your Dell Before A Clean Installation

**USB Flash Drives**
- Transcend JetFlash 500 16 GB Green (UK Link)
- Transcend JetFlash 500 16 GB Green (US Link)
- Transcend JetFlash 500 8 GB Blue (UK Link)
- Transcend JetFlash 500 8 GB Blue (US Link)

This is a list of USB drives that I have successfully used to create bootable Windows XP/Vista/7 USB Reinstallation Media. I have also successfully used them with Dell DataSafe (although I don't use the DataSafe very much). You don't have to use these USB sticks, most others will probably work fine and I only have the above listed only as a recommendation.

**Memory (Random Access Memory – RAM) and Hard Drive (Solid State Drive – SSD) Upgrades**

Go to the following website:

- Crucial (UK Link)

- Crucial (US Link)
Select System Scanner

Select Scan My Computer.
Accept the terms by checking the box and download the scanner.

Select Run when the prompt comes up and select yes at the User Account Prompt also.
Take into account the total memory slots, the available memory slots. Also the density of the module in each slot. Compare this with the maximum amount. The recommended part will be listed. Note crucial usually sell the memory in pairs because better performance comes with paired modules. To maximise the memory I need to by 2 of the recommended part as I have 4 slots (I have already done this).

Generally the more memory the better, take as much as your budget can afford. The 32 bit version of Windows XP/Vista/7 will only be able to use 3.5-4.0 GB of RAM maximum so you are wasting your money having more than 4 GB of RAM with a 32 bit Operating System. Windows 7 Home Premium 64 bit accepts 16 GB as a maximum. Windows 7 Professional 64 bit or Windows 7 Ultimate 64 bit have an upper limit of 192 GB of RAM but most motherboards don't support this at present. Generally only the Dell Precision Workstations can accommodate this.

Solid State Drives have finally become affordable. When considering a Solid State Drive try and get the best compromise between price, storage and the read and write speeds. Note the storage space of conventional hard drives is generally a lot larger than the Solid State Drives (for equivalent price). For Desktop systems it is sometimes useful to have a Solid State Drive to install Windows on and a conventional hard drive for data storage.

For installation of memory and hard drives please refer to the service manual which may be found on the ftp website manual category.

Note crucial is the # 1 recommendation. Some Dells sometimes have issues with memory from other manufacturers. In the UK however I have also found offtek memory to be reliable.

Graphics Cards and Sound Cards (Generally Applicable to Desktops only)

Post a new topic in the Desktop General Hardware forum to get up to date expert advice on upgrading your Dell. Proved your model number and current specifications in the post. Again for fitting parts please refer to the service manual which may be found on the ftp website manual category.

Dell Parts and Upgrades

Dell Parts and Upgrades (UK Link)

Dell Parts and Upgrades (US Link)

Installation Instructions

Generally the Service Manual (for older systems) or Owner’s Manual (for newer systems) will instruct you in the removal/addition of parts. These can generally be found on the Manuals and Documentation or Index of the Dell ftp website.
12. Software Maintenance

Often system performance and web browser performance are degraded due to temporary system files, temporary internet files, history, stored passwords and missing DLLs. Fragmented files can also cause the system to run slowly. Finally, virus and malware can significantly hinder system performance. This guide will take you through cleaning your system up using 3 free programs.

- CCleaner – Cleaner and Registry Cleaner
- Defraggler – Defragging your Hard Drive
- Malwarebytes’ AntiMalware – Scanning your System for Malware and Potentially Unwanted Programs
- Uninstall McAfee and the McAfee Removal Tool
CCleaner can be downloaded here.

When downloading CCleaner I recommend selecting download from Piriform.com directly. There are free and paid versions. The free versions are fully functional and more than suffice for most users however if you want additional support or alternatively want to support the program you can of course buy it.

Note when installing do not select any toolbars or any additional software bundled with the CCleaner installer (unless you actually want them).

Upon first launch of CCleaner you will be asked if you want to Intelligently scan for cookies, I generally select No.

CCleaner will then open. Note at this point all Web Browsers should be closed.
You will be on the cleaner tab, here you can select what you want to delete. Most users should just leave the default settings however I would personally add the Autocomplete Form History and Saved Passwords under internet Explorer. Other users may want to retain the files in their recycle bin so would uncheck this.

Once the Analysis is complete you should get a screen like this one:
You can have a look through the list and then when ready select Run Cleaner or just click Run Cleaner directly (which is what I generally do).

Next you can use the Registry Cleaner.

Note most registry cleaners/optimisers tend to ruin everything and completely destroy Microsoft Windows. You will get many people warning you to stay completely clear of any registry cleaner.

I generally agree with this statement but CCleaner’s registry cleaner has always done a good job for removing missing shared DDLs, invalid Startup entries and other invalid entries in the registry without breaking anything. Thus I recommend using this registry cleaner.

Click on the registry tab, then click scan for issues. You will be presented with a list of issues. There may be many and you may read through them if you want. When you are ready select fix selected issues. I generally just click Fix selected issues.
You will be prompted to backup the registry.

You should probably back it up (most of the time personally I don’t) but it is a safe guard in case something goes wrong.

Save the back up in a place that you know. If saving it I generally save it in a custom folder directly on the C-Drive called registry backup.
Cleaners registry. Once this has been done you will be presented with a detailed description and solution of each action the registry cleaner wants to perform:

You will be given the option to fix the issue or to fix all the selected issues or to move onto the next issue. CCleaner generally knows what it's doing and it takes time to read through in this case 80 entries (you will likely have many more) so I generally just select Fix All Selected Issues. You may then close CCleaner.

If for whatever reason you wanted to restore the registry, it's simply a case of double clicking the file of the registry backup.
**Defraggler – Defragging your Hard Drive**

This is for conventional hard drives; essentially defragging reorganises the system files on your hard disc for faster access times.

Defraggler can be downloaded [here](#).

When downloading Defraggler I recommend selecting download from Piriform.com directly. There are free and paid versions. The free versions are fully functional and more than suffice for most users however if you want additional support or alternatively want to support the program you can of course buy it.

Note when installing do not select any toolbars or any additional software bundled with the Defraggler installer (unless you actually want them). When installing select the option to replace Windows defragmenter.

When you launch Defraggler you will get a list of your hard drives to the top. E.g. my model has multiple hard drives and multiple partitions on the hard drives and an external drive.
My first drive C: with Windows 7 is a Solid State Hard Drive.

Note it is recommended to avoid defragging a Solid State Drive as it will reduce the lifetime of the drive.

Thus I won’t defrag the Solid State Drive. I will select my Windows 8 drive G: and select analyse.

This drive isn’t a Solid State Drive and as you see it just says ready.
I will then tell it to select analyse.
I will be told the fragmentation. In my case it is at 3% which is normal and probably doesn’t need defragmented. Anything above 5% probably should be defragmented. I will defragment it anyway but clicking Defrag.

I will get the time remaining and the progress of the defrag.

Note I don’t always trust the time, for me it said 11 hours initially and finished in about 5-10 minutes.

When its done it will say Defrag complete.
Note you will likely not get 0 % fragmented files but 1-3 % instead. The reason for this is that you will likely be using the Operating System that you are defragging. The only reason I got 0 % is because I ran Defragger out with the Operating System I was defragging.

Note I could go through all my other drives and analyse and defrag them and also my external ones. In general defragging is only necessary for hard drives which have an OS installed. Systems without an Operating System on them rarely need defragmented.
Malwarebytes’ AntiMalware – Scanning your System for Malware and Potentially Unwanted Programs

Download Malwarebytes’ AntiMalware from here.

This will take you to CNET to download it:
Select Download Now.

Be very sceptical if you don’t get redirected directly to CNET, there a great many fake versions of malwarebytes’ out there designed to trick users.

You should have a file named mbam-setup-x.x.x.x.exe where the x.x.x.x is a version number.

Run the installer. Note when running the installer you will have the option for a 30 day free trial of the professional version which offers real-time protection. The Professional version is great but the free version is fully functional and you may continue to use it after 30 days.

When you launch Malwarebytes’ AntiMalware you will need to accept the User Account Control prompt. If you weren’t prompted to update Malwarebytes’ when you first ran it go to the update tab and you will be told the current Database information. If it isn’t current select Check for Updates.
Next go to the scanner tab and select perform full scan and then scan.
Select all your drives and then select scan:

This may take some time depending on the size of your drives and the amount of data you have.
Uninstall McAfee and the McAfee Removal Tool

Close down all programs and go to the Desktop (if you are on the Start Screen press [Windows] and [d]) and start Windows Explorer.

Select Computer

Select Computer at the top and then Uninstall or change a program.
A list of your uninstalled programs will now display.

Look for any McAfee programs and also look for any toolbars and unwanted programs these are unfortunately pre-bundled in third party software and users install them unknowingly. They often ruin the performance of Internet Explorer and Windows in general.

Select the McAfee program and then click uninstall or change.
Select yes at the User Account Control Prompt

The uninstaller should now begin select remove

At this point it is good to restart the computer.

Next download the McAfee Removal Tool and save it to desktop or run it directly
Select yes at the User Account Control

The removal tool will now start
Select next

Enter the characters displayed on your screen and select next. These will be different at all times to prevent any unauthorised use of the removal tool from malicious software.
McAfee will be removed and you will be prompted to restart.
Select yes and that is it McAfee is removed.
13. Hardware Maintenance

This will take you through some basic hardware maintenance such as cleaning dust from the vents and selecting a cooling pad (for laptops). Overheating will cause decreased system performance in some extreme cases failure of components such as the hard drive.

- Cleaning Out the Vents
- Selecting a Laptop Cooling Pad
- Optical Drive Lens Cleaning
Cleaning Out the Vents

You will need the correct tools to do this.

- 1 can of Dust-Off compressed air.
- A Vacuum cleaner with a hose, lowest setting.
- Service Manual (older models) or Owners Model (newer models). – Get this from the Dell FTP Website.
- Any Tools required for disassembly.

The first thing you should do is power off the system and remove the AC adapter and battery.

**Failure to do so can damage your fan if compressed air and a vacuum cleaner force against the fan while its running.**

For laptops tip the system upside down and look at the base. e.g. this is an Inspiron 6400:

Take some time and inspect the base, where the vents are. Spray each opening with compressed air.

**Note: hold the can of compressed air at approximately 30-45°. This way you will release compressed air into the vents which dislodge any trapped dust. Holding at 90° will release a froth which you don’t want as it will deplete the can faster and also can leave some liquid on your machine.**
Vacuum any dust released and hold the vacuum cleaner about 5-10 cm above the vents using the nozzle of the vacuum cleaner.

**Note** don't hold the nozzle of the vacuum cleaner directly above the vents but leave it about 5-10 cm depending on the strength of your vacuum cleaner. The full strength of the vacuum cleaner can damage the fan.

Reapply the compressed air on the vents and vacuum in turn until you are satisfied.

For desktops you should remove the computer cover (see the Service Manual) for better access. Follow the same procedure and warnings as mentioned when cleaning out laptops.

**Note:** Advanced users may partially disassemble the Desktop or Laptop further in order to get easier access to inside the unit. The Service Manual or Owners Manual will instruct them in doing this. In general further disassembly is not required and most users should avoid it.
Selecting a Laptop Cooling Pad

There a large number of laptop cooling pads on the market. You should consider using one if you feel your system overheats.

There are 2 types of cooling pad ones with fans and ones that are fanless. I prefer the ones with fans. The fanless ones are items with a high specific heat capacity and will only work for a certain amount of time until they reach almost the same temperature as the laptop at this point they will then cause the laptop to heat up more.

The fan ones have essentially a large or multiple large additional fan and are powered by USB ports. You can generally get them in large supermarkets.

Before selecting a cooling pad inspect the vents at the base of your system. e.g. this is an Inspiron 6400:

When purchasing a cooling pad be careful that it has a solid base and not just legs.

I like this product the Targus AWE61EU and the fans look to be in the right place for pretty much all systems vents.
Another product I like is the ThermalTake T500 and the vents match up for the Inspiron 6400 quite nicely but may not for other models:

If the vents don’t align they will simply be blocked by plastic and the unit will overheat more. The ThermalTake Massive 23LX is also a great product:
Note: A laptop cooling pad with legs such as this one although generally cheaper when put on any surface besides a table for example on your lap will simply result in the jamming of the fans and will essentially be equivalent to having a piece of plastic under the laptop actually causing it overheat more.

Also the vents aren't in a great position for your vents.
Optical Drive Lens Cleaning

It is often a good idea to clean your CD/DVD lens. Dust can pile up on the lens preventing the drive from reading CD/DVDs entirely at the worst or be the cause of some minor skipping.

The easiest way is purchase a lens cleaning CD/DVD, essentially a CD with a brush; as the CD plays the brush will clean the lens, generally there is some audio instructions on the CD.
14. BIOS Screen Sketches

- **Boot Sequence**
- **Disable Card Reader [Variant A]**
- **Disable Card Reader [Variant B]**
- **Disable Flash Cache Module**
- **Disable Secure Boot**
- **Disable Secure Boot and UEFI**
- **Disable USB 3.0 functionality to install Windows 7 from a USB Flash Drive**
- **Change SATA Operation [Variant A]**
- **Change SATA Operation [Variant B]**
- **System Information [Variant A]**
- **System Information [Variant B]**
Power up your system and press F2 at the Dell BIOS screen to enter the BIOS setup.

In the BIOS setup there should be a category called System Highlight it and press Enter to expand it. Navigate to Boot Sequence.

Note: The mouse/touchpad isn't present in the BIOS setup, you will have to use the keyboard arrow keys to move between the fields and enter to select a setting.
Amend as desired.

When finished, press esc and you will be prompted to save and exit or just exit. Select save and exit.

Return to [A Clean Install of Windows](#)
Disable Card Reader [Variant A]

To access the BIOS setup power up your system and press F2 at the Dell BIOS.

In the BIOS setup there should be a category called onboard devices, expand it. Within this category you will be able to enable or disable the card reader.

Note: The mouse/touchpad isn’t present in the BIOS setup, you will have to use the keyboard arrow keys to move between the fields and enter to select a setting.
When finished, press esc and you will be prompted to save and exit or just exit. Select save and exit.

Return to [A Clean Install of Windows](#)
Disable Card Reader [Variant B]

To access the BIOS setup power up your system and press F2 at the Dell BIOS.

You will be taken to the main BIOS tab
Use the → arrow key to move to the advanced tab.

Press the ↓ key to take you down to the System Configuration and Press Enter.

On the advanced tab press the ↓ arrow key to move to Onboard Card Reader. Press Enter to modify the category between Enabled and Disabled. Use ↓ and ↑ to select your setting and once again press Enter.

Press esc to take you back to the earlier menu and esc again to exit.
Select Yes when prompted to Save Configuration and Exit.

Return to A Clean Install of Windows
Disable Flash Cache Module

Power up your system and press F2 at the Dell BIOS screen to enter the BIOS setup.

In the BIOS setup there should be a category called onboard devices, expand it. Go to Flash Cache Module and turn it off/enable it.

Note: The mouse/touchpad isn't present in the BIOS setup, you will have to use the keyboard arrow keys to move between the fields and enter to select a setting.
When finished, press esc and you will be prompted to save and exit or just exit. Select save and exit.

Return to [A Clean Install of Windows](#)
**Disable Secure Boot**

You will need to disable Secure Boot in the BIOS setup if you wish to install another Operating System.

1. Power down your computer. Wait 10 seconds and power it up. Press F2 at the Dell BIOS Screen.

2. This will take you to the BIOS setup.

3. Press the [→] key and then the [enter] key to select the Boot tab.
4. Press the ↓ key until you to Secure Boot and press [Enter].
5. Press the ↓ key until you get Disabled and press [Enter].

6. Press F10 to Save and Exit. When prompted select yes by moving the [←] key and press [Enter]
7. The system will reboot.

Return to A Clean Install of Windows.
If you still cannot install Windows 7 with the SATA drivers, disable UEFI also.
Disable Secure Boot and UEFI

You will need to disable Secure Boot in the BIOS setup if you wish to install another Operating System.

1. Power down your computer. Wait 10 seconds and power it up. Press F2 at the Dell BIOS Screen.

2. This will take you to the BIOS setup.

3. Press the [→] key and then the [enter] key to select the Boot tab.
4. Press the ↓ key until you get Secure Boot and press Enter.
5. Press the ↓ key until you get Disabled and press Enter.

1. Press the ↓ key until you get Boot List Option and press Enter.
6. Press the ↓ key until you get Disabled and press Enter.
7. Press F10 to Save and Exit. When prompted select yes by moving the ← key and press Enter.
8. The system will reboot.

Return to [A Clean Install of Windows](#).
Disable USB 3.0 Functionality to Install Windows from a USB Flash Drive

This fix is required for systems with exclusively USB 3.0 ports. If you have USB 2.0 ports use them opposed to applying this fix.

Original Question: This is how to perform a clean install of Windows 7 from a USB flash drive on Inspiron 7520 by innogen. Instructions provided by innogen with some additions by Philip Yip.

Microsoft does not include native USB 3.0 drivers in the Windows 7 installation media. For those of you who wish to perform a clean install of Windows 7 from a USB flash/thumb drive on a system with only USB 3.0 ports. Perform the following changes in the BIOS setup.

1. Power down your computer. Wait 10 seconds and power it up. Press F2 at the Dell BIOS Screen.

2. This will take you to the BIOS setup.
3. Press the [→] key and then the [enter] key to select the Advanced tab.

<table>
<thead>
<tr>
<th>[Main]</th>
<th>[Advanced]</th>
<th>[Security]</th>
<th>[Boot]</th>
<th>[Exit]</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Information</td>
<td>[Model]</td>
<td>[Intel SpeedStep™]</td>
<td>Enabled</td>
<td></td>
</tr>
<tr>
<td>BIOS Version</td>
<td>[Adapter]</td>
<td>Virtualization</td>
<td>Enabled</td>
<td></td>
</tr>
<tr>
<td>System Date</td>
<td>[Enabled]</td>
<td>USB Emulation</td>
<td>[Disabled]</td>
<td></td>
</tr>
<tr>
<td>System Time</td>
<td>[Enabled]</td>
<td>USB Powershake</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>Service Tag</td>
<td>[Enabled]</td>
<td>USB Wake Support</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>Asset Tag</td>
<td>[Enabled]</td>
<td>SATA Operation</td>
<td>[AHC]</td>
<td></td>
</tr>
<tr>
<td>Processor Information, Type: L2, L3 Cache Size</td>
<td>Memory Information, Installed, Speed, Technology, Channel</td>
<td>Adapter Warnings</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>Device Information</td>
<td>[Disabled]</td>
<td>Function Key Behavior</td>
<td>[Function Key]</td>
<td></td>
</tr>
<tr>
<td>SATA 0</td>
<td>[Enabled]</td>
<td>Intel® Start Connect Technology</td>
<td>[Enabled]</td>
<td></td>
</tr>
<tr>
<td>SATA 1</td>
<td>Miscellaneous Devices</td>
<td>Battery Health</td>
<td>The Battery is Performing Normally</td>
<td></td>
</tr>
<tr>
<td>SATA 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SATA 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Press the [↓] key until you get Miscellaneous devices and press [Enter].
5. Press the [↓] key until you get USB Debug and press [Enter]. Change Disabled to Enabled. This will disable USB 3.0 functionality on your 4 ports allowing you to boot Windows 7 from a USB stick.
6. Press F10 to Save and Exit. When prompted select yes by moving the [←] key and press [Enter]

7. The system will reboot.

Return to A Clean Install of Windows.

Once Windows 7 is installed. Enter the BIOS setup and change the USB Debug setting from Enabled to Disabled.
**SATA Operation [Variant A]**

Power up your system and press F2 at the Dell BIOS screen to enter the BIOS setup.

In the BIOS setup there should be a category called onboard devices, expand it. Go to SATA operation.

Note: The mouse/touchpad isn't present in the BIOS setup; you will have to use the keyboard arrow keys to move between the fields and enter to select a setting.
Switch the category from AHCI to ATA or ATA to AHCI as desired. When finished, press esc and you will be prompted to save and exit or just exit. Select save and exit.

Return to A Clean Install of Windows.
SATA Operation [Variant B]

To access the BIOS setup power up your system and press F2 at the Dell BIOS.

You will be taken to the main BIOS tab
Use the → arrow key to move to the advanced tab.

Press the ↓ key to take you down to the System Configuration and Press Enter.

On the advanced tab press the ↓ arrow key to move to SATA Mode. Press Enter to modify the category between AHCI and RAID or other options such as IRST. Use ↓ and ↑ to select your setting and once again press Enter.
Press esc to take you back to the earlier menu and esc again to exit.
Select Yes when prompted to Save Configuration and Exit.

Return to [A Clean Install of Windows](#).
Power up your system and press F2 at the Dell BIOS screen to enter the BIOS setup.

In the BIOS setup there should be a category called System Highlight it and press Enter to expand it. Note: The mouse/touchpad isn't present in the BIOS setup, you will have to use the keyboard arrow keys to move between the fields.

**System Info**
Here you will get your **Dell Model, Service Tag** and **BIOS version**.

**Processor Info**

This field tells you information about your processor. It generally gives the processor ID which is kind of limited. It also tells you how fast the processor is and the speed it is currently running at. This is kind of limited, it should tell you the model number of the processor as well as the processor ID. It also doesn't state what processors are compatible.

**Memory Info**

This field tells you how much memory you have and how fast the memory runs at. This is quite limited also as it doesn't tell you the memory in either slot. It doesn't state the type of memory and the maximum supported either.

**Device Info**

This field can be really useful:

![Device Info Diagram]

Take note of the fields in the red. The size of the hard drive, the Video Controller, the Audio Controller, the Wi-Fi Device, the Cellular Device and the Bluetooth Device. It is worth noting all these down when reinstalling the drivers. Particularly if Original System Configuration isn't giving you all the detail you need and if the Service Tag isn't displaying all the drivers.

**Battery Health**

Just tells you if the battery is performing normally or not.

**Date/Time**

You may alter the date/time here.

**Exit**

To exit press esc and then select exit.
You have requested to exit Setup. Please select one of the above options to confirm.

**Remain In Setup** = Remain in Setup and continue to make changes and view settings

**Exit** = Exit setup

Press **Esc** to hide the fields in this group.
Press **Up/Down** arrow to select a different field.
Press **Enter When Done** modifying this field.
System Information [Variant B]

To access the BIOS setup power up your system and press F2 at the Dell BIOS.

You will be taken to the main BIOS tab.
15. Dell Downloads

- Dell Support Centre
- DellDock
- My Dell Downloads
- Dell Webcam Central (for systems without My Dell Downloads)
- Drivers and Downloads
- Index of the Dell ftp website (new/recommended)
- old Dell ftp browse for drivers (old)
- Dell ftp root
Registering with My Dell Downloads

- **64 bit Windows**
- **32 bit Windows**

**64 bit Windows**
First close down all instances of Internet Explorer. Temporarily disable any 3rd party firewall you may have.

My Dell Downloads only works with the 32 bit version of Internet Explorer.

Go to C:\Program Files (x86)\Internet Explorer

![Image of Internet Explorer folder]

From here select iexplore, this will open the 32 bit version of Internet Explorer.
InPrivate Browsing will prevent any issues with cookies etc. Start In Private browsing (press Ctrl, Shift and P) or follow the instructions between the 2 double lines.

Select the new tab button or press (Ctrl and T)

Select InPrivate Browsing.

Go to My Dell Downloads and select the correct country (it defaults to Singapore).
Select continue

Log in or create an account. If you have already got an account and registered an earlier system you will get a screen like this.
In this case select Add System, which will take you to this screen.

If you haven’t previously registered a system you will be taken directly to this screen. Read and accept the agreement. Select Register System.
Select install when prompted to install the addon.

Next select yes at the User Account Control Prompt for SysPro

Then select Allow and do not show the warning dialogue for this program again
You should now have registered your system and be able to download the software. Tick the check boxes for all the software you want. I will download the latest versions of Dell Stage for example (I see no point in downloading the earlier versions).

For me I got an error with Stage Framework, it told me to contact Dell Support. The other 3 downloads worked fine however:
You can install the software by selecting install on the download manager. Alternatively you can open the folders and run the setup files. (the folders go from .zip to normal folders when the software is downloaded).

Regarding the error with Stage Framework, I just closed the My Dell Downloads Download Manager after the other programs downloaded and then selected the earlier version of Stage Framework. It downloaded fine.

When done ensure that you re-enable your firewall if you disabled it.

If you are still having problems registering with My Dell Downloads, contact technical support or make a new post in the Microsoft OS forum.

**32 bit Windows**

First close down all instances of Internet Explorer. Temporarily disable any 3rd party firewall you may have.

My Dell Downloads only works with the 32 bit version of Internet Explorer.

Go to start>all programs and open Internet Explorer
InPrivate Browsing will prevent any issues with cookies etc.  
Start In Private browsing (press Ctrl, Shift and P) or follow the instructions between the 2 double lines. 
Select the new tab button or press (Ctrl and T)

Select InPrivate Browsing.  
Go to My Dell Downloads and select the correct country (it defaults to Singapore).

Select continue
Log in or create an account. If you have already got an account and registered an earlier system you will get a screen like this.

In this case select Add System, which will take you to this screen.
If you haven't previously registered a system you will be taken directly to this screen. Read and accept the agreement. Select Register System.

Select install when prompted to install the addon.
Next select yes at the User Account Control Prompt for SysPro

Then select Allow and do not show the warning dialogue for this program again

You should now have registered your system and be able to download the software. Tick the check boxes for all the software you want. I will download the latest versions of Dell Stage for example (I see no point in downloading the earlier versions).
For me I got an error with Stage Framework, it told me to contact Dell Support. The other 3 downloads worked fine however:

You can install the software by selecting install on the download manager. Alternatively you can open the folders and run the setup files. (the folders go from .zip to normal folders when the software is downloaded).

Regarding the error with Stage Framework, I just closed the My Dell Downloads Download Manager after the other programs downloaded and then selected the earlier version of Stage Framework. It downloaded fine.

When done ensure that you re-enable your firewall if you disabled it.

If you are still having problems registering with My Dell Downloads, contact technical support or make a new post in the Microsoft OS forum.
16. Dell Technical Support Videos & Dell Factory Settings

For completeness in case you came to guide wishing to restore to factory settings, I will include Dell video links for creating and using recovery media from the Dell DataSafe programs.

The factory settings are not recommended by the author of the guide as an A Clean Install of Windows generally always leads to superior performance.

Windows Vista and Windows 7

Recovery Media, Setup and Installation

Factory Settings

- How to Create a Recovery USB for your Dell/ Alienware Computer
  - How to Make Dell Windows 7 System Recovery Media
- How to Recover Your Dell / Alienware Laptop (Internal Recovery Partition)
  - Reinstall Windows 7 Using Dell DataSafe
- How to Restore using USB Recovery
- Dell Direct USB Key Solution
- Updating Dell Windows 7 Drivers
- Update your Dell PC's BIOS

Manual Clean Installation

- Why Did my Dell Not Come with Recovery Disks?
- Dell Windows 7 DVD Manual Installation
- Downloading and Installing Windows 7 Drivers in the Correct Order
- How to Use My Dell Downloads

Printer Installation

- How to Setup your Dell Inkjet Printer and Ink Cartridges

nVidia Optimus

- nVidia Optimus Overview
- How to Configure nVidia Optimus

Troubleshooting

Dell Support Centre

- Dell Support Centre

Webcam

- Dell Integrated Webcam Support

Automatic Light Sensor

- Enabling the Automatic Light Sensor on Dell's XPS 13 Ultrabook

The Blue Screen of Death and Windows StartUp Issues

- Troubleshooting Blue Screens of Death Errors
- How to Repair your Windows 7 Installation if it Won't Boot
• **Reset your Windows 7 Password**

**Dell Battery**

• **Troubleshooting your Dell Laptop Battery in Windows 7**

**USB Troubleshooting**

• **Windows 7 USB Troubleshooting**

**Task Manager**

• **How to Use the Task manager**

**Configuring StartUp Programs**

• **Stop Startup programs with MSCONFIG**

---

## Windows 8

### How to Use Windows 8

**Welcome to Windows 8 and your New Dell PC**

• **How to Setup Your New Dell Windows 8**
• **Welcome to Windows 8**

**Windows 8 and its Features**

• **Working with Internet Explorer 10**
• **Working with the New Start Screen**
• **Hot Corners & Shortcuts**
• **Setting Up a Picture Password**
  o **Creating a Picture Password**
• **Working with the Charms Bar**
• **Connect to a Wireless Network**
• **Working with the Mail App**
• **Using the Share Charm**
• **Microsoft Accounts**
• **Working With Apps**
• **Working with SkyDrive**
• **How to Shutdown Your PC**
• **Search**
• **Essential Shortcuts**
• **How to Transfer Digital Pictures to Your Dell PC**
• **Using your Webcam with the Webcam App**
• **Uninstalling Programs and Apps on your Dell PC**

---

## Recovery Media, Setup and Installation

**System Requirements & Versions**

• **System Requirements**
• **Windows 8 - RT VS Windows 8**

**Factory Settings**

• **Recovery Media**
• **Restoring from Recovery Media**
• **Reinstalling or Restoring Windows 8**
• **How to use My Dell Downloads**

**Monitor**

• **Dell 2340 Monitor Setup**
Notes on Recovery Media

I highly advise against creating a set of factory restore DVDs because creating a USB device is far more reliable. For the creation of recovery DVDs multiple DVDs are burnt and if the burning of any of these DVDs fail (which is quite common) your factory image is corrupt and meaningless.

In addition to the media from the Dell DataSafe Program I highly recommend creating an additional image with Acronis see Backing Up and Restoring Your Windows Installation Using Acronis for more information. Having 2 backups from independent programs is better than having 1 in case something goes wrong.

There is no way to obtain a clean installation using factory settings, McAfee, Bing bar, Roxio and other potentially unwanted programs which are preinstalled by Dell will be present on your machine when the Dell DataSafe USB or the factory Internal partition is used. Users in this situation can uninstall all unwanted programs including McAfee and then run the McAfee Removal Tool and perform Software Maintenance. Windows may be updated and Microsoft Security Essentials may be installed on Windows Vista/7 for example. The user can install their desired programs according to their preferences and create a custom factory setting using Acronis see Backing Up and Restoring Your Windows Installation Using Acronis.

Warning: Changing partitions in any way or upgrading your OS will result in loss of the ability to factory restore via the internal partition and possibly also the ability to create recovery media using the Dell DataSafe program.

Finally just to note I have never seen the performance of the Dell factory settings on a par with that of a manual clean installation and as a result I always recommend performing a manual clean installation if you have the time and can obtain the media. Additional performance losses is particular prone for Windows Vista and Windows 7 systems that didn't come with Service Pack 1 preinstalled; SP1 was a major update for both OS and sometimes the presence of the system drivers resulted in some conflicts with Service Packs when they were later installed (especially if via Windows Update). This is why my Clean Installation Guides always recommend immediate installation of the Standalone Service Packs before the system drivers. In addition the preinstalled antivirus and drivers may be heavily outdated when restoring to the factory settings. The good news is that there seems to be no to little loss for preinstalled Windows 8 from what I hear however I haven’t tested a preinstalled version of Windows 8.
17. IdeaStorm

An assortment of ideas by myself and others to improve Dells software services please join IdeaStorm and add your vote to them so Dell implement these improvements. The ideas are explained in more detail on IdeaStorm:

Reinstallation Media

- **Windows 8 OEM .iso Download Link** - This is revised and mentioned at the start of this guide
- **Windows XP, Vista, 7 OEM .iso Download Link**
- **Request Reinstallation DVD form [Rest of the World]**

The process for requesting a reinstallation DVD needs to be made easier and preferably the media should be downloadable.

Windows 7 Availability

- **Sell systems with a Windows 8 Professional license and Downgrade Rights to Windows 7 Professional Preinstalled with the ability to have both media**

I personally prefer Windows 7 to Windows 8 and would like it still to be available on Desktop systems.

Windows 8 Start Menu

- **Dell8 - Work Again with StarDock to Give Windows 8 a Proper Start Menu**

Most users dislike the new Start Menu in Windows 8 and we would like the option to configure the Start Menu to be like that of Windows 7. StarDock a former Dell partner in the program DellDock have made a 3rd party utility for $5 we would like a free Dell customised one.

Supported Systems for Windows 8

- **Increase Windows 8 BIOS Updates/Driver Availability on XPS/Alienware Systems**

People are bummed about their relatively new system being unsupported. I and others would like to see extended support of other models.

Drivers and Downloads Improvements

- **Driver ID Database for all Dell Drivers and Operating Systems**
This would make it much easier for users to find out what Wireless Card/Video Card they have and if they have missed a driver during installation.

- **Drivers and Downloads Page: Suggested Upgrades**

  The Drivers and Downloads Page isn't as functional as it once once. Several upgrades have reduced functionality that we want back. In addition it would be helpful if drivers were listed in the correct install order.

- **More of the "Dell FTP"/"Drivers and Downloads" and less of "My Dell Downloads"**

  All Drivers and Downloads especially Dell locked software should be found on the Dell Drivers and Downloads Page and not on My Dell Downloads which many customers don't even know about and often have difficulty registering with.

- **Digita Persona - Windows 8 Driver available from Drivers and Downloads**

- **Dell Touchpad Windows 8 Gesture Universal Driver**

- **Dell Wireless/Broadcom Universal Driver**

- **One Dell Quickset for All Dell Systems**

  These would help users find the latest fully functional version of the latest driver.

---

**System Configuration**

- **Less Cryptic Information under System Configuration**

- **Dell System Configuration Listing Not Helpful**

  System configuration is too cryptic to understand. Users often look to it to see what Wireless Card/Video Card/Other Customisation their system has when reinstalling the OS. As Service Tags and Drivers and Downloads aren't functioning correctly this is a good backup to fall upon. The problem is that 99.99 % of the users won't understand what the Dell part numbers are on about including myself in some cases.