

Preparations for and making a system back-up V2.8

The PC user is responsible for all the maintenance and making backups. Please, for the best result use the given order as much as possible.

1. Free Internet Window Washer
2. Cleaning up Windows system folders
3. Free Power Defragmenter
4. Back-up's
5. Hints & Tips

Start with point 1 – 3 (above). See for more information the 'Cleanup PC.pdf' document. Note: Point 1 must be done for all available accounts.

2a. Removal of the Windows Update files.

► You can also delete the Windows Update installation files, but **only when your system works without problems**. Those take up lots of space. You need to use an account with Administrator rights. When using Windows Vista or Windows 7, you (temporary) need to lower or switch off the User Account Control. Be sure that all files and folders are (temporary) shown (Windows Explorer Menu Tools, Folder options, View: Check the "Show hidden files and folders").

Start the Windows Explorer and go to the systems Windows Folder. Windows XP/2000: When available, select all folders and files which have a preceding **\$-sign** and the folder **\$hf+mig\$** and delete them with the key-combination Shift + Delete. Remove also the files with **KB*.log** like KBxxxxx.log. For all Windows: Remove all files and folders in de folder Windows \ Software Distribution \ Download, by selecting and deleting them with the key-combination Shift + Delete. If present, you can delete this way the contents of the folder Windows \ IE8updates (or IE7 or 9). You may now eventually set back the folder options to your default setting again by (see above).

2b. Removal of System Restore.

▶ You can also remove the System Restore files, **but only when your system works without problems**. This cleans up a **huge** amount of space. Go to the (My) Computer icon on the desktop and select properties with a right mouse click. Select the tabbed page System Restore. In XP check the "Turn off System Restore on all drives" and click Apply. Wait till the harddisk activity is gone (led) and un-check than the "Turn off System Restore on all drives" and click Apply again. When preferred, you can now adjust each partition again for disabling Monitoring or to set the max. amount of restoring space. Put the monitoring always to **ON** for the partition which contains Windows! Windows Vista and Windows 7 have a far more easy procedure. There, you can easily set the Monitoring to on/off for each partition by just checking / un-checking them.

▶ **Make a new System Recovery Point after cleaning up System Restore.**

2c. Cleanup System files (Disk Cleanup):

The next cleanup action can be done by double clicking '(My) Computer' and select the System C: harddisk partition by using the left mouse button. In the 'General' tab, click the 'Disk Cleanup' button. Check all items in the list, but except the 'Office Setup files' and 'Compress old files' and click the button 'Cleanup System files' or 'OK', depending on the installed version of Windows.

2d. When available, cleanup Symantec Antivirus

Windows 2000/XP: in folder Program Files / Common Files / Symantec Shared / Virusdefs, and for Windows Vista / Windows 7 the folder ProgramData / Symantec / Definitions / Virusdefs. If present, delete the **xxxxx.tmp** folders and files and the oldest folders which have a date as filename. But keep always the most recent date folder!

3. Free Power Defragmenter

Power Defragmenter defragments the harddrive much better and is easy to use. This program combines several file defragmentation aspects: Files will be placed on harddisk in one piece. It speeds up the system too. Use version 3 for Windows Vista and Windows 7 compatibility. Windows 2000 or XP may use v2. Version 3 works in 3 steps, v2 works in 2 steps. When using this, do not use the Windows defragmentation program.

► **When using a SSD (Flash) type storage device, do NOT use any defragmentation program. It's not needed and shortens SSD life.**

Start Power Defragmenter, click 'Next', choose the TriplePass™ mode (version 3) or PowerMode™ (version 2) and click 'Next' again. Select the harddisk (partition) you want to defragment and click 'Defragment'. The harddisk will now be defragmented. When using this program for the first time or when there have been a lot of changes on that harddisk (partition), it can just take a while. When using this program regularly, it will be much faster! Use this program for each harddisk (partition).



4. Making Backups:

General:

Besides cleaning up the PC, making backups is also of a big importance. There are several suitable packages to make Backups: Norton Ghost, Acronis True Image Home or Windows Backup. Windows Backup is available in Windows Vista and Windows 7. They can make compressed harddrive partition backups to another harddisk partition or directly on DVD's. Non-System back-up restoring can be done from within Windows. Making a back-up can be done in Windows and from the specific bootable CD. ► Restoring System back-up's can only be done from the specific bootable CD of the used backup program.

Norton Ghost 2003 can be used for older IDE only systems for harddisk and CD/DVD. For systems with an SATA type harddisk, use Norton Ghost 8.x or Ghost 11*. Ghost 11 or 11.5 are suitable for Vista (32 bit). Norton Ghost 15, Acronis True Image Home 2010 (and newer) and the build-in Windows Backup are suitable for Windows 7 too. Although the Windows backup tool images are 1.5 x the size of the Ghost 15 images!

When you want to backup or restore a backup from CD / DVD, some PC systems (mostly the recent Windows Vista and Windows 7 installed ones) can give problems when the used CD / DVD player/burner is of an SATA type, because there are no DOS SATA drivers available. Because of this, you might need to change some settings in the BIOS to take care of the SATA emulation only during the image restore from CD / DVD's. When the restore is ready, the BIOS settings must be set to their normal values before rebooting Windows. Even this is mostly not possible on modern systems with an EFI compatible BIOS. For those, we better use a BootCD which use a form of the Windows PE (Pre-installed Environment Vista/W7) with the needed Backup and Restore programs.

* Ghost 11: Ghost.exe -split=2048 -auto (DVD compatible parts)

Backup and Restore:

When running a backup program from a boot CD, choose for a local partition backup or restore. When making a backup image of a harddisk partition to another harddrive partition, be sure to have a backup folder made for this. Making a spare backup on an external harddisk or DVD's is recommended: When a harddrive crashes, you could need a spare backup!

▶ Restoring a backup in DOS (Ghost 2003 till Ghost 11):

1. Boot the system with a DOS Boot Ghost DVD or CD-rom.
2. Choose at boot: "with cdrom support"
3. Choose: Local => Partition => "From Image"
4. Select in the new window the correct Ghost image
5. Select on which harddisk / partition the Image should be restored:
 Primary => Basic => Primary partitie (e.g. C)
 or Primary => Basic => Logical partitie (e.g. D)
7. Acknowledge the questions for "Load" and "Overwrite"
8. The Restore takes place (Note the progression bar)
9. Close with "Quit" when ready and remove the boot CD/DVD.
10. Restart the system and update e.g. the Antivirus and Anti-Adware / malware definitions.

▶ Making a backup in DOS (Ghost 2003 till Ghost 11):

1. Boot the system with a DOS Boot Ghost DVD or CD-rom.
2. Choose at boot: "with cd-rom support"
3. Choose: Local => Partition => "To Image"
4. Select in the new window the correct harddrive.
5. Select the Primary partition (part 1) (System) or other partition.
6. Select the path, folder and name of the image to make.
7. Acknowledge the questions for "Overwrite" and select the highest compression method etc.
8. The Backup will start (Note the progression bar)
9. Close with "Quit" when ready and remove the boot CD/DVD.
10. Restart the system.

Windows 7 Backup / Restore:

▶ When backing-up a Windows 7 (O.S.) partition, **ALSO** back-up the small hidden (ca. 100-200MB) Windows 7 SYSTEM (boot) partition!!!

▶ Windows 7 Backup and Recovery tool:

Within Windows 7 you can backup your harddisk partitions to images on other harddisk (partitions) or DVD's. When problems arise and Windows 7 is not able to boot or has severe faults, you might need to repair/restore with the bootable Windows 7 REPAIR DISK or, when available, the RETAIL Windows 7 install DVD.

▶ Making a backup with Windows Backup in Windows 7

1. Go to Startmenu and type backup. Start Windows Backup, by clicking backup.
2. Select 'Making a systembackup'
3. Select where the back-up should be made.
4. The next Window is already predefined...
5. Select 'next' and confirm the settings.
6. Select 'Start Back-up': The back-up will be made.
7. When ready, make a copy of the back-up on a different medium too.

▶ Windows 7 Recovery or Start up Repair:

1. Start system with the correct Windows 7 Repair Disk. [takes time]
When using the 64 bit OS, use the 64 bit Repair Disc, etc.
Press a key to start the system from the CD.
2. Select the wanted / needed Keyboard (language) and click 'Next'
3. The system searches for available Windows 7 installations...
Select: 'Next', to repair Windows 7 or to repair boot problems, or:
4. Select: 'Restore your computer using a system image that you created earlier' and click the 'Next' button.
5. The system searches standard for the most recent system image, but you may click at 'Select a system image' and browse for another system image / backup, also on DVD or an external harddisk.
6. Select the one you want to Restore and click at: 'Next'.
7. Click in the new screen again 'Next' and click 'Next' again.
8. The selected system image / backup will be restored and after that, the system should be rebooted.

► Norton Ghost 15 Backup with Ghost 15 SRD Boot CD:

1. Boot the system with the Norton Ghost 15 SRD Boot CD.
You need to press a key to boot from this Boot CD.
2. Accept the licence conditions by clicking the 'Accept' button.
3. Mainmenu: 'Recover My Computer' and Backup My Computer'.
Recover: Restoring earlier made backups. Backup: Making a backup.
4. Select: 'Backup My Computer' and click the 'Next' button.
5. Next screen: Add in the list the partitions which must be included in the backup. Both, the Windows 7 OS and small SYSTEM (EFI) partition !
6. Next screen: Browse to the place to where the backup should be saved and click the 'Next' button.
7. Options screen: Click 'Advanced' and adjust the backup parts size.
Set to ON: 'Divide into smaller files to simplify archiving' and click: 'OK' and than the 'Next' button.
8. Set to ON: 'Verify Recovery Point after creation' and set the Compression to the desired or recommended level. After that, click 'Next'.
9. Click 'Exit' when the backup is ready. Remove the boot-cd and reboot.

► Norton Ghost 15 Restore met Ghost 15 SRD BootCD:

1. Boot the system with the Norton Ghost 15 SRD Boot CD.
You need to press a key to boot from this Boot CD.
2. Accept the licence conditions by clicking the 'Accept' button.
3. Main menu: 'Recover My Computer' and Backup My Computer'.
Recover: Restoring earlier made backups. Backup: Making a backup.
4. Select: 'Recover My Computer'. In Restore My Computer Wizard: Click 'Next'.
5. The system will search for available backups on all available Media. Browse if necessary to the place of an existing back-up (or on an external hard drive).
6. Next screen: Select the back-up(s): Windows 7 partition and only when needed, the (hidden) SYSTEM (EFI)! Be sure to recover them to the correct partition.
7. Do not forget: Click the 'Edit' button (right) and disable the option 'Restore original disk signature' and click 'OK'.
8. Enable 'Verify Recovery Point after creation' and click the 'Next' button and click the 'Finish' button. In question window: Click 'Yes' to start the Recovery.
9. Klik 'Exit' wanneer gereed, verwijder de opstart cd en herstart het systeem.
10. Click 'Exit' when the restore is ready. Remove the boot-cd and reboot.

► Making a Ghost 15 back-up in Windows.

1. When Ghost 15 is installed: Start Ghost 15
2. Select in the window de Ghost icon (upper-left). Select 'Define new back-up'.
3. Wizard: Select 'Backup My Computer', click Next.
4. When using Windows 7, select 'Show hidden drives' and select the OS partition and the small (hidden) SYSTEM (EFI) partition. When not using Windows 7, select the OS partition and click Next.
5. Select 'Independent Recovery Point' and click Next.
6. Choose where the back-up will be made (Browse map / harddrive partition or external harddrive), click Next.
7. Compression: Choose Standard or Medium.
Check: 'Verify recovery point after creation'
Click 'Advanced' and check 'Divide into smaller files...' and choose '2048' (DVD compatible size).
8. Click 'OK', than 'Next' and check: 'Run Backup Now' and click 'Finish'.
9. The back-up will now be made.
10. When ready, make a copy of the back-up on a different medium too.

5. Hints & Tips:

Addressbook and documents

It is recommended to make a copy of your addressbook and documents / pictures regularly by exporting, making a back-up. It is much better to change the path of your documents folder to another harddisk partition (e.g. by moving the (My) Documents folder). Make also a back-up on USB-Flash memory or DVD / CD's and/or external harddisks. There is no good reason NOT making backups at a regular basis. Better often than never!

Making a copy of Email en Browser settings and data

To make a back-up of the Mozilla Firefox (browser) and Thunderbird (email) data and settings, the MozBackup program is recommended. It is easy to use and has options for selectively restoring data and settings. There is also a simple manual available on my server.

Deleting Windows Vista Service Pack files (ONCE)

Go to: Start (menu) / Run, and type: cmd (Shift+Ctrl+Enter) [getting administrator rights]. Type in the cmd window: **compcln.exe** then **Y**. This will free up about 1 Gigabyte space on the system harddisk.

Deleting Windows 7 Service Pack files (ONCE)

Go to: Start (menu) / Run, and type: cmd (Shift+Ctrl+Enter) [getting administrator rights]. Type in the command window:

dism /online /cleanup-image /spsuperseded

This will free up about 1.5 Gigabyte space on the system harddisk.

Switching off or lower UAC (Windows Vista / 7)

Go e.g. to the Control Panel, then to the User-accounts. Windows Vista: Click here on User Account Control and remove the check to disable it and click OK. Windows 7 has a slider to set the level of user security: Set it ONE step above minimum. After setting UAC, you need to reboot.

Using media

- a. Store CD's, DVD's and such media always at a cool and dark place.
- b. Do never touch the backside of those media and prevent making scratches and dirt spots on CD's and DVD's.
- c. Do never write CD's and DVD's oat the highest possible speed.
- d. Use only special markers to write on the above side of the media.
- e. Do never drop and never bump against a harddrive and prevent cables to be pulled loose while writing data. This and also the net power dropping while writing data can leave the stored data corrupt or even make the harddrive useless.

Disclaimer: ► The user is self responsible for all the actions taken. The writer of this document can not be held responsible in any way for (wrong) actions taken by the user. Think twice before doing any.

Links to the used tools and programs:

Eusing Free Registry Cleaner:

http://www.eusing.com/free_registry_cleaner/registry_cleaner.htm

Free Internet Window Washer:

http://www.eusing.com/Window_Washer/Window_Washer.htm

Power Defragmenter and needed contig.exe:

<http://www.softpedia.com/get/System/Hard-Disk-Utills/Power-Defragmenter.shtml>

and the contig.exe file:

<http://www.softpedia.com/progDownload/Contig-Download-40913.html>

MozBackup download:

<http://mozbackup.jasnapaka.com/download.php>

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