Windows XP - The Elephant In The Room

Dangers in the Expiration of XP and Options to Rescue Older Machines

Please feel free to email/copy/share this document with your friends, family and associates.

by askey127

Except for the last post, most of this thread is devoted to Methods of Rescuing computers currently using Windows XP, so they can be safely used online, now that Windows XP is no longer a safe Operating System to use.

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Note: This thread edited Feb 2015

What's the real issue about Windows XP?

Horror Stories Coming Up.

Please be aware that Microsoft has terminated support of Windows XP/SP3 as of April 8, 2014 That means it will no longer have updates and patches to prevent PC infections.

Since support has been withdrawn by Microsoft, it will be impossible to secure the XP machine. It won't matter how many firewalls, antivirus scanners, or other security programs are installed.

Any XP machine that is online will get infected repeatedly, and any useful information on it will likely be stolen. It will NOT be fixable.

Expected are cases of Financial / ID theft and Blackmail using Trojans and Keyloggers to intercept private information. Criminals are reportedly making extra preparations for the date.

The Antivirus Providers still supporting XP have said they may discontinue support at any time.

There is a detailed evaluation in this Microsoft blog:

https://blogs.technet.com/b/security/archive/2013/08/15/the-risk-of-running-windows-xp-after-support-ends.aspx?Redirected=true

Don't wait for the XP system to get infected before you take action.

What do you use the Machine for?

If the machine is used for Internet purchases, or to contact financial institutions, (banking, etc.) the XP issue is Extremely important. All of the credit card or account information could be at risk.

If Debit card information is stolen, criminals may be able to empty a bank account remotely and disappear.

If there are multiple PCs on your network at home, steps need to be taken to prevent the XP machine from contaminating others on the Network. This even if there is no critical information on the XP machine itself. If possible, turn OFF file sharing.

What Personal Information has passed through or been stored Onboard?

You need to know all debit/credit card and financial account numbers and passwords, PINs, etc. that have been used on the machine. This is especially true if you use a browser to save any account passwords.

If information is stolen, you may need to replace the accounts or change passwords.

How to Determine What is Best To Do

First Determine Your Processor Capability, If you are Technically Inclined

Using any of the **newest** Linux systems, or Windows 7 or 8 may require a processor that supports both **PAE** and **NX** parameters **PAE** is for support of "Physical Address Extension"; refers to the ability to support > 32 bit physical addresses **NX** is for support of "No Execute Page Protect"

SSE2 is an additional parameter required by Windows 8

The Linux Mint 13 and Puppy Linux versions below do not require PAE or NX support to install and run.

Linux Mint 17 can be installed even on a non-PAE system. See the Release Notes

You can find out what your processor supports by downloading Coreinfo

It's available here as a download: http://technet.microsoft.com/en-us/sysinternals/cc835722.aspx

Unzip it and copy it to your hard drive into the C:\Windows\System32 folder.

Then go to Start > Run, type cmd into the box and hit <Enter>

When the black DOS box comes up, type coreinfo and <Enter>

It will show by asterisks which parameters are supported by your processor.

Changing to Win 7/Win 8 - Replacing XP

Windows 7, of all the options, is the closest to XP in the way that it works,

If you are not familiar with it, a Guide is here: http://www.makeuseof.com/pages/download-the-ultimate-windows-7-guide

Windows 8 operates more like a Smartphone when it's paired with a touchscreen laptop or tablet.

Windows 8 is the least suited for retrofitting into an older machine, since it is fairly demanding of graphics and processor, and would have no touch screen capability.

A guide on what to expect: http://www.makeuseof.com/pages/getting-started-your-guide-to-windows-8

Most users think that Windows 8, if used with a mouse and no-touch screen, is inferior to Windows 7.

Business users tend to prefer Windows 7, while Tablet and Laptop users with touch screens will like Windows 8 better.

Machine Checks - Even if the processor support is OK, you will need to run the Win 7 Upgrade Advisor, or Win 8 Upgrade Advisor to determine what other issues may be present.

New operating systems are always sensitive to graphic and audio cards, for example.

Win7 Upgrade advisor:

https://www.microsoft.com/en-us/download/details.aspx?id=20

Win8 Upgrade Advisor:

http://windows.microsoft.com/en-gb/windows-8/upgrade-assistant-download-online-faq

Other system requirements:

http://windows.microsoft.com/en-us/windows-8/system-requirements

• The Upgrade Advisors need to be downloaded and installed on the XP system first. Then running the program will produce an output file to save/print, etc.

Some of your older 32-bit programs will not run on Win7/8 because the installers are programmed for specific folder locations that may not be correct except in XP. Windows 7 Pro version has an "XP Mode" available to allow running older XP programs.

The Upgrade Advisors will attempt to determine which programs like that would not be re-installable after the Upgrade.

Data files and installed programs cannot be preserved when you upgrade from XP to Window 7 or Windows 8. They all will be erased and need to be re-installed later..

· Checking which Linux works for you

If you decide to go for Windows 7 or Windows 8 as a replacement, you won't need to research the Linux versions.

For older machines, though, Linux can be an ideal way to rescue the machine so it can be used much like before.

Most Linux versions are designed to be downloaded as an .iso file, then burned to DVD+R or DVD-R.

The downloads are large, however, so be patient. (~900Mb.)

You then can use the free Burncdcc, or Roxio, Nero, Ashampoo, etc. to burn a bootable DVD from the downloaded .iso file.

Burncdcc is here: ftp://terabyteunlimited.com/burncdcc.zip

Tell your CD burning program to "Create Disc from an image". Do not just copy the file to disk- it won't work.

Virtually all Linux versions are designed to burn to DVD the same way. Note: Some older machines may have trouble booting from DVD+R discs. DVD-R discs are more certain to work as boot media.

Some possible Linux options are:

Linux Mint 17

You can look at Linux Mint on your desktop by downloading a file and creating a boot DVD.

Linux Mint 17 is the long support version of Linux Mint, guaranteed supported until 2019

http://www.linuxmint.com/edition.php?id=22

The James Madison download mirror in USA is a good download source.

If you boot the machine from the DVD you create, it will show you what Linux Mint looks like.

Most of it will work(slowly).

It's very slow booting, etc. since it's all on the DVD and the computer memory. It's fast when installed.

This Live DVD does not change your machine, and allows you to at least have a look at how Linux Mint behaves.

You can install Linux Mint directly from the Live DVD (Install Linux Mint comes up as an icon on the screen).

It comes with Firefox and Libre Office, which can handle most MS Office files. Thunderbird e-mail is included. It also has good audio/video players.

Installing Linux Mint over Win XP will erase everything on there, so all important documents, photos, music, etc., need to be saved on separate media first.

Installing as a dual boot will preserve XP files, but backing them up first is still a good idea.

New Linux Mint 17, 32-bit with the Mate desktop, offers its .iso file for burning a Live DVD here: http://blog.linuxmint.com/?p=2627

The same system with Cinnamon desktop is here:

http://blog.linuxmint.com/?p=2626[/b][/color]

If you can't burn a DVD from a download, you can Order A Linux Mint 17 Live DVD

Linux Mint 17 Mate desktop:

http://www.amazon.com/Linux-Mint-17-Special-DVD/dp/B00L7G9ZWU/ref=sr_1_1?s=software&ie=UTF8&qid=1418129295&sr=1-1&keywords=linux+mint+17

Puppy Linux Retro

Puppy Linux is a small, fast operating system, that has all the basics.

It **CAN** be installed onto a hard drive, or even as a Dual Boot, but it's shows its best when used as a boot device CD or USB Flash, and not installed on the hard drive at all.

It does not come with a full capability office suite, but has simplified versions of Text editors, etc.

It comes with an Opera browser and an e-mail program.

The download of the .iso file is here: http://distro.ibiblio.org/quirky/precise-5.7.1/precise-5.7.1-retro.iso

The .iso file is about 200Mb in size, so it can be burned to a CD-R. Burning it to a DVD-R or DVD+R is OK, but not necessary.

The CD can be used to boot the machine, so you can have a cursory look at the Puppy system without altering your machine.

The **Precise retro** version of Puppy Linux is desirable, since it has more drivers that it builds into the CD than other versions, and will have long term support. This improves its chances of working "out of the box".

Puppy does have a convenient method for saving system settings to a flash drive, so even if you are just booting the CD to have a look, and **not** installing yet, it can save the system settings (language, keyboard, etc) to the flash drive, and make booting faster next time you start up with the CD.

The info web page for this version of Puppy is here: http://puppylinux.org/main/Long-Term-Supported%20Puppy.htm

The English Manual is here: http://puppylinux.org/main/Manual-English.htm#Manual04

It's very thorough.

As with other Live Linux Boot Disks, booting the machine from the Puppy CD is quite a secure method of doing online banking, or online purchases, since the operating system is on CD and can't be altered. Any incoming information, like receipts, etc. can still be saved to a USB flash drive during the process.

Other Linux Distros (distributions)

Ubuntu is another popular version of Linux.

It has a lot of support forums, good documentation, and comes with most expected functions.

It is not quite as easy to install and use "Out of the box" as is Linux Mint.

Because the installation of Ubuntu is not straightforward for processors with PAE missing, this is a choice best reserved for more recent XP machines.

One Ubuntu guide is here: http://www.makeuseof.com/pages/ubuntu-an-absolute-beginners-guide

There are lots of them online.

Download and Burn one or more Linux Live Discs to Try

You can download any of these files, burn the image to a DVD/CD, and boot your PC with them.

They will (albeit slowly) show you what their operating system looks like. Your DVDs may need a wired ethernet connection for the Internet. The Live DVDs sometimes use the wired connection to download the wireless drivers when you actually install it.

Linux Mint 13 Xfce DVD (for the very oldest machines): http://www.linuxmint.com/edition.php?id=113

Linux Mint 17, with the Mate desktop(DVD): http://blog.linuxmint.com/?p=2627

Linux Mint 17, with Cinnamon desktop(DVD): http://blog.linuxmint.com/?p=2626

Puppy Linux (CD): http://distro.ibiblio.org/quirky/precise-5.7.1/precise-5.7.1-retro.iso

Ubuntu(DVD): http://www.ubuntu.com/download/desktop

(Read the Ubuntu instruction from the link, choose the 32-bit version and download)

They are all capable of installing or dual booting from the Live DVD.

The Live DVDs will give you an idea of how any of them would look on your graphics card and monitor setup

Changing to Win 7/Win8 - Replacing XP

Getting a license

If you decide on Windows 7, and the Upgrade Advisor looks OK, you will need to buy a Windows 7 disk and License.

Windows 7 licenses/discs can still be purchased at online sites. These are System Builder versions, and have no technical support from Microsoft for installation, but once installed, can be activated, and will get all available updates.

In effect, you become the system builder. Installing Windows 7 over Windows XP will erase everything on there, so all important documents, photos, music, etc., need to be saved on separate media first. All programs will need to be reinstalled. The installation of Windows 7 on a previous Windows XP system is straightforward and easy using the new Windows 7 disc.

You will probably use the 32-bit version, same as Win XP.

If you decide on **Windows 8**, and the upgrade advisor looks OK, you can follow the complete preparation and install instructions here: http://windows.microsoft.com/en-us/windows-8/upgrade-from-windows-vista-xp-tutorial

The Home Premium version is available at retail stores or online everywhere. You will probably use the 32-bit version, same as XP.

Things to do in XP, before you Replace XP

Use CDs, DVDs, Flash drives, or an external Hard Drive to save all important Documents, Photos, Music from XP. Flash Drive(s) and USB hard drives are especially good for this because you can just copy/paste files.

Set XP to Show all files:

Go to Start > My Computer. Click Tools in the top menu and choose Folder Options

Under Hidden Files and Folders, check Show Hidden Files and Folders

Remove the check from Hide extensions of known file types

Remove the check from Hide protected operating system files (Recommended). Click Apply and OK.

In Windows XP, the most common browser and e-mail programs are Internet Explorer 8 and Outlook Express.

Neither of these is available for the later versions of Windows, so saving the settings requires a bit of extra effort.

We will use Firefox and Thunderbird as intermediaries to backup your settings from Internet Explorer and Outlook Express.

Download and Install Thunderbird on XP if you don't have it:

http://www.mozilla.org/en-US/thunderbird/download.

Thunderbird is a good choice for saving e-mail data because it's available for all Windows systems, and can save e-mail data and settings for use in different installations.

Use Thunderbird to import all settings from your present e-mail program. Plug in a flash drive on which you will save your Thunderbird profile.

 $Detailed\ instructions\ are\ here:\ https://support.mozillamessaging.com/en-US/kb/profiles?s=Profiles \& as=s$

Use My Computer, and navigate to C:\Documents and Settings\<username>\Application Data

Right Click on the Thunderbird folder and choose copy. Then save the it to the flash drive.

Download and Install Firefox if you don't have it: http://www.mozilla.org/en-US/firefox/new/

If your primary browser is Firefox now, you won't need to install it or import anything.

If you have Firefox installed, but use mostly IE or Chrome, import the bookmarks from the one you use most.

Importing Bookmarks from Internet Explorer to Firefox: https://support.mozilla.org/en-US/kb/import-bookmarks-internet-explorer

Download and Install Mozbackup: http://mozbackup.jasnapaka.com/ Back up Firefox settings with it, and save the backup to a flash drive MozBackup Guide is here: http://mozbackup.jasnapaka.com/soubory/mozbackup-howto.pdf

Be sure to save any Program installation discs so you can re-install later.

Also make a record of any installation keys needed.

If you have forgotten any Installation keys, Keyfinder may be helpful. (http://www.magicaljellybean.com/)

Installation Procedure

If your machine has less than 1Gb of RAM, check whether increasing the amount of RAM would be easy to do.

If feasible, RAM cards are usually inexpensive, and effective for increasing speed.

You can check what RAM card slots are in your system, and what is installed, by using Speccy

You can download Speccy from here: http://www.piriform.com/speccy/download/standard

Either Win7 or Win8 will work, but struggle a bit, with 1GB total RAM, and work better with 2GB RAM.

Installing either Windows 7 or Windows 8 is pretty straightforward. Put the installation disk into the DVD drive and restart the machine. It will take care of everything itself, and may reboot a couple times. It may ask whether you want to use the whole drive.

Answer Yes. When it finishes, allow it to stay online, but don't surf yet. It will get a lot of Automatic Updates, and install them.

If you chose Windows 7, and installed it, you need to also download and install Microsoft Security Essentials as an AntiVirus.

It's here: http://www.microsoft.com/security_essentials/

You can surf the web after it's installed.

Go to Control Panel. Click on Appearance and Personalization. In list, click Folder options

Under Hidden Files and Folders, check Show Hidden Files and Folders

Remove the check from Hide extensions of known file types

Remove the check from Hide protected operating system files (Recommended). Click Apply and OK.

Install Thunderbird in the new OS.

Quit right after installation is complete. Don't import any settings. Start Thunderbird, choose "use my own e-mail address".

Enter the e-mail account name and password. Exit Thunderbird.

Copy the Thunderbird profile from the folder in your flash drive to the correct location in the new OS from the instructions. All your e-mail settings will be restored.

Install Mozbackup and use it to restore your Firefox settings from the flash drive.

Windows 8 has its Antivirus built in, so you don't need another one.

Don't ever allow two antivirus programs on the machine at the same time

If you have chosen **Windows 8**, installed it, and find you miss the **Start** button, you can download and install the Classic Shell. Classic Shell: http://www.classicshell.net/downloads/

From the Start screen, select the Control Panel app. Scroll to the bottom and select More Settings.

Click on Appearance and Personalization. Click on Folder Options, View tab.

Under Hidden Files and Folders, check Show Hidden Files and Folders

Remove the check from Hide extensions of known file types

Remove the check from Hide protected operating system files (Recommended). Click Apply and OK.

Quit right after installation is complete. Don't import any settings. Start Thunderbird, choose "use my own e-mail address".

Enter the e-mail account name and password. Exit Thunderbird.

Copy the Thunderbird profile from the folder in your flash drive to the correct location in the new OS from the instructions. All your e-mail settings will be restored.

Install Mozbackup and use it to restore your Firefox settings from the flash drive.

Changing to a Linux OS - Replacing XP

• Issues - Requirements

If you are able to boot the machine with a Linux Live CD/DVD, and connect to the Internet with it, you will likely be able to Install that version of Linux without any difficulty.

Just be sure you follow the "Things to do in XP, before ... " below before performing the full installation.

It is recommended that you use a wired connection from your modem or router instead of wireless, during the installation.

After the installation is complete, your wireless can be used instead if desired..

Things to do in XP, before you Replace XP

Use CDs, DVDs or Flash drives to save all important Documents, Photos, Music from XP.

Flash Drive(s) are especially good for this because you can just copy/paste files.

USB hard drives are also superb as backup media. You will be able to access any of these with your new Linux system.

Set XP to Show all files:

Go to Start > My Computer. Click Tools in the top menu and choose Folder Options

Under Hidden Files and Folders, check Show Hidden Files and Folders

Remove the check from Hide extensions of known file types

Remove the check from Hide protected operating system files (Recommended). Click Apply and OK.

In Windows XP, the most common browser and e-mail programs are Internet Explorer 8 and Outlook Express.

Neither of these is available in Linux systems, so saving the settings requires a bit of extra effort.

We will use Firefox and Thunderbird as intermediaries to backup your settings from Internet Explorer and Outlook Express.

Download and Install **Thunderbird** on XP if you don't have it: http://www.mozilla.org/en-US/thunderbird/download .

Thunderbird is a good choice for saving e-mail data because it's available for all Windows and Linux systems, and can save e-mail data for use in different installations.

Tell Thunderbird to Import all settings from your present e-mail program.

Specific Outlook Express instructions are here: http://kb.mozillazine.org/Import_from_Outlook_Express

Plug in a flash drive on which you will save your Thunderbird profile.

Detailed instructions are here: https://support.mozillamessaging.com/en-US/kb/profiles?s=Profiles&as=s

Use My Computer, and navigate to C:\Documents and Settings\<username>\Application Data

Right Click on the **Thunderbird** folder and copy. Then save it to the flash drive.

Download and Install Firefox on XP if you don't have it: http://www.mozilla.org/en-US/firefox/new/

If your primary browser is Firefox now, you won't need to import anything

If you have Firefox installed, but use mostly IE or Chrome, import the bookmarks from either.

Importing Bookmarks from Internet Explorer to Firefox: https://support.mozilla.org/en-US/kb/import-bookmarks-internet-explorer

Plug in a flash drive on which to save your Firefox profile. Create a folder on it named FirefoxProfile or similar.

From the XP system, open this folder: C:\Documents and Settings\<username>\Application Data\Mozilla\Firefox\Profiles

You will see another folder with a name like **5jgv87h1.default** (the alphanumeric label is generated by Firefox)

Double click that xxxxxx.default folder and copy all the files in it to the **FirefoxProfile** folder you created on the flash drive.

Installing Replacement System from a Linux Live CD/DVD

Before You Begin, understand that Linux may require you to Type in both your **Username** and your **Password** each time you boot. It may not give you a choice of User icons.

In addition, it may require your password to run certain programs on your machine (Update manager, Synaptics, etc.) It is not simple to change your password as in Windows, so plan carefully.

It is recommended that you use a wired internet connection to your modem or router while you are installing Linux. Some machines may require downloading the drivers for the wireless setup, and the installer needs to be on a wired connection to do it.

To Get Started - Boot your machine using the Live DVD from the Linux version of your choice.

This example is for Linux Mint. Ubuntu is nearly identical.

There will be a quick popup screen asking for username from the Live DVD. You can ignore it for now.

In a couple minutes the Mint desktop will appear.

On the Desktop, the Install Linux Mint option will be one of the Icons.

Click Install, and wait while the setup initializes itself.

First screen is for the Language > Continue

Check for Internet connection and Drive Space > Continue

Next Screen has three options that will show:

- Install Linux Mint Alongside MS Windows XP
- Replace Windows XP with Linux Mint <==
- Something Else

Click the Second option button "Replace Windows XP with Linux Mint", and click Install Now

Next Screen is "Where are you". Click zone and Continue

Next Screen is Keyboard layout. Check the one you want and Continue

The next screen needs to be filled out with care (User/password, etc.)

Your Name:

Computer Name:

UserName:

Password:

Password confirm:

> Continue

Up comes a slide show while Linux installs.

Message will come up "Installation Complete"

Click Restart Now

You will get a message on a Black/white screen to remove the CD and hit <Enter>

Total install time about 27 minutes on an old, slow 500Mhz Celeron.

May take longer on a large hard drive, since Linux has to reformat the whole thing first.

After you boot into Linux, click the Menu > System and choose Update Manager

You will need to supply your password to start it. Let it download all the update packages and install them.

You may get a message that All packages could not be updated. Just close it.

The Update may take quite a while, depending on internet traffic. There will be hundreds of items.

Open Synaptic Package Manager and Install Thunderbird in the new OS. (It's pre-installed in Linux Mint)

Quit right after installation is complete. You may have to sign in with "Use my own e-mail account" to get Thunderbird to create a profile, but you don't need anything except the account name and password. Don't look at your e-mails yet, or import any settings.

To see profiles in Linux, you may have to choose **View** in the file manager and click **Show Hidden Files**Copy the Thunderbird profile files from your flash drive to the random named Profile folder in the new OS from the instructions.

Do not change the name of the new profile folder. Just overwrite all the files in it. All your e-mail settings will be restored.

Install Firefox in the new OS. (It's pre-installed in Linux Mint)

Copy all the files from the Flash drive FirefoxProfiles folder to the Linux folder here:

/home/<username>/.mozilla/firefox/xxxxxxxxx.default

Have it replace all the files already in there. Your Firefox settings will be restored.

Dual Booting Win XP and a Linux OS

Pros and Cons of Dual Booting

By removing partitions for extra drives (E:, F:, etc.) used by Windows XP, and/or reducing the size of the C: drive to make some unassigned space, there will probably be room to Install Linux as a Dual Boot.

Tools like Mydefrag and then Mini Tool Partition Wizard are used to accomplish this.

Then a Linux version can be installed as a dual boot, using a Linux Live DVD.

By doing this, the machine will be able to start and run Either Windows XP or Linux at boot up.

The Windows XP system would operate normally until April, then still function normally except for functions requiring Internet access. Windows XP would be taken off the internet in April 2014 for safety, but Linux would be able to access the Internet readily, and would have access to the XP files. The Linux system will still be able to access any Windows Documents, Music, Photos, etc., and can serve the User on the Internet with its own e-mail, Office, photo, or browser programs, but will not be able to run any specific *programs* located on the XP side of the system. The **Windows XP** side of the system **will not be able to see** any files at all on the Linux side of the system. Any files developed on the Linux system and required by XP, would have to be transferred to the XP system with flash drives, etc.

This dual boot option is more complicated to install than simply replacing Windows XP, but may be worth it, especially for those who need extra time to offload or backup XP files.

Overview of Installing a Dual Boot Setup on an Existing Windows XP Computer

Installing a Dual Boot setup entails changes in the Hard Drive partition tables, and most of the time shrinking or deleting drives that already exist. Since there may be hundreds, or thousands, of different hard drive configurations, it is not possible to provide an instruction that will fit every setup.

Every attempt is made to provide correct instructions here, but there are so many possible hard drive configurations that there is still some risk. A failure at installing a Dual Boot setup may result in an inability to boot the machine at all. In the event a Dual Boot installation should fail in that manner, the User would then be required to use the Linux Live DVD to boot the machine, and completely replace Windows XP with Linux. The instructions for doing that are in the post above, Changing to a Linux OS - Replacing XP

As a precaution, you may want to save the Firefox and Thunderbird profiles per those instructions, in case the XP system is lost. If you understand the risks, and still wish to try dual booting, continue below.

• Setting up an XP machine for Dual Boot

Change the Power Saving Settings Temporarily

This will prevent the power saving settings from corrupting partition changes.

Go To Start > Control Panel > Display and click the Screen Saver tab.

In the Screensaver box, Select [None]

Click the **Power** button.

Change ALL the "turn off" Settings to Never

Click **Apply** and **OK**.

Clean Up the Windows XP Drive(s)

- If this is a Laptop, make sure the charger is connected and plugged in.
- Backup all files from any extra drives if they exist (E:, F:, etc.). These drive partitions may be deleted. Also back up important files from your Documents, in case the XP system is lost.
- Delete or Move any unnecessary programs and files from Windows XP.
- Go to Start > My Computer, right click the C: Drive and choose Properties

In the Dialog, UNCHECK the box at the bottom labeled "Allow Indexing Service..."

If it asks whether you want it to apply to all Files and Folders, answer YES.

Click APPLY and OK if/when asked.

Go have a coffee; this may take a while.

- Download **TFC** by OldTimer from here: http://oldtimer.geekstogo.com/TFC.exe
 Save it to your desktop and run it.
 - It may ask to reboot. If so, give permission. Log in back to your usual account.
- Download MyDefrag from here and Install it : http://www.mydefrag.com/ (The download button is on the left).

After Installation, run MyDefrag in $\mbox{\bf Monthly Mode}$ on the $\mbox{\bf C: drive}$

Wait for it to Finish.

You should run MyDefrag even if you have a lot of free space available.

It will relocate XP files to the lower part of the drive, and make partition operations less risky.

Creating Extra Space For Linux On The Hard Drive

Linux needs about 10GB, or a little less, of Unallocated space to install.

Even so, you will likely want to allow 20Gb or more if possible to permit having some storage

We will use the Mini Tool Partition Wizard to create Unallocated space on the drive.

When Linux is installed, it will use all available Unallocated space to its advantage.

Download Mini Tool Partition Wizard Home Edition from here: http://www.partitionwizard.com/free-partition-manager.html

You will get sent to Download.com

Sometimes Download.com, or CNET, will include adware in the download.

In this case, the installer appears to be clean. Download and install it.

Open The MiniTool and click on the Partition Wizard.

Look at the bar graph representation of the main drive near the top of the window.

Removing Extra Partitions

If you have any extra partitions to the right of C: that are labeled as E:, F:, or Recovery partitions, you can remove them, starting with the block farthest right from the C: drive.

Highlight any extra partition to be removed, starting with the rightmost; it will change color in the graph.

(DO NOT delete any partitions labeled Active, Boot, or System in the Status column)...

Click the **Delete** icon.

Then click **Apply** in the upper left.

Evaluate the Unallocated Space

Now take a look at the Basic first disk row. How much Unallocated space is there on the right?

Unallocated Space is not a partition - it's just empty drive space

If it's enough, go to directly to Installation below.

If not, repeat the **Removing Extra Partitions** process until there is enough Unallocated space, or until the C: drive is the rightmost partition in the drive.

Once all Extra partitions have been removed, If the Unallocated Space is still not enough, it will be necessary to shrink the size of the C: partition. On machines where the C: drive occupies the entire drive, and is the only drive on there, you will be starting out here.

Check the Unused column for the C: partition. You can shrink by an amount that is approx. 10Gb less than that. That is, if there is 40Gb unused in the C: partition, you can safely shrink it by about 30GB.

Shrinking the size of the C: partition.

Verify that the Rightmost partition in the graph is the C: drive. Unallocated space does not count.

Highlight the main drive row, and click on the C: partition in that main drive row

The C: block in the graph will change color, and a bunch of icons for different Actions will appear.

In the Icon Bar above, click the Move/Resize icon, then choose Resize.

You will get a Resize dialog.

Notice that the partition sizes are in Mb. These are a factor of 1000 larger numerically than Gb.

This means that 10Gb will show as 10000 in the dialog.

So you will reduce the size of the C: drive by 10000 for every 10GB you want in shrinkage.

As you change the C: partition size, it will will produce a change you can see in the resulting "Unallocated Space After".

The "Unallocated Space After" is where Linux will install itself.

Reduce the size of the C: partition to get the amount you wish for Linux.

I would suggest NOT adjusting either of the entries for "Unallocated Space After" or "Unallocated Space Before" independently.

Just allow them to be calculated by the program based on your change in the size of the C: partition.

When the "Unallocated Space After" is large enough to accommodate Linux, click OK.

You will be returned to the MiniTool main screen.

Click Apply.

A dialog will pop up, asking of you want to apply Pending changes. Click Yes

Click the **Restart Now** button.

The program will make the changes upon reboot. Be patient. It may take 10-20 minutes or so.

The machine will the restart again, automatically.

You can restart the Mini Tool Partition Wizard again, momentarily, to double check how your settings came out.

Installing Dual Boot from a Linux Live CD/DVD

Before You Begin, understand that Linux may require you to Type in both your **Username** and your **Password** each time you boot. It will not give you a choice of User icons.

In addition, it may require your password to run certain programs on your machine (Update manager, Synaptics, etc.) It is not simple to change your password as in Windows, so plan carefully.

It is recommended that you use a wired internet connection to your modem or router while you are installing Linux.

Some machines may require downloading the drivers for the wireless setup, and the installer needs to be on a wired connection to do it.

To Get Started - Boot your machine using the Live DVD from the Linux version of your choice.

This example is for Linux Mint. Ubuntu is nearly identical.

There will be a quick popup screen asking for username from the Live DVD. You can ignore it for now.

In a couple minutes the Mint desktop will appear.

On the Desktop, the ${\bf Install\ Linux\ Mint}$ option will be one of the Icons.

Click Install, and wait while the setup initializes itself.

First screen is for the Language > Continue

Check for Internet connection and Drive Space > Continue

Next Screen has three options that will show:

- Install Linux Mint Alongside MS Windows XP <==
- Replace Windows XP with Linux Mint
- Something Else

Click the first option button (Install.. Alongside..), and click Install Now

Next Screen is "Where are you". Click zone and Continue

Next Screen is Keyboard layout. Check the one you want and Continue

The next screen needs to be filled out with care (User/password, etc.)

Your Name:

Computer Name:

UserName:

Password:

Password confirm:

> Continue

Select any accounts to Import on next screen. (Recommend "Nothing") > Continue Up comes a slide show while Linux installs.

Message will come up "Installation Complete"

Click Restart Now

You will get a message on a Black/white screen to remove the CD and hit <Enter> Total install time about 27 minutes on an old, slow 500Mhz Celeron.

A black/white screen will appear at each bootup. Select the OS you want with the Arrow keys and hit <Enter>

The first time you boot into Linux, click the Menu > System and choose Update Manager

You will need to supply your password to start it.

Let it download all the update packages and install them.

You may get a message that All packages could not be updated. Just close it.

The Update may take quite a while, depending on internet traffic. There will be hundreds of items.

Turning off Networking in the XP system

In XP, go to Start > Control Panel > Network Connections

In the Internet Connection List, right click each entry, and choose Disable.

Don't be tempted to turn any Networking back ON.

If you wish to transfer your settings for Firefox and Thunderbird from the XP system to the Linux system, you can use the Instructions from the post above: Changing to a Linux OS - Replacing XP to do it

Getting a New Win7/Win8 Machine

Just a few notes about getting a new Machine:

This is the quickest solution to the problem. Newer machines are much faster than the old ones and can get you working immediately. It is also the most expensive option, since you are getting a whole new set of hardware.

Discarding your old machine

If you make a decision to purchase a new Windows 7 or Windows 8 PC, and you plan to discard the old PC, be sure you secure the information first. To keep any data from getting into the wrong hands, remove the hard drive from the XP machine, and drill one or two holes in it. Then the PC can be discarded with confidence that no personal data could be retrieved from it.

Windows 8 laptops, or tablets, or convertibles will be best for those accustomed to the operation of touch screens, as in Smartphones and e-readers Buying a new Windows 8 computer **without** a touch screen has not proven to be as good a choice, based on anecdotal posts. For Windows 8, a touch screen is a prudent choice.

Desktop PCs are the area where Windows 8 is the most controversial, since desktops use monitors instead of touch screens

Windows 7 is well suited for desktops, where keyboard and mouse operation is the norm.

Most Windows 7 PCs still available are designed for business use, and more are to be found online, rather than at brick and mortar stores.

Online Computer stores are also offering Win7 refurbished machines, with cost depending on the box performance, but far lower cost than new machines. If you Google "[b]Refurbished Windows 7 Desktops[/b]", you will see many offered at bargain prices

Both Dell and HP are still offering new Win7 PCs, both online and through outlets like Staples.

Index (Links)

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