



# **Student Guide for Personal Computer Maintenance**

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## Maintaining Your Notebook Computer

Notebook computers need to be maintained regularly. Lack of maintenance could lead to such problems as:

1. Overall slowness to the system
2. Program may crash and fail to open
3. The computer will require restarting

These are only a few of the possible problems you will experience if proper maintenance is not routinely performed. There are tools available in Windows designed to optimize the performance of your notebook, as well as prevent problems in the future. In addition, there is software designed to protect your hard drive from viruses. To properly maintain your notebook, the following procedures should be performed with regularity:

1. Configure McAfee VirusScan Enterprise correctly
2. Update virus definitions
3. Microsoft Windows Updates
4. Discharge the battery for a laptop
5. Disk cleanup
6. Disk Scan
7. Disk Defragmenter

## McAfee VirusScan Enterprise

CUNY Students are able to download McAfee VirusScan Enterprise from the CUNY eMall at no cost. We recommend each student installs this on their personal computer not only so they can protect themselves but everyone they interact with.

When installed, VirusScan Enterprise is configured to use the detection definitions that were packaged with the product and provide general security for your environment. We recommend that you obtain the latest detection definitions and customize the configuration to meet your requirements.

### Task

Take these actions immediately after installing the product.

- 1. Update detection definitions.** Perform an **Update Now** task to ensure that you have the most recent detection definitions.
- 2. Prevent intrusions.** Configure these features to prevent potential threats from accessing your systems:
  - **Access Protection.** Configure access protection rules to prevent unwanted changes to your computer and enable the option to prevent McAfee processes from being terminated.
  - **Buffer Overflow Protection.** Enable buffer overflow detection.
- 3. Detect intrusions.** Configure these features to detect potential threats on your system, then notify you and take action when detections occur:
  - **Auto Update.** Configure update tasks to get the most current detection definitions, scanning engine, and product upgrades.
  - **On-Access Scanner.** Configure the scanner to detect and take action on potential threats as they are accessed in your environment. Enable scanning of unwanted programs. If you installed the AntiSpyware Enterprise Module, you can also scan for cookies in the cookies folder.
  - **On-Demand Scanner.** Configure scan tasks to detect and take action on potential threats in your environment. Enable scanning of unwanted programs. If you installed the AntiSpyware Enterprise Module, you can also scan for cookies in the cookies folder and potentially unwanted spyware-related registry entries that were not previously

cleaned. See Scanning Items On-Demand for more information.

- **Email Scanners.** Configure the on-delivery and on-demand scanning of Microsoft Outlook and Lotus Notes email clients. Enable scanning of unwanted programs.

4. Send alerts and quarantine threats. Configure these features to alert you when detections occur and manage quarantined items:

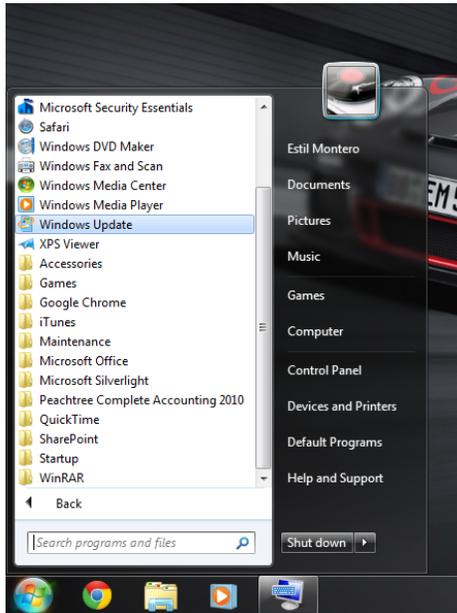
- **Alerts and Notifications.** Configure how and when you receive detection notifications and alerts. See Configuring Alerts and Notifications for more information.

- **Quarantine Manager Policy.** Configure the location of the quarantine folder and the number of days to keep quarantined items before automatically deleting them.

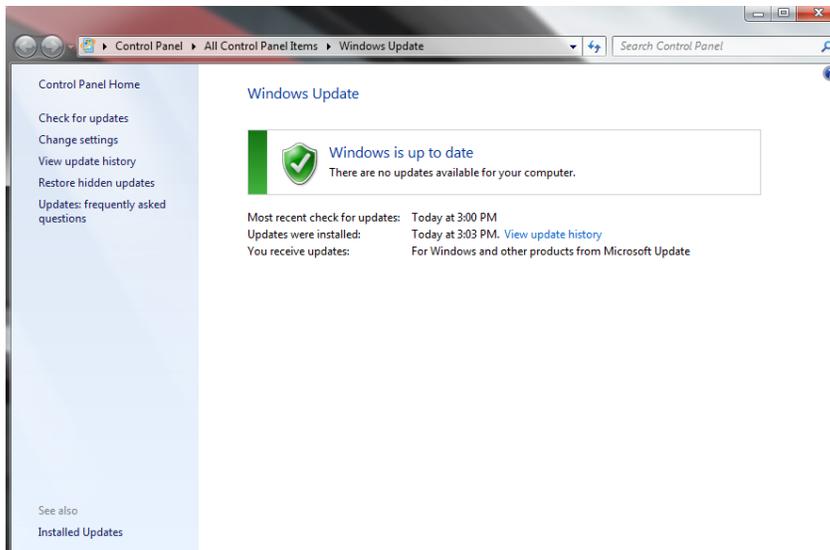
## Updating Microsoft Windows

### Running Windows Updates

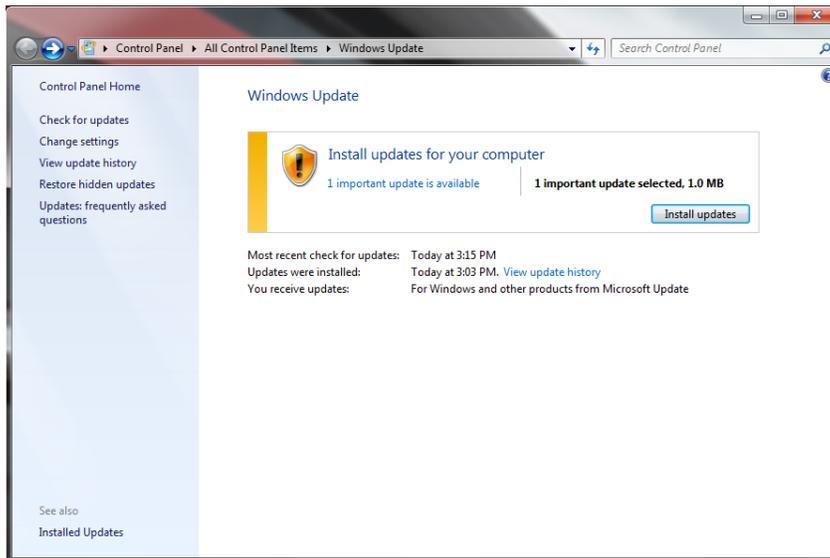
1. Click on **Start**, then **All Programs**, and then finally the **Windows Update** icon at the top of the list.



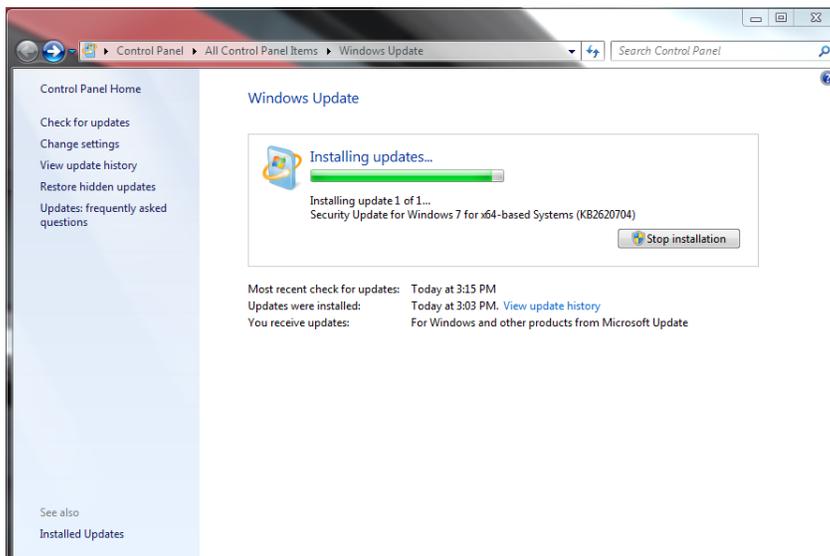
2. Click on **Check for Updates**. Windows will now check for all available updates for your computer.



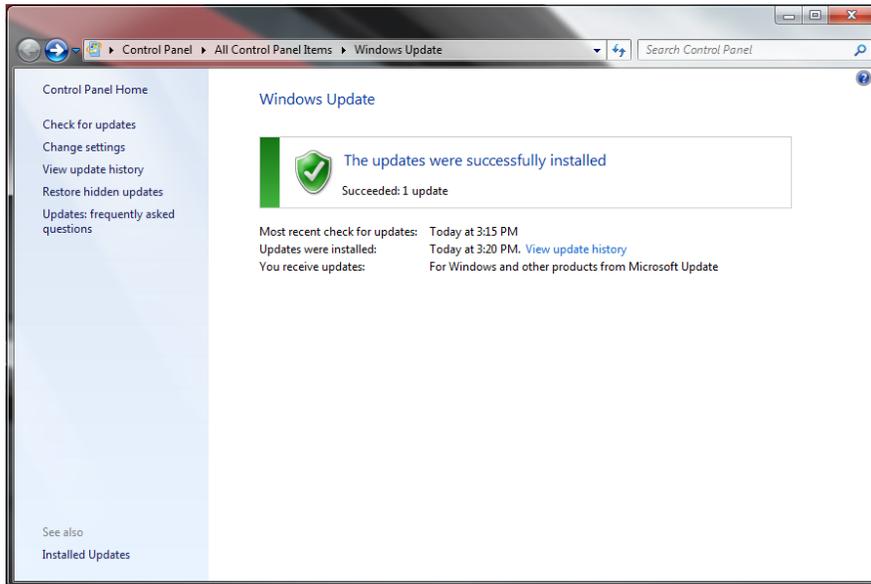
3. If new updates are found, click on **Install updates**.



4. Windows will now download and install all necessary updates for your computer. Give it some time to finish. (This can take a while if there are many updates).



5. After you have installed all updates, perform a Windows Update every 2 to 3 weeks to keep your system up to date and enable automatic updating.



# Maintaining the Hard Drive

## Disk Cleanup

To keep a PC running smoothly, regular maintenance is critical. The Disk Cleanup Utility can determine which files on your hard drive may no longer be needed and delete those files. In addition to freeing up potentially significant amounts of hard drive space, using Disk Cleanup on a regular basis can improve system performance.

The utility can be accessed in any of the following methods listed below.

- Click **Start | All Programs | Accessories | System Tools | Disk Cleanup**
- Click on Start and search for **Disk Cleanup**

Use the drop down menu to choose the drive you want to clean.

NOTE:

The process of scanning your hard drives may take a few minutes

When the scan is complete you will be presented with a list of temporary folder and the amount of space used by the each folder.

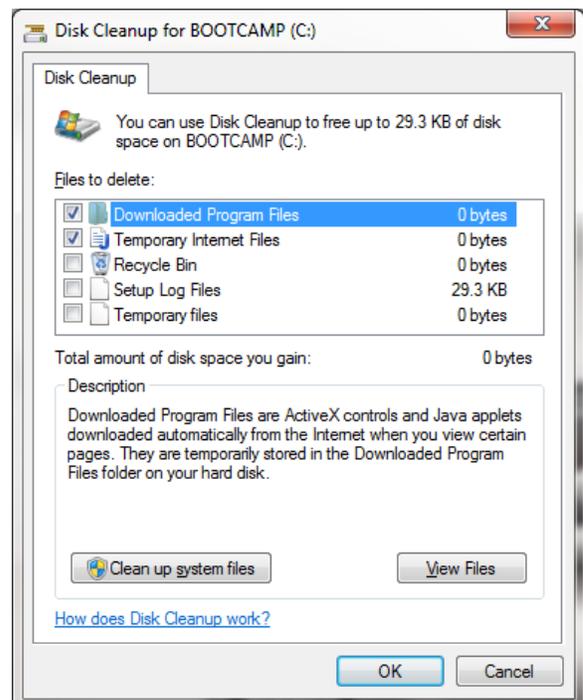
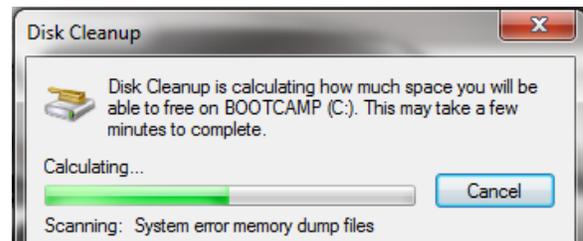
Select:

- Temporary Internet Files
- Recycle Bin
- Temporary files

Click OK.

NOTE

The process of deleting your cached files can take a few minutes



## Disk Defragmenter

Disk Defragmenter is used to organize files on the hard drive and optimize free space, improving the speed and performance of the computer. Some applications may fail outright if the disk becomes too fragmented.

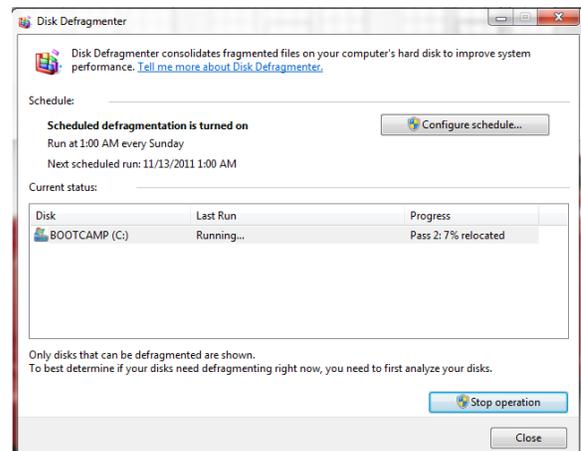
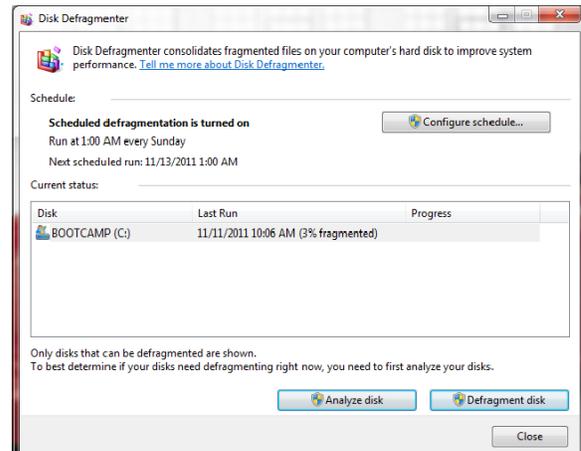
1. To run Disk Defragmenter, click on **Start | All Programs | Accessories | System Tools | Disk Defragmenter.**

### NOTE

You **MUST** have administrative rights in order to perform this process.

2. If your hard drive is partitioned (you have more than one drive), choose which drive you wish to defragment. In most cases, you will select C.
3. Click on the **Defragment disk** button to begin the operation.
4. When defragmenting begins it will always analyze the hard drive first and then start the defragmentation process.

It is recommended run this process at least once each month.



## Maintaining the Battery

### **NOTE**

Most laptop batteries will last at least four hours when fully charged. If not maintained, however, the battery will require charging more frequently. Following are tips for properly maintaining your battery for maximum performance.

Use the battery as your power source until the low battery warning emerges

Using your laptop with the AC adapter plugged into an electrical outlet will overcharge the battery. Overcharging decreases the life of the battery. Eventually the battery will be unable to hold a charge and will require a replacement.

Condition the battery for maximum performance

1. Discharge the battery – use the battery until the low battery warning emerges.
2. Charge the battery – use the AC adapter until the battery is fully charged. Then immediately disconnect the AC adapter from the notebook.

The procedure above insures both maximum performance and long life for the battery