IMSA
Illinois Mathematics and Science Academy
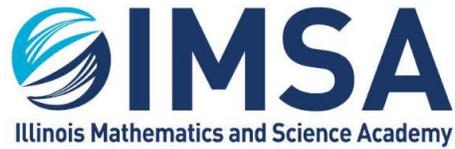
INFORMATION TECHNOLOGY SERVICES
630.907.5000 . 1500 SULLIVAN ROAD, AURORA, IL 60506-1000 . IMSA.EDU

Prepare Your Computer for Life at IMSA
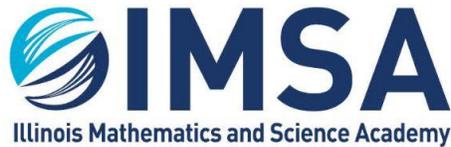*For Linux OS*

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Disclaimer

This document and its examples are based on the Arch GUI Plasma Pure Linux OS distribution. Which is one (1) of several thousands of different Unix/Linux OS distributions available. The Linux OS distribution most likely will have a different look and feel as well as different commends and command options.

Reminder: Supported Laptop Operating Systems

IMSA Information Technology Services (ITS) team is not staffed enough to support every possible computing device operating environment. There are limits to what can be used and supported. Below is a list of the supported and unsupported laptop operating systems. This is not an exhausted list, it lists only general laptop operating environments.

Supported Laptop Operating Environments

●   Apple/Macintosh OS
●   Linux OS Distributions – **LIMITED** Support, not all functions can be fully supported. Students are on their own when running a Linux OS distribution.
●   Microsoft Windows OS (10 or 11), all editions excepted as noted below. **Windows OS is the recommended OS for use by students**

Unsupported Laptop Operating Environments

●   Chromebooks (Android OS) – **NOT SUPPORTED**
●   Microsoft Windows OS (10 or 11) running on laptops with an "ARM" or "RISK" processor – **NOT SUPPORTED**

Local User (login) on the computer must be an administrator

During the student's IMSA career they will be asked to install software on to their computer to participate in educational or research activities. To do this they must have full administrative rights on their computer.

Make sure your computer's applications, drivers, and operating system are up-to-date

It is important to keep your computer's operating system and other installed applications up to date with the latest device driver, security and performance updates. Linux distributions releases application, firmware, security and performance updates every month. Failure keeping your computer updated can result in the computer being compromised (hacked), or an inability to complete important tasks, thus affecting your educational experience.

Linux application and operating system updates

Each Linux distribution has its own utility or utilities to check automatically for updates. You can also run these utilities manually to check and install updates at any time. For the Arch Linux Plasma Pure distribution, it uses a utility called Discover via the graphical user interface.

Web Browsers

IMSA Information Technology Services (ITS) team recommends the use of the following web browsers. Other browsers may be used, we have found the following browsers to work the best when accessing the multitude of web sites an IMSA student will access during their educational career. ITS recommends having at least two web browsers installed on your computer.

- Recommended:
  - Google Chrome – latest version (Top choice)
  - Safari (Macintosh OS default)
  - Mozilla Firefox – latest version (Comes preinstall on ArchLinux Plasma Pure)
- Not Recommended:
  - Microsoft Internet Explorer
  - Microsoft Edge
- Alternates:
  - DuckDuckGo (Add-on extension)
  - Opera
  - There may be others

Web Browser Settings

ITS recommends turning off the password save feature of the web browser. We know that it is easier to use saved passwords, but in the event your laptop is stolen all of your saved passwords would be compromised.

Registering Your Computer with IMSA

Registering your computer with IMSA Information Technology Services is recommended, failure to do so will prevent you from accessing certain computing resources that will be vital to your educational and research career at IMSA.

Accessing the Internet While on Campus

All students are able to connect their laptops, phones, tablets, etc… to one of two wireless networks. The capabilities of these networks are described below.

IMSApublic Wireless (WiFi) Network

As the name describes this is a public wireless network available to anyone residing, working or visiting the IMSA campus. This is an unsecured, unencrypted wireless network, similar to what
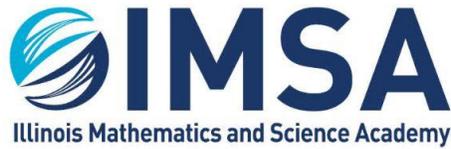
you may find at a restaurant or hotel. To access this wireless network you just need a simple password which is provided freely. It grants you full access to the Internet and limited or no access to specific IMSA managed resources.

●   Purpose: For use on phones, tablets, and other computing devices
●   Access: No access to specific on-site resources such as printers and specific educational web sites
●   Security: NONE, not encrypted

airIMSA Wireless (WiFi) Network

This is the IMSA "production" wireless network. All IMSA owned laptops are connected to this wireless network. This network has the same Internet connectivity as "IMSApublic" with a few exceptions. This wireless network is encrypted and enables the student access to printers and some specific educational web sites. This is the recommended wireless network for a student's primary computing device, a laptop.

●   Purpose: For use on student's primary computing device, laptop
●   Access: Requires pre-registration, see instructions below
●   Security: Encrypted

Pre- and Post-Registration Tasks

To take full advantage of IMSA's technology resources the following steps need to be completed. Some of the steps can be complete off site, whiles other must wait until you are on campus. Some steps are required and some steps are optional but recommended.
NOTE: If you have been issued or expect to be issued an IMSA loaner computer as a part of the Scholarship Loaner Program you can skip these steps. The IMSA owned computer you have been or will be provided is already authorized and setup for full functionality within the IMSA environment.

1 - Download and Extract IMSA's Computer Setup Package

IMSA's Computer Setup Package includes all of the files and application necessary to prepare your computer for accessing IMSA's computing and network resources.

- Open a web browser and go to: https://sites.imsa.edu/scs/
- Find the link for IMSA's Computer Setup Package for Linux OS

Linux OS Computers – Downloads ** *Not a supported operating system, instructions may not be available for all tasks. Prior experience is required.*

- *IMSA's Computer Setup Package for Linux OS (Download)*

  - Using Google Chrome –
    - ▪ Right-click on the link and select Save link as…
    - ▪ Download the file
    - ▪ Look at the bottom of the Chrome window for a security alert box. It will state that Symantec cannot be downloaded securely
    - ▪ Click on the up carrot next to the Discard button and select Keep
  - Using Mozilla Firefox – Click on the link and follow the screens to download the ZIP file
- Navigate to the location on your hard drive where the ZIP file was downloaded. In most cases this will be your Downloads folder.
- Locate the file "imsaComputersetup-LinuxOS" and right-click. Select Extract All… from the pop-up menu

> Extract All...

- Click the Extract button (lower right corner) to accept the default extraction location. Note the location, you will need it in future steps
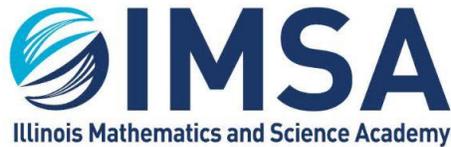
> Extract   Cancel

2 - Setting your computer's host name

This step can be completed at home, as long as you have an Internet connection. In order for IMSA Information Technology Services (ITS) to contact you concerning security issues with your computer, we need to have a way to link your computer with your email address and your name. To that end we are requesting you set a name for your computer that will be recorded with in IMSA's Antivirus, Data and System Security Portal. Please follow the instructions below to set your computers "host" name.

Setting a host name on Linux OS distributions varies, you will need to find the process on your own. Below are examples of required/recommend host name formats.

- Format: Class Year – IMSA User Account Name
  - Examples: c25-rflickinger, c23-jsmith7, c24-jdoe8

3 – Install IMSA's Antivirus, Data and System Security Solution – REQUIRED

This step can be completed at home, as long as you have an Internet connection. Before installing IMSA's Antivirus Solution you will need to uninstall any antivirus solution that is already installed on your computer. The names of the antivirus solutions that we have seen problems with are listed below, this is not an exhausted list, but the most common.

- Avast
- AVG
- Any previous installation of Symantec Endpoint Protection
- Any Norton brand product
- Any McAfee brand product
- ClamAV

3-1 - Uninstall Existing Antivirus Solutions

Use whatever utility or process available to your distribution to remove the existing antivirus solutions
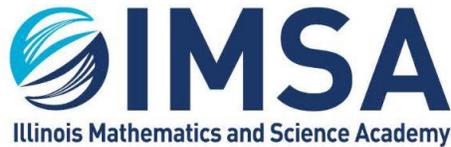
3-2 – Installing IMSA's Antivirus, Data and System Security Solution – CrowdStrike Falcon

If you don't find an installation package that matches your Linux distribution, please contact IT HelpDesk team (helpdesk@imsa.edu). We will work with you to find an approved antivirus, data, and system security solution.

- Navigate to the location you earlier extracted IMSA's Computer Setup Package (Step 1).
    - **NOTE:** A window may already open to the location, depending on your configuration
    - You will find several files at this location.
- Double-click on the CrowdStrike-Falcon folder
    - You will find several sub-folders for different Linux distributions
    - You will also find a text file that contains the license/link code for IMSA's CrowdStrike environment. You will need this code during the installation and configuration of the CrowdStrike Falcon Sensor.

CrowdStrike Falcon Sensor Installers

Folder	for Distribution(s)
Amazon.1	Amazon Linux 1
Amazon.2	Amazon Linux 2
Amazon.2-arm64	Amazon Linux 2 – arm64 Processors
CentOS_Oracle_RHEL.6	CentOS, Oracle, and Red Hat Enterprise version 6
CentOS_Oracle_RHEL.7	CentOS, Oracle, and Red Hat Enterprise version 7
CentOS_Oracle_RHEL.8	CentOS, Oracle, and Red Hat Enterprise version 8
CentOD_RHEL.8-arm64	CentOS and Red Hat Enterprise version 8 – arm64 Processors
Debian.9_10_11	Debian Version(s) 9, 10, 11
RHEL.9	Red Hat Enterprise version 9
SLES.11	SUSE Version 11
SLES.12	SUSE Version 12
SLES.15	SUSE Version 15
Ubuntu	Ubuntu

4 – Register computer for access to airIMSA wireless network - REQUIRED
NOTE(s):

● **If you have been issued or expect to be issued an IMSA computer as a part of the Scholarship Loaner Program you can skip this procedure and send us the IMSA Inventory (Bar Code) Number of the computer. We will pull this information from our databases.**

● **Completion of tasks 1 thru 3 is required.**

To register your computer for access to the airIMSA wireless network IMSA Information Technology Services (ITS) needs a couple pieces of information to complete the process. This will consist of taking screen shots and emailing them to the ITS team. ITS will need two or three pieces of information from you to register your computer. The first is the MAC (hardware) address of your Ethernet/wired network card, the MAC (hardware) address of your wireless network card, and proof of installation of IMSA's Antivirus Solution. Please note that some laptops do not have, by default, an Ethernet/wired network card anymore. If this is the case and you want to make use of the wired connection in your room you will need to purchase a USB or USB-C to Ethernet "Dongle" for your laptop. We recommend you reach out to your laptop's manufacturer for recommendations on the proper dongle to purchase for your computer.

### 4-1 - Getting the MAC Addresses
The process for displaying a computer's Ethernet and/or Wireless hardware or MAC address varies from Linux distribution to distribution and environment configuration. You will need to provide your computers Ethernet and Wireless MAC addresses for your network card to be able to register to access IMSA's production networks. Please note, MAC address that are configured to change upon re-boot, commonly called Random MAC address are not supported, this feature must be disabled.

Find these addresses and copy them to a file, to be sent to ITS in a future step

4-2 - Proof, you have Installed IMSA's Antivirus, Data and System Security Solution
You must have completed "3 – Install IMSA's Antivirus, Data and System Security Solution – REQUIRED" before continuing. If you have only downloaded the installation files, you need to complete the remainder of the steps.

Screenshot proof of the installation of the CrowdStrike Falcon Sensor or other IMSA approved antivirus, data, and system solution.
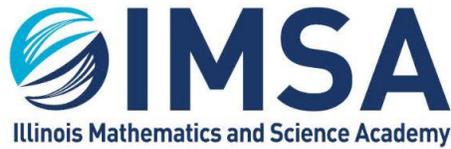
4-3 - Send Email with Information Gathered

NOTE: If you have been issued or expect to be issued an IMSA computer as a part of the Scholarship Loaner Program you can skip this procedure and send us the IMSA Inventory (Bar Code) Number of the computer. We will pull this information from our databases.

Send an email using your IMSA email account to **scshelp@imsa.edu**. Remember you must use your IMSA account and include your computer's host name, MAC Address and proof of CrowdStrike Falcon installation screen shots or your registration request will be rejected.

● You will receive a confirmation email that your registration email has been received.

● Within 24 hours, unless submitted on a weekend or holiday you will receive another email. Make sure you read this email completely, not just the subject.

○ Indicating Completion: All of the information has been verified and your registration is complete

○ Indicating missing information: Your registration is incomplete because information is incorrect or incomplete.
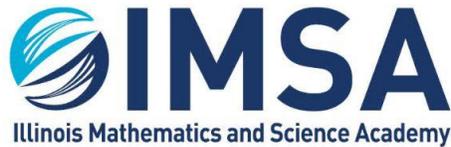
5 – Connecting to IMSA's Wireless Network Called airIMSA – REQUIRED
NOTE(s):
- **Completion of task(s) 1 thru 4 are required**
- **This task has to be completed while you are at the IMSA campus in Aurora, IL. It cannot be completed remotely**

5-1 – Install IMSA's Wireless Network Certificate
- Navigate to the location you downloaded and extracted IMSA's Computer setup Package (Step 1)
- Double-click on the folder named "Linux-IMSAWirelessCertificate"
- Open the PDF file in this folder called: IMSA_LinuxWirelessConfig.pdf and follow the instructions

5-2 - Connecting to airIMSA Wireless Network
Once the wireless certificate has been installed you should be able to connect to the wireless (WiFi) network airIMSA just as you would any other wireless network with one exception. You will be prompted for your IMSA account username and password.

5-3 - Remove IMSApublic Wireless Network
If you previously connected to the IMSApublic wireless network we recommend you remove this network from your remembered network lists, or at list change its configuration so it will not attempt to auto-reconnect.

6 – Setting up Access to IMSA Printers – RECOMMENDED

NOTE(s):

● **Completion of task(s) 1 thru 5 are required**

● **This task has to be completed while you are at the IMSA campus in Aurora, IL. It cannot be completed remotely**

● **You must be connected to a wired Ethernet connection in your Residential Hall room or connected to the wireless network airIMSA.**

IMSA students have access to multiple Multi-Function Devices (MFDs) on campus. A list of their locations is below. The Xerox MFDs utilize your IMSA Student ID to access the devices capabilities and retrieve printed documents. Students have access to Copy, Print and Scan to Email capabilities on the Xerox MFDs.

Device Locations:

● One Xerox VersaLink Black/White device in each Residential Hall located in the RC Office

● One Xerox AltaLink Color device in the Information Resource Center (IRC)

● One Xerox AltaLink Black/White device in IN2

● One Xerox VersaLink Black/White device in A-109, The Writing Center

6-1 – Setup Printing for Linux OS

- Navigate to the location you downloaded and extracted IMSA's Computer setup Package (Step 1)
- Double-click on the folder named "Linux-IMSAPrinterSupport"
- Open the PDF file in this folder called: userGuide-student_IMSAPrinterSupportLinux.pdf and follow the instructions

6-2 - Perform a Test Print

You can use any kind of document to perform a test print to one of the IMSA's Student Printers.

● Open the application/document

● Print to one of the IMSA Student Printers

● The first time you print to one of the IMSA printers, you may be prompted for your IMSA username and password.

● Go to one of the available IMSA student printers and retrieve your test print out.
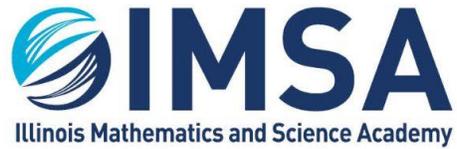
7 - Accessing IMSA Student Server While on Campus – OPTIONAL, Required for some classes

NOTE(s):

● **Completion of task(s) 1 thru 4 are required**

● **This task has to be completed while you are at the IMSA campus in Aurora, IL. It cannot be completed remotely**

● **You must be connected to a wired Ethernet connection in your Residential Hall room or connected to the wireless network airIMSA.**

Accessing remote servers varies from Linux distribution to distribution, use the method available to you to access the IMSA student server "students.imsa.edu". You will be prompted for your IMSA username and password.