2018/2019 SUSOA Computing Acceptable Use Policy and Practices
White Book / Gray Book Addendum

This document is an addendum to the policies set forth in the Student White and Gray Books (Undergraduate and Graduate Program Information and Guidelines).

Please visit the school's computing pages at http://soa.syr.edu/computing.

Computer Lab Policies
The School of Architecture offers 24-hour access to two computer labs in Rooms 014 and 004 of Slocum Hall. The labs are open to all architecture students who have attended an SOA computing orientation and are currently registered for architecture classes. Access to the labs is restricted during specified class times, schedules of which are posted on the entrance door.

- **Food and drink are forbidden** in the computer labs and plot room **at all times** as they can damage computer equipment or lab furnishings. **If we see you with food or drink (or empty drink or containers) in the labs or plot room, your account will be disabled for a minimum of two days.**

- The tables and floors in the labs are not to be used for cutting or scoring for any reason, as it damages the table and floor surfaces.

- Model building of any type is prohibited in the labs.

- During the school year (not including breaks), the labs are open 24/7. The School reserves the right to close the labs in the event of major problems and/or malfunctions. In addition, the labs may be closed periodically for maintenance. No one will be permitted to enter the labs or to print during this maintenance period. Computer lab access may be temporarily disabled during this time. Summer hours are generally reduced and student accounts are disabled except for those enrolled in summer course work.

- Because the demand on the number of computers is too great, students must logout if they leave the lab. Leaving one's personal belongings at a computer does not reserve the computer while one is away. Other students have the right to logoff unattended computers, and they are not responsible if unsaved work is lost. Unattended computers are auto-logged off after about 20 minutes; unsaved work will be lost.

- Completing the SOA computing orientation grants access to the SOA computer labs, network printers and network shared school folders. It is also necessary to utilize the school's pay-per-print system and digital fabrication facilities, including 3D printers, CNC mill and laser cutters. Students must be currently enrolled as an Architecture major and currently registered for Architecture classes. Upon completion of the orientation session each student must fill out an access form (available at the orientation) and return it to Room 001. Access will usually be ready within 24 hours, and you will receive a confirmation email.

- The labs are for projects related to architecture course work only. Other computer uses such as gaming and movie viewing must yield to architectural projects.

- The labs may be reserved during the semester for classroom instruction, as posted on the lab room doors. Classroom teaching has priority over other uses of the labs.

- All computers, monitors, computer peripherals, manuals and chairs are the property of the School of Architecture and belong in the computer lab at all times.

Room 014 – Large Computer/Teaching Lab

This lab contains 40 PCs running Windows 10 x64 and a ceiling mounted digital projector. Classes are regularly taught in this lab.

	Quantity	Connected to Network?	Login Required?	Specs	Notes
Work stations	40	Y	Y	Dell Precision 3630: Xeon 6-core E-2146G 3.5-4.5ghz processor, 16gb DDR4 ram, 5gb Nvidia Quadro P2000 video card, 500gb Samsung EVO 970 NVMe SSD, 24" monitor Dell Precision 3620: Xeon quad core E3-1270v6 3.8ghz, 16gb ram, 4gb AMD FirePro W5100 video card, 500gb Samsung EVO 960 NVMe SSD, 24" monitor	For software list, see below

Room 004 – Small Computer Lab

This lab contains 18 PCs running Windows 10 x64, two PCs acting as print stations, and two PCs acting as scan stations. A 65" paper trimmer is located here.

	Quantity	Connected to Network?	Login Required?	Specs	Notes
Work stations	18	Y	Y	Dell Precision 3620: Xeon quad core E3-1270v5 3.6ghz, 16gb ram, 4gb AMD FirePro W5100 video card, 500gb Samsung EVO 850 SATA SSD, 24" monitor	For software list, see below
Scan stations	2	N	N	Dell Optiplex T3500: Xeon quad core 2.93ghz, 6gb ram, 1gb AMD v5800 video, 19" monitors	Use USB drive to move files off computer; files deleted after 24 hours.
Print stations	2	Y	Y	Dell Optiplex T3600: Xeon Quad Core 3.6ghz, 8gb ram, 2gb AMD FirePro W5000 video card, 10K HDD, 19" monitor	For printing PDFs only.

CAUTION: the two scan stations have special software that completely restores the machine to a standard configuration whenever the machine is restarted (whether intended or due to power failure or computer crash). Don't store files on these computers or the desktop; they will be lost when the computer is restarted.

Lab Software

Workstations in both labs run Windows 10 x64 and contain the following software applications:

- 7Zip
- Adobe Creative Cloud 2018 (Acrobat Pro, After Effects, Dreamweaver, Fireworks, Flash, Fuse, Illustrator, InDesign, Muse, Photoshop, Premier Pro) + InDesign CS6, Illustrator CS6
- Andrew Marsh Energy Programs
- ArcGIS 10.6 (25 licenses), ArcEditor for Open Street Map, ArcGIS Pro 2.2, CityEngine 2018
- Arduino IDE
- Arnold render engine with plugins for Maya, 3dsMax, Cinema 4D, SolidWorks
- Audacity
- Autodesk 123D apps: 123D Catch, 123D Design, 123D Make
- Autodesk 3ds Max Design 2019 with Greeble
- Autodesk AutoCAD Architecture 2019
- Autodesk AutoCAD 2019
- Autodesk AutoCAD Map 3D 2019
- Autodesk Dynamo Studio 2017 (Vasari)
- Autodesk Maya 2018
- Autodesk Meshmixer 3.5p

- Autodesk Mudbox 2018
- Autodesk Netfabb Standard 2018
- Autodesk Recap Pro 360 2019
- Autodesk RevIT 2019
- Autodesk Sketch 2019
- Autodesk Structural Bridge Designer 2018
- Bentley AECOsim Building Designer
- Bentley AECOsim Energy Simulator
- Blender 2.79
- Cinema 4d R18 Prime (40 licenses)
- CDBurnerXP
- Cura
- Filezilla
- Gehry Technologies Digital Project (2 licenses)
- Gimp
- Google Earth Pro
- Inkscape
- Irfanview
- iTree 2018
- Handbrake
- Keyshot + plugins
- LibreOffice 6.1
- LosslessCut
- Lumion 8.5 + DWG & Revit Bridges
- Makerware Desktop
- Marsh Sun-path Analysis and related programs
- Masterspec
- Materialise Magics 22 (10 licenses)
- Mental Ray for Maya, 3dsMax, Cinema 4D
- Microsoft Image Composite Editor
- Microsoft Office 2016 (Word, Excel, PowerPoint, Access, OneNote)
- OBS (Open Broadcaster Software) 21.x
- Ocenaudio
- OpenShot Video Editor
- Preform
- Processing v3.4
- Python 3.7
- QGIS 3.2.x
- Quicktime Essentials
- Real Flow 4.3 (5 licenses)
- Rhino 5 sr14 (60 licenses)
- Rhino 6 sr7
- Rhino plugins: Grasshopper, Firefly, Flamingo 5, Karamba, DIVA+ArchSIM, Kangaroo, Weaverbird, Honeybee, Ladybug, Human+TreeFrog, Paneling Tools, Section Tools, TT Toolbox, UMI
- Roland SRP Player (CNC toolpath software)
- SAP2000 20.x (15 licenses) (structural analysis)
- Scribus
- Sculptris

- Sketchup Pro 2018 (20 licenses)
- SolidWorks 2018 (10 licenses)
- Terragen 4.1
- Unity 2018
- V-ray 3.6x for Rhino, Sketchup Pro, Revit, Maya
- Vidcoder 4.10
- VLC Player

Several programs are limited in the number of licenses. If all licenses are in use when you try to run one of these programs, the program either won't start, or you will get a message that you are in the 'queue'. When a license becomes free, you can run the program.

If you are having problems with the lab software check the Help page at http://soa.syr.edu/comphelp.

Free Software
Students can get free or low cost versions of several of the lab programs for use on a personal computer:

- Free: ArcGIS - E-mail us at archit@syr.edu to request a free license.
- Free: Autodesk AutoCAD Architecture, RevIT, 3ds Max, Maya, etc. - visit http://students.autodesk.com
- Free: Cinema4D – E-mail us at archit@syr.edu to request a free license.
- Free: Microsoft Office – visit https://answers.syr.edu/display/software/Office+365+ProPlus+for+Students
- Free: V-Ray for Rhino 5/6 - find it in on the G drive in G:\Student Resources\Software\VRay for Rhino.
- Reduced Cost: Adobe Creative Cloud – visit http://www.adobe.com/education.html

Student Network Resources
- Students can access various network folders (described below) from their laptops by connecting to the 'G' and 'H' drives.

- All shared network folders on the G drive are emptied twice each year: on or about December 21 and May 20.

- Only architecture-related files can be stored on the school's shared network folders. If pirated software is found on shared folders, the person who uploaded it will lose access to SOA computing resources.

- Each lab computer has a folder on the C drive called Student (C:\Student), which is specific to that computer and can be used as a temporary location to work on files. When working with files, copy them to this Student folder. Remember not to leave files on the C drive when you are done, as there is no guarantee that they will be there the next time you login.

- Avoid opening or working on large files directly from your H Drive/Documents folder. File corruption or program crashes can result when working on files across the network in this manner. Instead, copy the files to the Student folder on the C drive and work on them from there. File operations such as opening and saving will usually be faster. When you are done working, copy your files from the Student folder back to your Documents/H drive.

Network Location	Folder Name	Description
H Drive	Documents	This is your Windows Documents (My Documents) folder. Each student has approximately 100 GB of personal storage space on the server. This space is only accessible to the student. Files are not removed at the end of the semester.
G Drive	Archive	This is where you turn in your work at the end of the semester (the folder will not appear until later in the semester). There will be folders set up for each course and you can drop your files in the appropriate locations
	Student Courses	Contains shared course folders, if your professor asked for one to be set up.
	Student Resources	Here you can find software such as V-Ray for Rhino, the Drawing and Map Archive, printer color palettes, laser cutter templates and the Architects Slide Collection.
	Student Scans	After scanning a document or image on the printer Luma (which has a built-in scanner), the file shows up in this folder. Files in this folder are read-only and are auto-deleted after 24 hours. You may need to use the file timestamps to determine which ones are yours.
	Student Scratch	This temporary, shared space is accessible to all students in Syracuse and NYC. Files can be stored here for up to 24 hours but may be deleted earlier if the drive runs low on space. Files are automatically deleted after 24 hours.

Plot/Print Pay-Per-Use Service

- The Plot/Print room is a staffed self-service print facility serving SUSOA students and faculty, and is located adjacent to the computer labs in Room 013 of Slocum Hall.

- Fees are charged for all printing and plotting on school-owned devices. These fees are used to pay for the operation of the printing and plotting facilities, including plotter maintenance, supplies and equipment replacement. Prices are set below average commercial rates in the region. Printing material not connected with architectural course work is prohibited.

- Problems or concerns related to the equipment in the computer labs or the Plot/Print Room should be directed to the

Plot Monitor on duty or via email to Andy Molloy at awmolloy@syr.edu.

- The plotter room is generally open from 8:30 a.m. to 11 p.m. daily during the semester, and is open only when a plot monitor is on duty. Other times the room is closed and locked. The hours of operation are posted on the plotter room door and online. A full-time plot monitor covers the weekday hours; paid student monitors cover evenings and weekends.

- The plot queues are disabled from 11 p.m. to 7 a.m. You can still send a job during this time, but it will be held in the queue and released in the morning.

- Plotter supplies are handled by designated plot monitors. Students should locate the on-duty plot monitor if a plotter or printer needs to be resupplied with paper, ink, or toner.

- Coated paper is supplied for all plotters. Students may use specific alternate types of paper at their expense — check the sign in the plot room for the allowed paper types. The on-duty plot monitor must load student-provided paper.

- On the large plotters, sheet feeding is allowed only on the HP DesignJet 1700ps plotter (Yoshi2). The maximum size for sheet feeding is 36 by 60 inches. Only specific approved paper is allowed for sheet feeding; no thick, curled paper or thin tracing-like paper is permitted. Check the sign in the plot room for the allowed paper types, which are available for purchase in the SU Bookstore.

- On the large plotters and Luma, the maximum paper size from the roll feed is 36" by 129".

- Please discard all scrap paper and draft prints into the blue bins or green trash containers. All paper on the floor or left on tables for more than one day may be discarded; however, one is responsible for cleaning up after oneself.

How the print system works

- Printing in the lab is controlled by a program called Papercut. The Papercut client runs on each lab computer in the system tray in the lower right corner of the screen. The icon is a small green symbol. When a student clicks the print button in any software program, the print will spool to the print server. This may take some time when printing large files. After it is done spooling, a small popup bubble will appear in the lower right corner of the screen showing the cost for the print job and the balance in one's printing account.

- You must now 'release' the print job in order for it to actually print, as it is currently being held for confirmation. To release the job, look for the Balance window and click the 'Details' link. This will open a web browser (or open a web browser and go to https://arch-print.syr.edu). Login to the print system and look for your job on the Jobs Pending Release page.

- During printing, the cost of each print job is automatically subtracted from one's printing account. Once the amount reaches zero, if a student chooses to continue to print he/she must add more money to the account. The job will remain in the pending state, so that you have a chance to add funds to your account. Then you can go back and release it.

- If one prints to a paper size that is not supported by the printer, the job will not print. Check the equipment list on the school's web site to find out the supported paper sizes. Common errors include printing to legal (8.5" x 14") or A4 size paper, both of which are not supported.

- The file size for a print job should be kept small (<10 mb). Large file sizes (>250 mb) sent to the printers are automatically deleted. Learn how to optimize your files before sending.

- Ask the on-duty plot monitor for help if you are having trouble printing.

- Every student account receives a $25 credit at the beginning of the school year. This credit shows up as a 'free quota' in the printing system. This allows for immediate start-up, and compensates for potential plotter or printer errors over the course of the school year.

Checking your print account balance
- Log into the Papercut website at https://arch-print.syr.edu to see your balance.

Adding money to your print account
- Log into the Papercut website at https://arch-print.syr.edu and go to the 'Add Credit' tab to add funds. You can use a credit card or a debit or gift card with the Visa or MasterCard logo.

Plotting and printing fees

Black & White Laser	Print size	Cost	
Bowser, Bowser2 (HP LaserJet 9040 & 9050)	Letter	$0.04 per sheet	
	11" x 17"	$0.08 per sheet	
Color Laser			
Koopa3, Koopa4 (HP Color LaserJet m855)	Letter	$0.30 per sheet	
	11" x 17"	$0.60 per sheet	
Color Inkjet			
Pipsi (Epson Stylus Pro 3800)	Letter	$1.00 per sheet	
	11" x 17"	$1.50 per sheet	
Plotting	Type	Cost	Examples
Luma (OCE Plotwave 360)	B/W	0.25 per sq foot	Arch C (18"x24") - $0.75 Arch D (24"x36") - $1.50 Arch E (36"x48") - $3.00
Peach, Pichu, Pichu2, Pichu3, Yoshi2 (HP DesignJet T7200ps, T1700ps)	Color or B/W	$1.16 per sq foot	Arch C (18"x24") - $3.48 Arch D (24"x36") - $6.96 Arch E (36"x48") - $13.92

Refunds for printing problems
- Each student starts off the school year with a $25 credit to compensate for times when the printer jams, runs out of ink or toner, or crashes in the middle of the print job. This credit shows up as a 'free quota' in the printing system. If a student feels that the $25 credit has already been used for legitimate printer malfunctions, they may apply for a refund of a print job that failed to print because of a printer problem. Refunds are not given for jobs that are sized or rotated incorrectly, nor for problems with color, fonts, etc. Students must know how to use the software to send the job correctly.

Students are encouraged to do a small test print if they are in doubt. If the School determines the refund is warranted, it will credit the account for the print.

- To receive credit, you must have satisfied the previous point, and the incident must have been recorded by the on-duty plot monitor in the Bad Plot Log, which is located in the plot room. Email Andy Molloy (awmolloy@syr.edu) to request the refund. Students requesting a refund cannot keep the failed printout, if it exists.

Refunds for unused printing balance

- Architecture students may request a refund of an unused account balance (such as upon graduation). The request must be made during specific periods at the end of each semester. Refunds may take several weeks to process, and will be in the form a check. More specific information will be distributed toward the end of the semester.
- If you are returning next semester or school year, the balance in your account will roll over, so you will not lose the amount credited to your account.

General Plot/Print Checklist

1. Keep file sizes as small as possible.
   The smaller your file size, the faster it will print. Most of the waiting time is for the file to be sent from the server to the printer. Optimize your file size and you will get your print faster. Also important is the resolution of your images/files--we recommend sending images/files no higher than 200 dpi. If necessary lower the resolution--this can dramatically decrease the printing time.

2. Plotting and printing from PDF files is the recommended digital workflow.
   We prefer that all output be sent to the plotters as PDF files (except AutoCAD). A PDF can be created from any lab computer program by printing to "Adobe PDF", which creates the PDF file. Some programs such as Photoshop and Illustrator let you save directly as a PDF. You can then open the newly created PDF in Acrobat to print it. Check out the SOA Computing website for a guide on how to optimize a PDF to decrease the file size before printing.

3. Use the correct print driver for the type of file you are printing.
   Most plotters on Windows have both a postscript and non-postscript driver (for example, Pichu shows up under printers as "Pichu" which is non-postscript, and "Pichu-Postscript", which is postscript). As a rule, if the printer has a choice of drivers, send Adobe program files (PDF, Photoshop, Illustrator, InDesign) to the postscript driver. Send everything else to the non-postscript driver. Problems such as large dimension jobs printing only part of the drawing often result from using the wrong driver (usually using non-postscript when you should use postscript).

4. Check Plotter Settings.
   Most problems result in the print output being rotated and cut off. There are specific steps to follow when setting up your print job that help prevent this. Step-by-step instructions for printing from Acrobat Pro are at http://soa.syr.edu/printacrobat.

5. Do test plots before deadlines.
   If this is the first time you are using an application, do a test print well in advance. This way you know you can plot correctly, and you thoroughly understand the settings. Plot small subsections of large dimension files ahead of time to check the color and quality of output (use Acrobat's crop function to set up a small section for test plotting).

6. Give yourself enough time to plot before your review.
   Give yourself plenty of time for plotting. Chances are everyone else will wait until the last minute to plot; do not make that mistake yourself. Give yourself at a minimum 24 hours to plot before it is due.

7. Seek help when needed.
   If you have questions, please ask a Plot Monitor; they are there to help.

PDF Printing and Plotting

- The most important element in successful plotting and printing is the compatibility of your print/plot data. The PDF file format was invented by Adobe to ensure compatible output from screen to printer. The recommended digital file workflow in the school is to convert your file to PDF, then open the PDF in Adobe Acrobat Pro and proceed to print. Using the PDF format allows the image to be verified and checked before you plot the file and incur charges.

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