

School of Electrical Engineering and Computer Science

Computing Policies

Introduction

The policies described in this document govern the use and administration of the computing facilities within the School of Electrical Engineering and Computer Science at Washington State University. These policies reflect the current official positions of the School.

Because technology and roles change, specific information about the computing facilities and the individuals involved is contained in the School's Web pages.

General Principles

The School's computer facilities are limited and we have a relatively large user population. We rely on our users to recognize this and to be considerate of other users. This document describes both general guidelines and specific rules and is designed to help users make mature and rational decisions in regard to their use of EECS facilities.

The following principles guide these policies:

Academic Integrity

As an institution of higher learning, EECS must maintain the integrity of all activities related to this important purpose. Electronic acts that threaten this integrity will be handled in accordance with WSU policies related to Academic Misconduct.

Reasonable Use

All use of EECS resources by users is expected to be reasonable in the sense that one user's use of the environment does not impact others' use. Commercial use of the EECS computing environment, using excessive amounts of CPU time, using excessive amounts of disk space, and generating excessive amounts of network traffic are all examples of unreasonable use.

Fair Allocation of Resources

The Department will establish guidelines for allocation computing resources to ensure fair and equitable access by all users.

Social Responsibility

The support staff strives to provide to the EECS community computing facilities that are both safe and professional. Moreover, because the EECS computer network is part of a larger international network, the Department assumes certain responsibilities as a member of a growing electronic

community. This has consequences both in terms of the services the Department provides as well as in terms of the types of security measures the Department will implement to ensure we meet these responsibilities.

Right to Privacy

Computer files are a form of property separable from the media on which they are recorded. The contents of a file will be treated as analogous to physical property. The computer files of an account may not be inspected, copied, changed or otherwise altered unless access is provided by the owner. The only exceptions made will be for purposes relevant to the administration of the computer system or to investigate misuse.

Requesting Policy Changes

The staff, Systems and Facilities Committee (SAFC), and the Director all have a role in the management of EECS facilities. The staff is responsible for day-to-day operation of the facilities and will frequently be the source of recommendations for new projects and changes to the facilities. The Committee is responsible for policies governing the use of the facilities, and for recommending to the faculty and/or the Director significant changes affecting the staff. The Director is responsible overall for departmental resources, both personnel and financial.

Definitions

Facilities

The Departmental computer facilities are defined as the laboratories, computer hardware, and computer software obtained by the Department for general use. This includes (but is not limited to) the labs, computers, workstations, terminals, printers, disks, network communication hardware, and all software that runs on the hardware.

It does not include hardware and software obtained by the faculty for research purposes.

Users

Different types of users have different usage limits as well as different access rights. The Department tries to be flexible enough to accommodate individual needs.

The Department has defined the following classes of users:

Faculty

Tenured, tenure-track, clinical faculty, and instructors.

Staff

Full-time and part-time employees of the Department who are neither faculty nor students.

Graduate Students

Active EECS graduate students who are officially in the Department. There are two types:

Supported Graduate Students

Students who receive support from the EECS Department including fellows, graduate teaching assistants (GTAs), graduate research assistance (GRAs), and graduate administrative assistants (GAAs). GRAs are supported by faculty researchers while fellows, GTAs, and GAAs are supported by the department.

Unsupported Graduate Students

Graduate students who do not receive support from the EECS Department but who may or may not be receiving support from other sources within the University or from outside agencies.

Undergraduate EECS Majors

Undergraduate students who have been officially certified for degrees offered by EECS.

Non-EECS students

EECS pre-majors, non-EECS Undergraduates and non-EECS graduate students who are currently taking EECS courses.

Special Users

These may include research collaborators, students in non-credit seminars or other special users requested by the faculty or staff. The creation of accounts for special users, and their specific configuration of resources, must be approved by the SAFC Committee.

Accounts

The types of accounts are:

Permanent Accounts

These accounts are given to individuals for as long as they are affiliated with the Department. Student accounts will be deleted during finals week of the semester *following* the semester the user graduates or after 2 semesters where they did not take EECS courses. Other permanent accounts will be deleted two weeks following the user's termination date. The Department may maintain email forwarding services by request to the latter for three months.

Each graduate student advisor shall be responsible for notifying the systems staff concerning data storage of their graduate student.

Types of users: faculty, staff, EECS graduate students, and undergraduate EECS majors.

Class accounts

These accounts are given only for a specific EECS course and last for only one semester. Accounts for non-EECS majors are deleted the Tuesday following finals week of the semester in which the class is offered.

Types of users: Students enrolled in EECS courses who are neither EECS Majors nor EECS Graduate Students.

Event Accounts

These accounts are created for specific events such as seminars and as such have a definite life span. The technical requirements for the accounts must be provided by the organizer and approved by the SAFC Committee.

Guest Accounts

Faculty may request accounts for individuals not affiliated with the department or with WSU. Such accounts must be approved by the SAFC Committee and may be renewed indefinitely.

Appropriate Use

Account Use

Computing accounts are to be used for class work or research directly related to the reason the individual was given the account. Other use of an account, such as experimenting with non-instructional software, is allowed only when such use does not impact the ability of others to get their work done or otherwise significantly impact the availability of Department resources.

For both the Linux and Microsoft Windows environment we have defined virtual servers and VLANs (virtual large area network) for use by faculty and by students. Faculty virtual servers are to be used only by faculty and staff. Faculty can log into student virtual servers to help students with assignments, etc. However, the two environments are identical and there should be no need to access a specific server or class of servers for any particular functionality.

Login servers should be accessed through the appropriate alias. The aliases may direct you to a group of machines providing that service. We use aliases to allow us to reconfigure our environment as needed to compensate for system outages or to adjust for demand. There is no commitment that a specific machine will be available.

An EECS computer account *is to be used by the individual assigned to it and by no one else*. A violation of this principle may be considered academic misconduct and will be handled accordingly. This policy is rigid because any suspect computing activity that may threaten system security or otherwise violate policy is traced to a particular account and the owner of that account is held entirely responsible for that activity.

In general, violators of any usage policy may be ejected from the system by lab operators or other Information Systems Group staff (also known as ISG) and any jobs they are running may be stopped.

Disk Space

Disk space is intended for department-related activities. Disk quotas are established for all users.

The departmental web pages contain specific information on categories of users and their respective quotas. Commands are available to check quotas and current disk usage. Users will receive a warning when they are approaching the limits of their quota. The following practices help to keep usage below quota:

- Periodically review the files in your file space and remove files as appropriate.
- Routinely remove unneeded files such as core and a.out files, program output, and multiple copies of files.
- Compress files that are old or infrequently used.

Printing Guidelines

The EECS printing facilities are intended to be used only for department-related activities. Print quotas are defined for all student and guest accounts. Information about print quotas is available on the EECS web pages.

The following guidelines are designed to prevent unintentional abuse of printing privileges. Repeated use of the printing facilities in violation of these guidelines is considered abuse and subject to disciplinary measures.

- Always display potential printer output on the screen before printing, i.e., know that the output is "good" to prevent the waste of paper.
- Always check the length of a file before printing it to avoid being surprised by the amount of paper used. Use previewers to determine how many pages will be printed.
- Never print multiple copies of the same file. Use a copier to make copies.
- Do not queue more than three consecutive printouts at any given time.
- Place unwanted portions of printouts in the recycle bins found near each of the printers.

- Pick up printouts within two days of printing. Printouts more than two days old are placed in the recycling bins by the consultants.

Faculty, and Teaching Assistants Printing

EECS course instructors are reminded that the EECS printers should not be used as reproduction devices, i.e., copy machines. The printing of large jobs has a negative impact on the computing environment because it monopolizes the printers, preventing other users from accessing them.

Any course material that would normally be reproduced in hardcopy for each student should be processed through sources available for such reproduction

Instructors wishing to make course materials available on their web site are asked to break the material up so that students can print out only what they need.

Network Facilities

Network facilities provide users with a means to share email, programs and other files within and outside of the EECS computing environment.

Users are expected to be reasonable and polite in their use of network facilities and to know and follow mail etiquette guidelines. They also must become familiar with the rules of the organizations that operate the computer networks to which EECS provides access. If any EECS resource is used as part of a violation of policy governing computing resources available by way of the network, it is considered abuse of EECS privileges.

The following are specific rules for network use:

- Illegal activity is prohibited. This includes but is not limited to cracking, slander, libel, and harassment.
- Activities that interfere with the operation of a network are prohibited. These include the propagation of computer worms, viruses, or trojan horses.
- Violation of security systems or licensing restrictions is prohibited.
- Students are not allowed to run programs that provide network services; it is strictly prohibited without prior approval. These include, but are not limited to: IRC servers, IRC ``bots'', file servers, web servers, etc.
- Attempts to send mail as another user are prohibited.
- Mailing or posting chain letters is prohibited.
- ``Spamming''--mailing excessive amounts of unsolicited messages--is prohibited.

Public Computing Labs

Users doing EECS course work have top priority on the EECS machines in the labs.

The primary purpose of the public labs is to serve the educational process. Thus, users are expected to conduct themselves in a mature and professional fashion in all EECS laboratories. Loud or rowdy behavior is not permitted. Users who persist in such behavior will be considered in violation of Department policies.

Screen locking programs are provided so users can lock their terminals or workstations when they have to leave them for a short time. Terminals and workstations should be locked for no more than 15 minutes. The Computing Services staff will log users out of machines which have been locked for more than 15 minutes.

If a public-use machine is locked for longer than 15 minutes, users may ask a lab consultant to unlock the machine or call the Help Desk (335-6773) so that the screen lock can be killed, the user logged out, and email sent to the offending user explaining the policy.

Computers in public labs and offices are the property of the University and are part of the workplace. Images displayed on them should be governed by principles related to appropriate use and to maintaining a supportive, friendly work environment. Images may be displayed if they meet the above guidelines and can be stored within the user's disk quota. Any user who finds the display of a particular image inappropriate should notify the operations staff.

Broadcasting audio to other lab machines or playing audio so loud that it bothers other users is prohibited. Normally, users should use headphones when listening to audio in EECS labs so as not to disturb others.

Our environment is design to allow users to work remotely in much the same way they do in the computer labs. All of the policies in this document apply equally to local and remote usage. Interfaces are provided for remote use including: mail, ssh, etc. However, the ISG does not support user owned equipment. See the section on Requesting Services and Limitations to Support for further information.

Windows Lab Environment

Instructional Microsoft Windows access is provided using a shared Microsoft Windows environment.. Due to the nature of this environment, users are required to obey the following policies:

- Because there are a limited number of sessions available per Windows server, users should log off when not actively using their Windows sessions.
- Windows servers supporting the EECS Windows lab environment have been configured to support a specific set of instructional software and lab

assignments. Users are not permitted to download and run software on the Windows servers and work stations because such software is often not local to the user, but may globally change registry settings, modify system files, etc., thus impacting all other Windows users. Any such software that is found will be removed.

World Wide Web

The department provides the ability of any user to create their own WWW pages. The ISG reserves the right to remove users' material from the WWW for the following reasons:

- The material is creating an excessive amount of traffic, slowing down the system or using excessive amounts of disk space.
- The material is deemed to be in violation of applicable laws.
- The material violates applicable university policies.

Security Violations

On occasion, people have tried to break into the department's system. When such security violations are discovered, the EECS staff will do whatever is necessary to resolve the breach. This might include locking an account that has been compromised.

Users found to be violating or attempting to violate system security may face academic misconduct charges or legal action. Using the department's systems to attempt to violate the security of any other system will result in similar consequences.

Users who believe there may be a security breach should bring their concerns to the systems staff immediately. Users should not, under any circumstances, attempt to find a security hole in the system without permission from the systems staff. The systems staff will treat any attempt to violate security as hostile.

Support Services

Effective operation of our computing facilities requires that the entire community be tolerant and exercise good judgment when seeking services. The ISG supports more than 1,000 students, faculty and staff. It is important that requests for services do not define solutions prematurely and instead allow for full exploration of all possible solutions by the servicer. The following guidelines are designed to help the entire community better understand how to obtain different services from the ISG, what to expect when such services are requested, and what recourse is available when dissatisfied.

Much of the discussion in this section relies on a distinction between software that is *officially supported* by the ISG and software that is not officially supported. The ISG maintains on its web site (<https://support.eecs.wsu.edu>) a list of fully supported software. In general, official support includes:

- Installing all pertinent components of the software.
- Testing the software for proper execution.
- Testing the software for compatibility with other packages having common features.
- Knowing the software well enough to answer questions and resolve problems.
- Keeping abreast of changes in the software package or changes other software and systems that could affect this package.

There are four types of requests: problem reports, seeking advice, requests for new or modified services, and complaints. Each of these is elaborated below.

Problem Reports

This type of request involves software and hardware officially supported by the ISG. Example problems are the unavailability of some system, a printer not printing, a supported software anomaly, and a problem with a EECS account. The objective is to get the problem fixed, and if appropriate, identify an interim workaround.

The help request system (support@eecs.wsu.edu) is to be used for problem reports. Users should provide as much detail as possible when reporting a problem, i.e., the time the problem occurred, the system the user is logged into, the command being executed, an error message received, etc. The more information that is provided in the problem description, the more quickly the problem can be pinpointed and resolved. With the current staffing levels, customers can expect a 24 to 48 hour response time.

Seek Advice

This type of request includes questions on hardware or software not officially supported by the ISG. It may involve software or systems running on home computers, systems that users have configured and control themselves, software that users are trying to run in their own account, etc.

Clearly, any computer support staff cannot be knowledgeable about every piece of hardware and software available to users. Further, even knowledgeable staff may

have difficulty offering help when users have modified their own systems in ways known only to them.

Although the staff is willing to offer advice in these circumstances, other resources exist that may be better suited to address the problem, or to offer additional advice and support. Examples of these resources include man pages, Frequently Asked Questions lists (FAQs), newsgroups, and WWW services. Man pages are online documentation available for most Linux commands and EECS software packages. There are some man pages that can only be accessed if you have subscribed to the software package via the subscribe command. FAQs and newsgroups can be found internal and external to the EECS Department.

The EECS WWW site provides online resources including those specific to the EECS Department and ISG. There are also many other web sites that provide help and documentation on a wide variety of topics.

Changes in ISG Service

This type of request concerns changing the configuration of the computing environment itself, for example, requesting the installation of new software, new systems, changes to labs, etc. The objective is to obtain approval for the new service and to make the new service available to the community.

To most efficiently use our resources it is also important that support be discontinued for services whose use has declined or that have become obsolete. The ISG staff or other users may recommend to the SAFC that services or functionality be removed from the environment.

Change Approval Process

The EECS SAFC is responsible for recommending to the Department significant changes to EECS facilities. Faculty and the ISG are represented on this committee. Proposals for changes should be submitted to the Chair of the committee

With over 1,000 users and limits to staff and budget resources it is important that the committee look at the total costs and benefits of any proposal. While a formal process will be followed in committee for final approval of any changes, it is strongly recommended that users who want to propose changes discuss their needs with the ISG staff before making a formal proposal. This allows the requester and the staff to evaluate a range of possible solutions that may be acceptable.

Proposals must include information concerning:

- What problem or need in the EECS environment is being addressed by the proposed change and how does the change solve the problem?
- Which and how many users will be affected by the proposed change?
- When is the change desired/needed?

The ISG staff will review the proposal and report to the committee on issues including:

- Whether the problem or need in the environment exists and the effectiveness of the proposed change in meeting the need.
- The direct and indirect cost of the change. Direct costs include the costs of hardware and software. Indirect costs include the floor space required, staffing and support, and modifications to other parts of the environment
- Possible alternative solutions.

Changes to Supported Software

Proposed changes to the list of officially supported software are also considered as part of this process.

While it is best to propose software changes as part of the annual planning process there are two aspects that might be considered during the year. Course-related software change requests made during the year must be made at least four weeks prior to the semester the software will be required. Even if the proposal is approved, this lead time does not guarantee that the software will be available in time. The size and complexity of the package and the other priorities of the staff may prohibit the project's completion in this time period.

The ISG staff will perform all software upgrades during semester breaks. The SAFC will be informed of proposed upgrades for the coming break by the 8th week of the semester. This lead time will allow users who may be adversely impacted by the upgrade of a specific package to ask that it be delayed.

Complaints

Dissatisfaction with services should be handled professionally, courteously and promptly by all concerned. Complaints should be registered through the help request system. A user may appeal the response to a complaint to the Manager of the Information Systems Group. If the problem involves a disagreement about policies, it may be appropriate to bring this disagreement to the SAFC for resolution.

Summary of Official EECS Policies

Policies governing the EECS computing environment are summarized below. Violation of these policies can lead to various penalties spanning loss of account privileges to criminal prosecution.

- There are over 1,000 users. Be respectful and courteous at all times.
- Users doing EECS course work have top priority on the EECS machines in the labs.
- Accounts are to be used only by the person to whom they are assigned.
- Users are not to tamper with another user's machine, files, processes, or jobs.
- Multiple copies of a printout should be made using a copier and not by printing multiple times.
- Users must stay within their disk quota.
- Users may not try to break system security for any reason.
- Users must log out if they will be gone for more than 15 minutes.
- Users should request help in the appropriate way and provide as much information as possible for the quickest resolution.
- Users should go the following web address for the WSU policies:

<http://infotech.wsu.edu/about/Policies/policies.html>

<http://infotech.wsu.edu/about/policies/computeruse.html>

Research Computing Agreement

The following is an agreement for providing support for research computing.

Support Staff for Faculty-Owned Research Computing

Faculty in the school of EECS will have two ways to provide support staff for their own research computing infrastructure: (1) Hiring their own support staff, and (2) requesting assistance from the ISG.

1) Policies for EECS faculty hiring their own support staff:

All support staff hired by EECS faculty will undergo a training course set up by the ISG. The course will be offered once per semester, within the first five weeks of the semester. Course participants will be trained in EECS network standards and practices.

All faculty members employing their own research computing support staff will also undergo a short training course set up by the ISG. The course will be offered once per

semester, within the first five weeks of the semester. The course will cover management responsibilities of the employing faculty member, and standards to be followed by all research computing support staff.

Faculty employing their own support staff should be aware that any network security breaches or other damage to the EECS network caused by failure of one or more of their support staff members to adhere to EECS network standards may result in revocation of the offending staff members' network privileges.

2) Policy for requesting research support from the ISG:

Requests for research support from the ISG will be submitted by sending an email to support@eecs.wsu.edu. The ISG will assign research support requests a lower priority than educational support requests, and will process such requests in the order they are received. Faculty should be aware that research support requests sent to the ISG might not be completed within the desired time period.

School of EECS Research Computing Cluster

The School of EECS will maintain a cluster of servers to support faculty research. The servers will be capable of running multiple virtual machines, which can be configured to support faculty research needs. The EECS Research Computing Cluster will be supported and maintained by the ISG. Requests for usage or resources on the EECS Research Computing Cluster should be sent to the ISG through support@eecs.wsu.edu. Details of the capabilities and resources of the EECS Research Computing Cluster will be posted at www.eecs.wsu.edu/rccinfo.

Every external funding proposal containing one or more budget line items for research computing infrastructure will be evaluated by the ISG. The ISG will make a recommendation to the Director of EECS and the proposal's PI as to whether computing infrastructure requested in the proposal should instead be provided by the Research Computing Cluster. Depending on the ISG's recommendation and input from the PI, the Director may request the PI to make changes in the research computing budget before signing the proposal.