

Getting Stuff Done: The CCIS Crew Handbook

The Northeastern University College of Computer and
Information Science Volunteer Systems Group (“Crew”)

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1 Foreword

This writing is intended to serve only as an objective guideline, and all policies herein are entitled to change without notice.

This writing was inspired by the need for a unified, written policy on many topics within Crew so that concrete rules could be referenced when disputes surfaced or when policy was in question. Much of the content of this document is inspired by a mysterious document of unknown origin titled “The Crew Handbook,” dated 1991.

We have tried to capture the spirit of Crew in this document, however, Crew is inherently dynamic. As such, future generations of Crew leadership are encouraged to modify and revise this document.

2 What Crew is About

Crew is an extension of the CCIS Systems Group (“Systems”), which “is dedicated to maintaining and improving the computing environment in the College of Computer and Information Science at Northeastern University” (CCIS web site). Crew should be considered a volunteer extension to Systems whose roles are as follows:

- Perform research and development for Systems
- Investigate new (and potentially cool) technologies

- Provide services that benefit the CCIS community
- Aids the Systems group when requested

Crew is provided with adequate resources to serve the above roles. Resources include, but are not limited to, a private research laboratory (“the Pit”), hardware unused by Systems, and elevated permissions on Crew machines and the CCIS infrastructure. (See *Resources* below.)

Crew is a group of students and not an official University “student group.” Thus, Crew has no formal rules or bylaws, only guidelines. Crew has no formal elections, but essentially a two-tier system involving peer-emergent Crew leaders (“seniors,” see below) and everyone else. Additionally, Crew/Systems Liaison is always available and currently this is Bill Finizia.

Crew Seniors (who may not be actual seniors in terms of their year) are considered *peer-emergent* because they arise out of the existing group of Crew people. Seniors should be the older members of Crew because they are more experienced with the issues, policies and dealings of CCIS, Systems and Crew—members that preferably, but not exclusively, have actually worked for the Systems group at some point. Seniors **must** be recognized and explicitly trusted by the Systems group. A Unix group called **elders** exists for administrative reasons and includes these people as well as the Systems Liaison.

3 Crew Resources

3.1 The Pit

“The Pit” is the affectionate nickname used to describe Crew’s current lab space, 314 West Village H. This space is granted to us by the Systems group in return for our efforts. As such, the Pit should be treated with respect at all times, and is to be kept (relatively) clean. Due to the Pit’s role as a research lab it is bound to become cluttered and should be fully cleaned at least once or twice each semester.

During the day, when the Pit is already open, all Crew members are welcome. However, the ability to open the Pit is a privilege and comes with a large amount of responsibility. Pit access will not be granted to individuals simply need a place to do homework. CCIS supplies large computer labs and a

student lounge for these purposes and the Pit is neither of these. The Pit is a research facility and should always be treated as such.

Students may *not* be in the Pit if they are skipping class.

It is the responsibility of anyone who enters the Pit to clean up their own waste. Leaving things behind such as half-full cans of soda or the remains of a steak and cheese sandwich are clearly unacceptable, even of Pit guests.

3.1.1 Keys

Keys that open the door, currently coded access cards, are given to those that fulfill the following requirements.

- Any member of the Systems staff, including those in Systems co-op positions
- Any Crew Senior
- Any Crew member that has had at least two semesters of what qualifies as Crew membership. A member of the Systems staff, preferably the Systems Liaison, must approve all keyholders and agree that he or she trusts the keyholder with Pit keyholder responsibility (see below). The keyholders must also demonstrate that they understand CCIS, Systems and Crew policy, abide by the Crew behavioral guidelines, and must have a legitimate cause for requesting access to the Pit.

Additionally, a maximum assignment of eight keys is suggested.

3.1.2 Why keep the Pit secure?

The Pit must be secured because a lot of important information and property is in the room like any other research lab. Property *has* been stolen from the Pit in the past.

3.1.3 Miscellaneous

Be reminded that the Pit is a lab owned by Northeastern University and that related N.U. rules apply. Refer to the N.U. Student Handbook for policy regarding alcohol, etc.

3.2 Hardware

Systems does its best to obtain the hardware that Crew needs for its projects and sometimes it is donated by professors. In return there is a certain expectation by CCIS that this hardware will be used productively.

Hardware is usually assigned for specific tasks. Project leaders are responsible for knowing which hardware is theirs, Crew Seniors are responsible for knowing what every Crew machine does, and everyone else should respect hardware that is assigned to other projects even if it is not currently being used. Examples of not respecting hardware include: removing RAM from machines that are not running or using disconnected machines simply as monitor stands.

3.3 Elevated Privileges

Elevated privileges can be granted to Crew members when the project requires it and the individuals are deemed trustworthy. This is not an automatic process; it is performed on a case-by-case basis as necessary and appropriate. Examples include, but are not limited to, being in the `src` or `beta` Unix groups, or having root on a Crew machine. People who have been granted these privileges are expected to use these privileges only in a professional and ethical manner as described later in this document.

3.4 /proj Space

Project space on CCIS can be requested through the Systems Liaison as long as a legitimate reason is provided. The space is located at `/proj/crew` and available from any CCIS machine that mounts the NetApp. Currently, there is 18 GB of space allocated to Crew.

3.5 The Crew Mailing List

The Crew Mailing list is the method used to keep in touch by those that cannot attend meetings or maintain a presence in the Pit or in `#crew`. Additionally, many Crew alumni and CCIS faculty and staff monitor the list. Thus, posts to the mailing list reflect the rest of the community's view of Crew, and posts should be more proper than discussion had in the Pit or on the IRC channel.

Currently, the mailing list requires that administrators approve all subscription requests to block any spammers from joining and stealing our vital bodily fluids. It is recommended that *.neu.edu addresses be accepted, but non-*.neu.edu addresses be initially rejected with the following message:

The Crew mailing list is usually only open to NEU students, staff and faculty. Please either (a) subscribe using your CCIS or NEU email account or (b) post to the list with who you are and why you're interested in the group.

Examples of acceptable things to post to the list: Meeting topics, geek news or events, NU- or CCS-related news or events, requests for roommates, things for sale, announcements of lost pet iguanas.

Examples of unacceptable things to post to the list: Swearing, requests for or links to pirate/illegal material, lewd jokes, or dirty, singable limericks.

The current URL for managing one's subscription to the mailing list is: <https://lists.ccs.neu.edu/bin/listinfo/crew>

4 Crew Membership

Essentially, members of Crew are those that put effort into being a part of the group by working on Crew tasks and participating in Crew discussions, whether they be on the Crew mailing list, the IRC channel #crew, or in the Pit. People that get the most out of being in Crew are those that are self-motivated, quick-learning and creative.

4.1 Rules

Each member of Crew must abide by the following rules:

- *Must be involved in at least one Crew project.* People simply hanging out of the Pit are not considered Crew members unless they have been actively involved in a Crew-sanctioned project.
- *Must attend Crew meetings.* This rule is flexible as some members may commute or have other scheduling problems.

- *Must be responsible.* A lot is expected of us, we must live up to it. See *Responsibility* below.
- *Expected to keep an open mind, and be respectful of others.*

Crew does not teach basic operating systems or administration. We expect members to investigate these topics on their own, as they are already well documented.

Crew members should be aware of and embody at least basic professional ethics, such as being honest and trustworthy, respecting the privacy of others, and honoring confidentiality. See also the ACM Code of Ethics.¹

4.2 Behavior, Responsibility, & Ethics

Crew is granted a great deal of privilege and trust by the Systems Group and the rest of the CCIS community. The list below outlines some, not all, of what is expected of Crew members and is adapted from the SAGE Code of Ethics.²

- Crew members will maintain professional conduct in the workplace, and will not allow personal feelings or beliefs to cause them to treat people unfairly or in an unprofessional manner.
- Crew members will be honest in their dealings with all students, faculty and staff (including fellow members), and forthcoming about their competence and the impact of their mistakes. Members will seek assistance from others, such as other members or members of Systems, when required. Members will strive to build and maintain a safe, healthy, and productive workplace.
- Crew members will access private information on computer systems only when given explicit permission by the owner of the information. Members will maintain and protect the confidentiality of any information to which they may have access regardless of the method by which they came into knowledge of it.

¹ACM Code of Ethics:

<http://www.acm.org/about/code-of-ethics>

²SAGE Code of Ethics.

<http://sageweb.sage.org/resources/publications/code%5fof%5fethics.html>

- If, at any time, a member is not completely sure that his or her actions are ethical or appropriate, he or she will consult a Crew Senior or the Crew Systems Liaison.
- Crew members will communicate with other Crew members, users and colleagues about matters of the mutual interest of Crew. Members will strive to listen to and understand the issues of the group. Members will accept and offer honest criticism of technical work as appropriate and will credit properly the contributions of others.
- Crew members will strive to ensure the necessary reliability and availability of the production systems or services for which they are responsible.
- Crew members will continue to update and enhance their technical knowledge and other related skills. Members should share their knowledge and experience with others when requested within reason.
- Crew members will cooperate with the CCIS community to maintain the integrity of network and computing resources.

The Chapter 9 of *The Practice of System and Network Administration* (Limoncelli & Hogan) includes an excellent detailed explanation of why so much is expected from privileged users, and especially system administrators.

4.3 Systems Veto Power

Crew seniors reserve the right to revoke, remove or reacquire all privileges and/or membership, projects or hardware (respectively) after consultation with the Systems liaison, or at Systems' request.

5 Crew Projects

5.1 Rules & Guidelines

The group of people responsible for a Crew project abides by the following structure and rules:

- Project proposals should be reviewed by two or more Crew Seniors.

- Project proposals should be accessible to all. The current recommended place is the Crew wiki space.³
- Each project has one or more project leaders (“project champions”) and optionally other Crew members working on the project as well (the “project task force”).
- No person may lead more than one project by themselves at a time. Crew members shouldn’t be blocking on other members while those members are involved in other projects.
- Project leaders are responsible for organizing meeting times, delegating their task force to project objectives, and reporting on the status of the project at Crew meetings.
- All projects must be *fully* documented.
- If a project is to enter the “Public Beta” phase, it should be subject to peer review (as in, people outside the project group should take a look). *Project Development Cycle*.
- All systems should be re-built from scratch before entering “Crew Production” phase to ensure accurate documentation. (See *Project Development Cycle* below.)

5.1.1 Documentation

Projects should be documented on the web using the Crew wiki. If the wiki is unavailable, documentation should be created in the members’ `/proj/crew` space or home directory until the Crew wiki is available again.⁴

Under some circumstances it may be more appropriate to keep documentation in a more private location, such as a Revision Control System, due to potential security problems involving information disclosure.

³Crew wiki space:

<http://wiki.ccs.neu.edu/display/Crew/Home>

⁴One may wish to use the project template found here:

<http://wiki.ccs.neu.edu/display/Crew/Project+Proposal+Template>

5.2 Project Development Lifecycle

5.2.1 Crew Development Stage

All projects begin with an idea. Crew project ideas must first be discussed with Crew members and/or preferably a Crew senior. These discussions may happen at Crew meetings, on the Crew IRC channel, or on the Crew mailing list. These discussions are important in forming the goals, reasons, and practicality behind the project.

Once the project has a preliminary list of goals the Crew seniors may either approve the project or may ask the project team to refine the project proposal. After approval the project team may be granted resources with which to begin the project if they are needed. Traditionally, projects in this phase of development are kept carefully isolated from CCIS networks, using a firewall/NAT machine (currently, this is `alpha.ccs.neu.edu`).

When the project is functional and nearing completion the project team should send email to the Crew mailing list detailing their project and encouraging other Crew members to make use of the service. At this stage the project is considered in the “alpha” phase (no pun intended).

This testing phase may continue for as long as needed. Once the project becomes well-developed it should move on to either the “Crew Production” or “Public Beta.”

5.2.2 Crew Production Stage

When a project enters this phase of production the project should be re-created, using only the documentation written during the previous stage(s) of development. At this stage the project is expected to take on the appearance of a production service. The project should be moved to a “production” server and the project is expected to be reliable and of high-availability.

5.2.3 Public Beta

When a project enters this phase of production the project should be re-created, using only the documentation written during the previous stage(s) of development. Once the project has been re-built it should be announced to the CCIS community. Once the project has reached this point, no more features should be added. All efforts should be focused on bug-fixing.

This stage is optional if the service/system/machine is intended for Crew use only.

5.2.4 Systems Production

This stage in the project lifecycle is reached only by the projects that Systems wishes to take over—e.g., the wireless project. The building of the project is out of the hands of the Crew group at this point, but all documentation produced for the Crew project should be made readily available to the Systems Group.

This stage is optional if the service/system/machine is intended for Crew use only.

6 Crew Senior Responsibilities

6.1 Pit

Seniors are responsible for assigning Pit keyholders as well as maintaining general Pit heigene. Seniors should also know the purpose of every machine in the Pit so that they can be queried by Crew members or the Systems staff.

6.2 Running Meetings

Meetings should begin with a brief (15-20 minute) recap of project progress, given by project leaders. Afterwards, the rest of the meeting can be devoted to a speaker or project teams can break off and work on their respective projects.

6.3 End-of-Semester Meetings

At the end of each Semester (counting both Summer 1 and Summer 2 as both), all of the Seniors should meet (preferably for dinner) and do the following things.

6.3.1 Prune the netgroups

Contents of both the `crew` and `pit-guests` netgroups should be printed out and examined. Users should be resorted into appropriate groups and removed if deemed necessary.

Alumni users may be removed if none of the Seniors are familiar with the user, however, the alumni user should be added back if requested. Decisions should be unanimous among the Crew Seniors.

Reasons for being a member of the `crew` netgroup are documented above under *Crew Membership*. Being in the `pit-guests` group denotes that the user has shown interest in Crew but hasn't become fully involved. Co-op, vacation, and lack-of-time are all legitimate excuses (within reason). Remember to discuss users' potential, motivation and merit. Also remember that if none of the Seniors remember who is involved in what, chances are they probably aren't doing much.

After the netgroups have been pruned, the contents of the *Who's Who* page on the Crew web site should be synced with members of the `crew` netgroup, sans Systems members.

6.3.2 Discuss Projects

Dispositions of all of the projects should be discussed. Make sure to keep notes and a TODO list.