Plan for Programming Contest Use of CS Machines

Last revised July 1, 1999

Practice Sessions
There will be a team practice each Saturday from 7:00 am to 3:00 pm on 9/11 through 3/11 in McBryde 116 (every Saturday when 116 is normally closed). Accounts for programming team will be activated by Gay prior to the start of the fall semester.

Local Contest   Saturday, September 4
Local contest will use 116, 118, 124 and the grad lab (The grad lab would only be used IF the other rooms are full, and only by grad students. This would only be a few machines at most, the grad lab would not be closed.) The contest will not use 116A. The local contest will not require modification to software on any machines in these rooms, and the machines will not have to be moved. Furthermore, the local contest will be held when the undergrad lab is closed, so rooms 116, 118, and 124 would normally be unused the day of the local contest. Use of 3-4 rooms should allow us to include any VT student who wants to compete. Opening the contest up for the entire VT community gives the ACM additional strength to get money from the university.
Accounts for use with the local contest will be created/activated in the undergrad lab at the start of the fall semester. The form for those accounts has already been delivered to Gay. If there are many grad students signing up, a form requesting creation of graduate accounts will be delivered to Chris Arnold the Monday before the contest date (which gives Chris 5 days lead time).

Preparations for Regional Contest
It has been requested that two or three FreeBSD machines be running until at least 5:00pm on Friday 11/5 for cs1206 students to use remotely. Any graders which are running must remain operational as well. In light of this and other issues, the contest staff has obtained from Jamie Evans a machine dedicated to the programming contest. This machine acts as the host for the regional web pages, and will act as a server during the contest. As such, there is no need to modify the ugrad servers.

At the end of September or the start of October, a team from California State University Sacramento (CSUS) sponsored by IBM will come to campus to test software for the contest. They will install and test their PC\(^2\) software on the contest server and one or more clients. The server will be located in McB 133. A timeline for testing the contest software is being established with CSUS.

(One contest server may not be adequate to host a web server, NFS server, login server, and PC\(^2\) server. With a few clients for testing, this is fine. A potential problem is that one machine may not be able to handle 150 teams.) Based on present knowledge, the contest server would be required to provide the following services: web server to (possibly) hundreds of clients, NFS server for 22 Tech clients, login server for 22 Tech clients, PC\(^2\) server for Tech site, PC\(^2\) “registry” to handle coordination between eight sites. Some of these services can be easily moved to a different machine for the duration of the contest, such as the web server, NFS and login. It would not be a problem to modify a 124 machine to act as this server, thus freeing resources on midatl (the contest server).

The impact of CSUS’s visit on 116/118 will be minimal assessed and reported on before the start of the fall semester. CSUS must install the PC\(^2\) client on one or two FreeBSD machines for testing. Thus a machine to be used as a dedicated client in addition to the contest’s dedicated server would be helpful to assess the needs of the PC\(^2\) software.

Regional Contest (6 November)
McB 118, containing NT machines, will remain open as usual, and is unaffected by the regional contest since the room is normally closed on Saturday, and the contest usage will not require any reconfiguration of
software in that lab. McB 118 will be used mainly for the local judge and for storage. The contest will have no impact on the hours that McB 118 is open. There may be some ‘people traffic’ congestion on 11/5 and 11/7 while the contest is being set up / broken down. While this is going on, students will be able to gain access to 118 through the exterior door instead of the usual path into 116, then through the divider door to 118.

McB 116A, containing servers, will not be used by the programming contest. So the lab’s regular servers should be able to remain up during the regional contest and all of its preparation and cleanup. This is a big change from previous years when the contest staff reconfigured ugrad lab servers for contest use. Since the servers will not be affected by the contest setup, the two or three FreeBSD machines which have been requested for cs1206 can run with only two five minute interruptions. The first interruption will be when the machines are moved from 116 to wherever they will sit for the weekend. The second: when the machines are moved back on Saturday evening. Two possible locations to place the servers for the weekend are the GTA area (planned for 128 in the fall) and 118. Both of these locations would allow unhindered telnet access.

The regional contest will use only 110, 116 (but NOT 116A), and 124. McB 110 will be used for the regional judges. The contest staff will appropriate tables for use in 110. The judges’ machines will require the use of one network port in 110 and an ethernet hub. CNS will have to be consulted regarding the use of the hub.

Prior to Thursday, 11/4 the following events will occur:
♦ All machines and attached devices in 116 and 124 will be labeled with the machine’s names (so that they can be returned to the correct location on 11/7).

On Thursday, 11/4 the following events will occur:
♦ The CSUS team flies in and the 116,124 labs will close at midnight.

On Friday, 11/5 the following events will occur:
♦ The 116 and 124 labs will be closed the entire day. (No classes are scheduled in 124 on Fridays, so this will not affect class meetings for any course, such as CS1206.) 118 will remain open as normally scheduled.
♦ User accounts and file systems will be set up to sever interaction with the ugrad servers.
♦ Remove machines from 116 and store them in 118, or use for judges’ use in 110. (Because 118 will be open for lab use until late Friday afternoon, the plan is to place the machines from 116 in a corner of 116 until 118 and 110 are available, then moving them to those areas for storage. Or, since the 124 machines don’t have to physically be moved before the software is modified, we may be reconfiguring first and moving second. The decision on which way to go hinges on the class schedules for 118 and 110.) No security restrictions need to be placed on these machines, therefore recloning will not be necessary. The machines will be moved by ACM volunteers and contest staff.
♦ Relocate PCs from 124 to 116 and 110.
♦ Install PC² and restrict access on 124 PCs
♦ Set up some clients (from 124) for printing.
♦ After the contest, relocate all PCs to their original positions. As with the setup, ACM volunteers and contest staff will perform the relocation. Machines from 124 will await recloning by the lab staff, who will be paid for their overtime.

On Sunday, 11/7 the following events will occur:
♦ Reclone the FreeBSD machines from 124
♦ 118 lab opens at the scheduled time (4pm?)

On Monday, 11/8 the following events will occur:
♦ Open the 116 and 124 labs at the scheduled time (noon?)
The only inconvenience of running the regional contest should be closing 116 and 124 on 11/5, and its subsequent impact on classes. The following steps will be taken to notify faculty:

♦ Email notices by contest director/staff in July
♦ Hardcopy notice in faculty mailboxes in July and just before 1st day of Fall classes by Sallie
♦ Glenn will look over the syllabi for all undergrad cs courses turned into the CS office for projects due near 11/5-11/7 and request those instructors to reschedule due dates. Also request instructors with due dates just before 11/5 not to postpone their due dates.

**Actions:**

- **Sallie** -- receive commitment from CSUS that IBM will sponsor their travel to VT
- **Sallie** – contact Vickie & VBS to clear use of 110 McBryde
- **Sallie** – locate printers (Sandy? Jessie? Sharon?)
- **Sallie** – hardcopy notice of lab closing in July and again just before 1st day of Fall classes
- **Glenn** – Gather information on PC^2 such as how the installation of the client affects the machine.
- **Glenn** – contact Jamie to find dedicated client for testing.
- **Glenn** – contact CNS re: hub in 110
- **Glenn** – look over syllabi