Notes for Particle Physics Masterclass Supervisors

First PC Exercise

This exercise is designed to give the participants some experience of identifying the various types of events seen by the OPAL detector at LEP. It will start at about 11:30 am.

Finding the PCs

We will use the University PCs at three sites:
The Students Union Teaching Centre. (Go into the Guild from the Maths and Oceanography side, up the stairs, turn right at the top of the stairs, go through the set of doors in front of the large notice board, turn left and follow the corridor round until you come to a room full of PCs!).
The Maths and Oceanography Teaching Centre (go into Maths and Oceanography from the Chadwick side, up the stairs to the first floor, left at the top, along the corridor and into the last room on the left).
Room T10 in the Chadwick Laboratory.

Starting up the PC managed network service

To logon do the following:

1. If necessary, press the reset button or switch the PC off and then on.
2. Ensure that the PC runs Windows NT. This is the default in T10 and the Maths and Oceanography Teaching Centre, but in the Students Union Teaching Centre you will have to answer the question that appears on the screen "Start the computer in the network (Y/N)" with an "N". (If you don't type this quickly enough, the PC will start to boot on the old network, and you will have to start by pushing reset again.)
3. Wait!
4. When asked, push simultaneously the ctrl, alt and del keys.
5. Enter one of the IDs scgree00…scgree69 and the password mast%cla in the relevant boxes and then click on "OK".
6. Wait again!
7. One of the many windows that appears is entitled "Default Desktop Icons". Click somewhere in this window to activate it and then answer the question "Do you want to add the default icon set to your desktop (Y/N)" by typing Y.
8. Click on "Exit" in the "Message of the Day" window.
9. Click on "Start" at the bottom left hand corner of the screen, then on "Run". In the text box that appears type "getl" (get ell, not get one!) and then click OK.

This will take a few minutes.

During the Exercise

Most of the students should be able to manage the exercise without too much intervention! Nonetheless it would be helpful if you could check to see that the students are coping OK; there may be some who have never used a PC before, or have not seen a WWW browser like Internet Explorer. It would be a good idea to have a look at the exercise yourself before the Masterclasses, so you are able to answer any questions that crop up!

Logging off

When the students have finished the exercise they should clear the Internet Explorer history file. To do this:

1. Click on the "Tools" menu button in the Internet Explorer window.
2. Click on "Internet Options".
3. Click on "Clear History" and then "OK".

Click on "Exit" in Internet Explorer (in the "File" menu) and then on the "Start" button (bottom left of screen) and "Shutdown". Logging off is completed by clicking on "Yes" in the "Shut Down Windows" box.

Second PC Exercise

This exercise is designed to introduce the students to the Lancaster Physics software package, which can be used as support material for the "A" level Particle Physics module, and to show the students how measurements of the path of a charged particle in a magnetic field may be used to determine its momentum. Start time about 3:00 pm.

Starting the Lancaster Physics package

1. Logon by repeating steps 1. to 9.
2. Double click on the "My Computer" icon.
3. Double click on "Apps on Nn02/Lapps (L:)".
4. Find and double click on the "Mastclas" folder.
5. Double click on the collisn1 icon.

Again, this will take a few minutes.

During the Exercise

This exercise may cause more problems than the first as a little maths is required. Please have a go at the exercise yourself before the Masterclasses so you are able to answer any questions that the students have. You are encouraged to tell anyone who expresses an interest more about how the various types of detector that might be used to make the measurements actually work. Ditto concerning particle accelerators, working at CERN, how exciting it is to study physics in general and HEP in particular, etc!

Logging off

Again, when the students have finished the exercise they should log off. First close the Lancaster Physics package (click on the exit button) and then click on the "Start" button (bottom left of screen) and "Shutdown". Logging off is completed by clicking on "Yes" in the "Shut Down Windows" box.

Preparing for the Sessions

As logging on and starting Internet Explorer or the Lancaster Physics Package takes some time, it would be a great help if you could do this before the students appear to do the exercises. Experience suggests it will take 60 minutes or more to start all the PCs in the Teaching Centres.

Allocation of IDs for Wednesday 2/5/2001

IDs	Location
scgree00 to scgree14	Students' Union
scgree15 to scgree54	Maths and Oceanography
scgree55 to scgree69	Chadwick T10

Thanks for your help!