CN/DPG/91/MIN/4

# *THE CN DIVISIONAL PLANNING GROUP*

**Minutes of the Meeting held on 29th. July 1991**

**The "POW Followup" Meeting**

PRESENT: R.Brun, J.J.Bunn(Secretary), F.Carminati, B.Carpenter, C.Eck, F.Gagliardi, D.Jacobs, S.Jarp, J.–C.Juvet, E.McIntosh, A.Osborne, H.R.Renshall, J.Richards, A.G.Silverman, D.O.Williams(Chairman).

The meeting was devoted to a follow–up of issues arising at the Cordon meeting.

- *NEXT MEETING DATES*

  MCMs would be held on 9/9, 23/9, 14/10, 4/11, 18/11, 2/12 and 16/12. DPGs would occur on 30/9, 21/10, 25/11.

- *CLOSED ISSUES FROM CORDON*

  1. *CEARN REPLACEMENT*
     The machine is ordered. Its installation will be coordinated by the IBMPCM.
  2. *CHEOPS*
     B.Carpenter had produced a note on the subject.
  3. *X–WINDOWS*
     The survey group should report to the DPG by Christmas. They should not be concerning themselves with the implementation details on particular hardware platforms.
  4. *CERNVAX UPGRADE*
     This is going ahead. S.Jarp is the project leader.

- *SHORT ISSUES FROM CORDON*

  1. *EXABYTE SERVICE ON THE IBM*
     There are problems writing SL tapes, possibly cured by the new drives (which we do not yet have). There are currently around 80 mounts per week on the IBM. The new controller can read **and** write 8500 and 8200 media.
  2. *DECATHENA*
     This is a "service", and the software cannot, therefore, be purchased. It was still unclear what the position was with Full Sail, which ostensibly had many areas of overlap with DECathena. We would wait to see what offer DEC would make for the athena services.
  3. *AFS*
     Version 3 is ordered. Use will be coordinated by UNIXCM.
  4. *UNIX COORDINATION*
     HEPIX will meet on 23rd. September at Fermilab. J.Richards will attend. Something about Danish Pastries. The HEPIX news group will be made available on the central machines imminently.
  5. *UNIX USER GUIDE*
     R.Woolnough is acting as the editor and coordinator. Various people have agreed to con–tribute. The document is to be mainly TEX.

6. *CERN BENCHMARKS*
The performance of a target machine is very application dependent. In a distributed comput–ing environment, much will depend on the environment, the networking, and so on. So it is hard to find very meaningful benchmarks these days. "User friendliness" of a particular device can not reasonably be measured. The general feeling in the industry is that bench–marks are less interesting nowadays. It is not practical to take the whole of GEANT as a benchmark, because it is so cumbersome to port. But a frozen version may, however, be added to the benchmark suite. The whole area awaits some fertile ideas from EM/RB/FC.
7. *NAGLIB*
The proposal is to continue paying the annual license for at least one more year. K.Kolbig has agreed to answer user questions on NAG.
8. *VXCERN AND POSIX*
Yes. The idea is eventually to install a stable POSIX on VXCERN, so allowing application porting and general UNIX fun.
9. *NAMING POLICY*
This is on the RSCM work list.
10. *WWW*
An X–browser is being worked on by T.Berners–Lee. JR and RB will follow this up.
11. *SHIFT EXPANSION*
This is on DOW's private work list.
12. *SIEMENS REPLACEMENT*
It would be useful to have the ADP service running on a machine other than that running the Physics service. This would avoid scheduled down–time clashes etc. ESA systems dvelop–ment would have to be performed on the Physics machine.
13. *FUTURE OF GKS/PHIGS*
There had been three offers in response to the industry tender. Information on the process would be sent to HEPCCC. GTS–GRAL have offered to install a new version of their prod–uct, which includes the X11 driver, on all platforms at CERN. RB's group were evaluating various packages running PHIGS. Proprietary workstation manufacturers tend to have their own PHIGS implementations, but these can be less advanced and also different from one another. For any purchased graphics product, the question was asked how license support, first–line support, bug–fixes and so on, would be handled at CERN. This would probably be done like it currently was for GTS–GRAL support today.
14. *AUTOMATIC OPERATIONS*
There will be a report on this by the end of the year.
15. *ROBOTICS*
There will be a non–disclosure meeting with STK in September, who apparently have some interesting future developments to describe. It would seem to be prohibitively expensive to change to an STK robot now, but this needs to be investigated.
16. *SCSI ACCESS IN THE SMCF*
STK and IBM had been asked for positions on this possibility. Provision of such a facility is critical for Unix workstation access to robot data.
17. *3480 INCREASED CAPACITY*
400 Megabyte files would be very expensive on stage disk space. The experiments, happily, are satisfied with a 200 Megabyte file size limit.

- *LONGER ISSUES*

1. *AS MATTERS*
The PC/Mac/Novell services were visible under Roy Billinge's umbrella. An X11 server was now availble on PCs and Macintoshs, which could replace the currently overworked 3270 emulations. This issue should be addressed by the X Working Group (see above).

2. *SIMULATION FARM*
The RSCRB should discuss the project. One could envisage setting up a small production farm with a handful of servers to prove the viability of the idea, using CN money. It was pointed out that obtaining the hardware might entail considerable delays. Attracting the LHC experiments was the key to success; too small a facility might not be tempting enough. However, one of the major attractions of a CN provided solution would be its seamless integration with the existing central computing facilities!
3. *CRAY FUTURE*
Cray were preparing an offer for a new machine. This might be an eight processor Y–MP with diskspace, and include a future upgrade option to a C90, or massively parallel extensions. Failing a suitable offer, a tendering exercise for a smaller machine might be called for. The engineering community rely, for example, on well–optimised application programs on the Cray, so that switching to another machine might mean unavailability of such codes. It was pointed out that, should the Cray be removed from the Centre, then the IBM upgrade scheduled for 1992 would provide only a fifty percent increase capacity in the Computer Centre. There is, in addition, a strong requirement for excellent tape support on a machine like the Cray, and it is hard to find a suitable alternative machine on the market today. By analysing the current workload on the Cray, it was found that several tasks could not easily be moved away. These included the engineering applications and tape support for Shift. Thus, an interesting scenario would be to extend the Cray contract for an extra year's breathing space.
4. *IBM FUTURES*
The Shared Filing System is too immature to be used at the moment. Experts were wary of starting even a pilot Stage system using SFS. Several enhancement requests in this area had been submitted to IBM. It was also too early to think hard about AIX, as nothing new had been heard since the Cordon meeting. IBM would be pushed, as it was considered important to run AIX on the 9000 sometime next year. In any case, there is currently insufficient disk space to run an AIX service.
5. *PPCS*
Stage Four hardware had just been delivered. This would provide around fifty CERN Units of processing power. It would be installed as quickly as possible. Software support for ESA would hopefully be delivered by IBM, and installed by SW group. The diskspace for PPCS would be taken from the CERNVM service.
6. *TMS PORT*
The porting plan involved firstly a code cleanup (currently being done at RAL, expected to be finished by September), secondly to change the Waterloo C code to IBM C, then thirdly to change the SQL to C SQL, fourthly to move the application to Oracle, and then put on a workstation. At this point the user interface to the system would be improved. A Technical Student was requested, who could try to do this work in one year. This was agreed.
7. *LHC COMPUTING*
There will be a preparatory meeting for Villars on the 28th. October. Also, there will be a meeting on 13th. September to discuss LHC Computing software needs.

- *STAFFING ISSUES*

Problem areas were identified as being:

— Central VAX support (especially VXENG)
— Novell Technical effort
— Zoll departure
— DECCO
— PAW

- Network Databases
- UCO Front Desk

- *NEXT MEETING*

  The next meeting will be held from 09:00 on 30th. September, in Conference Room 1.

*Table 1*: Action Items

| Name | Entry Date | Target Date | Task |
|---|---|---|---|
| David Williams | April 1991 | Summer 1991 | Produce cover note for Costs paper |
| Sverre Jarp | May 1991 | End 1991 | Manpower estimate for AIX/ESA introduction |
| Harry Renshall | April 1991 | July 1991 | Review Tape Mounts Statistics |
| Les Robertson | April 1991 | July 1991 | Review SHIFT progress |