

SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

COMPUTING DIVISION

DISTRIBUTED INTERACTIVE COMPUTING NOTE 668

COMMON BASE PROGRAMME - NOTE 1

issued by
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Notes on a meeting to discuss long term support
aims held on 21st July 1982

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1. INTRODUCTION

This note summarises objectives and problems discussed at the meeting, together with any solutions. It is assumed that the great majority of users have a PERQ with LAN and WAN connections, and at least PERQ + WAN connection. The following sections discuss various aspects of the problem (no priority order is implied):

2. User Population
3. Hardware
4. Communications
5. Software
6. Documentation
7. Coordination and Support
8. Recommendations

This is very much a first iteration of a wide-ranging and vital aspect of the Common Base Programme. It is important to develop ideas for the long-term aspects so that the response to the more immediate short term problems (see DIC Note 669) does not prejudice our long term operation.

2. USER POPULATION

There will be an almost complete spectrum of users, ranging from the computationally expert to the computationally naive. By no means all of these will be interested in code development, especially when the CAD software base becomes established.

Requirements - these range from:

minimal: applications software support only (eg digital design, finite elements) login, logout and perhaps not even editor.

development: access to software tool range (verifiers, debuggers etc)

Implications are that access to a wide range of advice is necessary (some of which may be strongly applications oriented and not necessarily directly concerned with computing aspects). We should bear in mind that any support tools we develop may be needed by, say, applications programmers.

3. HARDWARE

A basic assumption is central purchase and maintenance by RAL. Pre-installation checkout should not be necessary for standard devices in the longer term. Who installs PERQs, upgrades them, and installs (eg) new peripherals etc is not clear, ICL? Note that the maintenance contract currently being negotiated achieves low cost by increased RAL involvement - central fault reporting, via RAL, and access to backup machines from SERC if necessary. This implies that test procedures must be established on each machine (or at least the LAN) to enable the user to check out a possibly faulty device, possibly under direction from RAL, so that only 'real' faults are investigated.

4. COMMUNICATIONS

Another basic assumption: WAN provision by RAL CD Telecomms/JNT. CB Programme involvement is at the X25 interface provision level. It is not clear at the moment who orders/installs/supports LANs (whether Cambridge Ring or Ethernet). Options seem to be RAL; University/Computer Board; JNT with a wider brief; ICL; someone else commercial.

5. SOFTWARE

5.1 Basic Software

UNIX support by ICL, presumably via RAL filter. Other CBP-supported software by RAL or supplier (via RAL filter?). Two UNIX problems: not all utilities will be required by all users - some selection mechanism will be necessary (will that be a problem?); and how do we ensure that an update is actually installed?

5.2 Applications Software

Most ICF applications software is supported directly by SIG programmes. Should this be continued, or should a central filter system be used?

6. DOCUMENTATION

Paper or machine readable? Latter seems preferable as is always available (via file server?) and solves update problem (can monitor accesses and notify user if document changed). UNIX documents in paper are Vols I, IIa, IIb. ICL will produce another PERQ implementation volume. There is some online documentation.

Other paper documents to consider: newsletters, low level introduction for naive users.

7. COORDINATION AND SUPPORT

7.1 Support

Support currently is mainly passive: ie in general nothing happens until a user gets in touch with UIG. Interruptions provide a poor working environment for support staff; in addition mundane questions give low incentives. Suggestions and comments:

(i) Improved software tools

interactive debuggers, validation systems etc
active guidance systems (not passive HELPs)
(COUSIN system? Talk to Starlink?)

All take effort, but could be sub-contracted (EMRs etc)

(ii) Better training (of users and advisers) by courses. Options

(a) live - by RAL staff (at RAL or elsewhere) or contracted out.

Drawbacks: people are scarce and expensive (but usually answer questions better).

(b) Video - easier as can give same course many times at user site at user convenience. Gives update problem.

(c) PERQ itself - seems best option as every PERQ user should have one. Effort needed to create course but solves update problem as update course when deliver new software (should not permit update without doing so).

(iii) More visits to user sites to improve contact between users and service. Labour intensive.

Overall, the aim is to reduce the load on direct passive user support advisers by (a) providing better training and (b) for superior support software to at least remove the mundane queries (currently handled by the local managers on ICF, for example).

There seem to be three ways of providing a support service in terms of staffing. These are:

(i) Totally centrally at RAL. Gives greatest control and flexibility, but also hits RAL complement problems.

(ii) Distributed and RAL central team (cf ICF). Currently users learn most quickly by asking someone who knows. PERQ should change this. Could consider as joint Computer Board/SERC exercise - if Computer Board are cooperative.

(iii) Distributed and RAL coordination role only. Not attractive as PERQ will be too heavily linked to other SERC computing activities.

Other points worth noting

(i) Consider forming local user groups (which would fit in well with the Distributed and RAL central team scenario).

(ii) There is a UNIX User Group already with Special Interest Groups. Functions and facilities need investigation.

7. Coordination

There is clearly a need for Coordination/PR activity, for:

- (i) advising grant applicants (before RG2s are completed);
- (ii) suggesting and coordinating grant applications;
- (iii) proselytising on behalf of the Common Base Policy;
- (iv) educating Swindon Office secretariats;
- (v) persuading committees to consider science and engineering rather than computing.

The Coordinator(s) will need a wide background and substantial communications skills!

8. RECOMMENDATIONS

None. Please comment (by 5th September) on the above problems and possible solutions. What has been missed? This is a vital area; it is important to have a long-term objective in mind to avoid ad-hoc convenient solutions becoming policy.