

SCIENCE AND ENGINEERING RESEARCH COUNCIL

RUTHERFORD APPLETON LABORATORY
COMPUTING DIVISION

D I S T R I B U T E D C O M P U T I N G N O T E 5 7 5

VISITS

issued by
Dr D A Duce

Notes on visit by Dr Bustard, Queens University
of Belfast - 17 December 1981

16 February 1982

DISTRIBUTION:

R W Witty
D A Duce
Miss G P Jones
RL Support/EMR/Portable Pascal Plus Compiler
(Belfast)
Investigators/Elder & Bustard

Two topics were addressed during the meeting. Firstly, the three compiler projects being done under a DCS grant by Dave Bustard and Jim Elder and secondly, the Portable Pascal Compiler being done under the EMR Agreement.

1. THREE COMPILER PROJECT

Dave and Jim plan to put up the Pascal Plus Compiler on the target machines by March but the language implementation will not be complete and in particular it will not be up to full ISO standard pascal. David said that they need a six months extension to complete this work.

It appears that there are plenty of man months left on the grant and there is plenty of money, in particular there were funds for a full-time secretary but the secretary was only appointed half-time. It was agreed that David Bustard should write to John Monniot requesting an extension and a copy of the letter would be sent to David Duce.

The future of the project after the termination of the present DCS grant was then discussed. It was felt that if the languages were brought up to the ISO standard then anyone needing a Pascal Compiler may as well have a Pascal Plus Compiler. It was felt that the Compiler should be available for a nominal sum to universities worldwide. It was also felt that the Compiler could be turned into a real product and for this NRDC support would be sought. It was felt that a grant application for the support and promulgation of Pascal Plus was appropriate (cf York's Modular project). David Bustard will prepare a draft for submission on 1 April. It was agreed that the DCS Coordinators should arrange a meeting with NRDC to discuss exploitation.

David Bustard pointed out that the Pascal Compiler currently available on the IBM machine at RAL and does not generate native code. The other compilers to which they have access do have native code generation. Apparently there is a suitable compiler available for the IBM and David Bustard will consider purchasing this. He is intending to produce a report comparing and contrasting the quality of Pascal Plus code with that generated by other compilers.

2. PORTABLE PASCAL PLUS PROJECT

This project has been delayed because Queen's have not been able to recruit a suitable man. Two people have now been lined up for the post, one of whom is doing a PhD with David Bustard, the other is working for Burroughs. The work is advancing mainly through honours projects. It was originally intended that the research assistant would coordinate the project but David Bustard is now performing this role. The intention is to bring the compiler up to the new standard and to have a common front end for all the compilers in the family.

It was agreed there was a need to sort out the position with respect to the VAX Pascal Plus Compiler running under VMS. This implementation is based on an early version of the Portable Plus Compiler and was developed by Harwell. The Harwell project has now ceased because the employee concerned has left. There is an irregularity regarding the licensing of this software. It was decided that this would be discussed with NRDC.