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SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

INFORMATICS DIVISION

SOFTWARE ENGINEERING GROUP NOTE 72

Dimensional Design

Issued by
D R Gibson

Minutes of Meeting - 25 September 1985, RAL

27 September 1985

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- R W Witty
- D R Gibson
- T Povey, DEC
- C Evans, DEC
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KEYWORDS: SEGN 72 Dimensional Design

1. PRESENT

- R W Witty
- D R Gibson
- T Povey, DEC
- C Evans, DEC

2. MINUTES SUMMARY

2.1 Contract

CE produced a copy of a draft contract, written in the DEC style. RW produced a typical agreement for an ALVEY project between a university and a commercial company which detailed intellectual property rights (IPR), etc. It was agreed that RAL should make a copy of a proforma contract available to DEC.

CE pointed out that DEC did all of its accounting by quarters, and so time was running short if funds were to be allocated to the project by DEC. DEC plan to provide a VaxStation1 (valued at about 23K pounds) plus associated software (valued at about 3K pounds) to the project. It should be possible to draw up a formal loan agreement, if desired. There was some question as regards manuals, and also maintenance. TP had already talked to Alan Fisher(?) of DEC Basingstoke about the possibility of adding the maintenance of the VaxStation to the existing RAL contract.

RWW raised the question of whether RAL is to be provided with a VaxStation2. TP had planned on the use of a VaxStation2 from April, but at DEC Reading, once most of the work had been done. Providing RAL with a VaxStation2 (valued at about 26K pounds) might affect the contract, so this might have to be reviewed.

RAL hope to provide one professor- and one man-year of effort, plus the use of RAL hardware, (eg r1vc, document preparation, etc) plus support work, (ie 30K + 23K + 20K pounds approximately); DEC hope to provide hardware and software (ie 27K pounds approximately).

It was agreed that the schedule would have to be re-assessed, especially as there was already a slippage of about two months. It was thought that the project plan should not be fixed until an informal requirements specification had been drawn up to see the size of the project.

2.2 VaxStation1

A VaxStation1, (2 megabytes main memory, 30 megabyte RD52 Winchester, with a high resolution bit-mapped A3 screen and mouse), would be available for RAL use from the 2nd October 1985. DEC to check what software would be available on the system. Software which would be relevant to the project: GKS (0b implementation); UIS (low level graphics interface); a debugger; syntax editor; CMS and MMS (cf the UNIX* tools 'make' and 'sccs'); PCA (a profiling tool); high level editor, TPU (plus possibility of DEC internal EMACS) and Ethernet support. Pascal and C to be provided as a minimum language set. Details of delivery to RAL had yet to be sorted out.

2.3 Dr. Miquel Bertran-Salvans

RWW explained that Dr. Miquel Bertran-Salvans had been persuaded to join the project and had been offered a sabbatical period at RAL, starting in January 1986. He would inject an immense amount of practical experience and expertise in using Dimensional Design, and also in producing tools to support it.

2.4 Milestones

It was agreed that the September requirements should be moved back until October, when there should be a review of the schedule. The rest of the dates outlined in the milestones document should also be reviewed at that time. The next meeting (originally planned for 23rd October) was postponed until 30th October, at DEC.

2.5 Current Activities

DRG explained that he had produced a rough port of the Dimensional Design screen editor, DIMED, from the VMS Pascal implementation by Patel and Jonsson, (of Linkoping University, Sweden), to Berkeley Pascal running under UNIX. Since many of the routines used by the programs which made up DIMSYS are common to all of the tools, it had taken very

*UNIX is a Trademark of Bell Laboratories.

little effort to produce a rough port of the Dimensional Design printing program, DIMPRINT. DRG had also looked at the DRAWDD program which had been supplied by DEC, but had been unsure of how to proceed. It was agreed that putting graphics into DRAWDD was a low priority job at the moment.

Tim Carruthers, DEC, was due to continue work on Dimensional Design at Portsmouth Polytechnic, and was in the process of producing a formal requirements specification of work which he would undertake as part of his course work. Adding graphics capability to DRAWDD on his Professional was under consideration. He hopes to persuade the tutors and others on the course to help in the evaluation of Dimensional Design, as well as using it in his own work.

TP had been considering ways of improving DIMED so that it would be more useful to the project and to IOSG in general. If DIMED was to make a significant contribution to the generation of further software then there should be some standards for code extraction. It was agreed that this was an area that would have to be investigated, whether to use DIMED plus other tools, or to use pencil and paper to produce any Dimensional Designs used by the project.

3. ACTIONS SUMMARY

RWW: Provide CE with a copy of a proforma IPR agreement.

DRG: Produce informal requirement specification (before the next meeting) and consider how this might affect the project plan.

TP: Produce a revised project plan based on informal requirement specification.

RWW: Discuss funding/resources available to the project with the Director of RAL. (Funding and resources may be subject to change at the April review). with Director of RAL.

DRG: Investigate the addition of graphics to DRAWDD (low priority at the moment)

TP: Investigate ways and means of producing designs/software for the Dimensional Design Environment (DDE) tools (eg DIMED versus pencil and paper, etc)