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THE USL NASA PC R&D PROJECT:

GENERAL SPECIFICATIONS OF OBJECTIVES

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THE USL NASA PC R&D PROJECT:

GENERAL SPECIFICATIONS OF OBJECTIVES

ABSTRACT

This document represents a general and high-level identification of the initial set of objectives to be addressed within the scope of the USL NASA PC R&D Project.

Detailed specifications of objectives, tasking assignments, schedules, and implementation plans for each of the general objectives identified within this document will be addressed within future entries within this PC R&D Working Paper Series.

THE USL NASA PC R&D PROJECT:

GENERAL SPECIFICATIONS OF OBJECTIVES

(1)   PC FUTURE FACILITIES PLANNING

(a)   Hardware acquisition recommendations.

(b)   Software acquisition recommendations.

(c)   Preparation of Purchase Requisitions after approval of acquisition recommendations.

(d)   Conduct of facilities planning process in light of currently severe budgetary constraints.

(2)   PC USAGE ENVIRONMENT PREPARATION

(a)   Preparation of specifications for PC access control policies, i.e., policies controlling who is allowed usage access of the PC, what they are allowed to do, etc.

(b)   Preparation of specifications for PC usage training, i.e., development of training programs to be followed by individuals prior to PC usage, potentially including

training seminars, interactive demos, manuals or portions thereof to be reviewed, etc.

(c) Preparation of system development standards for systems design, programming, testing, and documentation for use within a C programming environment on the PC's.

(d) Preparation of specifications for backup/recovery procedures.

(3) PC R&D PLANNING: SPECIFICATIONS OF R&D OBJECTIVES

(a) PC-based information system simulators and data base simulators.

(b) PC-based user/system interfaces to remote information systems.

(c) Definition of multi-system common command language and PC-based front-end common command language translators.

(d) PC-based CAI training mechanisms for remote information systems.

(e) PC-based scientist's/engineer's R&D workstation:

    (e1) Standalone workstation functionality.

    (e2) Distributed/networked workstation functionailty.

    (e3) Distributed / networked workstation intercommunication and uploading/downloading protocols (between workstations; between workstation and remote mainframes).

(f) PC-based graphics.

(g) Loaner IBM PC XT/370: what would we do with it? why would we do this? how would we like it configured? when do we need it? for how long?

(h) PC-based workbench to support the current NASA contract work environment, including what workbench facilities should be implemented at the PC level, what workbench facilities should remain at the Multics level, and how the PC workbench should communicate with the Multics workbench.

(i) PC-based support for knowledge-based systems.

(j) PC-based support for information system performance measurement and evaluation.

(4) PC R&D PLANNING: IMPLEMENTATION OF R&D OBJECTIVES

Preparation of an implementation plan for each item listed in section (3) above. For internal projects, e.g., the PC workbench, the implementation plan should presume existing staffing, no extra budget, etc. For external projects, i.e., any project that may be of interest to an external funding agency, the implementation plan should have as its deliverable a contract proposal (e.g., PC simulator proposal, IBM equipment acquisition proposal, etc.). In either case, the implementation plan should specify tasking assignments (who will be responsible for what parts of the implementation) and a schedule (milestone date for each part of the implementation).

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16. Abstract

The general specifications of the objectives of the USL/DBMS NASA PC R&D Project, a Research and Development Project initiated at USL in order to address future R&D issues related to the PC-based processing environments acquired pursuant to the NASA contract work, namely, the IBM PC/XT systems.

This report represents one of the 72 attachment reports to the University of Southwestern Louisiana's Final Report on NASA Grant NGT-19-010-900. Accordingly, appropriate care should be taken in using this report out of the context of the full Final Report.

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