X/OPEN

PORTABILITY GUIDE

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Preface

The X/OPEN Group, formed in late 1984, is an initiative taken by major European suppliers of computer systems.

The Group's principal aim is to increase the volume of applications available on its members' systems, and to maximise the return on investments in software development made by Users and Independent Software Vendors.

This is achieved by ensuring portability of application programs at the source code level. Through this portability, users can mix and match computer systems and applications software from many suppliers, and thus investment in applications software is protected into the future.

In order to provide such portability, the Group defines a **Common Applications Environment** based on the interfaces to the **UNIX** operating system, and covering other aspects required of a comprehensive applications interface. The Group has based its specification on the AT&T System V Interface Definition.

The **X/OPEN Portability Guide** provides a definition of the interfaces currently identified as components of the Common Applications Environment. More components will be defined in future editions as indicated in the future directions section.

This guide is aimed at both the decision makers and the implementation teams of:

- Independent Software Vendors
- Software Houses
- Users
- Equipment Manufacturers

The philosophy of the Common Applications Environment and an overview of its components is given in Part I. This is aimed at decision makers, but also serves as an introduction to the detailed definitions.

The Guide is designed to sit permanently on the desk, serving as a common reference point for anyone directly concerned with the practical side of software development, namely systems designers, programmers and consultants.

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- The **/usr/group** Standards Committee, whose Standard contributed to the Group's work, and Mr. Heinz Lycklama for his personal contribution.
- **Relational Database Systems Inc.** of Menlo Park, California (Telex no. 361834) for permission to use material from the specification of their C-ISAM product and for provision of that material in machine readable form.
- **Micro Focus Ltd.** of Newbury, Berkshire for permission to use material from the specification of their LEVEL II COBOL compiler and for provision of that material in machine readable form.

Structure of the Document

The X/OPEN Portability Guide is organised as follows:

PART 1 **The Common Applications Environment.** This part gives the overall philosophy of the Common Applications Environment. It identifies current interface definitions and includes statements of intent regarding further areas.

PART II **The X/OPEN System V Specification.** This part contains the definition of the operating system interfaces.

PART III **The C Language.** This part contains the definition of the C language and portability guidelines.

PART IV **The X/OPEN ISAM Definition.** This part defines support for the indexed sequential file access method (ISAM).

PART V **The X/OPEN COBOL Definition.** This part gives the X/OPEN definition for portable applications written in COBOL.

PART VI **Source Code Transfer.** This part provides guidelines for transferring files of source code between different X/OPEN systems.

Referenced Documents

The following documents are referenced in this guide:

- System V Interface Definition (Spring 1985 - Issue 1)
- UNIX System V Release 2.0 Programmer's Reference Manual (April 1984 - Issue 2)
- UNIX System V - Release 2.0 Programming Guide (April 1984 - Issue 2)
- ANSI Draft Proposal for C Language (April 1985 - ANSI X3J11/85-045)
- 1984 /usr/group Standard
- Relational Database Systems C-ISAM Reference Manual (Version 2.10 - January 15, 1985)
- MicroFocus Level II COBOL Language Reference Manual (Version 2.5 and 2.6, Issue 7 - April 1984)
- ANSI Standard for COBOL (1974 - ANSI X3.23)
- ANSI Standard for FORTRAN (FORTRAN-77, 1978 - ANSI X3.9)

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