

Product Standard

Operating System and Languages: Internationalized System Calls and Libraries

The Open Group

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Product Standard

Operating System and Languages: Internationalized System Calls and Libraries

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Product Standard

NAME

Internationalized System Calls and Libraries

LABEL FOR LOGO

No label.

DESCRIPTION

This Product Standard defines operating system kernel and header files. It includes conformance to ISO/IEC 9945-1:1990 (POSIX-1)¹ and NIST FIPS 151-2.² This is the original Internationalized System Calls and Libraries Product Standard, which was an update of the XPG3 System Calls and Libraries Product Standard to align with ISO/IEC 9945-1:1990 (POSIX-1). It includes as mandatory the Inter-process Communication element that was optional in XPG3, and introduces widechar internationalization. The selection of options from ISO/IEC 9945-1:1990 (POSIX-1) matches the NIST FIPS 151-2.

CONFORMANCE REQUIREMENTS

Human-Computer Interface

System Interface Definitions, Issue 4, Version 2,³ Glyphs contained in Table 4-1, Portable Character Set.

Note: As far as this Product Standard is concerned the above specification is technically identical to System Interface Definitions, Issue 4⁴, which it supersedes.

Portability Interface

System Interfaces and Headers, Issue 4, Version 2,⁵ with optional implementation of all Feature Groups.

Note that the specification calls for mandatory support for certain of its Feature Groups (for example, POSIX-2 C-language binding) when it is associated with a commands and utilities

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1. ISO/IEC 9945-1:1990, Information Technology — Portable Operating System Interface (POSIX) — Part 1: System Application Program Interface (API) [C Language] (identical to IEEE Std 1003.1-1990).
 2. Proposed Federal Information Procurement Standards (FIPS) 151-2.
 3. CAE Specification, August 1994, System Interface Definitions, Issue 4, Version 2 (ISBN: 1-85912-036-9, C434).
 4. CAE Specification, July 1992, System Interface Definitions, Issue 4 (ISBN: 1-872630-46-4, C204).
 5. CAE Specification, August 1994, System Interfaces and Headers, Issue 4, Version 2 (ISBN: 1-85912-037-7, C435).

implementation conformant to Commands and Utilities, Issue 4 or later (refer to `_XOPEN_XCU_VERSION` contained in Chapter 4, Headers, `<unistd.h>`).

System Interface Definitions, Issue 4, Version 2.

Note: As far as this Product Standard is concerned the above documents are technically identical to System Interfaces and Headers, Issue 4⁶ and System Interface Definitions, Issue 4.

Programming Language Environment

C Language. Dialect ISO C. ISO C source programs invoking the services of this Product Standard must be supported by the registered product.

Interoperability

- Data Interchange Formats
None.
- Communications Interfaces and Protocols
None.

OPERATIONAL ENVIRONMENT

Not applicable.

PORTABILITY ENVIRONMENT

Not applicable.

OVERRIDING STANDARDS

ISO/IEC 9945-1: 1990 (POSIX-1).

ISO/IEC 9945-2: 1993 (POSIX-2)⁷ for the optional POSIX-2 C-language binding calls.

ISO/IEC 9899: 1990 (C Language).⁸

INDICATORS OF COMPLIANCE

A Test Report from a currently authorized release of the VSX4 Test Suite.

MIGRATION

Issues concerning migration from XPG3 are described in the X/Open XPG3-XPG4 Base Migration Guide.⁹ All system interfaces in the XPG3 Product Standard are present in this Product Standard, but there are some minor differences in behavior.

6. CAE Specification, July 1992, System Interfaces and Headers, Issue 4 (ISBN: 1-872630-47-2, C202).

7. ISO/IEC 9945-2: 1993, Information Technology — Portable Operating System Interface (POSIX) — Part 2: Shell and Utilities, User Portability Extension (identical to IEEE Std 1003.2-1992).

8. ISO/IEC 9899: 1990, Programming Languages — C (technically identical to ANSI standard X3.159-1989).

9. Guide, July 1992, XPG3-XPG4 Base Migration Guide (ISBN: 1-872630-49-9, G204).