# *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 4[4], 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

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 4[6] 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.

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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).