## **Product Standard**

# Operating System and Languages: UNIX 03

The Open Group

Copyright © April 2003, The Open Group

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owners.

Boundaryless Information Flow is a trademark and UNIX and The Open Group are registered trademarks of The Open Group in the United States and other countries. All other trademarks are the property of their respective owners.

**Product Standard** 

Operating System and Languages: UNIX 03

Document Number: X03XY

Published in the U.K. by The Open Group, April 2003.

Any comments relating to the material contained in this document may be submitted to:

The Open Group Apex Plaza Forbury Road Reading Berkshire, RG1 1AX United Kingdom

or by Electronic Mail to:

OGSpecs@opengroup.org

2 Product Standard

### **Product Standard**

#### **NAME**

UNIX<sup>1</sup> 03

#### **LABEL FOR LOGO**

UNIX.

When this logo is used on, or in relation to, a product registered as conformant to this Product Standard, it must be accompanied by an attribution, in the form defined in the Trademark License Agreement,<sup>2</sup> which includes the UNIX 03 Product Standard name.

#### **DESCRIPTION**

The UNIX 03 Product Standard is a significantly enhanced version of the UNIX 98 Product Standard. The most significant change is alignment with the Single UNIX Specification, Version 3 that includes The Open Group Base Specifications, Issue 6, and approved Technical Corrigenda (if any). The Open Group Base Specifications, Issue 6, are technically identical to IEEE Std 1003.1-2001 and ISO/IEC 9945: 2002.<sup>3</sup>

The mandatory enhancements over the UNIX 98 Product Standard include:

- Alignment of interfaces with ISO/IEC 9899: 1999 (C Language)<sup>4</sup>
- Addition of new functionality for alignment with ISO/IEC 9899: 1999
- Addition of new networking functionality from XNS, Issue 5.2<sup>5</sup> and IEEE Std 1003.1g-2000<sup>6</sup>
- Incorporation of additions and corrections to the core POSIX system interfaces and utilities, derived from the P1003.1a<sup>7</sup> and P1003.2b<sup>8</sup> draft standards.

<sup>1.</sup> UNIX is a registered trademark of The Open Group in the United States and other countries.

<sup>2.</sup> Brand Program Documentation, January 1998, The Open Brand Trademark License Agreement (TMLA) (ISBN: 1-85912-275-2, X982), published by The Open Group.

<sup>3.</sup> IEEE Std 1003.1-2001, IEEE Standard for Information Technology — Portable Operating System Interface (POSIX), identical to ISO/IEC 9945: 2002.

<sup>4.</sup> ISO/IEC 9899: 1999, Programming Languages — C.

<sup>5.</sup> Technical Standard, January 2000, Networking Services (XNS), Issue 5.2 (ISBN: 1-85912-241-8, C808), published by The Open Group.

<sup>6.</sup> IEEE Std 1003.1g-2000, IEEE Standard for Information Technology — Portable Operating System Interface (POSIX) — Part 1: System Application Program Interface (API) — Amendment 6: Protocol-Independent Interfaces (PII).

<sup>7.</sup> P1003.1a, Standard for Information Technology — Portable Operating System Interface (POSIX) — Part 1: System Application Program Interface (API) — (C Language) Amendment.

P1003.2b, Standard for Information Technology — Portable Operating System Interface (POSIX) — Part 2: Shell and Utilities — Amendment.

 Incorporation of corrections arising from IEEE PASC Interpretations and The Open Group Corrigenda and Resolutions

In addition, the following optional enhancements are included:

- The networking functionality includes optional support for Internet Protocol, Version 6 (IPv6).
- Further sets of APIs for realtime support are added beyond the options in the UNIX 98
  Product Standard.
- The Batch Utilities extension, derived from IEEE Std 1003.2d-1994.9

#### **CONFORMANCE REQUIREMENTS**

A single configuration of the system shall meet all of the conformance requirements defined in the following mandatory Product Standards:

- Internationalized System Calls and Libraries Extended V3
- Commands and Utilities V4
- C Language V2
- Internationalized Terminal Interfaces

The product must be registered as conformant to the Product Standards prior to, or concurrent with, the UNIX 03 Product Standard registration.

#### **OPERATIONAL ENVIRONMENT**

Refer to the Product Standards listed in Conformance Requirements.

#### PORTABILITY ENVIRONMENT

Refer to the Product Standards listed in Conformance Requirements.

#### **OVERRIDING STANDARDS**

Refer to the Product Standards listed in **Conformance Requirements**.

#### INDICATORS OF COMPLIANCE

Refer to the Product Standards listed in Conformance Requirements.

#### **MIGRATION**

There are very few incompatibility issues in migrating applications from systems registered as conformant to UNIX 95 or UNIX 98 systems unless the application makes use of facilities supplied from the Transport Service (XTI) or Transport Service (XTI) V2 Product Standards, which are not required by this Product Standard.

The few incompatibilities largely arise from alignment with ISO C and some adjustments to the options within the underlying standards. See the **Migration** section of the Product Standards listed in **Conformance Requirements** for more information.

4 Product Standard

<sup>9.</sup> IEEE Std 1003.2d-1994, IEEE Standard for Information Technology — Portable Operating System Interface (POSIX) — Part 2: Shell and Utilities — Amendment 1: Batch Environment.

Detailed migration information can also be found in The Authorized Guide to Version 3 of the Single UNIX Specification. <sup>10</sup>

<sup>10.</sup> The Single UNIX Specification, Authorized Guide to Version 3, March 2002 (ISBN: 1-85912-277-9, G906), published by The Open Group.

6 Product Standard