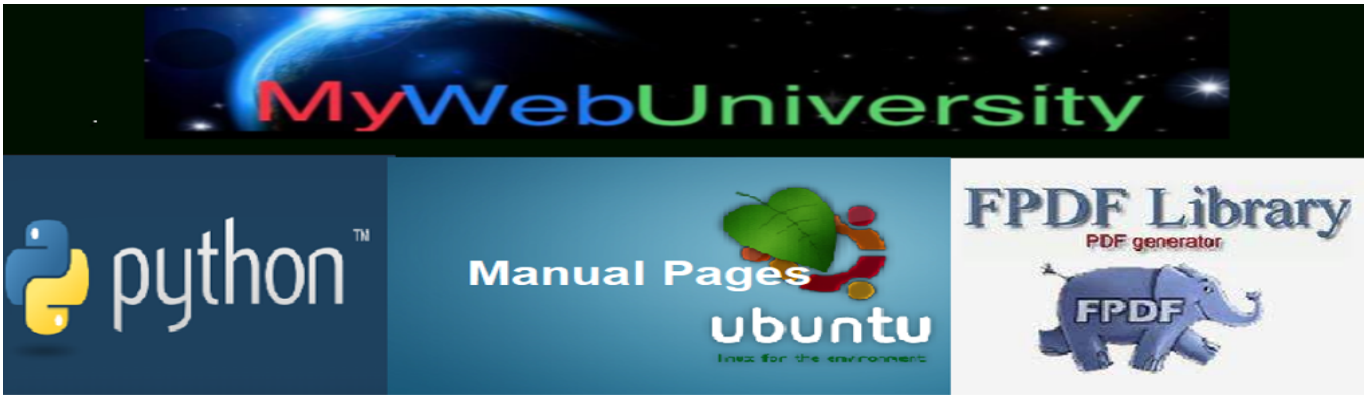

Full credit is given to the above companies including the Operating System (OS) that this PDF file was generated!

Rocky Enterprise Linux 9.2 Manual Pages on command 'standards.7'

$ man standards.7

STANDARDS(7) Linux Programmer's Manual STANDARDS(7)

NAME

standards - C and UNIX Standards

DESCRIPTION

The CONFORMING TO section that appears in many manual pages identifies various standards to which the documented interface conforms. The following list briefly describes these standards.

V7 Version 7 (also known as Seventh Edition) UNIX, released by AT&T/Bell Labs in 1979.

After this point, UNIX systems diverged into two main dialects: BSD and System V.

4.2BSD This is an implementation standard defined by the 4.2 release of the Berkeley Soft? ware Distribution, released by the University of California at Berkeley. This was the first Berkeley release that contained a TCP/IP stack and the sockets API.

4.2BSD was released in 1983.

Earlier major BSD releases included 3BSD (1980), 4BSD (1980), and 4.1BSD (1981).

4.3BSD The successor to 4.2BSD, released in 1986.

4.4BSD The successor to 4.3BSD, released in 1993. This was the last major Berkeley re? lease.

System V

This is an implementation standard defined by AT&T's milestone 1983 release of its commercial System V (five) release. The previous major AT&T release was System III, released in 1981.

System V release 2 (SVr2)

This was the next System V release, made in 1985. The SVr2 was formally described

in the System V Interface Definition version 1 (SVID 1) published in 1985.

System V release 3 (SVr3)

This was the successor to SVr2, released in 1986. This release was formally described in the System V Interface Definition version 2 (SVID 2).

System V release 4 (SVr4)

This was the successor to SVr3, released in 1989. This version of System V is described in the "Programmer's Reference Manual: Operating System API (Intel processors)" (Prentice-Hall 1992, ISBN 0-13-951294-2) This release was formally described in the System V Interface Definition version 3 (SVID 3), and is considered the definitive System V release.

SVID 4 System V Interface Definition version 4, issued in 1995. Available online at ?http://www.sco.com/developers/devspecs/?.

C89 This was the first C language standard, ratified by ANSI (American National Standards Institute) in 1989 (X3.159-1989). Sometimes this is known as ANSI C, but since C99 is also an ANSI standard, this term is ambiguous. This standard was also ratified by ISO (International Standards Organization) in 1990 (ISO/IEC 9899:1990), and is thus occasionally referred to as ISO C90.

C99 This revision of the C language standard was ratified by ISO in 1999 (ISO/IEC 9899:1999). Available online at ?http://www.open-std.org/jtc1/sc22/wg14/www/standards?.

C11 This revision of the C language standard was ratified by ISO in 2011 (ISO/IEC 9899:2011).

LFS The Large File Summit specification, completed in 1996. This specification defined mechanisms that allowed 32-bit systems to support the use of large files (i.e., 64-bit file offsets). See ?https://www.opengroup.org/platform/lfs.html?.

POSIX.1-1988

This was the first POSIX standard, ratified by IEEE as IEEE Std 1003.1-1988, and subsequently adopted (with minor revisions) as an ISO standard in 1990. The term "POSIX" was coined by Richard Stallman.

POSIX.1-1990

"Portable Operating System Interface for Computing Environments". IEEE 1003.1-1990 part 1, ratified by ISO in 1990 (ISO/IEC 9945-1:1990).

POSIX.2

IEEE Std 1003.2-1992, describing commands and utilities, ratified by ISO in 1993 (ISO/IEC 9945-2:1993).

POSIX.1b (formerly known as POSIX.4)

IEEE Std 1003.1b-1993, describing real-time facilities for portable operating sys? tems, ratified by ISO in 1996 (ISO/IEC 9945-1:1996).

POSIX.1c (formerly known as POSIX.4a)

IEEE Std 1003.1c-1995, which describes the POSIX threads interfaces.

POSIX.1d

IEEE Std 1003.1c-1999, which describes additional real-time extensions.

POSIX.1g

IEEE Std 1003.1g-2000, which describes networking APIs (including sockets).

POSIX.1j

IEEE Std 1003.1j-2000, which describes advanced real-time extensions.

POSIX.1-1996

A 1996 revision of POSIX.1 which incorporated POSIX.1b and POSIX.1c.

XPG3 Released in 1989, this was the first release of the X/Open Portability Guide to be based on a POSIX standard (POSIX.1-1988). This multivolume guide was developed by the X/Open Group, a multivendor consortium.

XPG4 A revision of the X/Open Portability Guide, released in 1992. This revision incor? porated POSIX.2.

XPG4v2 A 1994 revision of XPG4. This is also referred to as Spec 1170, where 1170 re? ferred to the number of interfaces defined by this standard.

SUS (SUSv1)

Single UNIX Specification. This was a repackaging of XPG4v2 and other X/Open stan? dards (X/Open Curses Issue 4 version 2, X/Open Networking Service (XNS) Issue 4). Systems conforming to this standard can be branded UNIX 95.

SUSv2 Single UNIX Specification version 2. Sometimes also referred to (incorrectly) as XPG5. This standard appeared in 1997. Systems conforming to this standard can be branded UNIX 98. See also ?http://www.unix.org/version2/?.)

POSIX.1-2001, SUSv3

This was a 2001 revision and consolidation of the POSIX.1, POSIX.2, and SUS stan? dards into a single document, conducted under the auspices of the Austin Group ?http://www.opengroup.org/austin/?. The standard is available online at

?http://www.unix.org/version3/?.

The standard defines two levels of conformance: POSIX conformance, which is a base? line set of interfaces required of a conforming system; and XSI Conformance, which additionally mandates a set of interfaces (the "XSI extension") which are only op? tional for POSIX conformance. XSI-conformant systems can be branded UNIX 03.

The POSIX.1-2001 document is broken into four parts:

XBD: Definitions, terms and concepts, header file specifications.

XSH: Specifications of functions (i.e., system calls and library functions in ac? tual implementations).

XCU: Specifications of commands and utilities (i.e., the area formerly described by POSIX.2).

XRAT: Informative text on the other parts of the standard.

POSIX.1-2001 is aligned with C99, so that all of the library functions standardized in C99 are also standardized in POSIX.1-2001.

The Single UNIX Specification version 3 (SUSv3) comprises the Base Specifications containing XBD, XSH, XCU, and XRAT as above, plus X/Open Curses Issue 4 version 2 as an extra volume that is not in POSIX.1-2001.

Two Technical Corrigenda (minor fixes and improvements) of the original 2001 stan? dard have occurred: TC1 in 2003 and TC2 in 2004.

POSIX.1-2008, SUSv4

Work on the next revision of POSIX.1/SUS was completed and ratified in 2008. The standard is available online at ?http://www.unix.org/version4/?.

The changes in this revision are not as large as those that occurred for POSIX.1-2001/SUSv3, but a number of new interfaces are added and various details of existing specifications are modified. Many of the interfaces that were optional in POSIX.1-2001 become mandatory in the 2008 revision of the standard. A few inter? faces that are present in POSIX.1-2001 are marked as obsolete in POSIX.1-2008, or removed from the standard altogether.

The revised standard is structured in the same way as its predecessor. The Single UNIX Specification version 4 (SUSv4) comprises the Base Specifications containing XBD, XSH, XCU, and XRAT, plus X/Open Curses Issue 7 as an extra volume that is not in POSIX.1-2008.

Again there are two levels of conformance: the baseline POSIX Conformance, and XSI

Conformance, which mandates an additional set of interfaces beyond those in the base specification.

In general, where the CONFORMING TO section of a manual page lists POSIX.1-2001, it can be assumed that the interface also conforms to POSIX.1-2008, unless otherwise noted.

Technical Corrigendum 1 (minor fixes and improvements) of this standard was re? leased in 2013.

Technical Corrigendum 2 of this standard was released in 2016.

Further information can be found on the Austin Group web site, ?http://www.opengroup.org/austin/?.

SUSv4 2016 edition

This is equivalent to POSIX.1-2008, with the addition of Technical Corrigenda 1 and 2 and the XCurses specification.

POSIX.1-2017

This revision of POSIX is technically identical to POSIX.1-2008 with Technical Cor? rigenda 1 and 2 applied.

SUSv4 2018 edition

This is equivalent to POSIX.1-2017, with the addition of the XCurses specification.

The interfaces documented in POSIX.1/SUS are available as manual pages under sections 0p (header files), 1p (commands), and 3p (functions); thus one can write "man 3p open".

SEE ALSO

getconf(1), confstr(3), pathconf(3), sysconf(3), attributes(7), feature_test_macros(7), libc(7), posixoptions(7), system_data_types(7)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at https://www.kernel.org/doc/man-pages/.