Tech Info Library

A/UX: Recommended Technical and Reference Materials (9/94)

```
Revised:        9/19/94
Security:       Everyone
```

A/UX: Recommended Technical and Reference Materials (9/94)

==

Article Created: 7 June 1990
Article Reviewed/Updated: 19 September 1994

TOPIC ---

Can you provide documentation or technical references for the following list of
OS nucleus functions?

 - Interrupt handling
 - Process creation and destruction
 - Process stat switching
 - Dispatching/process scheduling
 - Process suspension and resumption
 - Process synchronization
 - Interprocess communication
 - Manipulation of process control blocks
 - Support of I/O activities
 - Support of storage allocation and deallocation
 - Support of the file system
 - Support of a procedure call/return mechanism

DISCUSSION --

First of all, A/UX is based on AT&T System V R2.2 with BSD 4.3 Extensions, which
include networking and software interrupts. Both AT&T System V.2.2 Interprocess
communication (Message, Semaphores, and Shared Memory) and BSD Interprocess
communication (Sockets) are supported by A/UX. Also, NFS (Network File System)
from Sun Microsystems is supported by A/UX; services includes NFS, YP, and RPC
(Remote Procedure Calls).

With the A/UX description above, and since UNIX is an industry standard
operating system, the references for UNIX kernel functions can be found in any
UNIX publications and reference books. A notable one is "The Design of the UNIX
Operating System" by Maurice Bach. It covers most of the topics.

BSD 4.3 "UNIX System Manager's Manual" is a good reference for B-Net networking

and Fast File System (UFS) supported under A/UX 2.0 and 3.0.

"Implementing Remote Procedure Calls" by Birrell and B.J. Nelson is good
reference for RPC. It was published in ACM Transactions on Computer Systems,
Vol. 2 No. 1, Feb 1984, pp. 39-59.

In addition, the "A/UX Network Applications Programming" documentation contains
RPC, XDR, NFS, and YP Protocol specifications and a B-Net programming guide.

For UNIX system programming, the following books are recommended:

- "The UNIX Programming Environment" by Brian Kernighan and Rob Pike
- "Advanced UNIX Programming" by Marc J. Rochkind

Also, O'Reilly and Associates, Inc. publishes the "Nutshell Handbook" series
which covers a wide range of UNIX and TCP/IP topics.

Article Change History:
19 Sep 1994 - Reviewed.

Support Information Services

Copyright 1990-94 Apple Computer, Inc.

Tech Info Library Article Number:5725