



# Tech Info Library

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

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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.

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