# *OS-9®*

# *Technical Manual*

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# *Introduction*

## *Manual Organization*

The ***OS-9® Technical Manual*** is organized into two main sections: The ***OS-9 Technical Overview*** and the ***OS-9 System Calls***.

The ***OS-9 Technical Overview*** contains the following chapters and appendixes:

- ***Chapter 1 - System Overview***
  Provides a general overview of OS-9's four levels of modularity, I/O processing, memory modules, and program modules.

- ***Chapter 2 - The Kernel***
  Outlines the responsibilities of the kernel. Explains user and system state processing, memory management, system initialization, process creation and scheduling, and exception and interrupt processing.

- ***Chapter 3 - OS-9 Input/Output System***
  Explains the software components of the OS-9 I/O system and the relationships between those components.

- ***Chapter 4 - Interprocess Communications***
  Describes the five forms of interprocess communication supported by OS-9: signals, alarms, events, pipes, and data modules.

- ***Chapter 5 - User Trap Handlers***
  Explains how to install and execute trap handlers, and provides an example of trap handler coding.

- ***Chapter 6 - The Math Module***
  Discusses math module functions, and lists descriptions of the assembler calls you can use with the math module.

- ***Chapter 7 - RBF File System***
  Explains OS-9's disk file organization, raw physical I/O on RBF devices, record locking, and file security.

- ***Appendix A - Example Code***
  Contains example code that you can use as a guide when creating your own modules. Provides examples of RBF, SCF, and SBF device descriptors.

- ***Appendix B - Path Descriptors and Device Descriptors***
  Includes the device descriptor initialization table definitions and path descriptor option tables for RBF, SCF, SBF, and PIPEMAN type devices.

- ***Error Codes***
  Provides descriptions of OS-9 error codes.

The ***OS-9 System Calls*** section contains descriptions for the following types of system calls:

- ***Chapter 1 - User-State System Calls***
- ***Chapter 2 - I/O System Calls***
- ***Chapter 3 - System-State System Calls***

The ***OS-9 Technical Manual*** is designed for you to use in conjunction with the ***OS-9 Technical I/O Manual***.