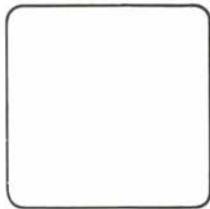
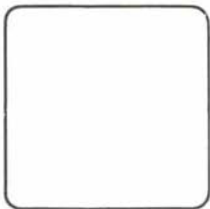
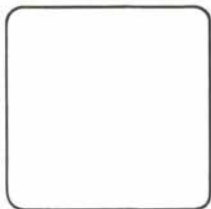


18

Introduction to

COHERENT Documents





The COHERENT system is a general purpose computer operating system. It includes a great variety of facilities and its users have very different needs and backgrounds. Accordingly, its documentation varies widely in approach. Some documents are intended for beginners, others for highly sophisticated specialists. This introduction gives a brief summary of the contents of each available document.

The best document for the novice to read first is the *Introduction to the COHERENT System*. This document explains what an operating system is, how to log in to the COHERENT system, what files are, how to use common system commands, and so on. It is organized as a tutorial, with simple examples which can be followed step by step to become familiar with the COHERENT system. The beginner who tries each example on the computer will quickly learn how to use the system.

The COHERENT system includes more than one hundred commands. All the commands of the COHERENT system are described in the comprehensive *COHERENT Command Manual*. Unlike other COHERENT system documentation, it contains a concise description of each COHERENT system command; it is not a tutorial. Beginners may find it obscure, but users familiar with the system will find it contains the information they need in an easily accessible format.

Users can also write programs which use system features directly. These features are documented in the *COHERENT System Manual*, written in the same concise style as the *COHERENT Command Manual*. The information contained in the *COHERENT Command Manual* and the *COHERENT System Manual* is also available on many COHERENT systems through the **man** command.

The COHERENT system is generally used as a multiuser timesharing operating system. Someone must be responsible for the daily operation of the system—adding new users, backing up information, recovering after power failures, and so on. The *COHERENT Administrator's Guide* is a nontechnical explanation of the very necessary clerical functions the administrator must perform.

Although most COHERENT system programs are written in the C language, some highly specialized programming is inevitably written in the assembly language of the computer. The *as Assembler Reference Manual* describes the assemblers for each of the processors on which the COHERENT system is available.

The *awk User's Manual* describes the **awk** pattern scanning and processing language. **awk** is a powerful general-purpose tool which processes files according to **awk** programs. Typical uses include scanning for patterns, producing reports, and filtering relevant information from input data.

For users who want to use the computer like an extremely powerful desk calculator, the COHERENT system provides the **bc** language. The *bc Calculator Language Tutorial* describes how to use **bc** in detail.

Almost all computer users need to use an editing program to correct or update files. The *ed Interactive Editor Tutorial* explains the COHERENT system editor **ed**. A tutorial approach leads the beginner through the editing process step by step. The COHERENT system includes other editing programs in addition to **ed**; separate sections describe the other editors.

The COHERENT system includes a **learn** command which provides computer aided instruction. The *learn User's Manual* begins by explaining how to use **learn**. Subsequent sections explain how to write the lessons **learn** uses in teaching.

A wide variety of complicated programming tasks require the processing of structured input. The COHERENT system provides programming tools which make parts of the processing much easier. The *lex Lexical Generator Tutorial* describes the program **lex**, which lets the user specify how to recognize the basic units of the input. The *yacc Parser Generator Tutorial* explains how to use the **yacc** command to process complicated input according to a given set of grammatical rules. **lex** and **yacc** work together to simplify programs which process structured input.

The *m4 Macro Processor User's Manual* describes the **m4** macro processor language. **m4** is a powerful text processing tool which includes conditional decision making, substring selection, file manipulation and arithmetic capabilities.

The COHERENT system includes a powerful text processor called **nroff**. It allows the user to format output as desired: lines can be centered or right-justified, headings can be added automatically, and so forth. The *nroff Text Processor Tutorial* explains how to use **nroff**. It describes the **ms** macro package which beginners can

use to format documents easily and also describes the advanced features of **nroff**.

Users normally interact with the COHERENT system by typing commands to a program **sh**, called the command language interpreter or the *shell*. The *Introduction to the COHERENT System* explains how to enter simple commands. More sophisticated users will find the *sh Shell Command Language Tutorial* useful. This document explains the more advanced features of the shell.

Before using the COHERENT system on a computer, the system must be *installed* on the hard disk of the computer. Each version of the COHERENT system comes with release notes which describe how to install the system. The release notes also describe commands and features which are unique to the specific version of the COHERENT system.

Clear, concise documentation is essential to allow you to take full advantage of the COHERENT operating system and its supporting tools. Your comments and criticism of our documentation are appreciated.

