

CHAPTER 5
ETOS ACCOUNTS

5.1 INTRODUCTION

The previous chapters discussed the installation, configuration and operation of a one-user ETOS system. This chapter contains information which will allow you, as system manager, to enable ETOS to handle multiple users.

At this point, only the console terminal may be LOGged IN. To do so, you must specify an account number (0,3) and the password. Refer to 2.2.2 of the ETOS Users Guide for LOGIN procedures. The procedure for the console is contained in Figure 5-1.

Figure 5-1
LOGIN of Console Terminal

```
.R ETOS
ETOS V5
OPTION?T
[carriage return to bring LOGIN]
?LOGIN PLEASE
!LOGIN
ETOS V5B AT 10:03:12 A.M. ON TUE 01-JAN-79
ACCOUNT? 0,3
PASSWORD? OPERATOR (not echoed)
JOB 3 LOGGED IN ON CONSOLE 0

?CANNOT FIND OS8DISK.DSK
.
```

This chapter describes the user account structure. The ETOS files, and the ACCNT program which is used to manipulate accounts and ETOS files.

5.2 ACCOUNT STRUCTURE

Under stand-alone OS/8 or COS operations, one user has access to the entire RK05 or System Industries disk. Under ETOS, the system manager assigns a section of the disk to each user. This section is known as an ETOS account. In addition, the system manager may create ETOS files associated with the ETOS account. These could be used as OS/8 storage areas, COS storage areas, and/or other specialized ETOS files.

The user appears to have his own PDP-8 with a prescribed disk area. The only apparent major difference between processing under stand-alone OS/8 or COS and ETOS is the size of the disk.

When you enter the system via the LOGIN process (see 2.2.2, System User's Guide), you have access to a common area of OS/8 programs (e.g., DIRECT, PIP). If OS/8 storage has been set up for this account, you also have access to this storage area. If you intend to use COS, you must have a COS storage area associated with your account.

Two users should not be LOGged INTO the same account. If another user LOGINS to your account which you are already LOGged INTO, a warning message is printed and your OS/8 account storage area (if it exists) is write protected. If you want to create OS/8 files or run COS, you should LOGOUT of the account and LOGIN to a different account. The reason that you can't have two users creating files in the same OS/8 disk area is that the OS/8 directory structure prohibits the use of more than one temporary file. Two users can access files in the disk area if they are not changing the directory. The reason that you can't have two users running COS in the same account is that the scratch blocks would become jumbled.

5.2.1 Account Attributes

Each ETOS account on the system has four major attributes.

Accounts have an account number which consists of a project number and programmer number. The project number is a general grouping and the programmer number is a specific individual. For example, all members of a certain department might have the same project number. Each individual in that department has a different programmer number. The project and programmer numbers are octal numbers in the range 00 to 77. A sample account number is [07,52] (note: account numbers are represented with the square brackets). In this sample account number, 07 is the project number and 52 is the programmer number.

The second attribute for an account is a password. This password must be specified when you LOGIN to the system. It is not echoed. The password gives each account security which is maintained by limiting the users right to know the list of operating passwords. The password consists of one to eight alphanumeric characters. A sample password is OPERATOR.

The third attribute for an account is its protection code. This protection code determines whether or not a user who LOGS IN to the account is privilegable. Privileged users can delete system programs, SHUT the system down and access anyone's account. For this reason, the number of privilegable users should be kept at a minimum. Bit 0 of the protection code enables privileged status. If bit 0 is set, the account is privilegable. Even if an account is privilegable, the user must execute the PRIV command (see 5.2.1) to allow privileged processing. The protection code also controls the amount of virtual memory which is automatically assigned to the user at LOGIN time. The user can always obtain more memory via the CORE command (see 3.4, System User's Guide). The protection code allows you to automatically assign between 8K

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and 20K words when the user LOGS IN to the account. Bits 1 and 2 control the amount of virtual memory assigned. Since OS/8 and COS require 8K, the minimum amount of memory you can assign is 8K. Bits 1 and 2 represent the additional amount of memory automatically assigned. Bits 3 through 5 in the protection code are always set to 0. Bits 6 through 11 are always set to 1. All possible values for the protection code and their meaning are listed in Table 5-1.

Table 5-1
Account Protection Codes

<u>Protection Code</u>	<u>Meaning</u>
0077	Non privileged, 8K words
1077	Non privileged, 12K words
2077	Non privileged, 16K words
3077	Non privileged, 20K words
4077	Privileged, 8K words
5077	Privileged, 12K words
6077	Privileged, 16K words
7077	Privileged, 20K words - Tom + John

The final attribute of an ETOS account is the date of creation. Unlike the other attributes, there is no control over this attribute. It is automatically assigned the date of the account's creation.

The ETOS user account is created through the ACCNT program which records the account and its attributes in the Master File Directory (MFD). The MFD is an ETOS file under account [00,01]. Each account which is created has a constant overhead of one block for every sixteen ETOS files created in it. This space is used for the User File Directory (UFD), which contains a list of all ETOS files in a user account.

5.2.2 ETOS File Attributes

Each ETOS account created may have several ETOS files contained in it. These ETOS files may be OS/8 storage areas, COS storage areas, spooling temporary files, EDUCOMP BASIC temporary files, etc.

The list of ETOS files created for a specific user account are listed in a User File Directory (UFD). The contents of this directory can only be accessed using the ACCNT program. The UFD is an ETOS file with the user's account number, [xx,yy].

All ETOS user files can be identified by the prefix of the account number, [xx,yy], appended to the file name.

The ETOS user file structure is summarized in Figure 5-2.

Each ETOS file in an account has five attributes. It has a file name. The file name consists of one to seven alphanumeric characters for the file, a period (.), and one to three alphanumeric characters for the file extension. There are several file names which are reserved for special purposes. "OS8DISK.DSK" is used for individual OS/8 storage areas. "COSDISK.RTS" is used for individual COS storage areas. "DATAFl.LES" is used for COS data file access. Files associated with ETOS accounts are represented in the documentation with a prefix giving the account number, [XX,YY]. For example, the OS/8 storage area for user of account [17,51] is listed as [17,51]OS8DISK.DSK.