Unit 1: Starting a TSO/E Session

Objectives

- **TSO/ E Session**
- **Learning About Your Terminal**
- **Logging On With the LOGON Command**
- **Issuing the LOGON Command**
- **Interacting With TSO/E**
- **Messages**
- **Interrupting a Process**
- **Ending a TSO/E Session**

Figure: 1-1. Objectives

TSO/E Session

TSO/E is a base element of the OS/390 operating system that allows users to interactively work with the system.
It is a tool with which you can:

- **Communicate with other TSO/E users**
- **Create an office environment**
- **Develop and maintain programs in languages such as ASSEMBLER, COBOL, FORTRAN, PASCAL, PL/I, REXX, and CLIST**
- **Process data**
- **Access the MVS operating system.**

Figure: 1-2. TSO/E Session

Using TSO/E Session

The terminal is your link to the computer system that uses TSO/E. Before you start to use TSO/E, you need to understand how to use your terminal. Beginning a terminal session is relatively simple. You identify yourself to the system and then issue commands to request work from the system.

To conduct a TSO/E terminal session you need to:

- **Learn about your terminal, including how to enter data, correct mistakes, add or delete characters and lines, and how to interrupt operations from the terminal**
- **Log on with the TSO/E LOGON command**
- **Interact with TSO/E**
- **End the TSO/E terminal session with the TSO/E LOGOFF command.**

Figure: 1-3. Using TSO/E Session

Learning About Your Terminal

All TSO/E terminals have a typewriter-like keyboard. The features of each keyboard vary from terminal to terminal.

For example, one terminal may not have a backspace key, while another may not allow for lowercase letters. To learn how to use your terminal, consult the terminal operator's manual that accompanies your device.

Because each installation differs in its access methods, configuration, and procedures, you will have to consult your system programmer or system support center to learn how you can contact your computer system and begin using TSO/E.

Figure: 1-4. Learning About Your Terminal

Logging On With the LOGON Command

Use the LOGON command to identify yourself to the system and request use of its resources. When you use the LOGON command, the system requires your TSO/E user ID, which tells the system who wants to use it.

A user ID can be no longer than seven characters and can contain numeric (0-9) and alphabetic (A-Z) characters, but must begin with an alphabetic character. Often a USERID is your name, your initials, your department number, or any combination of valid characters your installation chooses. There are some restrictions on which characters can be used in your USERID, particularly if your system uses JES2.

Figure: 1-5. Logging On With the LOGON Command

Issuing the LOGON Command

- **You can issue the LOGON command with no operands. This results in the system prompting you for your USERID.**

  Example
  To simply request access to the system, enter: LOGON

- **You can also issue the LOGON command followed by your USER ID. Separate your USERID from the command with a blank character. After you enter this command, the system might prompt you for your password.**

  Example :
  If your USERID were YOURID, you could log on as follows :
  LOGON YOURID

Figure: 1-6. Issuing the LOGON Command

Notes:

You might see one of the following things :

- A message or messages, prompting you for information that your installation requires, such as a procedure name, account number, or security label.
- A READY message, indicating that the system recognized your user ID and password. The READY message indicates that you have logged on to the system and can start using TSO/E

Interacting With TSO/E

If users are logged on after using the LOGON command, other things may be displayed instead of the READY message. For example, the logon procedure may automatically invoke ISPF, the Information Center Facility, or an installation-defined panel.

A full-screen logon panel, on which you can type required information, see overleaf

Figure: 1-7. Interacting With TSO/E

LOGON Panel

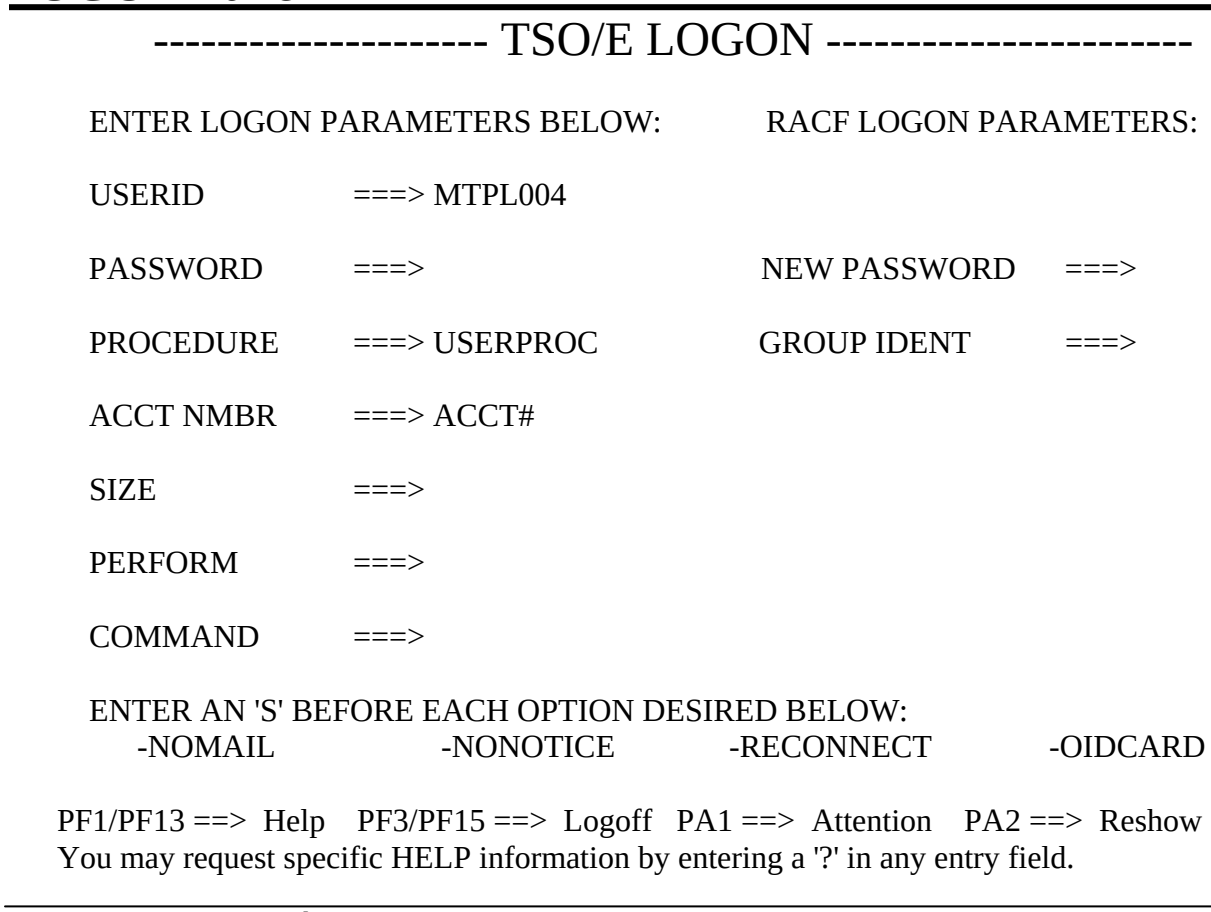

Figure: 1.8. LOGON Panel

Notes:

- If you do not type in the correct password, you will see the same screen again. Just re-enter your password in the PASSWORD===> field correctly and continue. If your password has expired, at the top of the TSO Logon Menu, it will read: YOUR PASSWORD HAS EXPIRED. PLEASE ENTER A NEW PASSWORD.
- When you log on to TSO/E using the full-screen logon panel, the values shown in some of the fields, such as PROCEDURE, ACCT NMBR, and SECLABEL are the values you entered for your previous TSO/E session. You can choose a different value by typing in a new value in the field. The new value you enter is then saved and is displayed whenever you log on again until you either enter a different value or blank out the field. The values you are required to enter on the logon panel depend on your installation

TSO LOGON Messages

```
ICH70001I MTPL003  LAST ACCESS AT 09:53:51 ON MONDAY, FEBRUARY 11, 2002
 IKJ56455I MTPL003 LOGON IN PROGRESS AT 18:56:40 ON FEBRUARY 11, 2002
 IKJ56951I NO BROADCAST MESSAGES
 ********************************************************************
 *                 WELCOME TO                                       *
 *               SYSTEM OPEN/370                                    *
 *                                                                  *
 * RUNNING    OS/390  V 2.7                                         *
 *          CICS/TS V 1.2                                           *
 *          DB2     V 5.0                                           *
 *                                                                  *
 * TSO TIMEOUT OF 15 MINUTES IS IN EFFECT.                          *
 * IF NO KEY IS ENTERED AT THE TERMINAL FOR 15 MINUTES YOUR         *
 *     TERMINAL WILL BE LOGGED OFF FROM TSO.                        *
 *                                                                  *
 * PLEASE BROWSE "SYS2.SAMPLE.JCL"  FOR SAMPLE JCL / INFORMATION    *
 *                                                                  *
 * FOR SUPPROT SEND AN E-MAIL TO  S390-SUPPORT@MAINTEC.COM          *
 *                                                                  *
 * PLEASE PROTECT YOUR DATASET BY ISSUING THE FOLLOWING COMMAND:    *
 *   TSO AD 'HLQ.*' UACC(READ)                                      *
 * FOR HELP:  TSO HELP AD
                                *
 ********************************************************************
 ***
```

Figure: 1-9. TSO LOGON Messages

Messages

You can receive five types of messages at your terminal:

- **Mode messages**
- **Prompting messages**
- **Informational messages**
- **Broadcast messages**
- **Messages from other users**

Figure: 1-10. Messages

Notes:

You may also receive write-to-programmer messages on your screen. These are messages written by the system intended for your system programmer, and usually do not require any action on your part.

Mode Messages

A mode message indicates that the system is ready for a new command or subcommand. The most common mode message is :

READY

Other mode messages indicate that the system is ready for a valid subcommand. Three commands with subcommands are EDIT, OUTPUT and TEST.

Figure: 1-11. Mode Messages

Prompting Messages

A prompting message indicates that you need to supply required information or that you supplied incorrect information. Prompting messages include a message identifier (message ID) and are documented in TSO/E messages. If messages at your terminal do not display a message ID, you can change your profile with the PROFILE MSGID command to display message IDs.

To stop a prompting sequence, enter the requested information or press the attention interrupt key (PA1) to cancel the command

Figure: 1-12. Prompting Messages

Notes :

Example 1

If you were prompted for a data set name and the data set name was TEST (MYPGM), you would enter after the prompting message :

ENTER DATA SET NAME -test (mypgm).

Some messages have additional levels of information available. To see additional information about a message, type a question mark (?) in the leftmost space under the message and press the Enter key.

Example 2

To see additional information about the following message, enter ?.

ENTER DATA SET NAME -?

You then see another message that might be :

ENTER DSNAME (MEMBER NAME)

If the second message does not contain enough information, you can request another message to give you even more detail. If you enter a question mark and there are no further messages, you receive the following message :

NO INFORMATION AVAILABLE

Informational Messages

An informational message tells you about the status of the system or of your terminal session. You do not need to respond to an informational message. Informational messages include a message identifier (message ID) and are documented in TSO/E Messages.

Like prompting messages, informational messages may have two or more levels. If an informational message ends with a plus sign (+), you can request an additional message by entering a question mark (?) in the leftmost space under the message as described previously in "Prompting Messages".

Figure: 1-13. Informational Messages

Broadcast Messages

Broadcast messages are messages that an operator sends using the MVS SEND command or the TSO/E OPERATOR SEND subcommand. The system operator can send messages of general interest to all users of the system or specific messages to individual users.

When an operator sends a message, a console identifier or the characters OPER appear at the end of the message.

Example
An operator might send the following message to all users:
SE 'DO NOT USE TERMINALS #4, 5 AND 6 ON 6/3. THEY ARE RESERVED FOR DEPARTMENT D4'

Figure: 1-14. Broadcast Messages

Notes:

- When you receive a broadcast message on a display terminal, information on which you were working disappears temporarily from the screen and the broadcast message appears. To return to the information on which you were working, wait for the *** to appear and press the Enter key.
- Depending on the logon procedure used at your installation, you might see broadcast messages displayed when you first log on. If messages are not displayed when you log on, you can display broadcast messages at your terminal by issuing the LISTBC command. You, or any other user, can send messages to other users or to the system operator with the SEND command

Interrupting a Process

You can interrupt processing at any time by pressing the key assigned as the attention interrupt key on your terminal. On some terminals such as the IBM 3270 display terminal, the attention interrupt key is labeled "PA1". You can cause an attention interrupt to :

Terminate processing
Interrupt processing and resume it again by pressing the Enter key after pressing the attention interrupt key
Issue the TIME or TEST command during interrupted processing.

Figure: 1-15. Interrupting a Process

Terminate processing

You can terminate a program or a process by pressing the attention interrupt key.

For instance, if you were executing a program and the program went into a loop, you could press the attention interrupt key to terminate processing.

Figure: 1-16. Terminate processing

Notes:

Example: If you entered a command such as CALL and wanted to get out of the process, press the attention interrupt key. You then see another READY mode message.

```
READY
CALL
ENTER DATA SET NAME
READY
```

Interrupt processing

If, after causing an attention interrupt, you want to resume the operation that you interrupted, press the Enter key before typing anything else. Other keys may cause this same effect on interrupt processing because they simulate pressing the Enter key and entering a null line; however, IBM recommends not using other keys. (You can, however, type the TIME or TEST command, which are discussed in the next part.) It is possible that data you were entering or displaying at the time of the attention interrupt might be lost.

If you press the attention interrupt key after issuing a CANCEL, STATUS, or SUBMIT command, the attention interrupt might terminate that command's processing. In this case, pressing the Enter key would not resume command processing.

Figure: 1-17 Interrupt processing

Note:

- If you are using Session Manager, press the ERASE EOF key and then press the Enter key to enter a null line to resume execution

TIME or TEST command

The TIME and TEST commands can be used after most attention interrupts without terminating the interrupted process.

For example, if you are listing data at your terminal and you want to know what time it is, you can press the attention interrupt key, enter the TIME command, and then press the Enter key again to go back to listing data.

Entering any command other than TIME or TEST causes current processing to terminate. However, you might see one output record from the interrupted program after you enter your next command. This is normal for some programs.

Figure: 1-18. TIME or TEST command

Ending a TSO/E Session

When you are finished using TSO/E, issue the LOGOFF command to SIGN OFF from the system and end your terminal session. The system releases your USERID until the next time you issue the LOGON command.

Example

To log off the system, enter at the READY mode message: LOGOFF

You can also sign off from the system by issuing the LOGON command. When you sign off using the LOGON command, the system terminates your current session and starts a new one using the options specified on the LOGON command.

Figure: 1-19. Ending a TSO/E Session

Notes:

- To re-log on while you are already logged on, enter the LOGON command at the READY mode message : LOGON
- You then see a termination message and a prompt for your USERID.
  YOURID LOGGED OFF TSO AT 13:22:51 ON DECEMBER 16, 1987
- ENTER USERID -After you enter your USERID, you see the normal logon procedure used at your installation.

Unit Summary

"Starting a TSO/E Session" describes logging on to the terminal to begin a TSO/E session and logging off when you want to end the TSO/E session. In addition, it describes types of messages and prompts and ways to respond to them.

- **Learnt about terminal, including how to enter data, correct mistakes, add or delete characters and lines, and how to interrupt operations from the terminal**
- **Log on with the TSO/E LOGON command**
- **Interact with TSO/E**
- **End the TSO/E terminal session with the TSO/E LOGOFF command**.

Figure: 1-20 Summary