

## **Turbo-Plus User's Guide**

Features and Facilities .....	ii
1] Overview .....	1-1
2] Commands .....	2-1
BB Command .....	2-1
BBCANCEL Command .....	2-3
BBDEL Command .....	2-4
BBLIST Command .....	2-5
DIRDUMP Command .....	2-7
GO Command .....	2-9
GONAME Command .....	2-10
HELP Command .....	2-12
LOCATE Command .....	2-13
LOG Command .....	2-15
LOGOFF Command .....	2-16
LOGON Command .....	2-17
MAIL Command .....	2-20
PROFILE Command .....	2-23
RESET Command .....	2-25
SERVER Command .....	2-27
STATUS Command .....	2-28
TWX Command .....	2-30
WHO Command .....	2-32

---

BB	Utility with which users may submit jobs, with an optional schedule time, to the batch processor queue.
BBCANCEL	Cancels and logs the currently active batch job.
BBDEL	Deletes a pending job from the batch queue, if executed by the user who submitted the job.
BBLIST	Lists all jobs running in the batch processor and pending on the batch queue.
DIRDUMP	Gives server directory of any disk, sorted by user area.
GO	Moves user to a user area specified by a user-defined name.
GONAME	Allows users to define names for user areas on the system, and to list these area names sorted alphabetically or by user area number.
HELP	On-line help facility providing help on all TurboDOS and Turbo-Plus commands. Additionally, users may add their own help files to this global function.
LOCATE	Searches certain or all system drives for a given file or template.
LOG	Allows user to make time-stamped entries in a daily log file - particularly useful for .DO files submitted to the batch processor.
LOGOFF	Enhanced version of system logoff notifying users of pending mail, and displaying system bulletins.
LOGON	Enhanced version of system logon notifying users of pending mail, displaying system bulletins, and providing additional levels of privilege.
MAIL	TurboDOS mail facility to allow electronic mail to be sent between users on the system.
PROFILE	Menu-driven utility to maintain system USERID.SYS file.
RESET	Program to reset a user from another user.

SERVER	Enhanced version of the system 'SERVER' command, providing better control of access to the server processor.
STATUS	TurboDOS facility to continuously monitor activity of system users, printers, and buffers.
TWX	TurboDOS TWX facility to allow users to send immediate single or multi-line messages to other consoles on the system.
WHO	TurboDOS system status facility to display all current users on the system, the processes which they are running, and other current system characteristics.

---

Turbo-Plus is a set of utilities and function calls which enhance the TurboDOS Operating System, making extensive use of the User Defined Function, (call 7FH in TurboDOS version 1.2x, and 29H in TurboDOS version 1.30) in the process. This manual is designed to provide all of the necessary information to fully utilize these commands and functions.

The manual is divided into sections providing an overview of the package, instructions on using each command, and information about all of the new function calls.

### Theory of Operation

Turbo-Plus consists of two primary divisions: the background batch processor, and the inter-user oriented utilities.

The background batch processor (BB) enables an extra user board, not attached to any console, to run jobs submitted by other users on the system, thus allowing the other users to keep their terminals from being tied up by long-running jobs. BB accepts any valid TurboDOS command line as a command, suffixed, if desired, by a schedule time. Each submitted job is placed on a disk-resident queue which is then serviced by the batch processor. All users on the system are able to monitor the status of the processor, and any user may delete a job which he submitted while it is still in the pending state, or abort a job while it is running.

Most of the remaining utilities in Turbo-Plus use the extensions to the TurboDOS function calls included in Turbo-Plus. These functions maintain lists in memory containing information about each station on the system as well as the server. This information creates the ability to have additional commands, such as the WHO command, to find out who is currently logged onto each station; the MAIL command, a complete inter-user mail facility; the TWX command, to send messages to other users on the system, the RESET command, to reset stations which are down (like the RESET command of TurboDOS Version 1.1x)\*, and a new SERVER command, limiting the number of stations simultaneously attached to the server processor to one, and thus eliminating any contention problems that may currently occur. Turbo-Plus also adds the ability to restrict users to specified disk drives on the system, providing an additional level of system security.

**\*Note:** The RESET and BBCANCEL commands will not work on certain hardware configurations. If you are having difficulty using these commands, consult your dealer.

---

**BB Command**                    The BB command enables you to enter a job onto the batch queue.

**Syntax**

```
-----  
|  
|     BB command  
|     BB command @hh:mm  
|     BB command @hh:mm+d  
|  
-----
```

**Explanation**

The 'command' argument is any legal TurboDOS command which will not require any console input. Such input would cause the batch processor to reset itself, providing that the CONBB module has been included in your user generation.

The second form of the command is used for scheduling jobs. hh:mm is the time which the job should run in 24 hour time. The +d is a further option, shown in the third form of the command, which specifies the number of days later that the job is to be run. (e.g. @00:00+2 means 'Run the job at midnight tomorrow night.').

A multi-command string may be entered onto the batch queue. This command's format should be similar to a multiple command entered directly onto the Command Line Interpreter, except that the vertical bar character (|) should be substituted for the back-slash character (\) expected by TurboDOS.

**Examples**

```
-----  
|  
|     0A)BB DO REPORT @00:00+1  
|     BATCH JOB 0308 QUEUED-WAITING 02 TO RUN  
|     0A)BB PRINT FILE|DO PRINT  
|     BATCH JOB 1969 QUEUED-WAITING 01 TO RUN  
|  
-----
```

---

Error Messages

```
-----  
| Command line is empty  
| Bad format in schedule time  
| Bad format in schedule day  
|-----
```

Parameters

```
-----  
| USER = 01      User number where  
|                 BB processor resides.  
|  
| DRIVE = 01     Drive (0=A, 1=B, etc.)  
|                 where BB processor  
|                 resides.  
|-----
```





---

Parameters

USER = 01	User number where BB processor resides.
DRIVE = 01	Drive (0=A, 1=B, etc.) where BB processor resides.
BUSER = 01	User number (0=A, 1=B, etc.) of BB processor.

**BBDEL Command**            The BBDEL command enables you to delete a pending job from the batch queue.

**Syntax**

```
-----  
|  
|    BBDEL nnnn  
|  
-----
```

**Explanation**

The 'nnnn' argument is the job number to be deleted (leading zeroes may be left off).

This command must be issued by either a privileged user or by a user under the userid from which the job was queued. Otherwise, the warning: "\*\*\*User Unauthorized to Delete Job" will be issued. If the deletion is successful, a message will appear on the console stating the job number and userid and area from which it was queued.

**Examples**

```
-----  
|  
|    10F}BBDEL 46  
|    JOB #: 0046 QUEUED BY SYSTEM FROM 10-F: ----- DELETED  
|  
-----
```

**Error Messages**

```
-----  
|  
|    Illegal job number  
|    Job not found  
|    User unauthorized to delete job  
|  
-----
```

**Parameters**

```
-----  
|  
|    USER = 01            User number where  
|                            BB processor resides.  
|  
|    DRIVE = 01            Drive (0=A, 1=B, etc.)  
|                            where BB processor  
|                            resides.  
|  
-----
```

---

**BBLIST Command**      The BBLIST command enables the user to list the current and pending jobs on the batch queue.

**Syntax**

```
-----  
| BBLIST {;options} |  
-----
```

**Explanation**

The report consists of two sections. The first, only present when there is a job currently running, lists that job. The second half lists all jobs waiting on the batch queue.

For all jobs, it lists the job number, the id of the user who requested it, the user area from which it was queued, and the request time. For the current job it also includes the time the job began running, and for the pending jobs it includes the time for which the job is scheduled.

**Options**

Option	Explanation
;F	The report will include with each job line, the command string which was queued.

Examples

```
5F}BBLIST
BACKGROUND BATCH: 13-Aug-83 AT 17:10

CURRENT PROCESS:
JOB # 045 QUEUED BY RJ FROM 2-J AT 15:06:22 - BEGAN:15:06:39

PENDING PROCESSES:
JOB # 046 QUEUED BY JG FROM 10-F AT 17:09:51 FOR 00:00
```

```
5F}BBLIST ;F
BACKGROUND BATCH: 13-Aug-83 AT 17:10

CURRENT PROCESS:
JOB # 045 QUEUED BY RJ FROM 2-J AT 15:06:22 - BEGAN:15:06:39
* DO STAM101

PENDING PROCESSES:
JOB # 046 QUEUED BY JG FROM 10-F AT 17:09:51 FOR 00:00
* DO REPORT
```

Parameters

```
USER = 01      User number where
                BB processor resides.

DRIVE = 01     Drive (0=A, 1=B, etc.)
                where BB processor
                resides.
```

---

**DIRDUMP Command**      The DIRDUMP command enables you to get a master directory of a disk drive.

**Syntax**

```
-----  
| DIRDUMP d: {;options} |  
| DIRDUMP {;options}   |  
-----
```

**Explanation**

If you specify a drive letter, as in the first example, the master directory will be obtained for that drive. Otherwise, the current drive will be listed.

The report will have a heading consisting of the disk's label and the current date and time. Following this it will list the user areas in order from 0 to 31, omitting any which are empty, producing in each area a directory sorted alphabetically. It will give the total disk usage for each area consisting of number of files, and number of K in use.

The program will take a few minutes to sort the directory. Once the sort is complete, it will send the report either to the screen or the printer, as specified by the option. If sent to the screen, it will pause after each screenful for you to press the RETURN key.

**Options**

Options	Explanation
;L	The directory listing is to be sent to the printer instead of the console.

**Examples**

```
-----  
| 6D)DIRDUMP |  
| ... (display of all files on drive D) ... |  
-----
```

Parameters

CLSCR = 1,1A	This may be a string of up to 10 bytes for the terminal clear-screen sequence. The first byte specifies the length of the string.
--------------	---



Parameters

SDRIVE = 01	System search drive (1=A, 2=B, etc.)
-------------	---





---

that first all of A drive will be listed in user number order, then all of B drive, etc.

If the user specifies choice 5, he will be returned to the operating system.

Parameters

SDRIVE = 01	System search drive (1=A, 2=B, etc.)
CLSCR = 1,1A	This may be a string of up to 10 bytes for the terminal clear-screen sequence. The first byte specifies the length of the string.

---

HELP Command            The HELP command enables you to obtain information about various TurboDOS and Turbo-Plus commands.

Syntax

```
-----  
|   HELP   |  
|   HELP command   |  
|-----|
```

Explanation

The 'command' argument is optional, and if present indicates the command for which you require assistance.

If the argument is omitted, HELP will provide a list of all the topics for which help is available. Any of these topics may then be used as an argument to obtain more specific information.

When an argument is present, HELP will provide the information on all topics matching the string provided.

After each screenful of information is printed, HELP will pause and wait for a carriage return input from the console before continuing. To abort at this point, press 'X'.

Note: If you wish to add your own help files to the facility, simply create a file called command.HLP on user zero of your search drive; set the global attribute on the file, and it will be included in future HELP listings.

Parameters

```
-----  
|   SDRIVE = 01   |   System search drive   |  
|                   |   (1=A, 2=B, etc.)   |  
|-----|
```

LOCATE Command

The LOCATE command enables you to search one or more active drives on the system for a given file or files.

Syntax

```
-----  
| LOCATE filename {;options}  
| LOCATE {;options}  
|-----
```

Explanation

If "filename" contains wild-cards, the LOCATE command can be used to find more than one file on the system.

The "options" argument may be any combination of the letters A-P, S, or '\*'. A-P and '\*' specify the drives on which to search, and the order in which to perform the search. S means that the program should stop after it finds the first match. The default setting is to search every drive on the system, and not stop, i.e. '\*';

If "filename" is omitted from the command line, then the LOCATE command operates in an interactive mode. It accepts commands from the console, prompted by an asterisk, until a null command is entered. The commands in interactive mode do not accept options of their own, but rather obey the options set in the initial program invocation.

Examples

```
-----  
| 0A}LOCATE *.PRN;GD*  
| ????????.PRN  
|  
| Searching Drive G  
| SYSTEM .PRN 5-G  
| PROGRAM .PRN 21-G  
| Searching Drive D  
| STAM .PRN 2-D  
| Searching Drive A  
| CON96 .PRN 0-A  
| Searching Drive B  
|-----
```

(continued)

```
| Searching Drive C  
| Searching Drive E  
| Searching Drive F  
| LOCATE .PRN 3-F  
| Searching Drive H  
| Searching Drive I  
|
```

```
0A}LOCATE: S  
  
* TEST.BAS  
  
TEST .BAS  
  
Searching Drive A  
Searching Drive B  
Searching Drive C  
Searching Drive D  
TEST .BAS 10-D  
  
* LAB*.PAS  
  
LAB?????.PAS  
  
Searching Drive A  
Searching Drive B  
Searching Drive C  
Searching Drive D  
Searching Drive E  
Searching Drive F  
LAB2A .PAS 13-F  
  
*  
  
0A}
```

**LOG Command**                    The LOG command enables you to log the progress of a job in a special file.

**Syntax**

```
-----  
| LOG comments |  
-----
```

**Explanation**

This command will get the system date, and create a file of the name mmddy.LOG if it does not already exist. Then it will append your comments, preceded by the date and time to the end of the file, as well as printing them on the console.

This command is particularly useful for a job running in a batch processor as part of a .DO file. It is possible to insert LOG commands at various points in the file so that as the job passes each critical point, it can log its progress into the file, allowing another user to check on it.

**Example**

```
-----  
| 10F}LOG STARTING JOB |  
| 10/19/83 09:12:54 STARTING JOB |  
| . |  
| . |  
| 10F}LOG JOB COMPLETE |  
| 10/19/83 10:23:38 JOB COMPLETE |  
| 10F}TYPE 101983.LOG |  
| 10/19/83 09:12:54 STARTING JOB |  
| 10/19/83 10:23:38 JOB COMPLETE |  
| 10F} |  
-----
```



---

Example

```
5C}LOGOFF  
Logged Off...
```





The access field is optional and, if present, should be a string between one and sixteen bytes long, containing any combination of the letters A-P. Any letters present indicate disk drives to which that user may have access. The list should include the system search drive and spool drive, as well as any other drives desired. If the field is absent, the user may access all drives.

If the user 31 library also contains a file named SYSLOG.SYS, then the LOGON command will automatically record your log-on in that file.

**Note:** The SYSLOG.SYS file maintained by Turbo-Plus has a format different from that maintained by TurboDOS. If you are running any programs which read this file, expecting the normal structure, they should be modified. Figure 2-1 shows a typical SYSLOG.SYS file.

If user 0 on the system search drive contains a file named BULLETIN.ON, then the contents of that file will be printed on the screen following a successful logon. This facilitates the broadcast of announcements about the system. The file must have the global attribute set in order for non-privileged users to receive it.

If the userid logging on has any new mail pending, LOGON will print a message on the screen stating: "\*\*\* You have new mail \*\*\*". He may then use the MAIL Facility (Cf. MAIL Command) to receive his mail.

---

Parameters

SDRIVE = 8	System search drive (1=A, 2=B, etc.)
LOGMSG = 'x...x'	User-specified logon message, terminated with '\$'
CLSCR = 1,1A	This may be a string of up to 10 bytes for the terminal clear-screen sequence. The first byte specifies the length of the string.

Figure 2-1  
Sample Turbo-Plus SYSLOG.SYS

The structure of SYSLOG.SYS is:

<u>First Column</u>	<u>Last Column</u>	<u>Contents</u>
1	9	Date
11	18	Time
20	27	Userid
29	29	Station Letter
32	34	User Number
36	36	Drive
42	64	Activity

  

19 Oct 83 06:51:50 LV (I) 2P K *** ON:
19 Oct 83 06:57:26 LV (I) 02 *** ----- LOG OFF -----
19 Oct 83 08:26:14 JG (C) 3P F *** ON:
19 Oct 83 08:49:36 SKA7 (F) 12 E *** ON:
19 Oct 83 09:28:49 RJ (I) 8P L *** ON:
19 Oct 83 09:35:31 LV (A) 2P K *** ON:
19 Oct 83 09:40:31 JG (C) 10 *** ----- LOG OFF -----
19 Oct 83 10:48:47 SKA7 (F) 12 *** ----- LOG OFF -----
19 Oct 83 10:49:03 LV (A) 08 *** ----- LOG OFF -----
19 Oct 83 10:49:30 JG (C) 3P F *** ON:
19 Oct 83 10:52:01 LV (A) 2P K *** ON:
19 Oct 83 11:03:29 LV (A) 02 *** ----- LOG OFF -----
19 Oct 83 11:03:35 LV (A) 2P K *** ON:UPSYS
19 Oct 83 11:05:33 SKA1 (H) 12 E *** ON:
19 Oct 83 11:51:01 SKA1 (F) 12 E *** ON:
19 Oct 83 11:58:59 SKA1 (F) 12 *** ----- LOG OFF -----
19 Oct 83 12:00:20 SKA1 (F) 12 E *** ON:
19 Oct 83 12:01:05 JSG (G) 10P E *** ON:GEN PRINTS ON 9E
19 Oct 83 12:36:22 HB (H) 12 E *** ON:
19 Oct 83 12:58:01 HB (H) 12 *** ----- LOG OFF -----
19 Oct 83 12:58:26 SKA (H) 14 E *** ON:
19 Oct 83 13:05:43 LV (A) 2P K *** ON:
19 Oct 83 13:14:21 LV (I) 2P K *** ON:
19 Oct 83 13:16:11 SKA1 (F) 12 *** ----- LOG OFF -----
19 Oct 83 13:18:20 SKA1 (F) 12 E *** ON:
19 Oct 83 13:21:16 LV (A) 2P K *** ON:
19 Oct 83 14:13:41 SKA1 (F) 12 *** ----- LOG OFF -----
19 Oct 83 14:23:10 ML (H) 2P M *** ON:
19 Oct 83 14:42:18 SKA1 (F) 12 E *** ON:
19 Oct 83 14:46:09 JG (C) 10 *** ----- LOG OFF -----
19 Oct 83 16:06:24 RJ (C) 8P L *** ON:
19 Oct 83 16:50:12 JG (G) 3P F *** ON:
19 Oct 83 17:04:27 SKA1 (F) 12 *** ----- LOG OFF -----
19 Oct 83 17:09:53 RJ (C) 02 *** ----- LOG OFF -----



- 
- n This command displays letter number 'n' on the screen in the same format as the 'R' command. It enables you to reread old mail which has not been killed.
  - H This displays a brief help menu for the command options. '?' will also produce this menu.
  - X This takes you out of MAIL, and returns you to the operating system.
  - A This is a privileged command. It puts you into an administrative sub-command mode, with a prompt of 'Admin>>>', which has the following options:
    - C This will prompt you for a userid, and create a mailbox for the specified user.
    - D This will prompt you for a userid, and delete that user's mailbox if it exists.
    - Q This returns you to the main command mode.
    - H This displays a brief help menu for the administrative options. '?' will also produce this menu.
    - X This takes you out mail MAIL, and returns you to the operating system.

If a userid is present in the initial command line, the program will go directly into send mode, asking you for the subject, and then the remainder of the letter. Upon completion of the letter, you will be returned to the TurboDOS command level.

If the user receiving mail is logged onto the system when the mail is sent, he will receive a message on his screen saying '\*\*\* You have mail from XXXXXXXX', where XXXXXXXX is the userid of the person who sent the mail.

---

Error Messages

Corrupt mail directory file  
Letter number out of range  
That mail box does not exist  
That mail box already exists  
No letter number specified  
System file I/O error  
Unauthorized user

Parameters

SDRIVE = 01      System search drive  
                  (1=A, 2=B, etc.)

CLSCR = 1,1A     This may be a string of  
                  up to 10 bytes for the  
                  terminal clear-screen  
                  sequence. The first byte  
                  specifies the length of  
                  the string.

ECHAR = '^E'     The character used for  
                  indicating the end of  
                  a letter on input for  
                  the send command.

QCHAR = '^Q'     The character used to  
                  abort a letter on input  
                  for the send command.

**PROFILE Command** The PROFILE command enables privileged users to add and delete userid's from the system user file in a menu-driven environment.

Syntax

```
-----  
| PROFILE |  
-----
```

Explanation

Upon issuing the PROFILE command, the user will be presented with the following menu:

-----  
User Identification Maintenance  
-----

```
A   Add a System User  
D   Delete a System User  
L   List All System Users  
E   Exit Program
```

Enter Choice >>>

If the user specifies choice 'A', he will be asked a series of questions about the new user, as follows:

```
-----  
| Enter Userid (Max 8 characters): ACCOUNT |  
| Enter Password (Optional: If present, max 8 characters): MYPASS |  
| Enter User Number (0-31) : 10 |  
| Is the user to be privileged (Y/N)? N |  
| Drive to log on to (Optional: If present, A-P)? D |  
| Drive to restrict user to (Optional: If present, combinations |  
| of A-P)? ADHI |  
-----
```

To exit from this mode, the user must press the return key when prompted for a userid.

If the user specifies choice 'D', he will be prompted for the userid to delete. Pressing the return key will return him to the main menu. Giving a userid will result in either that userid being deleted, or, if it is not found, an error message being returned.



---

If the user specifies choice 'L', the USERID.SYS file will be displayed in five columns: userid, password, user number, default drive, and access. The program will pause after each screenful, and wait for the return key to be depressed before continuing. If the user specifies choice 'E', he will be returned to the operating system.

Error Messages

```
-----  
| Duplicate Userid  
| Non-privileged user  
| Userid not present in file  
| There is no USERID.SYS file on the  
|                               system disk  
|-----
```

Parameters

```
-----  
| CLSCR = 1,1A   This may be a string of  
|                up to 10 bytes for the  
|                terminal clear-screen  
|                sequence. The first byte  
|                specifies the length of  
|                the string.  
|-----
```

---

**RESET Command**            The RESET command is a privileged command which enables you to reset any station on the system.

**Syntax**

```
-----  
|  
|     RESET station  
|     RESET  
|  
-----
```

**Explanation**

The "station" parameter is optional, and, if present, identifies the station to be reset. If absent, the program prompts the user for the station to be reset: "Station to reset (A-P)? ". The user must respond with a valid station letter or he will be asked again.

Once the station to be reset has been determined, the user is prompted for verification, with the question: "Okay to reset station x (Y/N)?" If the user says that the station is to be reset, then that station is downloaded by the server. If not, he is simply returned to the operating system, and nothing happens.

**Example**

```
-----  
|  
|     8L}RESET C  
|  
|     Okay to reset station C (Y/N)? Y  
|     8L}  
|  
-----
```

**Error messages**

```
-----  
|  
|     Non-Privileged user  
|     Illegal Station Letter  
|  
-----
```

Note: You can reset your own user processor by typing  
[CONTROL \_] [CONTROL \_]  
(Hold the CONTROL key down and press the underline key twice)

---

**SERVER Command**      The Turbo-Plus SERVER command replaces the TurboDOS command of the same name. In a networking configuration of TurboDOS which has a remote server console, the SERVER command allows you to attach your console to the server processor.

**Syntax**

```
-----  
| SERVER |  
-----
```

**Explanation**

This command attaches your console to the server processor. To detach from the server processor (and resume normal local console operation), enter an Attention-Abort sequence <CTRL-S><CTRL-C>.

While attached to the server, you can make attention requests of the server processor by using CTRL-A (instead of the usual CTRL-S).

In order to use the SERVER command, it is necessary that the server operating system be generated with the remote console driver module (CONREM).

The Turbo-Plus server command differs from that which it replaces because it does not allow more than one user into the server at once, and it keeps track of who is in the server for the WHO command. (Cf. WHO Command) Furthermore, if you attach to the SERVER while it is in the process of executing a job, you will receive a warning giving you the name of the program which is running, so that you do not accidentally give it any unwanted console input. If no job is running, you will receive the normal TurboDOS prompt.

---

Example

```
3B}SERVER  
Console attached to server processor  
OA}BACKUP A: B:  
.  
.  
OA}  
<CTRL-S CTRL-C>  
Console detached from server processor  
3B}
```

Error Messages

```
Non-privileged user  
Remote console driver not present  
Server processor is busy
```

---

STATUS Command

The STATUS command enables you to continuously monitor the system status. It will maintain on your screen a list of who is currently logged onto the system, what each of the users is currently doing, and obtain status reports on the system buffers and printers.

Syntax

```
-----  
| STATUS |  
-----
```

Explanation

STATUS gives a report showing all system activity. It then continually updates the report at a specified time interval.

The header line shows the current date and time, and the last time the system was reset.

Each other line in the report describes one user on the system. It shows what station that user is working on, the userid of that user, the time and date when he logged on, the .COM file which he is currently executing, and the user area from which he ran that program. A star appears to the left of the line displaying the user who typed the command. If the server is logged on, it shows all of the same information, as well as the station to which it is currently attached.

Below this table, a line appears displaying the number of I/O buffers currently active in the system.

Finally, there is a list of each printer defined for the station running the program, both local and remote, and from what queue, if any, that printer is despooling.

**Note:** Since Turbo-Plus uses the upper eight (i.e. I-P) queues and printers for its own routing purposes, the STATUS report only reports on the lower eight (A-H).

After five seconds, the screen will be cleared, and an updated report will appear. The program will continue running until aborted with a <ctrl-X> character.

Example

```
| 30F}STATUS  
|-----  
| Turbo+ V1.30 - 31-Aug-83 13:21 Last System Reset:10:23:42 24-Aug-83  
|  
| Station      Userid      Loc.      Time On      Date On      Process  
|-----  
| SRV  
|   A          LV          02-J      10:30:13     31-Aug-83   --idle--  
|   B          BB-0623     08-K      12:47:21     31-Aug-83   SORT  
| * C          JG          30-F      08:52:16     31-Aug-83   STATUS  
|   F          ML          12-D      11:11:02     31-Aug-83   MBAS  
|   I          RJ          05-L      15:05:15     31-Aug-83   COPY  
|  
| Number of Buffers: 14  
|  
| Printers:  
|   Printer A: Queue A  
|   Printer B: Queue B  
|   Printer C: Offline  
|  
| 0A}
```

Parameters

```
|-----  
| TDELAY = 5      The number of seconds  
|                  to wait between screen  
|                  refreshes.  
|  
| CLSCR = 1,1A   This may be a string of  
|                  upto 10 bytes for the  
|                  terminal clear-screen  
|                  sequence. The first byte  
|                  specifies the length of  
|                  the string.  
|-----
```

---

**TWX Command**            The TWX command enables you to communicate instantly with other users who are logged onto the system.

**Syntax**

```
-----  
| TWX destid  
| TWX destid message  
|  
-----
```

**Explanation**

The message parameter is optional. If it is absent, the program will prompt you with asterisks for each line of a multi-line message to send to the specified user. Pressing the return key at the prompt (i.e. giving it a null line) will terminate the program.

The destid parameter must specify the user who is to receive the message. This may be either in the form of a userid, a station letter, preceded by an exclamation mark (e.g. !A for station A), or ALL, for everybody who is logged onto the system.

If a userid and message are both present, TWX will send a single line message to the specified userid and automatically terminate.

Once a message is sent, it will immediately appear on the console(s) of the intended receiver(s). If a userid is specified, the message will be sent to all stations which the specified userid is logged on to. The message will never be sent to the user sending it, whether or not he is the specified userid or it is a TWX ALL. If the user attempts to send a message to a station which is not logged onto the system, he will receive an error message.

When a user receives a message, it will be preceded by a header line of the form "\*\*\* FROM srcid:" where srcid is the userid of the user sending the message. If that user does not have a userid, (i.e. he is running TWX from a station or SERVER which has an AUTUSR

---

specified) the header line will read "\*\*\*  
FROM STAT. x:" where x is the correct letter,  
or "\*\*\* FROM SERVER:" in that case.

If a user wishes to disable his station from receiving TWX messages while he is working, he may issue the 'TWX .OFF' command. Anybody who tries to send him a message will receive a message that 'Station X has disabled messages'. To resume receiving messages, issue the 'TWX .ON' command.

#### Examples

```
-----  
|  
| 13F}TWX RJ  
| *RON: MEETING AT 1.  
| *CAN YOU MAKE IT?  
| 13F}***From RJ : YES, SEE YOU THEN  
|  
| 0A}TWX ALL SYSTEM COMING DOWN IN 5 MINS  
|  
|-----
```

#### Error Messages

```
-----  
|  
| Station has disabled messages  
| No userid present in command line  
| Userid too long  
| Station unable to receive message  
| User is not currently logged on system  
|  
|-----
```



---

WHO Command

The WHO command enables you to find out who is currently logged onto the system, what each of the users is currently doing, and obtain status reports on the system buffers and printers.

Syntax

```
-----  
| WHO |  
-----
```

Explanation

WHO gives a report showing all system activity. The header line shows the current date and time, and the last time the system was reset.

Each other line in the report describes one user on the system. It shows what station that user is working on, the userid of that user, the time and date when he logged on, the .COM file which he is currently executing, and the user area from which he ran that program. A star appears to the left of the line displaying the user who typed the command. If the Server is logged on, it shows all of the same information, as well as the station to which it is currently attached.

Below this table, a line appears displaying the number of I/O buffers currently active in the system.

Finally, there is a list of each printer defined for the station running the program, both local and remote, and from what queue, if any, that printer is despooling.

Note: Since Turbo-Plus uses the upper eight (i.e. I-P) queues and printers for its own routing purposes, the WHO report only reports on the lower eight (A-H).

Example

|12M)WHO

|Turbo+ V1.30- 31-Aug-83 16:37 Last System Reset:10:23:42 24-Jan-83|

<u>Station</u>	<u>Userid</u>	<u>Loc.</u>	<u>Time On</u>	<u>Date On</u>	<u>Process</u>
SRV					TIP
* A	ML	12-M	09:10:46	31-Aug-83	WHO
B	BB-IDLE	01-H	14:23:42	31-Aug-83	-batch-
C	JG	05-F	08:30:13	31-Aug-83	GEN
F	RJ	08-J	09:22:15	31-Aug-83	--idle--

Number of Buffers: 14

Printers:

Printer A: Offline  
Printer B: Queue B  
Printer C: Queue A