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HOW TO USE THIS MANUAL

The PLATOTERM Manual has been structured for two levels of users. The new user will find PLATOTERM explained in well-defined terminology and step by step instruction, while the experienced user will find what they need to use PLATOTERM to access PLATO on-line services quickly and efficiently.

For both levels, explanations are followed by graphics wherever possible. The intention is to present the material in the clearest, most concise way possible for users at each level.

I. GENERAL DESCRIPTION

PLATOTERM is a cartridge which provides the software necessary to send and receive data to PLATO services located on remote computers, connected via the Internet. To connect the ATARI® computer to the Internet, an Internet MODEM is required, which simultaneously connects the ATARI® to the Internet, and appears to the ATARI® like a MODEM. A wide variety of devices can be used to perform this function, and the chapter on MODEM set-up will provide examples of what can be used, and how to connect it all together.

PLATO services provide not only textual information, but also graphical information, and the ability to point and click on textual and graphical elements on-screen. PLATOTERM interprets the information received from the MODEM and presents it on your ATARI® screen, while simultaneously gathering any and all input from your ATARI® keyboard and pointing device; sending it back to the PLATO system for further processing and interaction.

In addition to the ATARI® keyboard, you may also use a joystick, touch tablet, TRAK-Ball, or mouse to act as a pointer device. When you receive a copy of PLATOTERM, the desired touch device is pre-programmed into the ROM inside your cartridge.

PLATOTERM supports any serial device that provides an "R:" to the operating system. This includes the ATARI® 850™, ICD® P:R: Connection™, and R-Verter interface. To facilitate this, the cartridge will load any disk operating system from the first disk drive, allowing any "R:" handler desired to be loaded.

II. OPERATION

This cartridge runs on any ATARI® 400™, ATARI® 800™, ATARI® 600XL™, ATARI® 800XL™, ATARI® 1200XL™, ATARI® 1400XL™, ATARI® 1450XLD™, ATARI® 65XE™, ATARI® 130XE™, ATARI® 800XE™, ATARI® XE Game System™, or compatible system.

To use, insert the cartridge into your computer. For ATARI® 800™ systems, use the **LEFT CARTRIDGE** slot. Be sure the POWER ON/OFF switch on the console is turned on. The ATARI® 400™ and ATARI® 800™ consoles automatically shut off whenever the cartridge door is lifted. This prevents damage to the computer and the cartridge. If you need a special disk handler (such as for R-Verter or another interface that provides an "R:" handler), then turn on the disk drive, and insert a bootable DOS disk containing the desired handler, before powering on the computer.

This version of PLATOTERM is set to the following terminal parameters:

• 1200 baud

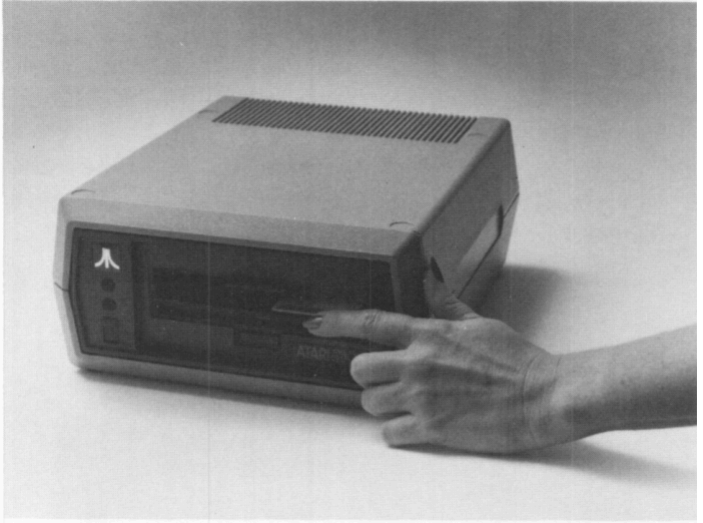• no parity

• 8 data bits

• 1 stop bit

Important

If your MODEM is set to different communication parameters, be sure to set your MODEM configuration parameters in the appropriate setup program, before launching PLATOTERM.

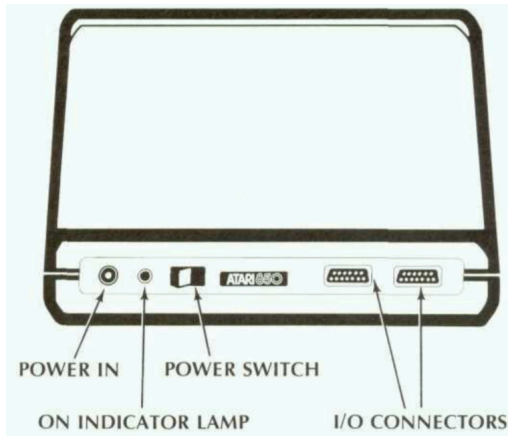Use the following procedure to connect to a PLATO™ service:

1. If an ATARI® 810™, ATARI® 1050™, ATARI® XF-551, or compatible drive is attached, insert a DOS diskette with an appropriate "R:" handler in the drive. The ATARI® **MASTER DISKETTE II** contains such a handler, which will automatically load, when booted

2. Switch the ATARI® 850™ Interface Module (or compatible device) power to **ON**.

POWER IN | POWER SWITCH

ON INDICATOR LAMP | I/O CONNECTORS

3. Switch your MODEM power to **ON**.

4. Switch the ATARI® computer power to **ON**. Wait for

```
PLATOTerm Cartridge Version
(@) 2018 IRATA.ONLINE
1200 Baud. Terminal Ready
```

to appear.

5. Enter any commands you need, before you dial, such as ATB2, if running APE, or AT&K0&C1 if using TCPSER.

6. Enter your MODEM's command to dial, such as

   ATDTIRATA.ONLINE:8005

   and wait for the connect message.

7. Follow the prompts to log on to the system.

8. Use the system.

9. When done. Press **SHIFT-CONTROL-S**, twice, to log off.

10. Send any commands to your modem, to hang up, such as

    +++ATH

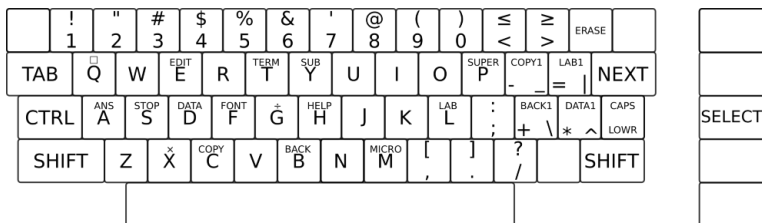11. If desired, press SELECT-X to exit the cartridge, to DOS.

III. USER CONTROLS

PLATOTERM's controls are very simple to use. There are three main keys which alter the operation of the program:

KEYS	FUNCTION
SELECT T	Selects TTY mode. All incoming data is simply displayed as ASCII text, with no parsing of incoming information, All keys are also sent as ASCII keys. The program, by default starts in this mode. This can be used if you are in PLATO mode, and need to send a command to your MODEM.
SELECT P	Selects PLATO mode. All incoming data is interpreted as PLATO data. This can be used if you are already connected to the PLATO service when PLATOTERM starts.
SELECT X	Exits PLATOTERM. If the computer was booted from the disk drive, it will return to DOS. Otherwise, the computer will default to either the MEMO PAD mode for the ATARI® 400™ and ATARI® 800™ systems, to the ATARI® logo display for the ATARI® 1200XL™ system, or to the SELF TEST for all other compatible computers.

PLATOTERM maps the keys from the PLATO system into appropriate keys on the ATARI® console keyboard, as shown in the following diagram:

! 1	" 2	# 3	$ 4	% 5	& 6	' 7	@ 8	(9	) 0	≤ <	≥ >	ERASE	

TAB	□ Q	W	EDIT E	R	TERM T	SUB Y	U	I	O	SUPER P -	COPY1 _ =	LAB1 ⏋	NEXT

CTRL	ANS A	STOP S	DATA D	FONT F	÷ G	HELP H	J	K	LAB L	: ;	BACK1 + \	DATA1 * ^	CAPS LOWR

SHIFT	Z	ˣ X	COPY ͨ C	V	BACK B	N	MICRO M	[,	] .	? /	SHIFT

SELECT

The **CTRL** key is used to press the special PLATO keys, described below:

PLATO Key	ATARI® KEY
ANS	**CTRL A**
BACK	**CTRL B**
SHIFT-BACK	**CTRL +**
COPY	**CTRL C**
SHIFT-COPY	**CTRL -**
DATA	**CTRL D**
SHIFT-DATA	**CTRL ***
EDIT	**CTRL E**
SHIFT-EDIT	**SHIFT CTRL E**
FONT	**CTRL F**
DIVIDE	**CTRL G**
HELP	**CTRL H**
SHIFT-HELP	**SHIFT CTRL H**

PLATO Key	ATARI® KEY
LAB	**CTRL L**
SHIFT-LAB	**CTRL =**
SUPER	**CTRL P**
SHIFT-SUPER	**SHIFT CTRL P**
SQUARE	**CTRL Q**
ACCESS	**SHIFT CTRL Q**
STOP	**CTRL S**
SHIFT STOP	**SHIFT CTRL S**
TERM	**CTRL T**
MULTIPLY	**CTRL X**
SUB	**CTRL Y**
SHIFT-SUB	**SHIFT CTRL Y**
∩	**SHIFT CTRL G**
∪	**SHIFT CTRL 9**

In addition to the PLATO control keys above, you can type the following additional characters by pressing **SHIFT CTRL Q**, which sends the **ACCESS** key, followed by the desired key below.

SYMBOL	ACCESS	SYMBOL	ACCESS
α	**A**	low tilde	**:**
β	**B**	↕	**,**
$\,$	**C**	≠	**=**

SYMBOL	ACCESS	SYMBOL	ACCESS
δ	D	ö	Y
´	E	←	SHIFT A
æ	G	↓	SHIFT X
ø	H	→	SHIFT D
å	J	↑	SHIFT W
ä	K	©	SHIFT C
λ	L	◆	SHIFT F
μ	M	Æ	SHIFT G
~	N	Ø	SHIFT H
°	O	Å	SHIFT J
π	P	Ä	SHIFT K
`	Q	BOX	SHIFT O
ρ	R	Ö	SHIFT Y
σ	S	≤	SHIFT <
Θ	T	≥	SHIFT >
¨	U	{	SHIFT [
ˇ	V	}	SHIFT]
ω	W	CROSS	CTRL X
∧	X	≡	SHIFT)
l-embed	0	ARROW (>)	6
r-embed	1		

IV. AN EXAMPLE SESSION

The following procedure shows an example session with IRATA.ON-LINE, a PLATO service for retro-computing users. It assumes that:

- Your ATARI® computer is set up.

- Your ATARI® 850™ Interface Module (or compatible) is connected to your ATARI® computer.

- Your WIFI modem is connected to SERIAL INTERFACE PORT 1 (or other appropriate port) on your ATARI® 850™ Interface Module (or compatible)

Your WIFI MODEM must also be configured with the following connection parameters:

- 1200 baud

- 8 data bits

- 1 stop bit

- no parity

Important

PLATOTERM always runs with the aforementioned parameters. You must change your MODEM parameters to match the above using its configuration tools, before running PLATOTERM.

1. Turn on your ATARI® 850™ Interface Module, or compatible.

2. Turn on your WIFI MODEM, if needed.

3. Insert the PLATOTERM cartridge into the appropriate cartridge slot in your ATARI® computer console, and close the cartridge door, if needed.

4. If you need to use a "R:" handler loaded from a DOS disk:

    a. Power on your disk drive.

    b. Insert your DOS disk into the drive, and close the door.

5. Power on your ATARI® computer console. Wait for the **PLA-TOTERM READY** prompt.

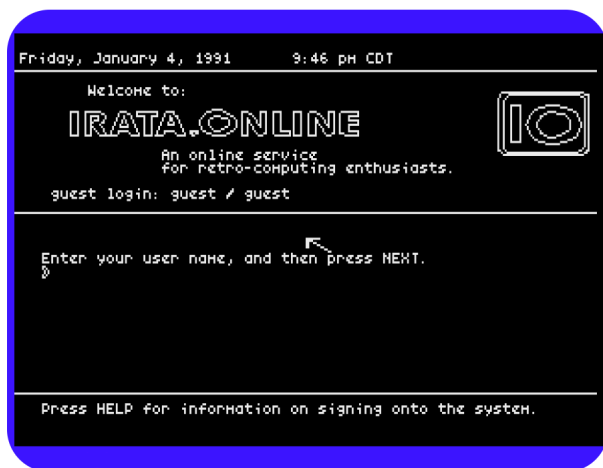6. Type the following to dial IRATA.ONLINE:

```
ATDTIRATA.ONLINE:8005
```

7. After a short moment, you should see something similar to the following:
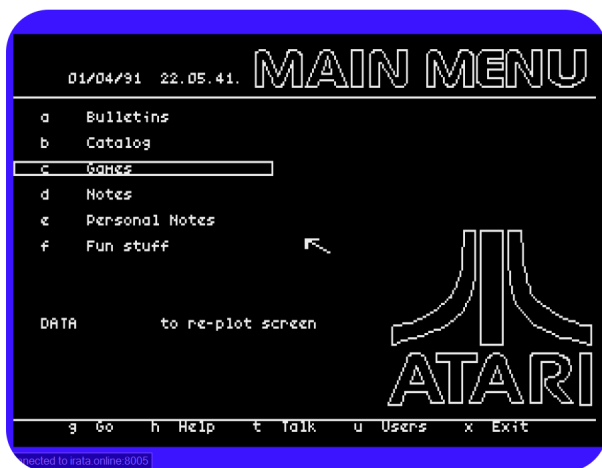
```
Connecting to host - please wait ...

Connected

WELCOME TO THE NOS SOFTWARE SYSTEM
COPYRIGHT CONTROL DATA SYSTEMS INC. 1994.
91/01/04. 21.42.16. TE22
 NOS CYBIS SYSTEM - CYBDEV. 1.  NOS 2.8.7...
```

8. After a few short moments, you should see the IRATA.ONLINE sign-on screen:

```
Friday, January 4, 1991        9:46 pm CDT
        Welcome to:
    IRATA.ONLINE                          ⧉
        An online service
        for retro-computing enthusiasts.
    guest login: guest / guest

                            ↖
    Enter your user name, and then press NEXT.
    ▷



    Press HELP for information on signing onto the system.
```

9. Type **guest** and press RETURN in response to the prompt for user name.

10. Type **guest** and press RETURN in response to the prompt for group.

11. Once the main menu has finished drawing, press **C** to navigate to the Games menu. Alternately, you can use your joystick, or other pointing device to move the pointer over the menu entry for Games, and press a device button to select it.

12. Once the games menu has finished drawing, press F to select the Checkers game. The description for Checkers will appear.
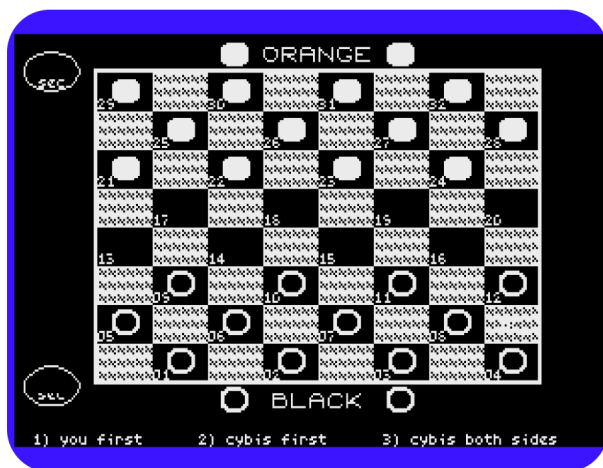
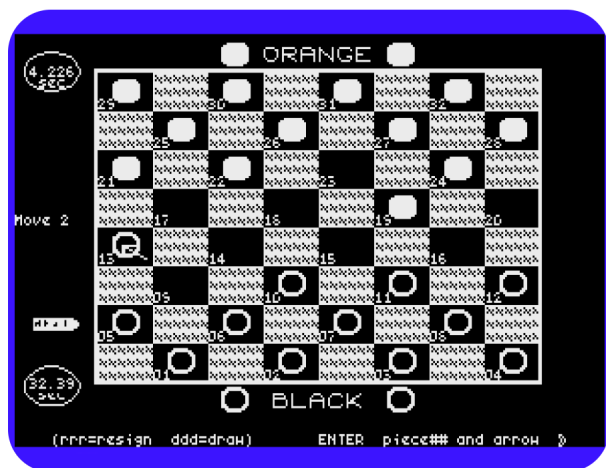13. Press **CTRL D**. This sends the DATA key to the PLATO host, and starts the game.

14. Press **RETURN**, which sends **NEXT** to the PLATO host, to start the game.

15. Press **1** to start the game with you playing first.

16. Use your pointing device to move the pointer over a piece you wish to move. Press the selection, or fire button.

17. Use your pointing device to move the pointer to an adjacent empty square to move the piece. Press the selection, or fire button. The piece should move to where you requested.

18. Wait for the computer to play its turn and return to you.

19. Once you are ready to quit the game, press **SHIFT CTRL S** which sends **SHIFT-STOP** to the PLATO host, and presents you with a menu to either continue working in the menu, or to log off.

20. Press SHIFT CTRL S once again, to log off the system.

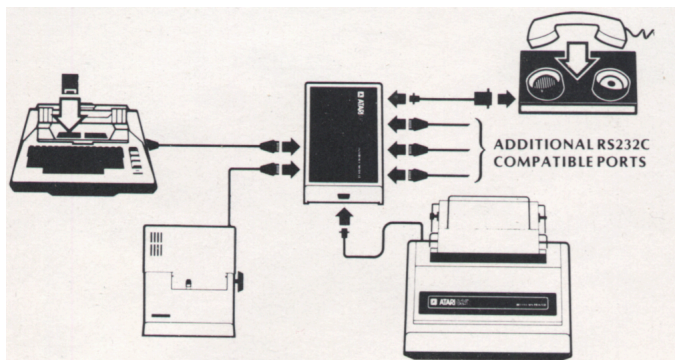21. Hang up the modem by typing +++ ... Waiting a few seconds until you see OK, and type:

```
ATH
```

22. The modem should hang up. Followed by the message:

```
NO CARRIER
```

Congratulations, you've successfully communicated with a PLATO host using PLATOTERM.

A. EXAMPLE SETUP

The following diagram shows an ATARI® 800™ connected to an RS-232 WIFI MODEM through an ATARI 850™ Interface Module. A common WIFI modem is based on the ESP8266 micro-controller, and provides a connection to the Internet, so that PLATO services can be accessed.

As can be seen from the diagram:

• The PLATOTERM cartridge is inserted into the ATARI® computer.

• The ATARI® 850™ Interface Module is attached via the PERIPHER-AL connector.

• The WIFI MODEM is attached via a CX87 MODEM cable to SERIAL INTERFACE PORT 1.