

How to run the samples

In addition to the Library Reference and the Library Overview, the samples included on this CDROM constitute a major instructional resource. Sometimes, the best teacher is code. You can freely use this code within your PlayStation programs.

This document describes the following topics:

- [How to run general samples](#)
- [How to run CD samples](#)

Click [here](#) for a complete listing and brief description of all the samples.

Running general samples

The following instructions apply to the majority of samples on the CDROM.

1. Your boards should already have been installed.

- DTL-H2000 users should read [\psx\bin\DTLH2000\install.pdf](#).
- DTL-H2500 users should read [\psx\bin\DTLH2500\install.pdf](#).

2. Make sure the appropriate drivers are running on your system.

- DTL-H2000 users should be running the "dexbios" in their autoexec.bat. For more information, refer to the document [\psx\bin\DTLH2000\install.pdf](#).
- DTL-H2500 users should run the program "h25bios.com" at an MS-DOS command-line prompt. Drivers such as "h25drv.exe" and "dexbios.com" should NOT be running. At an MS-DOS command line prompt, type

`h25bios.com`

This loads the TSR into memory. If you are running from Windows 95, you should run h25bios.com in EACH MS-DOS window in which you will be compiling and running your programs.

For more information on h25bios.com, refer to [\psx\bin\DTLH2500\install.pdf](#)

3. Make sure the following path environment variables are valid:

PSYQ_PATH

COMPILER_PATH

PSX_PATH

C_INCLUDE_PATH

C_PLUS_INCLUDE_PATH

LIBRARY_PATH

GO32

GO32TMP

TMPDIR

If not, then you will have trouble compiling and running programs.

4. Make sure your paths are pointing to the directories "psx\bin" and "psyq". If you don't have enough environment space, edit your config.sys with the following line:

```
shell=command.com /E:1024 /p
```

to allocate more memory for the environment. The "/E:1024" sets the environment size to 1024 (valid ranges are from 160 to 32768), and "/p" makes this command.com the default command prompt. (See page 342 of Peter Norton's Complete Guide to DOS 6.22 6th edition for further details. Or consult your favorite DOS manual.)

3. Make sure the Psy-Q security dongle is in place on PC's parallel printer port. WARNING: Do not connect any peripherals to the back of the security dongle. Although it was meant to be a pass through device, the dongle may be damaged when connect to certain devices, such as an external parallel-interface SCSI hard disk.

4. Type the following:

```
cd \psx\sample\graphics\clutfog psymake
```

The GNU-C compiler will produce (among other things) "tuto0.cpe", which is a PlayStation binary file.

5. Reset the board by typing

```
resetps 1
```

6. If (and only if) you are running the DTL-H2000 board, type the following:

```
run \psyq\snpatch.cpe
```

The file "snpatch.cpe" fixes a bug in the ROM of the DTL-H2000 board. DTL-H2500 users must not run this patch.

7. Load the "tim" files into the main memory of the development board by typing

```
psymake load
```

"Tim" files are written in a format usable by the GPU library functions. Examine the file "makefile.mak". The "load" directive invokes the function "pqblod", which loads the specified binary data into the memory address (in hexadecimal notation) of the PlayStation's main memory. Routines within the code will transfer the data from the main memory to the video RAM.

6. Run the program. Type

```
run tuto0.cpe
```

This loads the "tuto0.cpe" file into the memory of the PlayStation developer board and executes the program.

Running the "CD" samples

The CD samples in "\psx\sample\cd" require the use of the cd-emulator or the cdrom drives (DTL-H2010 and DTL-H2510); check with your tools coordinator if you don't have them.

In order to run the cdrom samples in "psx\sample\cd" and in "psx\sample\sound", follow these steps:

1. Make sure your drivers and environment variables are working. Click [here](#) for more details.
2. Put the Programmer Tools CD-ROM into the DTL-H2010 or the DTL-H2510 CD-ROM drives.
3. Change to the directory, "psx\sample\cd\movie". Type `cd \psx\sample\cd\movie`.
4. Type `psymake` to make all of the tutorials in the current directory. After all the samples have finished compiling, you can do the next step.
5. Type `resetps 1` to reset the board.
6. If (and only if) you are running the DTL-H2000 board, type the following:
`run \psyq\snpatch.cpe` The file "snapatch.cpe" fixes a bug in the ROM of the DTL-H2000 board. DTL-H2500 users must not run this patch.
7. Type `run \psyq\selcd` This instructs the development board to use the CD-ROM drive (rather than the CD-ROM Emulator) during routines that use the CD-ROM (such as `CdInit()`).
8. Type `resetps 1` to reset the board (it is now ready to run CD commands).
9. If (and only if) you are running the DTL-H2000 board, type the following:
`run \psyq\snpatch.cpe` The file "snapatch.cpe" fixes a bug in the ROM of the DTL-H2000 board. DTL-H2500 users must not run this patch.
10. Type `run tuto0.cpe` You should see a vivid movie of a spaceship flying around the screen. If you look inside the file "tuto0.c", on line 32, is the file name "\\data\\mov.str;1". If you load your Programmer Tools CDROM into the PC's CDROM drive, you will indeed find the file "\\data\\mov.str".



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