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    T H E   " U N - O F F I C I A L"
      PLAYSTATION DEVELOPMENT FAQ

        Development Tools
          CONFERENCE
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          Release v1.2
      Last Updated: February 29, 1996
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[1.]: DEVELOPMENT TOOLS

[1.1.]: Questions on development board hardware?

[1.1.1.]: How do I set the base address for the DTL-2000 and the graphic card?

There are dip switches which are located on the board to set the base address. These swiches represents the A4-A15 address. When changing these values note that "0" represents "ON" as shown in the board docs. This is opposite of what you would think. Also, when setting the address "drop" the last value. For example,0x1360 the zero is dropped. 0001-0011-0100

[1.2.]: Questions on using C++ comments?

[1.2.1.]: Is there any way to use C++ style // comments in my C code ?

Use -comments-c++ on your ccpsx line.

[1.3.]: How do I increase the stack space?

If you get a compiler error something like:

```
>C:\PSX\BIN\ccpsx.EXE   -O2 -c -g -o o\psxmodel.obj c\psxmodel.c
>Stack Fault at eip=ce163
>eax=000000bc ebx=000033c0 ecx=00336108 edx=00001778 esi=0017714c
edi=00000000
>ebp=0016c730 esp=0011b0f0 cs=ef ds=e7 es=e7 fs=e7 gs=ff ss=f7
cr2=0000cff4
>Call frame traceback EIPs:
> 0x000ce163
> 0x000266d4
>  0x00015dd7
>  0x000073c1
>  0x000255f4
>  0x00027bc1
```

It isn't a compiler bug. The compiler has run out of stack space. This is presumably because the user is in a DPMI environment (e.g. windows or running something like QDPMI). To increase the amount of stack space you can set the dpmistack parameter in the GO32 environment variable. e.g.

set GO32=dpmistack 500000

The default size for the stack is 256k

[1.4.]: What is rdata?
.text executable code
.data initialized data

```
.bss  uninitialized data
.rdata      read only data(e.g. constants)
.sdata      small size initialized data*
.sbss small size uninitialized data*
```

*small - the size limit is configurable with the -G# compiler switch.
The # respresents the maximum byte size entity to put into sdata or
sbss. Use -G0 for event handlers. The default is -G8, or an 8 byte limit
for an item to be put into sdata or sbss.

[1.5.] : Why does a program not work properly if booting from a CD-ROM?

We are very sorry for it.
The used ROM version on DTL-H2000 is different from that on PlayStation,
and contains a little lack of functionality and malfunction. In order to
solve the problems, a patch program (patchx.cpe) is provided for
developing applications. However, since this patch information is lost
by resetting (booting), as a result, the operation equivalent to
PlayStation will not be ensured if booting from a CD-ROM or CD-ROM
Emulator. That is to say, it cannot be checked by booting from the CD-
ROM or CD-ROM Emulator even under development. Therefore, the first
program must be placed on the hard disk of the host machine, and be
executed by run command or the debugger after the execution of patchx.
Moreover, the following program execution will enable the applications
on the CD-ROM or CD-ROM Emulator (default-setting) to be activated.

```
main() {
        _96_remove();
        _96_init();
        LoadExec("cdrom:\\PSX.EXE;1",0x8001fff0, 0); }
```


[1.6.]: Questions on development board hardware?

[1.6.1.]: How do I set the base address for the DTL-H2000 and the graphic card?

There are dip switches which are located on the board to set the base
address. These switches represents the A4-A15 address. When changing
these values note that "0" represents "ON" as shown in the board docs.
This is opposite of what you would think. Also, when setting the address
"drop" the last value. For example,0x1360 the zero is dropped. 0001-
0011-0100

[1.6.2.]: How do I set the IRQ and DMA for the DTL-H2000?

There are jumpers which are located on the board to set the IRQ and DMA.
The IRQ can be set to 10, 11, 12, or 15, by placing the jumper correct
location. The DMA may also be set, but is not used, so leave it in the
default position, disabled.

[1.7.]: Questions on using C++ comments?

[1.7.1.]: Is there any way to use C++ style // comments in my C code ?
Use -comments-c++ on your ccpsx line.

[1.8.]: How do I increase the stack space?
If you get a compiler error something like:

```
>C:\PSX\BIN\ccpsx.EXE   -O2 -c -g -o o\psxmodel.obj c\psxmodel.c
>Stack Fault at eip=ce163
>eax=000000bc ebx=000033c0 ecx=00336108 edx=00001778 esi=0017714c
edi=00000000
>ebp=0016c730 esp=0011b0f0 cs=ef ds=e7 es=e7 fs=e7 gs=ff ss=f7
cr2=0000cff4
>Call frame traceback EIPs:
> 0x000ce163
> 0x000266d4
>  0x00015dd7
>  0x000073c1
>  0x000255f4
>  0x00027bc1
```


It isn't a compiler bug. The compiler has run out of stack space. This
is presumably because the user is in a DPMI environment (e.g. windows or
running something like QDPMI). To increase the amount of stack space
you can set the dpmistack parameter in the GO32 environment variable.
e.g.

set GO32=dpmistack 500000

The default size for the stack is 256k

[1.9.]:What is rdata?
.text executable code
.data initialized data
.bss uninitialized data
.rdata   read only data(e.g. constants)
.sdata   small size initialized data*
.sbss small size uninitialized data*

*small - the size limit is configurable with the -G# compiler switch.
The # respresents the maximum byte size entity to put into sdata or
sbss. Use -G0 for event handlers. The default is -G8, or an 8 byte limit
for an item to be put into sdata or sbss.

[1.10.]:How to use cpe2x?

        *   Command line: CPE2X [option] <cpe file>

          Option: /C[area]

```
               J : for Japan (default)
               A : for the U. S.
               E : for Europe

        Example:

        DOS> cpe2x test.cpe          for Japan
        DOS> cpe2x /CA test.cpe      for the U.S.
        DOS> cpe2x /CE test.cpe      for Europe


*    Character information included in the header can be
     selected area by area with the option switch.

*    In the previous version, when converting a CPE file,
     the execution is sometimes terminated with the message,
     "Sorry! CPE2X cannot convert this CPE file. Please
     use EXEHEADX."

     This version can process these files therefore EXEHEADX.EXE
     is not necessary from now on.

*    When converting a CPE file, a temporary file is occasionally
     created in the current directory, and the following message
     is displayed.

     Using tmp-file: CPE2XTMP.XXX

     The temporary file will be deleted at the end of the
     conversion.


*    Warning & Error message:
     Please inform SCEA, if the following messages is displayed.

       WARNING: overwrite. size:XXXXXXXX addr:XXXXXXXX
       Address duplication is detected in the CPE file.

       ERROR: too many sector of CPE file.
       The number of sectors in the CPE file exceeds the
       limitation.
```