

LAPORAN PRAKTIKUM SISTEM OPERASI

MODUL 2

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1. ketik perintah 'cd os' untuk masuk ke OS nya.

```
Bochs for Windows - Console
Microsoft Windows [Version 10.0.14393]
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C:\Users\LAB-FKI>cd ..

C:\Users>cd ..

C:\>cd os
```

2. jalankan 'setpath', setelah itu pindah ke LAB 2 dengan mengetikan 'cd lab/lab2'.

```
C:\OS>setpath

C:\OS>Path=C:\OS\Dev-Cpp\bin;C:\OS\Bochs-2.3.5;c:\OS\Perl;c:\Windows;c:\Windows\System32
C:\OS>cd LAB/LAB2
```

3. lalu ketikan 'dir' untuk melihat isi direktori kerja, dan akan tampak seperti gambar berikut.

```
C:\OS\LAB\LAB2>dir
Volume in drive C has no label.
Volume Serial Number is 442E-B75C

Directory of C:\OS\LAB\LAB2

09/19/2018  02:45 AM  <DIR>          .
09/19/2018  02:45 AM  <DIR>          ..
09/19/2018  02:45 AM                10,156 bochs.log
12/15/2008  04:18 PM                1,625 bochssrc.bxrc
09/19/2018  02:07 AM                15,931 boot.asm
09/19/2018  02:08 AM                 512 boot.bin
12/15/2008  01:52 PM                 78 dosfp.bat
09/19/2018  02:16 AM                7,963 kernel.asm
09/19/2018  02:17 AM                 608 kernel.bin
12/15/2008  04:21 PM                 228 Makefile
12/15/2008  12:20 PM                  44 s.bat
          9 File(s)              37,145 bytes
          2 Dir(s)  181,148,913,664 bytes free
```

4. selanjutnya jalankan 'bximage', dan diteruskan dengan menjawab pertanyaan-pertanyaan yang akan muncul setelah menjalankan bximage.

```

C:\OS\LAB\LAB2>bximage
=====
bximage
Disk Image Creation Tool for Bochs
$Id: bximage.c,v 1.32 2006/06/16 07:29:33 vruppert Exp $
=====

Do you want to create a floppy disk image or a hard disk image?
Please type hd or fd. [hd] fd

Bochs for Windows - Console
Choose the size of floppy disk image to create, in megabytes.
Please type 0.16, 0.18, 0.32, 0.36, 0.72, 1.2, 1.44, 1.68, 1.72, or 2.88.
[1.44]
I will create a floppy image with
  cyl=80
  heads=2
  sectors per track=18
  total sectors=2880
  total bytes=1474560

What should I name the image?
[a.img] floppy.img

Writing: [] Done.

I wrote 1474560 bytes to floppy.img.

```

5. pastikan hasil file ‘floppya.img’ dengan memasukan perintah ‘dir’, hasilnya seperti gambar dibawah.

```

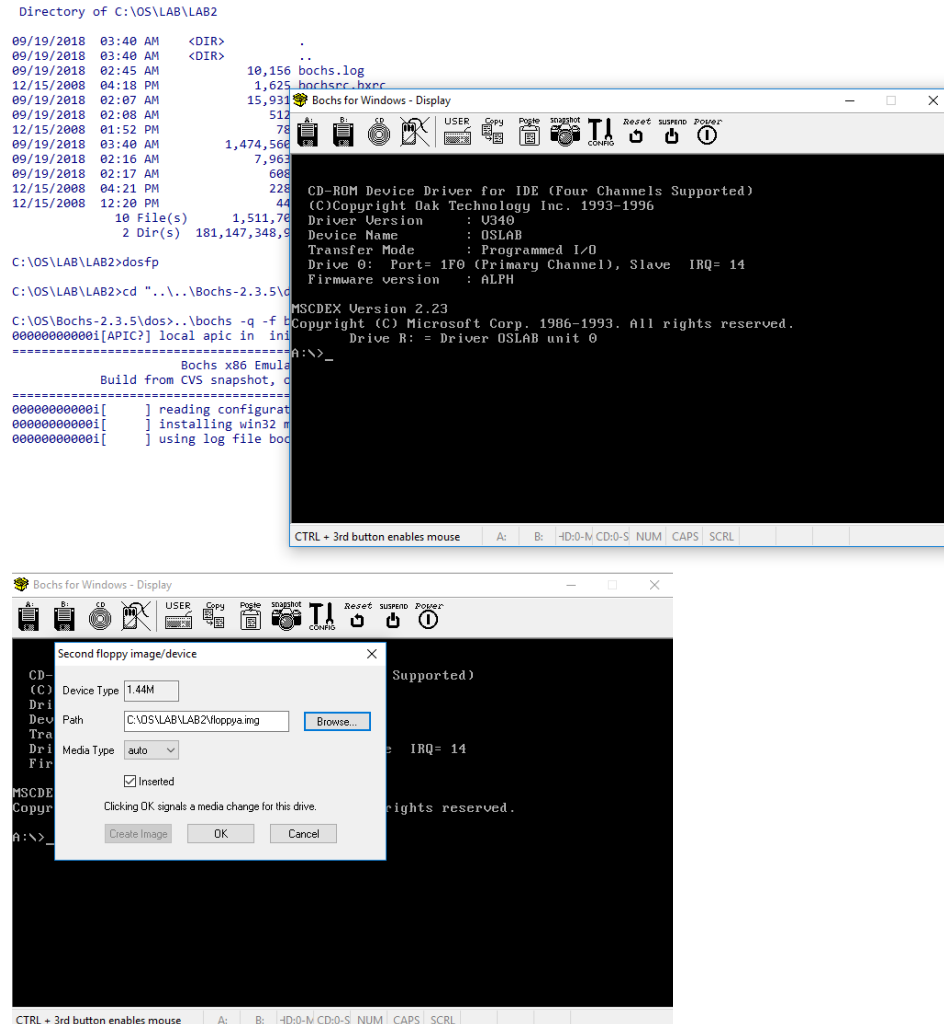
C:\OS\LAB\LAB2>dir
Volume in drive C has no label.
Volume Serial Number is 442E-B75C

Directory of C:\OS\LAB\LAB2

09/19/2018  03:40 AM  <DIR>          .
09/19/2018  03:40 AM  <DIR>          ..
09/19/2018  02:45 AM               10,156 bochs.log
12/15/2008  04:18 PM               1,625 bochsrc.bxrc
09/19/2018  02:07 AM               15,931 boot.asm
09/19/2018  02:08 AM                512 boot.bin
12/15/2008  01:52 PM                78 dosfp.bat
09/19/2018  03:40 AM          1,474,560 floppya.img
09/19/2018  02:16 AM               7,963 kernel.asm
09/19/2018  02:17 AM                608 kernel.bin
12/15/2008  04:21 PM                228 Makefile
12/15/2008  12:20 PM                 44 s.bat
          10 File(s)            1,511,705 bytes
           2 Dir(s)      181,147,348,992 bytes free

```

6. jalankan perintah ‘dosfp’, lalu pindah ke windows ‘Bochs’ untuk mengatur lokasi file image, tampak seperti gambar dibawah. Dari prompt A:> ketikan perintah ‘format b: /s’ dan selesaikan prosesnya lalu tutup ‘Bochs’ dengan menu power.



7. jalankan perintah 's' dan akan menuju ke PC simulator dan pastikan posisi 'floppya.img'.

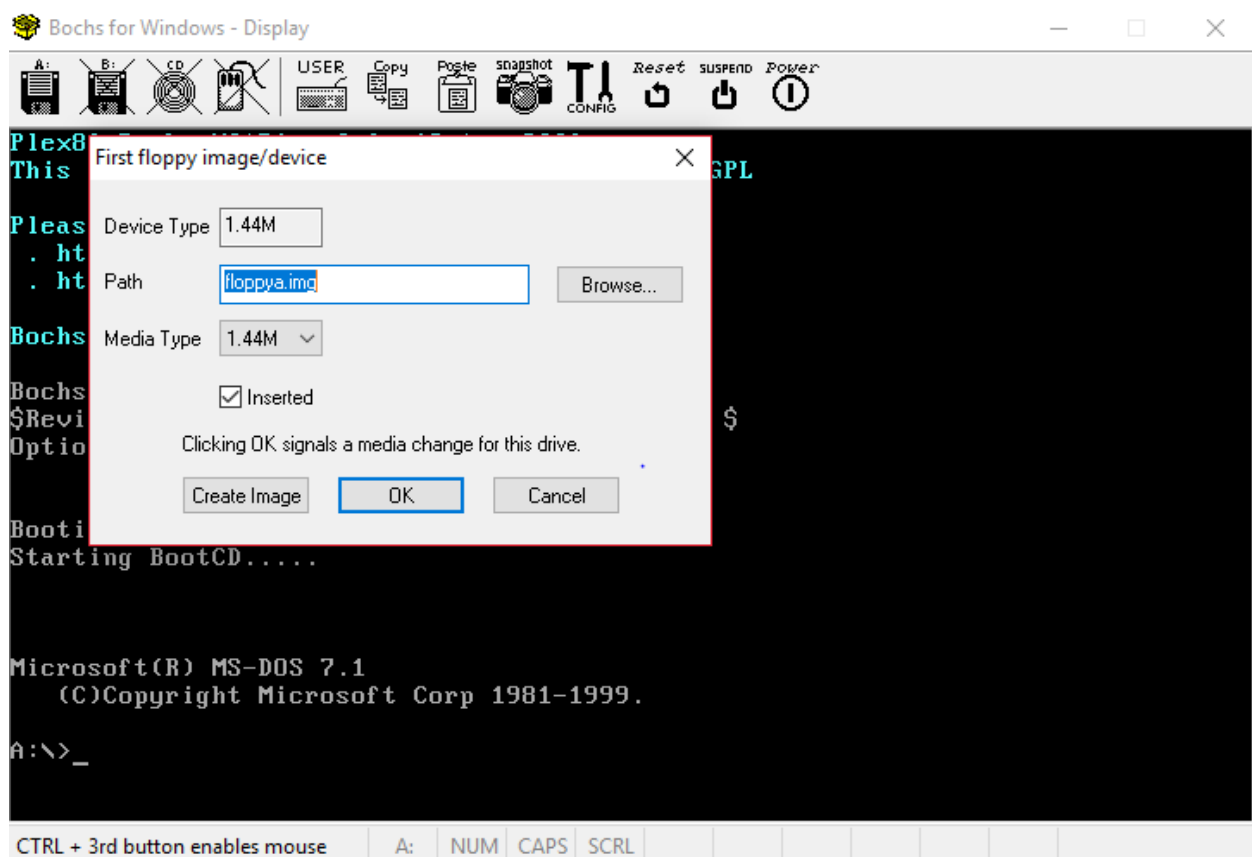
```

C:\OS\LAB\LAB2>s

C:\OS\LAB\LAB2>..\..\bochs-2.3.5\bochs -q -f bochsrc.bxrc
00000000000i[APIC?] local apic in initializing
=====
                Bochs x86 Emulator 2.3.5
                Build from CVS snapshot, on September 16, 2007
=====
00000000000i[      ] reading configuration from bochsrc.bxrc
00000000000i[      ] installing win32 module as the Bochs GUI
00000000000i[      ] using log file bochs.log
# In bx_win32_gui_c::exit(void)!
=====
Bochs is exiting with the following message:
[WGUI ] POWER button turned off.
=====

C:\OS\LAB\LAB2>cls

```



- ketikan perintah 'cls' untuk membersihkan layar, dan selanjutnya jalankan perintah 'make fp.disk' dan Jika berhasil akan muncul seperti gambar dibawah.

```

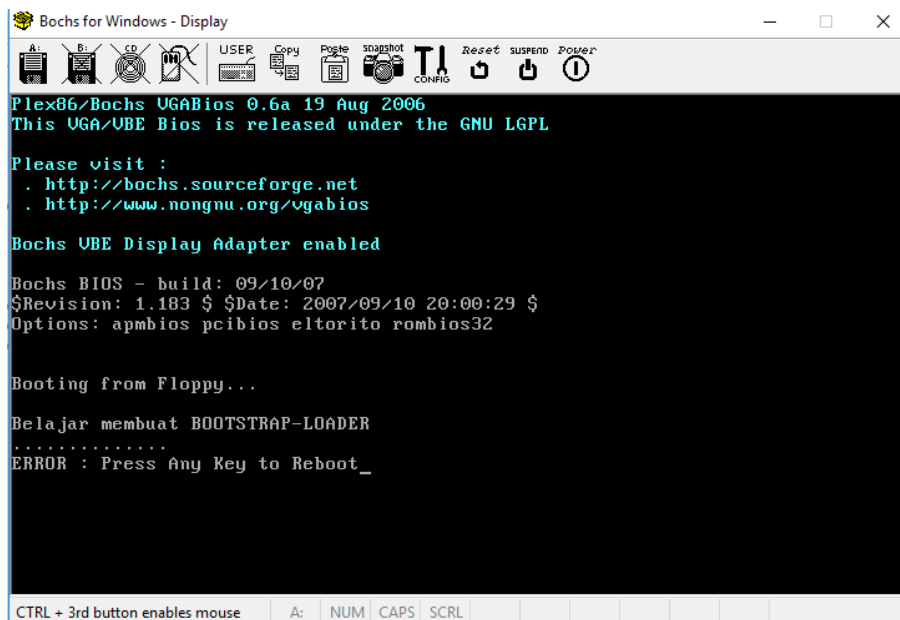
C:\OS\LAB\LAB2>make fp.disk
nasm boot.asm -o boot.bin -f bin
dd if=boot.bin of=floppya.img
rawwrite dd for windows version 0.5.
Written by John Newbigin <jn@it.swin.edu.au>
This program is covered by the GPL. See copying.txt for details
1+0 records in
1+0 records out

C:\OS\LAB\LAB2>s

C:\OS\LAB\LAB2>..\bochs-2.3.5\bochs -q -f bochsrc.bxrc
00000000000i[APIC?] local apic in initializing
=====
Bochs x86 Emulator 2.3.5
Build from CVS snapshot, on September 16, 2007
=====
00000000000i[ ] reading configuration from bochsrc.bxrc
00000000000i[ ] installing win32 module as the Bochs GUI
00000000000i[ ] using log file bochs.log
# In bx_win32_gui_c::exit(void)!
=====
Bochs is exiting with the following message:
[WGUI ] POWER button turned off.
=====

```

9. ketikan perintah 's' untuk menjalankan PC simulator dan akan muncul seperti gambar dibawah.

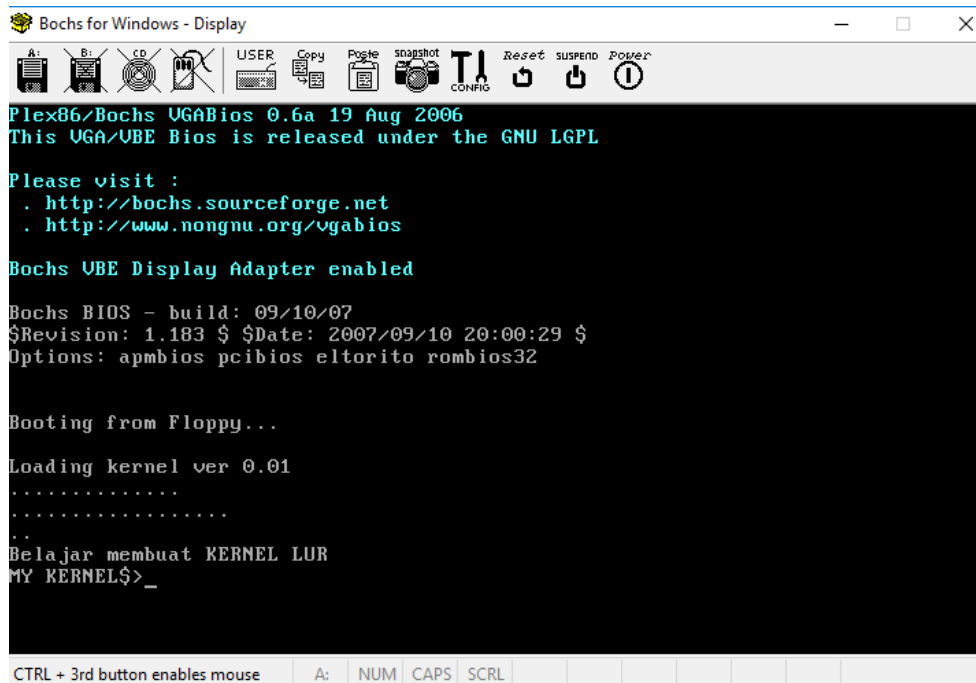


10. ketikan 'notepad boot.asm' dan menyunting file boot.asm, cari teks 'loading kernel' pada notepad lalu sunting teks tersebut. Selanjutnya save dan lanjutkan ke cmd dengan menjalankan perintah 'make fp.disk', setelah itu ketikan 's' dan teks pada boot.asm akan berubah seperti gambar dibawah ini.

```

C:\OS\LAB\LAB2>notepad boot.asm

```



11. ketikan 'make kernel untuk membuat kernel'.

```
C:\OS\LAB\LAB2>make kernel  
nasm kernel.asm -o kernel.bin -f bin
```

12. selanjutnya ketikan 'dir' untuk melihat bahwa kernel telah ditambahkan.

```

C:\OS\LAB\LAB2>dir
Volume in drive C is rio
Volume Serial Number is C8BC-A4E1

Directory of C:\OS\LAB\LAB2

20/09/2018  19:58      <DIR>          .
20/09/2018  19:58      <DIR>          ..
20/09/2018  19:01         1.474.560  a.img
20/09/2018  19:57          10.130  bochs.log
16/12/2008  00:18          1.625  bochsrc.bxrc
20/09/2018  19:55          15.923  boot.asm
20/09/2018  19:55           512  boot.bin
16/09/2007  23:22          18.432  bximage.exe
27/02/2007  04:50         342.016  dd.exe
15/12/2008  21:52           78  dosfp.bat
20/09/2018  19:55         1.474.560  floppya.img
19/09/2018  12:09           7.966  kernel.asm
20/09/2018  19:58           611  kernel.bin
16/12/2008  00:21           228  Makefile
15/12/2008  20:20           44  s.bat
               13 File(s)        3.346.685 bytes
               2 Dir(s)  133.103.751.168 bytes free

```

13. jalankan perintah 's' dan akan muncul booting from floppy

```

C:\OS\LAB\LAB2>s
C:\OS\LAB\LAB2>..\..\bochs-2.3.5\bochs -q -f bochsrc.bxrc
0000000000i[APIC?] local apic in  initializing
=====
                Bochs x86 Emulator 2.3.5
                Build from CVS snapshot, on September 16, 2007
=====
0000000000i[      ] reading configuration from bochsrc.bxrc
0000000000i[      ] installing win32 module as the Bochs GUI
0000000000i[      ] using log file bochs.log
# In bx_win32_gui_c::exit(void)!
=====
Bochs is exiting with the following message:
[VGUI ] POWER button turned off.
=====

```

14. jalankan perintah 'notepad kernel.asm' lalu cari teks 'welcome to my kernel' pada notepad dan edit teks tersebut menjadi 'belajar membuat kernel' dan save.

```

C:\OS\LAB\LAB2>notepad kernel.asm

C:\OS\LAB\LAB2>make kernel
nasm kernel.asm -o kernel.bin -f bin

```

```

C:\OS\LAB\LAB2>s
C:\OS\LAB\LAB2>..\..\bochs-2.3.5\bochs -q -f bochsrc.bxrc
0000000000i[APIC?] local apic in  initializing
=====
                Bochs x86 Emulator 2.3.5
                Build from CVS snapshot, on September 16, 2007
=====
0000000000i[      ] reading configuration from bochsrc.bxrc
0000000000i[      ] installing win32 module as the Bochs GUI
0000000000i[      ] using log file bochs.log
# In bx_win32_gui_c::exit(void)!
=====
Bochs is exiting with the following message:
[VGUI ] POWER button turned off.
=====

```

