

IRIX Administration[Installation](#)[Networking](#)[Administration](#)[Magic Desktop](#)

IRIX Software[2D Software](#)[3D Software](#)[Web Software](#)[Video Software](#)[Scientific Stuff](#)[Fun'n Games](#)

Booting IRIX Installation from CD

General Information

Introduction

The first step of installing IRIX to an empty disc is booting the installation system and partitioning your harddisc. Unfortunately booting the CD is not self-explanatory. If your SGI doesn't have a CD-ROM, but you have a second machine which does, you may also consider [installing IRIX over your LAN](#). This may also be the only way for some older machines, which require an installation *tape* instead of a CD-ROM.

Which CD is the Boot-CD?

First you have to select the right CD to boot the installation. In most cases the correct CD is the first overlay CD (in case of IRIX 6.5.x it should be called "Installation Tools and Overlays") or simply the first (or even single) CD for older versions.

Getting the Hardware Adress of the CD-ROM

For booting the installation CD-ROM, you need to interrupt the booting sequence of your machine and "stop for maintenance". When there is no operating system on your HD, the firmware will automatically do this for you.

Now you have to enter the command line by chosing the appropriate option from the PROM screen. Insert the CD into the drive and enter `hinv` at the command line prompt, so you can find out which SCSI-ID your CD-ROM drive has. This should display something like this:

```
>> hinv
      System: IP32
      Processor: 200 Mhz R5000, with FPU
      Primary I-cache size: 32 Kbytes
      Primary D-cache size: 32 Kbytes
      Secondary cache size: 1024 Kbytes
      Memory size: 256 Mbytes
      Graphics: CRM, Rev C
      Audio: A3 version 1
      SCSI Disk: scsi(0)disk(1)
      SCSI CDROM: scsi(0)cdrom(4)
```

This output will tell you that your CD-ROM is connected to controller 0 with ID 4. Let `x` denote your controller and `y` the device ID (in this case the CDROM is on SCSI-bus `x=0` and ID `y=4`).

Selecting the Correct fx/sash Version

Before you start the installation, you have to know which version of `sash` and `fx` your machine (the client) requires. Many platform require different kernel versions, even already for the installation. The following table gives you an overview of the different versions. Note that not all hardware platforms are supported by all IRIX versions!

System	sash-Version / fx-Version
Personal Iris 4D/2x	<code>boot -f dksc(X,Y,8)sash.IP6</code> <code>boot -f dksc(X,Y,7)fx.IP6 --x</code>
Personal Iris 4D/3x	<code>boot -f dksc(X,Y,8)sash.IP12</code> <code>boot -f dksc(X,Y,7)fx.IP12 --x</code>
Professional Iris 4D/120	<code>boot -f dksc(X,Y,8)sash.IP5</code> <code>boot -f dksc(X,Y,7)fx.IP5 --x</code>
Professional Iris 4D/210	<code>boot -f dksc(X,Y,8)sash.IP9</code> <code>boot -f dksc(X,Y,7)fx.IP9 --x</code>
Professional Iris 4D/2x0	<code>boot -f dksc(X,Y,8)sash.IP7</code>
Professional Iris 4D/3x0	<code>boot -f dksc(X,Y,7)fx.IP7 --x</code>
Professional Iris 4D/4x0	
Crimson	<code>boot -f dksc(X,Y,8)sash.IP17</code> <code>boot -f dksc(X,Y,7)fx.IP17 --x</code>
Indigo R3000	<code>boot -f dksc(X,Y,8)sash.IP12</code> <code>boot -f dksc(X,Y,7)fx.IP12 --x</code>
Onyx/Challenge R4000	<code>boot -f dksc(X,Y,8)sashARCS</code>
Indigo R4000	<code>boot -f dksc(X,Y,7)fx.ARCS --x</code>
Indigo² R4000	
Indy	<i>On newer IRIX releases this has changed to</i>
O2	<code>boot -f dksc(X,Y,8)sashARCS</code> <code>boot -f dksc(X,Y,7)stand/fx.ARCS --x</code>
Onyx/Challenge R8000	<code>boot -f dksc(X,Y,8)sash.64</code>
Onyx/Challenge R10K	<code>boot -f dksc(X,Y,7)fx.64 --x</code>
Indigo² R8000	
Indigo² R10K	<i>On newer IRIX releases this has changed to</i>
Onyx2	<code>boot -f dksc(X,Y,8)sash64</code>
Origin	<code>boot -f dksc(X,Y,7)stand/fx.64 --x</code>
Octane	
Fuel	
Origin 200	<code>boot -f cdrom(X,Y,8)sash.64</code> <code>boot -f cdrom(X,Y,7)fx.64 --x</code> <i>On newer IRIX releases this has changed to</i> <code>boot -f dksc(X,Y,8)sash64</code> <code>boot -f dksc(X,Y,7)stand/fx.64 --x</code>

Listing the Content on the CD

In newer IRIX versions, there is not always an `fx` present directly on the CD, or `sash.64` is renamed to `sash64`. In order to find out which boot-programs are available on your CD, you may list the content by typing

```
>> ls dksc(X,Y,8)
```

at the PROM prompt. This gives you a list of all programs available to the bootloader. This also works at the `sash` prompt. Of course this step is optional and normally just needed if the straight method fails.

Booting sash

When you have selected the correct Versions of `sash` and `fx` you can boot from CD by typing at the Command Line Interface of the PROM (of course you need to type the correct version of `sash`).

```
>> boot -f dksc(X,Y,8)sashARCS
```

Then the stand alone shell will be loaded. Simply type `help` for more information and a list of available commands and actions.

Booting fx

Note that you first have to boot `sash`, and only from the sash prompt you can start the partitioning tool `fx`. When `sash` is loaded, you can boot into `fx` by typing (again you should replace `fx.ARCS` by the correct version from the table above)

```
sash> boot -f dksc(X,Y,7)fx.ARCS --x
```

For example the whole sequence for starting `fx` on an O2 you would need to enter

```
>> boot -f dksc(0,1,8)sashARCS
sash> boot -f dksc(0,1,7)fx.ARCS --x
fx version 6.5, Oct 1, 1999
fx: "device-name" = (dksc)
fx: ctlr# = (0)
fx: drive# = (1)
fx: lun# = (0)
...opening dksc(0,1,0)

fx: partitions in use detected on device
fx: devname      seq owner  state
fx: /dev/rdisk/dks0d1s0  1 xfs    already in use

...drive selftest...OK
Scsi drive type == SGI      IBM DDRS-34560W S96A

----- please choose one (? for help, .. to quit this menu)-----
[exi]t      [d]ebug/      [l]abel/      [a]uto
[b]adblock/ [exe]rcise/      [r]epartition/
```

On newer IRIX releases, the partitioning programs have moved into the subdirectory `/stand`. In this case you will have to type

```
sash> boot -f dksc(X,Y,7)stand/fx.ARCS --x
```

Booting old SGI Machines from CD

Booting old machines (like the 4D series) may cause a little more trouble, because not all of them know how to handle CD-ROM drives. In my case (a 4D/25) the only solution was a [network installation](#).

When the machine boots, it should enter the setup like this:

```
System Maintenance Menu

1) Start System
2) Install System Software
3) Run Diagnostics
4) Recover System
5) Enter Command Monitor

Option?
```

Links

- [This old SGI](#)