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4.2. ROM images

Just like a real PC, Bochs needs a system BIOS and VGA BIOS to initialize the machine when it powers on or after a hardware reset. Bochs needs to load them from image file into the emulated memory. The Bochs package contains a set of system BIOS and VGA BIOS images.

**Table 4-1. System and VGA BIOS images**

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| File | Description |
| BIOS-bochs-latest | default ROM BIOS image for Bochs |
| BIOS-bochs-legacy | ROM BIOS image without 32-bit init code (for i386 and ISA graphics card emulation) |
| bios.bin-1.7.5 | SeaBIOS ROM image |
| VGABIOS-elpin-2.40 | legacy VGA BIOS image for Bochs |
| VGABIOS-lgpl-latest | LGPL'd VGA BIOS image for Bochs |
| VGABIOS-lgpl-latest-debug | LGPL'd VGA BIOS image for Bochs with debug output to the logfile |
| VGABIOS-lgpl-latest-cirrus | LGPL'd VGA BIOS image for Bochs with the Cirrus extension enabled |
| VGABIOS-lgpl-latest-cirrus-debug | LGPL'd VGA BIOS image for Bochs with the Cirrus extension enabled and debug output to the logfile |

Bochs must be set up to use system and VGA BIOS like this:

romimage: file=BIOS-bochs-latest, address=0xe0000  
 vgaromimage: file=VGABIOS-lgpl-latest

We recommend to use the ROM images distributed with Bochs or one of the latest [SeaBIOS](http://www.seabios.org/) images. BIOS images designed for real hardware mostly do not work properly.

Bochs supports optional ROM images to be loaded into the ISA ROM space, typically between C8000 and EFFFF (see [Section 4.3.10](http://docs.google.com/bochsrc.html#BOCHSOPT-OPTROM)). The PCI versions of the Bochs network adapter emulation support loading a boot ROM into the PCI ROM space (see [Section 4.3.34](http://docs.google.com/bochsrc.html#BOCHSOPT-NE2K)).

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