

Oracle VirtualBox

Oracle VirtualBox is the world's most popular open source, cross-platform, virtualization software, that allows an existing computer to run multiple operating systems at the same time. Designed for IT professionals and developers, Oracle VirtualBox runs on Windows, Mac OS X, Linux, and Oracle Solaris systems and is ideal for testing, developing, demonstrating, and deploying solutions across multiple platforms on one machine.

Easy to Use, Fast and Powerful, Extensive Platform Coverage

Designed for use on systems ranging from ultra-books to high-end server class hardware, Oracle VirtualBox is lightweight and easy to install and use. Yet, under the simple exterior lies an extremely fast and powerful virtualization engine. With a formidable reputation for speed and agility, Oracle VirtualBox contains innovative features that can deliver tangible business benefits.

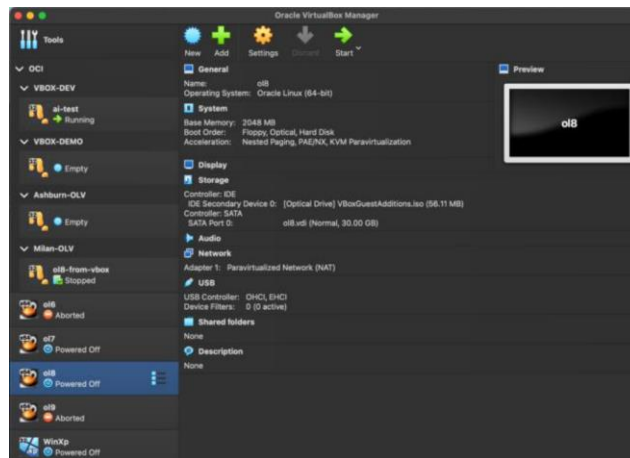


Image Caption 1. Oracle VirtualBox Manager screen.

Easy to use

Oracle VirtualBox provides a variety of features which enhance productivity:

- **Import from Oracle Cloud Infrastructure:** Oracle VirtualBox Manager supports importing Oracle Cloud Infrastructure (OCI) Instances to Oracle VirtualBox, delivering the same functionality as virtual machines.
- **Export to Oracle Cloud Infrastructure:** Oracle VirtualBox Manager can export virtual machines to OCI as emulated or paravirtualized instances and allows the creation of multiple virtual machines without having to reupload the same virtual machine.

- ***Nested virtualization:*** Enables a hypervisor, such as Oracle VirtualBox or KVM, to be installed on an Oracle VirtualBox guest. VMs can then be created and run in the guest VM.
- ***VirtualBox guest additions:*** Installed inside the guest virtual machine, the guest additions provide a more natural user experience. For example, guest windows can be easily resized to arbitrary resolutions, made full screen or operate in seamless mode. Data can be copied and pasted to and from, and between, concurrently running machines and the host platform. This functionality can be bi-directional, unidirectional, or disabled.
- ***Bidirectional drag and drop:*** On all host platforms, Windows, Linux, and Oracle Solaris guests support drag and drop of content between the host and the guest. This allows copying or opening of files, directories, and more.
- ***Guest control file manager:*** Enables a guest VM user to transfer files between the guest and host.
- ***VirtualBox Manager:*** Supports virtual machines moving across file systems on local storage.
- ***Virtual machine cloning process:*** Clone virtual machines by retaining the hardware UUID, names of disk images, or the MAC address policy.
- ***Cloud profile manager:*** Enables details of your OCI account to be configured using VirtualBox.
- ***Shared folders:*** A host platform's filesystem can be shared with the guest to facilitate cross-platform computing.
- ***Multitouch support:*** Hosts supporting multitouch interfaces can deliver this capability to guests.
- ***Flexible networking options:*** A variety of networking models from easy-to-use NAT networking, to fully functional bridged networking, and specialist internal and host-only networking are supported.
- ***IPv6:*** IPv6 is offered as an option in most networking modes along with IPv4.
- ***Virtual media manager:*** Oracle VirtualBox supports virtual disk formats from its own native (.vdi) format to those offered by Microsoft (.vhd), VMware (.vmdk), and Parallels (.vdd). The Oracle VirtualBox GUI allows conversions between formats.
- ***Video capture:*** Oracle VirtualBox offers a built-in recording mechanism of the guest's screen contents. This makes it easy to start and stop the recording of one or more virtual screens using the standard webm format.
- ***Graphical user and command line interfaces:*** A graphical user interface and a command line interface are provided. The graphical user interface has a short learning curve and allows for the quick use of Oracle VirtualBox. The command line interface is a powerful and scriptable way to utilize VirtualBox.
- ***Experience Levels:*** Oracle VirtualBox provides different user interface options designed for users of different experience levels. Users can choose between *Basic* which is suitable for a first-time user of VirtualBox, or *Expert* which is suitable for an experienced VirtualBox user.

Performance and Power Highlights

Oracle VirtualBox delivers high performance for virtualization:

- ***Intel, AMD and Apple silicon CPU support:*** Harnessing the latest in chip-level support for virtualization, Oracle VirtualBox supports AMD, Intel, and Apple silicon processors to provide faster execution times for guests.
- ***3D graphics support:*** VBoxSVGA and VMSVGA interfaces improve 3D graphics and boost performance.
- ***Disk image encryption:*** Supports 128 or 256-bit data encryption keys and data stored in hard disk images can be encrypted transparently for the guest using the AES algorithm.

- **High-performance storage I/O subsystem:** Virtual storage controllers including NVMe, SAS, SATA, SCSI, and IDE are supported. VirtualBox utilizes an asynchronous I/O virtual disk subsystem to achieve high performance and data integrity.
- **Built-in iSCSI initiator:** An iSCSI initiator allows virtual disks to exist as iSCSI targets. The guest sees a standard storage controller while disk accesses are translated into iSCSI commands and sent across the network.
- **Remote display protocol:** The unique built-in VirtualBox remote display protocol (VRDP) enables powerful remote, graphical access to the console of the guest. Microsoft RDP-capable clients can connect to one or more remote monitors with USB device redirection when using rdesktop-based clients. VRDP is also accessible over IPv6.
- **Serial and USB connections:** External devices can be connected to guests via USB. VirtualBox supports USB 1.0, 2.0, and 3.0 devices.
- **Virtual webcam:** Guests running Google Hangouts or Skype can use the VirtualBox host camera.
- **High-definition audio:** VirtualBox allows guests to realize the full capabilities of a high-definition audio card.
- **Full ACPI support:** The host's power status is fully available to the guest and ACPI button events can be sent to the guest to control the lifecycle of the virtual machine.
- **Multigenerational and branched snapshots:** Snapshots allow a user to revert to previous known states. For example, a snapshot can be taken before installing the software, then it can be used to recover the preinstallation state.
- **Guest automation:** The guest automation APIs allow host-based logic to drive operations in the guest, including updating guest additions.
- **Web services:** A web service API enables remote control of VirtualBox by authorized clients.
- **Arm support:** VirtualBox supports Arm architecture on Apple silicon as the host platform with Oracle Linux for Arm or [other select Linux distributions](#) as the guest platform.

Oracle VirtualBox for Enterprise

- **Commercially supported platforms:** Oracle commercial support is [available for purchase](#) for the most popular [guest operating systems](#), providing customers with expert help when they need it.
- **VirtualBox Licensing Terms and FAQ:** [Personal Use and Evaluation License \(PUEL\)](#) and [FAQ](#) help to clarify Extension Pack usage.

Please refer to the [User Guide](#) for complete information on the use of these and other new features in Oracle VirtualBox.

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