TimesTen Demo VM (TTDemoVM) Quick Start

Contents

Overview

The **TTDemoVM** VirtualBox VM was created for the purpose of demonstrating the Oracle TimesTen In-Memory Database. The VM includes everything needed to work with several different configurations of TimesTen database and it also contains several 'Hands on Labs' plus a set of sample programs.

NOTE: The demo VM provides convenient access to the rich functionality of TimesTen but it should always be borne in mind that this is a single VM with limited resources designed to be able to run on modestly specified host systems. It is <u>not</u> a suitable environment for performing benchmarks or other performance testing.

The Hands on Labs are ideally suited for someone who wants to quickly get the flavor of TimesTen as each lab typically takes 30-60 minutes to complete. There are separate labs for TimesTen **Classic**, **Cache** and **Scaleout**.

This guide takes you through the steps necessary to get you to the point of starting your first Hands on Lab as quickly and easily as possible.

Pre-requisites

A host system with at least 2 <u>physical</u> CPU cores (4 <u>physical</u> cores or more are recommended), at least 8 GB RAM (12 GB or more is recommended), at least 70 GB free disk space and a display resolution of at least 1280 x 720 (1920x1080 or better is recommended). Placing the Virtual Machine files on SSD or flash storage is recommended for best performance.

As initially imported, the VM is configured to use 2 CPU cores and 6 GB RAM. If your host exceeds the minimum spec then you can, and should, increase the CPU and/or memory allocation for the VM, which will improve its performance (see **Appendix A: Increasing the VM Resources**).

IMPORTANT: If running the VM on a host with the minimum configuration (2 cores, 8 GB RAM) it is strongly recommended that you close all other applications on the host before starting the VM otherwise you may encounter issues due to insufficient memory.

The host OS must be one which supports VirtualBox 6.1 such as 64-bit Windows 7 Professional or later, macOS 10.13 or later or Oracle/RedHat Linux 6 64-bit or later.

<u>VirtualBox</u> 6.1 or later for your host OS must be already installed and functional. Using the <u>latest available</u> version of VirtualBox is strongly recommended. Installation of the VirtualBox Extension Pack is also strongly recommended. If you are using a newer version of VirtualBox than that used to create the VM image then after importing the VM image to create your VM you should update the VirtualBox guest additions within the VM as detailed here.

Downloading and Installing the VM

First obtain the VM image (OVA) file. The easiest way to do this is to download it from oracle.com (https://www.oracle.com/database/technologies/timesten-vm.html).

Next you need to import the OVA file to create the virtual machine. Use the VirtualBox **File / Import Appliance…** menu option.
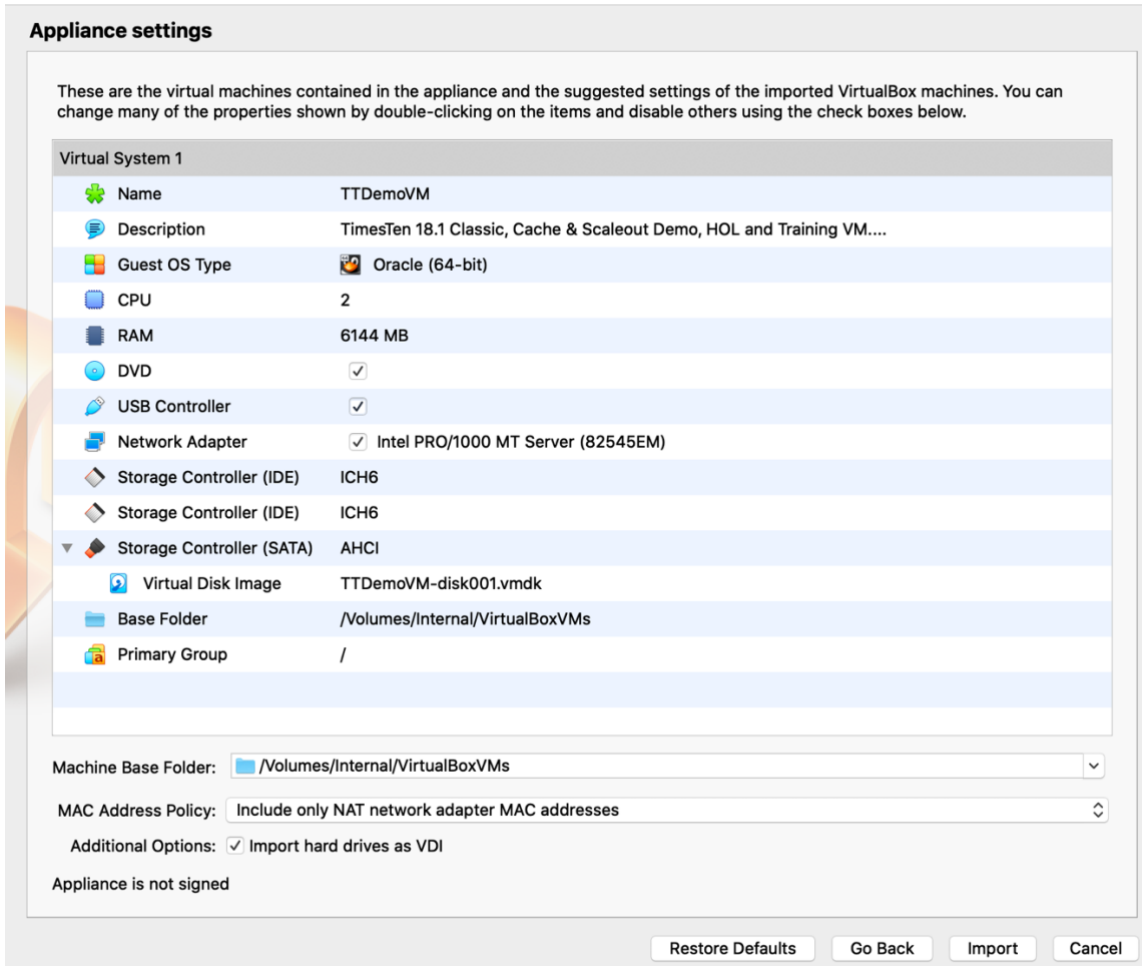
After importing the VM some simple configuration actions <u>may</u> need to be performed, depending on the desired configuration. If you are happy with the VM window size, and the default 6 GB RAM and 2 CPU cores allocated to the VM, then nothing more needs to be done.

If you wish to increase the CPU and/or RAM allocated to the VM then see **Appendix A: Increasing the VM Resources**. You can change the VM configuration to change the resource allocation at any time (except when the VM is running) but you should never reduce it below the minimum requirements.

VM Display Settings

As imported, the VM is configured with a display resolution of 1280x720 and a scaling factor of 200%. These settings are suitable for a host with a reasonably good screen resolution and HiDPI (e.g. retina) display. If your host has a lower display resolution, or a non-HiDPI, display then the

VM's window may be too large. You can change these settings using the View option on the VMs VirtualBox menu when it is running. Changes to these settings are persistent across VM restarts.

If your host has a maximum display resolution of 1280x720 then it is recommended to use 'full screen' mode when viewing the VM to maximize the available screen area.

Depending on your host's screen resolution and the VM display settings, you might find that when you first log in some of the icons on the Desktop have been re-arranged by the Linux window manager and overlap each other. If this is the case, just drag them to suitable locations and set the VM display settings to your taste.
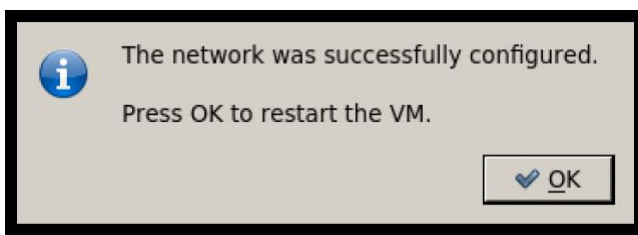
Starting the VM

Once the VM has been imported and any resource adjustments made you can start the VM from the VirtualBox GUI. When the VM login screen appears, click on the 'oracle' user and enter the password (**oracle**) to log in.

The first time that you log in after importing the VM you will see this message:
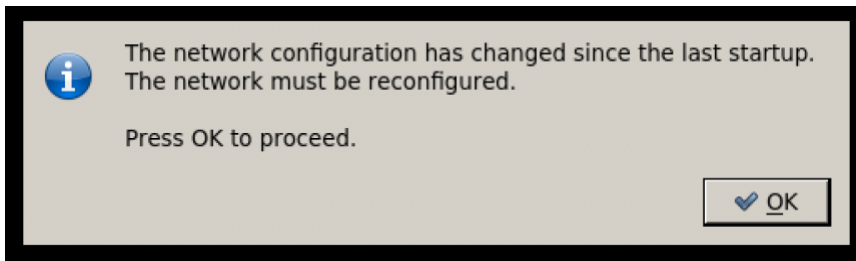
Click **OK** to allow the network settings to be automatically configured.

After a few seconds you will see this message:

Click OK to restart the VM to apply the updated network settings. Once the VM has restarted you can login and use the VM.

Using the Hands on Labs

For selected scenarios, the VM provides a 'Hands on Lab'. This is a series of step by step hands on exercises to help you learn the basics of deploying and using TimesTen in that specific configuration. A HOL typically takes 30-60 minutes to complete.

To use a Hands on Lab, first start the VM and then log in via the GUI console. The password for the 'oracle' user is **oracle**.

Choose the Hands on Lab that you wish to use and configure it as the active lab by double clicking the relevant 'reset' icon on the Desktop. Once a lab is configured, it remains as the

selected lab until you configure a new lab using its 'reset' icon. Resetting a lab makes it the active lab and resets it to a clean state as if it had never been run before.

In order to be able to reset a lab, you must close SQL Developer and FireFox if open.

You can start and stop the components for the currently selected lab using the 'start' and 'stop' icons on the Desktop. The content of the lab hosts remains unchanged across stop/start cycles but is lost when a reset operation is performed. You can only use a lab when its components are running.

You can view the Hands on Lab instructions for the currently selected lab by double clicking on the 'Hands on lab Instructions' icon on the desktop. Once you have started a lab, follow the instructions to complete the lab exercises.

It is recommended that you stop a lab, using its 'stop' icon, before shutting down the VM.

Information, Help and Support

There is a much more detailed User Guide available for the VM which describes its more advanced functionality. This can be downloaded from the same location as the VM.

You can get information on TimesTen from the [TimesTen product portal](#). There you will also find [TimesTen software downloads](#) and the [TimesTen online documentation](#).

This VM is not an officially supported Oracle product and support is provided on a best effort basis.

You can ask questions about TimesTen and this VM in the [TimesTen Community Forum](#) and you can find interesting articles about TimesTen on the [TimesTen Blog](#).

If you are not able to find the answer to your questions using the above resources, please contact the VM's developer directly at chris.jenkins@oracle.com.

# Appendix A: Increasing the VM Resources

NOTE: All VirtualBox GUI screenshots in this document were captured on macOS. If your host system is running Windows or Linux, then you may see some slight differences in the UI compared to the screenshots.

If your host system has sufficient resources, you can improve the performance and capacity of the VM by allocating more memory and/or more CPU cores. This is done via the VirtualBox GUI in the VM Settings.

Click on the TTDemoVM entry in the list of Virtual Machines and then click on the **Settings** icon in the tool bar to modify the settings:
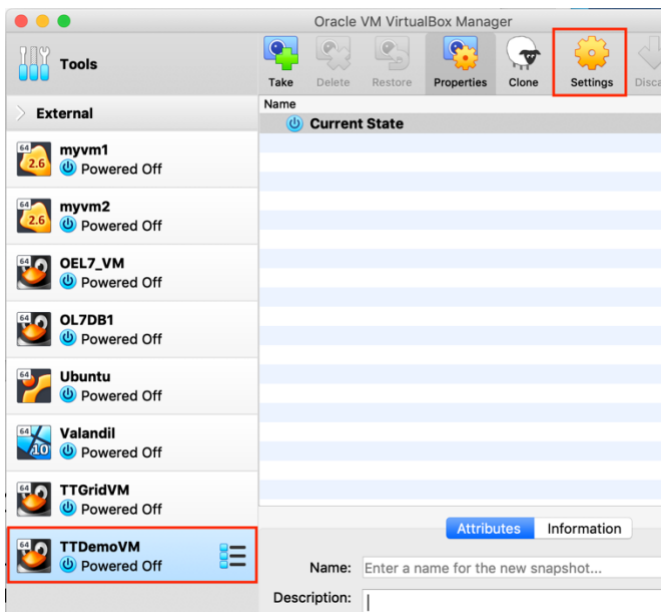

When the settings dialogue appears, click the **System** icon and then click the **Motherboard** tab. Adjust the memory assigned to the VM using the controls:
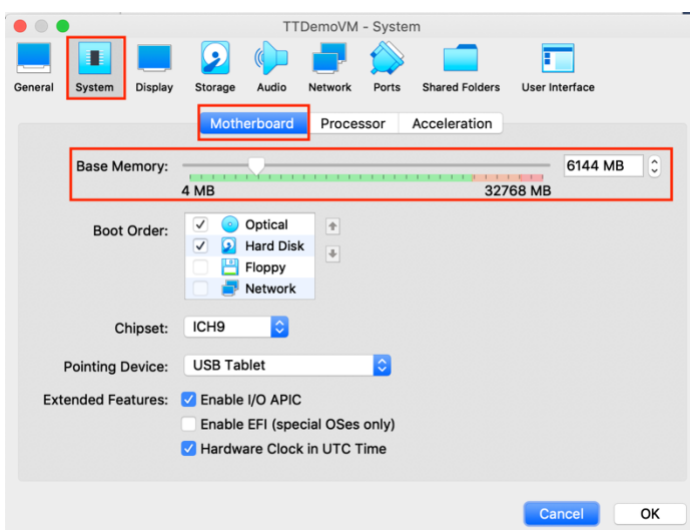
You should not allocate less than 6 GB of memory nor should you exceed the VirtualBox recommended maximum (shown in green in the settings area).

Next click the **Processor** tab. Adjust the number of CPU cores using the controls:

6
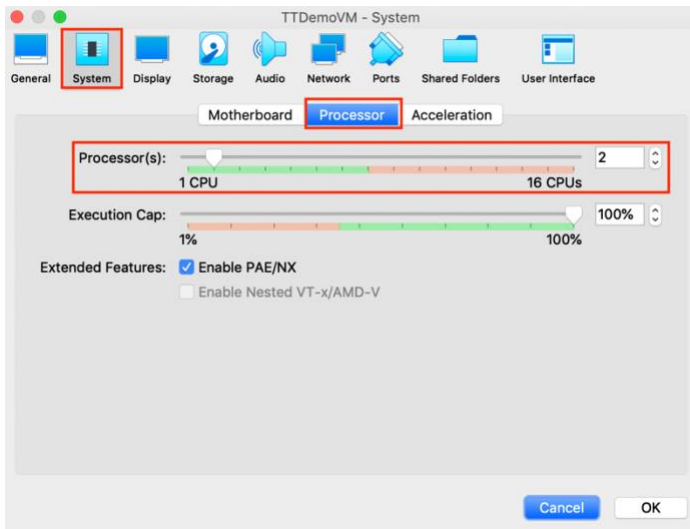
You should not allocate less than 2 CPUs nor should you exceed the VirtualBox recommended maximum (shown in green in the settings area).

Click the **OK** button to save the changes.