

INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO
(ISEP)

MASTER IN CRITICAL COMPUTING SYSTEMS ENGINEERING
(MCCSE)

REAL-TIME OPERATING SYSTEMS PROGRAMMING (RTOSP)



RTOSP: TT1: Week 2

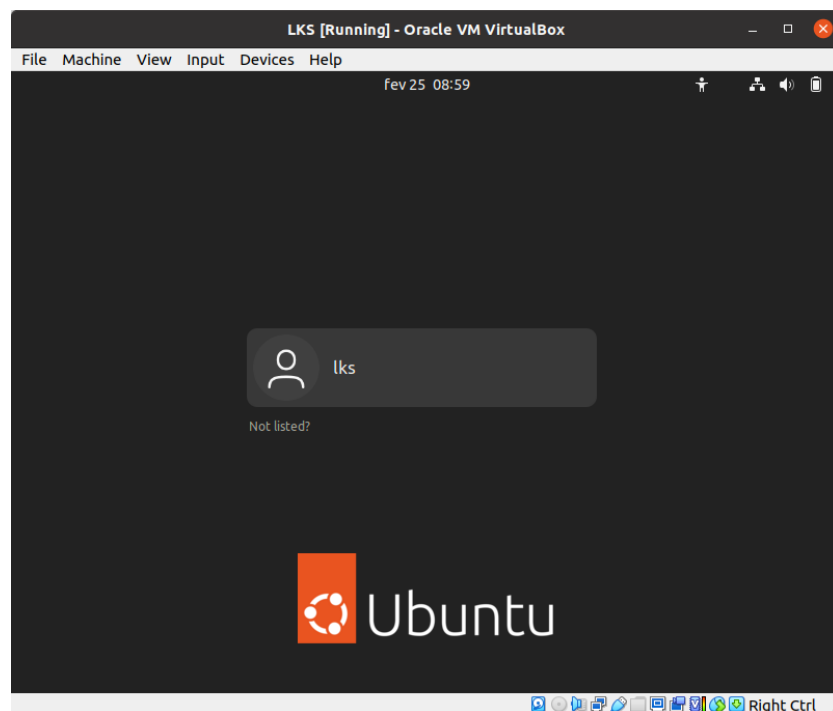
Virtual Machine Setup

Paulo Baltarejo Sousa and Cláudio Maia
{pbs, crr}@isep.ipp.pt
2022/23

1 Introduction

In this course, we will use a virtual machine called LKS (which stands for Linux Kernel Study). This virtual machine was created using the VirtualBox (version 5) software running the operating system Linux (64 bit) with distribution Ubuntu 22.04 Linux (Jammy Jellyfish) and with the kernel version 5.19.0-32-generic.

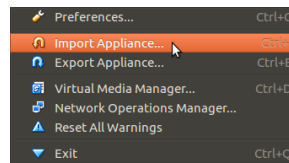
This system is configured with only one user called `lks` and the password is also `lks`.



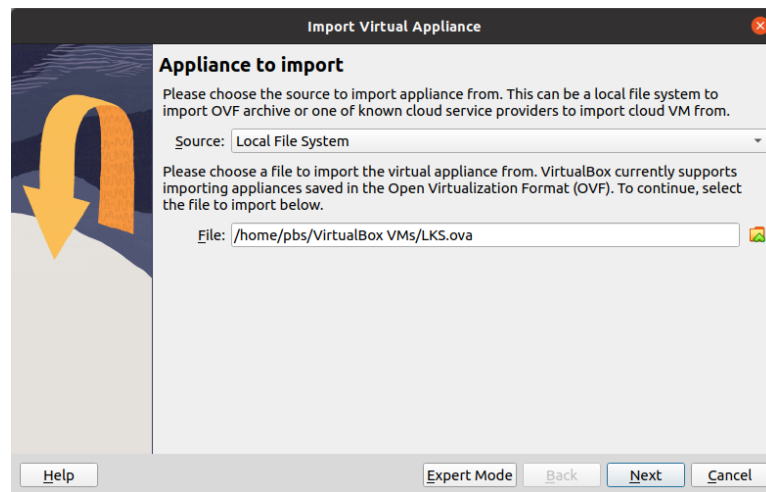
2 Get Virtual Machine

Download the virtual machine from https://drive.google.com/file/d/1spwW2N0kQ6UpcNwodJ4R2bs6uk4TQGZ9/view?usp=share_link. The LKS virtual machine is available on OVA format. The file name is LKS.ova. Transfer it and then:

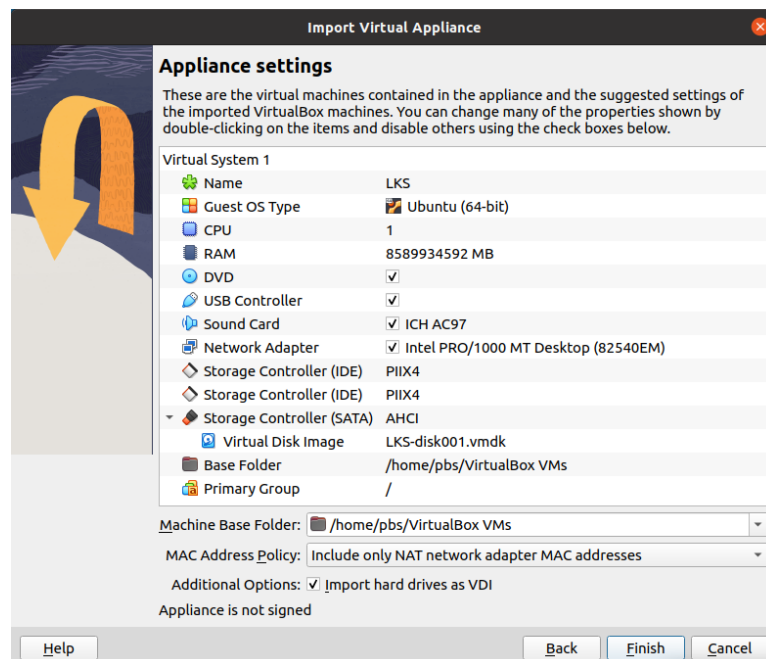
1. From VirtualBox main menu select **File > Import Appliance**.



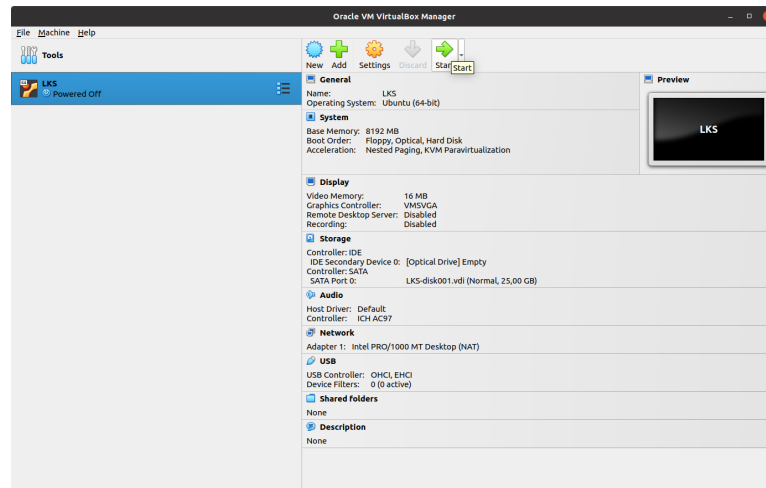
2. Select the `LKS.ova` file and click on **Next**.



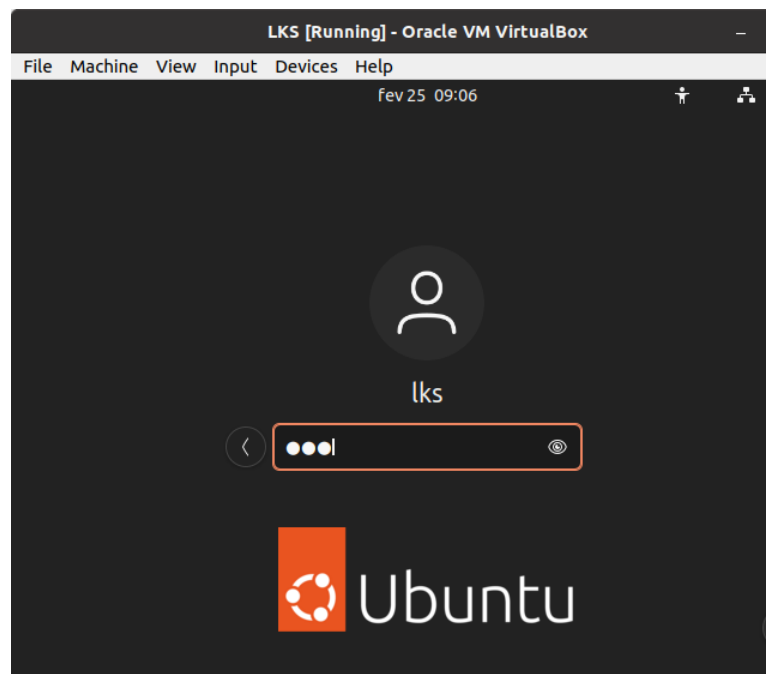
3. Check the Appliance Settings and click on **Finish**.



4. Start the LKS virtual Machine



5. Select LKS user and enter lks password.



6. Then, the system is ready to help you studying Linux kernel.



3 Tools and packages

In order to install the required tools and packages:

1. Open a terminal
2. Type the following Linux commands:

```
> sudo apt-get update
```
3. Then, install the required tools

```
> sudo apt-get install build-essential
```
4. Finally, reboot the system typing:

```
> sudo reboot
```