Setting a Networking Lab with GNS3

GNS3 is a software tool for network emulation. With GNS3, you can emulate Cisco devices (routers, switches, firewalls, etc.) with Cisco IOS on your PC. GNS3 enables to test the configurations and functionalities of Cisco devices and deploy complex networking scenarios on a single PC.

During the course on Routing and Switching at ESIB, you will discover different functionalities of GNS3 and get familiar with its various features.

-. Software Download

GNS3 is already downloaded on the Lab PCs. If you need to install it on your PC, you should create an account and download it from https://www.gns3.com/software/download. Make sure to choose the right version for your operating system.
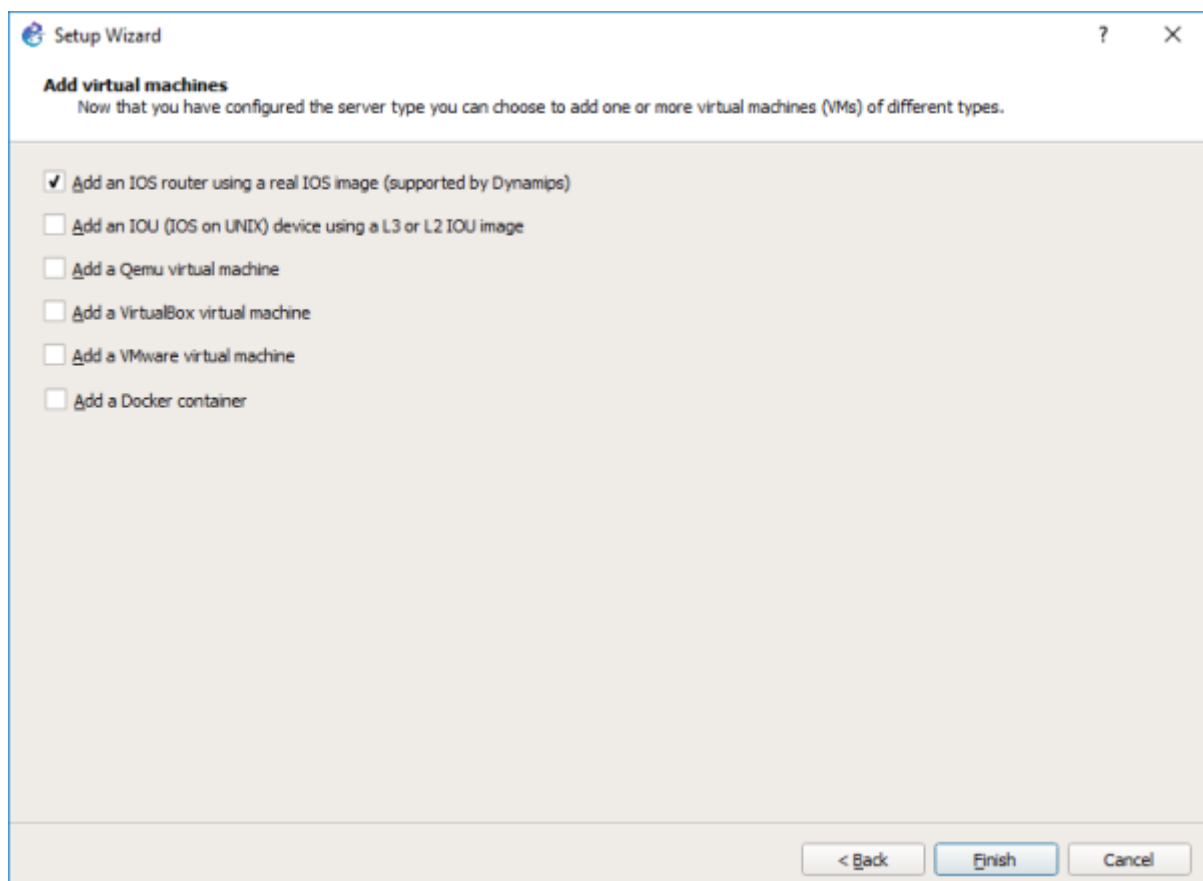
Copy the file `c3725-adventerprisek9-mz.124-15.T14.image` from the folder `commun` to your local `Downloads` folder.

-. Basic Configuration

Start the GNS3 software by double-clicking on the Desktop icon. Select the `Local server` and `Don't show this again` button.
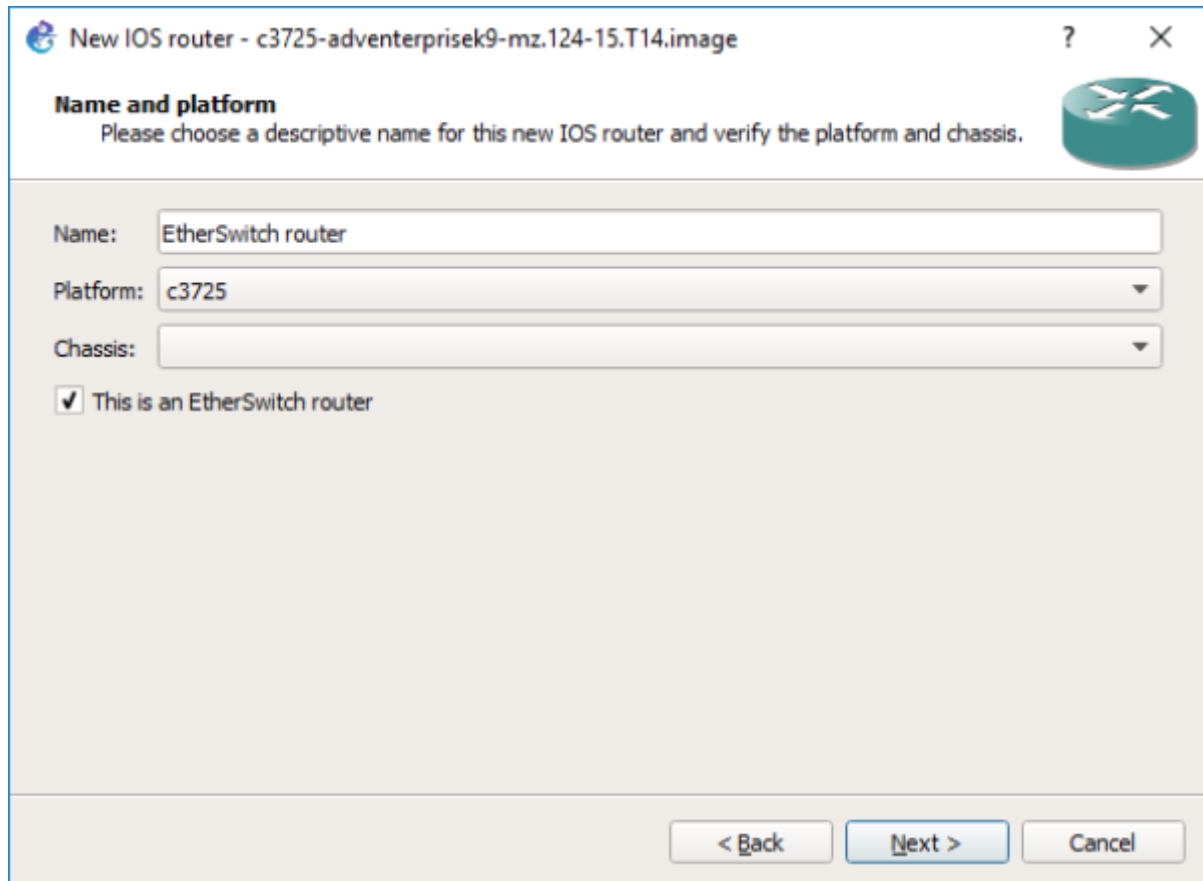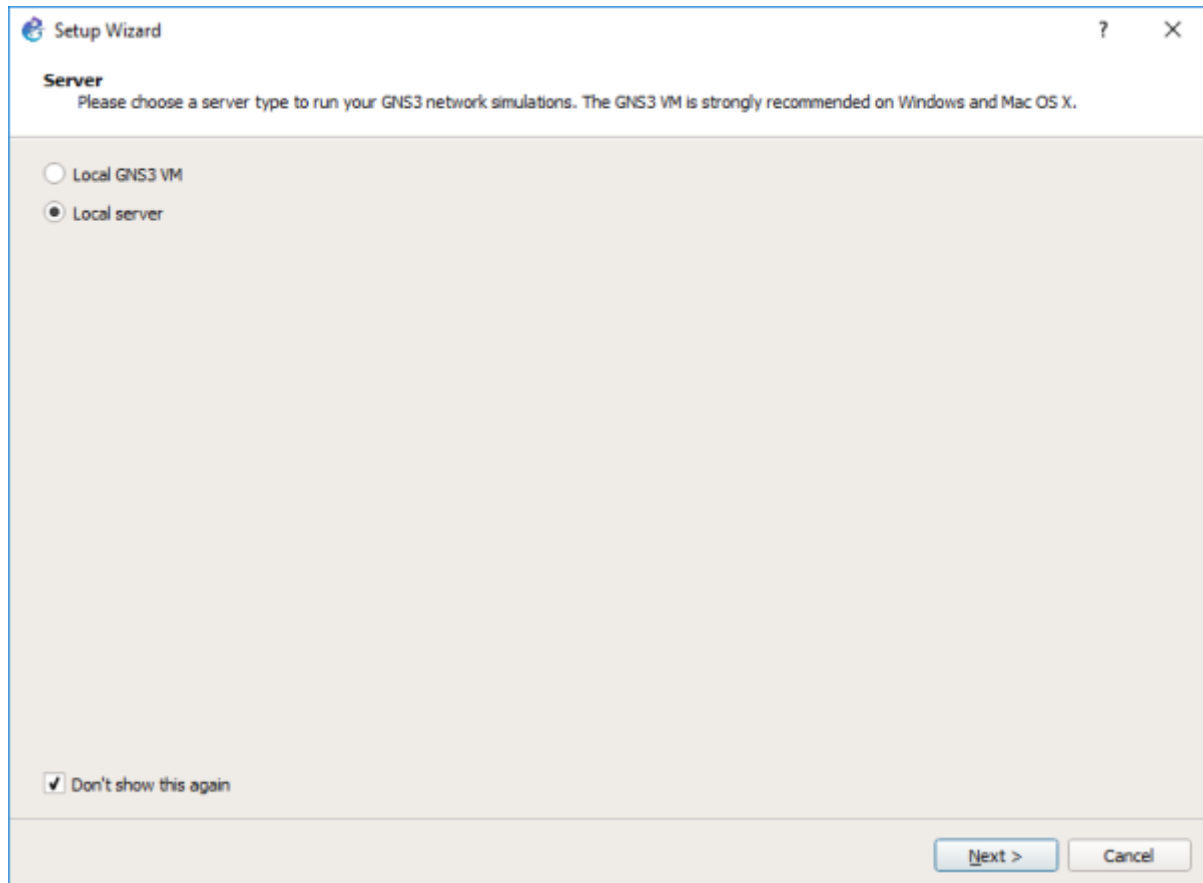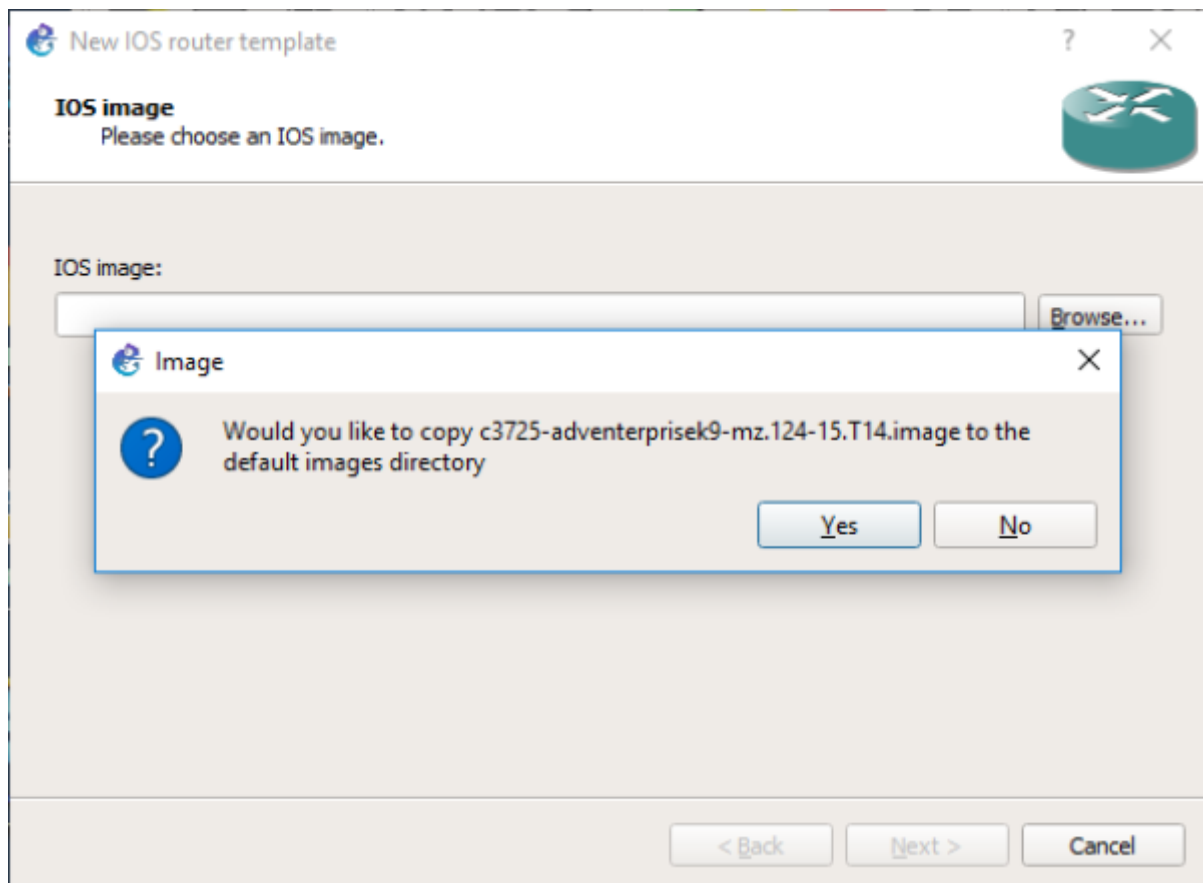
Now proceed to add an IOS router.

-. Adding a Cisco Switch

In order to add a Cisco switch to GNS3, browse and select the `c3725-adventerprisek9-mz.124-15.T14.image` in your `Downloads` folder. Click yes to copy it to the default images library.

Now check the button `This is an EtherSwitch router`.

New IOS router - c3725-adventerprisek9-mz.124-15.T14.image

Name and platform
Please choose a descriptive name for this new IOS router and verify the platform and chassis.

Name: EtherSwitch router
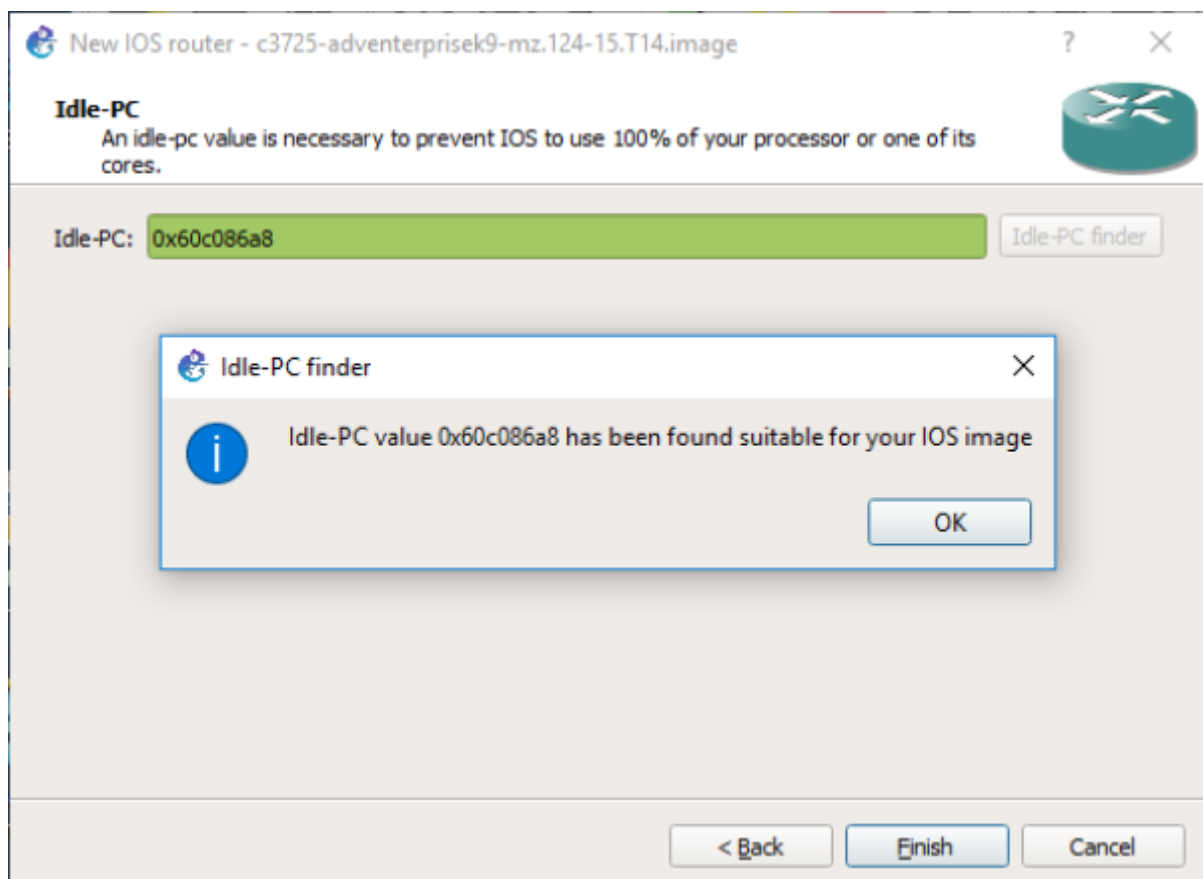
Platform: c3725

Chassis:

☑ This is an EtherSwitch router

< Back   Next >   Cancel

Click on Idle-PC finder and wait for the process to complete.

New IOS router - c3725-adventerprisek9-mz.124-15.T14.image

Idle-PC
An idle-pc value is necessary to prevent IOS to use 100% of your processor or one of its cores.

Idle-PC: 0x60c086a8   Idle-PC finder

Idle-PC finder

ⓘ   Idle-PC value 0x60c086a8 has been found suitable for your IOS image
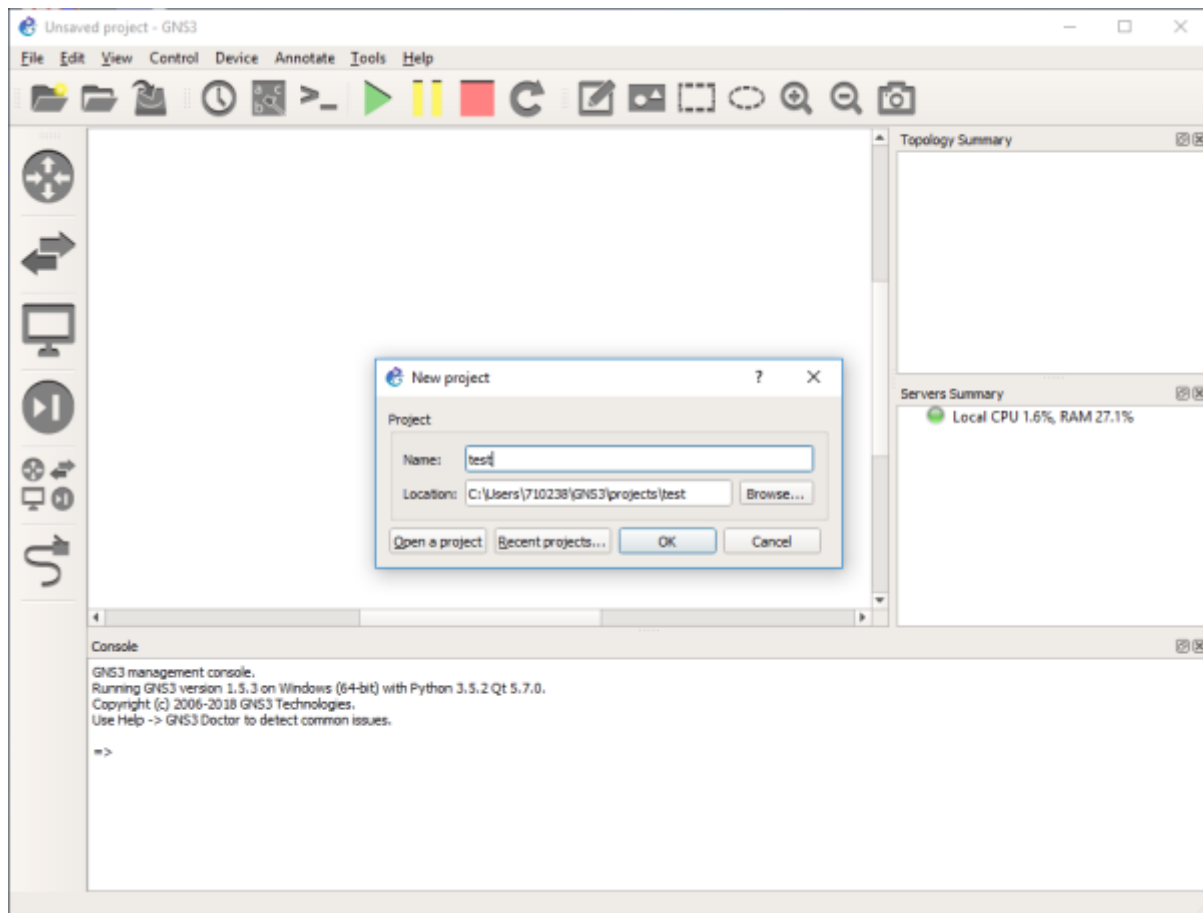
OK

< Back   Finish   Cancel

Apply to validate the new device parameters. Now you are set to start using Cisco switches with
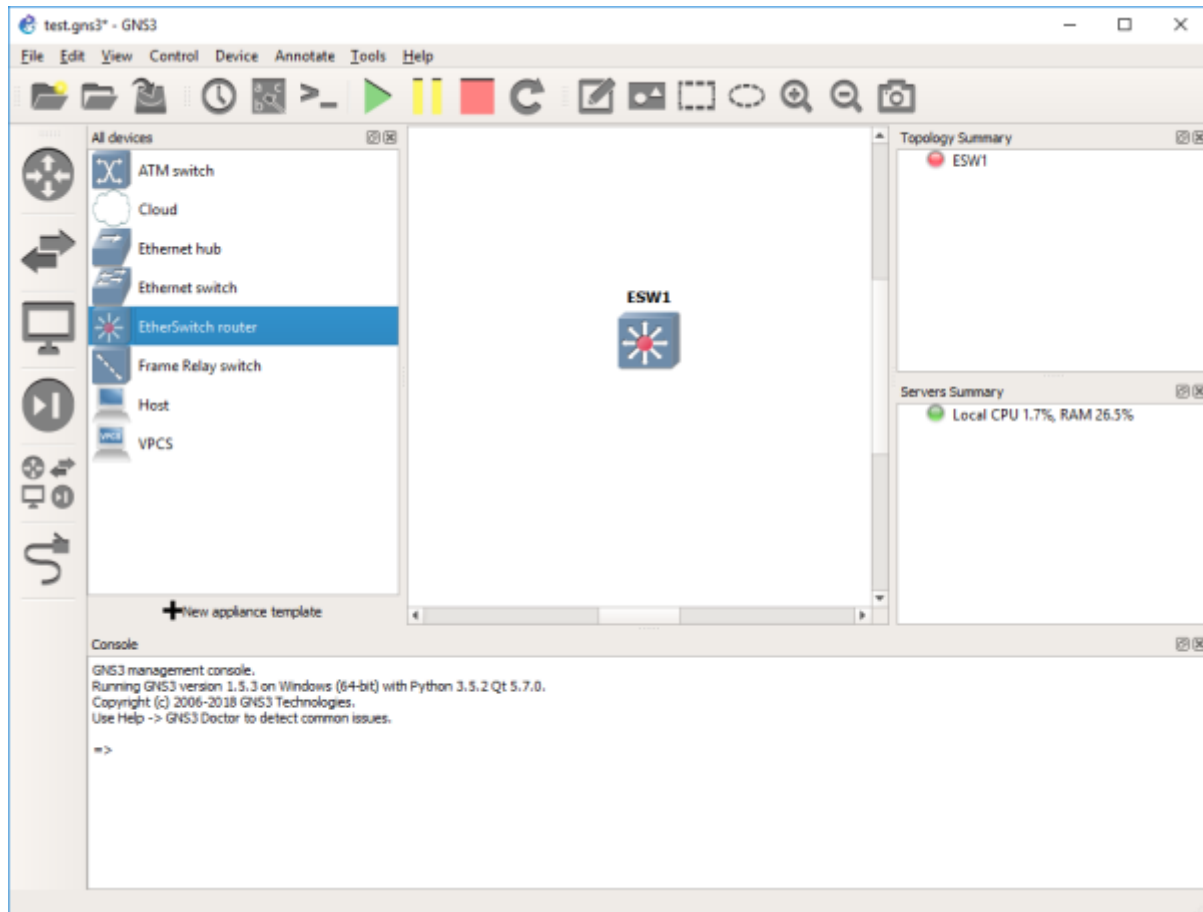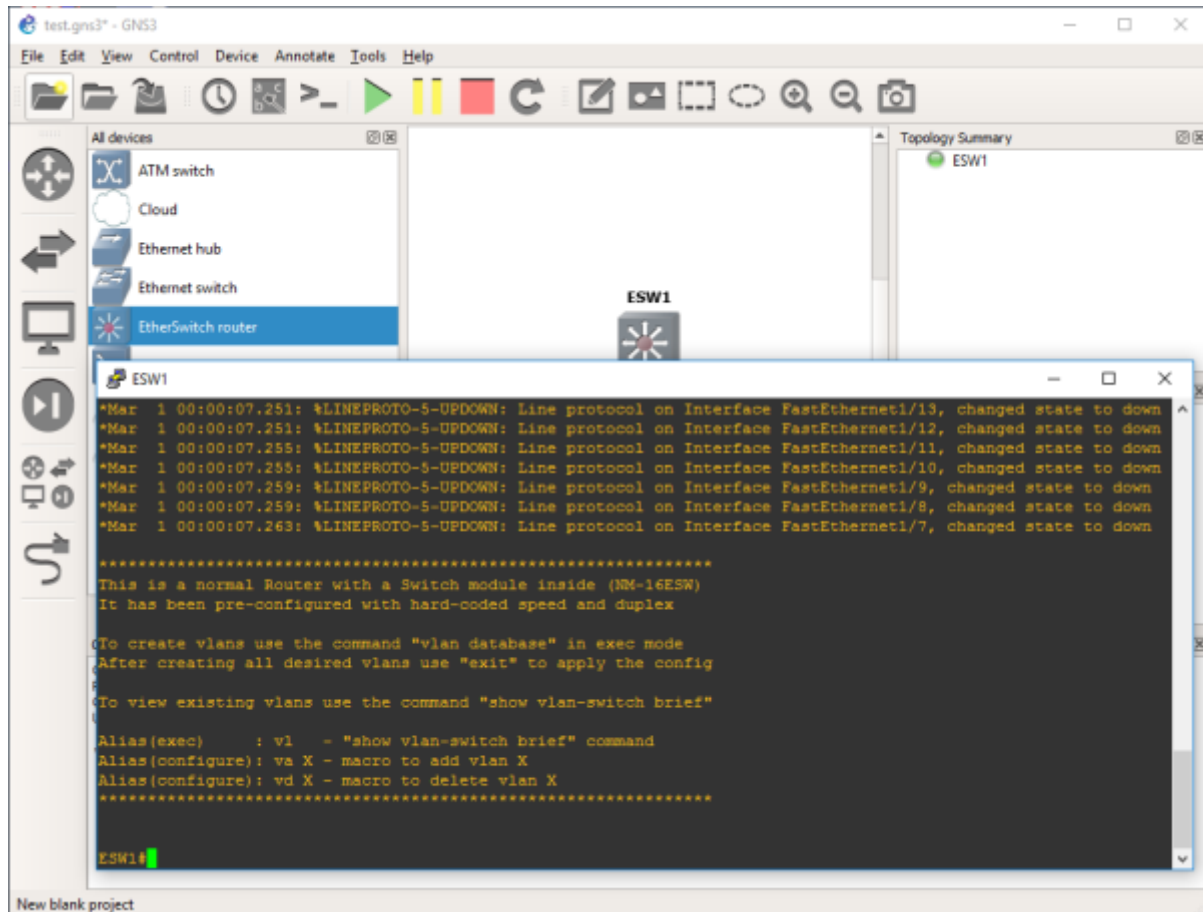
GNS3.

-. Starting a New Project

Choose a name for your project.

Select the devices from the left panel.

Click on the green button to start all devices. Then select `Control` and `Console connect to all nodes`.

Now you have access to the CLI (Command Line Interface) of the Cisco devices in your network.

-. Saving your Work

During the Lab, you should frequently save the configuration of each of the Cisco devices. For this, you can use the following command to store the running-config into the startup-config (NVRAM).

```
#copy run start
```

Then, using the File drop-down menu, you can export your work into a portable project you can use on another machine.

-. Tips and Hints

- Click on the abc button to show the interface names on the network.
- Right click on any link to start capturing packets using Wireshark.

-. TBD

- Adding a Router

From:
http://wiki.lahoud.fr/ - **wikiroute**

Permanent link:
http://wiki.lahoud.fr/doku.php?id=networking-lab-setting-with-gns3&rev=1520086849

Last update: **2018/03/03 15:20**