

[examples/getting-started:](#)

Goal: teach the basic APIs used in ns-3 for wired simulations, such as:

- NodeContainer
- PointToPointHelper
- CsmaHelper
- NetDeviceContainer
- InternetStackHelper
- Ipv4InterfaceContainer
- Ipv4GlobalRoutingHelper
- V4Ping

Tentative list of examples in this directory:

1. point-to-point-1.cc: two nodes directly connected, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
2. point-to-point-2.cc: three nodes connected via two links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
3. point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
4. simple-lan.cc: four nodes connected in a LAN, IPv4 addresses, Ping application
5. two-lans-connected-directly.cc: two LANs, each having three nodes and one switch, IPv4 addresses, Ping application
6. two-lans-point-to-point.cc: two LANs connected by a point to point link, each having three nodes and one switch, IPv4 addresses, Ping application

[examples/tracing:](#)

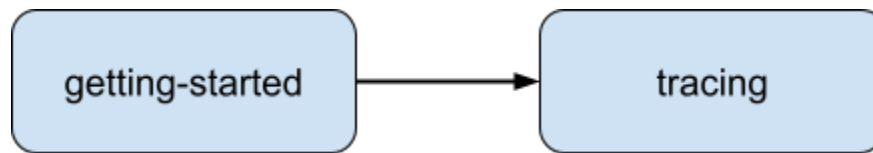
Goal: teach the basic APIs used in ns-3 for tracing, such as:

- PCAP tracing
- ASCII tracing
- Trace Sources
- Gnuplot
- FlowMonitor

Tentative list of examples in this directory:

1. pcap-point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
2. ascii-point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
3. trace-source-point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
4. gnuplot-point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application
5. flow-monitor-point-to-point-3.cc: four nodes connected via three links in a linear fashion, asymmetric link bandwidth and delay, IPv4 addresses, Ping application

The examples in the directories mentioned above would serve as the starting point to learn ns-3. The lineage of examples would look like the following:



[examples/wifi/getting-started:](#)

Goal: teach the basic APIs used in ns-3 for WiFi simulations, such as:

- WifiHelper
- WifiMacHelper
- MobilityHelper
- Ssid
- YansWifiChannelHelper
- YansWifiPhyHelper

Tentative list of examples in this directory:

1. sta-to-sta-adhoc.cc: two WiFi stations connected directly, IPv4 addresses, Ping application
2. sta-to-ap.cc: one WiFi station connecting to one AP, IPv4 addresses, Ping application
3. sta-to-sta-via-ap.cc: two WiFi stations connected via an AP, IPv4 addresses, Ping application

[examples/wifi/moving-forward:](#)

Tentative list of examples in this directory:

1. dcf-example.cc:
https://depts.washington.edu/funlab/wp-content/uploads/2019/04/Experiment_2_802_11_DCF.pdf
2. wireless-channel-performance.cc:
<https://depts.washington.edu/funlab/wp-content/uploads/2019/04/EE-595-Experiment-0.pdf>