

# Qualcomm Profiler Setup Guide for Ubuntu IoT Devices

## Prerequisites

- Ubuntu-based IoT device with network access
- Host machine with Windows/Linux
- SSH/SFTP access to the device
- Qualcomm Profiler documentation access

## Step 1: Install Qualcomm Profiler

1. Download and install from official documentation:

[Installation Guide](#)

## Step 2: Configure IoT Device

**Important:** Requires physical/console access to device

1. Enable root SSH access:

```
sudo vim /etc/ssh/sshd_config
```

Change `PermitRootLogin` to `yes` , then restart SSH service:

```
sudo systemctl restart sshd
```

2. Set temporary root password (must set password to 'password' for installer):

```
sudo passwd root  
# Enter 'password' when prompted
```

## Step 3: Run Host Machine Installer

On Windows host:

1. Navigate to installer directory:

```
C:\Program Files\Qualcomm\Shared\QualcommProfiler\API\target-ubuntu\InstallerUbuntu.exe
```

2. Run `InstallerUbuntu.exe -i <your device IP>` as Administrator

## Step 4: Prepare Firmware Modules

1. Clone required firmware from Qualcomm\_Linux.SPF.1.0:

[Firmware Setup Guide](#)

2. Copy modules based on chipset:

### Step A: Set Environment Variables

Choose the syntax for your shell:

#### Linux / Git Bash (Windows):

```
# Common variables
export CLONE_ROOT=<your-clone-dir>
export DEVICE_IP=<DEVICE_IP>

# Uncomment for SM6490
# export ADSP_ROOT=ADSP.HT.5.5.C8
# export CDSP_ROOT=CDSP.HT.2.5.C3

# Uncomment for SM8300/SM9100/SM9075
# export ADSP_ROOT=DSP.AT.1.0.1
# export CDSP_ROOT=DSP.AT.1.0.1
```

#### Windows (PowerShell):

```
# Common variables
$CLONE_ROOT = "C:/path/to/your/clone"
$DEVICE_IP = "<DEVICE_IP>"

# Uncomment for SM6490
# $ADSP_ROOT = "ADSP.HT.5.5.C8"
# $CDSP_ROOT = "CDSP.HT.2.5.C3"

# Uncomment for SM8300/SM9100/SM9075
# $ADSP_ROOT = "DSP.AT.1.0.1"
# $CDSP_ROOT = "DSP.AT.1.0.1"
```

### Step B: Run Copy Commands (Common)

Run these commands in your shell (Bash or PowerShell):

```
cd "$CLONE_ROOT/$ADSP_ROOT/dsp_proc/build/ms/dynamic_modules/lemans.adsp.prod"
scp libsysmondomain_skel.so "root@$DEVICE_IP:/usr/lib/dsp/adsp"

cd "$CLONE_ROOT/$CDSP_ROOT/dsp_proc/build/ms/dynamic_modules/lemans.cdsp0.prod"
scp libsysmondomain_skel.so libbenchmark_skel.so "root@$DEVICE_IP:/usr/lib/dsp/cdsp"
scp libbenchmark_skel.so libbenchmark_skel.so "root@$DEVICE_IP:/usr/lib/dsp/cdsp"

cd "$CLONE_ROOT/$CDSP_ROOT/build/ms/dynamic_modules/lemans.cdsp1.prod"
scp libsysmondomain_skel.so libbenchmark_skel.so "root@$DEVICE_IP:/usr/lib/dsp/cdsp1"
scp libbenchmark_skel.so libbenchmark_skel.so "root@$DEVICE_IP:/usr/lib/dsp/cdsp1"
```

## Step 5: How to execute

```
export QMONITOR_BACKEND_LIB_PATH=/data/shared/QualcommProfiler/libs/backends
export PATH=$PATH:/data/shared/QualcommProfiler/bins
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/data/shared/QualcommProfiler/libs
sudo qprof -ca
```

[more cmd example](#)