

# Device Frequency Scaling

## Introduction

This framework provides a standard kernel interface for Dynamic Voltage and Frequency Switching on arbitrary devices.

It exposes controls for adjusting frequency through sysfs files which are similar to the cpufreq subsystem.

Devices for which current usage can be measured can have their frequency automatically adjusted by governors.

## API

Device drivers need to initialize a `:c:type:'devfreq_profile'` and call the `:c:func:'devfreq_add_device'` function to create a `:c:type:'devfreq'` instance.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 22); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 22); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 22); [backlink](#)

Unknown interpreted text role "c:type".

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 25)

Unknown directive type "kernel-doc".

```
.. kernel-doc:: include/linux/devfreq.h
```

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 26)

Unknown directive type "kernel-doc".

```
.. kernel-doc:: include/linux/devfreq-event.h
```

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 27)

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```
.. kernel-doc:: drivers/devfreq/devfreq.c
:export:
```

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\ [linux-master] [Documentation] [driver-api] devfreq.rst, line 29)

Unknown directive type "kernel-doc".

```
.. kernel-doc:: drivers/devfreq/devfreq-event.c
   :export:
```