



## RNG device tree configuration



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## 1 Article purpose

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This article explains how to configure the **RNG** internal peripheral when it is assigned to the Linux<sup>®</sup>OS. In that case, it is controlled by the [Hardware random framework](#).

The configuration is performed using the [device tree](#) mechanism that provides a hardware description of the RNG peripheral, used by the STM32 RNG Linux driver.

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The *RNG* is represented by the *STM32 RNG device tree bindings*<sup>[1]</sup>



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The RNG node is declared in `stm32mp151.dtsi`<sup>[2]</sup>. It describes the hardware register address, clock and reset.

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rng1: rng@54003000 {
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    status = "disabled";
};
```

**Comments**

--> Register location

and length

#### Warning

This device tree part is related to STM32 microprocessors. It must be kept as is, without being modified by the end-user.

### 3.2 DT configuration (board level)

This part is used to enable the RNG used on a board which is done by setting the **status** property to **okay**.

A clock-error-detect property is available depending the clock chosen for entropy. It can be enabled to manage the clock detection.

### 3.3 DT configuration examples

```
&rng1 {
    status = "okay";
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## 4 How to configure the DT using STM32CubeMX

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The STM32CubeMX tool can be used to configure the STM32MPU device and get the corresponding platform configuration device tree files.

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## 5 References

Please refer to the following links for additional information:

- [Device tree bindings](#)
- [STM32MP151 device tree](#)

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## 5 References

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