

“Standalone” Compile Device Tree

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Device Tree Compile Flow



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Usually, device tree source files are not a signal pure dts file.

It could include dtsti, dts or C code heads .h files.

Need C compiler finish the pre-compile to a pure dts file first.

It is integrated inside the like Linux build system(Makefile, etc.).

This document shows the original way to compile device tree.

This document will show compile device tree under windows.

The test is on i.MX8MM EVK.

Toolchains

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Pre-compiler: arm-gnu-toolchain-13.2.rel1-mingw-w64-i686-aarch64-none-linux-gnu.zip
<https://developer.arm.com/downloads/-/arm-gnu-toolchain-downloads>

Device Tree Compiler: dtc

<https://git.kernel.org/pub/scm/utils/dtc/dtc.git>

Compile Device Tree

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Pre-compile(Generate Pure dts):

```
aarch64-none-linux-gnu-gcc
```

```
-I linux-imx\arch\arm64\boot\dts\freescale\ -I linux-imx\include
```

```
-E -nostdinc -undef -D__DTS__ -x assembler-with-cpp
```

```
-o imx8mm-evk-precompile.dts linux-imx\arch\arm64\boot\dts\freescale\imx8mm-evk.dts
```

Compile dts to dtb:

```
dtc -I dts -O dtb -o imx8mm-evk.dtb imx8mm-evk-precompile.dts
```



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