HOW TO LEVERAGE THE MCUXPRESSO CONFIG TOOL IN YOUR APPLICATION DEVELOPMENT

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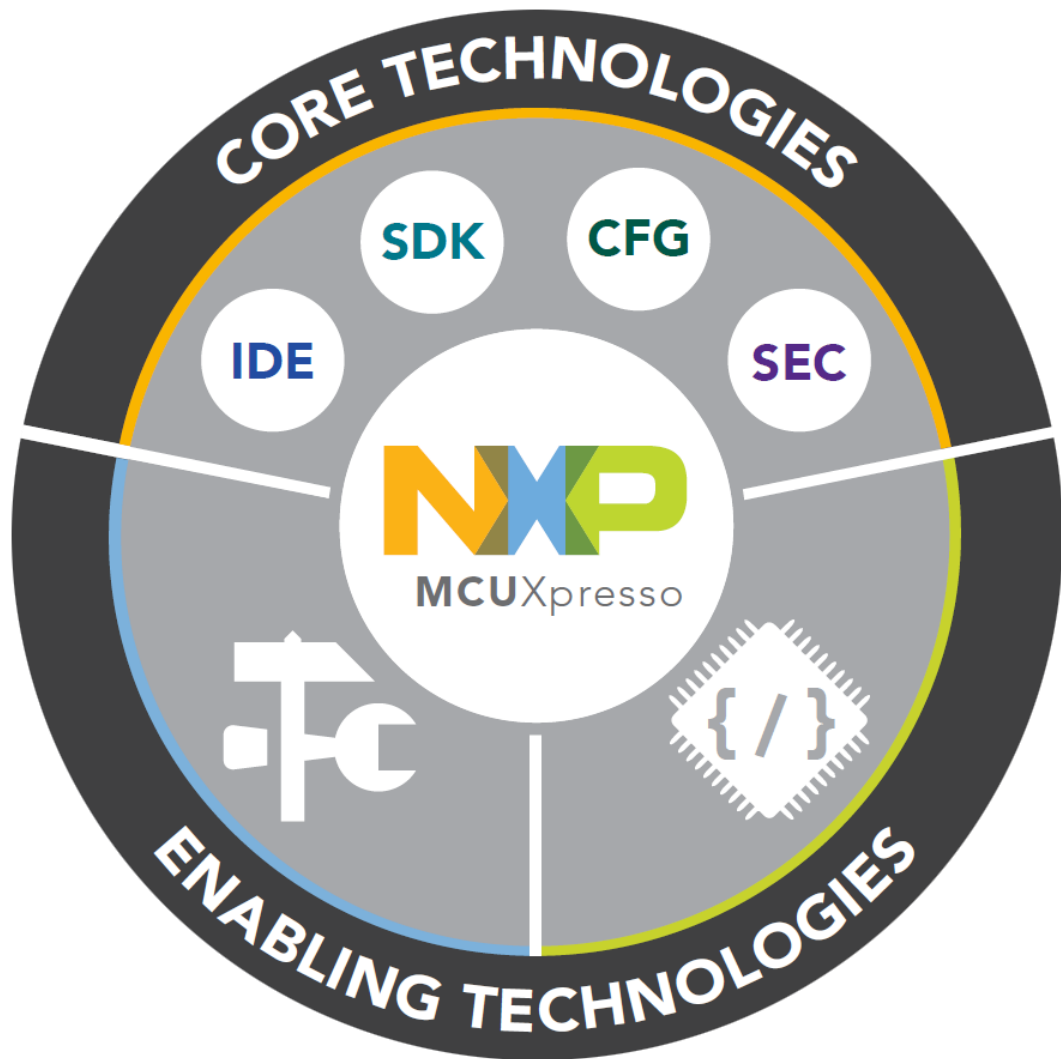
SECURE CONNECTIONS FOR A SMARTER WORLD

Core Technologies from NXP
- MCUXpresso IDE
- MCUXpresso SDK
- MCUXpresso Config Tools
- MCUXpresso Secure Provisioning Tool

Enabling Software Technologies
- Run time software libraries and middleware
- Enable customers to focus on differentiation
- From NXP and partners

Enabling Tools Technologies
- Partner IDEs
- Debug Probes
- Development Boards
- From NXP and partners

MCUXPRESSO CONFIG TOOLS
CONFIGURATION AND CODE GENERATION

SDK Builder packages custom SDKs based on user selections of MCU, evaluation board, and optional software components.
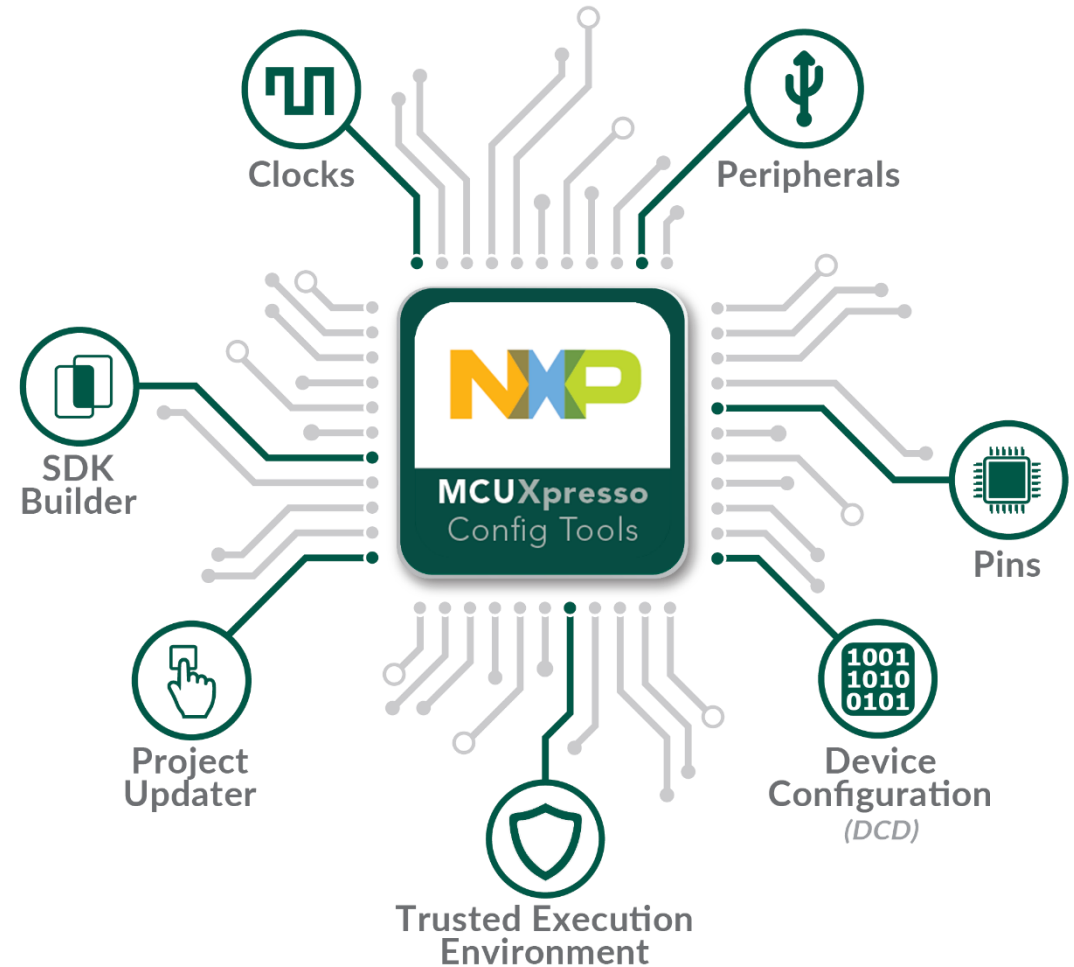
Pins, Clocks, and Peripherals tools generate initialization for custom board support.

Project Updater works directly with existing SDK-based IDE projects with generated Pins, Clocks and Peripherals source files.

Device Configuration tool allows DCD commands sequence config for pre-initialization of devices at boot time.

Trusted Execution Environment configures protection and isolation of sensitive parts of the application

Project Cloner creates standalone SDK project based on SDK examples (*available in standalone Config Tools*).

MCUXPRESSO CONFIG TOOL - PINS

MCUXPRESSO CONFIG TOOL - CLOCKS

MCUXPRESSO CONFIG TOOL - PERIPHERALS

MCUXPRESSO CONFIG TOOLS
STANDALONE TOOL WORKFLOW

The standalone **MCUXpresso Config Tools** are developed specifically for working with non-MCUXpresso IDEs

1 Use the MCUXpresso Config Tools to **clone** an existing SDK Project

2 Use the MCUXpresso Config Tools to configure **Pins**, **Clocks**, and **Peripherals**

3 **Update Code** from Config Tools to write the generated files directly to the project folder

Update Code

Supporting

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IAR SYSTEMS

Filesystem

Project Folder
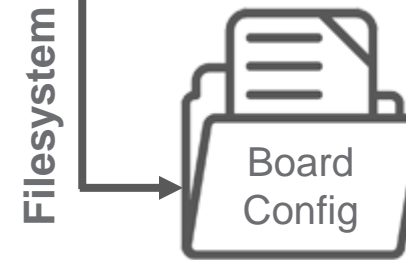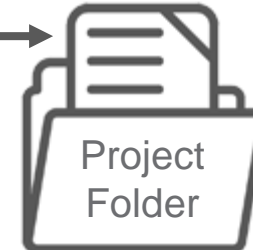
Board Config

Generated .**MEX** file can be exported / imported to other projects to share board settings

MCUXPRESSO CONFIG TOOLS
INTEGRATED IDE WORKFLOW

1 Use the MCUXpresso IDE Quick Start Panel to **import** an existing SDK Project or **create** a new one

2 Use the IDE project menu bar to switch to a Config Tool **perspective**
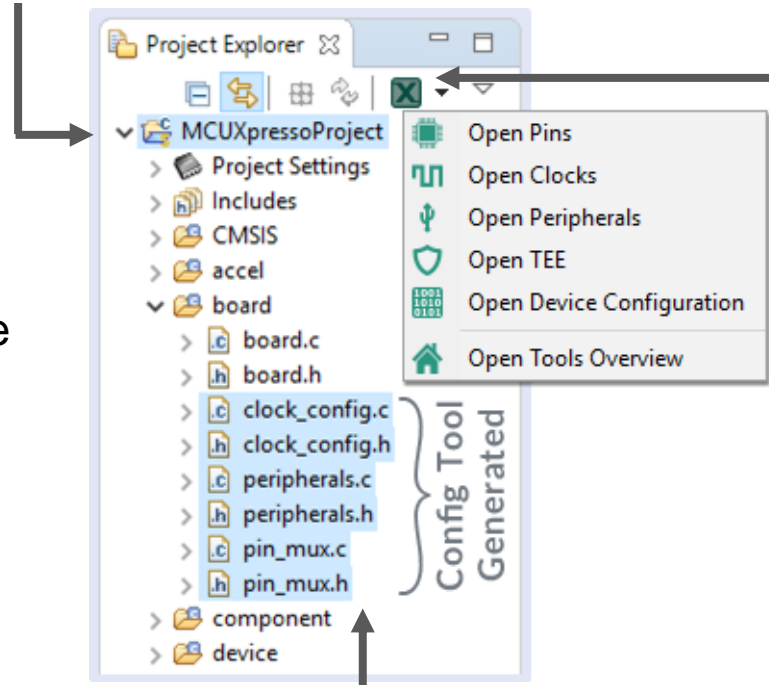
The perspective icons can also be used to switch between config tools or return to the development perspective

3 Use the config tools perspective to configure **pins**, **clocks**, and **peripherals**

Project Explorer

MCUXpressoProject
> Project Settings
> Includes
> CMSIS
> accel
v board
  > board.c
  > board.h
  > clock_config.c
  > clock_config.h
  > peripherals.c
  > peripherals.h
  > pin_mux.c
  > pin_mux.h
> component
> device

Open Pins
Open Clocks
Open Peripherals
Open TEE
Open Device Configuration
Open Tools Overview

Config Tool Generated

Config Tool data will download on demand

MCUXpresso Config Tools - Progress Information

Downloading component pwm ...

Cancel
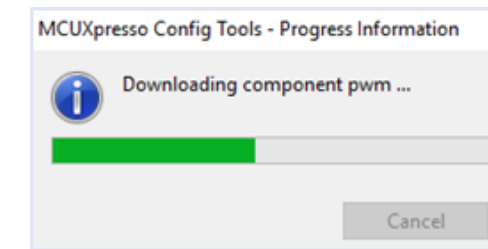
Update Code

4 **Update Code** from Config Tools to write the generated files directly to the project folder and return to the development perspective

MCUXPRESSO SOFTWARE AND TOOLS
ADDITIONAL WEB RESOURCES

MCUXpresso Software and Tools Overview Page:
https://www.nxp.com/mcuxpresso

MCUXpresso Software and Tools Community Site:
https://community.nxp.com/community/mcuxpresso

IDE
Website /
Community

SDK
Website /
Community

CFG
Website /
Community

SEC
Website /
Community

Support devices

Supported Devices Table (Community Doc)