EXAMPLE NAME: RTC_EXAMPLE_XMC45

OVERVIEW: This example demonstrates how use the RTC APP generates a periodic second interrupt to blink the on-board LED. An alarm is generated every minute and reconfigured to the next minute. A message is sent out to the COM port each time the alarm occurs.

DESCRIPTION:

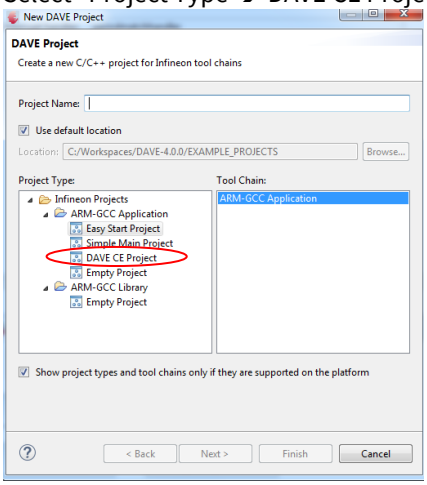
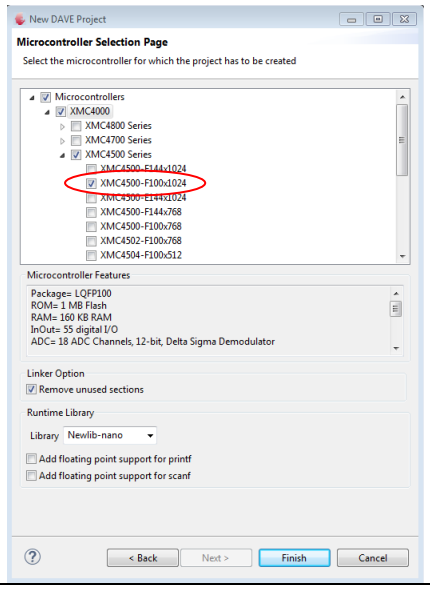
- RTC APP is used to generate a periodic second interrupt and an alarm interrupt
- UART APP is used to send out message that alarm has occurred.
- DIGITAL_IO APP is used to blink the on-board LED at every second

REQUIRMENTS:

Boards Required: XMC4500 CPU Board (Order Nr: KIT_XMC45_EE1_002)

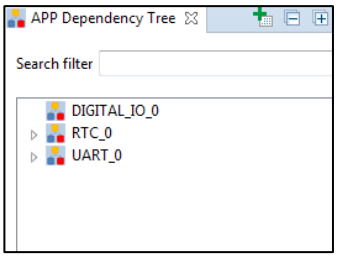
HOW TO CREATE THE PROJECT:

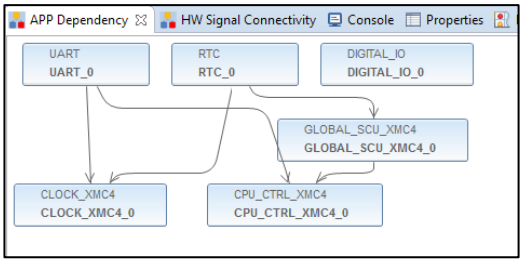
1. Open the DAVE CE and use  "Add IDE New Project Wizard" on the toolbar to add a new DAVE Project.

Enter Project Name Select "Project Type ➔ DAVE CE Project"	Select Processors Info ➔XMC4500 Series ➔ XMC4500-F144X1024
	

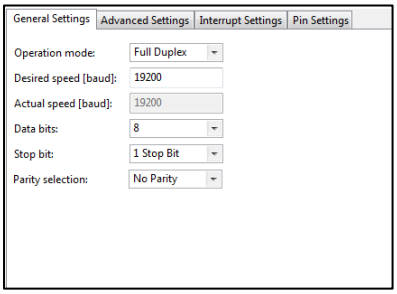
2. Use the  "Add New APP" in the toolbar to add APPs listed. Configure the App instances with the following configurations.

Views: App Dependency Tree and App Dependency



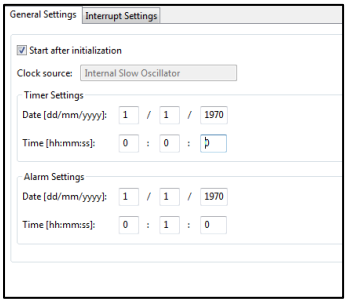


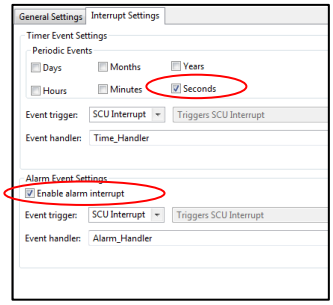
UART_0:



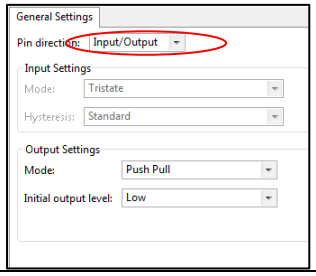
⇨ No change to settings on all Tabs

RTC_0:

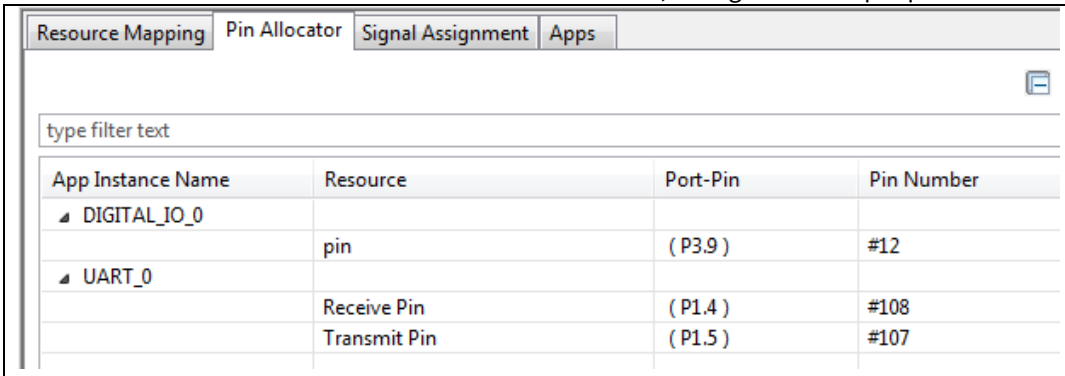




DIGITAL_IO_0:



3. Use the  "Manual Pin Allocator" found in the toolbar, configure the output pins for the PWM.



4. Generate the code for configurations made and change main.c accordingly.
5. Build and download to the microcontroller.

HOW TO TEST:

Download and run the demo in the uC.

OBSERVATIONS:

- On every alternate second, LED lights up. (RTC Periodic second interrupt occurs)
- On every minute, the RTC alarm occurs and reconfigured to the next minute.
- On each occurrence of alarm, a message “ALARM HAS RUNG!!” is sent to the COM port.

HINTS WHEN MIGRATING EXAMPLE TO OTHER DEVICES IN THE SAME XMC FAMILY:

No additional information is required