

Answer Key

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Document conventions

Convention	Usage	Example
Courier New	Displays code and text commands	CY_ISR_PROTO(MyISR) ; make build
<i>Italics</i>	Displays file names and paths	<i>sourcefile.hex</i>
[bracketed, bold]	Displays keyboard commands in procedures	[Enter] or [Ctrl] [C]
Menu > Selection	Represents menu paths	File > New Project > Clone
Bold	Displays GUI commands, menu paths and selections, and icon names in procedures	Click the Debugger icon, and then click Next .

1.1 Chapter 6

1.1.1 Exercise 1

- 1) What is the purpose of the call to the function `Cy_SysEnableCM4`, in the CM0+'s code?
This function call enables the CM4 CPU.
- 2) Why do both of the processors need to call the function `__enable_irq`?
Because each CPU has its own NVIC.
- 3) Where is the file `ipc_def.h` saved on your disk?
In <ApplicationDirectory>/shared/include/ipc_def.h

1.1.2 Exercise 2

- 1) In the file <ApplicationDirectory>/shared/source/COMPONENT_CM0P/ipc_communication_cm0p.c, what is the purpose of the function `user_ipc_pipe_isr_cm0`? When does this function get called?
This function gets called whenever a message is received by the CM0+ from the CM4. Its purpose is to call the callback function associated with the received client ID.
- 2) The macros `USER_IPC_PIPE_EP_ADDR_CM0` and `USER_IPC_PIPE_EP_ADDR_CM4` correspond to which endpoints in the array of endpoint structures?
Endpoints 2 and 3.
- 3) When the CM4 receives a message from the CM0+, what callback(s) are run?
The `user_ipc_pipe_isr_cm4` callback is run, then the `cm4_msg_callback` callback is run.

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