

# Adding a run control interface into an existing CodeWarrior for MCU v10.x project

## 1 Introduction

There are two ways to add a new run control interface into an existing CodeWarrior for MCU v10.x project. The run control interfaces (OSJTAG, OSBDM, USB TAP, P&E Universal.) are referred as the connections or connection configurations in CodeWarrior for MCU 10.x.

1. Create a connection from scratch but the drawback is there are many configuration fields that should be filled.
2. Use a new Bareboard Project option to create a dummy project and reuse/clone its connections in your existing project.

### NOTE

The second way requires lesser effort.

This application note lists the steps to add a new run control interface using the second approach. This application note demonstrates adding a connection on Qorivva MPC56xx project but it is applicable to all other microcontroller families and derivatives supported by CodeWarrior for MCU v10.x.

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## 2 Bareboard

CodeWarrior for MCU v10.x New Bareboard Project wizard can create a dummy project, which contains also the debug and connection configurations. The aim is to adjust and transfer these connections from a dummy project to an existing CodeWarrior project.

Assuming that following are the details of the original project:

- Name: *"My\_CW\_project"*
- Target MCU: *MPC5602P*
- Existing connection interface: *"P&E USB Multilink PPCNEXUS"*
- Requested connection interface to add: *"Open Source JTAG"*

## 3 Create a dummy project

Create a new bareboard project. Ensure that the new project is located in the same workspace as the original project. Provide a different name to the dummy project, for example: *My\_CW\_dummy\_project*".

### NOTE

Multiple projects of the same name cannot exist in the same workspace.

### NOTE

The connection configuration/target names inherit the project name. The project will be renamed later to match with the original project name.

This new project must select exactly the same microcontroller derivative as the original project (MPC5602P). The new project should also include the connection(s) you would like add into the original project. Both projects – original and dummy need to be opened in the workspace to be able transfer connection configuration form each other.

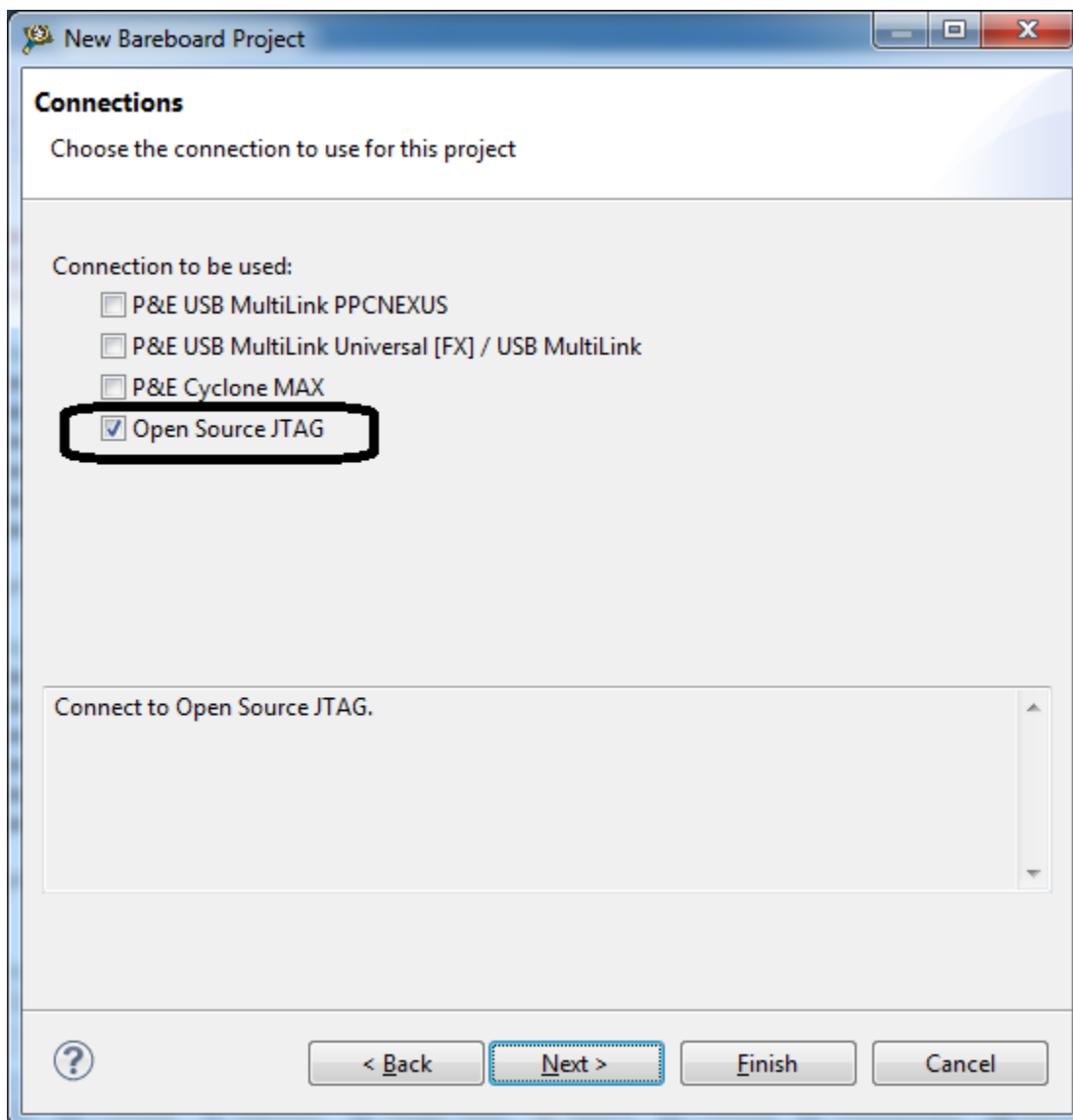


Figure 1. Select a connection

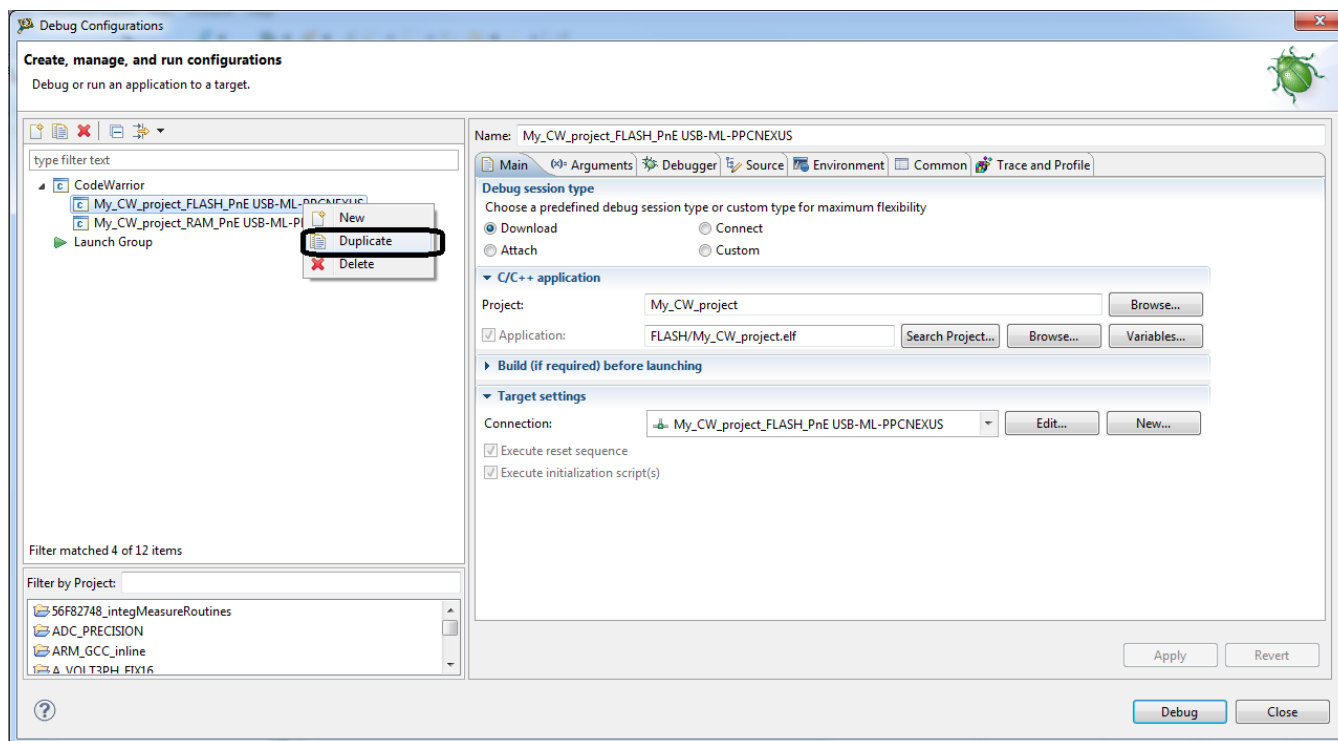
## 4 Clone/Duplicate debug configuration

A connection is always linked with a debug configuration in CodeWarrior for MCU v10.x. It is recommended to create a separate debug configuration for each new connection. You can then run/debug project easily with no confusion about which connection is used.

In case there are multiple build configurations (e.g. RAM and FLASH) it's also useful to create multiple debug configurations (one for each build configuration) and associate them both with a new connection. New debug configuration can be duplicated from existing ones instead of creating it from scratch.

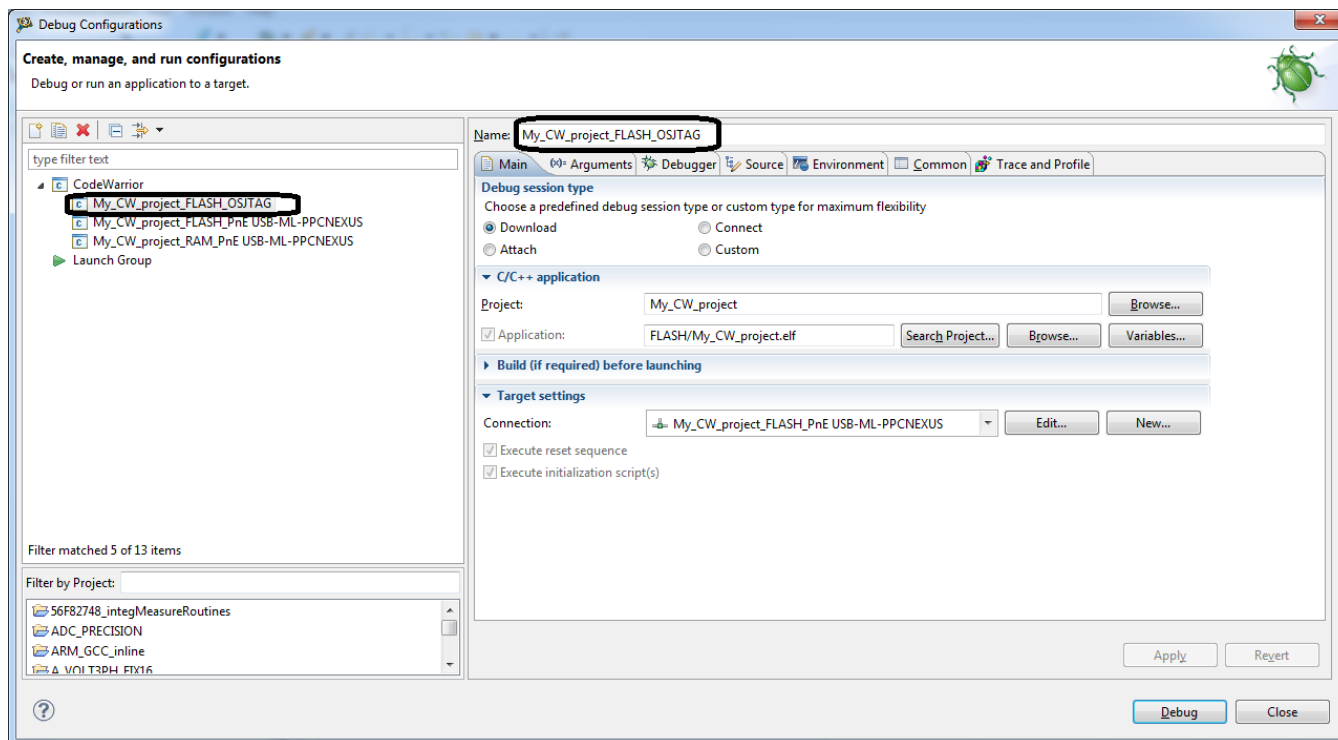
Open the original project debug configuration dialog (menu Run > Debug Configurations...) and duplicate the configuration you'd like to associate with the new connection interface (My\_CW\_project\_FLASH\_PnE\_USB-ML-PPCNEXUS).

## Clone/Duplicate debug configuration



**Figure 2. Clone debug configuration**

The name of new debug configuration shall be updated to reflect the connection interface associated with the new Debug configuration (My\_CW\_project\_FLASH\_OSJTAG).

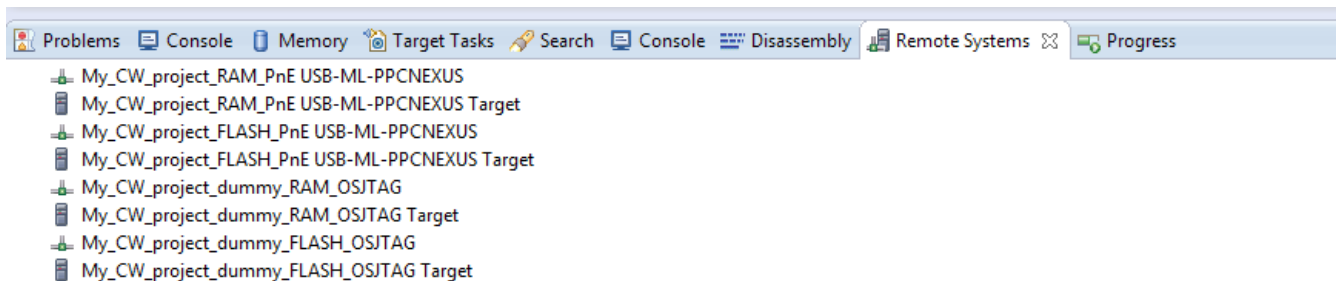


**Figure 3. New debug configuration**

## 5 Transfer connection

To transfer the run control connection from the dummy project into the original one:

1. Select **Window > Show View > Remote Systems** to open the Remote Systems view.
2. If the original and dummy projects are the only open projects in the workspace, the Remote System view lists the connections for these two projects only. However, there might be some additional connections on the list, which are usually stored directly in the workspace settings. For example Flash Programmer connections.

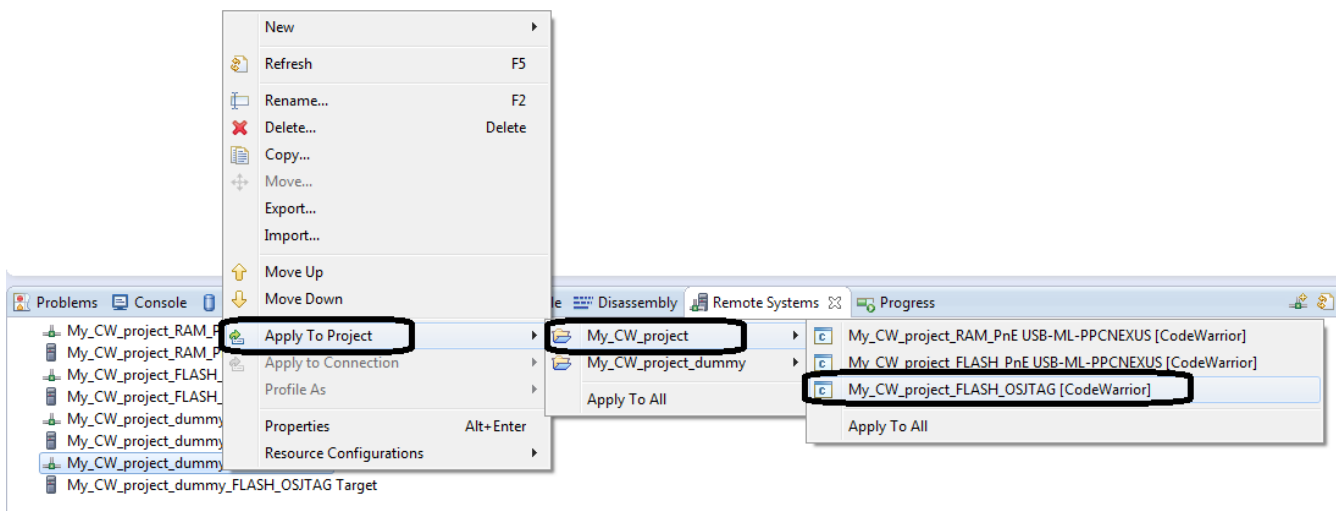


**Figure 4. Remote systems view**

**NOTE**

The connections are represented by the  icon:

3. Select the connection from dummy project (My\_CW\_project\_dummy\_FLASH\_OSJTAG) and apply it to the debug configuration created in previous step (My\_CW\_project\_FLASH\_OSJTAG).
4. Right-click on connection to transfer and from the shortcut menu select **Apply To Project > <Name of the original project> > New debug configuration**.



**Figure 5. Transfer connection**

5. Close the dummy project.

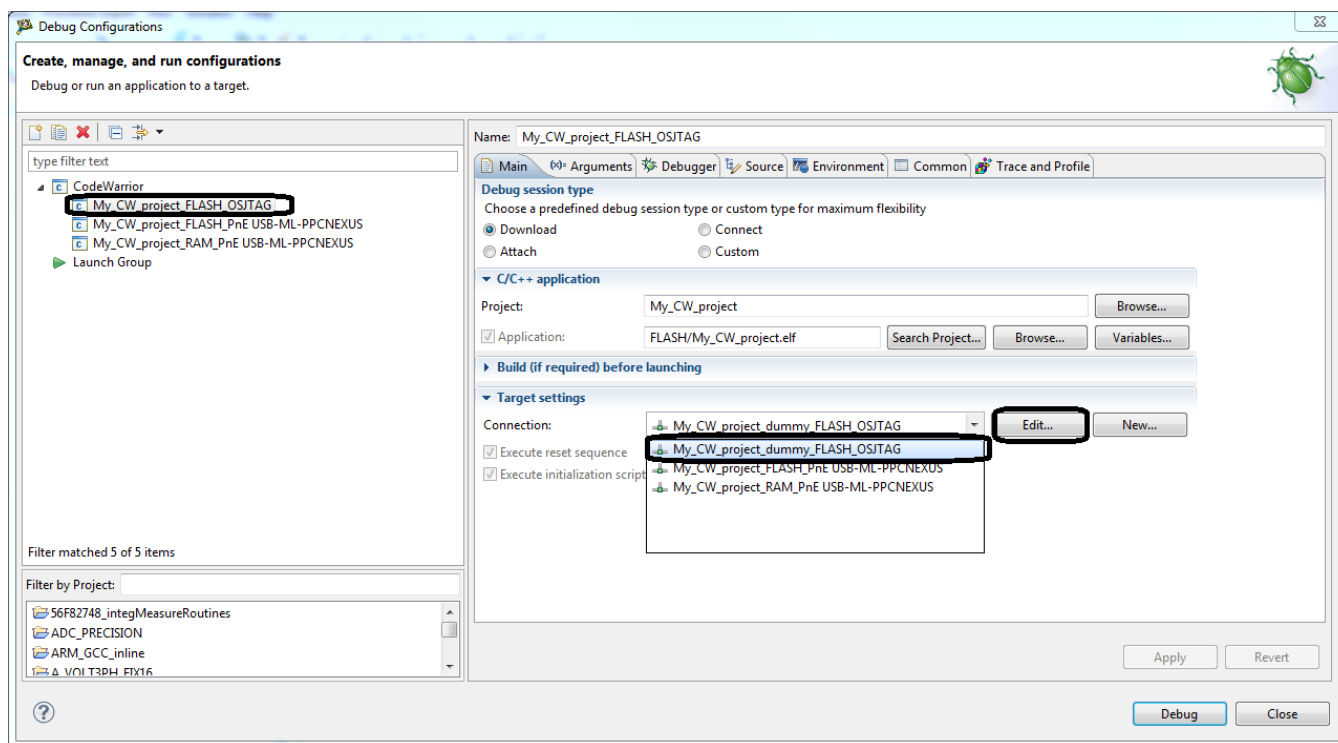
## 6 Edit the new debug configuration

The new debug configuration of the original project will need some final edit/adjustments. It is necessary to ensure that the project uses the right connection transferred from the dummy project. To make adjustments to the new debug configurations:

1. Open the debug configurations dialog.
2. Select the new debug configuration created, refer Clone/Duplicate debug configuration. In this example the new debug configuration is *My\_CW\_project\_FLASH\_OSJTAG* .

The new connection (*My\_CW\_project\_dummy\_FLASH\_OSJTAG*) will appear in the list of available connections.

3. Select the new connection.



**Figure 6. Edit connection**

4. Rename the dummy connection and the target name (*My\_CW\_project\_dummy\_FLASH\_OSJTAG*) since it has inherited the name of the dummy project in its name.
  - a. To rename the dummy connection and the target name, click the *Edit* button.
  - b. Change the connection *Name* field in the *Hardware or Simulator Connection* dialog. For example, *My\_CW\_project\_FLASH\_OSJTAG*.
  - c. Change the target *Name* field in the *Hardware or Simulator Target* dialog.

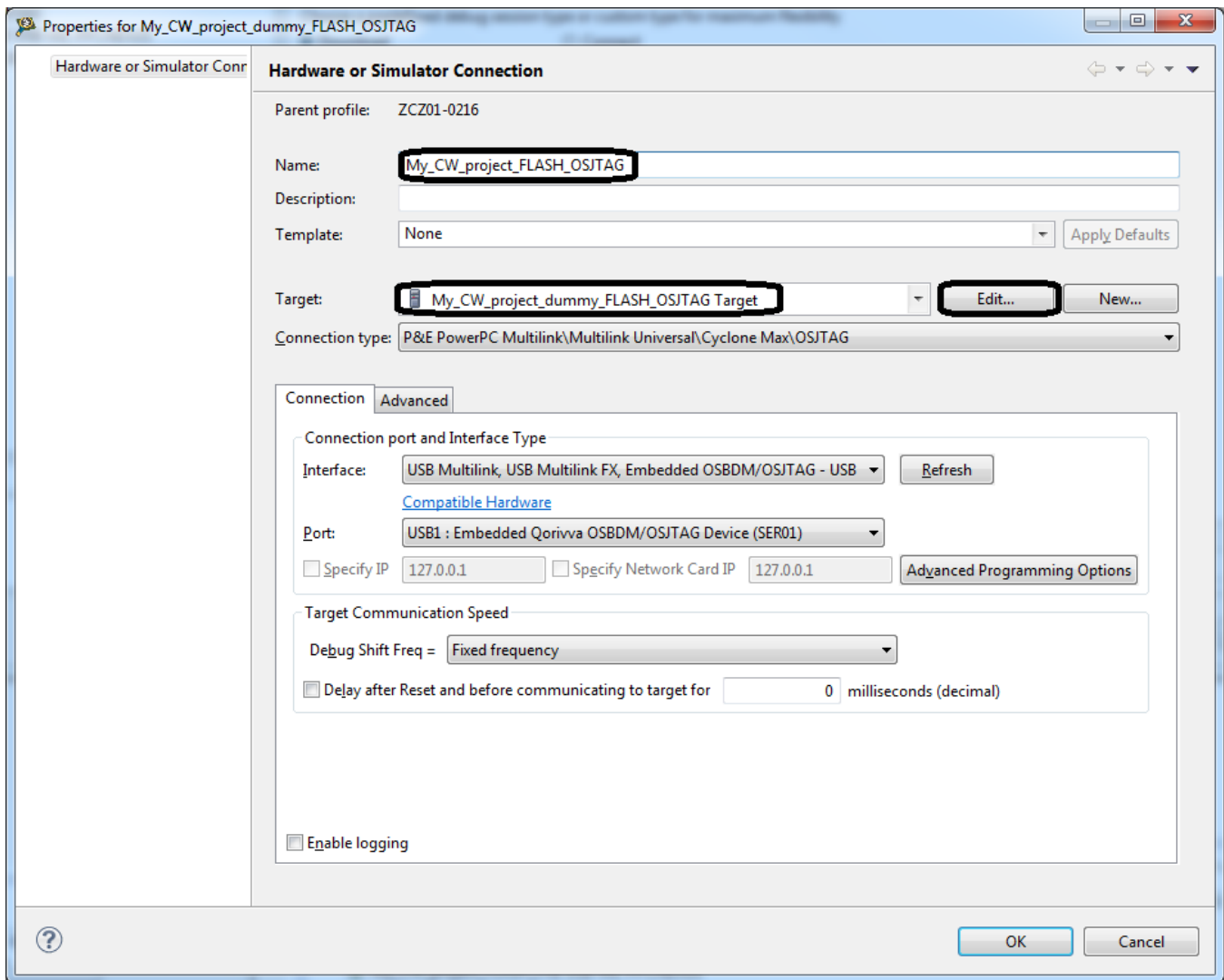
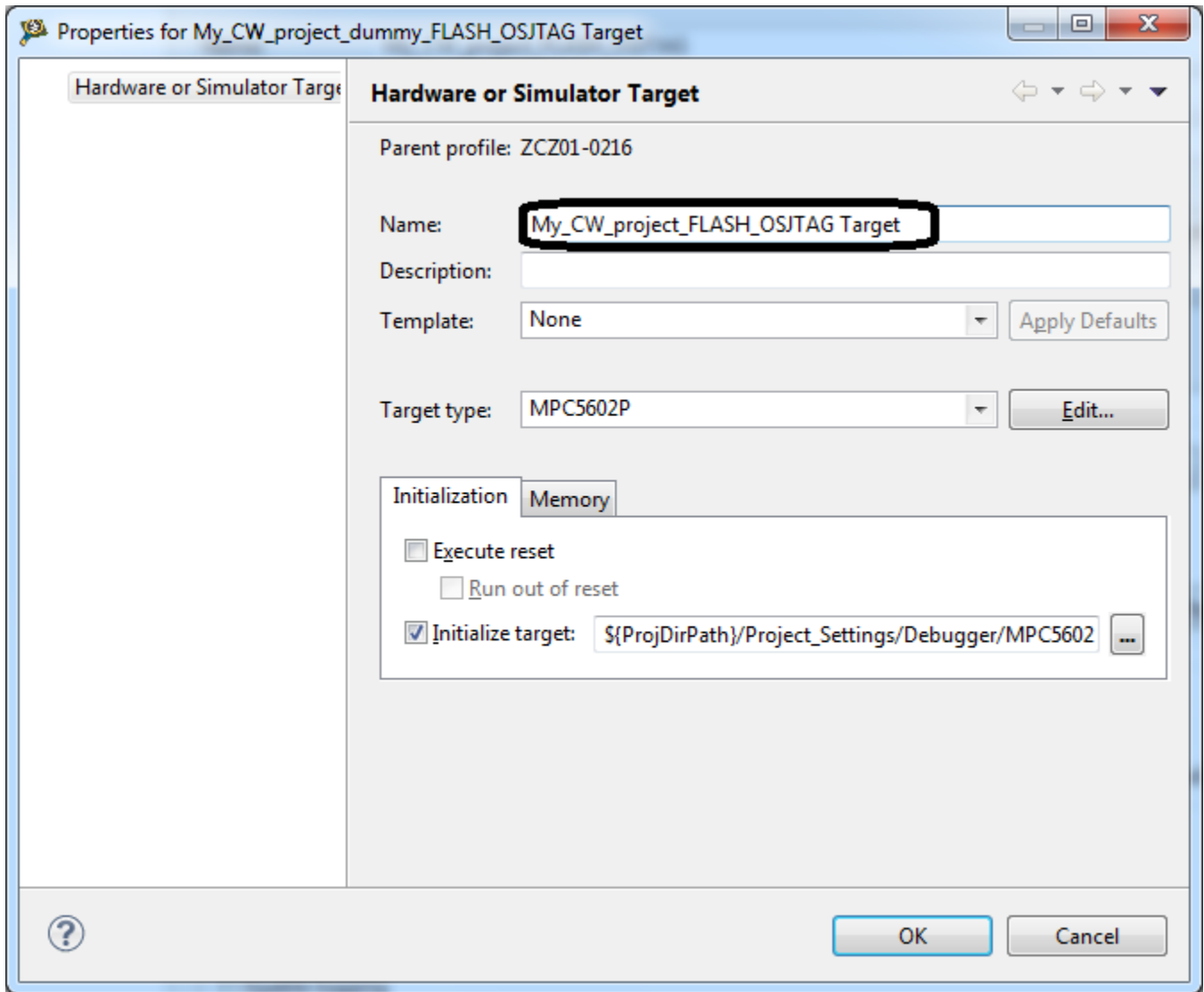


Figure 7. Select the dummy connection and the target



**Figure 8. Rename the dummy connection and the target**

5. Delete the dummy project.

The connection/run control interface is now the integral part of the original project.



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