

# Remote Execution Using Eclipse

Remote development using Eclipse is enhanced with tools such as the Eclipse Run/Debug Configurations and SSH which enable the remote execution of the application on the remote board. The Eclipse Run/Debug Configurations provide a way to transparently run an application on the remote board by automatically uploading the binary, changing execute permissions, executing, and interacting with the application using an SSH Shell.

**Table 1. Conventions Used**

connection_name	Refers to the name of the connection used to connect to the target board.
app_name	Refers to the target name of the application being developed.
target_board	Refers to the name of the device for which the application is being developed.

## Setup

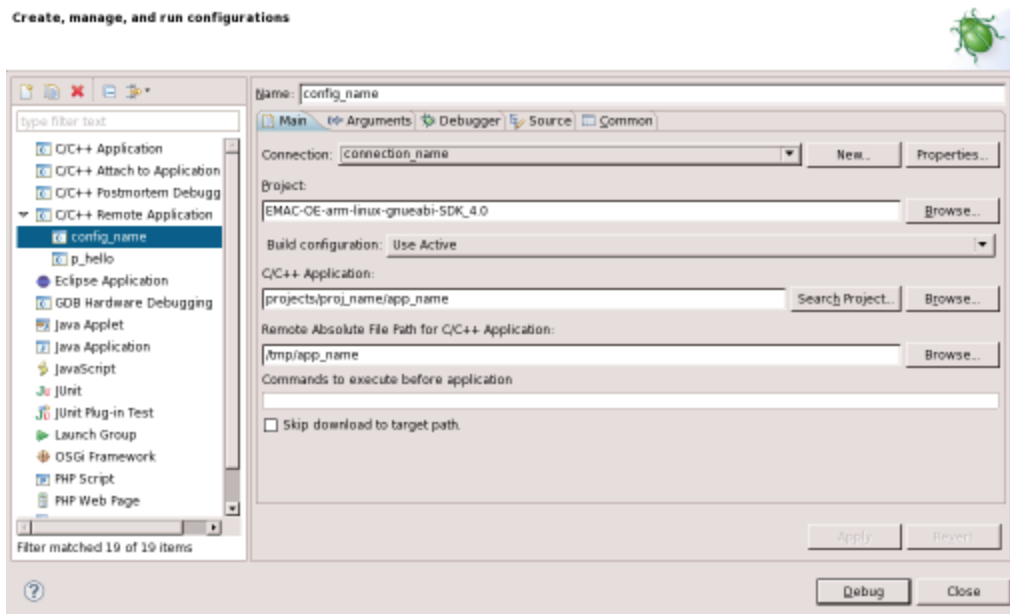
Before continuing, first open the RSE Perspective:

1. Open the EMAC Eclipse application if it is not already open.
2. Click *Window* → *Open Perspective* → *Other...*
3. Select *Remote System Explorer*
4. Click *OK*

## Create a Run Configuration

Launching an application from within Eclipse requires that a Run Configuration be created. This configuration provides Eclipse all the information it needs to be able to run a specific application. The application can be located either on the development machine or on the target machine provided a suitable connection is available. The following procedure assumes that the application being run is located on a remote target machine. This will be the case for all application development for EMAC products.

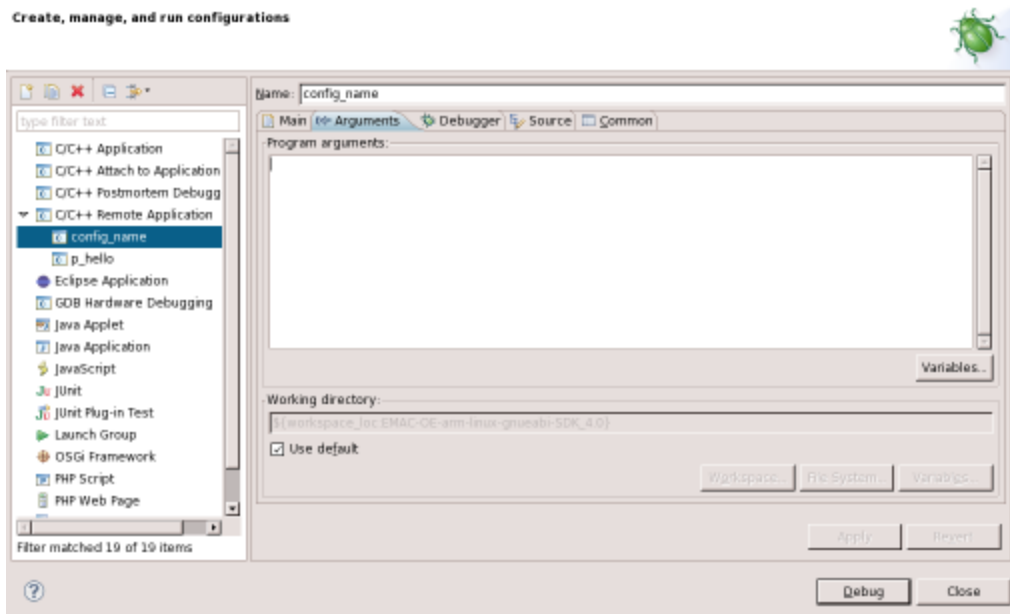
1. Create a new launch configuration.
  1. In the Project Explorer View, right-click the project to be run.
  2. Select *Run As* → *Run Configurations...* to bring up the Run Configuration Dialog.
  3. In the *Type List*, right-click *C/C++ Remote Application* and select *New...* from the context menu.  
A new configuration will appear with config\_name equal to the name of the currently open project, which should be the EMAC SDK. This name can be changed in the top leftmost text field labeled *Name*.
2. For instructions relating to fields in the main tab, refer to Figure 4.



**Figure 4. Run/Debug Configuration Main Tab**

1. Choose a connection from the *Connection:* drop-down or click *New...* to create a new one.
2. The default for the *Project:* field will be the currently-active project. If this is not the EMAC SDK project or if your source code is contained in another project, click *Browse...* to choose the correct one.
3. Choose a *C/C++ Application:* value.
  - Type app\_name in the text field provided. The directory path relative to the EMAC SDK Project must be included, or
  - Use *Search Project...* to initiate a search dialog. Type app\_name to search for the binary, or
  - Manually browse the file system using *Browse...*
4. Choose a *Remote Absolute File Path for C/C++ Application:* value. When uploading the application using the EMAC SDK Makefile, this location is /tmp/app\_name.
  1. Type the location in the provided text field, or
  2. Select *Browse...* to search the remote file system for the target binary.

*Note that this step requires the Connection: field to be set to a valid connection and the development machine to be connected to target\_name.*
3. For instructions relating to the Arguments tab, refer to Figure 5.



**Figure 5. Run/Debug Configuration Arguments Tab**

If app\_name takes any command-line arguments, this is where they must be entered. To avoid having to come back to this screen each time the arguments change, it is possible to use special Eclipse variables:

1. Click *Variables...* to open the *Select Variable* dialog.
2. Choose a variable either by searching for it using the search input field at the top of the dialog or scrolling manually through the available variables.
3. Click *Edit Variables...* to create a new variable or edit a user-modifiable variable.
4. Many of the default variables have values that change depending on arguments given in the *Select Variable* dialog. Some, such as those whose values are expected to be locations in a file system, can be configured with an additional dialog. To do so, click *Configure...*

## Running the Remote Application

Using the Eclipse Run Menu to run a remote application can be done from the RSE, C/C++, or Debug Perspectives.

1. Open Eclipse to the RSE, C/C++, or Debug Perspective.
2. Click *Run* → *Run Configuration...*
3. Double-click the launcher configuration created in the above set up section.

The output of the program will be shown in a Console view in Eclipse.

## Next Steps

That is the basics of application execution. To learn about remote application debugging, refer to [Debugging Methods](#).

## See Also

- Eclipse IDE
  - Install
  - Development System Configuration
  - First Time Using Eclipse
  - Import EMAC OE SDK
  - Eclipse Terminal View
  - Using the EMAC OE SDK Examples Projects
  - Create New EMAC OE SDK Projects

- Using the EMAC OE SDK Eclipse Plugin
- Remote System Explorer Configuration
  - RSE Setup
  - RSE SFTP Setup
  - Remote Shell/Terminal Setup
- Execute Remote Applications
- Debug Remote Applications

» firststeps » import » terminal » example » newproject » remote » rse » stfp » linux\_start » execute

---

- linux/eclipse/remote/execute.txt · Last modified: 2011/03/30 18:01 by wwarren
- Except where otherwise noted, content on this wiki is licensed under the following license: CC Attribution-No Derivative Works 3.0 Unported (cc-by-nd)