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# C programming in Mac OS X Xcode

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# C Programming in Mac

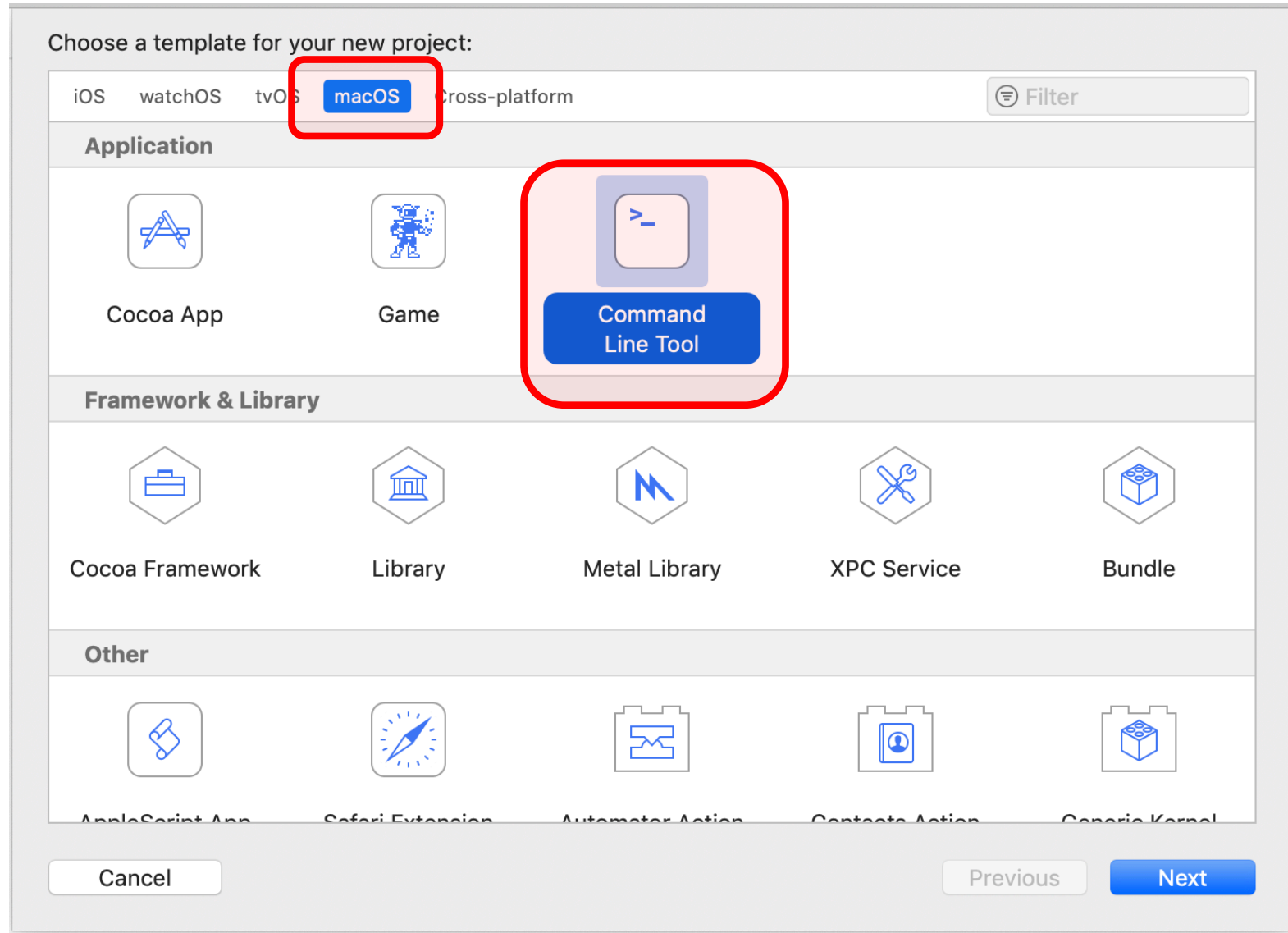
- Xcode is the standard development environment for MacOS
- Xcode is used to develop MacOS (or iOS, watchOS, tvOS)



# Step 1: Create a project

File → New → Project...

## Step 2: Select MacOS & command line Tool



# Step 2.5: Select C language

Choose options for your new project:

Product Name:

Team:

Organization Name:

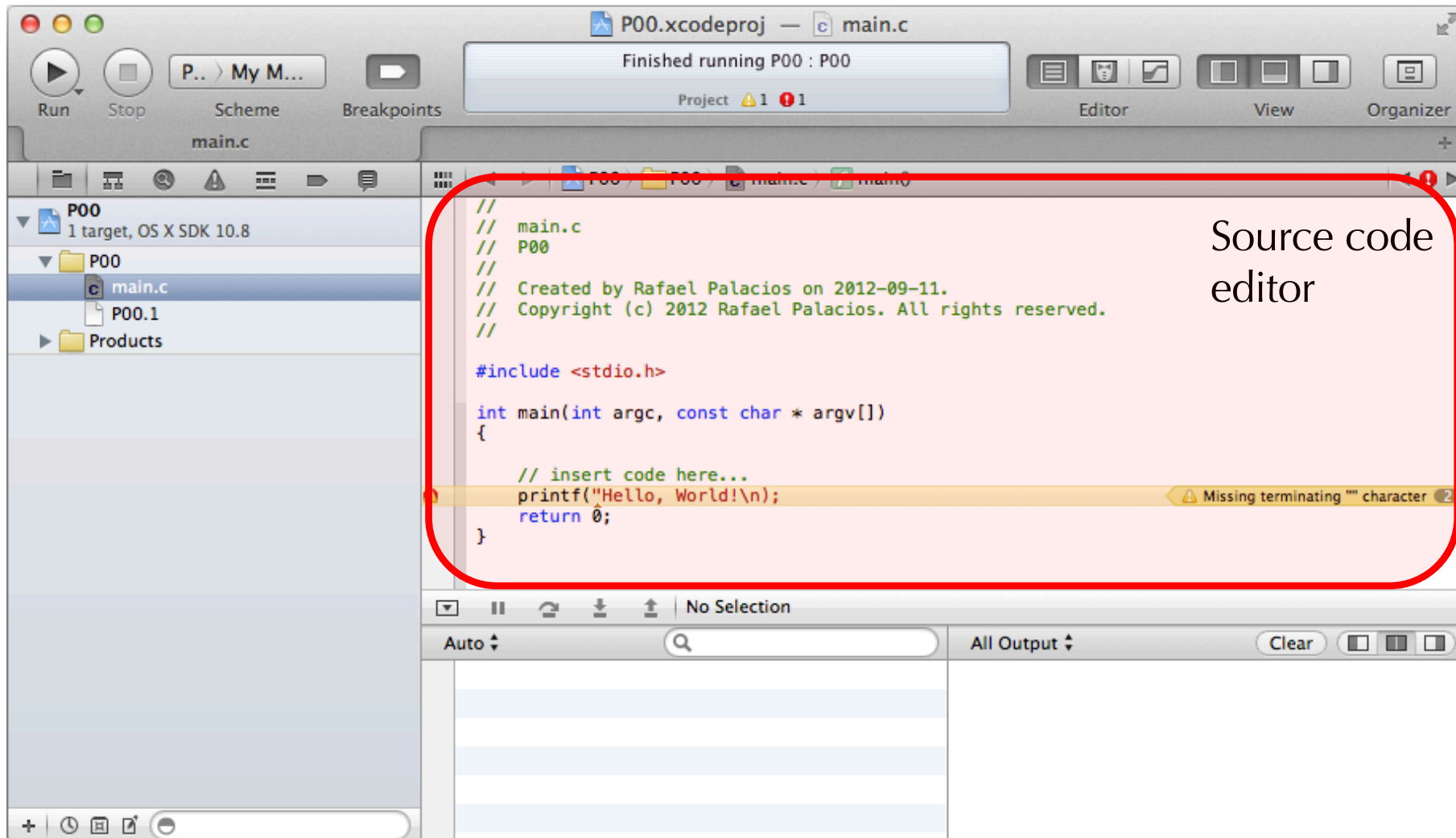
Organization Identifier:

Bundle Identifier:

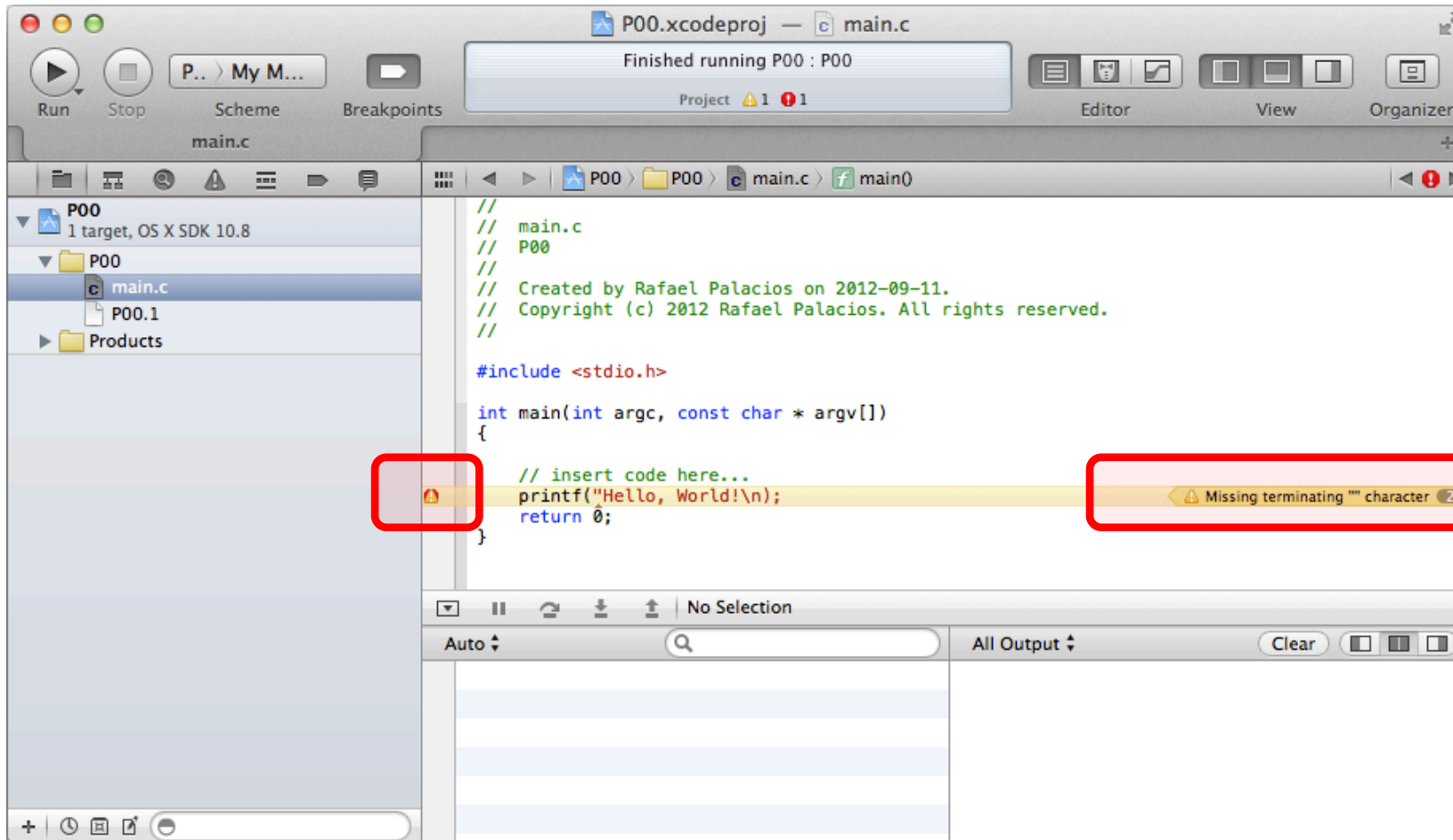
Language:

# Project is created

- Project already includes one source file
- The source file already includes a basic version of the main program



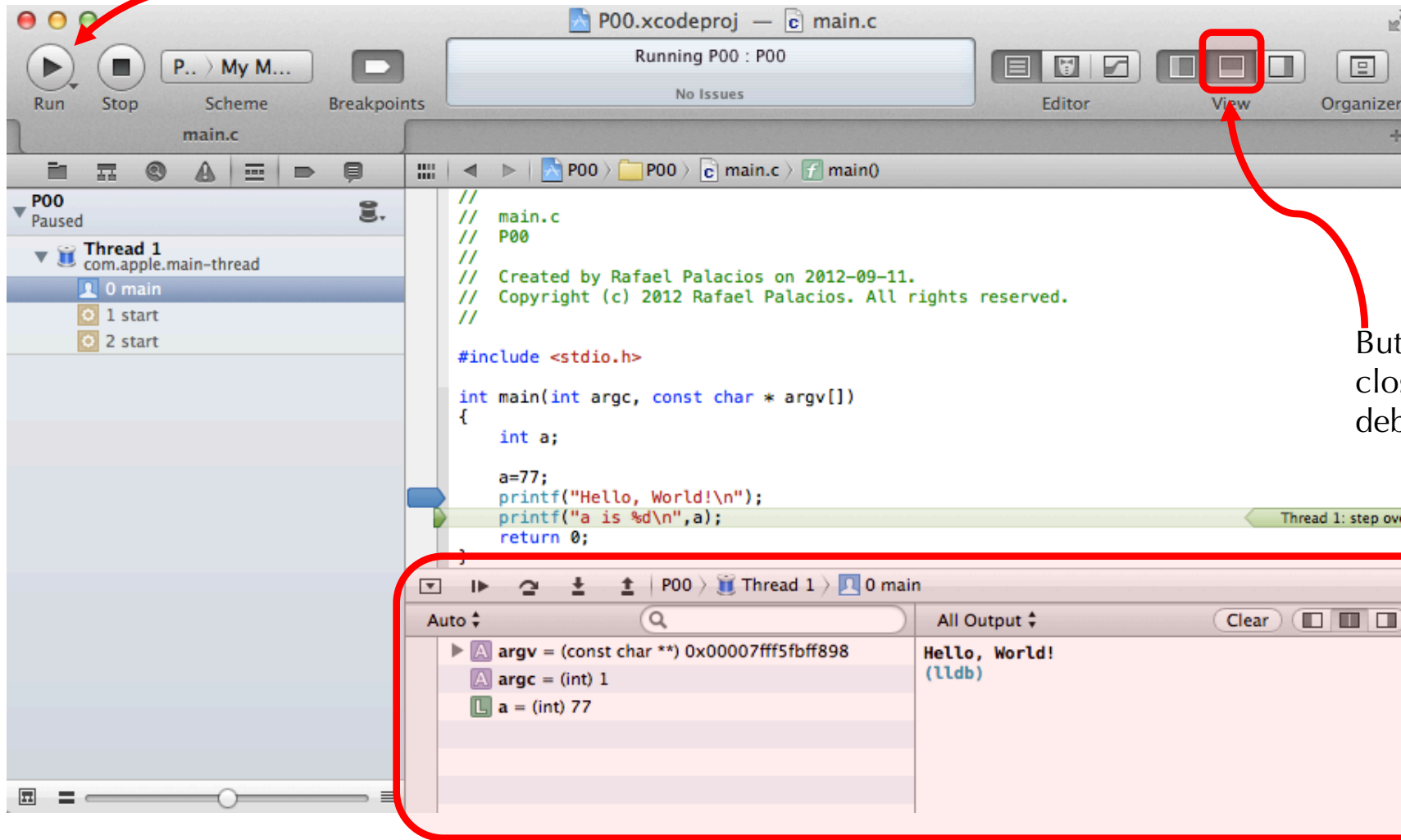
# Step 3: Compiles while you type



Error messages appear over the source code

# Step 3: Running the program

Compile, build and RUN



Button to open and close console and debugger tools



# Step 4: Debugging the program

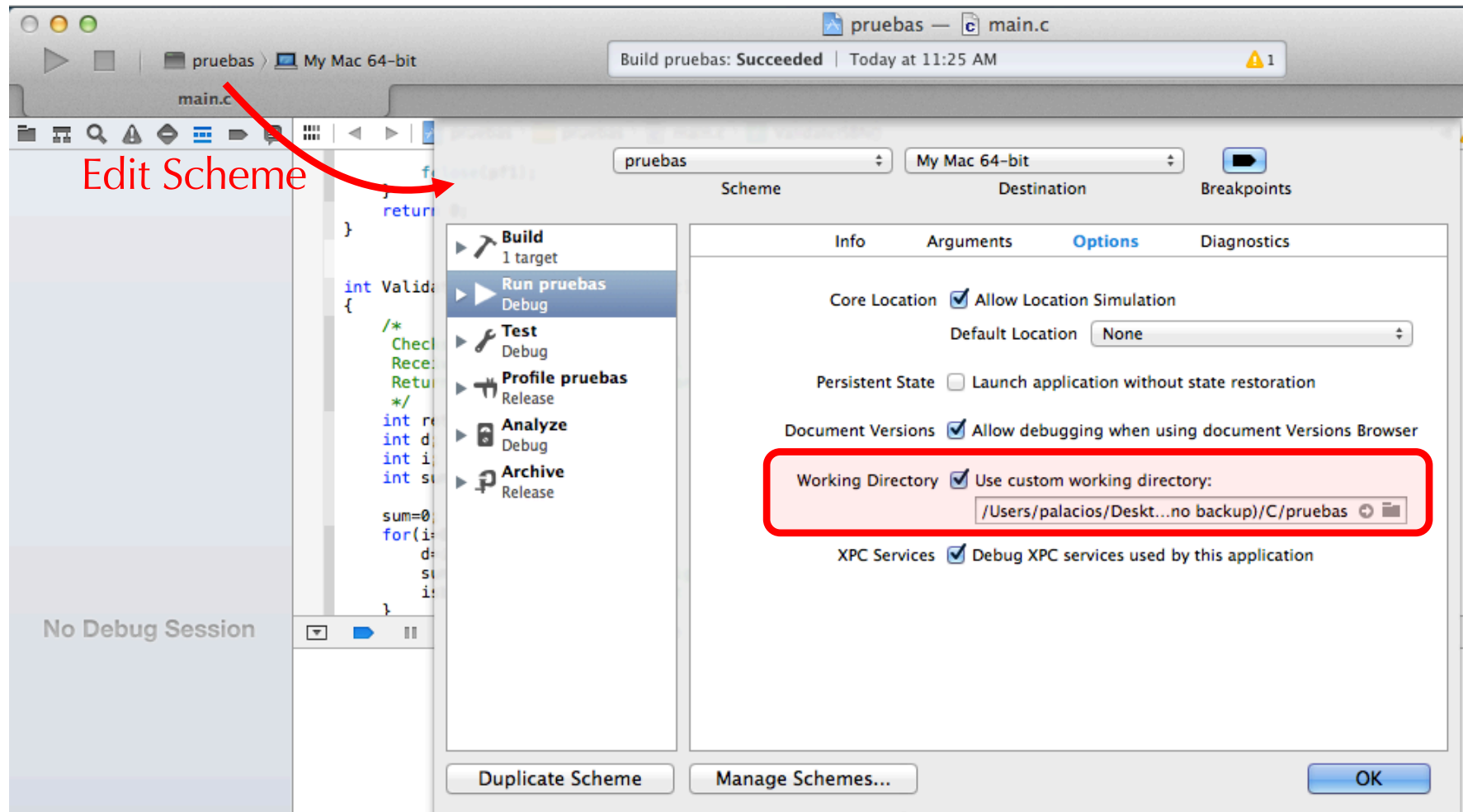
The screenshot shows the Xcode IDE with a C program named `main.c` being debugged. The program's source code is visible in the center, and the debugger's interface is on the left and bottom. The program has been paused at the second `printf` statement. The following table shows the state of the variables in the `main` function:

Variable	Value
<code>argv</code>	<code>(const char **) 0x0000ffff5fbff898</code>
<code>argc</code>	<code>(int) 1</code>
<code>a</code>	<code>(int) 77</code>

The output console at the bottom right displays the program's output: `Hello, World!` and `(lldb)`.

# Working with text files or binary files

- The working directory where the program is executed can be configured in the project scheme.





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