

Introduction to Xcode 4

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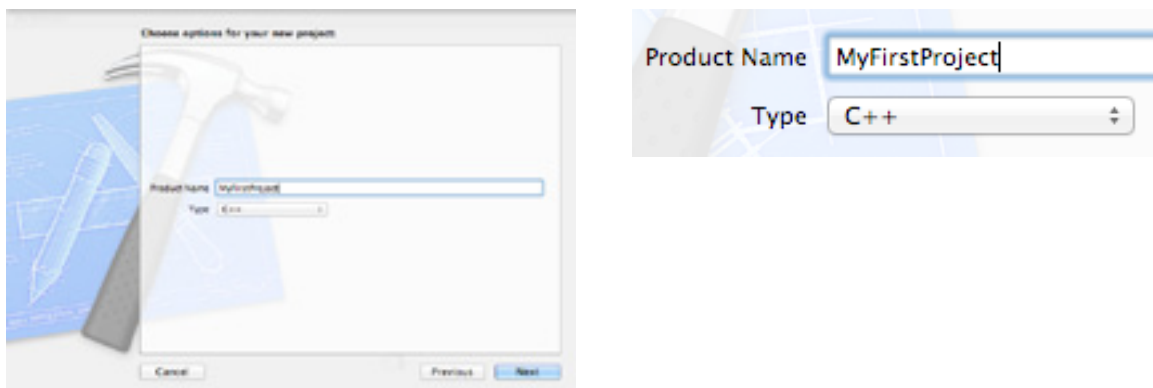
This article walks you through your first Xcode project. You will learn how to create a project, edit source code, and build your project into a working program.

Creating the Project

The first step you must take to use Xcode is to create a project. A project contains all the files needed to create a working program. Choose File > New > New Project to create a new project. A window opens with a list of project types you can create.



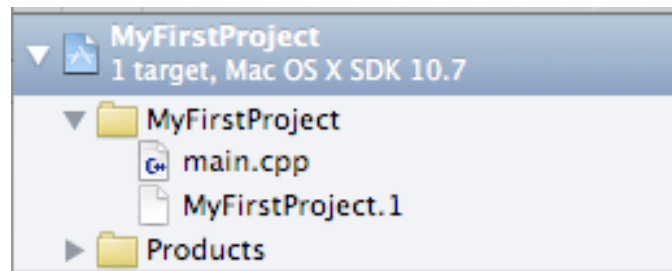
Select Application under Mac OS X on the left side of the New Project Assistant. Select Command Line Tool from the list of application projects. Tool projects create programs that do not have a graphical user interface. They are meant to be run from the command line using the Terminal application. Tool projects are simpler to write than regular Mac OS X applications, which is why I'm using a tool project. Click the Next button to move to the next step.



Enter the name of the project in the Product Name text field. I named the project `MyFirstProject`. Choose C++ from the Type pop-up menu, and click the Next button to move to the final step. The final step is to pick a location to save the project and click the Create button. At the bottom of the Save panel is a checkbox that says Create local git repository for this project. Don't select the checkbox. This project is too simple for a git repository.

Editing Source Code

After creating the project, the project window opens. You should see a list of files on the left side of the window.



The file `main.cpp` contains the source code you're going to edit for this project. Select `main.cpp` to open it in the editor. The editor is where you write the source code for your applications. You should see the following line of code in the editor:

```
std::cout << "Hello, World!\n";
```

Change this line to the following:

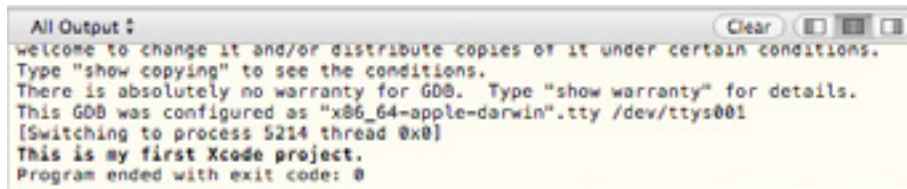
```
std::cout << "This is my first Xcode project.\n";
```

Save the file.

Building the Project

Now it's time to build a working program from the code you wrote. Xcode calls the process building. When Xcode builds your project, it compiles the source code files in your project and links any frameworks and libraries included in the project to create an application. This project is very simple with no frameworks to link, which makes building the project easy.

Click the Run button in the upper left corner of the project window. When you click the Run button, Xcode builds the project and runs it. The output of the project appears in the debug console. If you don't see the debug console, choose View > Debug Area > Show Debug Area. You should see the following message in the console: `This is my first Xcode project`.

A screenshot of an Xcode 'All Output' window. The window title is 'All Output :'. The output text is as follows:

```
Welcome to change it and/or distribute copies of it under certain conditions.  
Type "show copying" to see the conditions.  
There is absolutely no warranty for GDB. Type "show warranty" for details.  
This GDB was configured as "x86_64-apple-darwin".tty /dev/ttys001  
[Switching to process 5214 thread 0x0]  
This is my first Xcode project.  
Program ended with exit code: 0
```

Conclusion

Let's review what you've learned. You learned how to create a project, open the editor, edit source code, build your project, and run it. At this stage you're ready to read a programming book and work through the examples in the book. Create a new project for each example.

I used a C++ tool project for this article, but Xcode provides tool projects for other languages. Use the Type pop-up menu in the New Project Assistant to pick another language: C or Objective-C. Choose Foundation to learn Objective-C.