

=====
Note: 19-November-2013 - The following doc(below this section) focuses on transition from OS X 10.6 to Lion and the transition to from Xcode 3 to Xcode 4. Most of that doesn't apply if you're new to FB. If you are using OS X 10.8+ and Xcode 4.2+ (either Xcode 4 or Xcode 5) the setup is changed and summarized in these steps:

- (1) For Xcode 4.2+ (including Xcode 5) the /Developer directory is contained inside the Xcode package, so the correct path (for Build Settings - Advanced - 'Path to Developer folder') is /Applications/Xcode.app/Contents/Developer and the 'Use Compiler from Developer folder' checked
- (2) Unless you have a specific reason to target OS X 10.5 and lower, 'Compiler' in Build Settings should be set to clang.
- (3) Architecture in Build Settings should be set to 'Current Mac' unless you are still building Universal Binaries (PPC + Intel binary)
- (4) FB relies on the OS X 10.6 SDK from Apple. That SDK file needs to be in the SDKs folder at: /Applications/Xcode.app/Contents/Developer/Platforms/MacOSX.platform/Developer/SDKs The SDK can be found in the older Xcode 3 app but is also at: <http://freegroups.net/innovative/fbcooco/SDKs/MacOSX10.6.sdk.zip>

Build Settings comments includes the standalone settings (available within FBtoC) and the project Build Settings available from the FB Project window.
=====

OS X 10.7 'Lion' has several differences from 10.6 that affect FutureBasic programmers.
Although it is possible to use earlier FB versions, FB 5.6(or later) is strongly recommended because it prevents errors resulting from the removal of QuickDraw headers in 10.7.

Scenario 1

Starting point: OS X 10.6 with Xcode 3.
Obtain Lion from App Store and install it.
What happens: Lion installation renames your existing Developer folder to Developer-old, adds a new Developer folder, and installs system compilers gcc 4.2, llvm-gcc 4.2 and clang in /usr/bin. gcc 4.0 is gone from /usr/bin.
Probable error building with FB:
The compiler specified by build settings could not be found:
/usr/bin/gcc-4.0
Fix: in FB settings (Advanced drawer) turn ON the checkbox 'Use compiler from Developer folder'. All builds should now work normally.

Scenario 2

As scenario 1, plus download Xcode 4 from App Store and install it (via Install Xcode.app, which appears in the Applications folder).
What happens: Xcode installation renames your existing Developer folder to Developer-old, adds a new Developer folder, and installs system compilers gcc 4.2, llvm-gcc 4.2 and clang in /usr/bin. gcc 4.0 is gone from /usr/bin.
Possible error building with FB:
The compiler specified by build settings could not be found:
/usr/bin/gcc-4.0
Fix 1: in FB settings (Advanced drawer) set the textfield path to /Developer-old, and turn ON the checkbox 'Use compiler from Developer folder'. All builds should now work normally.
Fix 2: in FB settings change the Compiler pop-up to anything but gcc 4.0.
Possible error building with FB:
The SDK corresponding to 'Base SDK' could not be found:
/Developer/SDKs/MacOSX10.5.sdk
Fix 1: in FB settings change the Base SDK pop-up to 10.6 (Xcode 4 has no SDKs before 10.6).
Fix 2: in FB settings (Advanced drawer) check that the path is valid.
Possible error building with FB:
gcc-4.2: error trying to exec '/usr/bin/powerpc-apple-darwin11-gcc-4.2.1': execvp: No such file or directory
lipo: can't figure out the architecture type of: /var/folders/52/jjd30gg/T//ccDkhj.out
Compilation failed
Fix: in FB settings change the Architecture pop-up to Current Mac or Intel (Xcode 4 has no PPC support).

Scenario 3

Starting point: A new Mac with Lion.
Download Xcode 4 from App Store and install it (via Install Xcode.app, which appears in the Applications folder).
Possible error building with FB:
The compiler specified by build settings could not be found:
/usr/bin/gcc-4.0
Fix: in FB settings change the Compiler pop-up to anything but gcc 4.0.
Possible error building with FB:
The SDK corresponding to 'Base SDK' could not be found:
/Developer/SDKs/MacOSX10.5.sdk
Fix: in FB settings change the Base SDK pop-up to 10.6 (Xcode 4 has no SDKs before 10.6).
Possible error building with FB:
gcc-4.2: error trying to exec '/usr/bin/powerpc-apple-darwin11-gcc-4.2.1': execvp: No such file or directory
lipo: can't figure out the architecture type of: /var/folders/52/jjd30gg/T//ccDkhj.out
Compilation failed
Fix: in FB settings change the Architecture pop-up to Current Mac or Intel (Xcode 4 has no PPC support).
Problem with nib files: Interface Builder.app has gone, and Carbon nibs cannot be edited in Xcode 4.
If you are unhappy with these limitations, copy a Developer folder (containing Xcode 3) from another machine to the new one. From here on, see Scenario 2 (except that the path /Developer-old would be /wherever/it/is/Developer). Note that you can't formally install Xcode 3 on Lion, but you can copy the Developer folder over; Xcode 3 and Interface Builder both work.

Make Xcode Project (from FBtoC's File menu)

Problem: The project opens in Xcode 4, but you need to build with Xcode 3.
Fix: Quit Xcode 4 without making any changes to the project. In the Finder, locate the *.xcodeproj file and use a contextual click to open it with Xcode 3.

Debug Last App in Xcode (from FBtoC's File menu)

Problem: Xcode 4 shows a DebuggerHost project but there's no trace of the original FB app. FBtoC's log window shows:
/MySD/FB/FutureBasic 5.app/Contents/Resources/FBtoC/build_goodies/DebugInXcode.scpt:545:585: execution error: Xcode got an error: Can't get project "DebuggerHost". (-1728)
Debugging error code 256
Fix: Quit Xcode 4 and launch Xcode 3. In FBtoC, re-issue the command Debug Last App in Xcode.